ERNST MUELLER COLLECTION A22/4 AR10006

AR 10006
Ernst Mueller Collection
Folder 1

Joseph Müller geb. 30 Mai 1862 zu Mansbach
gest. 21.Nov. 1925 zu Schmalkalden

Todes Urkunde

Name
Wolf Müller Schuhmacher, gest. in einem Alter von 63 Jahren 10 Monaten
zu Mansbach am 22.März 1875

Heirats Urkunde

Trauungs
Jahr Monat Tag
1842 April 28

Name, Stand. Alter der neuen Eheleute

Wolf Müller, (Wittwer, war mit Galle? gebr. Nussbaum hier verheiratet.)

Ester Spier 22 Jare alt, ledig - geb. 30.6.1911 zu Berlin

Vor-u. Zuname, Stand der beiderseitigen Eltern der Eheleute

Leiser Müller war Lehrer in Herleshausen
die Mutter, Morle? Müller, Beide in Herleshausen gestorb

der Vater Abraham Spier, Handelsmann, die Mutter Dina
gebr. Katz aus Gersfeld?

Leiser Müller, Vorsänger aus Mansbach geb 6.5.1758
Morla 2.Ehe bürdig aus Heinrichs geb. 15.8.1783

Wolf Müller geb 24.10.1811

1/61268

Zeugnis

der

Prüfungskommission zu Würzburg

über die

ärztliche Vorprüfung des Studierenden der Medizin

Herrn Ernst Müller

aus Schmalkalden

Demselben ist bei der mit ihm nach der Prüfungsordnung vom 28. Mai 1901 abgehaltenen Vorprüfung

1.	in der Anatomie	die Zensur:	sehr gut
2.	„ „ Physiologie	„ „	sehr gut
3.	„ „ Physik	„ „	sehr gut
4.	„ „ Chemie	„ „	gut
5.	„ „ Zoologie	„ „	sehr gut
6.	„ „ Botanik	„ „	gut

somit die Gesamtzensur

„Sehr gut"

erteilt worden.

WÜRZBURG, den 17. Juli 1913.

Der Vorsitzende der Prüfungskommission.

Enderlen.

KÖNIGL. BAYER. JULIUS-MAXIMILIANS-UNIVERSITÄT WÜRZBURG

Legalisiert!

Würzburg, 20. November 1933.

Regierung von Unterfranken u. Aschaffenburg,
Kammer des Innern.

Z. A.

Schmid

M 178[illegible]

11a.

003

Julius-Maximilians-Universität Würzburg.

Kollegienbuch

des

Studierenden der Medizin

Herrn

Ernst Müller.

aus

Schmalkalden.

Vorschriften

die Inscriptions- und Honorarbefreiung betreffend.

Die Inscription beginnt im Wintersemester am 15. Oktober, im Sommersemester am 15. April und dauert **bis 15. November** bezw. **15. Mai.**

Die Inscription geschieht in der Weise, daß der Studierende sich eigenhändig in die auf dem Inscriptionsbureau oder bei dem einzelnen Dozenten aufliegenden Inscriptionslisten einzeichnet, sodann dem Universitäts-Quästor das Verzeichnis der eingeschriebenen Vorlesungen nebst Kollegienbuch — beide gleichlautend ausgefüllt — übergibt und die festgesetzten Honorare entrichtet.

Die Inscription gilt als vollzogen erst dann, wenn das Honorar bezahlt und amtliche Bestätigung hierüber im Kollegienbuche erteilt ist.

Von der Honorarbezahlung befreite Studierende haben in gleicher Weise Verzeichnis und Kollegienbuch ausgefüllt dem Univ.-Quästorate innerhalb **der obigen Frist** zur amtlichen Bescheinigung der Inscription vorzulegen.

Nichtbeachtung vorstehender Vorschriften zieht die Streichung im Martrikelbuche nach sich.

Hiebei wird darauf aufmerksam gemacht, daß die aufliegenden Inscriptionslisten öffentliche Urkunden sind und die Einzeichnung in dieselben zur Annahme und Honorierung der betr. Vorlesung verpflichtet, gleichviel ob die inscribierte Vorlesung auch besucht wird oder nicht. Die Zurückziehung einer Unterschrift ist nur während des vorgeschriebenen Inscriptionstermins und auch hier nur mit Zustimmung des betr. Dozenten gestattet.

Die Verpflichtung zur Honorierung der betr. Vorlesung, für welche sich der Studierende eingezeichnet hat, bleibt auch bestehen selbst für den Fall, daß wegen Nichteinhaltung der Bestimmungen in den §§ 22 und 23 der Satzungen die Streichung des Inscribierten erfolgen müßte und eine Bescheinigung der Vorlesung in dem Abgangszeugnisse nicht möglich wäre.

Andererseits kann durch eine Bescheinigung über gehörte Vorlesungen nur auf Grund der Einzeichnung in die Inscriptionslisten erfolgen.

Die gänzliche oder teilweise Honorarbefreiung ist **sowohl** durch den Nachweis der **Dürftigkeit** als **auch** den der **Würdigkeit** des Gesuchstellers bedingt.

Die **Dürftigkeit** ist bei der erstmaligen Anmeldung durch ein von der zuständigen Heimatbehörde ausgestelltes und von der einschlägigen Verwaltungsbehörde (Bez.-Amt, Landrat etc.) und Steuerbehörde beglaubigtes Vermögenszeugnis nachzuweisen.

Dieses Zeugnis muß ersehen lassen:

1) Namen, Geburtsort, Heimat (Wohnort der Eltern) des Kandidaten,
2) Stand und Gewerbe der Eltern,
3) ob Vater und Mutter noch leben,
4) Zahl, Alter und Stellung der noch lebenden Geschwister, und ob sie versorgt sind oder nicht,
5) den Betrag des Vermögens der Eltern und des selbständigen Vermögens des Kandidaten, soweit es amtlich zu ermitteln oder sonst bekannt ist,
6) das Einkommen der Eltern und die Quellen desselben,
7) den Betrag und die Gattung der Steuern, welche der Studierende oder dessen Eltern zu entrichten haben,
8) den Betrag der Schulden des Studierenden oder seiner Eltern,
9) die Quellen und Hilfsmittel, durch welche der Kandidat bisher sich erhalten und seine Studienkosten bestritten hat, sowie den Betrag seines aus diesen Quellen fliessenden Einkommens, insbes. der Unterstützungen aus öffentlichen und Privatmitteln.

Unvollständige, ausweichende oder unwahre Angaben in dem Zeugnisse haben die Abweisung des Gesuches zur Folge.

Im Falle wiederholter Bewerbung genügt eine Bescheinigung der zuständigen Behörde darüber, daß eine Aenderung in den Vermögensverhältnissen nicht eingetreten ist.

Der Nachweis der Würdigkeit wird angebracht durch ein Zeugnis über tadellose Führung und durch ein Zeugnis über befriedigenden Studienerfolg.

Zu letzterem Behufe sind bei der Meldung im ersten Studienjahre das Gymnasialreifezeugnis oder das sonstige Reifezeugnis zum akademischen Studium vorzulegen.

Bei wiederholter Bewerbung bezw. bei Bewerbung in späteren Semestern ist die Würdigkeit durch Vorlage von Zeugnissen über tadellose Führung sowie über die bestandene Stipendium- bezw. sonstige gleichwertige Prüfung (ärztliche Vorprüfung etc.) nachzuweisen.

Stipendienprüfungen werden nur einmal im Jahre und zwar jeweilig im Sommersemester abgehalten. Hiebei ist jeder Stipendienbewerber aus drei Fächern zu prüfen, über welche er **im vorausgegangenen Wintersemester** ordentliche Vorlesungen im Sinne des § 27 der Universitäts-Satzungen gehört hat. Kollegien, welche wöchentlich 8 Stunden bezw. 12 Stunden gelesen werden, sind hiebei doppelt bezw. dreifach zu rechnen, so daß z. B. ein Bewerber, welcher ein wöchentlich 12 stündiges Kolleg gehört hat, nur aus diesem einen Fache zu prüfen ist.

Es müssen sonach Studierende, welche sich um Stipendien bewerben oder Honorarerlass anstreben wollen, ihr Studium im Wintersemester so einrichten, daß Sie den obigen Anforderungen genügen können.

Die zu Beginn des Wintersemesters ausgesprochene Honorarbefreiung gilt für das ganze Studienjahr, die zu Beginn des Sommersemesters ausgesprochene nur für das betreffende Sommersemester.

Die an die Honorarienkommission zu richtenden Gesuche um Honorarbefreiung haben in Kürze den bisherigen Studiengang und Angabe der allenfalls bisher gewährten Honorarnachlässe zu enthalten und sind mit den erforderlichen Belegen **bei Vermeidung der Nichtberücksichtigung — Wintersemester bis längstens 8. November, im Sommer-Semester bis längstens 8. Mai** — bei dem k. Univ.-Quästorate einzureichen.

Sommer **Semester 1911**

Honorarpflichtigkeit

Bezeichnung der belegten Vorlesungen.	Namen der Dozenten	Honorarbetrag Mk.	Honorarbetrag Pfg.	Quittung des Quästors Mk.	Quittung des Quästors Pfg.	Bescheinigung der Dozenten (nicht vorgeschrieben)
Ostrologie	Tobotfr. Prof.	24	,			
Organ. Chemie	Prof. Buchner	31	,			
Exp. Physik	Prof. Wien	31	,			
Botanik	Prof. Kraus	31	,			
				117	,	
		bez. 29. 4. 1911.				
		Müller				
Anatomie I	Prof. Dr. Stöhr					
Präparierkurs I	Prof. Dr. Svoboda					

Winter Semester 1911/12

Honorarpflichtigkeit

Bezeichnung der belegten Vorlesungen.	Namen der Dozenten	Honorarbetrag Mk.	Honorarbetrag Pfg	Quittung des Quästors Mk.	Quittung des Quästors Pfg,	Bescheinigung der Dozenten (nicht vorgeschrieben)
Anatomie	d. Schultze	15	-			
Präparierübgn. I	d. Stöhr	50	-			
		-	-	85	-	
		Lbg. 24. 10. 11,				
		Meillet				

Winter-Semester 1912/13

Honorarpflichtigkeit

Bezeichnung der belegten Vorlesungen	Namen der Dozenten	Honorarbetrag Mk.	Honorarbetrag Pfg.	Quittung des Quästors Mk.	Quittung des Quästors Pfg.	Bescheinigung der Dozenten (nicht vorgeschrieben)
Präparierübgn. II.	Prof. Dr. Schultze	50	.			
Physiologie I.	Prof. Dr. v. Frey	31	50			
Zoologie I.	Prof. Dr. Boveri	31	.			
Top. Anatomie	Prof. Dr. Sobotta	18	.			
Repetitorium d. Anat.	Prof. Dr. Fischer.	5	.			
Physiol. Chemie	Prof. Dr. Ackermann	5	.			
		140	50			

bez. 23-10-1912

Müller

5. Semester 191 3

Honorarpflichtigkeit

Bezeichnung der belegten Vorlesungen.	Namen der Dozenten	Honorarbetrag Mk.	Honorarbetrag Pfg.	Quittung des Quästors Mk.	Quittung des Quästors Pfg.	Bescheinigung der Dozenten (nicht vorgeschrieben)
Physiologie II	Prof. Dr. v. Frey	31	50			
Topographie II	Prof. Dr. Schaffer	18	.			
Physiologischer Kurs	Prof Dr. v. Frey	22	.			
Zoologie II	Prof. Dr. Boveri	25	.			
Mikroskopie Kurs	Prof. Dr. Schultze	34	.			
		-	.	130	50	

Leipz. 28. 4. 1913.

Müller

Semester 191

Bezeichnung der belegten Vorlesungen.	Namen der Dozenten

Honorarpflichtigkeit

Honorarbetrag Mk.	Honorarbetrag Pfg	Quittung des Quästors Mk.	Quittung des Quästors Pfg.	Bescheinigung der Dozenten (nicht vorgeschrieben)

Praktikantenschein.

Dem Kandidaten der Medizin Ernst Müller

aus Schmalkalden wird hiermit bescheinigt, daß er nach vollständig bestandener ärztlicher Vorprüfung im Sommer Halbjahr 1914

vom 28ten April 1914 bis zum 25ten Juli 1914

an der ohrenärztlichen Klinik als Praktikant regelmäßig teilgenommen hat.

München, den 25ten Juli 1914.

Der Direktor der otiatrischen Klinik und Poliklinik.

Heine

No. 143

Praktikantenschein.

Dem Kandidaten der Medizin Ernst Müller

aus Schmalkalden wird hiermit bescheinigt, dass er nach vollständig bestandener ärztlicher Vorprüfung im Sommer- Halbjahr 1914 vom 29ten April bis zum 30ten Juli 1914 an der chirurgischen Klinik als Praktikant regelmässig teilgenommen hat.

MÜNCHEN, den 31ten Juli 1914

Direktor der chirurgischen Klinik.

Prof. v. Angerer.

M 17882 16

Abschrift.

Städt. Krankenhaus München links der Isar.

Zeugnis.

Es wird hiermit bestätigt, daß Herr Ernst Müller vom 18. Dezember 1913 bis 4. März 1914 auf der chirurgischen Abteilung als Coassistent tätig war.

München, den 5. März 1914

Der Oberarzt:

gez. Angerer

Für die Richtigkeit der Abschrift:

BRANDENBURG. WANDER-ARBEITS-STÄTTE TREUENBRIETZEN

Inskription Nr. 130

Geburten gehoben: 4

H. S. Journal Nr.:

Heinrich

Praktikantenschein.

Dem Kandidaten der Medizin Ernst Müller

aus Schmalkalden *wird hiemit bescheinigt, dass er nach vollständig bestandener Vorprüfung im* Sommer- *Halbjahr 1914*

vom 25 *ten* April *1914 bis zum* 1 *ten* August *1914 an der geburtshilflich-gynäkologischen Klinik als Praktikant regelmässig teilgenommen und* 4 *Kreissende in Gegenwart des Assistenzarztes selbständig entbunden hat.*

***München**, den* 1 *ten* August *1914*

Der Direktor der Kgl. Frauenklinik:

Döderlein

M 17882 18

Städt. Krankenhaus München links der Isar.

Zeugnis.

Es wird hierdurch bestätigt, daß

Herr Ernst Müller

vom 13 ten Dezember 1913 bis 4 ten März 1914

auf der chirurgischen Abteilung als Coassistent.

tätig war.

München, den 5 ten May 1914

Der Oberarzt:

Vorstehendes Zeugnis wird hiermit amtlich bestätigt

Krankenhaus-Direktion.

Städt. Krankenhaus München links der Isar

V 20. (Wa. 2) 17. XII. 07. 1000.

017

Zeugnis

über die Teilnahme an den Präparier-Übungen

bei der

Universität Würzburg.

Dem Studierenden der Medizin Herrn Ernst Müller

aus Schmalkalden *wird hiemit bescheinigt, daß er im*

Winter-Halbjahr 1912/13 *vom 25. Oktober bis* 22 *ten* Februar *an dem*

2 *Kurs der anatomischen Präparier-Übungen regelmäßig teilgenommen hat.*

Würzburg, den 22 *ten* Februar 1913

Schultze.

ANATOMISCHES INSTITUT * WÜRZBURG *

Zur Beachtung: Gegenwärtiges Zeugnis ist **aufzubewahren,** weil dasselbe gemäß § 22 der Prüfungsordnung für Ärzte dem seinerzeitigen Gesuche um Zulassung zur ärztlichen Prüfung wieder beizufügen ist.

Zeugnis

der

Prüfungskommission für Würzburg

über die

ärztliche Vorprüfung des Studierenden der Medizin

Herrn Ernst Müller aus Schmalkalden

Derselbe ist bei der mit ihm nach der Prüfungs-
ordnung vom 28 Mai 1901 abgehaltenen Vorprüfung

1.	in der Anatomie	die Prüfung	sehr gut
2.	" Physiologie	" "	sehr gut
3	" " Physik	" "	sehr gut
4	" " Chemie	" "	gut
5	" " Zoologie	" "	sehr gut
6	" " Botanik	" "	gut

somit die Gesamtprüfung

„ sehr gut "

erteilt worden.

Würzburg den 17 Juli 1913

Der Vorsitzende der Prüfungskommission.

gez. Enderlen

Für die Richtigkeit der Abschrift.
Schmalkalden, den 20. März 1918.
Der Stadtsekretär.
Beilstein

SIEGEL DER STADT SCHMALKALDEN

Zeugnis

über die Teilnahme an den Präparier-Übungen

bei der

Universität Würzburg.

Dem Studierenden der Medizin Herrn Ernst Müller

aus Schmalkalden *wird hiemit bescheinigt, daß er im Winter-Halbjahr 1911/12 vom 25. Oktober bis* 28ten Februar *an dem* 1. *Kurs der anatomischen Präparier-Übungen regelmäßig teilgenommen hat.*

Würzburg, den 28ten Februar 1912.

Schultze.

ANATOMISCHES INSTITUT WÜRZBURG

~~Zur Beachtung: Gegenwärtiges Zeugnis ist aufzubewahren, weil dasselbe gemäß § 22 der Prüfungsordnung für Ärzte dem seinerzeitigen Gesuche um Zulassung zur ärztlichen Prüfung wieder beizufügen ist.~~

M 17682 18

020

Zeugnis

über die Teilnahme an den physiologischen Übungen bei der

Universität zu Würzburg.

Dem Studierenden der Medizin

Herrn Ernst Müller

aus Schmalkalden *wird bescheinigt, dass er*

im Sommer – *Halbjahr* 1913 *vom* 28 *ten* April

bis 30 *ten* Juni *an den physiologischen*

Übungen regelmässig teilgenommen hat.

Würzburg, den 30 *ten* Juni 1913

PHYSIOLOGISCHES INSTITUT DER KGL. UNIVERSITÄT WÜRZBURG

M. v. Frey

~~*Zur Beachtung:* Gegenwärtiges Zeugnis ist ~~zurückzubehalten~~, weil dasselbe gemäss § 22 der Prüfungsordnung für Ärzte dem seinerzeitigen Gesuche um Zulassung zur ärztlichen Prüfung wieder beizufügen ist.~~

M 17882

Zeugniss

über die Teilnahme an den mikroskopisch anatom. Uebungen

bei der

Universität zu Würzburg

Dem Studierenden der Medicin Herrn Ernst Müller
aus Schmalkalden wird hiemit bescheinigt, dass er
im Sommer Halbjahr 1913 vom 2 ten Mai
bis 1 ten Juli an den mikroskopisch anato-
mischen Uebungen regelmäßig Teil genommen hat.

Würzburg, den 1 ten Juli 1913

Schultze

ANATOMISCHES INSTITUT * WÜRZBURG *

~~Zur Beachtung:~~ Gegenwärtiges Zeugnis ist ~~aufzubewahren~~,
weil dasselbe gemäß § 22 der Prüfungsordnung für
Ärzte dem spätzeitigen Gesuche um Zulassung zur
ärztlichen Prüfung wieder beizufügen ist.

M 17882

022

Zeugnis

über die Teilnahme an dem chemischen Praktikum für Mediziner

bei der

Universität zu Kiel.

Dem Studierenden der Medizin Ernst Müller

aus Schmalkalden wird hiermit bescheinigt, daß er im

Sommer Halbjahr 19 12 vom 27 ten April bis 27 ten Juli

an dem chemischen Praktikum für Mediziner regelmäßig teilgenommen hat.

Kiel, den 5. ten Mai 1913

(Unterschrift des Leiters der Übungen.)

Harries

(Beglaubigung durch den Direktor des Instituts, sofern derselbe nicht selbst Leiter der Übungen gewesen ist.)

Praktikantenschein.

Dem Candidaten der Medicin Ernst Müller

aus Schmalkalden wird hiemit bescheinigt, daß er,

nach vollständig bestandener ärtzlicher Vorprüfung, im W. Halbjahr 1913/14

vom 28 ten Oktober 1913 bis zum 6 ten März 1914

an der Klinik der Kinderkrankheiten als Praktikant regelmäßig teilgenommen hat.

München, den 6 ten März 1914

Der Vorstand der k. Universitäts-Kinderklinik.

Prof. Dr. v. Pfaundler

M 17882 15

Nr. 19. 2000. II 11. 11.50.

No. 101.

Praktikantenschein.

Dem Kandidaten der Medizin Müller Ernst

aus Schmalkalden wird hiermit bescheinigt, daß er nach vollständig bestandener ärztlicher Vorprüfung, im Winter Halbjahr 1913/14 vom 27ten Oktober bis zum 7ten März 1914 an der II. medizinischen Klinik als Praktikant regelmässig teilgenommen hat.

München, den 7ten März 1914

L. Müller

Direktor der II. medizinischen Klinik.

M 17882 18

025

No. 81.

Praktikantenschein.

Dem Kandidaten der Medizin Herrn Müller Ernst

aus Schmalkalden wird hiermit bescheinigt, daß er nach vollständig bestandener ärztlicher Vorprüfung, im Sommer Halbjahr 1914 vom 29ten April bis zum 30ten Juli 1914 an der I. Medizinischen Klinik als Praktikant regelmäßig teilgenommen hat.

München, den 30ten Juli 1914.

Romberg

Direktor der I. Medizinischen Klinik.

M 17882 18

026

No.....

Praktikantenschein.

Dem Kandidaten der Medizin Müller Ernst

aus Schmalkalden wird hiermit bescheinigt, daß er nach vollständig bestandener ärztlicher Vorprüfung im Sommer Halbjahr 19 14

vom 20 ten April bis zum 25 ten Juli 19 14

an der Kgl. laryngologischen Poliklinik als Praktikant regelmässig teilgenommen hat.

München, den 25 ten Juli 19 14.

Der Direktor

der Kgl. laryngolog. Poliklinik:

Stemmeyer

Zeugnis.

Dass der Kandidat der Medizin

Herr Ernst Müller aus Schmalkalden

am praktischen Unterrichte in der Impftechnik teilgenommen und die zur Ausübung der Impfung erforderlichen technischen Fertigkeiten erlangt hat, wird hiemit bescheinigt, zugleich wird bestätigt, dass er mehr als zwei öffentlichen Impfungs- und Wiederimpfungsterminen beigewohnt und sich die erforderlichen Kenntnisse über Gewinnung und Erhaltung der Lymphe erworben hat.

MÜNCHEN, 25. Juli 1914.

Prof. Dr. L. Rauchfuss

No. 31. 2000. IV. 13. 9.80

No. .....

Praktikantenschein.

Dem Kandidaten der Medizin Ernst Müller

aus Schmalkalden wird hiermit bescheinigt, daß er nach vollständig bestandener ärztlicher Vorprüfung, im Sommer- Halbjahr 1914 vom 27 ten April bis zum 30 ten Juli 1914 an der Syphil.- Dermat.- Klinik als Praktikant regelmässig teilgenommen hat.

München, den 30 ten Juli 1914

Direktor der Syphil.- Dermat.- Klinik.

Posner

M 17882 18

029

Praktikantenschein.

Dem Kandidaten der Medizin Herrn Müller

aus Schmalkalden wird hiermit bescheinigt, dass er nach vollständig bestandener ärztlicher Vorprüfung im Sommer-Halbjahr 1915 vom 15. April 1915 bis zum 15. August 1915 an der Psychiatrischen Klinik als Praktikant regelmässig teilgenommen hat.

Berlin, den 1. 8. 1915

Der Direktor der Klinik.

Bonhoeffer

B 17882 18.

Abschrift.

Güstrin, den 22. Januar 1916

Hierdurch wird bescheinigt, daß der Unterarzt Ernst Müller vom 24. August 1915 bis 10. Dezember 1915 auf der inneren Abteilung B des Festungslazarettes Dienst getan hat.

Behandelt werden auf der Abteilung B Rheumatiker, Magen-, Darm- und Stoffwechselkranke, außerdem ist der Station die ganze Infektionsabteilung angegliedert.

M. hat hier die Stelle eines Assistenzarztes und auch zeitweise die Vertretung des ordinierenden Arztes der Station übernehmen müssen. Er hat seine Stelle über gewissenhaftesten und zuverlässigsten Weise ausgefüllt.

gez. Dr. Behr
ord. Arzt der inneren Stat. B
Festunslazarett 2.

Beglaubigt
gez. Dr. Schillbach
Chefarzt.

BRANDENBURG. WANDER-ARBEITSHEIM * TREUENBRIETZEN *

Für die Richtigkeit der Abschrift:
Leutnant d. Landsturminfanterie.

031

Abschrift.

Landsberg a/W. 19.11. 1917

Herr cand. med. Ernst Müller aus Schmalkalden ist vom 21. Jan. 1916 bis 21.11. 1917 in der militärischen Charge eines Feldhilfsarztes andem meiner Leitung unterstellten städtischen Krankenhause als stellvertretender Assistenzarzt auf der chirurgischen Station tätig gewesen.

Herr Müller hat an der Bewältigung des infolge des Krieges auf das Krankenhaus einströmenden großen operativen Materials in äußerst reger und fleißiger Weise teilgenommen. Ausgerüstet mit einer leichten Auffassungsgabe, technischem Geschick und einem für seine jungen Jahre bemerkenswerten ernsten Willen hat er sich in den ihm infolge der Zeitverhältnisse frühzeitig übertragenen Pflichtenkreis schnell eingearbeitet und die für ihn günstige Lage sehr zu seinem Vorteil ausgenutzt. Bei unserem täglichen Zusammenarbeiten konnte ich mich davon überzeugen, daß er von Beginn seines Studiums an mit Gründlichkeit, Eifer und Erfolg gearbeitet hat, so traten besonders gute anatomische Kenntnisse zu Tage. Es ist mir eine Freude gewesen zu sehen auf welchen guten Boden die sich bei der Untersuchung von Kranken und gemeinsam ausgeführten Operationen ergebenden Demonstrationen bei ihm fielen. Ich habe demgemäß Herrn Müller zunächst kleinere Eingriffe unter meiner Aufsicht machen lassen, in der letzten Zeit bin ich infolge meiner auf mehrere Lazarette verteilten Tätigkeit dazu übergegangen, ihn selbständig vor schwerere operative Aufgaben zu stellen, die er immer zu meiner Zufriedenheit löste. Durch stetiges Studium in seiner freien Zeit ist Herr Müller immer bestrebt gewesen, sich wissenschaftlich fortzubilden und Lücken auszufüllen. Die Technik der modernen Wundbehandlung beherrschte er vollständig.

Durch seinen offenen und geraden Charakter sowie durch ein freundliches und entgegenkommendes Wesen hat Herr Müller sich die Sympathien der Kranken und Verwundeten als auch die meinige in vollem Maße erworben. Ich kann ihn für später als Assistenzarzt besonders auf euner chirurgischen Station warm empfehlen.

gez. Dr. Delkeskamp
Leitender Arzt des Städt. Krankenhauses.

Für die Richtigkeit
der Abschrift:

Ärztliche Prüfungskommission
Berlin.

№ 21

Berlin, den 7ten November 1888.

Dem Kandidaten der Medizin

Herrn Ernst Müller

wird hiermit bescheinigt, daß er ~~sich zur Zeit~~ am 27. November 88. vor der ärztlichen Prüfungskommission Berlin ~~in der~~ ärztlichen Prüfung ~~befindet und diese voraussichtlich bis~~ Ostern 89. ~~beendet haben wird~~.

Der Sekretär der Prüfungskommission.

Lilienthal,
Geh. Rath.

Minenwerfer-Ers.-Regiment
Regimentsarzt
Tagebuch-Nr. ———

Markendorf, den, 15. März 1918.

B e s c h e i n i g u n g .

Es wird hiermit bescheinigt, dass der Feldhilfsarzt Ernst M ü l l e r Gelegenheit hatte die Vorlesungen der Königl. Universität B e r l i n im Wintersemester 1917/18 regelmässig zu besuchen.

Minenwerfer-Ers.-Rgt. II. Bataillon
Markendorf
bei
Jüterbog

Für die Richtigkeit
der Unterschrift
Pichau
Leutn.d.R.u.stellvertr. Adjutant

Gerhardt
Stabs- und Regimentsarzt.

KOENIGLICHE
FRIEDRICH-WILHELMS-UNIVERSITAET.

Berlin, den 22. März 1918.

Es wird hierdurch bescheinigt, dass der Studierende der Medizin Herr Ernst Müller aus Schmalkalden, Hessen-Nassau am 22. November 1917 auf der hiesigen Universität immatrikuliert worden ist und dass er derselben noch angehört.

Ferner wird bescheinigt, dass er in Würzburg am 17. Juli 1913 die ärztliche Vorprüfung bestanden, bisher acht Semester, einschliesslich drei klinischer Semester, Vorlesungen belegt hat und acht Semester infolge Krankheits beurlaubt war.

Der Rektor

Penck

Bescheinigung.

Kr.

Treuenbrietzen, 9. Februar 1919.

Abschrift.

Herr Dr. Graf Miller aus Schalkalden hat mich im Herbst 1918 etwa ein Vierteljahr vertreten. Er hat es vorzüglich verstanden, sich das Vertrauen der Patienten zu erwerben und hat meine Praxis zu meiner vollsten Zufriedenheit versehen dank der reichen medizinischen Kenntnise, über die er verfügt.

gez. Dr. Moeller.

Arzt.

Für die Richtigkeit

Vereinslazarett
Soldatenrat
Treuenbrietzen

Prof. Dr. med. P. Straßmann
Sprechzeit: 4 1/2-6 Uhr außer Donnerstags

Berlin N.W. 6, 28.7.19.
Schumannstr. 18
Fernspr. Amt Norden 1690

Herrn
Dr. med. Ernst Müller

Krankenhaus Treuenbrietzen

Sehr geehrter Herr Kollege,

Gerne bin ich bereit Ihnen Gelegenheit an meiner Klinik zu gynäkologischer Vervollkommnung zu bieten. Es kann sich freilich vorerst nur um eine Volontärstelle auf 3 Monate ab 1.Dez.19. (ohne irgendwelche Vergünstigung) handeln.

Näheres würde ich gern mündlich mit Ihnen in meiner Sprechstunde tägl. von 4½-6 Uhr (ausser Donnerstags) besprechen.

Das Zeugnis schicke ich anbei zurück.

Mit kollegialem Gruss

Ihr ganz ergebener

Straßmann

Abschrift.

Treuenbrietzen, Heilstätte, den 28.11.19

Herr Dr. Ernst Müller hat sich während der Zeit, in welcher ich als Spezialist für Ohren-, Hals- u. Nasenkrankheiten an der Heilstätte Reservelazarett tätig bin, ein weit über den Durchschnitt gehendes Wissen u. Können in der Laryngologie angeeignet; er beherrscht die Technik der Laryngoskopie auch unter erschwerenden Verhältnissen; endolaryngeale Operationen auszuführen war ihm leider keine Gelegenheit gegeben. Auch in der Technik der Otoscopie und Rhinoscopie bewies er grosses Geschick. Die Kürze der Zeit fand einer vollkommenen Ausbildung im Wege.

gez.: Dr. Burchardt

Privatdozent für Laryngologie.
Potsdam, Kurfürstenstr. 21.

Für die Richtigkeit
der Abschrift:
Treuenbrietzen, den 29 ten November 1919.
Landesversicherungsanstalt Brandenburg Invaliden-Arbeitsheim
Die Anstaltskasse.
Schneider

KASSE D. BRANDENB. WANDER-ARBEITSHEIMS ZU TREUENBRIETZEN

PROF. O. WITZEL
GEHEIMER MEDIZINALRAT

DÜSSELDORF,
1 MOORENSTRASSE
TELEFON 7705

7. Juli 1919

Sehr geehrter Herr Müller!

Dr Toretti hat Ihnen in meinem Auftrage gestern sofort mitgeteilt, dass aus Lintorf nichts wird, da es gänzlich ungeeignet ist. – Da habe ich wieder einen Wechsel auf die Zukunft, für einen Bau auf dem hiesig. Terrain, bekommen u. annehmen müssen. Er soll heuer ausgeführt u. Ostern nächsten Jahres fertig sein. Als höchst unwahrscheinlich muss ich es ansehen, dass man zu der ritterlichen Zahl von 7 Assistenten noch einen 8. bewilligen wird für hier. In Lintorf war es nötig u. für dort habe ich Ihnen die Anstellung schon vorbereitet.

Nun müssen Sie wissen, was Sie tun. Vor allem dürfen Sie dort etwaige gute Aussichten nicht außer Acht lassen. – Als Volontär sind Sie mir auch noch sehr willkommen. Ich gebe Ihnen jede Gelegenheit zur Ausbildung u. fördere Sie hier u. sonst, wie ich nur kann. – Es hat somit keine Eile mit der Wiederkehr.

Mit freundl. Grüßen

Ihr

O. Witzel.

Dr. Hans Juengling
c/o Vereinigte Papierwerke
Siegfried Strasse 9/17
Nuernberg.

1023

483

UNIVERSITÄT MÜNCHEN.

ZEUGNIS
ZUM ABGANGE VON DER UNIVERSITÄT.

Herr *Ernst Müller*

aus *Schmalkalden*

geboren zu *Schmalkalden*

ist vom *28. Oktober 1913 bis zum Ende des Sommerhalbjahres 1917*

als Studierender *der Medizin*

an der hiesigen Universität immatrikuliert und auf die im angehefteten Kollegienbuch verzeichneten Vorlesungen inskribiert gewesen.

Über seine Führung während dieser Zeit ist Nachteiliges nicht zu bemerken.

Zur Bestätigung dessen ist dieses Zeugnis unter dem Universitätssiegel ausgefertigt und von dem derzeitigen Rektor und dem Syndikus der Universität eigenhändig unterzeichnet worden.

München, den *3. Dezember 1917*

Der derzeitige Rektor: *Dr. v. Weigl*

LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

Der Syndikus: *Dr. Leuchs*

Gebühr 4 Mk.

041

Universität München.

Kollegienbuch

für

Herrn stud. med. Ernst Müller

Die Titel der Vorlesungen sind im genauen vollständigen Wortlaut einzutragen, wie er im Vorlesungs-Verzeichnis aufgeführt ist.

Bei Bestellung eines Abgangs-Zeugnisses sowie bei der Anmeldung zu einer Stipendien-Prüfung ist das Kollegienbuch der Universitäts-**Kanzlei** vorzulegen.

042

I. Inskriptions-Bestimmungen für die Universität München.

Die Inskription geschieht in folgender Weise:

1. Der Studierende trägt in sein Kollegienbuch und in ein von ihm unterfertigtes Inskriptionsverzeichnis jede Vorlesung mit der im Vorlesungsverzeichnis angegebenen Bezeichnung und mit dem Namen des Dozenten ein; die Inskriptionsverzeichnisse werden bei der Anmeldung zur Immatrikulation und bei der Matrikelerneuerung ausgegeben;
2. er übergibt sodann Kollegienbuch und Inskriptionsverzeichnis gleichzeitig mit dem Kollegienhonorar oder dem Nachweis über Honorarbefreiung dem Quästor; auch für publice gehaltene Vorlesungen ist Kollegienbuch und Inskriptionsverzeichnis zu übergeben;
3. eine Quittung über den einbezahlten Gesamtbetrag erhält er sofort, das Kollegienbuch mit den Bestätigungen der Quästur und der Kanzlei über die vollzogene Inskription erhält er möglichst innerhalb der Inskriptionsfrist zurück.

Eine Vorlesung gilt als belegt erst dann, wenn sie im Kollegienbuch vorgetragen und dem Vortrag der Stempel der Quästur und der Kanzlei beigefügt ist.

Andere Vorlesungen werden nicht in das Abgangszeugnis aufgenommen, auch nicht, wenn sie publice gehalten wurden.

Bei Vorlesungen, bei denen der Eintritt nur gegen besonderen Ausweis gestattet ist, oder bei denen den Hörern bestimmte Plätze zugeteilt sind, oder bei denen der Aufruf der Hörer nach einer bestimmten Reihenfolge erfolgt, werden Hörsaalkarten, gegebenenfalls mit Platznummer ausgegeben.

Die Ausgabe der Hörsaalkarten und die Nummer der Karten richtet sich nach dem Eintrag in die über die Vorlesung geführte Hörsaalliste. Die Hörsaallisten liegen vom 15. Oktober bis 15. November und vom 15. April bis 15. Mai in der Quästur oder in dem betreffenden Institute auf.

Für die Einzeichnung von Ausländern in die Hörsaallisten sind die etwa bestehenden besonderen Vorschriften massgebend.

Die Annahme der Hörsaalkarte verpflichtet zur Inskription (Ziff. 1), wenn die Karte nicht bis zum 8. Mai bezw. 8. November wieder zurückgegeben wird.

Die Frist für die Einreichung der Inskriptionsverzeichnisse und die Bezahlung des Kollegienhonorars auf der Quästur (Ziff. 2) beginnt im Wintersemester am 15. Oktober, im Sommersemester am 15. April und dauert bis 15. November bezw. 15. Mai (§ 25 Abs. I der Satzungen).

Eine spätere Einreichung und Bezahlung findet nur ausnahmsweise mit besonderer Genehmigung des Rektors statt, wenn ein ausreichender Entschuldigungsgrund nachgewiesen wird. Jedoch ist auch dann, von besonders berücksichtigungswürdigen Fällen abgesehen, der letzte November und der letzte Mai der äusserste Termin (§ 25 Abs. II der Satzungen).

II. Bestimmungen über Honorarbefreiung.

Die Bestimmungen über Honorarbefreiung finden Anwendung auf landesangehörige Studierende und auf Studierende solcher deutscher Bundesstaaten, die Gegenseitigkeit üben.

Ueber Gesuche um Honorarbefreiung entscheidet eine eigene Kommission (Honorarienkommission), die aus dem Rektor und aus einem von jeder Fakultät (Fakultätssektion) aus ihrer Mitte abzuordnenden Mitgliede besteht.

Die Honorarbefreiung ist durch die Dürftigkeit und Würdigkeit des Studierenden bedingt.

Gänzliche Honorarbefreiung wird nur bei voller Mittellosigkeit, teilweise Befreiung dann gewährt, wenn zwar volle Mittellosigkeit nicht nachgewiesen ist, die Verhältnisse des Studierenden aber eine billige Berücksichtigung erheischen.

Für die Höhe des Nachlasses ist der Grad nicht nur der Dürftigkeit, sondern auch der Würdigkeit massgebend.

Die Dürftigkeit wird durch ein von der zuständigen Behörde in gehöriger Form ausgestelltes Vermögenszeugnis nachgewiesen.

Das Zeugnis muss enthalten.

1. Namen und Geburtsort des Studierenden,
2. Wohnort und Beruf der Eltern und die Angabe, ob Vater und Mutter noch leben.
3. Zahl, Alter und Stellung der lebenden Geschwister, sowie die Angabe, ob sie versorgt sind oder nicht,
4. den Betrag des Vermögens der Eltern und des selbständigen Vermögens des Studierenden, soweit es amtlich zu ermitteln oder sonst bekannt ist,
5. das Einkommen der Eltern und dessen Quellen,
6. den Betrag und die Gattung der Steuern, die der Studierende oder seine Eltern zu entrichten haben,
7. den Betrag von Schulden des Studierenden oder seiner Eltern,
8. die Quellen und Hilfsmittel, durch die der Studierende sich bisher erhalten und seine Studienkosten bestritten hat sowie den Betrag seines aus diesen Quellen fliessenden Einkommens, insbesondere der Unterstützungen aus öffentlichen und Privatmitteln.

Im Falle wiederholter Bewerbung genügt eine Bescheinigung der zuständigen Behörde darüber, dass eine Änderung in den Vermögensverhältnissen nicht eingetreten ist.

Die Würdigkeit wird nachgewiesen durch ein Zeugnis über tadellose Führung und ein Zeugnis über befriedigenden Studienerfolg.

Der Studienerfolg wird beurteilt bei der Melduug im ersten Studienjahre nach dem Reifezeugnisse, bei späteren Meldungen nach dem Zeugnis über die Stipendien- oder eine sonstige gleichwertige Prüfung (ärztliche Vorprüfung usw.).

Ob an Stelle solcher Prüfungszeugnisse auch Zeugnisse über die tätige Anteilnahme an Seminaren, Praktiken oder Institutsübungen treten können oder neben ihnen vorzulegen sind, wird von der einschlägigen Fakultät bestimmt.

Hält die Honorarienkommission nähere Aufschlüsse für wünschenswert, so wird der Vorstand den Studierenden vor sich rufen, um Aufklärungen von ihm zu verlangen.

Ein Gesuch um Honorarbefreiung, für das die Unterlagen in unvollständiger, ausweichender oder unwahrer Art erbracht werden, wird abgewiesen.

Ein Studierender, der gegenüber der Honorarienkommission unwahre Angaben macht, hat ausserdem disziplinäres Einschreiten zu gewähren.

Gesuche um Honorarbefreiung sind mit den erforderlichen Nachweisen bei Vermeidung des Ausschlusses innerhalb der von der Honorarienkommission bekannt gegebenen Frist einzureichen.

Die zu Beginn des Wintersemesters ausgesprochene Honorarbefreiung gilt in der Regel für das ganze Studienjahr, die zu Beginn des Sommersemesters ausgesprochene ausschliesslich für dieses Sommersemester.

Gegen die Entscheidungen der Honorarienkommission findet Berufung nicht statt.

Die Gesuche um Honorarbefreiung haben in Kürze den bisherigen Studiengang und Angabe der allenfalls bisher gewährten Honorarnachlässe zu enthalten und sind mit den erforderlichen Belegen **bei Vermeidung der Nichtberücksichtigung — im Wintersemester bis längstens 30. Oktober, im Sommer-Semester bis längstens 30. April** — schriftlich bei dem Univ. Quästorate einzureichen.

Angabe der Honorarpflicht: ganz (ob frei, 1/5, 2/5, 3/5, 4/5 oder ganz)

Bezeichnung der belegten Vorlesungen im vollständigen Wortlaut	Zahl der wöchentl. Stunden	Namen der Dozenten in alphabetischer Reihenfolge	Einbezahlter Honorar-Betrag inkl. Dienergeld, Praktik.-Beitrag u. Instit.-Gebühr M	₰	Bescheinigung der Dozenten (nicht vorgeschrieben)
Winter - Semester 1913/14		Prof. Dr.			
Propädeutisch-gynäkologische Klinik	4	Amann	21	–	
Therapie innerer Krankheiten	1	Prof. Dr. Ewens	1	–	
Schmerzverhütung in der Chirurgie mit praktischen Übungen	1	Prof. Dr. Grashey	1	50	
chirurgische Propädeutik (chir.-diagn. u. chir.-therap. Übungen)	3	Prof. Dr. Klaussner	24	–	
Medizinische Klinik für Anfänger	6	Prof. Dr. v. Müller	32	–	
Gehirnkrankheiten	2	Prof. Dr. v. Müller	1	–	
Klinik u. Poliklinik der Kinderkrankheiten einschließlich Physiologie u. Pathologie der Ernährung im Säuglingsalter	5	Prof. Dr. v. Pfaundler	26		
			106	50	

Bezahlt
6-NOV.1913
Univ. Quästur München

LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

044

Angabe der Honorarpflicht (ob frei, 1/5, 2/5, 3/5, 4/5 oder ganz)

Bezeichnung der belegten Vorlesungen im vollständigen Wortlaut	Zahl der wöchentl. Stunden	Namen der Dozenten in alphabetischer Reihenfolge	Einbezahlter Honorar-Betrag inkl. Dienergeld, Praktik.-Beitrag u. Instit.-Gebühr M	₰	Bescheinigung der Dozenten (nicht vorgeschrieben)
Sommer Semester 1914					
Chirurgische Klinik	6	Prof. Dr. v. Angerer	32	00	
Geburtshilflich-gyn. Klinik mit klin. u. poliklin. Geburtsbeobachtungen u. Touchierübungen	6	Prof. Dr. Döderlein	32	00	
Ohrenklinik (m. Ohrenspiegelkurs)	2	Prof. Dr. Heine	26	00	
Diagnostische Übungen an poliklin. Kranken	1	Dr. Kämmerer	7	00	
Rhino-laryngologische Klinik	2	Prof. Dr. Heymann	12	00	
Theoretisch-praktischer Impfkurs	1	Prof. Dr. v. Pfaundler	10	50	
Syphilit.-Dermatologische Klinik	2	Prof. Dr. Posselt	11	00	
Medizinische Klinik für Vorgerücktere	6	Prof. v. Romberg	32	00	
Intubation u. Tracheotomie	1	Dr. Trumpp	6	00	
			168	50	

Bezahlt
5. Mai 1914
Univ. Quästur München

Angabe der Honorarpflicht: ..... (ob frei, 1/5, 2/5, 3/5, 4/5 oder ganz)

Bezeichnung der belegten Vorlesungen **im vollständigen Wortlaut**	Zahl der wöchentl. Stunden	**Namen der Dozenten** in alphabetischer Reihenfolge	**Einbezahlter Honorar-Betrag inkl. Dienergeld, Praktik.-Beitrag u. Instit.-Gebühr** ℳ	₰	**Bescheinigung der Dozenten** (nicht vorgeschrieben)
Winter - Semester 19 14/15					
Sommer - Semester 1915					
Winter - Semester 1915/16					
Sommer - Semester 1916					
Winter - Semester 1916/17					
Sommer - Semester 1917 :					
beurlaubt; stund im Heere.					

Angabe der Honorarpflicht: (ob frei, 1/5, 2/5, 3/5, 4/5 oder ganz)

Bezeichnung der belegten Vorlesungen **im vollständigen Wortlaut**	Zahl der wöchentl. Stunden	**Namen der Dozenten** in alphabetischer Reihenfolge	**Einbezahlter Honorar-Betrag inkl. Dienergeld, Praktik.-Beitrag u. Instit.-Gebühr** M.	₰	**Bescheinigung der Dozenten** (nicht vorgeschrieben)
Semester 19					

Abschrift.

Landsberg a.d.W.,19.1117

Herr cand. med. Ernst Müller aus Schmalkalden ist vom 21. Jan.16 bis 21. 11. 1917 in der militärischen Charge eines Feldhilfsarztes an dem meiner Leitung unterstellten städtischen Krankenhause als stellvertretender Assistenzarzt auf der chirurgischen Station tätig gewesen.

Herr Müller hat an der Bewältigung des infolge des Krieges auf das Krankenhaus einströmenden großen operativen Materials in äußerst reger und fleißiger Weise teilgenommen. Ausgerüstet mit einer leichten Auffassungsgabe, technischem Geschick und einem für seine jungen Jahre bemerkenswerten ernsten Willen hat er sich in dem ihm infolge der Zeitverhältnisse frühzeitig übertragenen Pflichtenkreis schnell eingearbeitet und die für ihn günstige Lage sehr zu seinem Vorteil ausgenützt. Bei unserem täglichen Zusammenarbeiten konnte ich mich davon überzeugen, daß er von Beginn seines Studiums an mit Gründlichkeit, Eifer und Erfolg gearbeitet hat, so traten besonders gute anatomische Kenntnisse zu Tage. Es ist mir eine Freude gewesen zu sehen auf welchen die sich bei der Untersuchung von Kranken und gemeinsam ausgeführten Operationen ergebenden Demonstrationen bei ihm fielen. Ich habe demgemäß Herrn Müller zunächst kleinere Eingriffe unter meiner Aufsicht machen lassen, in der letzten Zeit bin ich infolge meiner auf mehrere Lazarette verteilten Tätigkeit dazu übergegangen, ihn selbständig vor schwerere operative Aufgaben zu stellen, die er immer zu meiner Zufriedenheit löste. Durch fleißiges Studium in seiner freien Zeit ist Herr Müller immer bestrebt gewesen, sich wissenschafftlich fortzubilden und Lücken auszufüllen. Die Technik der modernen Wundbehandlung beherrschte er vollständig.

Durch seinen offenen und geraden Charakter sowie durch ein freundliches und entgegenkommendes Wesen hat Herr Müller sich die Sympathieen der Kranken und Verwundeten als auch die meinige in vollem Maße erworben. Ich kann ihn für später als Assistenzarzt besonders auf einer chirurgischen Station warm empfehlen.

gez. Dr. Delhaskamp
Leitender Arzt des Städt. Krankenhauses.

Für die Richtigkeit
der Abschrift:

BRANDENBURG. WANDER-ARBEITSTÄTTE TREUENBRIETZEN

Leutnant d. Landwehrinfanterie.

048

2.

Marburg, den 28. 4. 33.

Herr Dr.-Ernst M ü l l e r

war in der Zeit von Januar bis April 1915 mit mir bei R. I. R. 270 im Schützengraben an der Westfront. Das Regiment hielt den Abschnitt besetzt, westlich von Nesle bei den Dörfern Chilly und Hallu. Meine Kompagnie, welcher Herr Dr. Ernst Müller als Unterarzt zugeteilt worden war, lag etwa 200 m dem französischen Schützengraben gegenüber. Die Ärzte mussten damals auf besonderen Befehl stets mit in vorderster Linie sein. Herr Dr. Müller, als Arzt von I/ 270, Es war Herrn Dr. Müller erlaubt worden, sich einen eigenen Unterstand zu bauen. Da dieser Unterstand jedoch verschiedene Male von den Franzosen zusammengeschossen wurde, nahm ich Herrn Dr. Müller m(in meinen Unterstand . Ich hatte daher vollauf Gelegenheit, Herrn Dr. Müller als Mensch, als Arzt und als Soldat kennen und schätzen zu lernen. Nach dem Kriege wurde seitens eines Militärlazarettes bei mir angefragt, (wenn ich nicht irre, war es Luckenwalde,) ob Herr Dr. Müller würdig sei, das E. K. zu erhalten. Ich habe damals meiner Entrüstung Ausdruck gegeben, dass Herr Dr. Müller diese Auszeichnung nicht schon 1915 erhalten habe, und ihm zur Verleihung des E. K. vorgeschlagen. Ich führte damals an, wie Herr Dr. Müller bei einem kleinen Feuerüberfall, wobei wir den ersten Verwundeten hatten, durch sein entschlossenes Eingreifen die Stimmung der Mannschaften wieder auffrischte. Wie ich von Regimentskameraden damals gehört habe, hat er sich auch bei dem Durchbruch von Gorlice stets als tüchtiger Soldat und Arzt gezeigt. Ich persönlich erinnere mich gern seiner als eines bescheidenen, vornehmen Menschen.

Ernst Langmeister

kgl. preuss. Hauptmann d. R. a. D.
damaliger Oberleutnat bei I / 270.

Marburg, Uni v. Kl. 50

Ich versichere, daß obige Angaben der Wahrheit entsprechen an Eides statt.
Mein Kriegsstammrollen-Auszug, der angefordert ist, wird sofort nach gesandt werden.

Ernst Langmeister

16763

Ernst Müller, Jena

049

Israelitische Gemeinde
Schmalkalden

Schmalkalden, den 9 Mai 1933

Auszug aus den Geburts-Heirats- & Sterbe-Register der israelitischen Gemeinde Schmalkalden.

betrifft Eltern, Grosseltern, Urgrosseltern des zu Schmalkalden geborenen, jetzt in Nürnberg wohnhaften Herrn Dr. med. Ernst Müller. geboren am 26 Februar 1893.

1. Eltern: Vater: Josef Müller, geb. zu Mansbach ,
Mutter: Klara Müller geb. Mandel, geb. am 26 Juni 1865 in Schmalkalden.

2. Grosseltern: Liebmann Mandel, geb. am 26 März 1826 zu Schmalkalden.
Fanni, geb. Eckmann, geb. am 26 August 1844 zu Schmalkalden.

3. Urgrosseltern. Liebmann Mandel, geb. zu Schmalkalden, am 7 Dezember 1784 gestorben am 26 November 1825
Klara, geb. Levi, gest. am 3o März 1859.

Der Synagogen-Aeltestr

Sqn. Abw. Stelle III. A. K.

S a n i t ä t s a m t

No. 1819. /

Berlin W.35, den 10. Juli 1920.
Potsdamerstraße 56.

B E S C H E I N I G U N G .

Dem praktischen Arzt Herrn Dr. E R N S T M U E L L E R wird auf seinen WUNSCH bescheinigt. daß er am 9. 8. 1914 als K r i e g s f r e i w i l l i g e r bei der 2. Komp. Ers. Batl. Inf. Regt. 83 eingetreten ist.

Durch Verfügung des stellvertretenten Generalkdo. XI. A. K. vom 4. 1. 15 IVb No. 1012 ist er zum Sanitätsamt III. A. K. versetzt und hat unter ihm Dienst getan bis zum 28. 2. 1919, dem Tage seiner Entlassung aus dem Heere.

Gemäß Verfügung des stellvertretenten General-Kommandos XI. A. K. vom 11. 9. 14 IVb No. ~~XXXX~~/ 7142, bestätigt durch Verfügung des Kriegs-Ministeriums vom 28.9. 1914 No. 3569/9. 14 M. A. ist er zum Feldunterarzt , durch A. K.O. vom 26. 1. 1917 zum Feldhilfsarzt ernannt worden.

Der V o r s t a n d :

Dr Loewy
Generalarzt a. D.

Aufenthalts=Bescheinigung.

Der Kfm. med. Ernst Müller

geboren am 26 ten Febr. 1890 zu Schmalkalden,

Kreis ..... wird hiermit behufs standesamtlichen Aufgebots

bescheinigt, daß derselbe seit Geburt bis 28. 6. 1920

hierselbst wohnhaft war u. die gesetzl. Haftungsfähigkeit besitzt.

Schmalkalden, den 17. 7. 1924.

Polizei-Meldeamt Schmalkalden

Die Polizeiverwaltung.
Einwohner-Melde-Amt
Schmalkalden.

052

Polizeidirektion Nürnberg-Fürth.

Nürnberg, den 24. Oktober 1933

Leumundszeugnis.

Auf Grund der Erhebungen wird hiermit bestätigt, daß über den

Leumund des Frauenarztes

Herrn Dr. med. Ernst M ü l l e r,

geboren am 26. Februar 1893 zu Schmalkalden,

preußischer Staatsangehöriger,

auch in politischer Beziehung

Nachteiliges hier nicht bekannt ist.

K.E.

Geb.Reg.Nr. 390

Gebühr RM 2,64 bezahlt.
6971.

Form. Nr. 823. H. 11.XII.30/5000.

053

№ 45 b 129.

Die Echtheit umstehender Fertigung,
Siegelung und Unterschrift

der Polizeidirektion Nürnberg-Fürth

wird hiemit beurkundet.

Ansbach, den 1. November 19 33.

Regierung
von Oberfranken u. Mittelfranken
Kammer des Innern
I. A.

3	RM.	Pfg. Staatsgebühren
	„ 60	„ Zuschlag
	„	„ Vollmachtstempel
	„	„ Zuschlag
	„	„ Postgebühren
3	RM 60	Pfg. Sa. Geb.-R. No. 1938

Ärztlicher Bezirksverein
Nürnberg

Bankkonto:
Darmstädter- und Nationalbank Nürnberg

Postscheckkonto: Amt Nürnberg Nr. 5305.

Fernsprecher 21291

Nürnberg I, den *21.X.1933.*
Adlerstraße 15, Schließfach

B e s t ä t i g u n g .

Herr Dr. Ernst M ü l l e r ist als Facharzt für Chirurgie und Geburtshilfe seit November 1920 in Nürnberg niedergelassen; während seiner 13 jährigen ärztl.Tätigkeit in Nürnberg ist vom beruflichen Standpunkt aus nie etwas an seiner Praxusführung zu beanstanden gewesen,noch sonst etwas ehrenrühriges gegen ihn vorgelegen. Auch als Kassenarzt hat er niemals zu irgend einer Beanstandung Veranlassung gegeben.

Aerztlicher Bezirksverein
Nürnberg.

Schmidt

Abschrift.

B e s c h e i n i g u n g.

Herr Dr E r n s t M ü l l e r, geb. am 26.2.93, hat sich im Jahre 1921 in Nürnberg als Facharzt für Chirurgie und Frauenkrankheiten niedergelassen. Mit seiner Niederlassung wurde Herr Dr Müller Mitglied des ärztlichen Bezirksvereins Nürnberg, also des Standesvereins der Nürnberger Ärzte, u, der Krankenkassenabteilung des späteren kassenärztlichen Vereins Nürnberg. Der Unterfertigte war bis Ende März d. J. ärztlicher Geschäftsführer der genannten Vereine.
Herr Dr Müller war immer ein einwandfreier, standestreuer Kollege u. hat sich durch seine grossen Kenntnisse, durch seinen grossen Fleiss, durch seine grosse Gewissenhaftigkeit u. durch seine stete Hilfsbereitschaft bei Tag u. bei Nacht einen grossen Kreis von Patienten in allen Schichten der Bevölkerung erworben.

Nürnberg, 23. 10.33

San. Rat Dr Steinheimer.

Gesch. Reg. Nr. 1736.

Die Echtheit vorstehender Unterschrift des Herrn Sanitätsrats Dr Ludwig S t e i n h e i m e r in Nürnberg, Bucherstrasse 20a, wird hiermit beglaubugt.

Nürnberg, den dreiundzwanzigsten-23. Oktober 1933-neunzehnhundertdreiunddreissig-.

Bayerisches Notariat
Nürnberg II

Wittmann
Notar.

056

Abschrift.

Pr. Ministerium
des Inneren.

Nachdem der Kandidat der Medizin Ernst Müller aus Schmalkalden am 27. November 1918 die ärztliche Prüfung vor der Prüfungskommission in Berlin mit der Zensur "gut" bestanden hat und der von ihm geleistete Kriegsdienst auf das Praktische Jahr angerechnet worden ist, wird ihm hierdurch die

A p p r o b a t i o n a l s A r z t

mit der Geltung vom 27. November 1918 ab für das Gebiet des Deutschen Reiches gemäss § 29 der Reichsgewerbeordnung erteilt.

B e r l i n, den 17.Dezember 1918.

Ministerium des Innern.
Im Auftrage.
Kirchner

Approbation
für
Ernst Müller
als Arzt.

Stempel: 1,50 M.

M. 18850.

Nr.618.

Vorstehende Abschrift stimmt mit der Urschrift überein.

Berlin, den 20. November 1933

Als Urkundsbeamter der Geschäftsstelle des
Amtsgerichts Berlin-Mitte, Abteilung 96.

3,20 R.Mark Kosten sind bezahlt.

057

8,- RM sind als Gerichts-
kosten entrichtet.
Vogel, Justizobersekretär

vorseitige
Die ~~Unterschrift~~ Unterschrift des Justiz=
inspektors Brennecke
Urkundsbeamten der Geschäftsstelle des
Amtsgerichts in Berlin wird
hiermit beglaubigt.
Berlin, den 20. November 1933.
Der Amtsgerichtspräsident.

Gesehen zur Beglaubigung der
vor=stehenden Unterschrift.
Berlin, den 21. November 1933.
Das Auswärtige Amt
des Deutschen Reichs.
Im Auftrag:
Reimke

1052.108 **Abschrift.** 1912/13

O B E R R E A L S C H U L E zu S C H M A L K A L D E N.

Z E U G N I S der R E I F E.

E r n s t M ü l l e r

geboren den 26. Februar 1893 zu Schmalkalden, Kreis Herrschaft Schmalkalden jüdischer Konfession, Sohn des Drogisten Joseph Müller zu Schmalkalden

war 9 Jahre auf der Oberrealschule und zwar 2 Jahre in Prima.

I. Betragen und Fleiss:

1. Betragen: gut.
2. Fleiss: sehr gut.

Er wurde von der mündlichen Prüfung befreit.

II. Kenntnisse und Fertigkeiten.

1. Religionslehre:---- (Auf der Schule wird jüd. Religionsunterricht nicht erteilt.)
2. Deutsch: genügend.
3. Französisch: gut.
4. Englisch: gut.
5. Geschichte: gut.
6. Erdkunde: genügend.
7. Mathematik: gut.
8. Physik: gut.
9. Chemie: gut.
10. Naturgeschichte:---
11. Turnen: genügend.
12. Freihandzeichnen: gut.
13. Linearzeichnen:-----
14. Singen: ------
15. Handschrift: genügend.

Die unterzeichnete Prüfungskommission hat ihm demnach, da er jetzt die hiesige Oberrealschule verlässt, um Medizin zu studieren, das

Z e u g n i s der Reife

zuerkannt und entlässt ihn mit den besten Wünschen für seine Zukunft.

Schmalkalden, den 23. März 1911.

Königl. Provinzial-Schul-
Kollegium. Cassel.

Königliche Prüfungskommission:

Th.Kaiser,	Königlicher Kommissar.
Kaestler	Vertreter des Kuratoriums.
Homburg	Direktor.
Schmidt,	Oberlehrer.
Heyfelder,	Oberlehrer.
Dr Amelung	"
Henkel,	Oberlehrer
Dr Kreiten	Oberlehrer
Jäckel	Zeichenlehrer

Ramb.

Er hat an dem den drei obersten Klassen der Oberrealschule angegliederten wahlfreien Unterricht im Lateinischen mit befriedigendem Erfolg teilgenommen.

Schmalkalden, 23. März 1911.

Homburg

Oberrealschule
Schmalkalden.

Oberrealschuldirektor.

Vorstehende Abschrift stimmt mit der Urschrift überein.

Berlin, den 20. November 1951

Brenneck

als Urkundsbeamter der Geschäftsstelle des
Amtsgerichts Berlin Wilmersdorf, Abteilung 96.

3,40 DM Mark Kosten [illegible]

Mg

jetzt

das

ukunft.

e ange-

endem

8,- RM sind als Gerichts-
kosten entrichtet.
Kegel, Justizobersekretär

Die ~~[illegible]~~ vorseitige Unterschrift des Justiz-
inspektors Brennecke
Urkundsbeamten der Geschäftsstelle des
Amtsgerichts in Berlin wird
hiermit beglaubigt.
Berlin, den 20. November 1933.
Der Amtsgerichtspräsident.

170 - 1 RM

Gesehen zur Beglaubigung der
vorstehenden Unterschrift.
Berlin, den 21. November 1933.
Das Auswärtige Amt
des Deutschen Reichs.
Im Auftrag:
Reimke

0 b 1

Dr. Ernst Müller
Lindenaststr. 35

Bescheinigung.

Herr Dr. Ernst Müller, geb. am 26.1.1893, hat sich im Jahre 1921 in Nürnberg als Facharzt für Chirurgie u. Frauenkrankheiten niedergelassen. Mit seiner Niederlassung wurde Herr Dr. Müller Mitglied des ärztlichen Bezirksvereins Nürnberg, also des Standesvereins Nürnberger Ärzte, u. der Krankenkassenabteilung des zeitherigen Kassenärztlichen Vereins Nürnberg. Der Unterzeichnete war bis Ende März d. J. ärztlicher Geschäftsführer der genannten Vereine. Herr Dr. Müller war immer ein standesbewusster, einwandfreier Kollege u. hat sich durch seine grossen Kenntnisse, durch seinen grossen Fleiss, durch seine grosse Gewissenhaftigkeit u. durch seine stete Hilfsbereitschaft bei Tag u. Nacht einen grossen Kreis von Patienten in allen Schichten der Bevölkerung erworben.

Nürnberg, 23.10.33

San. Rat Dr. Steinheimer

Geb. Reg. No 1736.
Gebühr Tar. 12: 2.- RM
" Zuschl. -.40 "
Abs. Geb. 1.- "
Wertzeichen -.30 "
3,70 RM
Erz.

Gesch.Reg.Nr.1736.

Die Echtheit vorstehender Unterschrift des Herrn Sanitätsrats Dr. Ludwig S t e i n h e i m e r , in Nürnberg, Bucherstrasse 20 a, wird hiermit beglaubigt.

Nürnberg, den dreiundzwanzigsten-23. Oktober 1933-neunzehnhundertdreiunddreissig-.

BAYERISCHES NOTARIAT NÜRNBERG II

[signature]
Notar.

Die Echtheit der vorstehenden Namensunterschrift des

bayerischen Notars Justizrats W i t t m a n n am Notariate Nürnberg II wird hiermit mit dem Beifügen beglaubigt, dass der Genannte zur Vornahme der vorstehenden Beurkundung berechtigt und diese den hier geltenden Landesgesetzen gemäß erfolgt ist .

N ü r n b e r g , den 31. Oktober 1933.

Der Präsident
des Landgerichts Nürnberg = Fürth :

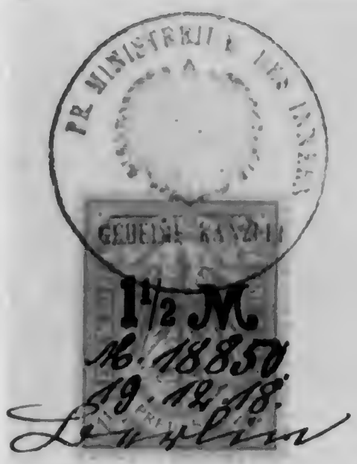
PRÄSIDIUM DES B. LANDGERICHTS • NÜRNBERG-FÜRTH •

Yellen

2 RM. Geb.f-Begl.
2 RM. Geb.f.Zeugn.
-.80 RM. 20% Zuschlag

Sa. 4,80 RM.

Gbm. 6567/33



Nachdem der Kandidat der Medizin Ernst M ü l l e r aus Schmalkalden am 27. November 1918 die ärztliche Prüfung vor der Prüfungskommission in Berlin mit der Zensur " g u t " bestanden hat und der von ihm geleistete Kriegsdienst auf das Praktische Jahr angerechnet worden ist, wird ihm hierdurch die

A p p r o b a t i o n a l s A r z t

mit der Geltung vom 27. November 1918 ab für das Gebiet des Deutschen Reiches gemäß § 29 der Reichsgewerbeordnung erteilt.

B e r l i n, den 17. Dezember 1918.

Ministerium des Innern.
Im Auftrage.

Approbation
für
Ernst M ü l l e r
als Arzt.
M. 18850.

Gesehen zur Beglaubigung der
vorstehenden Unterschrift.
Berlin, den 7. November 1933.
Das Auswärtige Amt
des Deutschen Reichs.
Im Auftrag: Nr. 618.
Reimke

Stempel: 1,50 M.

VISTO EN ESTE CONSULADO DE ESPAÑA
BUENO PARA LEGALIZAR LA FIRMA QUE ANTECEDE
DE L. Kr. Reinke del Ministerio de Negocios Extranjeros.
BERLIN 7 DE Noviembre DE 1933
EL CONSUL.

CONSULADO DE ESPAÑA

David Carreño

DERECHOS CONSULARES ESPAÑOLES
5 PTAS.
PESETAS
A0336273

BERLIN
Art. 37 del Arancel.
Disposición Idem íd.
Pablo aplicable del Consulado
Marcos 12,30

DERECHOS CONSULARES ESPAÑOLES
10
PESETAS DIEZ
A0184217

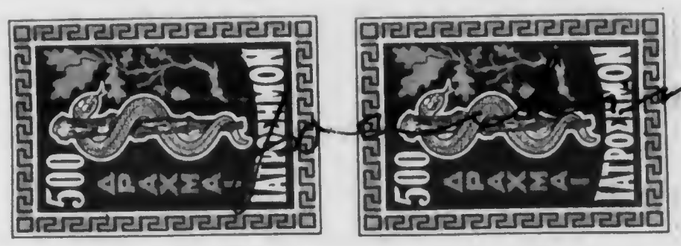
4016/234

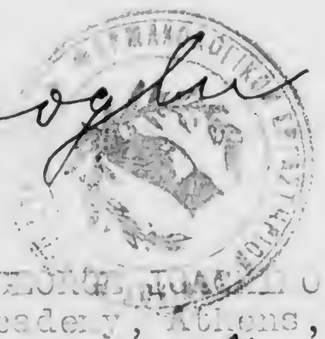
UNIVERSITY OF ATHENS
MEDICOLOGICAL DEPARTMENT

Re : Dr EMANUEL MILLER .

To Whom it may concern.

This is to certify that EMANUEL MILLER, M.D.,675 Park Avenue, New York 21, N.Y., was established in Athens from 1934-1941. While here he directed a Gynecological-obstetrical Clinic. In my estimation he was one of the best Gynecologists and Obstetricians in Athens. I consider him an excellent physician and surgeon. I have had the opportunity to follow his operations and have seen excellent results.





EMANUEL KAMARINOU
Member of the Academy, Athens,
Chairman of the Supreme Health Council and
Professor of the Medical Faculty in the University
of Athens.

Athens, 30th September 1946.

verpackt im Lift № 155-56

Verzeichnis über die gebrauchte
Praxis- und Klinikeinrichtung
des Herrn Dr.E.Müller,
Nürnberg, Lindenaststr. 14

---

3 ärztliche Apparate mit allem Zubehör (Röntgen- Dyathermie-Hochfrequenz)	2 appareils médicals avec appartenance (Röntgen, Dyathermie,Hochfréquenze
1 Operationstisch und 1 Untersuchungstisch mit Zubehör	1 table d'opérations et d'examinations avec appartenance
1 Verbandsstoff-Sterilisator	1 appareil à Stériliser des bandages
1 Instrumentenkocher mit Zubehör	un nombre des appareils et
1 Entbindungskoffer komplett (ärztl.Gebrauchsbestecke)	instruments médicals
gynäkol. und chirurgische Instrumente	
1 Schreibtisch	1 table à écrire
14 Stühle	14 chaises
1 Anzahl Lampen	plusieures lampes
1 Schreibmaschine	1 machine à écrire
eine grosse Anzahl med. Lehrbücher	un grand nombre de livres médicals
16 Schränke	16 armoires
13 Tische	13 tables
5 Waschständer	5 cuvettes
eine grosse Anzahl Porzellan-Email- und Glasschalen und Flaschen	un grand nombre de tasses, de peaus et bonteilles
2 Waagen	2 balances
Wäsche:	
Operationswäsche, Bett-Küchen-u.Badewäsche	un grand nombre du linge
Wäsche für den Arzt und die Schwester	
Säuglingswäsche	
Klinikgeschirr,Essbestecke& Geräte	des Numéreuxes outils et des vaissaux
Küchengeräte und div. Haushaltungsgegenstände	pour la clinique
15 Patientenbetten, komplett	15 lits complets pour des malades
2 Säuglingsbetten "	2 " " " " petit enfants
15 Nachttische mit den dazu gehörigen Lampen und Spiegel.	15 tables de nuit aviec des lampes et des mirroirs
4 Bett-Tische	4 lits combiné avec des tables
1 Suspensionsgerüst	un échafand à suspension
2 Untersuchungs-Chaiselongues	2 chaiselongues pour l'examiantion

---

Ich bestätige, dass die im Verzeichnis aufgeführten Gegenstände sämtlich gebraucht sind und von meinem Mann, dem Frauenarzt Dr. Ernst Müller in seinem Gewerbebetrieb als Arzt dahier benützt wurden. Mein Mann ist nach Athen übersiedelt und will die Gegenstände dort in seinem Gewerbebetriebe weiter gebrauchen.

Nürnberg, 25. September 34.

Liselotte Müller, Arztensgattin

Nach der glaubhaften Erklärung der Frau Liselotte M ü l l e r , wohnhaft in Nürnberg sind die im Verzeichnis aufgeführten Gegenstände gebraucht. Dieselben hatte seither ihr Ehemann, Herr Dr. Ernst M ü l l e r während seines hiesigen Aufenthaltes in seinem Gewerbebetriebe als Frauenarzt in Benützung. Herr Dr. M ü l l e r ist nach Athen übersiedelt. Dort sollen die Gegenstände ihm in seinem Gewerbebetriebe zum eigenen Gebrauche dienen.

Nürnberg, den 26. SEP. 1934
Polizeidirektion Nürnberg-Fürth
K. E.

POLIZEIDIREKTION NÜRNBERG-FÜRTH

Geb.-Reg. Nr. 894
Gebühr 3.40 RM
5136

0 b 8

GRIECHISCHES KONSULAT
ZU WÜRZBURG

WÜRZBURG, DEN
JULIUSPROMENADE 66
FERNRUF 4002

NR. 616/34

Μετάφρασις.

Πιστοποιῶ ὅτι τὰ ἐν τῷ προηγουμένῳ πίνακι πράγματα ἅπαντα εἶναι μεταχειριστὰ καὶ ὁ σύζυγός μου, Ἔρνστ Μοῦλλερ, διδάκτωρ, γυναικολόγος μεταχειρήσθηκε αὐτὰ διαρκῶς διὰ τὴν ἰατρικὴν πρᾶξιν. Μετοικήσας εἰς τὰς Ἀθήνας δέον νὰ χρησιμοποιηθῇ αὐτὰ ἐπίσης διὰ τὴν ἰατρικὴν πρᾶξιν.

ἐν Nürnberg, τῇ 25 Σεπτεμβρίου 1934

Λισελόττε Μοῦλλερ, ἡ σύζυγος.

Κατὰ τὴν δήλωσιν ἀξιόπιστον τῆς κυρίας Λισελόττε Μοῦλλερ κατοίκου τοῦ Νύρνμπεργκ τὰ ἐν τῷ προηγουμένῳ πίνακι πράγματα εἶναι μεταχειριστά. Ὁ σύζυγος τῆς κυρίας Μοῦλλερ, Ἔρνστ Μοῦλλερ, διδάκτωρ, μεταχειρίσθηκε αὐτὰ κατὰ τὴν διάρκειαν τῆς ἐνταῦθα διαμονῆς του ὡς γυναικολόγος. Ὁ κύριος Μοῦλλερ μετοικεῖ εἰς τὰς Ἀθήνας καὶ θὰ χρειασθῇ ἐκεῖ τὰ ἄνω πράγματα πρὸς ἰδικήν του χρῆσιν.

λόγος. Ὁ κύριος Μοῦλλερ μετοίκησε εἰς τὰς Ἀθήνας καὶ θὰ χρειασθῇ ἐκεῖ τὰ ἄνω πράγματα πρὸς ἰδικήν του χρῆσιν.

ἐν Nürnberg, τῇ 26 Σεπτεμβρίου 1934

Ἡ Ἀστυνομία Νύρνμπεργκ

Πέτριχ

τέλη
Δρ. 5.--

Nr. 617/34 Ἐπικυρῶ τὴν μετάφρασιν ὡς ἀκριβῆ καὶ πιστοποιῶ τὸ περιεχόμενον τῶν ἄνω δηλώσεων τῆς κυρίας Λισελόττε Μοῦλλερ καθὼς καὶ τῆς Ἀστυνομίας τοῦ Νούρμπεργκ.

ἐν Würzburg, τῇ 27 Σεπτεμβρίου 1934

Ὁ Πρόξενος

Φρίτς Ὄττ.

= Δρ 13.--

№ 45 b 129.

Die Echtheit umstehender Fertigung,
Siegelung und Unterschrift

der Polizeidirektion Nürnberg-Fürth

wird hiemit beurkundet.

Ansbach, den 1. November 19 38.

Regierung
von Oberfranken u. Mittelfranken
Kammer des Innern
J. A.

Hauff

3	RM.	Pfg. Staatsgebühren
	„ 60	„ Zuschlag
	„	„ Vollmachtstempel
	„	„ Zuschlag
	„	„ Postgebühren
3	RM 60	Pfg. Sa. Geb.-R. No. 1938

Polizeidirektion Nürnberg-Fürth.

Nürnberg, den 20. Oktober 1933

Leumundszeugnis.

Auf Grund der Erhebungen wird hiermit bestätigt, daß über den Leumund des Frauenarztes

Herrn Dr. med. Ernst M ü l l e r,

geboren am 26. Februar 1893 zu Schmalkalden,

preußischer Staatsangehöriger,

auch in politischer Beziehung
Nachteiliges hier nicht bekannt ist.

K.E.

Geb.Reg.Nr. 390

Gebühr RM 2.64 bezahlt.
6971.

Abschrift
Tgb.Nr.31/6 Em/Wg.

Bayer. Landessiedlung
[illegible] für Auswandererberatung
in Verbindung mit dem
Deutschen Ausland-Institut Stuttgart

München, den 5. Juni 1934.
Kanalstr.29/III

Herr Dr. Ernst M ü l l e r, Frauenarzt, wohnhaft in Nürnberg, Lindenaststr.37, hat hier glaubhaft gemacht, daß er die ernsthafte Absicht hat, mit seiner Familie - Ehefrau und zwei minderjährigen Kindern - nach

Griechenland

auszuwandern, da er als Nichtarier seine Existenz nicht aufrecht erhalten kann, obgleich als Kriegsteilnehmer zu den Krankenkassen zugelassen.

Nachdem seine vielfachen Bemühungen um Gründung einer neuen Existenz - zuerst in Palästina, dann in Spanien, - infolge unüberwindlicher Schwierigkeiten gescheitert sind, bietet sich ihm jetzt Gelegenheit, zusammen mit einem früheren griechischen Studienkollegen die Errichtung einer Privatklinik in Athen zu betreiben.

Voraussetzung hierfür ist die Ablegung des griechischen Staatsexamens, die erst nach zwei Jahren möglich ist, und ferner die Beibringung eines größeren Kapitals zur Errichtung der Klinik. Hierfür und für den Lebensunterhalt der vierköpfigen Familie während der zwei Jahre, wo noch kein Verdienst anfällt, bittet der Antragsteller um die Freigabe von RM 50.000.-.

Unter den gegebenen Verhältnissen begutachte ich den Antrag wie folgt:

RM 20.000.- i.W. Reichsmark zwanzigtausend in bar
RM 30.000.- i.W. Reichsmark dreißigtausend in Waren

- deutschen Materialien und Einrichtungen für die Klinik -, wobei für letztere die Gewährung einer längeren Bezugsfrist befürwortet wird.

Ferner wird mit Rücksicht auf die Dringlichkeit des Vorhabens empfohlen dem Antragsteller einen Betrag von RM 15.000.- in bar (von den beantragten RM 20.000.-) vorläufig gelegentlich seiner bevorstehenden Auswanderung zu genehmigen.

Herr Dr. Müller hat den Krieg als Freiwilliger an der Front unter Auszeichnung mitgemacht und sich hierbei Beschädigungen zugezogen, durch die er in seiner körperlichen Betätigung behindert ist. Sein Gesuch verdient deshalb besondere Berücksichtigung. Auch wird durch seinen Wegzug von Nürnberg eine bedeutende Praxis für

[illegible] 16763 - 2 -

074

einen arischen Facharzt frei. Schließlich dürfte die Errichtung einer guten Fachklinik unter deutscher Leitung in Griechenland dem Ansehen des Deutschtums dort förderlich sein.

Die beiden früher ausgestellten Bescheinigungen vom 5.10.33 Tgb. Nr. 22/10 Em und vom 20.12.33 Tgb. Nr. 102/10 Em./Wa. ver= lieren hiermit ihre Gültigkeit.

Der Devisenbewirtschaftungsstelle sind vorzulegen:

polizeiliche Dauerabmeldung
Einreisesichtvermerk für Griechenland
Unbedenklichkeitsbescheinigung des Finanzamtes
Verzeichnis des in- und ausländischen Ver- mögens.

Bayer. Landessiedlung
Abteilung für Auswandererberatung
gez. Engelhardt

Eing. 12. SEP. 1934
Erledigt am .... Mappe Nr.....
durch.....

für den Richtigkeit der Abschrift!

Mü 11. 9. 34
Der Präsident des Landesfinanzamts
(Devisenstelle)

PROF. BERNHARD ZONDEK
JERUSALEM
ROTHSCHILD HADASSAH
UNIVERSITY HOSPITAL

بروفيسور برنهارد صوندك
القدس
مستشفي الجامعه روتشيلد هاداسا

פרופ' ברנהרד צונדק
ירושלים
ביה"ח האוניברסיטאי של הדסה
ע"ש מאיר דה רוטשילד

TO WHOM IT MAY CONCERN

THIS IS TO CERTIFY that Doctor ERNEST MYLLER from NEW YORK is known to me for about 30 years. I know that he got his education at the Paul Strassmann Gynecological and Obstetrical Hospital of the Berlin University.

Doctor Myller was later a well known gynecologist and obstetrician at Nuremberg in Germany, and since the time of the Nazi régime he has been working in Athens (Greece) where he had a Gynecological and Obstetrical Clinic of his own. I know that Doctor Myller had an outstanding reputation in Athens.

I can recommend Doctor Myller warmly as a man of excellent character, as a very reliable physician, and a well trained gynecologist and obstetrician.

Bernhard Zondek.

Jerusalem, September 22, 1946.

Dr. Ernest Myller, Gynecologist, 60

Dr. Ernest Myller, sixty, a gynecologist and obstetrician with offices at 65 E. 76th St., died yesterday of a heart attack at his home, 450 E. 63d St. He was on the staff of the Post-Graduate and Madison Hospitals.

In 1933 Dr. Myller, chief gynecologist, and surgeon at the Marthaheim Hospital in Nurnberg, Germany, was driven out of the country by the Nazis. He went to Athens where, within a year, he had passed the Greek medical examinations, though he had not known the language before his flight from Germany.

For seven years he was head of a private hospital in Athens. In 1941, when the Nazis invaded Greece, Dr. Myller was rescued with his family by the British Navy. He had been in the United States for twelve years.

Dr. Myller had designed instruments used in the detection of cancer in the uterus and apparatus used for the cure of sterility.

Surviving are his wife, Mrs. Liselotte Myller, and a son, Ralph Myller. Another son, Lt. Ulrich Myller, was killed in action in Korea.

Professional Certificates
+
Diplomas

MEMBERSHIP CERTIFICATE

The American Society for the Study of Sterility

This is to Certify *that*

ERNEST MYLLER, M.D.

is an Associate Member of The American Society for the Study of Sterility, for the year designated hereon, and is entitled to all the privileges of such Membership.

Herbert D. Thoman M.D.
SECRETARY

Irving F. Stein M.D.
PRESIDENT

ΕΘΝΙΚΟΝ & ΚΑΠΟΔΙΣΤΡΙΑΚΟΝ ΠΑΝΕΠΙΣΤΗΜΙΟΝ
"ΑΘΗΝΩΝ

Η ΚΟΣΜΗΤΕΙΑ
ΤΗΣ ΙΑΤΡΙΚΗΣ ΣΧΟΛΗΣ

'Αριθ. { Πρωτ. 249 / Διεκπλ. 1071

'Εν 'Αθήναις τῇ 15 Μαΐου 193 5

ΕΝΔΕΙΚΤΙΚΟΝ

'Ο διδάκτωρ τῆς 'Ιατρικῆς τοῦ Πανεπιστημίου Βερολίνου κ. ΕΡΝΕΣΤΟΣ Ι. ΜΥΛΛΕΡ ἐκ Σμαλκάλτεν ὑπέστη εὐδοκίμως τῇ 15ῃ 'Απριλίου 1935 τὴν ὑπό τῶν Πανεπιστημιακῶν νόμων ὁριζομένην δοκιμασίαν πρός ἐξάσκησιν τοῦ ἰατρικοῦ ἐπαγγέλματος ἐν 'Ελλάδ καί τοῦ διορισμοῦ ἐν δημοσίᾳ θέσει.-

'Ο Κοσμήτωρ. 'Ο Γραμματεύς.

Dem Kandidaten der Medizin, Herrn Ernst Müller aus Schmalkalden i;Th. wird hiemit auf Antrag bestätigt, daß derselbe die ärztliche Vorprüfung am 17. 7. 1913 mit der Gesamtnote I= sehr gut Bestanden hat.

Würzburg, den 17. November 1916,

K. Universitäts-Syndikat.

z. V.

Müller

Virum ornatissimum

Ernst Müller

Hasso-Nassoviensis

civibus Vniversitatis litterariae Fridericae Guilelmae legitime adscriptum nomen apud facultatem medicam rite professum esse testamur.

Berolini, d. 26 mens. Novbr anni MDCCCCXVII.

Decanus et Professores
ordinis medicorum
Vniversitatis Fridericae
Guilelmae.

Fraenkel

Wir Rektor und Senat

der Königlichen Friedrich-Wilhelms-Universität zu Berlin

bekunden durch dieses Abgangszeugnis, daß

Herr Ernst Müller,

geboren zu Schmalkalden, Hessen-Nassau,

Sohn des Kaufmanns Müller,

zu den akademischen Würden auf der Oberrealschule

in Schmalkalden

vorbereitet, auf Grund eines Abgangszeugnisses

von der Universität München

am 22. November 1917 bei uns immatrikuliert

worden ist, sich bis zum Schluß des Sommer-Semesters

1918 als Studierender hier aufgehalten und sich

der Medizin

beflissen hat.

Während dieses Aufenthalts hat derselbe bei unserer

Universität nach den vorgelegten Zeugnissen die

ümstehend verzeichneten Vorlesungen vorschrifts-

mäßig angenommen.

Nr.	Ankündigung der Vorlesung.	Dozent.
	I. Im Winter-Semester 1917/18.	
1.	Experimentelle Pharmakologie	Prof. Heffter
2.	Gerichtliche Medizin	„ Strassmann
3.	Topographische Anatomie	„ Virchow
	II. Im Sommer-Semester 1918.	
1.	Medizinische Poliklinik	Prof. His
2.	Geburtshilflich-gynäkologische Klinik	„ Franz
3.	Psychiatrische Klinik	„ Bonhoeffer
4.	Chirurgische Klinik	„ Hildebrand
5.	Augenklinik	„ Greeff
6.	Kursus der pathologischen Anatomie mit Übungen	Dr. Oestreich
7.	Mikroskopischer Kursus der pathologischen Anatomie	Prof. Lubarsch
8.	Pathologischer Kursus am frischen Thorax, tun	Dr. Ceelen

Nr.	Benennung der Vorlesung.	Dozent.

Hinsichtlich seines Verhaltens auf der hiesigen Universität ist Nachteiliges nicht zu bemerken.

Zu Urkund dessen ist dieses Zeugnis unter dem Insiegel der Universität ausgefertigt, und von dem zeitigen Rektor, dem Richter, auch von den gegenwärtigen Dekanen der Medizinischen und Philosophischen Fakultät eigenhändig unterzeichnet worden.

Berlin, den 5ten August 1918.

I. V.

Penck [illegible] Franz Rubens

[illegible]

M 1018

E. N^mis. 434.

Königlich Bayerische

Julius-Maximilians Universität WÜRZBURG.

Abgangs-Zeugnis.

Herr Kapt. Müller aus Schmalkalden
geboren zu Schmalkalden
ist vom 29. April 1911 bis heute
als Studierender der
Medizin
an der hiesigen Universität immatrikuliert und auf die
ihm daselbst vorgeschriebenen Vorlesungen ordnungsmäßig in
scribiert gewesen.

Hinsichtlich seiner Führung während dieser Zeit ist
Verfügung nicht bekannt geworden.

Zur Bestätigung dessen ist dieses Zeugnis unter dem Siegel
der Universität ausgefertigt und von dem derzeitigen Rektor
und dem Universitäts-Syndikus eigenhändig unterzeichnet
worden.

Würzburg, den 11. April 1912.

Universitäts-Rektor:

Prof. Dr. K. B. Lehmann.

Universitäts-Syndikus:

Gebühr 4 M.

vert.

Lith. v. Ferd. Porst, Würzburg

Verzeichnis

der von Herrn stud med. Ernst Müller

aus Schmalkalden vorschriftsmäßig belegten Vorlesungen.

Semester	Benennung der Vorlesungen	Dozent
S.S.1911	Osteologie	Prof.Dr.Sobotta
	Organische Chemie	„ „ Buchner
	Physik	„ „ Wien
	Botanik	„ „ Kraus
W.S.1911/12	Anatomie I.	„ „ Schultze
	Präparierübungen I.Kurs	„ „ Stöhr

Würzburg, den 11.April 1912.

K.Universitäts - Syndikat.

Semester.	Benennung der Vorlesungen.	Dozent.

Semester.	Benennung der Vorlesungen.	Dozent.

Wir Rektor und Senat

der Königlichen Christian-Albrechts-Universität zu Kiel

bezeugen hiermit hierdurch das Abgangs-Zeugnis, daß

Herr Ernst Müller geboren

zu Schmalkalden Sohn des

Drogisten J. Müller

zu dem akademischen Studium auf der Oberrealschule

zu Schmalkalden vorbereitet, auf

dem Grund eines Abgangs-Zeugnisses von der

Universität Würzburg vom 26. April 1912

bei uns immatrikuliert worden ist und sich der

Medizin befleißen hat.

Während seines hiesigen Aufenthalts auf

der hiesigen Universität hat derselbe nach den ge-

setzlichen Bestimmungen die vorschriftsmäßig an- und ab-

gemeldet.

Im Sommer semester 1912.

Systematische Anatomie des Menschen II.

a) Nervensystem bei Prof.Dr.Graf v.Spee.

Chemisches Praktikum für Mediziner bei Prof.Dr.
Harries.

Kurze Übersicht über anorganische und organische Chemie bei

Prof.Dr.Feist.

Muskelphysiologie bei Prof.Dr.Bethe.

Hinsichtlich

Hinsichtlich seines Verhaltens auf der hiesigen Universität ist Nachteiliges nicht zu bemerken.

Gegeben unter meiner des zeitigen Rektors Unterschrift und unter Beidrückung des Universitätssiegels.

Kiel, den 22 August 1912.

I.V.

Hagen.

Werner

Universitäts-Sekretär.

Gebühren 6 M.

Bestellt am
1 August 1912.

An Kollegienhonoraren sind dem Herrn .... gestundet .... M, worüber derselbe den vorschriftsmäßigen Revers ausgestellt hat.

Der Schuldner ist verpflichtet, vor Ablauf von 6 Jahren nach seinem Abgange von dieser Universität der Honorarienkredit-Verwaltung oder dem Rektor von seinem Aufenthalt Nachricht zu geben.

Diejenige Behörde, bei welcher Anstellung oder Niederlassung des Herrn .... erfolgt, ~~wird~~ ersucht, in Gemäßheit der Zirkularverordnung vom 21. Oktober 1826 und der Zirkularverordnung vom 30. August 1879 dem Rektor davon Mitteilung zu machen.

QVOD FELIX FAVSTVMQVE SIT

VNIVERSITATIS LITTERARIAE FRIDERICAE GVILELMAE

RECTORE MAGNIFICO

REINOLDO SEEBERG

THEOLOGIAE DOCTORE NEC NON IVRIS VTRIVSQVE ET PHILOSOPHIAE HONORIS CAVSA DOCTORE IN HAC VNIVERSITATE PROFESSORE PVBLICO ORDINARIO AVGVSTISSIMO BORVSSORVM REGI AB INTIMIS CONSISTORII CONSILIIS SOCIETATIS LITTERARIAE GOTTINGENSIS SOCIO EPISTVLARI ORDINE CRVCIS FERREAE IN SECVNDA CLASSE ALBO NIGRO IN VINCVLO CRVCEQVE PRO BELLI ADMINICVLIS PRAEBITA DECORATO ORDINIS REGII AQVILAE RVBRAE IN QVARTA CLASSE ORDINISQVE REGII CORONAE IN TERTIA CLASSE EQVITE

EX DECRETO GRATIOSI MEDICORVM ORDINIS

PROMOTOR LEGITIME CONSTITVTVS

GVILELMVS HIS

MEDICINAE ET CHIRVRGIAE DOCTOR IN HAC VNIVERSITATE PROFESSOR PVBLICVS ORDINARIVS REGI A CONSILIIS MEDICIS INTIMIS CLINICI MEDICI IN REGIO CARITATIS NOSOCOMIO DIRECTOR ORDINIS CRVCIS FERREAE IN PRIMA ET SECVNDA CLASSE ORDINVM REGIORVM ET AQVILAE RVBRAE ET CORONAE IN TERTIA CLASSE MVLTORVMQVE ALIORVM ORDINVM A GERMANARVM NATIONVM PRINCIPIBVS MANDATORVM EQVES

FACVLTATIS MEDICAE H. T. DECANVS

VIRO CLARISSIMO

ERNESTO MVELLER

ET

DISSERTATIONEM LAVDABILEM LINGVA GERMANICA SCRIPTAM

INSCRIPTAM

ÜBER DIE TORSION DES SAMENSTRANGS

AVCTORITATE ORDINIS EDIDIT

DOCTORIS MEDICINAE

IMMVNITATES ET PRIVILEGIA ORNAMENTA ET HONORES

DIE XVII. M. IANVARII A. MDCCCCXIX

RITE CONTVLIT

COLLATAQVE

PVBLICO HOC DIPLOMATE

MEDICORVM ORDINIS OBSIGNATIONE COMPROBATO

DECLARAVIT

Uebereinstehende Urkundschrift des Rektors der Universität Berlin wird hiedurch beglaubigt.

Berlin, den 7. Dezember 1933

Der Preußische Minister für Wissenschaft, Kunst und Volksbildung.
Im Auftrage.
Dr Zunckel

II/E 28 Ztg.

Siegel

Gehen zur Beglaubigung der vorstehenden Unterschrift.
Berlin, den 15. November 1933
Das Auswärtige Amt
des Deutschen Reiches.
Im Auftrag
Remitz
Remitz.

LS

BEROLINI
TYPIS EXPRESSIT ARTHVRVS SCHOLEM

Vorstehende Unterschrift des Herrn Dekan der Medizinischen Fakultät, Herrn Medizinalrat Professor Dr Nis, vollzogen.
Berlin, den 6. November 1933.
Der Rektor.
der Friedrich-Wilhelms-Universität
Siegel. Fenkner.

Vorstehende Abschrift stimmt mit der Urschrift überein.

Berlin, den 20. November 1933

PREUSS. AMTSGERICHT BERLIN

Bremer Justizinspektor
als Urkundsbeamter der Geschäftsstelle des
Amtsgerichts Berlin-Mitte, Abteilung 96.

3,60 RMark Kosten sind bezahlt

8.- RM sind als Gerichtskosten entrichtet.
Nägel, Justizobersekretär

vorseitige
Die ~~vorstehende~~ Unterschrift des Justiz-
inspektors Brennecke
Urkundsbeamten der Geschäftsstelle des
Amtsgerichts in Berlin wird
hiermit beglaubigt.
Berlin, den 20. November 1933.
Der Amtsgerichtspräsident.

DER PRÄSIDENT DES PREUSSISCHEN ... BERLIN

Gesehen zur Beglaubigung der
vorstehenden Unterschrift.
Berlin, den 21. November 1933.
Das Auswärtige Amt
des Deutschen Reichs.
Im Auftrag:
Reimke

(Back of Document)

QVOD FELIX FAVSTVMQVE SIT

VNIVERSITATIS LITTERARIAE FRIDERICAE GVILELMAE

RECTORE MAGNIFICO

REINOLDO SEEBERG

THEOLOGIAE DOCTORE NEC NON IVRIS VTRIVSQVE ET PHILOSOPHIAE HONORIS CAVSA DOCTORE IN HAC VNIVERSITATE PROFESSORE PVBLICO ORDINARIO AVGVSTISSIMO BORVSSORVM REGI AB INTIMIS CONSISTORII CONSILIIS SOCIETATIS LITTERARIAE GOTHORGENSIS SOCIO EPISTVLARI ORDINE CRVCIS FERREAE IN SECVNDA CLASSE ALBO NIGRO IN VINCVLO CRVCEQVE PRO BELLI ADMINICVLIS PRAEBITA DECORATO ORDINIS REGII AQVILAE RVBRAE IN QVARTA CLASSE ORDINISQVE REGII CORONAE IN TERTIA CLASSE EQVITE

EX DECRETO GRATIOSI MEDICORVM ORDINIS

PROMOTOR LEGITIME CONSTITVTVS

GVILELMVS HIS

MEDICINAE ET CHIRVRGIAE DOCTOR IN HAC VNIVERSITATE PROFESSOR PVBLICVS ORDINARIVS REGI A CONSILIIS MEDICIS INTIMIS CLINICI MEDICI IN REGIO CARITATIS NOSOCOMIO DIRECTOR ORDINIS CRVCIS FERREAE IN PRIMA ET SECVNDA CLASSE ORDINVM REGIORVM ET AQVILAE RVBRAE ET CORONAE IN TERTIA CLASSE MVLTORVMQVE ALIORVM ORDINVM A GERMANARVM NATIONVM PRINCIPIBVS MANDATORVM EQVES

FACVLTATIS MEDICAE H. T. DECANVS

VIRO CLARISSIMO

ERNESTO MVELLER

HASSO-NASSOVIENSI

POSTQVAM COLLOQVIVM SVSTINVIT

ET

DISSERTATIONEM LAVDABILEM LINGVA GERMANICA SCRIPTAM

INSCRIPTAM

ÜBER DIE TORSION DES SAMENSTRANGS

AVCTORITATE ORDINIS EDIDIT

DOCTORIS MEDICINAE

IMMVNITATES ET PRIVILEGIA ORNAMENTA ET HONORES

DIE XVII. M. IANVARII A. MDCCCCXIX

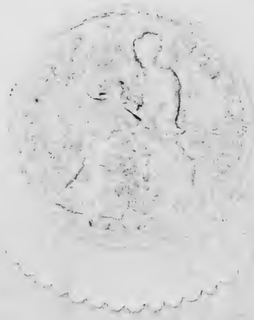
RITE CONTVLIT

COLLATAQVE

PVBLICO HOC DIPLOMATE

MEDICORVM ORDINIS OBSIGNATIONE COMPROBATO

DECLARAVIT



BEROLINI

TYPIS EXPRESSIT ARTHVRVS SCHOLEM

Nebenstehende Unterschrift des Rektors der Universität Berlin wird hierdurch beglaubigt.
Berlin, den 9. November 1933

Der Preußische Minister für
Wissenschaft, Kunst und Volksbildung
Im Auftrage
Dr. Zunkel

II. 28 919

Gesehen zur Beglaubigung der vor stehenden Unterschrift.
Berlin, den 15. November 1933.
Das Auswärtige Amt
des Deutschen Reichs.
Im Auftrag:
Reimke

Vorstehende Unterschrift ist von dem derzeitigen Dekan der Medizinischen Fakultät, Herrn Geheimen Medizinalrat Professor Dr. His, vollzogen.
Berlin, den 6. November 1933.
Der Rektor
der Friedrich-Wilhelms-Universität

His

Unterschrift

QVOD FELIX FAVSTVMQVE SIT

AVSPICIIS ET AVCTORITATE AVGVSTISSIMI AC POTENTISSIMI DOMINI

GVILELMI II.

IMPERATORIS GERMANORVM BORVSSIAE REGIS

RECTORE

ALBRECHTO PENCK

PHILOSOPHIAE DOCTORE ET ORDINIS PHILOSOPHORUM PROFESSORE PVBL. ORD.

Ernst Müller
Hasso-Nassoviensis

Studiosus med.

data dextra iurisiurandi loco legibus magistratibusque academicis fidem oboedientiam reverentiam pollicitus numero civium Vniversitatis Fridericae Guilelmae Berolinensis legitime adscriptus est. Cuius rei testes hasce litteras sigillo Vniversitatis munitas et Rectoris manu subscriptas accepit.

D. Berolini d. XXII. mens. XI. anni MDCCCCXVII.

Penck

099

Verzeichnis der Vorlesungen.

Semester	Benennung der Vorlesungen	Dozent
W.S.1912/13	Präparierübungen II.Kurs	Dr.Schultze
	Physiologie	„ von Frey
	Zoologie	„ Boveri
	Topographische Anatomie	„ Sobotta
	Anatomisches Repetitorium	„ Lubosch
	Physiologische Chemie	„ Ackermann
S.S.1913	Physiologie	„ von Frey
	Topographische Anatomie	„ Sobotta
	Physiologische Übungen	„ von Frey
	Zoologie	„ Boveri
	Mikroskopischer Kurs	„ Schultze

Semester	Benennung der Vorlesungen	Dozent

Nr. 945.

Königlich Bayerische

Julius-Maximilians-Universität
WÜRZBURG.

Abgangs-Zeugnis.

Herr Curt Müller aus Schmalkalden
geboren zu Schmalkalden
ist von 18. Oktober 1912 bis heute
als Studierender der
Medizin
an der hiesigen Universität immatrikuliert und auf die
im Lehrplan vorgeschriebenen Vorlesungen ordnungsmäßig in
Physik gewesen
Hinsichtlich seiner Führung während dieser Zeit ist
Nachteiliges nicht bekannt geworden

Zur Bestätigung dessen ist dieses Zeugnis unter dem Siegel
der Universität ausgefertigt und von dem derzeitigen Rektor
und dem Universitäts-Syndikus eigenhändig unterzeichnet
worden.

Würzburg, den 18. August 1913.

Universitäts-Rektor:
Prof. Dr. J. Hahn.

Universitäts-Syndikus:
v. A.

Gebühr 4 M.

QUOD BONUM FORTUNATUMQUE ESSE IUBEAT
DEUS OPTIMUS MAXIMUS
REGNANTE
AUGUSTISSIMO AC POTENTISSIMO REGE AC DOMINO
DOMINO
OTTONE
REGE BAVARIAE
SUB SERENISSIMO ET POTENTISSIMO DOMINO
DOMINO
LUITPOLDO
PRINCIPE BAVARIAE REGIO
REGNI BAVARIAE PROCURATORE
CORAM
ALMAE HUIUS REGIAE UNIVERSITATIS
RECTORE MAGNIFICO
GEORGIO DE SCHANZ
DOCTORE RERUM POLITICARUM PROFESSORE ORDINARIO OECONOMIAE PUBLICAE CONSILIARIO REGNI BAVARIAE
EQUITE ORDINIS CORONAE BAVARICAE ET ORDINIS S. MICHAELIS CL. III.

Ernestus Müller Schmalkaldensis

STUDIOSUS *medicinae*

DEXTRA FIDEQUE DATA
IN LEGES MAGISTRATUSQUE ACADEMICOS OBSEQUIUM PIETATEM REVERENTIAM POLLICITUS
EQUES HONESTATEM VITAE MORUMQUE DILIGENTER ESSE SECTATURUM PROUT INGENUUM DECET AC LIBERALEM IUVENEM
NUMERO CIVIUM ACADEMIAE JULIO-MAXIMILIANAE LEGITIME ADSCRIPTUS
TESTES EIUS REI HASCE LITERAS SIGILLO UNIVERSITATIS MUNITAS
MANUQUE RECTORIS SUBSCRIPTAS ACCEPIT.

WIRCEBURGI DIE XXIX MENSIS *Aprilis* ANNI MDCCCCXI.

SIGILLUM UNIVERSITATIS HERBIPOLENSIS 15 83

Dr. Gg. Schanz

Ernst Mueller Collection

Addenda: Ernst Mueller Collection AR 10006 addenda
A22/4

AR 10006
Ernst Mueller Collection
Folder 2

Ernst Mueller Collection
AR 10006 A22/4

has acknowledgement been sent
to donor : Liselotte Kahn,
same address ?

Officers of the Society

President
RUDOLF NISSEN
116 East 58th Street

Vice-President
JOSEPH BERBERICH

Recording Secretary
LOTHAR KALINOWSKY

Corresponding Secretary
WALTER M. FURST
121 East 61st Street

Assistant Secretary
HELEN O. CURTH

Treasurer
ARON GOLDSCHMIDT
12 East 88th Street

Assistant Treasurer
ERNEST GOLD

Archivist-Historian
FELIX JACOBI

Committee on Admission
CHARLES GOTTLIEB
ARTHUR ISRAEL OSCAR ULRICH

Program Committee
W. V. BERGER HANS R. SIELMAN
ARTHUR SONNENFELD

Publishing Committee
FRANZ GROEDEL BRUNO KISCH
MAX MILLER

Legal Counsel
ALBERT HIRST, Esq.
51 Chambers Street

Rudolf Virchow Medical Society

in the City of New York

Founded 1860
Incorporated 1867

New York Academy of Medicine Building
Fifth Avenue at 103rd Street

Telephone, Atwater 9 – 4700

Regular Monthly Meeting

Monday, January 6th, 1947

8:30 P.M. sharp

I. Executive Session.

Report of the outgoing President.

II. Scientific Session.

a) Demonstration:

Ernest Mylller—Problems in the Therapy of Sterility. (10 min.)

b) Papers of the Evening:

1. *Ernest Gold* — Surgical Treatment of Hyperparathyroidism. (20 min.)
2. *Alexandra Adler*—Neuroses in Childhood. (20 min.)

III. Executive Session.

IV. Collation.

Recommended for Election:

Louis Adler, 61 West 74th Street

Joshua Breuer, 851 West 181st Street

Aladar Farkas, 133 East 58th Street

Kurt F. Fraenkel, 270 Fort Washington Avenue

Hilde Lachmann Mosse, 108-25 72nd Avenue, Forest Hills, L. I.

Herman Moses, 262 West 107th Street

Ludwig Schwarzschild, 514 West End Avenue

Henry Leonhard Wittner, 200 Central Park South

Applied for Membership

See enclosed List

The Commonwealth of Massachusetts

BOARD OF REGISTRATION IN MEDICINE

STATE HOUSE, BOSTON

APPLICATION AND FEE RECEIVED

ADMIT APPLICANT, NUMBER 19208, TO

EXAMINATION AT 9.30 A.M., MAR 10 11 12 13 1942

IN THE AUDITORIUM, STATE HOUSE, BOSTON.

N. B.—BRING FOUNTAIN PEN
ADMISSION CARD AND NUMBERED
PHOTOGRAPH.

H. Quimby Gallupe, M. D.
SECRETARY.

2m—(b)-1-41-4796

1m (a)—9-41—7327

19208

Cert. No. 19439

The Commonwealth of Massachusetts

BOARD OF REGISTRATION IN MEDICINE
STATE HOUSE

TEMPORARY CERTIFICATE

BOSTON, MAY 21 1942

Ernest Muller

having been examined on MAR 13 1942, and found qualified by this Board, has been registered as a qualified physician, as provided by the laws of the Commonwealth.

This certificate must be exchanged for an engrossed certificate within one year as it will become void at the expiration of that time. When the engrossed certificate is ready, word will be sent to you from this office that the exchange can be made.

F R Mahoney
Chairman

W. L. Gallupe
Secretary

Mrs. Ely Jacques Kahn
1185 Park Avenue
New York, NY 10128

W. Gerard Shyller's
wife was Liselotte
Shyller-Kahn. Her
"memoirs" are in the
archives of the Leo
Baeck library.

New York, Sept. 12, 1995
Liselotte Kahn.

ORTHO RESEARCH FOUNDATION
RARITAN, NEW JERSEY

May 5, 1953

Dr. I. C. Rubin
911 Park Avenue
New York, N. Y.

Dear Doctor Rubin:

We are enclosing two copies of your paper as corrected to the best of our knowledge. Possibly Dr. Myller would like one of these.

May we take this opportunity of thanking you for your painstaking efforts on behalf of Salpix?

We have sent a large amount of Salpix out and are having very favorable comments.

Kindest regards,

Sincerely,

R. V. Chapple, M. D.

Director of Clinical Research

R. V. Chapple, M. D.
s
encl.

I'll be in to see you soon
Carl Hartman

BOTH TUBES PATENT

new

radiologically superior

excellent visualization
simplified technique

nonirritating and nontoxic

painless
no damage to tissues
systemically safe

water-soluble and absorbable

no danger of oil embolization
no radiopaque residue
no foreign body granulomata

BOTH TUBES OCCLUDED

LEFT TUBE OCCLUDED.

Salpix

CONTRAST MEDIUM

Ortho

Ortho Pharmaceutical Corporation

for safer hysterosalpingography

Salpix™

CONTRAST MEDIUM

Salpix contrast medium makes available for the first time for hysterosalpingography a radiopaque substance that

1. **is nonirritating**
2. **is painless**
3. **leaves no radiopaque residue**
4. **permits adequate visualization of the uterus and tubes *safely***

Although long proposed as an extremely valuable diagnostic procedure,[1] hysterosalpingography has not met with general acceptance because of the pathological and morbid sequelae so frequently found with the use of hitherto available contrast media.[2-6]

Neither the "interrupted fractional injection" technique proposed by Hyams[7] nor the 24-hour postinjection film, common with iodized oils, is necessary with Salpix contrast medium.

Salpix contrast medium combines the blood extender polyvinylpyrrolidone[8] with sodium acetrizoate. P.V.P. is stable,[9] nonantigenic and possesses certain characteristics similar to human serum albumin[10] which assert a protective action diverting excretion of toxic dyes and other toxins through the kidney rather than the liver.[11] Sodium acetrizoate contains 65.8% iodine per molecule of the compound and thus possesses a high degree of radiopacity. It is water-soluble,[12] stable, and does not release any free iodine.

methods of use

hysterosalpingography

Standard gynecological procedures are followed, with the important exception that 24-hour postinjection films, common with iodized oils, are not necessary[13] following the use of Salpix contrast medium because of its ability to pass through the finest tubal lumen.

as an aid to diagnosis of uterine pathology

Rubin[14] observed that diagnosis of uterine pathology is greatly aided if excess Salpix contrast medium is withdrawn from the uterus via the introducing cannula. This is due to the property which Salpix contrast medium possesses of coating the uterine wall with a fine film of the radiopaque medium.

indications for hysterosalpingography

1. Determination of tubal patency.
2. Mechanical release of tubal obstruction.
3. Diagnosis of malformations of the uterus or fallopian tubes.
4. Postoperative visualization of tubal plastic surgery.
5. A diagnostic procedure as an aid in the detection of uterine and tubal pathology.

contraindications to hysterosalpingography

1. Presence of severe vaginal or cervical infections.
2. Existing or recent pelvic infection.
3. Pregnancy.

Salpix T.M.

CONTRAST MEDIUM

for safer hysterosalpingography

available

Package of 6 individual rubber-capped sterile vials,
each vial filled to deliver 6 cc. Salpix contrast medium.

bibliography

1. Rubin, I. C.: Röntgendiagnostik der Uterustumoren mit Hilfe von Intrauterinen Collargolinjektionen, Zentralbl. f. Gynäk. *38*:658, 1914.
2. Wharton, L. R.: Gynecology with a Section on Female Urology, Philadelphia, W. B. Saunders Company, 1943.
3. Bloomfield, A.: Six Cases of Venous Intravasation following Intrauterine Lipiodol Injection, J. Obst. & Gynaec. Brit. Emp. *53*:345, 1946.
4. Brown, W. E.; Jennings, A. F., and Bradbury, J. T.: The Absorption of Radiopaque Substances Used in Hysterosalpingography, Am. J. Obst. & Gynec. *58*:1041, 1949.
5. Eisen, D., and Goldstein, J.: Lipiodol Intravasation during Uterosalpingography with Pulmonary Complications, Radiology *45*:603, 1945.
6. Holm Nielsln, P.: Injuries Caused by Hysterosalpingography, Acta obst. et gynec. Scandinav. *26*:565, 1946.
7. Hyams, M. N.: Uterosalpingography by Interrupted Fractional Injections, Surg., Gynec. & Obst. *60*:224, 1935.
8. Reppe, W.; Schuster, C., and Hartman, A.: Polymeric N-Vinyl Lactams and Process of Producing Same. Bibliographical list published by General Aniline & Film Corporation, New York, March, 1951.
9. Schildknecht, C. E.; Kinney, P. W., Stecker, M. L.: Periston Type Polyvinylpyrrolidone: Report on Physical Properties, P B Report 96884, Office of Technical Services, United States Department of Commerce.
10. Bennhold, H., and Schubert, R.: Investigation of the Possible "Vehicle Function" of the Plasma Substitute Periston, Ztschr. f. d. ges. exper. Med. *113*:722, 1944.
11. Schubert, R.; New Method for Detoxication by Infusion of Low Molecular Fractions of Kollidon: Preliminary Report, Deutsche med. Wchnschr. *73*:551, 1948.
12. Neuhaus, D. R.; Christman, A. A., and Lewis, H. B.: Biochemical Studies on Urokon (sodium 2,4,6-triiodo-3-acetylaminobenzoate), a New Pyelographic Medium, J. Lab. & Clin. Med. *35*:43, 1950.
13. Rubin, I. C.; Myller, E., and Hartman, C. G.: Salpix: A New Approach to the Ideal Radiopaque Medium for Uterosalpingography, Fertil. & Steril., in press.
14. Rubin, I. C.: Personal communication.

Ortho

Ortho Pharmaceutical Corporation

Raritan, New Jersey

L-126

Printed in U.S.A.

SALPIX

by

Drs. I. C. Rubin, E. Myller, C. G. Hartman

Salpix: A New Approach to the Ideal X-ray Opaque Medium for Uterosalpingography

I. C. Rubin, M.D., F.A.C.S., Ernest Myller, M.D. and Carl G. Hartman, Ph.D.

Ever since the first attempts were made to visualize the uterine cavity (hysterography) and the lumen of the fallopian tubes (salpingography) by means of intrauterine collargol injection reported independently by Wm. H. Cary and I. C. Rubin in 1914, many improvements have been advocated. Beginning with different solutions containing halogen salts [Rubin (24); Kennedy, (11a, 11b)] there followed the development of iodized oils, of which Lipiodol is representative of the entire group of substances combining iodine with oils of various kinds. Lipiodol was first proposed by Sicard and Forestier (37) for general use and by Heuser (10) for application in gynecology (3, 8, 13, 14, 32, 35, 36, 40).

When the organic iodine-containing compounds such as Uroselectan, Hippuran and Diodrast were developed for urological x-ray diagnosis, many gynecologists soon adopted these in their original form or in some modification thereof (11, 12, 16, 23, 30). The newer contrast media combine a water-soluble organic iodine compound with a vehicle to enhance the viscosity. Among these combinations may be mentioned Skiodan combined with acacia and Rayopaque with polyvinyl alcohol; most recently carboxymethyl-cellulose and dextran have been employed to increase the viscosity in this manner, the last-named especially in Sweden and Switzerland. These contrast media have all had the same objective; namely, to avoid leaving oil residue in the female genital tract.

Iodized oils have been employed many times by two of the present authors until the deleterious effects of the oils were discovered in 1927 (25, 26). The harmful results of iodized oil combinations as used in the investigation of sterility may be summarized as follows:

1) Retention in obstructed fallopian tubes. If the tubes have been non-patulous, no apparent damage is suffered by the patient. If, however, the tubes have been partially patent, the iodized oil is trapped by virtue of its viscosity, its very slow absorption and failure to mix with the tubal secretions. Retained for varying lengths of time within the constricted lumen, the oil may, and actually does, set up a foreign body reaction leading to granuloma formation and complete tubal obstruction. The first observation of such oil retention in the fallopian tubes was reported by Rubin in 1927 (25) and published in 1928 (26). Other reports of tubal irritation soon followed (Ries (22); Novak (18, 19); Rubin (27, 31, 32).

2) Multiple cyst formation. A second undesirable sequel of the intrauterine injection of iodized oil is the long periods of time that spillage into the peritoneal cavity remain (4, 7, 17, 31, 32), setting up multiple cyst formations, which it is well to avoid even though such peritoneal reaction may not interfere with conception.

Many gynecologists do not favor, or are unenthusiastic concerning, the use of iodized oil for salpingography, fearing injury to the cilia.

3) Oil embolism. Of less frequent occurrence (1), but more serious when it occurs, is the intravasation of iodized oil into the uterine veins and thence into the systemic circulation (1, 2, 6, 21, 42). Also to be reckoned with is the introduction of the oil into the myometrium, especially in cases of adenomyosis where the iodized oil remains for a long time, with or without inciting inflammatory processes.

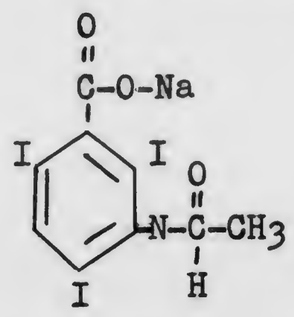
These clinical and pathological observations have led to renewed efforts at making available an x-ray opaque substance which has the following properties: 1) it should be dense enough to cast clean shadows; 2) it should pass through the fallopian tubes slowly enough

to be filmed; 3) it should be sufficiently viscous so that strictures of the tubal lumen may be accurately visualized; 4) and finally the material injected should be resorbed within a few hours, leaving no trace behind, either in the tubes or in the peritoneal cavity, yet offering the possibility of making a complete and positive diagnosis in a relatively short time. In this connection the now well-known fact need hardly be mentioned that when iodized oils are used, a 24-hour film is indispensable to establish tubal non-patency or high-grade tubal strictures.

The four criteria have been fully met in Salpix.

Description

The present paper deals with an x-ray opaque medium, Salpix, which is a combination of a solution of polyvinylpyrrolidone (PVP), basis of a well-known blood extender, to which has been added Sodium Acetrizoate ~~(Mallinckrodt)~~. The widely used blood substitute PVP (9) has been selected as a suitable agent to impart to the acetrizoate, a compound of high x-ray opacity, the needed viscostiy and tissue adhesiveness. Sodium Acetrizoate has a high iodine content (65.8%) as may be seen from the following formula:



Chemically this compound is described as sodium 3-acetylamino-2-4-6-triiodobenzoate.

Salpix is an amber colored mixture. Its viscosity at 37°C is approximately 200 centipoise. It contains 54% Sodium Acetrizoate. It is stable on storage at 50°C for 6 months, and will permit autoclaving

without loss of its desirable properties. It is subjected to the usual controls for sterility and pyrogenicity.

Historic Note

It is of interest to recall that the first trials with uterine injection of x-ray opaque substances were made upon the human female on purely empirical grounds. Cary's first injections of Collargol were made without prior animal experimentation and Rubin had made only anatomical studies and injections of Collargol in the rabbit before applying the method clinically. Soon after, in preparation of the clinical use of oxygen insufflation through the uterus, Rubin injected the dog's vein with an amount of oxygen equal to that recommended for the clinical diagnosis of tubal patency.

In retrospect there is no doubt that the new venture was concerned only with the anatomical feasibility and the physical realizability of the x-ray opaque agent. Untoward effects were only appreciated after some clinical trial with various substances employed in hysterosalpingography.

This early empirical method has since been abandoned and replaced by scientific experimental controls which were instituted for example in the case of viscorayopaque (Rayopaque). This substance appeared to satisfy the desiderata of viscosity as well as non-residue, but proved to have irritant action, in many cases for some minutes and occasionally longer. As the manufacture of this product was discontinued, the opportunity proferred by the Ortho Research Foundation was welcomed to develop another x-ray opaque substance having the same desirable principles of Rayopaque minus its disadvantages. The blood substitute polyvinylpyrrolidone as the viscosity-rendering vehicle for the organic iodine component acetrizoate has been subjected to modern experimental controls to determine their desirability for clinical trial

as follows:

The Question of Toxicity of PVP and ~~Hyalon~~ Sodium Acetrizoate

Since the non-toxicity of each component of Salpix has been amply demonstrated (9, 12), and it might have been assumed that the combination of the two to be also non-toxic, nevertheless this was not taken for granted. Special tests were therefore made to study this new contrast medium, Salpix, for possible irritation and toxicity. These tests consisted of injecting it into monkeys, rabbits, dogs and rats, intravenously, intraperitoneally by direct abdominal puncture and by way of the uterus, also subcutaneously and by gavage. The tests are presented in outline as follows:

Summary of Experiments with Monkeys

Thirty experiments were made on 13 monkeys; of these animals two were used 4 times; two 3 times; four twice and 8 but once. In all experiments x-ray films were taken.

Three monkeys received each 5 cc. of Salpix intravenously; none showed the slightest reaction or symptom. In 5 experiments the uterus was entered and injected from below by the techniques of Rubin and Morse (29); 6 times the uterus was injected successfully from without, i.e. through the abdominal wall, because the approach from below is sometimes extremely difficult. Three times a laparotomy was done and the uterus injected. Nine intraperitoneal injections were made to test toxicity and rate of absorption. In 4, the vagina only was injected. None of the 13 monkeys showed the least sign of irritation or toxicity.

Absence of Toxicity in Dogs and Rabbits

A dog was injected subcutaneously with 5 cc. of Salpix. At autopsy the next day, no sign of irritation was discernable at the injected

area. Another dog received subcutaneously 2 cc. of Salpix in each of these regions: right and left scapula and right and left gluteal regions; no reaction was noted. A third dog licked the site of injection of 5 cc. of Salpix from time to time for about an hour, otherwise showing no symptoms.

Four rabbits injected with 5 cc. of Salpix intravenously showed no symptoms of discomfort or irritation whatever. A fifth rabbit was treated as follows: 5 cc. of Salpix was injected intravenously; 5 minutes later, the right renal pelvis and ureter and left renal pelvis were visualized on the x-ray film; the liver was mottled, the lobules being outlined. After 30 minutes there were the same findings, much material showing in the bladder. In 50 minutes, both ureters were visualized, the bladder seen to be dilated and full of Salpix. In 80 minutes another intravascular injection of 2.5 cc. of Salpix was made. The findings were the same as before. No symptoms appeared.

Rate of Absorption of Salpix

After intravenous injection of 5 cc. in rabbits the material was visible only in the bladder one hour later.

After intravenous injection in monkeys:

No. 29 - 1/18/52 - 5 cc. - In one hour all Salpix in bladder.

No. 26 - 1/23/52 - Same in 75 minutes.

After intraperitoneal injection in monkeys (3 to 5 cc.):

No. 2 - 1/18/52 - 3 cc. - In one hour, none in body cavity, all in bladder.

No. 11 - 1/28/52 - 5 cc. - Same as #2.

No. 8 - 1/29/52 - 5 cc. - In one hour faint streaks of Salpix appeared in abdominal cavity, bladder shadow showing large filling.

No. 30 - 2/5/52 - 3 cc. - In 80 minutes all in bladder. In 24 hours none left in bladder.

No. 8 - 2/5/52 - 3 cc. - In 30 minutes none visible in abdomen, bladder filled with Salpix. In 23 hours, none anywhere.

Injection of uterus of monkeys (3 cc.):

No. 21 - 11/19/51 - In 90 minutes slight residue in uterus, most in bladder.

No. 8 - 1/28/52 - Uterus filled, spillage through tube into body cavity. In one hour abdominal cavity clear, uterine outline good, much Salpix in bladder.

No. 20 - 2/5/52 - 3 cc. by mistake into pelvis; then 2.3 cc. into uterus. In 24 hours no Salpix left anywhere.

No. 24 - 2/5/52 - 3 cc. injected into uterus, with escape into peritoneal cavity through oviduct. In 2 hours all absorbed from abdominal cavity. In 24 hours all Salpix had disappeared from body.

No. 21 - 3/7/52 - Uterus injected. Escape into peritoneal cavity. In 30 minutes uterine lumen well outlined, no Salpix visible in body cavity.

Summary of Toxicity Experiments

The observations derived from animal experiments with Salpix may be summarized as follows:

1) After intravenous injection, Salpix rapidly leaves the blood stream via the kidneys. It remains in the uterine lumen of the monkey up to one or two hours for reasons stated below, but spillage into the peritoneal cavity is eliminated within an hour.

2) The longer retention of Salpix in the monkey uterus as compared with the human uterus requires a note of explanation. In the macaque species there is in the region of the cervix uteri a colliculus which pushes the cervical lumen dorsally, like a ball valve, rendering the already narrow passage circuitous and the emptying of the uterus more difficult. It is apparent, too, that because of the obstructing colliculus, insertion of a cannula from below is practically impossible

without surgery. The surgical technique to overcome the cervical obstruction to a uterine cannula was developed by Rubin and Morse (29). It consists of cutting through the lateral cervix walls and bypassing the colliculus. By pulling apart the cervical lips, the uterine cannula can then be directly inserted into the uterus and injection successfully accomplished. That the colliculus blocks the discharge of uterine contents has been repeatedly observed by one of the authors (C.G.H.) who noted that the monkey uterus is much slower to expel its contents (a small dead embryo, for example) than is the case in the human being. In a few clinical cases with cervical stenosis Salpix was retained within the uterus for about a half-hour before it was evacuated.

3) As Salpix can safely be injected intravenously, its accidental entry into the blood stream during and after uterosalpingography is unattended or followed by harmful results which are, unfortunately, sometimes noted after intravasation of oil into the uterine vein causing fat embolism.

Clinical Observations and Evaluation

Salpix has been employed by the senior author in uterotubal injection on over 350 patients. The clinical use of Salpix has in his hands been more satisfactory than that of previously available opaque substances. Practically none of the patients experienced the mild to severe abdominal pain which attends or follows injection of iodized oils and solutions of organic iodine compounds hitherto used, including Rayopaque. It has been a pleasant experience to see the patients leave the office without the slightest discomfort after injection of Salpix. When other iodated compounds were used it was necessary to premedicate the patients because many complained of pelvic pains and

other signs of peritoneal irritation lasting from a few minutes sometimes to a few hours. Although no permanent sequellae were noted after other water soluble contrast media, the immediate reaction after injection was a disadvantage that needed to be overcome.

These observations have raised the question of what accounts for the absence of subjective discomfort after Salpix. The explanation appears to be the following: Schubert (34) has shown that PVP reduces toxicity of various compounds. In the case of toxic dyes, he observes PVP serves to work the dyes out of blood plasma and tissues and to divert them from the liver to the kidneys, hence hastening their excretion, thus acting much like human albumin binding. The virtual non-existence of toxicity of Salpix may be due to the protective action of PVP as well as to its rapid absorption and excretion -- rapid enough to reduce irritation; slow enough to enable the examining physician to make a conclusive diagnosis of intrauterine lesions and of tubal patency or non-patency. It is also true that sodium acetrizoate is stable and gives off no free iodine, which would, of course, cause peritoneal irritation.

Hysterosalpingography has been employed to determine radiographically the proximal first point of tubal obstruction in cases which were previously demonstrated by uterotubal insufflation to have non-patent tubes and where surgical restoration was contemplated. In this connection it should again be emphasized what has been called attention to many times before by the senior author that for the determination of tubal patency, non-patency and partial patency, reliance may be placed first and foremost upon uterotubal insufflation. For those who prefer to resort to hysterosalpingography as a method of diagnosing tubal patency, the use of Salpix serves to reduce the hazards

and sequellae of x-ray opaque fluids to a minimum. That is the chief virtue of this new medium. It is taken for granted that the physician employing Salpix, like many other similar contrast media, will have familiarized himself with the interpretation of the radiographic pictures, the details of which cannot be entered into here.*

Although the major interest in Salpix is its usefulness in detecting important intrauterine lesions such as polypi, submucous myomas, and cervical strictures as well as in pre- and post-menopausal periods, the presence of endometrial carcinoma, this new contrast medium, Salpix, demonstrates at least as well as any of the iodized oils hitherto extensively employed for hysterosalpingography without sharing their disadvantages (32). These conditions have become well known, thanks to innumerable reports from all parts of the world. What is not appreciated is the value of routine hysterography as a preoperative diagnostic measure in myomectomy and even more importantly in the diagnosis of endometrial carcinoma. The former will presently be discussed in a forthcoming monograph; the latter was first suggested in a discussion of Sheffey's paper on malignancy subsequent to irradiation of the uterus for benign conditions at the 1942 meeting of the American Gynecological Society and has recently been the subject of a special communication at the Congress at Morocco in April 1952. Since then, several cases have been encountered, one of which is recorded herewith.

---

* For the reader who desires detailed information on this particular subject, reference may be made to a volume on UTEROTUBAL INSUFFLATION, published in 1947. UTEROTUBAL INSUFFLATION by I. C. Rubin. Published by C. V. Mosby Co., St. Louis, 1947.

Case Report: Mrs. E. G., 43 years old, a nullipara and nulligravida consulted one of the present authors (I.C.R.) November 14, 1952, with the complaint of bleeding on and off for the past year, after a two-year period of amenorrhea, which she considered to be her menopause. On physical examination, her uterus was found not to be appreciably enlarged, but a small amount of dark somewhat clotted blood escaped at the cervix. Several days later, when she was not bleeding, a hysterogram showed many small irregular filling defects along the right border of the uterine cavity and especially abundant in the lower uterine segment (Fig. 1). The picture was strongly suggestive of carcinoma, but a positive diagnosis could not be made on account of the possible presence of blood clots. A suction endometrial biopsy was, therefore, done immediately following the hysterogram. The material submitted was hydrolized. A second endometrial biopsy was reported as carcinoma. The patient was operated upon by Mr. V. B. Green-Armytage in London, England, December 12, 1952. A total hysterectomy with bilateral salpingoophorectomy was done for endometrial carcinoma (Fig 2).

Of especial interest in this case is that two vaginal smears taken in New York City and examined at a cancer detection center were reported negative and third vaginal smear taken in London was also reported negative. Furthermore, as the first endometrial biopsy was not conclusive, a second one was insisted upon because of the appearance of the hysterogram. The value of x-ray visualization with Salpix in this particular case needs no further comment except to emphasize the fact that by its aid the entire configuration of the uterine cavity is visualized and not only those areas which happen to be within the range of the suction curet.

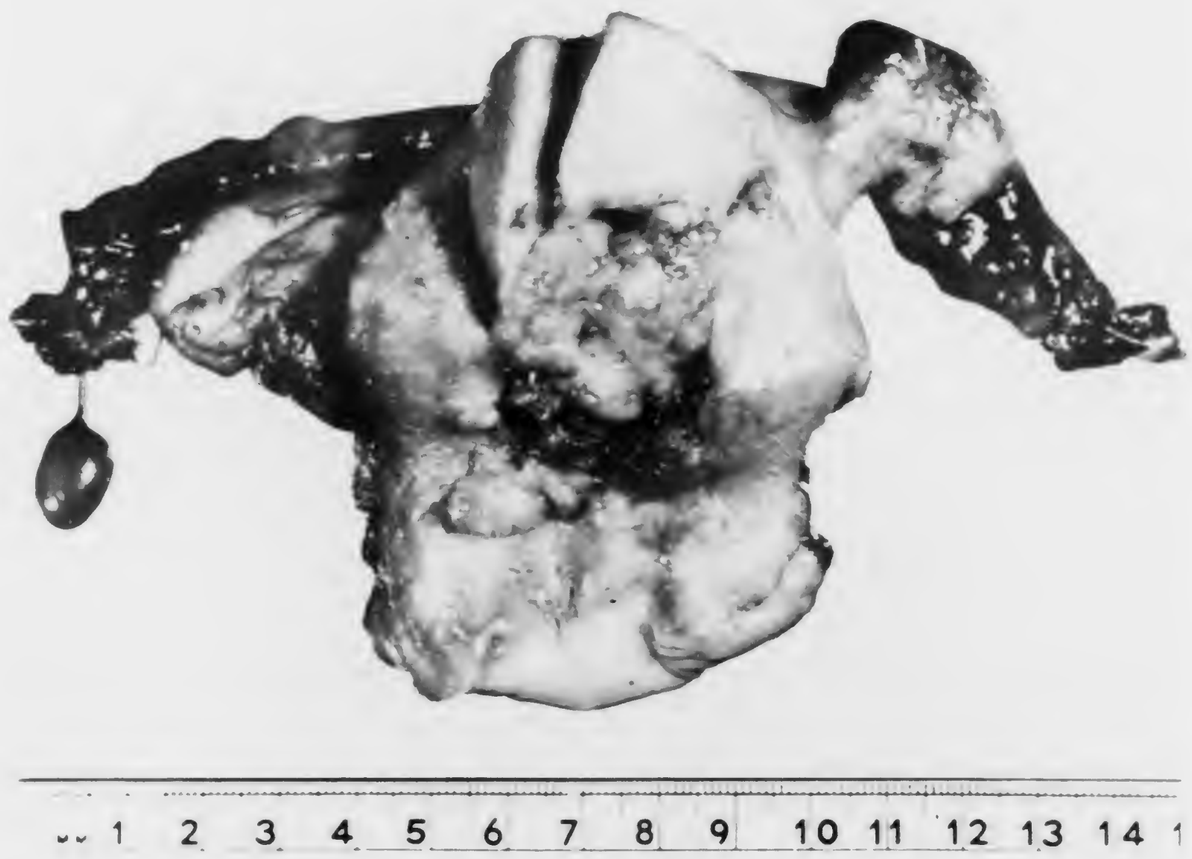
Summary

A new water soluble x-ray opaque medium has been described composed of polyvinylpyrrolidone (PVP) with Sodium Acetrizoate and designated Salpix.* This has the desired properties of radiopacity and viscosity -- which are best suited for hysterosalpingography. Sharing the advantages of iodized oils and none of their disadvantages, this new contrast medium is also superior to the other water soluble combinations of iodine with viscosity-increasing substances because its use is unattended or followed by pelvic irritation. Salpix possesses perfect tolerability. A special advantage over iodized oils is the possibility of diagnosing tubal obstruction from one x-ray exposure, avoiding the expense and inconvenience to the patient of a second exposure within 24 hours as is necessary where iodized oil is used. Another advantage is that within one or at most two hours it is absorbed, leaving no trace thereafter, in contrast to iodized oils which are frequently trapped at constricted points in the tubal lumen, hence causing foreign body granuloma and total obstruction where only partial and remediable obstruction was present before the hysterosalpingograph. Adequate experimental evidence and clinical experience in over 350 cases in which Salpix was used have demonstrated its nearest approach to the ideal x-ray contrast medium for use in hysterography per se and for hysterosalpingography.

* Developed by the Ortho Research Foundation, Raritan, N. J.

Figure 1

Figure 2



Bibliography

1) Bank, J., Complications of hysterosalpingography, Acta Obstet. et Gynec. Scand. 29:383-399, 1950.

2) Bloomfield, Alice, Six cases of venous intravasation following intrauterine Lipiodol injections, J. Obstet. & Gynaec. Brit. Empire, 53:345-346, 1946.

3) Brandt, P. and J. Dubois, Conclusion d'une serie de 200 hysterosalpingraphies practiques pour sterilité, Bull. Soc. Gynéc. et Obstét. 1949. I. p.349.

4) Brown, Willis E., Agnes F. Jennings and J. T. Bradbury, The absorption of radiopaque substances in hysterosalpingography, Am. J. Obstet. & Gynec., 58:1041-1052, 1949.

5) Cary, W. H., Note on determination of patency of fallopian tubes by the use of collargol and the x-ray shadow, Am. J. Obstet. 69:462-464, 1914.

6) Eiser, D. and J. Goldstein, Lipiodol intravasation during uterosalpingography, Radiology, 45:603, 1945.

7) Finkbeiner, Hans, Hysterosalpingography with oil or watersoluble contrast media, D. med. Wchnschr., 77:1627-1630, 1952.

8) Frazier, C. H., The use of iodized rapeseed oil (campiodol) for roentgenographic exploration, Am. Surg., 89:801, 1929.

9) General Aniline and Film Corp. P.V.P. (Polyvinylpyrrolidone) (Book) New York, 1954.

10) Heuser, C., Lipiodol in the diagnosis of pregnancy, Lancet, 2:4, 1925; Brit. J. Radiology 31:110, 1926.

11) Jefferiss, Derek, Hysterosalpingography employing a watersoluble contrast medium, J. Obstet. & Gynec. Brit. Empire, 55:271, 1940.

11a) Kennedy, W. T., A method of keeping fallopian tubes open, Am. J. Obstet. & Gynec., 3:607, 1922.

11b) Kennedy, W. T., Radiography of closed fallopian tubes, Am. J. Obstet, & Gynec., 6:12, 1923.

12) Mallinckrodt Chemical Works, "Professional Information", Sterile Solution Uroken Sodium 30% and Uroken Sodium 70%, Copyright 1952.

13) Mathieu, Albert, Hysterosalpingography by means of iodized rapeseed oil, Am. J. Surg., 14:634-636, 1931.

14) Mathieu, Albert, Lipiodol as a diagnostic aid in fibromata of female genital tract, Am. J. Surg., 6:720, 1929.

15) Morse, A. H. and I. C. Rubin, The pharmacodynamic effects of certain oxytocics upon tubal contractions in the rhesus monkey, Surg. Gynec. & Obstet., 71:620-623, Nov. 1940.

16) Neuhaus, Dorothy, Adam J. Christman and Howard B. Lewis, Evaluation of some iodine-containing organic compounds as x-ray contrast media, Proc. Soc. Exp. Biol. Med., 78:313-317, 1951.

17) Nielsen, Pool Holm, Injuries caused by hysterosalpingography, Acta Obstet. & Gynec. Scand., 26:265,1946.

18) Novak, J., Salpingographie oder Tubendurchblasung, Zbl. f. Gynak., 54:3013, 1930.

19) Novak, J., Salpingographie und Tubendurchblasung, Zbl. f. Gynäk, 55:1449-1450, 1931.

20) Palmer, Allan, Lipiodol "F" for use in hysterosalpingography, Fert. & Steril., 3:210-216, May-June, 1952.

21) Platt, Arnold, Intravasation of Lipiodol during uterosalpingography, Ohio Med. J., 43:821, 1947.

22) Ries, E., Effect of Lipiodol injection on the tubes, Am. J. Obstet. & Gynec., 17:728, 1929.

23) Robecchi, E. and A. Tetti, The use of water-soluble viscous contrast media for hysterosalpingography, Minerva ginéc., 4:147-153, 1952; Abst. in J. Obstet. & Gynec. Brit. Emp. 59:#1564, p.917, Dec. 1952.

24) Rubin, I. C., Roentgen diagnosis of tumor with the aid of intrauterine collargol injections, Zbl. f. Gynak., 38:658-660, 1914.

25) Rubin, I. C., Thirteenth Meeting of the Radiological Soc. of North Am., Dec. 1, 1927.

26) Rubin, I. C., Diagnostic use of intrauterine iodized oil injection combined with the x-rays as compared to peruterine carbon dioxide insufflation, Radiology, 11:115, 1928.

27) Rubin, I. C., Subphrenic collection of Lipiodol following injection into the fallopian tube. With observations on reverse gravitation of pelvic exudates and the genito-phrenic syndrome in women, Am. J. Obstet. & Gynec., 31:230, 1936.

28) Rubin, I. C., Retention of Lipiodol in fallopian tubes with special reference to acclusive effect in cases of permeable stricture, N. Y. State J. Med., 36:1089, 1936.

29) Rubin, I. C. and A. H. Morse, Comparative value of radiopaque substances used in uterosalpingography, Am. J. Roentgenology, 41:527, 1939.

30) Rubin, I. C., Use of soluble x-ray opaque media in gynecology, Med. Rec. 152:212-216, 1940.

31) Rubin, I. C., Discussion to Lewis C. Scheffey's paper: Malignancy subsequent to irradiation of the uterus for benign conditions. Trans-Am. Gynec. Soc., 67:313, 1942.

32) Rubin, I. C., Uterotubal insufflation, Mosby, St. Louis, 1947.

33) Rubin, I. C., Comparison of carbon dioxide and opaque media in the diagnosis of tubal patency, Fert. and Sterility, 3:179, 1952.

34) Schubert, René, Neüe Wege der Entgiftung durch Infusion niedermolekularen Kollidonfraktionen, D. Med. Wchnschr., 73:551-553, 1948.

35) Seymour, Frances I., The importance of diagnostic uterosalpingography in gynecology, Med. Woman's J., Sept. 1939.

36) Seymour, Frances I., A simple method of tubal insufflation treatment for sterility, Med. Woman's J., May 3, 1938.

37) Sicard, J. A. and J. Forestier, Iodized oil as contrast medium in radioscopy, Bull. et mém Soc. méd d hôp de Paris, 46:463, 1922.

38) Sicard, J. A. and D'Oran Solal, Accidents consecutifs au injection intrauterine de Lipiodol, Bull. et Mém. Soc. Nat. de Chir., 54:1423, 1928.

39) Weir, William C. and David R. Weir, Therapeutic value of salpingograms in infertility, Fert. & Sterility, 2:514, 1951.

40) Weisman, Abner I., Incidence of residual intraperitoneal iodochlorol after hysterosalpingography, Fert. & Sterility, 3:290, 1952.

41) White, Margaret Moore, Errors in technique and interpretation of hysterosalpingography and tubal insufflation, J. Obstet. & Gynaec. Brit. Emp., 58:573-582, 1951.

42) Williams, E. R., Venous intravasation during uterosalpingography, Brit. J. Radiology, 17:13, 1944.

Program

FIRST WORLD CONGRESS
ON
FERTILITY AND STERILITY

HENRY HUDSON HOTEL

NEW YORK CITY

MAY 25-31, 1953

I.F.A.

THE AMERICAN SOCIETY FOR THE STUDY OF STERILITY 19 44

SPONSORED BY

The International Fertility Association

and

The American Society for the Study of Sterility

Program

FIRST WORLD CONGRESS
ON
FERTILITY AND STERILITY

HENRY HUDSON HOTEL

NEW YORK CITY

MAY 25-31, 1953

I.F.A.

SPONSORED BY

The International Fertility Association

and

The American Society for the Study of Sterility

OFFICERS

American Society for the Study of Sterility

President, Irving F. Stein
Vice-President, John O. Haman
Secretary, Walter W. Williams
Treasurer, Carl Johnson
Ass't Secretary, Herbert H. Thomas

Directors

M. Edward Davis
S. Leon Israel
Lewis Michelson
W. T. Pommerenke
Somers H. Sturgis
B. Bernard Weinstein

OFFICERS

International Fertility Association

President, B. Bernard Weinstein
Vice-President, A. Campos da Paz Jr.
Secretary-General, Carlos D. Guerrero
Assoc. Sec'y General, Abner I. Weisman
and
Honorary and Active Vice-Presidents
National Secretaries of each Nation

CONGRESS COMMITTEES

PROGRAM COMMITTEE
Co-Chairmen:
A. Campos da Paz, Jr., Rio de Janeiro, Brazil.
S. Leon Israel, Philadelphia, Pa.
Sub-Chairman:
M. G. Fincher, Ithaca, N. Y.

COMMITTEE ON ARRANGEMENTS
Chairman:
Abner I. Weisman, New York, N. Y.
Chairmen of Subcommittees:
Banquet: John O. Haman, San Francisco, Calif.
Scientific Exhibits: Charles M. McLane, New York, N. Y.
Clinics in New York: Clair E. Folsome, New York, N. Y.; Abraham Stone, New York, N. Y.
Reception: Samuel L. Siegler, Brooklyn, N. Y.
Welcome: J. P. Greenhill, Chicago, Ill.
Registration: Carl Johnson, New Haven, Conn.; Herbert Thomas, Birmingham, Ala.
Motion Pictures: Daniel B. Roth, Teaneck, N. J.
Public Relations: Somers H. Sturgis, Boston, Mass.
Inaugural: A. Campos da Paz, Jr., Rio de Janeiro, Brazil.
Information: Walter W. Williams, Springfield, Mass.
Language Interpretation: Rita S. Finkler, Newark, N. J.
Women Physicians: Sophia J. Kleegman, New York, N. Y.
Latin-American Night: Aberlardo Salas G., Monterrey, Mexico
Physicians' Wives: Mrs. Martin L. Stone, New York, N. Y.
Chief Interpreter: Mrs. Dolores Dove, New York, N. Y.

LIAISON COMMITTEE
Chairman:
W. T. Pommerenke, Rochester, N. Y.

WORLD CONGRESS COMMITTEE OF THE I.F.A. AND A.S.S.S.
B. Bernard Weinstein, New Orleans, La., *President,* I.F.A.
Irving F. Stein, Chicago, Ill., *President,* A.S.S.S.
Carlos D. Guerrero, Mexico, D.F., *Secretary-General,* I.F.A.
Walter W. Williams, Springfield, Mass., *Secretary,* A.S.S.S.

CONTINENTAL COMMITTEE
Henri Bayle, Paris, France, representing Europe.
W. T. Pommerenke, Rochester, N. Y., representing North America.
Edmundo Murray, Buenos Aires, Argentina representing South America.
Samuel Rozin, Jerusalem, Israel, representing Asia.
Bryan C. Murless, Durban, South Africa, representing Africa.
H. Pellew, Adelaide, Australia, representing Australia.

THE FIRST WORLD CONGRESS ON FERTILITY AND STERILITY

It was with a good deal of doubt and misgivings that a small group of men gathered together in a room in the Gloria Hotel in Rio de Janeiro, Brazil, and agreed that an international meeting on fertility and sterility should be held in New York City during the last week of May, 1953. They realized that their embryonic society was without funds, that the world had not been organized in the field of fertility and sterility, and that language barriers were sure to cause trouble. Yet, on October 18, 1951, these men had a vision. They simply knew that, come May, 1953, the world leaders in fertility and sterility would get to New York somehow. They knew that the First World Congress on Fertility and Sterility just had to come soon—and why not as soon as was possible? Why delay?

The organizing committee of the International Fertility Association got underway and elicited the aid of the American Society for the Study of Sterility. The latter organization, though still young and toddling, at least had some 200 members at the time. The planning, thinking and activities of the two societies merged for the Congress. Things had to be done—and done fast. They had but a year and a half to plan for a world-wide meeting.

All the struggles, heartaches and sleepless nights due to uncertainties have come and gone. The First World Congress on Fertility and Sterility is an accomplished fact. Now, we no longer need hold our breath—the success of the Congress is certain.

Never before in history have so many world leaders in reproduction gathered together under one roof. Never before has any such equally ambitious program been planned for a First International Meeting. Actually, the Congress will hear 189 reports from investigators from every corner of the earth. Discussors number in the hundreds. And, never before, for any specialty international meeting on reproduction have almost a thousand scientists registered and paid for their reservations *in advance!*

We have made mistakes—the Congress will have its flaws—our planning could have been improved in spots—but in the final analysis, we know that you will have been pleased to be a part of this first history-making congress.

We are happy to have been of service to our fellow colleagues of the world and to the people of the world.

The Organizing Committee
A. Campos da Paz, *Rio de Janeiro*
S. Leon Israel, *Philadelphia*
Abner I. Weisman, *New York City*

SPECIAL RECEPTION FOR DISTINGUISHED INTERNATIONAL GUESTS

Latin—American Night
(La Noche Latino-Americana)

BALLROOM—HENRY HUDSON HOTEL
New York City

Sunday, May 24, 1953, 8:30 P.M.

tendered by the members of the

AMERICAN SOCIETY FOR THE STUDY OF STERILITY

and the

INTERNATIONAL FERTILITY ASSOCIATION

GUEST—CHAIRMAN, ABELARDO SALAS G., M.D.
Monterrey, Mexico

Dress—Typical Native Costume
(Latin American)

By Invitation

Music by Maurice Wolfsie and his Latin-American orchestra

SPONSORED BY
SCHERING CORPORATION

Program

FIRST WORLD CONGRESS ON FERTILITY AND STERILITY

A Congress combining the sessions of the First Congress of the International Fertility Association and the Ninth Annual Meeting of the American Society for the Study of Sterility.

Monday Afternoon — May 25, 1953

2:00 P.M. — Ballroom (Room A)

THE PRE-INAUGURAL SESSION

Introductory Remarks:

ABNER I. WEISMAN, Chairman of Arrangements Committee of the Congress

2:05 P.M. — Ballroom (Room A)

Section I—"THE REASON FOR THE CONGRESS —AND THE CHALLENGE"

Note

The age-old problem of infertility, a problem affecting the welfare of civilization, is being vigorously studied in all corners of the world. The need to assemble students of the subject, at both research and clinical levels, led to the formation of this First World Congress on Fertility and Sterility. In sifting the application for papers to be presented to the Congress, the Program Committee realized that it would be impossible to discuss the entire body of knowledge concerning fertility involving, as it does, many cross-disciplines. Aware of the fact that the primary aim of the First World Congress is the correlation of all technics and therapies available to the infertile couple, the Program Committee could not include papers devoted to related aspects of the topic which, arising in the natural and social sciences, affect birth rates and national populations.

For this reason, certain of the more important sociologic and demographic viewpoints—challenging indeed, but not part of the Congress proper—are presented in this Pre-Inaugural Section. The challenges presented today warrant thought and consideration.

A. Campos da Paz Jr.
S. Leon Israel
Co-Chairmen,
Program Committee of the Congress

Honorary Chairman: AXEL WESTMAN, Professor of Obstetrics and Gynecology and Director of the Department of Women's Diseases, Caroline Institute, Stockholm, Sweden

Chairman: S. LEON ISRAEL, Philadelphia, Pa., U.S.A.

Vice-Chairmen: SANTIAGO DEXEUS FONT, Barcelona, Spain
MANUEL MATEOS FOURNIER, Mexico, D.F.
LUTHERO VARGAS, Rio de Janeiro, Brazil

Honorary Secretary: HERBERT CHASE SOSA, Asuncion, Paraguay

Secretary: HERBERT H. THOMAS, Birmingham, Alabama, U. S. A.

---

1. Early Ideas Regarding Infertility
   ALAN F. GUTTMACHER, Obstetrician and Gynecologist to the Mount Sinai Hospital, New York, N. Y.
2. The Limits of the Earth
   FAIRFIELD OSBORN, President of The Conservation Foundation and of The New York Zoological Society, New York, N. Y.
3. Medico-social Problems and Infertility
   ARNALDO de MORAES, Professor, Department of Gynecology, University of Brazil, Rio de Janeiro, Brazil
   Discussants: FERNANDEZ DE ALMEIDA, Lisbon, Portugal
   SANTIAGO DEXEUS FONT, Barcelona, Spain
   FRED A. SIMMONS, Boston, Mass., U. S. A.
   L. I. SWAAB, Amsterdam, Netherlands
4. Fertility Problems in the World Today
   ABRAHAM STONE, Director of the Margaret Sanger Research Bureau, New York, N. Y.
   Discussant: CLYDE V. KISER, Milbank Memorial Foundation, New York, N. Y.
5. Lethal Genes as a Factor in Fertility
   ROBERT C. COOK, Managing Editor, The Journal of Heredity, Washington, D. C.
   Discussants: VIRGILIO FERREIRA DA COSTA, Rio de Janeiro, Brazil
   FRANZ J. KALLMANN, New York, N. Y.
6. Horizons Unlimited: Problems of Infertile Couples, World Population Pressures and the Physiology of Reproduction
   S. R. M. REYNOLDS, Department of Embryology, Carnegie Institution of Washington, Baltimore, Md., U. S. A.
   Discussants: ALFREDO LOPEZ DE NAVA, Mexico, D.F.
   EDWIN M. ROBERTSON, Kingston, Ontario, Canada

FIRST WORLD CONGRESS ON FERTILITY AND STERILITY

THE INAUGURAL SESSION OF THE CONGRESS

BALLROOM—HENRY HUDSON HOTEL
NEW YORK CITY

Monday, May 25, 1953, 8:30 P.M.

SPONSORED BY

THE INTERNATIONAL FERTILITY ASSOCIATION
THE AMERICAN SOCIETY FOR THE STUDY OF STERILITY

Chairman, Dr. A. Campos da Paz Jr.
Rio de Janeiro, Brazil

Addresses of Welcome:

Dr. Irving F. Stein, *President,*
The American Society for the Study of Sterility

Dr. B. Bernard Weinstein, *President,*
The International Fertility Association

Dr. Walter W. Williams, *Secretary,*
The American Society for the Study of Sterility

Dr. Carlos D. Guerrero, *Secretary-General,*
The International Fertility Association

Order of Business:

The Roll Call of NATIONS

The Roll Call of OFFICIAL SCIENTIFIC REPRESENTATIVES

The Roll Call of NATIONAL SECRETARIES of the IFA

PURPOSE, AIMS AND RESOLUTIONS OF THE CONGRESS

OFFICIAL PROGRAM

FIRST WORLD CONGRESS ON FERTILITY AND STERILITY

Tuesday Morning, May 26, 1953, 8:30 A.M.

Section II—"CLINICAL ASPECTS OF OVARIAN PHYSIOLOGY"

(Ballroom—Room A)

Honoray Chairman: JUAN CARLOS AHUMADA, Titular Professor of Gynecology, University of Buenos Aires; Chief of the Gynecology Service, Hospital of Clinicas, Buenos Aires, Argentina

Chairman: ERNST NAVRATIL, Graz, Austria

Vice-Chairmen: FERNANDO DE ALMEIDA, Lisbon, Portugal
B. BELONOSCHKIN, Stockholm, Sweden
AMERICO STABILE, Montevideo, Uruguay

Honorary Secretary: OSCAR AGUERO, Caracas, Venezuela

Secretary: HERMAN I. KANTOR, Dallas, Texas, U. S. A.

---

1. The Value of Vaginal Smears in Sterility
   INES L. C. DE ALLENDE, Chief of the Endocrinology Division, Mercedes and Martín Ferreyra Institute of Medical Investigation, Córdoba, Argentina
   Discussants: AMELIA ERNST, Santiago, Chile
   DIB GEBARA, Rio de Janeiro, Brazil
   EPHRAIM SHORR, New York, N. Y.
2. Hypertrophy of the Theca Cells and Sterility
   AXEL WESTMAN, Professor of Obstetrics and Gynecology and Director of the Department of Women's Diseases, Caroline Institute, Stockholm, Sweden
   Discussant: CARL G. HARTMAN, Raritan, N. J., U. S. A.
3. Time of Ovulation in the Menstrual Cycle
   PABLO E. BORRAS, Ex-Professor of Gynecology in the Litoral University and Chief of the Gynecology Service of the Spanish Hospital, Rosario, Argentina
   and
   RAFAEL M. PINEDA, Assistant Chief of the Gynecology Service of the Spanish Hospital, Rosario, Argentina
   Discussants: PER BERGMAN, Malmo, Sweden
   CARL G. HARTMAN, Raritan, N. J., U. S. A.
   A. WOLF NETTO, Rio de Janeiro, Brazil
4. Ovulation Timing
   HERMANN KNAUSS, Head of the Department of Gynecology and Obstetrics in Wien-Lainz, Vienna, Austria

5. Ovulation at or Near the Menopause
   ALBERT SHARMAN, Consulting Obstetrician and Gynecologist, Royal Samaritan Hospital for Women; Lecturer, Clinical Gynecology, University of Glasgow, Glasgow, Scotland

6. The Incidence of Ovulation After Ectopic Pregnancy as Determined by Endometrial Biopsy
   ALVIN M. SIEGLER, From the Department of Obstetrics and Gynecology, State University of New York at New York City, College of Medicine; and Kings County Hospital, Brooklyn, New York

7. Conception During the Safe Period
   CARLOS COLMEIRO-LAFORET, Gynecologist and Ostetrician to the Vigo Hospital, Vigo, Spain

8. Induced Ovulation and Studies on Superfetation in Pregnant Rabbits
   M. SAN MARTIN, Chief of the Joint Laboratory of Genetics and Reproduction, National University of San Marcos, Lima, Peru

8:30 A.M.

Section III—"CLINICAL ASPECTS OF SPERMATOGENESIS"

(Tudor Room—Room B)

Honorary Chairman: EDUARDO CASTRO, Clinical Professor of Urology, National University of Mexico, Chief Urologist Juárez and Spanish Hospitals, Mexico, D.F.

Chairman: FRED A. SIMMONS, Boston, Mass., U. S. A.

Vice-Chairmen: RAYMOND CROSS, Dublin, Ireland
LEOPOLDO E. LOPEZ, Caracas, Venezuela
JAMES K. L. CHOY, Topeka, Kansas, U. S. A.

Honorary Secretary: ROBERT S. HOTCHKISS, New York, N. Y.

Secretary: PAUL L. GETZOFF, New Orleans, La., U. S. A.

---

1. Aspects and Prospects of Quantitative Studies on Spermatogenesis
   EDWARD C. ROOSEN-RUNGE, Department of Anatomy, University of Washington School of Medicine, Seattle, Washington, U. S. A.
   Discussants: WILLIAM H. MASTERS, St. Louis, Missouri, U. S. A.
   FRANCISCO VALDES DE VALLINA, Mexico, D.F.

2. The Endocrine Control of Spermatogenesis
   EARL T. ENGLE, Professor of Anatomy, Columbia University, College of Physicians and Surgeons, New York, N. Y.
   Discussants: THALES MARTIN, Rio de Janeiro, Brazil
   R. MORICARD, Paris, France
   WARREN O. NELSON, Iowa City, Iowa, U. S. A.

3. Pre-adolescent Hypogonadism and Infertility: A Histologic Study of the Maldevelopment
   CHARLES W. CHARNY, Associate in Urology, Albert Einstein Medical Center; Associate in Urology, Hahneman Hospital, Philadelphia, Pa., U. S. A. and ALFRED S. CONSTON and DAVID S. MERANZE, Philadelphia, Pa., U. S. A.
   Discussants: ADIB ANTONIO COURI, Rio de Janeiro, Brazil
   ROBERT VARGAS ZALAZAR, Santiago, Chile
   R. PALMER HOWARD, Oklahoma City, Oklahoma, U.S.A.

4. Occupation and Male Fertility: Relation of Occupation to Lowered Fertility and Infertility
   EDUARDO CASTRO, Clinical Professor of Urology, National University of Mexico, Mexico, D.F.
   Discussants: LEOPOLDO E. LOPEZ, Caracas, Venezuela
   WALTER W. WILLIAMS, Springfield, Mass., U. S. A.

5. Aspermatogenesis in the Guinea Pig Induced by a Single Injection of Homologous Testicular Material Combined with Paraffin Oil and Killed Mycobacteria
   JULES FREUND, M. M. LIPTON and G. E. THOMPSON, Division of Applied Immunology, The Public Health Research Institute of the City of New York, New York, N. Y.

6. The Influence of Orchitis Parotidea on Spermatogenesis
   ERIC NORDLANDER, Lecturer, University, Caroline Institute; Director of Laboratory for Male Fertility Research, Hospital of the Caroline Institute, Stockholm, Sweden

7. Testicular Biopsy in Some Developmental Abnormalities of Puberty
   D. ANDREANI, M. MONICELLI, and C. CONTI, General Medical Clinic of the University of Pisa, Pisa, Italy

8. Study of the Morphological and Histochemical Changes Produced by Estrogens on Adult Human Testes
   FELIPE A. DE LA BALZE, Associate Professor, School of Medicine, University of Buenos Aires, Argentina; and R. E. MANCINI, G. E. BUR, and JUAN IRAZU, of the School of Medicine, University of Buenos Aires, Buenos Aires, Argentina

TUESDAY

8:30 A.M.

Section III-A—"SPECIAL GENERAL SESSION ON STERILITY"

(Terrace Room—Room E)

Honorary Chairman: EDMA ABOUCHDID, Department of Gynecology and Obstetrics, American Hospital, Beirut, Lebanon

Chairman: INES L. C. DE ALLENDE, Cordoba, Argentina

Vice-Chairmen: RONALD M. ALDER, Melbourne, Australia
SAMUEL LETENDRE, Montreal, Canada
LUIS TIRADO VELEZ, Medellin, Colombia

Honorary Secretary: DANIEL TREVINO G., Monterrey, Mexico

Secretary: JOHN M. CANNIS, Plainfield, N. J., U. S. A.

---

1. Investigation of the Married Couple in a Sterility Clinic in Adelaide, Australia
   HENRY EDWIN PELLEW, Hon. Gynecologist at Royal Adelaide Hospital; Hon. Obstetrician at Queen Victoria Maternity Hospital, Adelaide, Australia
2. Simultaneous Recording of Uterine and Tubal Contractility and of Uterotubal Insufflation
   AMERICO STABILE, H. ALVAREZ and R. CALDEYRO-BARCIA, From the Departments of Obstetrics and Gynecology and of Physiology, of the Faculty of Medicine, Montevideo, Uruguay
3. Rebound Phenomen in the Female
   ADIB ANTONIO COURI, Urologist of the Institute of Gynecology, Rio de Janeiro, Brazil
4. Post-Coital Examination of the Vaginal Contents
   LUIS RODRIGUEZ VILLA, Professor of Clinical Pathology in the Graduate School of the National University of Mexico, Mexico, D.F.
5. An Analysis of 475 Basal Temperature Curves in Gynecological Cases in Haiti
   YVONNE Y. G. SYLVAIN, Hospital of St. Francis De Sales, Port-Au-Prince, Haiti
6. Sterility and Functional Anovulatory Metrorrhagia Improved by Diathermic Coagulation of the Endometrium
   SERGIO FUENSALIDA, University of Chile, Santiago, Chile

7. The Value of Electro-Uterography in Infertility Cases
   KURT SOKOL, Bremen, Germany
8. Frequency of Anovulatory Cycles in the Peruvian Woman Complaining of Sterility
   JORGE ASCENZO C., Chief of the Consultorio-Service of Sterility in the Lozada Clinic, Lima, Peru
   — Consecutive Translation During this Session —

1:30 P.M.

Section IV—"FACTORS INFLUENCING SPERM-EGG UNION"

(Ballroom—Room A)

Honorary Chairman: R. MORICARD, Director of the Hormone Laboratory of the School of Special Studies, and of the Laboratory of the Gynecological Clinic of the Faculty of Medicine, Paris, France

Chairman: WILLIAM H. PERLOFF, Philadelphia, Pa., U. S. A.

Vice-Chairmen: EDMA ABOUCHDID, Beirut, Lebanon
RODOLFO ARROYO LLANO, Monterrey, Mexico
MAXIMILO TERRAN VALLS, San Jose, Costa Rica

Honorary Secretary: J. LAMBILLON, Leopoldville, Belgian Congo

Secretary: MELVIN R. COHEN, Chicago, Ill., U. S. A.

---

1. A Possible Role of Follicular Fluid in Human Fertility and Infertility
   RAPHAEL KURZROK, LEO WILSON, both of the Morrisania City Hospital, and CHARLES H. BIRNBERG, Brooklyn Jewish Hospital, New York, N. Y.
   Discussants: P. M. F. BISHOP, London, England
   KARL BURGER, Murzburg, Germany
   EDMOND J. FARRIS, Philadelphia, Pa., U. S. A.

2. Further Studies of the Potential Oxide-Reduction in Tubal Fecondation; Applications to Sterility by the Study of the Reduction of Methylene Blue by Human Spermatozoa
   RENE MORICARD, Director of the Hormone Laboratory of the School of Special Studies; and Director of the Laboratory of the Gynecological Clinic of the Faculty of Medicine, Paris, France
   Discussants: W. T. POMMERENKE, Rochester, N. Y., U. S. A.
   G. HELLINGA, Amsterdam, Netherlands

3. Peritoneal Factor in Sterility
   EDMUNDO G. MURRAY, Docente Libre in Gynecology, University of Buenos Aires; President of the Argentine Society for the Study of Sterility, Buenos Aires, Argentina
   Discussants: AFRANIO A. MATOS, Rio de Janeiro, Brazil
   IRVING F. STEIN, Chicago, Ill., U. S. A.
   DELFINO GALLO, Guadalajara, Mexico

4. Spermigration in the Female Genital Tract
   EDUARDO BUNSTER M., Professor of Gynecology, University of Chile; Chairman of the Chilean Obstetrical and Gynecological Society; and CARLOS LUND, and RENATO BENEZET, both of the Gynecological Section of the Hospital del Salvador, Santiago, Chile

3:45 P.M.

Section V—"ENDOCRINE FACTORS"

(Ballroom—Room A)

Honorary Chairman: SUBODH MITRA, Professor-in-charge, Department of Obstetrics and Gynecology, R. G. Kar Medical College; Director of the Chittaranjan Cancer Hospital, Calcutta, India

Chairman: E. C. HAMBLEN, Durham, N. C., U. S. A.

Vice-Chairmen: JOSEPH G. ASHERMAN, Tel-Aviv, Israel
MAURICIO TEICHHOLZ, Rio de Janeiro, Brazil
G. TESAURO, Naples, Italy

Honorary Secretary: KANJI KIKA, Sendai, Japan

Secretary: IRVING I. KURLAND, Brooklyn, N. Y., U. S. A.

---

1. Influence of Vitamin E on the Placenta
   B. S. TEN BERGE and RICHARD POLAK, Department of Gynecology and Obstetrics, State University, Groningen, Netherlands
   Discussants: U. J. SALMON, New York, N. Y.
   EVAN V. SHUTE, London, Canada

2. The Value of Hormone-Analysis in Male and Female Sterility
   L. I. SWAAB, Leader of Central Sterility Clinic of N.V.S.H.; Consulting Gynecologist, C.I.Z. Hospital, Amsterdam, Netherlands

3. Artificial endometrial cycles in the Ovariectomized Woman: Criteria of Relative Estrogenic Excess
   JACQUES FERIN, Lecturer at the University of Louvain, Louvain, Belgium

4. Congenital Sexual Anomalies
   W. O. THOMPSON, Clinical Professor of Medicine, University of Illinois College of Medicine, Chicago, Ill., U. S. A.

5. Observations on the Incidence of Congenital Anomalies and Their Prevention
   EVAN B. SHUTE, Medical Director of the Shute Institute, London, Canada
6. The Role of the Prostate Gland in Hormone Stimulation
   JOSE ALVAREZ LLERENA, Department of Urology, Mexico, D.F.
7. Contribution to the Treatment of Sterility by Hormonal Pelvic Vaccination
   ARMANDO NASCIMIENTO, JR., Rio de Janeiro, Brazil

We are grateful to the International Business Machines Co., for their very kind cooperation and their generosity in making available the hearing devices.

1:30 P.M.

Section VI—"PATTERNS AND EVALUATION OF SEMEN"

(Tudor Room—Room B)

Honorary Chairman: WALTER W. WILLIAMS, Clinical Geneticist, Springfield Hospital, Springfield, Mass.; Secretary, American Society for the Study of Sterility, Springfield, Mass., U. S. A.

Chairman: CHARLES W. CHARNY, Philadelphia, Pa., U. S. A.

Vice-Chairmen: ERIC NORDLANDER, Stockholm, Sweden
SERIF CANGA, Ankara, Turkey
BASIL MAROULIS, Athens, Greece

Honorary Secretary: LUIS RODRIGUEZ VILLA, Mexico, D.F.

Secretary: ARTHUR A. ROTH, Cleveland, Ohio, U. S. A.

---

1. An Analysis of Human Male Fertility
   JOHN MACLEOD, Associate Professor of Anatomy, Cornell University Medical College, New York, N. Y.
   Discussant: EDUARDO CASTRO, Mexico, D.F.
2. Fluctuating Male Fertility
   RAYMOND G. CROSS, Physician in Charge, Infertility Clinic, Rotunda Hospital; Gynecologist, Bon Secour Hospital, Dublin, Ireland
   Discussants: CHARLES W. CHARNY, Philadelphia, Pa., U. S. A.
   RUY GOYANNA, Rio de Janeiro, Brazil
3. Electronmicroscopy of Human Spermatozoa
   MEYER D. SCHNALL, Gynecology Department, Mount Sinai Hospital, New York, N. Y.
   Discussant: RICHARDT H. HAMMEN, Copenhagen, Denmark
4. The Value of Urethrography in the Study of Male Fertility and Sterility
   M. LEOPOLD BRODNY, Urologist to the Fertility Clinic of Beth Israel Hospital, Boston, Mass., U. S. A.
   Discussant: OCTACILIO GUALBERTO, Rio de Janeiro, Brazil
5. Evaluation of Different Seminal Patterns: their Relation to Clinical and Laboratory Data; their Significance with Regard to Therapy
   G. HELLINGA, Endocrinologist of the Ned. Herv. Diaconessen Inrichting, Amsterdam, Netherlands

6. Hyaluronidase in Sterility
   MICHEL TURPAULT, Vice-President of the French Gynecological Society, Paris, France
7. The Differentiation Between Lack of Motility and Necrospermia in Human Spermatozoa; Relation to Fertility
   NORBERT KLUEKEN, From the Dermatological Clinic of the University of Cologne, Krefeld, Germany
8. The Enzymatic Aspect of Male Human Fertility
   LOUIS J. CELLA, JR., From the Department of Surgery, Rhode Island Hospital, Providence, Rhode Island, U. S. A.

8:30 P.M.

Section VII—"CLINICAL RECOGNITION OF OVULATION"

(Ballroom—Room A)

Honorary Chairman: H. DE WATTEVILLE, Professor of Gynecology and Obstetrics, Faculty of Medicine of Geneva, Geneva, Switzerland

Chairman: JUAN WOOD, Santiago, Chile

Vice-Chairmen: ERNESTO DE ARAGON, Havana, Cuba
NORMANDO ARENAS, Buenos Aires, Argentina
EVAN V. SHUTE, London, Ontario

Honorary Secretary: ELIPHALET WEIZBARD, Rishon-Le-Zion, Israel

Secretary: LEONARD F. CINER, New York, N. Y.

---

1. Changes in Respiratory Physiology as a Criterion of Ovulation
   W. T. POMMERENKE, R. L. GOODLAND, and J. G. REYNOLDS, University of Rochester School of Medicine and Dentistry, Rochester, N. Y., U. S. A.
   Discussants: CARLOS NOUEL, Caracas, Venezuela
   SOMERS H. STURGIS, Boston, Mass., U. S. A.
   JOSE MEDINA, Sao Paulo, Brazil
   ALICE NETTER LAMBERT, Paris, France
2. Culdoscopy in the Diagnosis of Ovulation and Ovum Migration
   ALBERT DECKER, Clinical Professor of Gynecology and Obstetrics, New York Polyclinic Medical School and Hospital; Associate Clinical Professor of Gynecology and Obstetrics, New York Medical College, New York, N. Y.

Discussants: RAOUL PALMER, Paris, France
JOHN ROCK, Boston, Mass., U. S. A.
MANUEL URRUTIA RUIZ, Mexico, D.F.

3. The Accuracy of Endometrial Dating: A Correlation of Endometrial Dating with Basal Body Temperature and Menses
   ROBERT W. NOYES and JOHN O. HAMAN, From the Department of Obstetrics and Gynecology, Stanford University School of Medicine, San Francisco, Cal., U. S. A.
   Discussants: CHAUNCEY J. PATTEE, Montreal, Canada
   SAMUEL L. SIEGLER, Brooklyn, New York
   ALEJANDRO POU-DE-SANTIAGO, Montevideo, Uruguay
   G. TESAURO, Naples, Italy
4. Hormone Effects on Basal Body Temperatures and Menstrual Patterns
   ROBERT M. PERLMAN, Director, Institute of Endocrinology and Gerontology, San Francisco, Cal., U. S. A.
   Discussants: M. EDWARD DAVIS, Chicago, Ill., U. S. A.
   S. LEON ISRAEL, Philadelphia, Pa., U. S. A.
5. Correlation Between Vaginal Cytology and Basal Temperatures During the Menstrual Cycle
   INES L. C. DE ALLENDE and O. ORIAS, The Mercedes and Martin Ferreyra Institute of Medical Research, Cordoba, Argentina
6. The Value of Basal Temperatures and Colpocyclogram in the Diagnosis of Ovulation
   HECTOR ROCAMORA and F. LEON BLANCO, University of Havana, Havana, Cuba

Visit the Technical Exhibits on the Second Floor

8:30 A.M.

Section VIII—"TREATMENT OF ANOVULATION"
(Ballroom—Room A)

Honorary Chairman: S. R. M. REYNOLDS, Department of Embryology, Carnegie Institution of Washington, Baltimore, Md., U. S. A.

Chairman: SOMERS H. STURGIS, Boston, Mass., U. S. A.

Vice-Chairmen: ZARE ARSLANIAN, Aleppo, Syria
C. L. JHAVERI, Bombay, India
HALIT KAMGOZEN, Ankara, Turkey

Honorary Secretary: LYMAN W. MASON, Denver, Colorado, U. S. A.

Secretary: THOMAS D. EFSTATION, Tiffin, Ohio, U. S. A.

---

1. The Treatment of Female and Male Infertility by X-Ray Therapy
   IRA I. KAPLAN, Clinical Professor of Radiology, N.Y.U.—Bellevue Medical Center, New York, N. Y.
   Discussant: CHARLES MAZER, Philadelphia, Pa., U. S. A.
2. Further Studies on the Hormonal Changes Following Low Dosage Irradiation of Pituitary and Ovaries in Avulatory Women
   ABRAHAM E. RAKOFF, Clinical Professor of Obstetric and Gynecologic Endocrinology, Jefferson Medical College, Philadelphia, Pa., U. S. A.
3. X-Ray Therapy in the Treatment of the Menstrual Anovulatory Cycle
   ADOLFO JASSIN, Chief of Gynecology of the Regional's Institute of Endocrinology, Buenos Aires, Argentina
4. Anovulatory Cycles and Stimulant Roentgentherapy in 100 Peruvian Sterile Couples
   JORGE ASCENZO, Chief of the Sterility Consultorio of the Lozada Clinic of Lima; Assistant Professor and Chief of Clinic of the Maternity School of Lima, Lima, Peru
5. Induction of Ovulation in Hirsute, Amenorrheic Women
   ROBERT G. GREENBLATT, Professor of Endocrinology, Medical College of Georgia, Augusta, Ga., U. S. A.
6. The Gonadotropins in the Treatment of the Anovulatory Cycle
   CESAR A. BREA, Professor of Gynecology, University of Buenos Aires, Buenos Aires, Argentina

8:30 A.M.

Section IX—"MALE THERAPEUTIC ASPECTS"
(Tudor Room—Room B)

Honorary Chairman: LEWIS MICHELSON, Emeritus Associate Professor of Clinical Urology, Stanford University School of Medicine, San Francisco, Cal., U. S. A.

Chairman: M. LEOPOLD BRODNY, Boston, Mass., U. S. A.

Vice-Chairmen: VICTOR CONILL SERRA, Barcelona, Spain
G. HELLINGA, Amsterdam, Netherlands
RICHARDT HAMMEN, Copenhagen, Denmark

Honorary Secretary: M. CARDIA, Lisbon, Portugal

Secretary: LOUIS PORTNOY, New York, N. Y.

---

1. Diagnosis of the Blockage of the Epidiymal Canal, the Vas and Ejaculatory Ducts
   ARMANDO TRABUCCO, Alvear Polyclinic of Buenos Aires, Argentina
   Discussants: VINCENT J. O'CONOR, Chicago, Ill., U. S. A.
   A. FIGUEIREDO BAENA, Rio de Janeiro, Brazil
2. Surgical Correction of Male Sterility
   VINCENT J. O'CONOR, Professor and Head of the Department of Urology, Northwestern University Medical School, Chicago, Ill., U. S. A.
   Discussants: ROBERT S. HOTCHKISS, New York, N. Y.
   LEWIS MICHELSON, San Francisco, California
3. Human Male Sterility due to Brucellosis: A Clinical, Histological and Hormonal Study in 16 Cases
   FELIPE A. DE LA BALZE, Associate Professor, School of Medicine, University of Buenos Aires; and R. E. MANCINI, F. ARRILLAGA, G. E. BUR and E. A. MOLINELLI, of the School of Medicine, University of Buenos Aires, Argentina
4. Therapeutic Experiences in the Treatment of Delayed Male Puberty
   D. ANDREANI, and C. CONTI, Clinica Medica, University of Pisa, Pisa, Italy
5. Testosterone Therapy in Male Infertility: Effect of Local Implantation and Intramuscular Injection
   RICHARDT HAMMEN, Copenhagen, Denmark

6. The End Results of Testosterone Therapy (Rebound Phenomenon) as Observed by the Gynecologist
   MORTIMER S. WEINSTEIN, Clinical Assistant Visiting Gynecologist and Obstetrician, Metropolitan Hospital, New York, N. Y.
7. Incidence of the Male Factor as the Cause of Marital Sterility in Peru
   JORGE ASCENZO, Chief of the Consultorio-Service, Clinica Lozada, Lima, Peru

1:30 P.M.

Section IX-A—"SPECIAL MOTION PICTURE SESSION OF NEW DIAGNOSTIC TECHNIQUES AND TREATMENT"

(Ballroom—Room A)

1:30 P.M.

"RECENT ADVANCES IN DIAGNOSIS AND THERAPY OF INFERTILITY"

(Ballroom Foyers)

An opportunity is offered on this afternoon to visit the scientific exhibits of the Congress at leisure and to discuss particular aspects of each exhibit with demonstrators at the exhibit stands.

1:30 P.M.

"NEW INSTRUMENTS, BOOKS, MEDICAMENTS AND PHARMACEUTICALS IN STERILITY PRACTICE"

(Second Floor Corridors)

An opportunity to visit with the technical exhibitors who are displaying the latest apparatuses, technical aids, drugs and other items related to sterility practice, is provided. It is suggested that adequate time be allotted from your busy schedule at the Congress to visit these technical shows to be informed of the latest advances from the technical aspect of sterility and fertility. These exhibitors have been carefully selected and invited to participate in the Congress, so that you may see, collected together, in a few moments, what would take hours of visiting elsewhere.

8:30 P.M.

Section X—"THE HOSTILE CERVIX"

(Ballroom—Room A)

Honorary Chairman: W. T. POMMERENKE, Associate Professor of Obstetrics and Gynecology, University of Rochester School of Medicine and Dentistry, Rochester, N. Y.; National Secretary for the United States of America to the International Fertility Association

Chairman: J. P. GREENHILL, Chicago, Ill., U. S. A.

Vice-Chairman: J. FERIN, Louvain, Belgium
DEBORA JOFFE, Johannesburg, Union of South Africa
G. I. M. SWYER, London, England

Honorary Secretary: DELFINO GALLO, Guadalajara, Mexico

Secretary: WILLIAM T. BLACK, Memphis, Tenn., U. S. A.

---

1. The Role of Endocervicitis in Sterility
   RANDOLPH GEPFERT, Assistant Professor of Clinical Obstetrics and Gynecology, Cornell University Medical College; Associate Attending Obstetrician and Gynecologist, New York Lying-In Hospital
   Discussants: DONATO RAMIREZ, Mexico, D.F.
   MARGARET MOORE WHITE, London, England
2. Surgical Treatment of Cervical Sterility
   RAUL M. CHEVALIER, Chief of the Sterility Center, Faculty of Medical Sciences of Buenos Aires; Attending Physician, Hospital of Clinicas, Buenos Aires, Argentina: and JOSE M.E. MEZZADRA, Associate Professor of Gynecology, University of Buenos Aires; Sub-Chief of the Sterility Center, Faculty of Medical Sciences, Buenos Aires, Argentina
   Discussants: LUIS GOMEZ-DAZA, Mexico, D.F.
   JULIO M. MORALES, Asuncion, Paraguay
   AURELIO MONTEIRO, Rio de Janeiro, Brazil
3. Post-Coital Examination: Its Value and Interpretation
   RAOUL PALMER, Chief of Gynevology, Faculty of Medicine, Paris, France: and ELISABETH PALMER, Paris, France
   Discussants: JOSE GONZALEZ GUERRERO, San Salvador, El Salvador
   JOSE NEMIROVSKY, San Paulo, Brazil
   LUIS RODRIGUEZ VILLA, Mexico, D.F.

4. The Crystallization Phenomena of the Cervical Mucus: Observations with the Phase Contrast Microscope
   A. CAMPOS DA PAZ JR., Vice-President of the International Fertility Association, President of the Brazilian Society for the Study of Sterility, Rio de Janeiro, Brazil: and L. COSTA LIMA, Titular Member of the Brazilian Society for the Study of Sterility, Rio de Janeiro, Brazil
   Discussants: B. BELONOSCHKIN, Stockholm, Sweden
   FRANCE MORICARD, Paris, France
   MAXWELL ROLAND, New York, N. Y.
5. Our Experience with the Crystallization Test of the Cervical Mucus
   CARLOS NOUEL, Assistant Professor of Clinical Obstetrics, Central University of Venezuela, Caracas, Venezuela
6. Contribution to the Study of the Cervical Mucus in Sterility
   R. GANDOLFO HERRERA, Professor of Gynecology, Universities of Buenos Airts and Eva Peron; and VICENTE LUIS BEARZI, Head of Sterility Center of Eva Peron University, Head of Gynecology Service of Phthisiology Institute, Buenos Aires, Argentina
7. Some Results in Cervical Mucus Crystallization
   ALEJANDRO POU-DE-SANTIAGO, Assistant at the Gynecology and Obstetric Clinica, Gynecologist of the Institute of Endocrinology, Montevideo, Uruguay
8. Cytologic Cycle of the Endocervical Mucus
   AMALIA ERNST, and ALBERTO GUZMAN, From the Department of Obstetrics and Gynecology, University of Chile, Santiago, Chile
9. Spermatic Findings in the Post-coital Cervical Contents
   LUIS RODRIGUEZ VILLA, Professor of Clinical Pathology of the Post-Graduate School of the National University of Mexico, Mexico, D.F.

8:30 A.M.

Section XI—"BLOOD INCOMPATIBILITY AND FERTILITY"

(Ballroom—Room A)

Honorary Chairman: EDWIN M. ROBERTSON, Professor and Head of the Department of Obstetrics and Gynecology, School of Medicine, Queen's University, Kingston, Ontario, Canada

Chairman: CARL E. JOHNSON, New Haven, Conn., U.S.A.

Vice-Chairmen: JORGE ASCENZO, Lima, Peru
LORNA LLOYD-GREEN, Melbourne, Australia
ABELARDO SALAS G., Monterrey, Mexico

Honorary Secretary: MAKOTO TAYA, Tokyo, Japan

Secretary: RICHARD A. STREET JR., Vicksburg, Miss., U. S. A.

---

1. Treatment of the Pregnant Woman "Iso-sensitized" to the Rh Factors
   MANUEL LUIS PEREZ, Professor of Clinical Obstetrics of the School of Medicine, University of Buenos Aires, Argentina
   Discussants: OSCAR AGUERO, Caracas, Venezuela
   J. MILTON SINGLETON, Kansas City, Mo., U.S.A.
   RAUL BRIQUET, San Paulo, Brazil
2. Is there a relationship Between Spontaneous Abortion and Blood Factors?
   HARRY WALLERSTEIN, Attending in Hematology, Jewish Memorial Hospital; Consultant Hematologist, Morrisania City Hospital, New York, N. Y.
3. A-B-O Blood Groups and Rh Subtypes in Sensitized and Non-Sensitized Rh-negative Pregnant Women
   ALEXANDER S. WIENER, Division of Immunohematology of the Jewish Hospital of Brooklyn, N. Y.; RAFFAELE NAPPI, the Clinica Ostetrica e Ginecologia Universita di Napoli (Direttore, Prof. G. Tesauro); and EVE B. GORDON, of the Serological Laboratory of the Office of the Chief Medical Examiner of the City of New York
4. Rh Factor and Double Fetal Malformations
   JACOBO ROSENVASSER and MIGUEL MARGULIES, Buenos Aires, Argentina

10:45 A.M.

Section XII—"PERINATAL MORTALITY"

(Ballroom—Room A)

Honorary Chairman: EDMUNDO MURRAY, Docent Libre in Gynecology, University of Buenos Aires; President, Argentine Society for the Study of Sterility, Buenos Aires, Argentina

Chairman: SAMUEL M. DODEK, Washington, D. C., U.S.A.

Vice-Chairmen: RONALD M. ALDER, Melbourne, Australia
RODULFO CAMERO, Bogota, Colombia
LIVIA ESCALONA, Caracas, Venezuela

Honorary Secretary: J. LAVERGNE, Panama City, Panama

Secretary: S. S. ROSENFELD, New York, N. Y.

---

1. Causes of Perinatal Deaths

   PEDRO A. GUTIERREZ ALFARO, Ministro de Sanidad y Asistencia Publica, Republic of Venezuela; Chief Obstetrician, Concepción Palacios Maternity, Caracas, Venezuela

   Discussant: JORGE ASCENZO, Lima, Peru

2. Perinatal Death

   J. M. MONIZ ARAGAO, Hospital Pro Matre, Rio de Janeiro, Brazil, H. FRANC DE FARIA, Rio de Janeiro, Brazil

3. Mortality in Prematurity

   GUILHERME DE FREITAS PENTEADO and LUIZ ALFREDO CORREA DA COSTA, Rio de Janeiro, Brazil

4. Fetal Morbidity and Mortality in Obstetrical Analgesia: A Study of the Relative Value of the Combination of Mepiridine (Demerol), Scopolamine, "Trilene" and Pudendal Block

   LUIZ DE FREITAS GUIMARAESE, JR., Head of the Obstetrical and Gynecological Department of the Polyclinic Hospital of Botafogo, Rio de Janeiro, Brazil

5. Social Factors Causing Prematurity

   S. DEXEUS FONT, Director of the Provincial Maternity Hospital of Barcelona, Barcelona, Spain

8:30 A.M.

Section XIII—"PELVIC TUBERCULOSIS AND INFERTILITY"

(Tudor Room—Room B)

Honorary Chairman: I. C. RUBIN, Consulting Gynecologist Mount Sinai Hospital, New York, N. Y.

Chairman: ALBERT SHARMAN, Glasgow, Scotland

Vice-Chairmen: TOMAS ARMSTRONG, Havana, Cuba
GUSTAVO ISAZA MEJIA, Medellin, Colombia
OSBERTO ROSALES M., Guatemala City, Guatemala

Honorary Secretary: JUAN A. NUNEZ, Colon, Panama

Secretary: CHARLES R. FREED, Denver, Colorado, U.S.A.

---

1. The Importance of the Specific Cultures of Uterine and Vaginal Discharges in the Detection of Genital Tuberculosis in Sterile Women

   I. HALBRECHT, Director, Maternity Hospital, Hadera, Israel; Chairman, Board of Directors Postgraduate Medical School of the Kupat Holim, Hadera, Israel

   Discussants: I. C. RUBIN, New York, N. Y.
   MARGARET MOORE WHITE, London, England

2. The Diagnosis of Tubal Tuberculosis with Special Reference to X-Ray Diagnosis

   SAMUEL ROZIN, Consultant, Obstetrical and Gynecological Department, Hadassah University Hospital, Jerusalem, Israel

   Discussants: ARISTOBULO CARRIZO, Panama City, Panama
   KANJI KIKA, Sendai, Japan
   JUAN WOOD, Santiago, Chile

3. Tuberculosis of the Female Genitalia Related to Fertility

   KANJI KIKA, Assistant Professor of Obstetrics and Gynecology, School of Medicine, Sendai, Honshu, Japan

   Discussant: GEORGE BLINICK, New York, N. Y.

4. The Problem of Sterility in Female Genital Tuberculosis

   ARTURO ACHARD, Docent Libre in Gynecology and Obstetrics of the Faculty of Medicine; Medical Chief of the Service of Gynecology and Obstetrics for Tuberculosis, Montevideo, Uruguay

5. The Diagnosis of Tubal Tuberculosis
   MARGARET MOORE WHITE, Gynecologist to Fertility Department, Royal Free Hospital, London, England

6. The Non-Surgical Treatment of Pelvic Tuberculosis
   LINTON MORRIS SNAITH, Senior Obstetrician and Gynecologist, Newcastle General Hospital; Lecturer in the Department of Obstetrics and Gynecology, King's College, University of Durham, Newcastle, England

1:30 P.M.

Section XIV—"DIAGNOSIS OF FALLOPIAN TUBE OCCLUSION"

(Ballroom—Room A)

Honorary Chairman: ARNALDO DE MORAES, Professor of Gynecology and Head of the Department, University of Brazil; Director, Institute of Endocrine Gynecology, Rio de Janeiro, Brazil

Chairman: PENDLETON TOMPKINS, San Francisco, Cal., U. S. A.

Vice-Chairmen: FRANCISCO LUQUE, Madrid, Spain
JULIO M. MORALES, Asuncion, Paraguay
CARLOS NOUEL, Caracas, Venezuela

Honorary Secretary: ARISTOBULO CARRIZO V., Panama City, Panama

Secretary: GEORGE SPECK, Arlington, Va., U. S. A.

---

1. Interpretation of Manometric Oscillation Observed During Uterotubal Insufflation
   AMERICO STABILE, Titular Professor of Obstetrics and Gynecology of the Faculty of Medicine, Montevideo, Uruguay
   Discussants: L. BONNET, Paris, France
   EDUARDO BUNSTER, Santiago, Chile
   I. C. RUBIN, New York, N. Y.

2. Tubo-ovarian Physiology: Further Observations by Culdotomy
   JOSEPH B. DOYLE, Department of Obstetrics, Tufts Medical School, Boston, Mass., U. S. A.
   Discussants: CHARLES L. BUXTON, New York, N. Y.
   AXEL WESTMAN, Stockholm, Sweden

3. Uterotubal Dynamics
   CARLOS D. GUERRERO, Professor of Gynecology, Medical and Postgraduate Schools, National University of Mexico; Gynecologist in Charge of Fertility Clinic, Hospital of Gynecology in the "Mexican Institute of Social Security"—Mexico, D.F.
   Discussants: CLARICE AMARAL FERREIRA, Rio de Janeiro, Brazil
   PEDRO A. FIGUEROA CASAS, Rosario, Argentina
   J. P. GREENHILL, Chicago, Ill., U. S. A.

4. The Volumetric Index of Uterotubal Insufflation
   OSCAR BLANCHARD, Associate Professor of Clinical Gynecology, University of Buenos Aires; Chief of the Gynecology Clinic of the J. Fernandez Polyclinic Hospital, Buenos Aires, Argentina; and RAUL PARKS, Buenos Aires, Argentina
   Discussants: I. C. RUBIN, New York, N. Y.
   CLAUDE BECLERE, Paris, France

5. Applications of an Experimental Study for the Interpretation of the Tracings of Kymographic Insufflation
   LOUIS BONNET, Former Chief of the Clinic of the Faculty of Medicine, Paris, France

6. Uterotubal Insufflation in Normal and Induced Cycles
   EDUARDO BUNSTER and LILA CORONEL, Gynecology Clinic, Salvador Hospital, Santiago, Chile

7. Pathology of Tubal Occlusion
   EDMUNDO G. MURRAY, Docente Libre in Gynecology, University of Buenos Aires; President of the Argentine Society for the Study of Sterility, Buenos Aires, Argentina

8. A New Method of Exploring the Function of the Fallopian Tubes
   VICTOR CONILL-SERRA, Associate Professor of Obstetrics and Gynecology of the Faculty of Medicine of Barcelona, Barcelona, Spain

9. Contribution to the Diagnosis of Tubal Occlusion
   ALCIDES SENRA and ALTAMIRO VIANA, Rio de Janeiro, Brazil

1:30 P.M.

Section XV—"PROBLEMS IN REPRODUCTION" (Animal)

(Tudor Room—Room B)

Honorary Chairman: M. G. FINCHER, Department of Medicine and Obstetrics, New York State Veterinary College, Cornell University, Ithaca, N. Y., U. S. A.

Chairman: JOHN MACLEOD, New York, N. Y.

Vice-Chairman: ANTONIO MIES FILHO, Campo Grande, Brazil

Honorary Secretary: L. V. D. SLUIS, Leeuwarden, Netherlands

Secretary: C. A. V. BARKER, Guelph, Ontario, Canada

---

1. Canine and Bovine Ovarian Neoplasms
   KENNETH McENTEE, Department of Pathology, New York State Veterinary College, Ithaca, N. Y.; and C. P. ZEPP JR., Zepp Animal Hospital, New York, N. Y.
   Discussant: PETER OLAFSON, Ithaca, N. Y.
2. Testicular Biopsies (Illustrated with film)
   C. A. V. BARKER, Ontario Veterinary College, Guelph, Ontario, Canada
   Discussant: S. J. ROBERTS, Ithaca, N. Y.
3. The Quality of Semen of Bulls in Relation to the Number of Ejaculations
   VICENTE DE PAULO GRACA and ANTONIO MIES FILHO, Institute of Zootechnics, of the Ministry of Agriculture, Campo Grande, Brazil
   Discussant: R. W. BRATTON, Ithaca, N. Y.
4. Factors of Male Fertility and Actual Methods for its Objective Estimation
   T. BONADONNA, Professor and Director of the "Lazzaro Spallanzani" Institute for Artificial Insemination, Milan, Italy
5. Occurrence of Bovine Venereal Trichomoniasis in Bulls Employed in Artificial Insemination
   DAVID E. BARTLETT, American Breeders Service, Chicago, Ill., U. S. A.
   Discussant: WAYNE BINNS, Logan, Utah

6. Low Temperature Storage of Bull Semen in England
   L. E. ROWSON, Cambridge and District Cattle Breeders Ltd., The Gravel Pits, Cambridge, England
7. Studies with Frozen Semen in the United States
   E. L. WILLETT and HENRY DUNN, American Foundation for the Study of Genetics, Madison, Wisconsin
   Discussants for Papers 6 and 7:
   J. A. HENDERSON, Guelph, Ontario, Canada
   JOHN MACLEOD, New York, N. Y.

Program to be continued tomorrow morning

Official Banquet, Thursday Evening May 28th, 1953.

Tickets may be obtained now at the Registration desk.

Dress Optional

Hotel Commodore
Grand Ball Room

OFFICIAL BANQUET

GRAND BALL ROOM—HOTEL COMMODORE
NEW YORK CITY
Thursday, May 28, 1953, 7 P.M.

JOHN O. HAMAN, M.D.
Chairman, Sub-committee for the Banquet

JOHN MacLEOD, PH.D.
Sub-Chairman

GUESTS

DR. PEDRO A. GUTIERREZ ALFARO
Ministro de Sanidad and Asistencia Publica
Republic of Venezuela

DR. JOHN F. MAHONEY
Commissioner of Health of the City of New York

DR. MARCUS D. KOGEL
Commissioner of Hospitals of the City of New York

Music by Leo Dryer and his orchestra

Dress Optional

8:30 A.M.

Section XVI—"PROBLEMS IN REPRODUCTION" (Animal)

This Section is a continuation of Section XV begun on the previous day. The same Board of Officers will continue to conduct this session.

(Tudor Room—Room B)

1. Experiences With Sterility in Cattle
   L. V. D. SLUIS, Health Service for Cattle, Leeuwarden, Netherlands
   Discussant: S. J. ROBERTS, Ithaca, N. Y.
2. Mucus
   H. E. KINGMAN, Wyoming Hereford Ranch, Cheyenne, Wyoming, U. S. A.
   General Discussion
3. The Association of Vibrio Fetus Infection in Cattle with Infertility
   J. R. LAWSON, Ministry of Agriculture and Fisheries, Veterinary Laboratory, Waybridge, England
4. The Diagnosis of Bovine Vibriosis
   D. E. HUGHES and H. L. GILMAN, Department of Bacteriology, New York State Veterinary College, Cornell University, Ithaca, N. Y.
   Discussants for Papers 3 and 4:
   KENNETH McENTEE, Ithaca, N. Y.
   A. H. FRANK, Beltsville, Maryland, U. S. A.
   General Discussion

Closing and Summation of Program

8:30 A.M.

Section XVII—"TREATMENT OF DISORDERED AND OCCLUDED FALLOPIAN TUBES"

(Ballroom—Room A)

Honorary Chairman: JUAN JOSE CROTTOGINI, Professor of Gynecology and Obstetrics, Faculty of Medicine, Montevideo, Uruguay

Chairman: B. BERNARD WEINSTEIN, New Orleans, La., U.S.A.

Vice-Chairmen: ALVARO DE AQUINO SALLES, Rio de Janeiro, Brazil
EDUARDO BUNSTER, Santiago, Chile
RAUL CHEVALIER, Buenos Aires, Argentina

Honorary Secretary: DARIO SIERRA, Medellin, Colombia

Secretary: JOSEPH N. SEITCHIK, Philadelphia, Pa., U.S.A.

---

1. The Value of Insufflation in the Diagnosis and Therapy of Sterility
   MARIOS TRITOFTIDES, Obstetrical and Gynecological Surgical Clinic, Limassol, Cyprus
2. The Value of Uterotubal Insufflation in the Treatment of Tubal Obstruction to Ovular Migration
   I. C. RUBIN, Consulting Gynecologist, Mount Sinai Hospital, New York, N. Y.
   Discussants: F. MORICARD, Paris, France
   DONATO RAMIREZ, Mexico, D.F.
   ERNEST NAVRATIL, Vienna, Austria
   PENDLETON TOMPKINS, San Francisco, Cal., U. S. A.
3. Pregnancy in Sterility Cases Following Combined Gas-Oil-Gas (Gynographic Survey) into the Uterotubal Tract Instillations
   ABNER I. WEISMAN, Gynecologist and Obstetrician to the Metropolitan Hospital, Associate in Gynecology and Obstetrics, New York Medical College, Flower and Fifth Avenue Hospitals.
   Discussants: NORMANDO ARENAS, Buenos Aires, Argentina
   JOSE GONZALEZ GUERRERO, San Salvador, El Salvador
   ALLAN PALMER, San Francisco, Cal., U.S.A.
4. "Ethiodan"—as a Contrast Medium for Uterosalpingography
   MARGARET HADLEY JACKSON, Medical Officer to the Infertility Clinic of Exeter, Devon, England
5. The Use of a Radiopaque and Bacteriostatic Mixture for X-Ray diagnosis in the Study of Female Sterility
   ANTONIO KARCZMAR, Member of the Staff, American-British Cowdray Hospital, Mexico, D.F.
6. Polyethylene in Tuboplastic Procedures
   JOHN ROCK, Senior Surgeon and Director of Fertility and Endocrine Clinic, Free Hospital for Women; Clinical Professor of Gynecology, Harvard Medical School, Boston, Mass., U.S.A.; and WILLIAM J. MULLIGAN and CHARLES EASTERDAY, Associate Surgeons, Free Hospital for Women, Boston, Mass., U.S.A.

Discussants: LOUIS M. HELLMAN, New York, N. Y.
MARIO A. CASTALLO, Philadelphia, Pa.
ABNER I. WEISMAN, New York, N. Y.

7. A New and Efficient Technic of Partial Salpibgectomy in the Cure of Sterility
   MANUEL B. RODRIGUEZ LOPEZ, Professor of Clinical Gynecology and Obstetrics, Faculty of Medicine, Montevideo, Uruguay
8. Results of Tubal Surgery in 200 cases of Closure
   RAOUL PALMER, Chief of Gynecology, Faculty of Medicine, Paris, France
9. Plastic Rings to Retain the Patency of a Newly Formed Tubal Ostium
   EDWARD KAHN, Chief of the Sterility Clinic, Department of Obstetrics and Gynecology, Sydenham Hospital, New York, N. Y.

1:30 P.M.

Section XVIII—"UTERINE AND PELVIC PHYSIO-PATHOLOGY"

(Ballroom—Room A)

Honorary Chairman: CLAUDE BECLERE, Ancien Chief of Gynecology Clinic of the Faculty of Medicine, Paris, France

Chairman: MANUEL B. RODRIGUEZ LOPEZ, Montevideo, Uruguay

Vice-Chairmen: JOSE MEDINA, San Paulo, Brazil
PETER BISHOP, London, England
EDWIN M. ROBERTSON, Kingston, Ontario, Canada

Honorary Secretary: CARLOS COLMEIRO LAFORET, Vigo, Spain

Secretary: CHARLES O. McCORMICK, Indianapolis, Indiana, U. S. A.

---

1. Physiopathology of Nidation
   OCTAVIO RODRIGUES LIMA, Professor of Obstetrics, University of Brazil, Rio de Janeiro
   Discussants: I. HALBRECHT, Hadera, Israel
   HECTOR ROCAMORA, Havana, Cuba
   CHARLES STEVENSON, Detroit, Michigan, U. S. A.

2. Observations on the Origin and Specific Function of the Histiocytes in the Female Genital Tract

   GEORGE N. PAPANICOLAOU, Department of Anatomy, Cornell University Medical College, New York, N. Y.

   Discussant: JOHN W. HUFFMAN, Chicago, Ill., U. S. A.

3. Pelvic Congestion and Fertility

   JUAN JOSE CROTTOGINI, Professor of Obstetrics and Gynecology, Faculty of Medicine, Montevideo, Uruguay

   Discussants: EDUARDO BUNSTER, Santiago, Chile
   HOWARD C. TAYLOR, New York, N. Y.
   RAFAEL SALINAS RIVERO, Monterrey, Mexico

4. Studies of the Contractility of the Pregnant Uterus

   H. ALVAREZ, Associate Professor of Obstetrics and Gynecology, Faculty of Medicine; Head of the Department of Obstetrics and Gynecology, Hospital Pasteur, Montevideo, Uruguay: and R. CALDEYRO-BARCIA, Associate Professor of Physiology, Faculty of Medicine, Montevideo, Uruguay

   Discussants: CARL T. JAVERT, New York, N. Y.
   J. LAVERGNE, Panama City, Panama

5. Comparative Study on Phosphatases and Glycogen in the Human Uterine Mucus

   FRANCE MARIE MORICARD, In Charge of Endocrine Consultation of the Gynecology Clinic, Hopital Broca, Paris, France

   Discussants: VICTOR CONHILL SERRA, Barcelona, Spain
   W. T. POMMERNKE, Rochester, N. Y.
   AMALIA ERNST, Santiago, Chile
   ROBERTO VAZQUEZ PALLARES, Guadalajara, Mexico

6. Studies on the Metrial Gland

   BRUNO ALIPIO LOBO, Professor of Histology and Embryology, Rural University of Brazil, Rio de Janeiro, Brazil

   Discussants: GABRIEL ALVAREZ, Mexico, D.F.
   GILBERT DOUGLAS, Birmingham, Alabama, U. S. A.

7. Effect of Presacral Nerve Excitation on the Contractility of the Human Uterus

   R. CALDEYRO-BARCIA, and H. ALVAREZ, Faculty of Medicine, Montevideo, Uruguay

1:30 P.M.

Section XIX—"PSYCHOGENIC ASPECTS OF THE INFERTILE COUPLE"

(Tudor Room—Room B)

Honorary Chairman: ANTONIO CLAVERO NUNEZ, Director of the Spanish Revista of Obstetrics and Gynecology; Maternólogo de la Sanidad Nacional, Barcelona, Spain

Chairman: ALAN F. GUTTMACHER, New York

Vice-Chairman: PEDRO FIGUEROA CASAS, Rosario, Argentina
YVONNE Y.G. SYLVAIN, Port-Au-Prince, Haita
EDMA ABOUCHDID, Lebanon, Syria

Honorary Secretary: RAFAELE NAPPI, Naples, Italy

Secretary: J. JAY ROMMER, Newark, N. J., U.S.A.

---

1. A Tubal Factor in Functional Sterility of Women

   BORIS B. RUBENSTEIN, Michael Reese Hospital, Chicago, Ill., U.S.A.

   Discussants: ANTONIO CLAVERO NUNEZ, Barcelona, Spain
   OSBERTO ROSALES M., Guatemala City, Guatemala
   A. HERBERT MARBACH, Philadelphia, Pa., U.S.A.

2. A Psychodynamic Approach to the Study of Infertility

   E. S. C. FORD, Instructor in Psychiatry; I. FORMAN, Associate Professor of Obstetrics and Gynecology; J. R. WILLSON, Professor and Head of the Department of Obstetrics and Gynecology and with the collaboration of other workers of the Temple University Hospital, Philadelphia, Pa.

3. Psychogenic Factors in Sterility

   IRVING C. FISCHER, Mount Sinai Hospital, New York, N. Y.

4. Fear and Voluntary Sterility Following Cesarean Operation

   SANTIAGO DEXEUS FONT, Director of the Provincial Maternity Hospital, Barcelona, Spain

5. Psychogenic Amenorrhoea

   JOSE NEMIROVSKY, Gynecologist and Obstetrician, San Paulo, Brazil

8:30 P.M.

Section XX—"HUMAN ARTIFICIAL INSEMINATION"

(Ballroom—Room A)

Honorary Chairman: ABRAHAM STONE, Director, Margaret Sanger Research Bureau, New York, N. Y.

Chairman: KARL BURGER, Wurzberg, Germany

Vice-Chairmen: A. CLAVERO NUNEZ, Barcelona, Spain
K. ANDO, Tokyo, Japan
MARGARET HADLEY JACKSON, Crediton, Devon, England

Honorary Secretary: WILSON G. McKAY, Oshawa, Ontario, Canada

Secretary: DANIEL B. ROTH, Teaneck, N. J., U.S.A.

---

1. Legal Aspects of Artificial Insemination
   SIDNEY B. SCHATKIN, Assistant Corporation Counsel, City of New York
   Discussant: NICOLAO DINO DE CASTRO COSTA, Rio de Janeiro, Brazil

2. Therapeutic Donor Insemination
   SOPHIA J. KLEEGMAN, Associate Clinical Professor, Obstetrics and Gynecology, N. Y. University College of Medicine, New York, N. Y.
   Discussants: ERNESTO R. DeARAGON, Havana, Cuba
   I. HALBRECHT, Hadera, Israel
   PAUL TOPKINS, New York, N. Y.
   MANUEL MATEOS FOURNIER, Mexico, D.F.

3. Retention of Fertilization Capacity of Human Spermatozoa Stored at Low Temperature with Antibiotics
   ALVARO DE AQUINO SALLES, Director of the Clinical Division of the Institute of Gynecology of the University of Brazil; and MARIO A. DE CENZO, Chief of the Laboratory Staff of the Polyclinic of Botafogo, Rio de Janeiro, Brazil
   Discussants: EDMOND J. FARRIS, Philadelphia, Pa.
   CARL G. HARTMAN, Raritan, N. J.
   ABNER I. WEISMAN, New York

4. The Day of Ovulation as Indicated by 66 Conceptions Following Artificial Insemination
   DOUGLAS P. MURPHY, University of Pennsylvania; and EDMOND J. FARRIS, The Wistra Institute of Anatomy, Philadelphia, Pa.
   Discussants: LOUIS L. FREIDMAN, St. Paul, Minn., U.S.A.
   DANIEL B. ROTH, Teaneck, N. J., U. S. A.

5. The General Situation of Artificial Insemination at the Clinic of the Keio University Hospital, Tokyo, Japan
   KAKUICHI ANDO, Director of the Gynecology and Obstetrics Department, Keio University School of Medicine, Tokyo, Japan

6. Fertility as Evaluated by Artificial Insemination
   SHELDON PAYNE and ROBERT F. SKEELS, Shelton Clinic, Los Angeles, Cal.

8:30 A.M.

Section XXI—"DIAGNOSIS AND TREATMENT OF STERILITY OF UTERINE ORIGIN"

(Ballroom—Room A)

Honorary Chairman: ERNESTO R. DE ARAGON, Professor of Obstetrics and Gynecology, National University of Havana, Havana, Cuba

Chairman: LINTON MORRIS SNAITH, Newcastle, England
Vice-Chairmen: ALFONSO ALVAREZ-BRAVO, Mexico, D.F.
R. MORICARD, Paris, France
LESLIE W. GLEADELL, Melbourne, Australia

Honorary Secretary: ALEJANDRO POU-DE-SANTIAGO, Montevideo, Uruguay

Secretary: FRANCIS M. INGERSOLL, Boston, Mass., U. S. A.

---

1. Hypoplasia of the Uterus: Diagnosis and Treatment
   JUAN CARLOS AHUMADA, Titular Professor of Gynecology, University of Buenos Aires; Chief of the Gynecology Service Hospital of Clinicas, Buenos Aires, Argentina: and RAUL M. CHEVALIER, Chief of the Sterility Center, Buenos Aires, Argentina
   Discussant: JOSE MEDINA, San Paulo, Brazil

2. A Preliminary Series of Cases of Uterine Hypoplasia Treated by Local Injection of an Estrogen Emulsion
   CEDRIC LANE-ROBERTS, Gynecologist to Philip Hill Parenthood Centre, Royal Northern Hospital, London, England
   Discussant: KARL J. KARNAKY, Houston, Texas

3. A Method of Studying the Uterine Canal by Hysteroscopic Examination
   W. B. NORMENT, Surgeon, Wesley Long Hospital, Greensboro, N. C., U. S. A.
   Discussant: MAXWELL B. ROLAND, New York, N. Y.

4. Hysterography in the Diagnosis of Sterility
   CLAUDE BECLERE, Ancien Chief of the Gynecology Clinic, Faculty of Medicine, Paris, France
   Discussants: JOSE NEMIROVSKY, San Paulo, Brazil
   ABNER I. WEISMAN, New York, N. Y.

5. Fibromyomata Uteri and Sterility
   ALFONSO ALVAREZ-BRAVO, Professor of Clinical Abdominal Surgery, University of Mexico School of Medicine; Chairman of the Gynecological Department of the Spanish Hospital of Mexico, Mexico, D.F.
   Discussants: JUAN JOSE CROTTOGINI, Montevideo, Uruguay
   LICINIO DUTRA, San Paulo, Brazil
   EDWARD SOLOMONS, Dublin, Ireland

6. Results of the Strassman Metroplasty in Habitual Abortion due to Congenital Malformation
   JOSEPH A. SCHOCKAERT, Professor of Gynecology and Obstetrics, University of Louvain, Louvain, Belgium
   Discussant: ERWIN O. STRASSMAN, Houston, Texas

7. Endometrial Aspiration Smears in the Study of Infertility
   GEORGE H. ROMBERG, Director of Fertility Clinic, Gynecologic Outpatient Department, Hospital for Joint Diseases, New York, N. Y.

8. The Role of Genital Displacement in Female Sterility
   FRANCISCO LUQUE, Madrid, Spain

8:30 A.M.

Section XXII—"PROBLEMS OF CHILD ADOPTION"

(Tudor Room—Room B)

Honorary Chairman: KAKUICHI ANDO, Director of the Department of Gynecology and Obstetrics, Keio University School of Medicine, Tokyo, Japan

Chairman: J. GARCIA ORCOYEN, Madrid, Spain

Vice-Chairmen: A. MOURAO FILHO, Rio de Janeiro, Brazil
DAPHNE CHUN, Hong Kong, China
ARTHUR APARICIO JARAMILLO, Bogota, Colombia

Honorary Secretary: ARTURO ACHARD, Montevideo, Uruguay
Secretary: DANIEL B. ROTH, Teaneck, N. J., U.S.A.

---

1. Introductory Remarks
   ABNER I. WEISMAN, Chairman, Committee on Arrangements, World Congress

2. Indications for Child Adoption
   HANS LEHFELDT, Lenox Hill Hospital and Beth David Hospital, New York, N. Y.

3. The Role of the Recognized Adoption Agency in Child Adoption
   FLORENCE G. BROWN, Executive Director, Free Synagogue Child Adoption Committee, New York, N. Y.

4. The Role of the Physician in Child Adoptions
   FRED B. KYGER, Chief Obstetrician, Fairmount Maternity Hospital, Kansas City, Mo., U.S.A.

5. Child Adoption from the Viewpoint of a Psychiatrist
   WILLIAM E. SORREL, Associate Attending Neuropsychiatrist and Chief of Clinical Psychiatry, Jewish Memorial Hospital, New York, N. Y.

6. Child Adoption in China
   DAPHNE CHUN, Queen Mary Hospital, Hong Kong

7. Fertility After Child Adoption
   WILLIAM S. KROGER, Assistant Clinical Professor of Obstetrics and Gynecology, Chicago Medical School, Chicago, Ill., U.S.A.

8. Adoption or Donor Artificial Insemination?
   MARGARET HADLEY JACKSON, Medical Officer to Infertility Clinic at the Royal Devon and Exeter Hospital, Crediton, Devon, England

1:30 P.M.

Section XXIII—"THREATENED AND HABITUAL ABORTION"

(Ballroom—Room A)

Honorary Chairmen: OCTAVIO RODGRIGUES LIMA, Professor of Obstetrics, University of Brazil, Rio de Janeiro, Brazil

Chairman: I. HALBRECHT, Hadera, Israel

Vice-Chairmen: EDWARD SOLOMONS, Dublin, Ireland
FRANCE MARIE MORICARD, Paris, France
TOMAS ARMSTRON, Havana, Cuba

Honorary Secretary: JOSE GONZALEZ GUERRERO, San Salvador, El Salvador

Secretary: M. M. BRAUNSTEIN, Montreal, Canada

1. The Effect of Artificial Abortion on Fertility
   JOSEPH G. ASHERMAN, Director, Women's Hospital Tel-Aviv, Israel
   Discussants: ARTHUR FIRST, Philadelphia, Pa.
   KATHLEEN M. D. HARDING, London, England

2. Treatment of Habitual Abortion
   JORGE DE REZENDE, Professor of Obstetrics, School of Medicine and Surgery, Rio de Janeiro, Brazil
   Discussants: HERBERT S. KUPPERMAN, New York, N. Y.
   LINTON MORRIS SNAITH, Newcastle, England
   GUILLERMO VAUTRIN, Havana, Cuba

3. Pregnancy Complicating Diabetes
   PRISCILLA WHITE, Physician, New England Deaconess Hospital, Boston, Mass., U.S.A.
   Discussants: EDWARD C. HUGHES, Syracuse, New York
   ARMINDO DE OLIVEIRA SARMENTO, Rio de Janeiro, Brazil
   FLAVIA MIGUEZ DE MELLO, Rio de Janeiro, Brazil

4. The Cervix in Habitual Abortion
   J. GARCIA ORCOYEN, Professor of Gynecology, University of Madrid, Madrid, Spain
   Discussants: FERNANDO DE ALMEIDA, Lisbon, Portugal
   A. F. LASH, Chicago, Ill., U.S.A.
   JULIO ORTIZ PEREZ, Havana, Cuba
   JOSE G. MARTINEZ, Monterrey, Mexico

5. Treatment of Premature Labor
   MANUEL B. RODRIGUEZ LOPEZ, Professor of Obstetrics and Gynecology, Faculty of Medicine, Montevideo, Uruguay
   Discussants: A. GUIMARAES FILHO, Rio de Janeiro, Brazil
   MARTIN GARRIGA ROCA, Madrid, Spain

6. Role of Congenital Uterine Malformations and of Acquired Deformities of the Uterine Cavity in the Pathogenesis of Female Infertility (Habitual Abortion)
   I. HALBRECHT, Director of Hadera Hospital, Hadera, Israel
   Discussants: I. C. RUBIN, New York, N. Y.
   MARGARET MOORE WHITE, London, England

7. Vulvar Fluorescence in the Diagnosis and Treatment of Threatened Abortion
   M. SYDNEY MARGOLESE, Clinical Instructor, Department of Medicine, University of California, Los Angeles, Cal., U.S.A.
   Discussant: PAUL H. FRIED, Philadelphia, Pa., U.S.A.

8 Premature Labor
SUBODH MITRA, Professor-in-Charge of Department of Obstetrics and Gynecology, R. G. Kar Medical College, Calcutta, India

9. Role of Extra-Human Factors in Human Fertility
JOSE RAMIREZ-OLIVELLA, Professor of Obstetrics, University of Havana, Havana, Cuba

10. Comparative Study of the Value of Diethylstilbestrol and Progesterone in the Treatment of Threatened Abortion
LUIZ CASTELAZO AYALA, Mexico, D.F.

1:30 P.M.

Section XXIV—"REPORTS FROM INFERTILITY CLINICS"

(Tudor Room—Room B)

Honorary Chairman: PEDRO A. GUTIERREZ ALFARO, Ministro de Sanidad y Asistencia Publica, Caracas, Venezuela

Chairman: KATHLEEN M. D. HARDING, London, England

Vice-Chairmen: EDMUNDO G. MURRAY, Buenos Aires, Argentina
JUAN WOOD, Santiago, Chile
L. I. SWAAB, Amsterdam, Netherlands

Honorary Secretary: ORLANDO BAIOCCHI, Rio de Janeiro, Brazil

Secretary: ANNA K. DANIELS, New York, N. Y.

---

1. The Outcome of Pregnancy in Women Attending an Infertility Clinic
GERALD I. M. SWYER, Consultant Endocrinologist to the Obstetric Department, University College Hospital, London, England

Discussants: ALVARO DE AQUINO SALLES, Rio de Janeiro, Brazil
CARL JOHNSON, New Haven, Conn., U. S. A.
B. BERNARD WEINSTEIN, New Orleans, La., U. S. A.

2. Evaluation of Therapy in 500 Childless Wives
V. H. TURNER and C. D. DAVIS, Department of Obstetrics and Gynecology, School of Medicine, Duke University, Durham, N. C., U. S. A.
Discussant: CLAIR E. FOLSOME, New York, N. Y.

3. Infertility: Clinical Impressions Obtained from a Review of 1000 Cases
ROBERT B. WILSON, Section of Obstetrics and Gynecology, Mayo Clinic, Rochester, Minnesota, U. S. A.
Discussant: G. E. SEEGAR-JONES, Baltimore, Md., U. S. A.

4. Medical Treatment in Pregnancy Following Sterility
CLAUDE BECLERE, Ancien Chief, Gynecology Clinic of the Faculty of Medicine, Paris, France

5. The Problem of Sterility in Turkey: Statistics and Studies Based on the Etiology, Diagnosis and Treatment
SERIF CANGA, Professor of Obstetrics and Gynecology, Medical School of Ankara University, Ankara, Turkey

6. Certain Aspects of Fertility and Sterility in Muselman Women of North Africa
HENRI FULCONIS, Clinic of Obstetrics and Gynecology, Algiers, Algeria

7. An Analysis of Accidental Pregnancies Occurring During Infertility Studies
DAVID R. WEIR AND ASSOCIATES, Maternal Health Association of Cleveland, Ohio

8. Sterility and Fertility Problems in Syria
ZARE ARSLANIAN, Aleppo, Syria

2 P.M.

Section XXV—"THE CLOSING SESSION"

(Ballroom—Room A)

Resolutions

Awards

Awarding of Diplomas to Members of the
International Fertility Association

Introduction of New Members of the American Society
for the Study of Sterility

The Roll Call of Nations

Final Summation of the Congress

SCIENTIFIC MOTION PICTURES

Monday, May 25th through Friday, May 29th

DANIEL B. ROTH, M.D., *Chairman*
Teaneck, N. J.

JOHN CANNIS, M.D.
CIRO TARTA, M.D.
RAUL ORTIZ DE LA PENA, M.D.

A. R. ABARBANEL
Assistant Professor of Obstetrics and Gynecology, College of Medical Evangelists, Los Angeles, California, U. S. A.
MYOMECTOMY AND MYOMETRIAL RECONSTRUCTION

LOUIS B. BACHRACH
Associate in Urology, Prince Georges General Hospital, Cheverly, Md., U. S. A.
Visiting Urologist, George Washington University Hospital, Washington, D. C., U. S. A.
VASO-EPIDIDYMOSTOMY FOR OBSTRUCTIVE INFERTILITY
CONGENITAL BILATERAL ATRESIA

C. A. V. BARKER
Associate Professor, Department of Medicine and Surgery, Division of Animal Reproduction, Ontario Veterinary College, Guelph, Ontario, Canada
TESTICULAR BIOPSY TECHNICS IN BULLS

ADIB ANTONIO COURI
Institute of Biology, Rio de Janeiro, Brazil
OFFICE TECHNIC OF TESTICULAR BIOPSY

JOSEPH B. DOYLE
Assistant Clinical Professor of Obstetrics, Tufts Medical School, Boston, Mass., U. S. A.
OBSERVATION OF THE HUMAN TUBO-OVARIAN MECHANISM WITH THE PELVISCOPE
AUTONOMIC UTEROTUBAL DENERVATION

CARLOS D. GUERRERO
Clinical Professor Obstetrics and Gynecology, National University Schools of Medicine, Mexico, D.F.
ESTERILIDAD POR MIOMA CAVITARIO Y MIOMECTOMIA A TRAVES DE HISTEROTOMIA
(Cavitary Uterine Myoma and Myomectomy through Hysterotomy)

JANE E. HODGSON
Ancker Hospital, St. Paul, Minnesota, U. S. A.
THE RANA PIPIENS FROG TEST FOR PREGNANCY

FRANCIS M. INGERSOLL
Assistant Surgeon, Massachusetts General Hospital, Boston, Mass., U. S. A.
STEIN-LEVENTHAL SYNDROME

ANTONIO KARCZMAR
Medical Staff, The American-British Cowdray Hospital, Mexico, D.F.
THE USE OF A RADIOPAQUE AND BACTERIOSTATIC MIXTURE L-E (LIPIODOL F.–ETHER) FOR HYSTEROGRAPHY AND HYSTEROSALPINGOGRAPHY

A. LOPEZ DE NAVA
Chief of the Gynecological and Obstetrical Department of the Navy Hospital, Mexico, D.F.
Professor of Obstetrics, National University of Mexico School of Medicine, Mexico, D.F.
A CASE OF DOUBLE UTERUS AND DOUBLE VAGINA–STRASSMANN'S OPERATION

MAURICE MAYER
Department of Gynecology, Hospital of St. Antoine, Paris, France
TUBOPLASTY: TECHNIC OF UTEROTUBAL IMPLANTATION

RENE MORICARD
Directeur du Laboratoire d'Hormonologie de l'Ecole des Hautes Etudes de l'Universite de Paris, Paris, France
FONCTION MEIOGENE DU LIQUIDE FOLLICULAIRE ET RECHERCHES SUR LA FECONDATION
(A quantitative study by hormone micro-injection into the ovarian follicle of a meiogenic function of the follicular liquid: problems of human application)

EDGAR DA ROSA RIBEIRO, Rio de Janeiro, Brazil
NUEVO MODELO DE APARATO PARA HISTEROSALPINGOGRAFIA
(A New Apparatus for Hysterosalpingography)
TECNICA DE ANASTOMOSIS TUBARIA
(Technic of Tubal Anastamosis)

GEORGE H. ROMBERG
Medical Staff, White Plains Hospital, White Plains, N. Y., U. S. A.
ENDOMETRIAL ASPIRATION TECHNIC

Schering Corporation, Bloomfield, N. J., U. S. A.
PHYSIOLOGY OF NORMAL MENSTRUATION
(English and Spanish)
MALE SEX HORMONE
(English and Spanish)

DR. SHIRODKAR
Professor of Obstetrics and Gynecology, Grant Medical College Bombay, India
DIRECT VISION TUBAL PATENCY TEST AND TECHNIQUE OF UTERO-TUBAL IMPLANTATION

ABRAHAM STONE
Director, Fertility Service, Margaret Sanger Research Bureau, New York, N. Y., U. S. A.
BIOLOGY OF CONCEPTION

SCIENTIFIC EXHIBITS

Chairman: CHARLES M. MCLANE
Sub-Chairmen: EDWARD C. HUGHES AND RITA S. FINKLER

Ballroom Foyer

1

A NEW IMPROVED X-RAY OPAQUE MASS FOR HYSTEROSALPINGOGRAPHY

I. C. RUBIN, M.D.
ERNEST MYLLER, M.D.
CARL G. HARTMAN, PH.D.
New York City, N. Y. and Raritan, N. J.

2

SOME INTERESTING UTEROTUBAL RADIOGRAPHS

CERIF CANGA, M.D.
University of Ankara, Ankara, Turkey

3

INVESTIGATION OF TUBAL PHYSIOLOGY

AMERICO STABILE, M.D.
Facultad de Medicina, Montevideo, Uruguay

4

A NEW NON-BIOLOGICAL PREGNANCY TEST

HOWARD W. JONES, JR., M.D.
G. E. S. JONES, M.D.
Baltimore, Maryland

5

A FIFTEEN YEAR STUDY OF STERILITY

JUAN WOOD, M.D.
AMALIA ERNST, M.D.
University of Chile, Santiago, Chile

6

PRE-COLOMBIAN CENTRAL AND SOUTH AMERICAN FERTILITY SYMBOLS: PRIMITIVE AFRICAN AND OCEANIQUE SEXUAL SYMBOLS

ABNER I. WEISMAN, M.D.
JULIUS CARLEBACH
New York City, N. Y.

7

THE CYTOLOGIC APPROACH TO GYNECOLOGIC DISORDERS

EMANUEL L. HECHT, M.D.
WILLIAM E. STUDDIFORD, M.D.
New York University — Bellevue Medical Center
University Hospital
New York City, N. Y.

8

A SIMPLE TEST FOR THE DETERMINATION OF PREGNANCY AND OVULATION USING CERVICAL MUCUS SECRETION

MAXWELL ROLAND, M.D.
Queens General Hospital, New York City, N. Y.

9

CERVICAL MUCUS "SPINNBARKEIT" TEST FOR OVULATION

U. J. SALMON, M.D.
New York City, N. Y.

10

USE OF RADIOPAQUE AND BACTERIOSTATIC MEDIUM (LIPIODOL-ETHER MEDIUM) IN GYNECOLOGICAL X-RAY DIAGNOSIS

ANTONIO KARCZMAR, M.D.
American-British Cowdray Hospital, Mexico, D.F.

11

USE OF THE PELVISCOPE IN CULDOTOMY

JOSEPH B. DOYLE, M.D.
Department of Obstetrics, Tufts Medical School
Boston, Mass.

12

A STUDY OF THE POST-OVULATORY PHASE OF THE MENSTRUAL CYCLE IN RELATION TO AGE: THE LENGTH OF THE PREMENSTRUAL PHASE

R. F. VOLLMAN, M.D.
Geneva, Switzerland, and New York, N. Y.

13

PELVIC PHOTOSCOPY DURING THE OVARIAN CYCLE

MELVIN R. COHEN, M.D.
HENRY S. GUTERMAN, M.D.
Michael Reese Hospital, Chicago, Ill.

14

"POLYETHYLENE INTUBATED SALPINGOPLASTY" A NEWER APPROACH TO CLOSED TUBE STERILITY

MARIO A. CASTALLO, M.D.
AMOS S. WAINER, M.D.
Jefferson Medical College, Philadelphia, Pa.

15

ELECTRONMICROSCOPIC AND PHASE MISCROSCOPIC STUDY OF HUMAN SPERMATOZOA

MEYER D. SCHNALL, M.D.
Mount Sinai Hospital, New York, N. Y.

16
CULDOSCOPIC DIAGNOSIS OF GYNECOLOGIC DISEASE

ALBERT DECKER, M.D.
New York Medical College
MARTIN J. CLYMAN, M.D.
New York City, N. Y.

17
A METHOD OF STUDYING THE UTERINE CANAL BY HYSTEROSCOPIC EXAMINATION

W. B. NORMENT, M.D.
Wesley Long Hospital, Greensboro, N. C.

18
TESTICULAR BIOPSY

FRED A. SIMMONS, M.D.
Harvard Medical School, Boston, Mass.

19
TUBAL INSUFFLATION

LOUIS BONNET, M.D.
Paris, France

20
NORMAL AND ABNORMAL DEVELOPMENT OF THE HUMAN EMBRYO

Medical Museum, Armed Forces Institute of Pathology
Washington, D. C.

21
PATHOLOGY OF TUBAL OCCLUSION

EDMUNDO G. MURRAY, M.D.
Telémaco Susini Institute of Pathology School of Medicine, University of Buenos Aires
Buenos Aires, Argentina

22
THE CAUSE OF MANOMETRIC OSCILLATIONS DURING UTEROTUBAL INSUFFLATION

EDUARDO BUNSTER, M.D.
Hospital del Salvador, Santiago-de-Chile, Chile, S. A.

23
LA MATURATION OVULAIRE, LA FECONDATION ET L'EXPLORATION CYTO-HORMONALE (MUQUEUSE UTERINE HUMAINE)

R. MORICARD, M.D.
F. MORICARD, M.D.
Hospital Broca, Paris, France

24
THE CRYSTALLIZATION TEST OF THE CERVICAL MUCUS

ARTHUR CAMPOS DA PAZ, M.D.
LUIS DA COSTA LIMA, M.D.
ORLANDO BAIOCCHI, M.D.
Rio de Janeiro, Brazil

25
26
27
FETAL SALVAGE PROGRAM: PRECONCEPTIONAL THERAPY

E. C. HUGHES, M.D.
F. J. SCHOENECK, M.D.
C. W. LLOYD, M.D.
A. W. VAN NESS, M.D.
Department of Photography
Department of Obstetrics, State University of New York
State University of New York Medical Center at Syracuse
College of Medicine, Syracuse, N. Y.

28
ABNORMAL OVULATION

WALTER W. WILLIAMS, M.D.
Springfield, Mass.

29
A NEW APPARATUS FOR INTRAUTERINE INSTILLATION OF SEMEN IN ARTIFICIAL INSEMINATION

DELFINO GALLO, M.D.
Guadalajara, Jal., Mexico

30
FEMALE STERILITY: ENDOCRINE FACTORS

RITA S. FINKLER, M.D.
SYLVIA F. BECKER, M.D.
Beth Israel Hospital, Newark, N. J.

31
STUDIES ON THE CONTRACTILITY OF THE HUMAN PREGNANT UTERUS

H. ALVAREZ, M.D.
R. CALDEYRO-BARCIA, M.D.
Facultad de Medicina, Montevideo, Uruguay

WOMEN'S ENTERTAINMENT

(Headquarters—Georgian Lounge—Henry Hudson Hotel)

Registration Fee $10.00 It pays to register and go to everything

Registration fee includes cost of *all events* and bus transportation (banquet not included). Non-registrants will be expected to pay the listed fee for each event. Tickets *must* be obtained for *all* admissions.

Free tickets for many Radio and Television shows will be available all week. Simply ask us for them.

The Women's Headquarters Lounge will be open all week for your pleasure and comfort and the Hostess on duty will be happy to serve you. All information and tickets for the various functions will be available at the WOMEN'S REGISTRATION DESK (2nd floor—Henry Hudson Hotel) or in the WOMEN'S HEADQUARTERS LOUNGE (Georgian Room) at the same hotel.

EVENTS

SUNDAY May 24

Advance registration all day Sunday. It is expected that all the women will register.

MONDAY May 25th

Registration all day Monday. 8:30 P.M.—Ladies are invited to attend the Inaugural Session of the Congress in the Ballroom of the Henry Hudson Hotel. Please wear your badge to gain admittance to meeting.

FASHION SHOW — LUNCHEON

TUESDAY May 26th

12:30 P.M. Fashion show sponsored by Saks Fifth Avenue and luncheon in the Ballroom of the Hotel Pierre at 61st Street and Fifth Avenue. Commentary by Miss Nola Luxford, Fashion Coordinator, Hotel Pierre. Spanish and French translators will be present through the courtesy of Saks Fifth Avenue.

—Fee to non-registrants $5.00

BOAT TRIP

WEDNESDAY May 27th

1:15 P.M. Buses will leave the Henry Hudson Hotel promptly for the Circle Line pier located at 43rd Street and the Hudson River. The boat trip around Manhattan is a *must* for visitors to New York. The trip takes three hours. Buses will meet the boat and return to the hotel at the end of the trip. This event is OPEN TO MEN.

—Fee to non-registrants $3.00 including bus transportation

LEVER HOUSE TOUR — BEAUTY DEMONSTRATION

THURSDAY May 28th

9:30 A.M. Buses will leave the Henry Hudson Hotel for a tour of Lever House. This edifice is one of the most modern buildings in the City of New York. A demonstration on "make-up" and souvenirs for all who attend. Lever House is located on Park Avenue at 53rd Street.

—Fee to non-registrants $1.00 includes transportation

A limited number of hairdresser appointments can be made at Antoines of Sakes Fifth Avenue for Thursday afternoon. All requests must be made by Monday at 5 P.M.

7:30 P.M. Official Banquet of the Congress at the Commodore Hotel. (Reservations should be made at the Main Registration Desk.)

BUS TOUR

FRIDAY May 29th

2:30 P.M. Buses will leave the Henry Hudson Hotel promptly for a Grand Tour of New York. Many of the wonders of New York will be pointed out on this trip, with special emphasis on the UN buildings. The visit and view from the top of the Empire State Building will be of special interest to all. The trip lasts three hours. Tour notes will be printed in Spanish and English and will be distributed to all.

—Fee to non-registrants $4.00

SATURDAY May 30th

8:30 A.M. The ladies are invited to attend the Scientific Session of the Congress on Child Adoption on Saturday morning. Please wear your badge to gain admittance to meeting in the Tudor Room (Room B) second floor of the Henry Hudson Hotel.

SUNDAY May 31st

2:00 P.M. The ladies are cordially invited to attend the Closing Session of the Congress.

TECHNICAL EXHIBITORS

(Second Floor Corridors)

Booth 24 – The Purdue Frederick Company

Booth 25 – Campbell Associates

Booth 26 – The Grafax Company

Booth 27 – Westwood Pharmaceutical Corporation

Booth 28 – Encyclopedia Americana

Booth 29 – Clay Adams Company

Booth 30 – Milex Products

Booth 31 – Kidde Manufacturing Corp.

Booth 32 – Cameron Surgical Specialty Company

Booth 33 – Goodman-Kleiner Company

Booth 34 – International Fertility Association

Booth 35 – American Society for the Study of Sterility

Booth 36 – World Congress on Fertility and Sterility

Booth 37 – American Cystoscope Makers, Inc.

Booth 38 – "Teaching Clinics in New York"

Booth 39 – Ortho Pharmaceutical Corporation

Booth 40 – "Distinguished Books"

Booth 41 – E. Fougera and Company

SOCIETIES AND INSTITUTIONS OFFICIALLY REPRESENTED AT THE CONGRESS

STERILITY SOCIETIES

American Society for the Study of Sterility

Argentine Society for the Study of Sterility
(Dr. Edmundo G. Murray and others)

Brazilian Society for the Study of Sterility
(Dr. A. Campos da Paz)

British Society for the Study of Fertility

Canadian Committee for the Study of Sterility

Cuban Society for the Study of Sterility

French Society for the Study of Sterility

Mexican Association for the Study of Sterility

Monterrey Society for the Study of Sterility

New York Fertility Society

Spanish Society for the Study of Sterility
(Dr. A. Clavero Nunez)

Uruguayan Society for the Study of Sterility
(Drs. Manuel Rodriguez Lopez and Arturo Achard)

Venezuelan Society for the Study of Sterility

MEDICAL SOCIETIES

American Medical Association
(DR. PAUL M. WERNER)

Editorial Board of Obstetricia y Ginecologia Latino-Americana
(DR. JACOBO ROSENVASSER)

Gynecological Society of Israel
(DR. JOSEPH G. ASHERMAN)

Italian Endocrine Society
(DR. D. ANDREANI)

Kupat Holim of Israel
(DR. I. HALBRECHT)

N.S.V.H.–Netherland Society of Sexual Reform
(DR. L. I. SWAAB)

Science Council of Japan
(DR. KAKUICHI ANDO)

Sociedad Chilena de Obstetricia and Ginecologia
(DRS. EDUARDO BUNSTER, JUAN WOOD AND AMALIA ERNST)

Sociedad de Obstetricia y Ginecologia de Rosario (Argentina)
(DRS. PABLO BORRAS AND PEDRO FIGUEROA CASAS)

Société Francaise de Gynécologie
(DRS. RAOUL PALMER AND MICHEL TURPAULT)

UNIVERSITIES

American University at Beirut, Lebanon
(DR. EDMA ABOUCHDID)

Faculty of Medicine, Montevideo, Uruguay
(DRS. MANUEL B. RODRIGUEZ LOPEZ AND ARTURO ACHARD)

Rutgers University, College of Pharmacy
(DAVID FROST)

University of Barcelona
(DR. VICTOR CONHILL-SERRA)

University of Chile
(DRS. EDUARDO BUNSTER, AMALIA ERNST AND JUAN WOOD)

University of Buenos Aires
(DR. JUAN CARLOS AHUMADA)

University of Guadalajara
(DR. DELFINO GALLO)

University of Hong Kong
(DR. DAPHNE CHUN)

University of Paraguay
(DRS. JULIO MORALES AND EUSEBIO VILLAMAYER)

University of Salonica, at Athens
(DR. KONSTANTINE VLACHOS)

GOVERNMENT AGENCIES

Republic of Argentina (Ministro de Salud)
(DR. ADOLFO JASSIN)

Republic of Brazil Department of Agriculture
(DR. ANTONIO MIES FILHO)

Republic of Brazil
(DR. A. CAMPOS DA PAZ)

Republic of Costa Rica
(DR. M. TERAN VALLS)

Republic of El Salvador
(DRS. JOSE GONZALEZ GUERRERO, NARCISO DIAZ BAZAN SALVADOR BATISTA MENA)

Greek Ministry of Agriculture
(DR. KONSTANTINE VLACHOS)

Italian Government
(DR. GIUSEPPE TESAURO)

Mexican Navy
(DR. LOPEZ DE NAVA)

Republic of Portugal (Ministerio do Ultramar)
(DR. PEDRO MONJARDINO)

Sweden (Royal Ministry for Foreign Affairs)
(DRS. AXEL WESTMAN AND ERIC NORDLANDER)

Uruguay (Government and Faculty of Medicine)
(DR. AMERICO STABILE)

Venezuela
(DR. CARLOS NOUEL)

PROGRAM COMMITTEE

Chairman: A. CAMPOS DA PAZ
S. LEON ISRAEL

Sub-Chairmen: M. G. FINCHER

BANQUET COMMITTEE

Chairman: JOHN O. HAMAN

Sub-Chairman: JOHN MACLEOD

WELCOME COMMITTEE

Chairman: J. P. GREENHILL

M. LEOPOLD BRODNY
ADOLFO JASSIN
E. CABEAUX
MARTIN L. STONE
RAUL ORTIZ DE LA PENA
RAFFAELE NAPPI

RECEPTION COMMITTEE

Chairman: SAMUEL L. SIEGLER

Sub-Chairman: CHARLES H. BIRNBERG

Sub-Chairman: ABELARDO SALAS G.

ROBERT S. HOTCHKISS
CHARLES M. MCLANE
UDALL J. SALMON
I. C. RUBIN
CHARLES L. BUXTON
ALBERT DECKER
LOUIS M. HELLMAN
SOPHIA J. KLEEGMAN
RAPHAEL KURZROK
JOHN MACLEOD
ABRAHAM STONE
M. LEOPOLD BRODNY
LEONARD F. CINER
ANNA K. DANIELS
ERALE T. ENGEL
CLAIR E. FOLSOME
RANDOLPH GEPFERT
JOSEPH GOLDZIEHER
ARTHUR V. GREELEY
EDWARD KAHN
HERBERT S. KUPPERMAN
J. IRVING KUSHNER
MAXWELL ROLAND
S. S. ROSENFELD
DANIEL B. ROTH
MEYER D. SCHNALL
PAUL TOPKINS
LEO WILSON
LAWRENCE Q. CRAWLEY
IRVING C. FISCHER
SHERWIN A. KAUFMAN
IRVING I. KURLAND
LOUIS PORTNOY
GEORGE H. ROMBERG
MARTIN L. STONE

COMMITTEE FOR LATIN-AMERICAN NIGHT

Chairman: ABELARDO SALAS G.

Argentina—ADOLFO JASSIN
Brazil—ALVARO DE AQUINO SALLES
Chile—JUAN WOOD
Colombia—RODULFO CAMERO
Cuba—HECTOR ROCAMORA
El Salvador—JOSE GONZALES GUERRERO
Costa Rica—M. TERAN VALLS
Guatemala—OSBERTO ROSALES M.
Mexico—CARLOS D. GUERRERO
Peru—JORGE ASCENZO C.
Panama—A. CARRIZO
Paraguay—JULIO MORALES
Haiti—YVONNE SYLVAIN
Uruguay—A. POU-DE-SANTIAGO
Venezuela—CARLOS NOUEL

COMMITTEE ON SCIENTIFIC EXHIBITS

Chairmen: CHARLES M. MC LANE
Sub-Chairmen: EDWARD C. HUGHES
RITA FINKLER

COMMITTEE ON MOTION PICTURES

Chairman: DANIEL B. ROTH

JOHN CANNIS
CIRO TARTA
RAUL ORTIZ DE LA PENA

WOMEN'S CONVENTION COMMITTEE

MRS. MARTIN L. STONE, *Chairman*
NEW YORK CITY

MRS. M. COHEN
MRS. C. CHARNY
MRS. A. DONNENFELD
MRS. I. FISCHER
MRS. C. FOLSOME
MRS. A. GUTTMACHER
MRS. R. HOTCHKISS
MRS. S. L. ISRAEL
MRS. E. KAHN
MRS. C. MC LANE
MRS. G. PAPANICOLAOU
MRS. M. ROLAND
MRS. G. ROMBERG
MRS. I. C. RUBIN
MRS. M. SAGARRA
MRS. M. SCHNALL
MRS. S. L. SIEGLER
MRS. H. THOMAS
MRS. A. WEISMAN
MRS. W. W. WILLIAMS

WOMEN'S HEADQUARTERS LOUNGE—GEORGIAN LOUNGE
HENRY HUDSON HOTEL

NOTES

NEW YORK UNIVERSITY POST-GRADUATE MEDICAL SCHOOL

Departments of
Obstetrics, Gynecology and Urology

COURSE NO. 564-A • INFERTILITY

December 8 through 10, 1952

UNDER THE DIRECTION OF DR. LOCKE L. MACKENZIE AND DR. ROBERT S. HOTCHKISS

Tuition: $40

ALL SESSIONS IN ERDMANN AUDITORIUM, UNIVERSITY HOSPITAL

303 EAST 20TH STREET N.Y.C. (UNLESS OTHERWISE NOTE)

MONDAY, DEC. 8

8:45 - 9:15 a.m. 477 First Avenue	Registration
9:15 - 10:00 a.m.	Introductory Lecture *Dr. Locke L. Mackenzie*
10:00 - 11:00	Physiology of Ovulation *Dr. Maxwell Roland*
11:00 a.m. - 12 noon	Physiology of Menstruation *Dr. Theodore Neustaedter*
12:00 - 1:00 p.m.	Lunch Hour
1:00 - 2:00 p.m.	Technique of Tubal Insufflation *Dr. Ernest Myller*
2:00 - 3:00 p.m. *GYN Clinic*	Performance of Tubal Insufflation *Dr. Maxwell Roland*
3:00 - 4:00 p.m.	Fundamental Considerations of the Anatomy and Physiology of the Male Genital System *Dr. Robert S. Hotchkiss*
4:00 - 5:00 p.m.	History Taking and Physical Examination in the Male *Dr. Robert S. Hotchkiss*
5:00 - 6:00 p.m.	Cervical Incompatibility *Dr. Locke L. Mackenzie*

TUESDAY, DEC. 9

9:00 - 10:00 a.m.	Physiology of Fertilization and Nidation *Dr. Maxwell Roland*
10:00 - 11:00 a.m.	Other Endocrine Factors Involved in Infertility *Dr. Theodore Neustaedter*
11:00 a.m. - 12:00 noon	Uterine Malpositions, Fibroids, Ovarian Cysts and Cervical Pathology as Factors in Infertility *Dr. Walter T. Dannreuther*
12:00 - 1:00 p.m.	Lunch Hour

TUESDAY, DEC. 9 *(continued)*

1:00 - 2:00 p.m.	Technique of Artificial Insemination *Dr. Locke L. Mackenzie*
2:00 - 5:00 p.m. *GYN Cytology Laboratory*	Techniques and Interpretation of Semen Analysis *Drs. John MacLeod, Robert Hotchkiss, and John Silberblatt*
5:00 - 6:00 p.m.	Motion Picture on Semen Analysis *Dr. Robert S. Hotchkiss*

WEDNESDAY, DEC. 10

9:00 - 10:00 a.m.	Methods of Determination of the Time of Ovulation *Dr. Locke L. Mackenzie*
10:00 a.m. - 1:00 p.m. *GYN Cytology Laboratory*	Cytology of the Menstrual Cycle *Dr. E. Lawrence Hecht*
1:00 - 2:00 p.m.	Lunch Hour
2:00 - 3:00 p.m. *GYN Clinic*	Performance of Hystero-salpingography *Dr. Mortimer N. Hyams*
3:00 - 4:00 p.m.	Surgery of Occluded Fallopian Tubes *Dr. Locke L. Mackenzie*
4:00 - 4:30 p.m.	Surgery of Male in Infertility *Dr. Robert S. Hotchkiss*
4:30 p.m.	Round Table Discussion

New York University - Bellevue Medical Center

University Hospital

303 E. 20th Street

New York

Department of Gynecology — Doctor W.T.Dannreuther, Executive Officer

Staff Conference
Wednesday, December 15, 1948 — Amphitheatre "B" at 4:00 p.m.

1. Introduction of a New Instrument	Doctor Ernest Myller
2. Report of a Case of Puberty Bleeding	Doctor Theodore Neustaedter
3. Presentation of a Case of Papillomata of the Bladder	Doctor Robert Cushing
4. Presentation of a Case of Mesenteric Thrombosis Complicating Pregnancy	Doctor Henry MacDuff
5. Report on Ectopic Pregnancy	Doctor Michael Jordan

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

OFFICE OF THE SECRETARY-TREASURER
DR. PAUL TITUS
1015 Highland Building
Pittsburgh, Pa.

October 2, 1947.

TO APPLICANTS OF THE AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY:

It is noted from your application for admission to the examinations of the Board that you are of foreign birth, and I regret to advise you that it will be necessary for you to furnish us with a notarized statement regarding your citizenship in either the United States or Canada, since the Board has a ruling that it cannot accept for admission to examination any candidate who is not a full citizen of either the United States or Canada.

This ruling became effective at the close of the annual meeting of the Board on June 9, 1942, and applies to all applications received in this office after that date regardless of the date on which the original inquiry regarding application was made.

I would suggest that you have prepared by a notary public a statement that he has seen your papers and that they are in order, attesting to your full citizenship in the United States or Canada, or if your citizenship was attained through your parents' papers when you were a minor, attested proof of this. Do not send citizenship papers.

We regret greatly that it is necessary to write you about this matter, but it is required that we have such information for our permanent files.

Yours very truly,

Paul Titus.

PT:A

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

OFFICE OF THE SECRETARY-TREASURER
PAUL TITUS, M. D.
1015 HIGHLAND BUILDING
PITTSBURGH 6, PA.

April 27, 1948.

Dear Doctor Myller:

The Credentials Committee of this Board directs me to inform you that you are eligible for admission to the Part I examination of this Board to be held in 1949, or at any regularly scheduled Part I examination within three years of the date of filing your application.

The examinations of the Board consist of two parts:

Part I - (a) Written examination, to be held on the first Friday of each February in various cities of the United States and Canada. Arrangements will be made for you to report for the Part I written examination at or near your place of residence.

(b) Under a recent change in regulations, case reports to be reviewed should be sent to the office of the Secretary as soon as possible after receipt of this notice of eligibility. In making acknowledgment of this notice, the Secretary should be notified of the approximate date on which the case reports may be expected. This date should not be more than thirty (30) days after the date of the eligibility notice, and none may be submitted after the date of the scheduled Part I examination in February except by special arrangement. Candidates cannot proceed to Part II examinations until after Part I has been successfully completed.

Part II - - An oral-clinical and pathology examination, following completion of the Part I examination at a subsequent meeting of the entire Board. This examination is usually held immediately prior to, and at the place of, the annual convention of the American Medical Association, but may be scheduled elsewhere.

Information as to the dates and exact location of these examinations will be published in State medical journals and The Journal of the American Medical Association. Notices will be sent you well in advance of the examination dates.

Your examination fee of $85.00 is now due. Please make your check payable to the American Board of Obstetrics and Gynecology.

Ernest Myller, M. D.,
875 Park Avenue,
New York 21, New York.

Very truly yours,

Paul Titus

Paul Titus, M. D.
Secretary-Treasurer

pt/adf

JUL 17 1948

Cert. Rept. abgeschickt.

170

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

OFFICE OF THE SECRETARY-TREASURER
PAUL TITUS, M.D.
1015 HIGHLAND BUILDING
PITTSBURGH 6, PA.

April 1, 1949.

Ernest Myller, M. D.,
875 Park Avenue,
New York 21, New York.

Dear Doctor Myller:

The American Board of Obstetrics and Gynecology directs me to inform you, which I do with pleasure, that you have attained a satisfactory grade in your written examination and in your case histories.

You are now eligible for the final examination, Part II (oral and pathology) which will be held at the Hotel Shoreland, Chicago, Illinois, May 8 to 14 inclusive, 1949. Notice of your examination assignment, from which you will have dates for making hotel reservations, is either enclosed herewith or will be forwarded to you soon.

Very truly yours,

Paul Titus

Paul Titus, M. D.,
Secretary.

PTadf

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

OFFICE OF THE SECRETARY-TREASURER
PAUL TITUS, M. D.
1015 HIGHLAND BUILDING
PITTSBURGH 6, PA.

May 19, 1949.

Ernest Myller, M. D.,
875 Park Avenue,
New York 21, New York.

Dear Doctor Myller:

The American Board of Obstetrics and Gynecology directs me to inform you, which I do with pleasure, that you have successfully passed the examinations for certification.

Please fill out and return the enclosed slip to this office so that your certificate may be properly inscribed. The certificate will be forwarded to you within the next few months.

In giving us the information for your certificate and for your listing with the Board, will you advise us if you maintain more than one office, and wish more than one listing in the geographical list of Diplomates. We will appreciate also if you will advise this office promptly at any time that your address is changed.

It is the sincere hope of the entire Board that you will continue your active interest in the work of the Board, and your suggestions will be welcome at all times.

Cordially yours,

Paul Titus

Paul Titus, M. D.,
Secretary.

PTadf

encl - certificate slip

TEL. PLAZA 5-1274

UNITED STATES & INTERNATIONAL
PATENTS & TRADE MARKS

ARMAND E. MESTERN
PATENT ATTORNEY
565 FIFTH AVENUE
NEW YORK 17, N. Y.

registered

Sept. 16, 1949

Dr. Ernest Myller,
875 Park Avenue,
New York, N.Y.

re:Insufflation Cannula

Dear Dr. Myller:

I have pleasure to enclose the document relating to the patent issued in the above matter.

The number of the patent is:

2,480,041.

The patent is dated:
August 23, 1949

The term of the patent is 17 years from the said date. The patented articles should be marked: U.S.Patent 2,480,041.

Please acknowledge receipt and oblige

yours very truly,

A. E. Mestern

AEM/AFA
enc.

No. 19208.

Massachusetts

Board of Registration in Medicine

As a means of identifying applicants to practice medicine, two unmounted finished photographs (not proofs), 3¼×4¾, of each applicant must be furnished, one of which shall be certified by the Dean of the Medical College (see note) which he attended and the other shall be marked with the number assigned to the candidate and shall be returned to him with his card of admission. **Each applicant must bring the returned photograph to the Board of Examiners on the morning on which he takes his first examination; otherwise the applicant will not be admitted to the examination. Cap and gown photographs and snapshots are not accepted.**

Photograph to be presented at each examination by displaying same upon table when writing.

This blank should be pasted on the unmounted photograph which is to be returned to the applicant with the card of admission.

DR. ERNEST MYLLER

Am 23. Oktober starb im 60. Lebensjahr infolge einer Herzattacke der bekannte Gynäkologe Dr. Ernst Myller, der in New York am Madison Avenue und University Hospital tätig war. In Schmalkalden geboren, studierte er Medizin an der Universität von Berlin und wirkte bis zur Machtübernahme der Nazis an einem Spital in Nürnberg. Danach wanderte er nach Griechenland aus, wo er in Athen ein Spital gründete, dem er sieben Jahre lang vorstand.

Neben seiner ausserordentlich erfolgreichen medizinischen Tätigkeit — er war Arzt der amerikanischen und britischen Botschaft und des Königs von Griechenland — stellte er sich nach Kriegsausbruch den Alliierten zur Verfügung und arbeitete für das British Intelligence Service. Als die Deutschen 1941 in Griechenland einfielen, evakuierten die Engländer Dr. Myller und seine Familie auf einem britischen Kreuzer. Dr. Myller ging nach den Vereinigten Staaten und liess sich in New York nieder.

Er hat zahlreiche wissenschaftliche Arbeiten auf gynäkologischem Gebiet veröffentlicht und auch Instrumente entworfen, darunter solche zur Feststellung von Gebärmutterkrebs. Er war Sekretär der Rudolf Virchow Medical Society und Chairman der Conference of the Obstetrical Board of Madison Avenue Hospital sowie Mitglied verschiedener wissenschaftlicher Vereinigungen.

Dank seiner grossen Hilfsbereitschaft, Liebenswürdigkeit und Bescheidenheit erfreute sich Dr. Myller besonderer Beliebtheit bei allen, die ihn kannten. Er wird von seiner Frau, Liselotte, und einem Sohn, Ralph, überlebt. Sein zweiter Sohn, Lieutenant Ulrich Myller, ist vor drei Monaten in Korea gefallen.

Reprinted from NEW YORK STATE JOURNAL OF MEDICINE, Vol. 50, No. 3, Feb. 1, 1950

A CERVICAL "SCRAPER"

ERNEST MYLLER, M.D., New York City

(*From the University Hospital, New York University-Bellevue Medical Center*)

PAPANICOLAOU'S detection of exfoliated cancer cells in the vaginal smear has added greatly to the early recognition of malignant disease. The present method of scraping the cervical canal in order to obtain a greater concentration of cancer cells, and especially more cells from the cervical epithelium, is considered an improvement over the simple vaginal smear. The important region to be investigated is the junctional region between the columnar cell epithelium and the squamous cell epithelium, since the majority of cervical cancers originate in that area. The detection of cancer of the cervix and the fundus at the earliest possible moment will increase the curability of this disease to a considerable degree. The well-founded assumption that a noninvasive carcinoma may be present intraepithelially for many years without any symptoms and without progress justifies an examination of every adult woman by the vaginal smear method or with a cervical scraping, or both.

A simple instrument, the cervical "scraper," facilitates obtaining satisfactory specimens with every routine vaginal examination.* This instrument consists of a small metal cone attached to a handle (Fig. 1). On both sides of the cone there is a fin (Fig. 2). These two fins converge on the top of the cone. The free sides of the fins are rectangular but not sharp. When used properly no trauma occurs; only epithelial cells will be scraped off. Satisfactory smears can be obtained by an examiner without previous experience.

FIG. 1.

After exposure of the cervix with a speculum, the cone is inserted into the cervical canal and rotated once or twice with very slight pressure (Fig. 3). Occasionally, suspicious areas outside the canal should also be scraped off with the top of the instrument where the two fins join. The epithelial cells will adhere to the fins, and the material thus obtained is transferred to glass slides by smearing it from the fins directly on the slides. The slides are immediately immersed in the fixative solution.

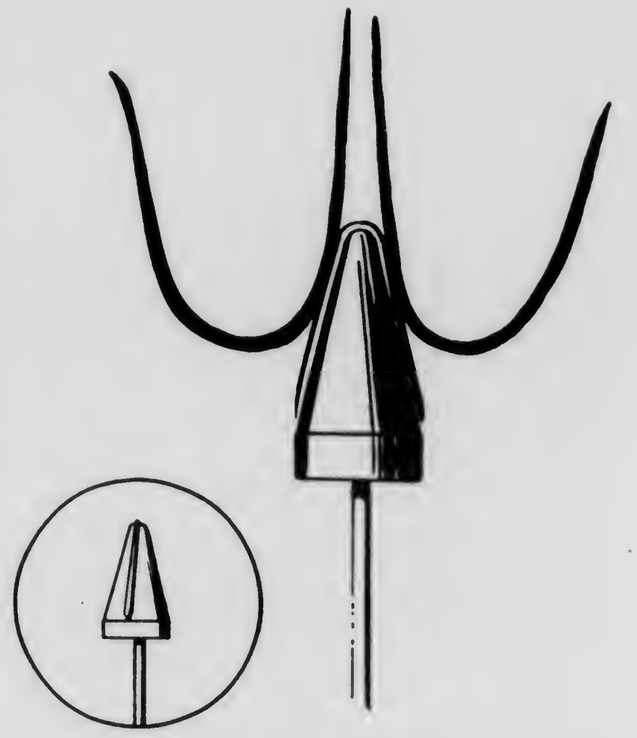


FIG. 2. FIG. 3.

The conical shape of the cervical "scraper" prevents its deviation from the longitudinal axis of the cervical canal; the scraper is bound to come in contact with the epithelial junction line whether the cervix is small or large.

The cervical "scraper" is easily sterilized and can be used repeatedly to obtain cells from the cervix. In comparing smears taken with this scraper and with disposable wooden spatulas, it appears that more sheets of well-preserved cervical cells are obtained with the former with little or no bleeding. The instrument penetrates as easily into the nonparous cervical os as into a lacerated, diseased cervical canal.

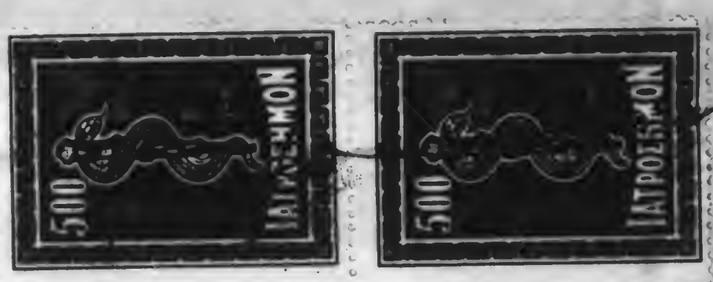
* Manufactured and distributed by United Surgical Supply Co., 160 East 56th Street, New York City.

UNIVERSITY OF ATHENS
PHARMACOLOGICAL DEPARTMENT

Re : Dr ERNEST MYLLER .

To Whom it may concern.

This is to certify that ERNEST MYLLER, M.D. 875 Park Avenue, New York 21, N.Y., was established in Athens from 1934-1941. While here he directed a gynecological-obstetrical Clinic. In my estimation he was one of the best gynecologists and obstetricians in Athens. I consider him an excellant physician and surgeon. I have had the opportunity to follow his operations and have seen excellent results.



GEORGE IOANNIDOGLU
Member of the Academy, Athens,
Chairman of the Supreme Health Council and
Professor of the Medical Faculty in the University of Athens.

Athens, 30th September 1946.

178

Reprinted, with additions, from The Journal of the American Medical Association, June 21, 1952, Vol. 149, pp. 757 and 758

CONTROL OF POSTPARTUM HEMORRHAGE

Ernest Myller, M.D., New York

Hemorrhage is one of the most frequent causes of postpartum death. Statistics being reliable only from larger hospitals, we may assume that many postpartum deaths are either unreported or designated otherwise. In a report from the Mayo Clinic,[1] the incidence of death from hemorrhage is 0.491 per 1,000 births, an average of 1 case per 2,000 deliveries. Postpartum hemorrhage in a large Brooklyn hospital caused death in 34 of 37 cases of obstetric fatality. It can only be conjectured how many more occur in institutions with lower standards.

There are standard methods of treating postpartum hemorrhage. It must be assumed from the poor results reported that they are not always successful. The usual routine procedure is to endeavor to find out whether the uterus is empty or to establish other causes for the bleeding. By the time the examination is completed, the hemorrhage may become alarming. Posterior pituitary (pituitrin®) or ergot is given intravenously, the uterus is massaged, and in many cases valuable time is lost. Intrauterine packing is resorted to, which stops the bleeding for the moment. Blood transfusions are started. After a short time the bleeding may start again, seeping through the packing. Removal and reapplication of packing does not necessarily stop the bleeding and, in spite of concomitant transfusions, the patient may rapidly become moribund. It is the belief of Douglass [2] that when the first uterine packing is not successful, the uterus is probably ruptured. If such is the case, a second packing is

From the Department of Obstetrics and Gynecology, New York University Medical College.

1. Hunt, A. B.: Massive Obstetric Hemorrhage Requiring Hysterectomy, Am. J. Obst. & Gynec. **49**: 246-252 (Feb.) 1945.

2. Douglass, L. H., in discussion of Beacham, W. D., and Beacham, D. W.: Rupture of the Uterus, Am. J. Obst. & Gynec. **61**: 824-837 (April) 1951.

definitely contraindicated. Greenhill [3] also advised against packing the uterus a second time, recommending immediate hysterectomy as the safer procedure.

Postpartum hemorrhage can be controlled, no matter what its cause, by a method described many years ago by Logothetopoulos in Athens.[4] His method involves a type of packing that he originally used after clamp hysterectomies. It was inserted into the pelvis after the uterus was taken out, allowing immediate removal of the clamps without any loss of blood. Logothetopoulos applied the same principle of hemostasis to control of bleeding from the postpartum uterus after considerable experience in his surgical cases had proved it efficient. He called the procedure "traction packing."

METHOD

A doubly folded quadrangular piece of gauze 36 in. (91 cm.) square and a gauze roll 4 in. (10 cm.) wide and 16 yd. (15 m.) long are required. The operator grasps the cervix with one or several tenaculum forceps and brings it down well to the level of the vulva. The blades of a vaginal speculum are helpful in spreading the cervical canal apart. The center of the quadrangular piece of gauze is inserted into the uterus by means of a sponge forceps. In contrast to the conventional method, it is not necessary to reach the fundus with this packing.

The four corners of the quadrangular piece of gauze protruding from the uterus are spread apart. The operator then packs the long strip of gauze into the gauze sack situated in the uterus. Carefully done, this produces a large round ball inside of the uterus. The size of this ball is always the same, being determined by the uniform amount of gauze strip used. Thus the whole procedure becomes automatic and not subject to individual alterations, an important point in an operation when time means everything.

The four corners of the quadrangular piece of gauze are grasped in one hand and pulled downward. The blood supply of the uterus is cut off and bleeding ceases at once. In order to maintain the downward traction, the gauze stem is run through a thick ring pessary, and the pessary is pushed upward against the vulva, which is protected by a piece of gauze. The ring is fixed in its position with a clamp.

3. Greenhill, J. P.: in Yearbook of Obstetrics and Gynecology, Chicago, The Yearbook Publishers, Inc., 1950, p. 241.

4. Logothetopulos, K.: Gynäknelogische Chirurgie, Berlin, Julius Springer, 1939

Conventional packing is an attempt to compress the open sinuses and blood vessels in the wall of the bleeding uterus. To be sure, the packing itself may produce a contraction, and only in such cases will it be effective.

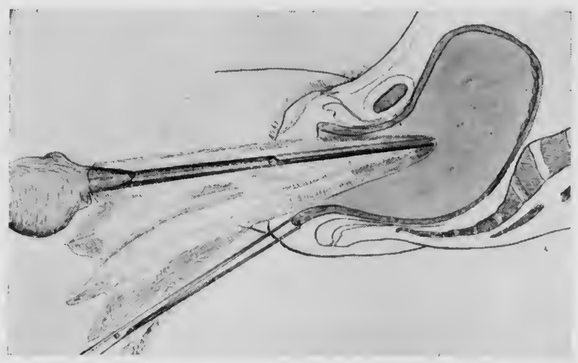


Fig. 1.—Insertion of the quadrangular piece of gauze into the uterine cavity.

Fig. 2.—Spreading the quadrangular gauze and filling it with a gauze strip.

On the other hand, traction compresses the uterine vessels against the pelvic wall, interrupting the blood flow to the uterus completely. If the uterus is atonic, there is in addition to this hemostatic effect the oxytocic

Fig. 3.—Downward traction applied to four corners of the quadrangular piece of gauze.

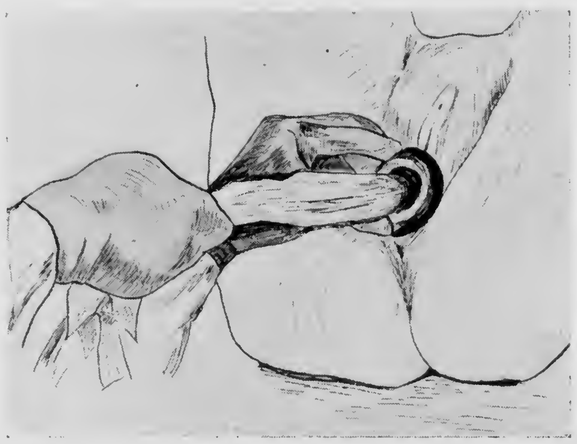


Fig. 4.—The stem of gauze pulled through a ring pessary

effect of anemia, which is produced by compression of the arteries. Furthermore, it is possible that pressure upon Frankenhauser's ganglion stimulates the uterine muscle to contract by way of the autonomic nerves. It is obvious that the cause of the bleeding does not influence the effectiveness of this packing. Wherever the bleeding comes from, it will be stopped. This packing is inserted with relative ease, far more readily than a conventional packing, with no need to fill the uterine cavity completely, and the procedure is rapid and precise.

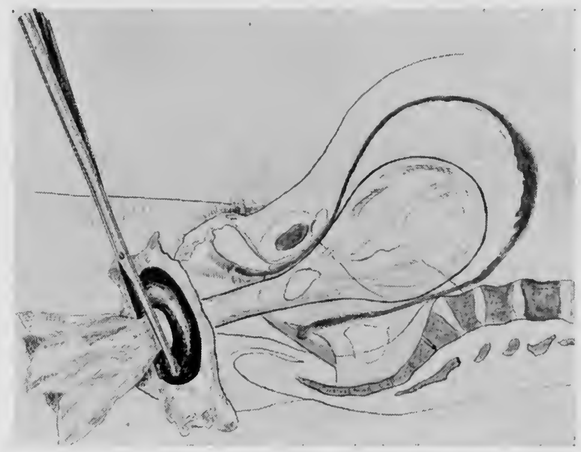


Fig. 5.—Packing in situ and maintenance of traction by application of a strong clamp.

This packing is indicated only in cases of severe hemorrhage, after simpler procedures have been attempted and the vagina and cervix examined as possible sources of bleeding. Its purpose is to control bleeding immediately and to eliminate anxiety and haste. Once accomplished, additional measures such as transfusion and consultation may be obtained in leisure. As the patient's condition improves with or without transfusion, the subsequent procedure depends upon diagnosis. If the uterus is atonic and the bleeding has stopped entirely, the pressure is released by opening the clamp. After a short while the internal strip of gauze may be gradually removed,

followed by the quadrangular piece of gauze, which may take out with it pieces of membrane left behind. The removal of the packing is almost painless.

If the hemorrhage has occurred after a difficult forceps delivery, a version, or in a case in which a cesarean section has been done previously, the possibility of a ruptured uterus must be considered. In this instance the packing may enter the abdominal cavity through the tear in the uterus, intentionally or by chance. No harm can be done by the possible additional trauma to the uterine wall, since it will be necessary to remove the uterus any-

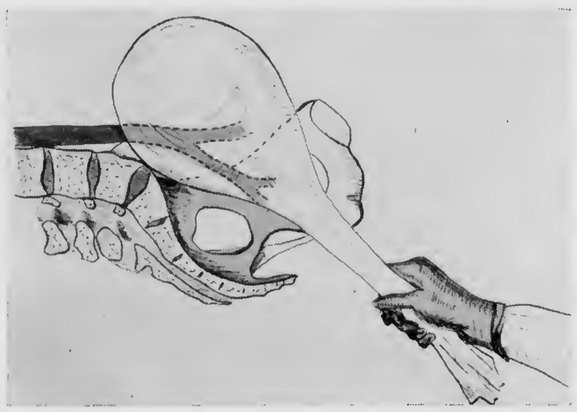


Fig. 6.—Compression of the hypogastric vessels when traction is applied to the gauze packing.

way. Once in place, traction packing allows time for careful preoperative preparation. There is no urgency for any operative intervention while the patient is in shock. Her chances for recovery after hysterectomy or more conservative procedures are much improved.

According to Greenhill, the mortality rate of uterine rupture is 58%. A very recent report from the Harlem Hospital [5] gives the mortality rate as 57.1%. Considering the excellent facilities and expert attention in this hospital, it may be assumed that in less well-equipped

5. Posner, L. B.; Smith, D. F., and Trambert, H. L.: 14-Year Survey of Parturient Ruptured Uterus at Harlem Hospital, New York J. Med. **51**: 641-644 (March) 1951.

institutions the mortality rate may be much higher. With successful hemostasis and eliminated urgency, with time to recover from shock, mortality rates should be considerably reduced. Posner and his co-workers [5] stated, "Immediate transfusion and laparotomy, regardless of the degree of shock, is the surgical treatment of rupture of the uterus." Speaking of mortality, they add that with adequate blood transfusion and present-day antibiotics all patients might have survived. All these ends can be realized with traction packing; there is no need of immediate operation "regardless of the degree of shock." Actual experience with this packing is limited. Logothetopoulos has used it in only about 10 cases of postpartum hemorrhage, but has had excellent results in all. This packing procedure was studied in cadavers at the University of Athens.[6] The packing was inserted in the manner described, followed by traction. A dye was injected into the carotid artery under pressure and thereafter the pelvic organs were examined. All blood vessels except the uterine arteries were filled with the dye. It was interesting to note that the ureters were not compressed; they could be flushed through from above with very slight pressure.

SUMMARY

There are few new methods available to reduce the mortality rate of postpartum hemorrhage. Blood transfusion is often unsuccessful because hemostasis is difficult. Operations are often done with the patient in shock. Traction packing controls all postpartum bleeding immediately and therefore should reduce the mortality rate.

65 E. 76th St.

6. Christopulos, C.: Anatomische Ergebnisse der Blutstillungsmethode nach Logothetopulos, Zentralbl. f. Gynäk. **57**: 807-809 (April) 1933

Printed and Published in the United States of America

NEW YORK UNIVERSITY-BELLEVUE MEDICAL CENTER
OF NEW YORK UNIVERSITY
UNIVERSITY HOSPITAL
(FORMERLY NEW YORK POST-GRADUATE HOSPITAL)
303 EAST TWENTIETH STREET, NEW YORK 3, N.Y.

EDWARD M. BERNECKER, M.D., *Administrator*

GRAMERCY 7-2000

March 24, 1953

Ernest Myller, M.D.
65 East 76th Street
New York, New York

Dear Doctor Myller:

Thank you very much for submitting the questions for the examination of the foreign physicians this coming Friday. I hope you will not feel disturbed that I have not used them. Many more were received than could be used and those whose were not selected thereby escape the onerous task of correcting the papers. I shall file your letter for possible later examination.

Miss Eskin has brought to my attention that the present Committee of three, to review requests for performing therapeutic abortions in this hospital, has served for over a year and should be changed. Consequently, I have asked Doctor Locke L. Mackenzie to serve as chairman of this Special Committee and I wonder if you will be willing to be one of the other two members. The duties are not very heavy. They consist of reviewing the histories of an average 4 - 5 cases on whom members of the staff wish to perform therapeutic abortions, and either approving or disapproving them for this procedure. As you know, this is carried out anonymously and the decision is communicated to the attending surgeon under my name. I hope you will be willing to undertake this task.

Sincerely yours,

Gray H. Twombly

Gray H. Twombly, M.D.
Associate Director
Department of Obstetrids and Gynecology

GHT:nse

NEW YORK UNIVERSITY
WASHINGTON SQUARE
NEW YORK 3, N.Y.

OFFICE OF THE VICE CHANCELLOR
AND SECRETARY

18 June, 1953

My dear Doctor Myller:

You are hereby advised that the Council of New York University has approved and confirmed the action of the Board of Trustees of the New York University-Bellevue Medical Center in appointing you to the part time staff of the College of Medicine for the year beginning July 1, 1953 with the title of Clinical Instructor in Obstetrics and Gynecology.

Very truly yours,

Vice Chancellor
and Secretary

Dr. Ernest Myller
450 East 63d Street
New York 21, New York

NEW YORK UNIVERSITY
WASHINGTON SQUARE
NEW YORK 3, N.Y.

OFFICE OF THE VICE CHANCELLOR
AND SECRETARY

15 June, 1950

My dear Doctor Myller:

You are hereby advised that the Council of New York University, at a meeting held May 22, 1950, approved and confirmed the action of the Board of Trustees of the New York University-Bellevue Medical Center is appointing you to the part time staff of the Post-Graduate Medical School for the academic year 1950-1951, beginning September 1, 1950, with the title of Clinical Instructor in Obstetrics and Gynecology.

Very truly yours,

Harold O. Vaughan

Vice Chancellor
and Secretary

Dr. Ernest Myller
88-35 Elmhurst Avenue
Elmhurst, New York

S. R. 401

CITY OF NEW YORK
DEPARTMENT OF HOSPITALS

HARLEM HOSPITAL
136TH STREET AND LENOX AVENUE
NEW YORK 30, N. Y.

May 16,1952

Dr.Ernest Myller
65 East 76th.Street,
New York,N.Y.

Dear Doctor Myller:

I wish to thank you on behalf of the Obstetrical Staff for your excellent presentation on uterine packing, at our last monthly conference.

With best wishes, I am,

Sincerely yours,

A. Charles Posner

A.Charles Posner,M.D.
Director of Obstetrics

ACP/MM

NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL

303 EAST 20TH STREET, AT SECOND AVENUE

NEW YORK, 3, N. Y.

OUT-PATIENT DEPARTMENT

GRAMERCY 5-7080

January 28, 1947

To Whom It May Concern:

Dr. Ernest Myller has been associated with the Gynecological Staff of the Post Graduate Hospital for the past 5 years.

During the past 4 years he has been associated with my clinic. I have found him to be competent and skillful in Gynecological diagnosis and treatment.

He has an agreeable personality and works well with the other members of the staff.

Adolph Jacoby, M.D.

DR. ROBERT J. LOWRIE
140 EAST FIFTY-FOURTH STREET
NEW YORK 22, N.Y.

November 29, 1950.

Dr. Ernest Myller
65 East 76th Street
New York, N.Y.

RE: Offering technic of biopsy of
the cervix by Myller's Cervical Scraper
in Lowrie's GYNECOLOGY

Dear Doctor Myller:

I have read with interest your article on the Cervical Scraper in the February 1st, 1950 issue of the New York State Journal of Medicine. We are now reading galley proofs of our forthcoming two volume work in gynecology and we have a chapter devoted to Methods of Biopsy in volume II which is on gynecologic surgery.

We are anxious to have our work up to the minute so to speak, and for this reason we would like to include a picture of your instrument with the script in the form of a legend. At this late date with the type of the book about half set up in print, we are more or less limited to making any additions in the form of legends. In our work we are using the legends pretty much exclusively to describe technic and we find it to be very satisfactory.

On the chance that you would give us consent to reproduce your technic with your figures 2 and 3, I have prepared the enclosed material. If you give us consent for reproduction, then will you make any corrections in pencil and return your corrected sheet to me. Do you have the original illustrations of figures 2 and 3. If not, we could get permission from the manufacturer to loan the electros or cuts to our publisher.

Because of the proximity of the date of publication, we should appreciate an early reply from you, and would thank you for such cooperation as you may see fit to extend. Could you spare us two reprints.

Sincerely

Robert J. Lowrie

Robert J. Lowrie
Editor-in-chief

P.S. Our publisher is Charles C. Thomas, 321 East Lawrence Avenue, Springfield, Illinois. In our two volume work there are 66 contributors from 30 medical schools in the United States, Canada and England. Volume II is devoted to Gynecologic Surgery. As of this date over half of the galley proofs are corrected.

NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL
303 EAST 20th STREET, at SECOND AVENUE
NEW YORK

June 23, 1943

Dear Doctor Myller:

I have the honor to advise you that, on the nomination of the Medical Board, you have been appointed by the Board of Directors of the New York Post-Graduate Medical School and Hospital to be

Junior Assistant Gynecologist to the Dispensary.

This appointment takes effect as of May 1, 1943, and will remain effective at the pleasure of the Board of Directors until further notice. It is a temporary appointment until six months after the war ends, at which time it may be made permanent.

By authority of the Board of Directors,

George A. Vondermuhll
Secretary

Dr. Ernest Myller
40 East 61st Street
New York, N.Y.

COLUMBIA UNIVERSITY
NEW YORK POST-GRADUATE MEDICAL SCHOOL
303 EAST 20TH STREET
NEW YORK

OFFICE OF THE DIRECTOR

October 14, 1942

Dr. Ernest Myller
40 East 61st Street
New York

Dear Doctor Myller:

It gives me pleasure to inform you that upon the recommendation of Dr. Walter T. Dannreuther, Executive Officer of the Department of Gynecology, you have been appointed Provisional Assistant to the Dispensary in that department for a period of six months, beginning November 1, 1942.

A copy of our Directory of the Staff is being sent to you under separate cover.

Very truly yours,

Thomas H. Russell, M.D.
Assistant Director

THR:mm

PHONE TRafalgar 9-1100

MADISON AVENUE HOSPITAL
30 EAST 76th STREET
NEW YORK 21, N. Y.

Dr. E. Myller
65 E. 76 St.
New York City

Dear Doctor:

The Obstetrical Department of the Madison Avenue Hospital cordially invites you to attend its regular quarterly DINNER MEETING to be held on the 15th floor of the hospital at 8 P.M. on Wednesday, June 10th 1953.

PROGRAM

Maternal and fetal death statistics for the past three months.

SCIENTIFIC PROGRAM

1. Carcinoma In Situ In Pregnancy. Ernest Myller,M.D.

2. Uterovaginal Extirpation For Procidentia.
(Motion picture) Charles H.Thom,M.D.

Sincerely yours,
Geza Weitzner M.D.

Dinner: 8 P.M.
R.S.V.P.

Geza Weitzner, M.D.

NEW YORK UNIVERSITY
WASHINGTON SQUARE
NEW YORK 3, N.Y.

OFFICE OF THE VICE CHANCELLOR
AND SECRETARY

10 June, 1949

My dear Doctor Myller:

You are hereby advised that the Council of New York University, at a meeting held May 23, 1949, approved and confirmed the recommendation of the Board of Trustees of the New York University-Bellevue Medical Center that you be appointed to the staff of the Post-Graduate Medical School for the academic year 1949-1950, beginning September 1, 1949, with the title of Clinical Instructor in Obstetrics and Gynecology.

Very truly yours,

Harold C. Vaughan

Vice Chancellor
and Secretary

Dr. Ernest Myller
88-35 Elmhurst Avenue
Elmhurst, New York

NEW YORK UNIVERSITY
WASHINGTON SQUARE
NEW YORK 3, N.Y.

OFFICE OF THE VICE CHANCELLOR
AND SECRETARY

20 June, 1952

My dear Doctor Myller:

You are hereby advised that the Council of New York University, at a meeting held May 26, 1952, approved and confirmed the action of the Board of Trustees of the New York University-Bellevue Medical Center in appointing you to the part time staff of the Post-Graduate Medical School for the year beginning July 1, 1952, with the title of Instructor in Clinical Obstetrics and Gynecology.

The period of this appointment has been made coterminus with the fiscal year of the Medical Center and thus overlaps the months of July and August, 1952 included in your current term of service.

Very truly yours,

Harold O. Wanklin

Vice Chancellor
and Secretary

Dr. Ernest Myller
450 East 63d Street
New York 21, New York

NEW YORK UNIVERSITY–BELLEVUE MEDICAL CENTER

OF NEW YORK UNIVERSITY

477 FIRST AVENUE, NEW YORK 16, N.Y.

OREGON 9-3200

July 3, 1953

Dear Doctor Myller:

You are hereby advised that the Board of Trustees at a meeting held in June 1953 approved and confirmed your re-appointment to the University Hospital staff as hereinafter set forth:

Title: Assistant Attending Obstetrician and Gynecologist
Period: Effective July 1, 1953

It is understood that all staff appointments shall be for periods not in excess of one year, and shall terminate on June 30th of each year thereafter following the commencement of service under the appointment, provided however, that all such appointments shall be subject to the right of the Board of Trustees to modify or cancel the terms of service at any time in the event that conditions make such action desirable, the decision of the Board as to the desirability of such action being final.

Sincerely yours,

Peter Craftchan
for
Secretary
Board of Trustees

Doctor Ernest Myller
450 East 63rd Street
New York 21, New York

ORTHO RESEARCH FOUNDATION
RARITAN, NEW JERSEY

December 11, 1952

Dr. Ernest Myller
65 East 76th Street
New York 21, New York

Dear Dr. Myller:

Thanks for the reprint. The technique is clever; and if it is as effective as a first aid, as I think it is, should be widely adopted.

We will be delayed for a couple of weeks in getting out the next batch of Salpix. Just made up a batch; but, although the vials are autoclaved, sterility tests have to be made. This takes 2 weeks.

December 23 to January 3 I shall be in Texas.

With greetings to the approaching Holiday Season and Best Wishes for the New Year,

Sincerely,

Carl G. Hartman

Carl G. Hartman
Associate Director

CGH:df

Rudolf Virchow Medical Society in the City of New York

PRESIDENT
DR. MAX JESSNER
870 FIFTH AVENUE

COR. SECRETARY
DR. ERNST M. ROSENBAUM
5 WEST 86TH STREET

TREASURER
DR. ARNOLD T. BENFEY
50 PARK TERRACE WEST

December 5, 1951

Dr. Ernest Myller
65 East 76th Street
New York City

Dear Dr. Myller:

I am happy to inform you that at the last meeting of the Rudolf Virchow Medical Society, you were elected Corresponding Secretary.

Sincerely yours,

Ernst M. Rosenbaum

Ernst M. Rosenbaum, M.D.
Cor. Secretary

emr/aw

NEW YORK UNIVERSITY - BELLEVUE MEDICAL CENTER

University Hospital

303 E.20th Street

New York

Department of Obstetrics and Gynecology

Staff Conference
Wednesday, March 18, 1953

Amphitheatre "B" at 4:00 p.m.

Doctor Gray H. Twombly, Presiding

1. Service Report of Gouverneur Hospital	Doctor Franklin Reyner
2. Service Report of University Hospital	Doctor Arthur Parvey
3. Carcinoma in Situ Associated with Pregnancy	Doctor Ernest Myller

ALL PRESENTATIONS OPEN TO GENERAL DISCUSSION

NEW YORK UNIVERSITY POST-GRADUATE MEDICAL SCHOOL

Departments of Obstetrics and Gynecology and Urology

COURSE NO. 564-A INFERTILITY

December 10 through 12, 1951

UNDER THE DIRECTION OF DR. LOCKE L. MACKENZIE AND DR. S. HOTCHKISS

Tuition: $40

GIVEN AT THE UNIVERSITY HOSPITAL, 303 EAST 20TH STREET, N.Y.C.

Monday, Dec. 10	
8:45 - 9:15 a.m. 477 First Avenue	Registration
9:15 - 10:00 a.m. Erdmann Auditorium	Introductory Lecture Dr. Locke L. Mackenzie
10:00 - 11:00 a.m. Erdmann Auditorium	Physiology of Ovulation Dr. Maxwell Roland
11:00 a.m. - 12:00 noon Erdman Auditorium	Physiology of Menstruation Dr. Theodore Neustaedter
12:00 - 1:00 p.m.	*Lunch Hour*
1:00 - 2:00 p.m. Erdmann Auditorium	Technique of Tubal Insufflation Dr. Ernest Myller
2:00 - 3:00 p.m. GYN Clinic	Performance of Tubal Insufflation Dr. Maxwell Roland
3:00 - 4:00 p.m. Erdmann Auditorium	Fundamental Considerations of the Anatomy and Physiology of the Male Genital System Dr. Robert S. Hotchkiss
4:00 - 5.00 p.m. Erdmann Auditorium	History Taking and Physical Examination in the Male Dr. Robert S. Hotchkiss
5:00 - 6:00 p.m. Erdmann Auditorium	Cervical Incompatibility Dr. Locke L. Mackenzie
Tuesday, Dec. 11	
9:00 - 10:00 a.m. Amph. B	Physiology of Fertilization and Nidation Dr. Maxwell Roland
10:00 - 11:00 a.m. Amph. B	Other Endocrine Factors Involved in Infertility Dr. Theodore Neustaedter
11:00 a.m. - 12:00 noon Amph. B	Uterine Malpositions, Fibroids, Ovarian Cysts and Cervical Pathology as Factors in Infertility Dr. Walter T. Dannreuther
12:00 - 1:00 p.m.	*Lunch Hour*

Tuesday, Dec. 11 (continued)	
1:00 - 2:00 p.m. Erdmann Auditorium	Technique of Artificial Insemination Dr. Locke L. Mackenzie
2:00 - 5:00 p.m. GYN Cytology Laboratory	Techniques and Interpretation of Semen Analysis Dr. John MacLeod Dr. Robert Hotchkiss Dr. John Silberblatt
5:00 - 6:00 p.m. Erdmann Auditorium	Motion Picture on Semen Analysis Dr. Robert S. Hotchkiss
Wednesday, Dec. 12	
9:00 - 10:00 a.m. Erdmann Auditorium	Methods of Determination of the Time of Ovulation Dr. Locke L. Mackenzie
10:00 a.m. - 1:00 p.m. GYN Cytology Laboratory	Cytology of the Menstrual Cycle Dr. E. Lawrence Hecht
1:00 - 2:00 p.m.	*Lunch Hour*
2:00 - 3:00 p.m. GYN Clinic	Performance of Hystero-salpingography Dr. Mortimer N. Hyams
3:00 - 4:00 p.m. Erdmann Auditorium	Surgery of Occluded Fallopian Tubes Dr. Locke L. Mackenzie
4:00 - 4:30 p.m. Erdmann Auditorium	Surgery of Male in Infertility Dr. Robert S. Hotchkiss
4:30 p.m.	Round Table Discussion

NEW YORK UNIVERSITY-BELLEVUE MEDICAL CENTER
OF NEW YORK UNIVERSITY
UNIVERSITY HOSPITAL
(FORMERLY NEW YORK POST-GRADUATE HOSPITAL)
303 EAST TWENTIETH STREET, NEW YORK 3, N.Y.

GRAMERCY 7-2000

December 3, 1951

Ernest Myller, M.D.
65 East 76th Street
New York, New York

Dear Doctor Myller:

On Monday, December 10th, between 1-2 p.m., I have scheduled you for a talk on the Technique of Tubal Insufflation here, in the Erdmann Auditorium. I hope you will be able to discuss it at this time.

Sincerely,
Locke L. Mackenzie MD

Locke L. Mackenzie, M.D.
Acting Chairman
Department of Obstetrics and Gynecology

The Journal of the
American Medical Association
535 North Dearborn Street
Chicago 10

In your reply please refer to these initials | JFH

March 5, 1952

Dr. Ernest Myller
65 East 76th Street
New York 21, New York

Dear Doctor Myller:

In preparing your paper entitled "Control of Postpartum Hemorrhage" for the printer, attention has been called to the number of illustrations and we believe that figures 5 and 6 are sufficient as illustrations. With your permission the remaining illustrations will be omitted from THE JOURNAL, but, if you desire, they may be included in your reprints at your expense.

Sincerely yours,

J. F. Hammond

J. F. Hammond, M.D.
Associate Editor

JFH:ad

Re: my paper entitled "________"

Dear Doct H.

If possible I would like to insert the following addendum to the above article.

~~We have recently been experimenting~~

Since the above was written, we have been experimenting with a rubber balloon, especially prepared to withstand traction. The manufacturer will guarantee durability for at least 5 years.

NEW YORK UNIVERSITY
WASHINGTON SQUARE
NEW YORK 3, N.Y.

OFFICE OF THE VICE CHANCELLOR
AND SECRETARY

31 October, 1951

My dear Doctor Myller:

You are hereby advised that the Council of New York University, at a meeting held October 22, 1951, approved and confirmed the recommendation of the Board of Trustees of the New York University-Bellevue Medical Center that your title be changed from Clinical Instructor to Instructor in Clinical Obstetrics and Gynecology, as of September 1, 1951.

Very truly yours,

Harold O. Naathus

Vice Chancellor
and Secretary

Dr. Ernest Myller
450 East 63 Street
New York 21, New York

NEW YORK UNIVERSITY–BELLEVUE MEDICAL CENTER

OF NEW YORK UNIVERSITY

477 FIRST AVENUE, NEW YORK 16, N.Y.

OREGON 9-3200

October 22, 1951

Dear Doctor Myller:

You are hereby advised that the Board of Trustees at a meeting held October 16, 1951 approved and confirmed your promotion to the University Hospital staff as hereinafter set forth:

Title: Assistant Attending Obstetrician and Gynecologist
Period: Effective September 1, 1951

It is understood that all staff appointments shall be for periods not in excess of one year, and shall terminate on August 31st of each year thereafter following the commencement of service under the appointment, provided however, that all such appointments shall be subject to the right of the Board of Trustees to modify or cancel the terms of service at any time in the event that conditions make such action desirable, the decision of the Board as to the desirability of such action being final.

Sincerely yours,

LeRoy E. Kimball
Secretary-Treasurer
(100 Washington Square East)

Doctor Ernest Myller
63 East 76th Street
New York 21, New York

THE YEAR BOOK PUBLISHERS, INC.

PUBLISHERS TO THE MEDICAL AND DENTAL PROFESSIONS · 200 EAST ILLINOIS STREET · CHICAGO 11, ILLINOIS

July 8, 1952

Ernest Myller, M. D.
65 East 76th Street
New York, New York

In reply please refer to Code G 403

Dear Dr. Myller:

Dr. J. P. Greenhill, the editor of the Year Book of Obstetrics and Gynecology, has selected your article, Control of Postpartum Hemorrhage, from the June 21, 1952 issue of the Journal of the American Medical Association, to be abstracted for the 1952 Year Book. He has also asked that we reproduce Figures 1 and 2 which appeared with the article.

Will you please send us the original drawings of these illustrations, or glossy prints thereof? We shall be glad to return them as soon as the book is published, and, of course, we shall give full credit to both you and the journal.

The manuscript for this Year Book will be sent to the typesetter in the near future and we are now making the engravings for the book. Will you, therefore, please send us the drawings or photographs by return mail, or let us know when we may expect to receive them?

Sincerely yours,

THE YEAR BOOK PUBLISHERS, Inc.

Frances Wetherhold
by B.A.

Frances Wetherhold
Managing Editor (Year Books)

FW/bba

The Journal of the
American Medical Association
535 North Dearborn Street
Chicago 10

In your reply please refer to these initials | AS:gc

November 9, 1951

Dr. Ernest Myller
65 East 76th Street
New York 21, N. Y.

Dear Doctor Myller:

Your paper entitled "Control of Postpartum Hemorrhage" has been accepted as a clinical note for publication in The Journal of the American Medical Association, subject to slight editorial modification and subject to a delay in publication due to a large backlog in communications. The paper is also accepted with the understanding that it is contributed solely to this journal.

A proof will be sent to you before publication.

Very truly yours,

JOURNAL AMERICAN MEDICAL ASSOCIATION

AS:c

CITY OF NEW YORK)
STATE OF NEW YORK) SS
COUNTY OF NEW YORK)

On this day personally appeared before me

HANS D. FROEHLICH

residing at 111 - 10, 76th Road, Forest Hills, N.Y., who after being duly sworn, deposes and says:

That he is thoroughly familiar with the English and Greek languages;

That he personally made the attached translation and hereby certifies to the best of his knowledge and belief that it is a true version of the original document written in the Greek language.

Hans D. Froehlich

Sworn to before me the Notary Public
on this 13th day of November 1941

Jacob S. Chalat

NOTARY PUBLIC, Westchester Co.
N.Y. Co. Clerk's No. 597
Term Expires March 30, 1943

UNIVERSITY OF ATHENS

DIRECTOR OF MEDICAL SCHOOL

Athens, May 15, 1935

File No 249/1071

C E R T I F I C A T E

Dr. ERNST J. MUELLER, doctor of medicine, graduated from the University of Berlin, born at Schmalkalden, Germany

PASSED WITH HONORS

an examination held in accordance with the laws of this University as of April 15, 1935 and is hereby granted a

LICENSE TO PRACTICE MEDICINE

in Greece and hold government positions.

Sgd: (illegible) Director
" " Secretary

S e a l

CITY OF NEW YORK)
STATE OF NEW YORK) SS:
COUNTY OF NEW YORK)

On this day personally appeared before me

Kate L. Lenel ,

who, after being duly sworn, deposes and says:

That she (he) is a professional translator of the English, **German, a.o.** languages, employed by the National Refugee Service, Inc., 165 West 46 Street, New York, N.Y.;

That she (he) has personally made the attached translation(s) and hereby certifies to the best of her (his) knowledge and belief that it is (they are) a true version(s) of the original document(s) written in the **German** **language(s).**

Ruth L. Lenel

Sworn to before me, the Notary Public

on this 13 day of **November** , 1941

Jacob S. Chalat

NOTARY PUBLIC, Westchester Co.
N.Y.Co.Clk's No.975 Reg. No.3C597
Term Expires March 30, 1943

S-478a-7/41

COPY

1)52.108 1912/13

OBERREALSCHULE AT SCHMALKALDEN

MATURITY CERTIFICATE

E r n s t M ü l l e r

born February 26, 1893 at Schmalkalden, District estate Schmalkalden
of Jewish faith, son of the druggist Joseph Mueller of Schmalkalden
attended 9 years the Oberrealschule, 2 thereof the highest grade (Prima)

I Conduct and Diligence:

1) Conduct: good

2) Deligence: very good He was exempt from the oral examination

II Knowledges and abilities

1) Religion (No Jewish religion l ssons are given at the school)

2) German: fair

3) French: good

4) English: good

5) History: good

6) Geography: fair

7) Mathematics: good

8) Physics: good

9) Chemistry: good

10) Natural history:—

11) Gymna tics: fair

12) Freehand drawing: good

13) Linear dra ing: ——

14) Singing: ——

15) Handwriting: fair

The undersigned Board of Examiners therefore grants him a

MATURITY CERTIFICATE

since he is leaving this Oberrealschule to study medicine and dismisses him with the best wishes for his future.

Schmalkalden, March 23, 1911

Royal Provincial
School Board. Cassel

Royal Board of Examiners

Signatures of examiners and teachers

He attended the optional Latin lessons held in connection with the three highest grades of the Ober realschule with satisfactory results.

Schmalkalden, March 23, 1911

Homburg

Director of the Oberrealschule

The above signature is certified correct
Berlin November 20, 1933
sgd. Brennecke Clerk of the Court

The above signature is certified correct
Berlin, November 20, 1933
sgd. Block County Court President

The above signature is certified correct
Berlin, November 21, 1933
sgd. Reimke Foreign Office

Seals

ROYAL BAVARIAN JULIUS MAXIMILIAN UNIVERSITY

W U E R Z B U R G

LEAVING CERTIFICATE

Mr. ERNST MUELLER of Schmalkalden, born at Schmalkalden was enrolled from April 29, 1911 to date, as a student of

m e d i c i n e

at this University and registered duly to the lectures designated hereinafter.

Concerning his conduct nothing derogatory has been reported during this period.

IN WITNESS WHEREOF this certificate has been issued and the seal of the University and the personal signature of the acting rector and the University syndic affixed thereto.

Wuerzburg, April 11, 1912

University Rector: sgd. Prof. Dr. K.B. Lehmann

University Syndic: sgd. illegible

Seal
M 17882

Semester	Lecture
Summer 1911	Osteology Organic chemistry Physics Botany
Winter 19112/1912	Anatomy I Dissection laboratory, course 1

Wuersburg, April 11, 1912

R. Unive sity Sindyc
sgd. illegible

Seal

211

W E R E C T O R A N D S E N A T E

OF THE ROYAL CHRISTAN ALBRECHT UNIVERSITY AT KIEL

certify by this leaving certificate that Mr. ERNST M U E L L E R born at Schmalkalden son of the druggist J. Müller, prepared for academic studies at the Oberrealschule at Schmalkalden, was matriculated with us on the strength of a leaving certificate from the University Wuerzburg, on April 26, 1912 and devoted himself to the study of m e d i c i n e.

During his 6 months stay at this University, he duly registered to the lectures hereinafter specified, and in accordance with certificates submitted, and gave notice.

SUMMER SEMESTER 1912

Systematic anatomy of the human body II
a) Nervous system
Practical course in chemistry for medical students
Short survey on inorganic and organic chemistry
Physiology of the muscles

Concerning his conduct at the University nothing derogatory has been reported.

Issued by the acting Rector. Signature and seal affixed.

Kiel, August 22, 1912

sgd. illegible

Seal

sgd. Werner
University Secretary

Done on
August 1, 1912

No 945

ROYAL BAVARIAN JULIUS MAXIMILIAN UNIVERSITY WUERZBURG

LEAVING CERTIFICATE

Mr. Ernst M ü l l e r of Schmalkalden, born at Schmalkalden was matriculated at this University from October 18, 1912 to date as a student of

m e d i c i n e

and duly registered to the lectures hereinafter specified. Concerning his conduct during this period nothing derogatory has been reported.

IN WITNESS WHEREOF this certificate has been issued and the seal of the University and the personal signatures of the acting rector and the university syndic affixed thereto.

Wuerzburg, August 18, 1913

University Rector — University Syndic

sgd. Prof. Dr. J. Rehn — sgd. Mueller

Seal

Semester	Designation of Lecture
Winter 1912/1913	Dissection exercises 2nd course Physiology Zoology Topographic anatomy Repetition course in anatomy Physiologic chemistry
Summer 1913	Physiology Topographic anatomy Exercises in physiology Zooloty Course in microscopy

213

C E R T I F I C A T E

by the

Board of Examiners at Wuerzburg

on the

medical preliminary examination of the

student of medicine Mr. ERNST M U E L L E R of Schmalkalden

****

The following marks were given him after the [illegible] preliminary examination held in accordance with the examination order of May 28, 1901.

1)	In anatomy	the mark	very good
2)	In Physiology	" "	very good
3)	In Physics	" "	very good
4)	In Chemistry	" "	good
5)	In Zoology	" "	very good
6)	In Botany	" "	good

thus the average rating

" VERY GOOD "

Wuerzburg, July 17, 1913

The chairman of the board of examiners

sgd. Enderlen

Seal

Legalized

Wuerzburg, November 20, 1933

Government of Unterfranken and Aschaffenburg

Chmaber for Internal Affairs

sgd. illegible

Seal

214

1023/483

U N I V E R S I T Y M U N I C H

CERTIFICATE

WHEN LEAVING THE UNIVERSITY

Mr. Ernst M ü l l e r, of Schmalkalden, born at Schmalkalden was matriculated at this University from October 28, 1913 through the end of the summer semester 1917 as student of m e d i c i n e and registered to the lectures designated in the attached college book.

Concerning his conducts during this period nothing derogatory has been reported.

IN WITNESS WHEREOF this certificate has been issued and the university seal, as well as the personal signatures of the acting rector and syndic of the university affixed thereto.

Munich, December 3, 1917

The acting Rector
sgd. O. Weigl

The Syndic
sgd. Dr. Einhauser

SEAL

****

Winter Semester 1913/1914	Hours per week
Propaedeutic gynecologic clinic	4
Therapeutics of internal diseases	1
Pain prevention in surgery and practical exercises	1
Surgical propaedeutics (surgical diagnosis and surgical therapeutics, exercises)	5
Medical clinic for beginners	6
Mental diseases	2
Clinic and polyclinic of pediatric diseases including physiology and pathology of nutrition in infants' age	5

Summer Semester 1914

	Hours per week
Surgical clinic	6
Obstetric gynecologic clinic with clinical and polyclinical obstetric observations and exercises in touch examinations	6
Otiatric clinic (with otoscopy)	2
Exercises in diagnosis on polyclinical patients	1
Rhino - laryngologic clinic	2
Theoretic and practical vaccination course	1
Clinic for syphilis and dermatologic diseases	2
Medical clinic for advanced students	6
Intubation and tracheotomy	1

Winter semester 1914/1915
Summer semester 1915
Winter semester 1915/1916
Summer semester 1916
Winter semester 1916/1917
Summer semester 1917

leave of absence; in the army.

seals

W E R E C T O R A N D S E N A T E

OF THE ROYAL FRIEDRICH WILHELM UNIVERSITY AT BERLIN

certify by this leaving certificate that Mr. ERNST M U E L L E R
born at Schmalkalden in Hessen-Nassau, son of the merchant Müller
was prepared for academic studies at the Oberrealschule at Schmalkalden
and was matriculated with us on the strength of a leaving certificate
from the University Munich on November 22, 1917 and remained here
as a student of

m e d i c i n e

until the end of the summer semester 1918.

During the time he attended this university he duly registered to the lectures specified in the attached list:

No	Designation of lecture
	I Winter Semester 1917/1918
1	Experimental pharmacology
2	Forensic medicine
3	Topographic anatomy
	II Summer Semester 1918
1	Medical polyclinic
2	Obstetric gynecologic clinic
3	Psychiatric clinic
4	Surgical clinic
5	Ophthalmic clinic
6	Course in pathologic anatomy and exercises
7	Course in microscopy in pathologic histology
8	Course in pathology on fresh preparations

Seal
Fee stamp

After the candidate of medicine

ERNST M U E L L E R of Schmalkalden has passed his medical examination before the board of examiners at Berlin with the mark " g o o d " and his war services had been taken account of in stead of the obligatory practical interne year, he is hereby granted a

LICENSE AS PHYSICIAN

valid from the November 27, 1918 and for the territory of the German Reich in accordance with Par 29 of the Reichs trade order.

Berlin, December 17, 1918

S e a l

Ministry of Interior

By order
sgd. Kirchner

Seen for verification of
above signature
Berlin, November 7, 1933

The Foreign Office of
the German Reich
Seal sgd. Reimke

L I C E N S E
for
Ernst M ü l l e r
as physician

M. 18850

MAY THIS INURE TO HAPPINESS
IN THE FRIEDRICH-WILHELM'S
UNIVERSITY IN BERLIN

Under the magnificent Rectorship of Reinold Seeberg, Doctor of Theology, Doctor h.c. of Law and Philosophy, Public Professor in ordinary at this University, *

by order of the gracious Faculty of Medicine,

Wilhelm His, duly commissioned Promotor, Doctor of Medicine and Surgery, Public Professor in Ordinary at this University, *
Dean pro tem. of the Faculty of Medicine,

has lawfully conferred upon the most learned

Ernst M u e l l e r
of Hessen-Nassau,

a medical practitioner,

the prerogatives and privileges, the degree and the honors of

DOCTOR OF MEDICINE

after he passed the oral examination and after his praiseworthy thesis, written in the German language and bearing the title: "Ueber die Torsion des Samenstrangs" was printed with the approval of the Faculty.

This 17th day of January 1919.

IN WITNESS WHEREOF THIS DIPLOMA HAS BEEN ISSUED UNDER THE SEAL OF THE FACULTY.

The genuineness of the (seal) sgd. His, Dean pro tem.
signature of the Rector
of the University of Berlin
is hereby certified.
Berlin, November 9, 1933.

The Prussian Minister of Science,
Art and Public Education:
By: sgd. Dr. Zunkel.
(seal)
MI28719.

The foregoing signature has been affixed by the Dean of the Faculty of Medicine at that time, Professor Dr. His.
Berlin, November 6, 1933. The Rector:
(seal of the University) sgd.illegible

Seen for certification of the aforegoing signature.
Berlin, November 15, 1933. The Foreign Office
of the German Reich:
By: sgd. illegible. (seal)

* Translator's note: further titles omitted.

THE AMERICAN SOCIETY
for the
STUDY OF STERILITY

MEMBERSHIP DIRECTORY
for 1954

MEMBERSHIP DIRECTORY

for 1954

THE AMERICAN SOCIETY

for the

STUDY OF STERILITY

OFFICERS AND DIRECTORS

1953-1954

B. BERNARD WEINSTEIN
President

ROBERT HOTCHKISS
Vice-President

HERBERT H. THOMAS
Secretary

CARL E. JOHNSON
Treasurer

BOARD OF DIRECTORS

S. Leon Israel 1954
Myron G. Fincher 1954
Somers H. Sturgis 1955
J. P. Greenhill 1955
Willis E. Brown 1956
Pendleton Tompkins 1956

PAST PRESIDENTS

Walter W. Williams 1944-1947
Lyman W. Mason 1948-1949
Lewis Michelson 1950-1951
Fred A. Simmons 1951-1952
Irvin F. Stein 1952-1953

ROSTER OF MEMBERS

HONORARY MEMBERS

HAMBLEN, EDWIN C., M.D.
Endocrine Division, Duke Hospital, Durham, N. C.
HARTMAN, CARL G., M.D.
Ortho Research Foundation, Raritan, N. J.

LANE-ROBERTS, CEDRIC S., M.D.
The Mill House, Tewin, Harts, England

PAPANICOLAOU, GEORGE N., M.D.
1300 York Ave., New York, N. Y.

RUBIN, ISIDOR, C., M.D.
911 Park Ave., New York, N. Y.

STONE, ABRAHAM, M.D.
40 Park Ave., New York 16, N. Y.

FELLOWS

BROWN, WILLIS E., M.D.
University of Arkansas, Little Rock, Ark.

CHARNY, CHARLES W., M.D.
2039 DeLancey Pl., Philadelphia 3, Pa.

DABNEY, MARYE Y., M.D.
2300 Highland Ave., Birmingham, Ala.
DAVIS, M. EDWARD, M.D.
5841 Maryland Ave., Chicago 37, Ill.
DOUGLAS, GILBERT F., M.D.
1923 So. 14th Ave., Birmingham, Ala.

GLASS, SAMUEL JR., M.D.
360 No. Bedford Dr., Beverly Hills, Calif.
GREENHILL, J. P., M.D.
55 E. Washington Blvd., Chicago, Ill.
GUERRERO, CARLOS D., M.D.
Miguel Schulz 19, Mexico City, Mexico
GUTTMACHER, ALAN F., M.D.
Mt. Sinai Hospital, New York City, N. Y.

HAMAN, JOHN O., M.D.
490 Post St., San Francisco 2, Calif.
HOTCHKISS, ROBERT S., M.D.
65 E. 66th St., New York 21, N. Y.

ISRAEL, S. LEON, M.D.
2116 Spruce St., Philadelphia 3, Pa.

MacLEOD, JOHN, Ph.D.
Cornell Univ. Medical College, 1300 York Ave., New York, N. Y.
MASON, LYMAN W., M. D.
1214 Republic Bldg., Denver, Colo.
MAZER, CHARLES, M.D.
2047 Spruce St., Philadelphia 3, Pa.
McLANE, CHARLES M., M.D.
960 Park Ave., New York 28, N. Y.
MEIGS, JOE V., M.D.
Vincent Memorial Hospital, Boston, Mass.
MICHELSON, LEWIS, M.D.
490 Post St., San Francisco 2, Calif.

POMMERENKE, W. T., M.D.
Univ. of Rochester Medical Center, Rochester, N. Y.

RAKOFF, ABRAHAM E., M.D.
269 So. 19th St., Philadelphia 3, Pa.
ROBERSTON, EDWIN M., F.R.C.O.G.
Kingston General Hospital, Kingston, Ontario, Canada
ROCK, JOHN, M.D.
32 Cumberland Ave., Brookline, Mass.

SALMON, UDALL J., M.D.
875 Fifth Ave., New York 21, N. Y.
SIMMONS, FRED A., M.D.
330 Dartmouth St., Boston, Mass.
STEIN, IRVING F., M.D.
30 N. Michigan Ave., Chicago 2, Ill.
STURGIS, SOMERS H., M.D.
721 Huntington Ave., Boston, Mass.

TOMPKINS, PENDLETON, M.D.
450 Sutter St., San Francisco, Calif.

WEINSTEIN, B. B., M.D.
1421 Delachaise St., New Orleans 15, La.
WEISMAN, ABNER I., M.D.
1160 Fifth Ave., New York 29, N. Y.
WILLIAMS, WALTER W., M.D.
20 Magnolia Terrace, Springfield, Mass.

ACTIVE

ALVAREZ-BRAVO, ALFONSO, M.D.
Plaza de la Republica 7, 40 Piso, Mexico 1, D. F.

BELDING, DAVID L., M.D.
215 Main St., Hingham, Mass.

BICKERS, WILLIAM, M.D.
412 Med. Arts Bldg., Richmond, Va.
BIRNBERG, CHARLES H., M.D.
191 Ocean Ave., Brooklyn, New York
BLANDAU, RICHARD J., M.D.
6531 37th St., N.E., Seattle, Wash.
BRODNY, M. LEOPOLD, M.D.
636 Beacon St., Boston 15, Mass.
BURKE, JOHN E., M.D.
35 Lincoln St., Framingham, Mass.
BUXTON, CHARLES L., M.D.
Yale University Medical School, New Haven, Conn.

CARTER, BAYARD, M.D.
Duke University Hospital, Durham, N. C.
CASTRO, EDUARDO, M.D.
Uruguay 90, Mexico 2, D. F., Mexico
COHEN, MELVIN R., M.D.
30 No. Michigan Ave., Chicago, Ill.
CROSSEN, ROBERT J., M.D.
901 University Club Bldg., 607 N. Grand Ave., St. Louis, Mo.

DECKER, ALBERT, M.D.
10 W. 74th St., New York, N. Y.
DODGE, EVA F., M.D.
University of Arkansas, 2124 W. 11th St., Little Rock, Ark.
DOYLE, JOSEPH B., M.D.
65 Bay State Rd., Boston, Mass.

FARRIS, EDMOND J., Ph.D.
The Wistar Institute, 36th and Woodland Ave., Philadelphia, Pa.
FINCHER, MYRON G., D.V.M.
New York State Veterinary College, Cornell University, Ithaca, N. Y.
FINKLER, RITA S., M.D.
35 Leslie St., Newark 8, N. J.
FISTER, GEORGE M., M.D.
385 24th St., Ogden, Utah
FOLSOME, CLAIR E., M.D.
1249 Fifth Ave., New York 29, N. Y.
FRIED, PAUL H., M.D.
1812 Spruce St., Philadelphia 3, Pa.
FREIDMAN, LOUIS L., M.D.
317 Lowry Medical Arts Bldg., St. Paul 2, Minn.

GALLO, DELFINO, M.D.
Justo Sierra 388, Guadalajara, Mexico
GETZOFF, PAUL L., M.D.
400 Medical Arts Bldg., New Orleans 15, La.
GOLDZIEHER, JOSEPH, M.D.
1138 Medical Arts Bldg., San Antonio, Texas

GRAY, LAMAN A., M.D.
408 Heyburn Bldg., Louisville 2, Ky.
GREENBLATT, R. B., M.D.
Medical College of Georgia, Augusta, Ga.

HARTNETT, LEO J., M.D.
422 Missouri Theatre Bldg., St. Louis 3, Mo.
HELLER, CARL G., M.D.
Univ. of Oregon Medical School, Portland, Ore.
HELLMAN, LOUIS M., M.D.
Helen Street, Greenvale, L. I., N. Y.
HOWARD, R. PALMER
Oklahoma Med. Research Inst. & Hospital
825 N.E. 13th Street, Oklahoma City, Okla.
HUDGINS, ARCHIBALD P., M.D.
403 Professional Bldg., Charleston, W. Va.
HUGHES, EDWARD C., M.D.
713 E. Genessee Street, Syracuse, N. Y.

INGERSOLL, FRANCIS M., M.D.
264 Beacon St., Boston, Mass.

JOHNSON, CARL E., M.D.
364 Oak Street, New Haven 11, Conn.
JONES, G. E. SEGAR, M.D.
110-111 Medical Arts Bldg., Baltimore, Md.

KANTOR, HERMAN I., M.D.
3534 Maple Ave., Dallas, Texas
KLEEGMAN, SOPHIA J., M.D.
59 E. 54th Street, New York, N. Y.
KURZROK, RAPHAEL, M.D.
1016 Fifth Ave., New York, N. Y.

MACK, HAROLD C., M.D.
3001 W. Grand Blvd., Detroit, Mich.
MARBACH, A. HERBERT, M.D.
Suite 1201, Medical Tower, Philadelphia 3, Pa.
MASTERS, WILLIAM H., M.D.
630 S. Kings Highway, St. Louis, Mo.
MULLIGAN, WILLIAM J., M.D.
32 Cumberland Ave., Brookline 46, Mass.

NELSON, WARREN O., Ph.D.
State Univ. of Iowa, College of Medicine, Iowa City, Ia.

PAGE, ERNEST, M.D.
3031 Telegraph Ave., Berkeley, Calif.
PALMER, ALLAN, M.D.
2107 Van Ness Ave., San Francisco, Calif.
PAYNE, SHELDON, M.D.
921 Westwood Blvd., Los Angeles, Calif.
PERLOFF, WM. H., M.D.
1930 Chestnut St., Philadelphia, Pa.

POLLAK, OTAKER J., M.D.
P.O. Box 228, Dover, Del.

REIFENSTEIN, EDWARD C., JR., M.D.
27 Hawthorne Ave., Bloomfield, N. J.
ROMMER, J. JAY, M.D.
25 Ingraham Place, Newark, N. J.
ROTH, ARTHUR A., M.D.
1021 Prospect Ave., Cleveland, O.
RUBENSTEIN, BORIS B., M.D.
185 N. Wabash Ave., Chicago, Ill.
RUTHERFORD, ROBERT N., M.D.
707 Broadway, Seattle, Wash.

SHIELDS, FRANCES E., M.D.
New Haven Professional Bldg., 462 Jefferson St.. Monterey, Calif.
SHUTE, EVAN V., M.D.
10 Grand Ave., London, Ontario, Canada
SILBERNAGEL, WYNNE M., M.D.
9 Buttles Ave., Columbus 12, O.
SINGLETON, J. MILTON, M.D.
315 Nichols Rd., Kansas City, Mo.
STUERMER, VIRGINIA M., M.D.
2900 Vine St., Lincoln 3, Neb.

THOMAS, HERBERT H., M.D.
920 So. 19th St., Birmingham, Ala.
THOMPSON, WILLARD O., M.D.
700 N. Michigan Ave., Chicago 11, Ill.
TURNER, VIOLET H., M.D.
Duke Hospital, Durham, N. C.
TYLER, EDWARD T., M.D.
10911 Weyburn Ave., Los Angeles 24, Calif.

VOLLMER, ALBERT M., M.D.
384 Post St., San Francisco, Calif.

WEED, JOHN C., M.D.
Ochsner Clinic, Prytania and Aline Sts., New Orleans 15, La.
WEIR, DAVID R., M.D.
2102 Abington Rd., Cleveland 6, Ohio
WEIR, WILLIAM C., M.D.
10515 Carnegie Ave., Cleveland, Ohio
WHITELAW, M. JAMES, M.D.
655 Sutter St., San Francisco, Calif.

ASSOCIATE MEMBERS

ABRAMSON, DANIEL, M.D.
127 Bay State Rd., Boston, Mass.

ALBERT, A., M.D.
102-110 Second Ave., S.W., Rochester, Minn.

ALBERT, LOUIS, M.D.
475 Commonwealth Ave., Boston, Mass.
ANDERSON, HARLEY, M.D.
1107 Medical Arts Bldg., Omaha, Neb.
ANDROS, GEORGE J., M.D.
420 W. Ottawa St., Lansing, Mich.
ANGELUCCI, HELEN M., M.D.
136 S. 16th St., Philadelphia, Pa.
ARNHEIM, FLAK K., M.D.
3512 Fifth Ave., Pittsburgh 13, Pa.
ARZAC, J. P., M.D.
Monte Libano 340, Mexico City, Mexico
AUGUST, RALPH V., M.D.
72 Broadway, Muskegon Heights, Mich.
AUSLANDER, HAROLD P., M.D.
2340 Coral Way, Miami Beach, Fla.

BANKS, A. LAWRENCE, M.D.
707 Broadway, Seattle 22, Wash.
BARKER, C.A.V., D.V.M., M.Sc., D.V.Sc.
Dept. of Medicine and Surgery
Ontario Veterinary College, Guelph, Ont., Canada
BELT, ELMER, M.D.
1893 Wilshire Blvd., Los Angeles, Calif.
BEHRMAN, SAMUEL J., M.D.
617 E. Liberty St., Ann Arbor, Mich.
BENESOHN, SOL, M.D.
55 E. Washington, Chicago, Ill.
BENJAMIN, JOHN, M.D.
Strong Memorial Hosp., Rochester, N. Y.
BENNETT, ALWNE E., M.D.
308 Republic Bldg., Cleveland 15, Ohio
BERLIN, ALLEN, M.D.
722 Macabees Bldg., Detroit 2, Mich.
BERMAN, ROBERT, M.D.
299 Clinton Ave., Newark, N. J.
BISKIND, GERSON R., M.D.
450 Sutter St., No. 1439, San Francisco 8, Calif.
BISKIND, MORTON S., M.D.
Westport, Conn.
BLACK, WILLIAM T., M.D.
899 Madison Ave., Memphis, Tenn.
BRAND, ELLIOTT, M.D.
146 Sherman Ave., New Haven, Conn.
BRANNON, ROBERT M., M.D.
2121 Highland Ave., Birmingham, Ala.
BRANSCOMB, LOUISE, M.D.
1025 Woodward Bldg., Birmingham, Ala.
BROWN, HUNTER M., M.D.
1922 10th Ave., S., Birmingham, Ala.
BUERGER, CLAUDE L., JR., M.D.
1456 Springhill Ave., Mobile 17, Ala.
BYRON, CHARLES, M.D.
345 Schermerhorn St., Brooklyn, N. Y.

CANNIS, JOHN P., M.D.
926 Park Ave., Plainfield, N.J.
CANTOR, EDWARD B., M.D.
4849 Van Nuys Blvd., Sherman Oaks, Calif.
CARLSON, HJALMAR, M.D.
1316 Professional Bldg., Kansas City, Mo.
CARRABBA, SALVATORE, M.D.
179 Allyn St., Hartford, Conn.
CASTALLO, MARIO A., M.D.
1621 Spruce St., Philadelphia, Pa.
CHAPPELL, AMEY, M.D.
795 Peachtree St., N.E., Atlanta, Ga.
CHIDESTER, AUGUSTUS B., M.D.
120 Genesee St., Auburn, N. Y.
CHRISMAN, R. B., JR., M.D.
701 du Pont Bldg., Miami, Fla.
CINER, LEONARD F., M.D.
68 East 79th, New York, N. Y.
CLINE, WADE, M.D.
2018 15th Ave., S., Birmingham, Ala.
COCHRANE, CLELAND, M.D.
701 N. Peninsula Dr., Daytona Beach, Fla.
CORCORAN, MICHAEL A., M.D.
689 Asylum Ave., Hartford, Conn.
CORTESE, THOMAS A., M.D.
435 South East St. Indianapolis, Ind.
COULTON, DONALD, M.D.
326 State St., Bangor, Me.
CRAWLEY, LAWRENCE Q., M.D.
101 East 89th St., New York 28, N. Y.
CRISTOL, DAVID S., M.D.
255 S. 17th St., Philadelphia 3, Pa.
CRUTCHER, H. K., M.D.
1511 N. Beckley, Dallas, Tex.

DANFORTH, DAVID, M.D.
636 Church St., Evanston, Ill.
DANIELS, ANNA KLEEGMAN, M.D.
322 W. 72nd St., New York 23, N. Y.
DAVIS, JULIUS T., M.D.
4414 Magnolia St., New Orleans, La.
DE CARLE, DONALD W., M.D.
2000 Van Ness, San Francisco, Calif.
DICKERSON, DONALD L., M.D.
107 N. Franklin St., Danville, Ill.
DIETER, DONALD D., M.D.
416 So. Santa Fe, Salina, Kans.
DIPPEL, LOUIS A., M.D.
309 Hermann Professional Bldg., Houston 5, Tex.
DOBSON, CATHERINE L., M.D.
25 E. Washington St., Chicago 2, Ill.
DODEK, SAMUEL M., M.D.
1730 Eye St., Washington, D. C.
DOUGLAS, JOSEPH W., M.D.
1900 North Palafox St., Pensacola, Fla.

EFSTATION, THOMAS D., M.D.
34 W. Market St., Tiffin, Ohio
EMMONS, CARL W., M.D.
Women's Clinic, 2495 Center St., Salem, Ore.
ENGLE, EARL T., Ph.D.
630 W. 168th St., New York, N. Y.
EPPERSON, JOHN W. W., M.D.
West Grand Blvd. and Hamilton Ave., Detroit, Mich.
ESSIN, EMMETT, JR., M.D.
109 N. Walnut, Sherman, Tex.

FELDMAN, HAROLD, M.D.
131 Linwood, Buffalo, N. Y.
FINEGOLD, W. J., M.D.
3500 Fifth Ave., Pittsburgh 13. Pa.
FIRST, ARTHUR, M.D.
1714 Spruce St., Philadelphia, Pa.
FISCHER, IRVING C., M.D.
15 E. 71st St., New York, N. Y.
FLUHMAN, C. FREDERIC, M.D.
655 Sutter St., San Francisco, Calif.
FOGEL, JULIUS, M.D.
1723 M. St., N.W., Washington, D. C.
FOND, MORRIS S., M.D.
1272 Grand Concourse, Bronx 56, N. Y.
FORMAN, ISADOR, M.D.
302 S. 19th St., Philadelphia 3, Pa.
FORMAN, RICHARD C., M.D.
427 Biltmore Way, Coral Gables, Fla.
FORTIER, QUINCY E., M.D.
2232 Seabury Ave., Minneapolis, Minn.
FRANK, RICHARD, M.D.
109 N. Wabash Ave., Chicago, Ill.
FRAZIER, WILLIAM HARVEY, M.D.
1681 Paulsen, Medical & Dental Bldg., Spokane, Wash.
FREED, CHARLES R., M.D.
1809 E. 18th Ave., Denver 6, Colo.
FREEDMAN, HENRY, M.D.
9 Pierre Pont St., Brooklyn, N. Y.
FROSH, ALVIN J., M.D.
2222 E. 18th Ave., Denver, Colo.
FROST, INGLIS F., M.D.
181 South St., Morristown, N. J.

GARRETT, SHERMAN S., M.D.
209 West Park, Champaign, Ill.
GARBER, STANLEY T., M.D.
104 Wm. Howard Taft Rd., Cincinnati 19, Ohio
GARSKE, GEORGE LEO, M.D.
322 Doctors Bldg., 90 S. Ninth St., Minneapolis 2, Minn.
GEPFERT, RANDOLPH, M.D.
71 E. 77th St., New York, N. Y.

GERSH, ISADORE, M.D.
242 Metropolitan Bldg., Denver, Colo.
GODFRIED, MILTON S., M.D.
85 Trumbull St., New Haven, Conn.
GOLDFARB, ALVIN, M.D.
1 East 72nd St., New York, N. Y.
GOLDMAN, DANIEL W., M.D.
501 Medical Arts Bldg., New Orleans 15, La.
GOLDNER, HARRY, M.D.
1815 11th Ave., S., Birmingham, Ala.
GONZALEZ-GUERRERO, JOSE, M.D.
Calle Arce, Apts. Transito No. 4,
San Salvador, El Salvador, Central America
GOODMAN, LEON J., M.D.
729 Pine St., Macon, Ga.
GORBEA, RICARDO L., M.D.
394 West End Ave., New York, N. Y.
GREENE, LAURENCE F., M.D.
Mayo Clinic, Rochester, Minn.
GREELEY, ARTHUR V., M.D.
960 Park Ave., New York 28, N. Y.
GUERRA, A. SALAS, M.D.
Padremier 1043 Pte., Monterrey, Mexico
GUERRIERO, WILLIAM F., M.D.
3207 Turtle Creek Blvd., Dallas 4, Tex.

HADDEN, DAVID RODNEY, M.D.
2580 Bancoft Way, Berkeley 4, Calif.
HAHN, GEORGE A., M.D.
255 S. 17th St., Philadelphia, Pa.
HANCE, B. M., M.D.
62 N. Third St., Easton, Pa.
HARRIS, JOSEPH M., M.D.
133 S. Lasky Dr., Beverly Hills, Calif.
HARSH, JOHN F., M.D.
920 S. 19th St., Birmingham, Ala.
HECKEL, GEORGE P., M.D.
Strong Memorial Hospital, 260 Crittenden Blvd., Rochester, N. Y.
HECKEL, NORRIS J., M.D.
122 S. Michigan Ave., Chicago, Ill.
HENKIN, ALLEN E., M.D.
Suite 304, Farragut Med. Bldg.,
900 17th St., N.W., Washington 6, D. C.
HEPBURN, ROBERT HOUGHTON, M.D.
85 Jefferson St., Hartford, Conn.
HERROLD, RUSSELL D., M.D.
6 N. Michigan, Chicago, Ill.
HINMAN, FRANK, JR., M.D.
Univ. of California Hospital, San Francisco, Calif.
HODGSON, JANE E., M.D.
511 Lowary Medical Arts Bldg., St. Paul, Minn.
HOFFMAN, KATHRYN E., M.D.
635 Schofield Bldg., Cleveland, Ohio

HOLLANDER, ARTHUR, M.D.
1695 Grand Concourse, New York, N. Y.
HOWARD, FREDERICK S., M.D.
655 Sutter St., San Francisco, Calif.
HOWARD, LAWRENCE L., M.D.
1220 Central Ave., Great Falls, Mont.
HUFFMAN, JOHN W., M.D.
670 N. Michigan Ave., Chicago, Ill.
HULME, HAROLD B., M.D.
411 First National Bank, Boise, Id.
HUNTER, G. WILSON, M.D.
Fargo Clinic, Fargo, N. D.

JACOBSON, CHARLES E., M.D.
50 Farmington Ave., Hartford, Conn.
JENNINGS, ANGES F., M.D.
231 Grand Ave., South San Francisco, Calif.
JINKINS, J. L., M.D.
906 22nd St., Galveston, Tex.
JOHNSON, C. GORDON, M.D.
3636 St. Charles Ave., New Orleans, La.
JONES, W. NICHOLSON, M.D.
2154 Highland Ave., Birmingham, Ala.

KAHN, EDWARD, M.D.
213-16 85th Ave., Queens Village, N. Y.
KAIN, HELEN G., M.D.
1801 Eye Street, N.W., Washington, D. C.
KARNAKY, KARL JOHN, M.D.
329 Medical Arts Bldg., Houston 2, Tex.
KAUFMAN, SHERWIN A., M.D.
935 Park Ave., New York 28, N. Y.
KERNODLE, JOHN ROBERT, M.D.
Kernodle Clinic, Burlington, N. C.
KESHIN, JESSE G., M.D.
610 West 110th St., New York, N. Y.
KINGMAN, H. E., D.V.M.
Wyoming Hereford Ranch, Cheyenne. Wyo.
KIRKENDALL, HENRY L., M.D.
50 Elm St., Worcester, Mass.
KLEIN, JOSEPH, M.D.
80 Farminghton Ave., Hartford, Conn.
KOHN, ANTHONY, M.D.
111 Carlton Ave., Islip Terrace, L. I., N. Y.
KRAMER, MILTON, M.D.
1263 President St., Brooklyn 13, N. Y.
KREBS, O. S., M.D.
3720 Washington Blvd., St. Louis, Mo.
KUPPERMAN, HERBERT S., M.D.
477 1st Ave., New York 16, N. Y.
KURLAND, IRVING I., M.D.
1265 President St., Brooklyn 13, N. Y.
KURZROK, LAWRENCE, M.D.
969 Park Ave., New York, N. Y,

KUSHNER, J. IRVING, M.D.
1840 Grand Concourse, New York, N. Y.

LANGSTON, HENRY J., M.D.
Main St. and Jefferson Ave., Danville, Va.
LATTUADA, HENRY P., M.D.
101 W. North St., Danville, Ill.
LEARY, DEBORAH, M.D.
School of Medicine, Univ. of North Carolina
Chapel Hill, N. C.
LEIBOLD, GEORGE, M.D.
818 Cedar Ave., Pittsburgh, Pa.
LENNOX, ARTHUR L., M.D.
1838 Parkwood Ave., Toledo, Ohio
LEVENTHAL, MICHAEL, M.D.
109 N. Wabash St., Chicago, Ill.
LORIMER, ROBERT, M.D.
148 State St., Portland, Me.
LUCAS, J. F., M.D.
501 W. Washington St., Greenwood, Miss.
LUKEMAN, H. J., M.D.
285 Casa Linda Plaza, Dallas 18, Tex.
LYON, ROBERT A., M.D.
2533 Ocean Ave., San Francisco, Calif.

MARGOLESE, M.S., M.D.
436 N. Roxbury Dr., Beverly Hills, Calif.
MARSH, EARLE M., M.D.
490 Post St., San Francisco 2, Calif.
MASSEY, WARREN E., M.D.
1538 Medical Arts Bldg., Dallas, Tex.
MATSNER, ERIC M., M.D.
450 N. Bedford Dr., Beverly Hills, Calif.
McCALL, MILTON L., M.D.
Louisiana State Univ., New Orleans, La.
McCORMICK, CHARLES O., JR., M.D.
3843 Central Ave., Indianapolis, Ind.
McDONOUGH, JOHN J., M.D.
11 Central Square, Youngston, Ohio
McENTEE, KENNETH, D.V.M.
New York State Veterinary College at Cornell
Univ., Ithaca, N. Y.
MENCARO, WILLIAM JOSEPH, M.D.
505 15th, Moline, Ill.
MENDEL, EVRI B., M.D.
3702 Worth, Dallas, Tex.
MEZER, JACOB, M.D.
The Lister Bldg., 475 Commonwealth Ave.,
Boston, Mass.
MILLEN, ROBERT S.
Westbury, N. Y.
MITCHELL, GEORGE J., M.D.
1322 Springhill Ave., Mobile, Ala.
MITCHELL, GEORGE W., JR., M.D.
30 Bennet St., Boston, Mass.

MONTGOMERY, JOHN B., M.D.
1930 Chestnut St., Philadelphia, Pa.
MORGENSTERN, MATES, M.D.
127 Livingston Ave., New Brunswick, N. J.
MORSE, WALTER S., M.D.
3411 Montrose Blvd., Houston 6, Tex.
MYLKS, G. W., JR., M.D.
122 Wellington St., Kingston, Ontario, Canada.
MYLLER, ERNEST, M.D.
65 E. 76th St., New York, N. Y.

NATHANSON, ESTHER A., M.D.
2535 Massachusetts Ave., N.W., Washington 8, D. C.
NISWANDER, KENNETH, M.D.
412 Linwood Ave., Buffalo, N. Y.
NORWOOD, G. E., M.D.
1405 S. San Marino Ave, San Marino 9, Calif.
NYDA, MORTON J., M.D.
655 Sutter St., San Francisco, Calif.

OGLE, LUTHER CURTIS, M.D.
188 S. Bellevue St., Suite 305, Memphis, Tenn.

PARKS, THOMAS J., M.D.
47 E. 63rd St., New York 21, N. Y.
PATTEE, CHAUNCEY J., M.D.
1390 Sherbrooke St., W., Montreal, Canada
PEARSE, RICHARD L., M.D.
604 W., Chapel Hill, Durham, N. C.
PERLMAN, ROBERT M., M.D.
999 Sutter St., San Francisco, Calif.
PERSALL, JOHN T., M.D.
302 S.F.C. Bldg., Augusta, Ga.
PETERS, WILLIAM A., JR., M.D.
206 S. Road St., Elizabeth City, N. C.
PEVEN, PHILIP S., M.D.
18709 Meyers Rd., Detroit 35, Mich.
PLATZ, CAROL, M.D.
1368 Kelly Rd., Detroit 24, Mich.
PORTNOY, LOUIS, M.D.
23 W. 11th St., New York 11, N. Y.
POWELL, NORBORNE B., M.D.
801 Hermann Professional Bldg., Houston 25, Tex.

RAND, ANNA T., M.D.
1301 Emerson St., N.W., Washington, D. C.
RENNIE, S.W., M.D.
1201 Delaware Ave., Wilmington, Del.
RIESER, CHARLES, M.D.
819 Cypress St., N. E., Atlanta, Ga.
RIEMENSCHNEIDER, E., M.D.
1000 2nd National Bldg., Akron, Ohio
ROBERTSON, JARRETT, M.D.
509 Medical Arts Bldg., Birmingham, Ala.

ROGERS, JOSEPH, M.D.
171 Harrison Ave., Boston, Mass.
ROLAND, MAXWELL, M.D.
11420 Queens Blvd., Forest Hills, N. Y.
ROMBERG, GEORGE H., M.D.
145 Maple Ave., White Plains, N. Y.
ROMBERGER, FLOYD T., JR., M.D.
3440 No. Meridian St., Indianapolis, Ind.
ROSENBLUM, GORDON, M.D.
6333 Wilshire Blvd., Los Angeles 48, Calif.
ROSENFELD, S. S., M.D.
1882 Grand Concourse, New York, N. Y.
ROTH, DANIEL B., M.D.
836 Garrison Ave., Teaneck, N. J.
ROTHMAN, EMIL, M.D.
722 Maccabees Bldg., Detroit, Mich.
RUSSELL, MURRAY, M.D.
8820 Wilshire Blvd., Beverly Hills, Calif.

SAPHIRSTEIN, HYMAN, M.D.
479 Beacon St., Boston, Mass.
SCHAEFFER, FRANCES C., M.D.
26 N. Eight St., Allentown, Pa.
SCHINFELD, LOUIS, M.D.
255 S. 17th St., Philadelphia, Pa.
SCHNALL, MEYER D., M.D.
130 E. 67th St., New York, N. Y.
SCHRAM, E. L. R., M.D.
504 Wellington St., London, Ontario, Canada.
SCHULTZ, JOHN M., M.D.
504 Huntington Bldg., Miami 32, Fla.
SCOTT, JOSEPH W., M.D.
742 Dupont Bldg., Miami, Fla.
SEIBEL, DAVID, M.D.
University Hospital, Minneapolis, Minn.
SEITCHIK, JOSEPH N., M.D.
230 N. Broad St., Philadelphia, Pa.
SELTZER, LEO MAURICE, M.D.
1205 Quarrier St., Charleston, W. Va.
SHIMMERLIK, LUCH, M.D.
155 E. 73rd St., New York, N. Y.
SIEGLER, ALVIN M., M.D.
706 Eastern Parkway, Brooklyn, N. Y.
SILTON, MAURICE Z., M.D.
5720 Wilshire Blvd., Los Aengeles 36, Calif.
SIMMONS, RAYMOND, M.D.
37-39 N. Goodman St., Rochester, N. Y.
SINCLAIR, A. B., M.D.
4711 Central St., Kansas City, Mo.
SKEELS, ROBERT, M.D.
921 Westwood Blvd., Los Angeles, Calif.
SMITH, SAMUEL W., M.D.
6633 Telegraph Ave., Oakland, Calif.
SNOW, LUCILLE H., M.D.
636 Church St., Wilmette, Ill.

SORDO-NORIEGA, ANTONIO, M.D.
Vallarta No. 16, Mexico City, Mexico.
SORY, J. R., M.D.
535 S. Flagler Dr., West Palm Beach, Fla.
SPECK, GEORGE, M.D.
2808 S. Randolph St., Arlington 6, Va.
SPICER, ROBERT T., M.D.
Dean, School of Medicine, University of Miami, Coral Gables, Fla.
STEIN, ANNA A., M.D.
55 Forest Ave., Staten Island 1, N. Y.
STEINBERG, WERNER, M.D.
35 Gesner St., Linden, N. J.
STEINER, MELVIN D., M.D.
209 Medical Arts Bldg., New Orleans, La.
STEPHENSON, GATTON A., M.D.
92 Amherst St., Garden City, L. I., N. Y.
STEVENSON, CHARLES, M.D.
1405 Kales Bldg., Detroit 26, Mich.
STOLLMAN, BERNARD, M.D.
8220 Wilshire Blvd., Beverly Hills, Calif.
STONE, BARTLETT H., M.D.
1101 Beacon Street, Brookline 46, Mass.
STONE, MARTIN L., M.D.
New York Medical College, Fifth Ave. at 106th St., New York 29, N. Y.
STRASSMANN, ERWIN O., M.D.
1405 Hermann Prof. Bldg., Houston 2, Tex.
STREET, R. A., JR., M.D.
The Street Clinic, Vicksburg, Miss.
SUGGS, WILLIAM D., M.D.
Monument Ave. and Lombardy St., Richmond, Va.

TAFEEN, CARL H., M.D.
9 Pierre Pont St., Brooklyn, N. Y.
TANZ, ALFRED, M.D.
288 Crown St., Brooklyn, N. Y.
TARTA, CIRO, M.D.
654 E. 18th St., Paterson, N. J.
TAYMOR, MELVIN L., M.D.
330 Darthmouth St., Boston, Mass.
TIETZE, CHRISTOPHER, M.D.
2532 Holmes Run Dr., Falls Church, Va.
THOMAS, LEON B., M.D.
1206 S. 11th St., Tacoma, Wash.
TOPKINS, PAUL, M.D.
1141 Eastern Parkway, Brooklyn, N. Y.
TRUEX, S. ALLEN, M.D.
Truex Clinic, Jackson, Tenn.
TRYTHALL, S. W., M.D.
13300 Livernois Ave., Detroit 4, Mich.

VANN, FELIX H., M.D.
242 Engle St., Englewood, N. J.

VON POHLE, K. C., M.D.
1010 Banks, Houston, Tex.

WAINER, AMOS SHEPARD, M.D.
1621 Spruce St., Philadelphia 3, Pa.
WALLIN, S. P., M.D.
2615 Capital Ave., Cheyenne, Wyo.
WARE, H. HUDNALL, JR., M.D.
816 W. Franklin St., Richmond, Va.
WARD, ELIZABETH, M.D.
140 Roseville Ave., Newark, N. J.
WARD, MILDRED E., M.D.
59 E. 54th St., New York, N. Y.
WARREN, BERNICE, M.D.
4100 West McNichols Rd., Detroit, Mich.
WATERS, H. W., M.D.
730 Adams Ave., Montgomery, Ala.
WATSON, BLAKE H., M.D.
10962 LeConte Ave., Los Angeles 24, Calif.
Beverly Hills, Calif.
WEBER, LENNARD L., M.D.
255 S. 17th St., Philadelphia, Pa.
WEIL, ALVEN M., M.D.
1030 1st Natl. Tower, Akron, Ohio.
WEINSTEIN, DAVID, M.D.
234 S. Main St., Opelousas, La.
WEINSTEIN, MORTIMER, M.D.
1160 Fifth Ave., New York, N. Y.
WELD, STANLEY B., M.D.
85 Jefferson St., Hartford, Conn.
WELDON, JOSEPH, M.D.
461 Government St., Mobile, Ala.
WEXLER, DAVID J., M.D.
111 Carlton Ave., Islip Terrace, Long Island, N. Y.
WIENER, WILLIAM B., M.D.
653 N. State St., Jackson, Miss.
WILLIAMS, GEORGE A., M.D.
710 Peachtree St., N.E., Atlanta, Ga.
WILSON, LEO, M.D.
400 West End Ave., New York, N. Y.
WILSON, ROBERT B., M.D.
102-110 Second Ave., S.W., Rochester, Minn.
WIMPFHEIMER, SEYMOUR, M.D.
1100 Park Ave., New York 28, N. Y.
WINEBERG, ANAH CECELIA, M.D.
3120 Webster St., Oakland 9, Calif.
WOLLMAN, LEO, M.D.
2802 Mermaid Ave., Brooklyn, N. Y.
WORD, BUFORD, M.D.
2205 Highland Ave., Birmingham, Ala.

YOUNG, RAYMOND L., M.D.
241 Washington Ave., Santa Fe, N. M.

ZELLERMAYER, J., M.D.
609 Professional Bldg., Kansas City, Mo.
ZETTELMAN, HENRY J., M.D.
1432 Asburg Ave., Evanston, Ill.

CORRESPONDING MEMBERS

AHUMADA, JUAN C., M.D.
Charcas 2346, Buenos Aires, South America
ASHERMAN, JOSEPH G., M.D.
29 Idelson St., Tel-Aviv, Israel
AVERILL, L. C. L., M.D.
83 Bealey Ave., Christchurch, N. Z.

BAYLE, HENRI, M.D.
193 Boulevard St. Germain, Paris, France
BECLERE, CLAUDE, M.D.
23, Rue d'Artois, Paris (8eme), France
BERGE, TEN, M.D.
Academisch Ziekenhuis, Groningen, Netherlands
BETTINOTTI, ALBERTO, M.D.
Rivere Indarte 21, Buenos Aires. South America
BOTTELLA-LLUSIA, JOSE, M.D.
Velazquez 83, Madrid, Spain
BREA, CESAR A., M.D.
Santa Fe 1391, Buenos Aires, Argentina

CARRIZO, ARISTOBULO, M.D.
Centro Medico Box 1615, Panama, Panama
CHEVALIER, PAOUL M.
Sante Fe 1707, Buenos Aires, Argentina

DA PAZ FIHLO, A. CAMPOS, M.D.
Rua Sao Jose, No. 50 40qandar
Rio de Janeiro, Brazil
DE ANDRADE, CLAUDIO, M.D.
Baras Jaguerico, 275, Rio de Janeiro, Brazil
DE LA BALZE, FELIPE, M.D.
1083 Parana St., Buenos Aires, Argentina
DE BARROS, PAULO, M.D.
Rue Alcindo Guanabara, Rio de Janeiro, Brazil
DE MORAES, ARNALDO, M.D.
Caixa Postal No. 1289, Rio de Janeiro, Brazil
DE MUYLDER, EDGARD, M.D.
Avenue General de Gaulle 36, Brussels, Belgium
DE REZENDE, JORGE, M.D.
92, Rua Xavier Da Silveira, Rio de Janeiro, Brazil
DE WATTEVILLE, HUBERT, M.D.
6, Rue Charles Bonnet, Geneva, Switzerland
DI PAOLA, GUILLERMO, M.D.
Vidt 2061, Buenos Aires, Argentina

GRANT, ALAN, M.D.
147 Macquarie St., Sydney, Australia

HAMMEN, RICHARDT H., M.D.
Jarmersgade 2, Copenhagen, Denmark
HERRERA, ROBERTO GANDOLFO, M.D.
1592 San Juan St., Buenos Aires, Argentina, S. A.

JOEL, CHARLES A., M.D.
4, Zvishapira St., Tel Aviv, Israel

LAGERLOF, PROF. NILS
Royal Veterinary College, Experimental Faltet,
Stockholm, Sweden
LOPEZ, MANUEL B., M.D.
Calle YI, 1219, Montevideo, Uruguay
LOUYOT, JEAN, M.D.
25 Baron Louis St., Nancy, France

MADSEN, VALDEMAR, M.D.
16 Juliane Maries Ves, Copenhagen, Denmark
MEZZADRA, JOSE MARIA E.. M.D.
Pampa 2540, Buenos Aires, Argentina, S. A.
MORI-CHAVEZ, PABLO, M.D.
Negreiros 563, Lima, Peru, S. A.
MURRAY, EDMUNDO G., M.D.
Ayacucho 1375, Buenos Aires, Argentina

NOBILE, TIMETEO, M.D.
Via Sabaudia 14, Torino, Italy
NORDLANDER, ERIC, M.D.
Grev Turegatan 86, Stockholm, Sweden
NOUEL, CARLOS, M.D.
Avenida Buenos Aires, Caracas, Venezuela, S. A.
NUNEZ, ANTONIO CLAVERO, M.D.
Gran Via Fernando el Catolico 27, pral., Valencia,
Spain

PALMER, RAOUL, M.D.
3 Rue Octave Feuillet. Paris, France
PENA, DE LA, ALFONSO
Padilla 22, Madrid, Spain

RABAU, ERWIN, M.D.
8 Megidoser, Tel Aviv, Israel
RAO, B. K., M.D.
S-K Connaright Place, New Delhi, India
RYDBERG, ERIK, M.D.
Juliane Mariesvej 18, Copenhagen, Denmark

SHARMAN, ALBERT, M.D.
19 Kelvin Crt., Glasgow, Scotland
SOLOMONS, EDWARD, M.D.
30 Fitzwilliams Pl., Dublin, Ireland

TRABUCCO, ARMANDO E., M.D.
Rivadavia 1917, Buenos Aires, Argentina, S. A.

VANDEVELDE, PETER, M.D.
108, Ave. J. Van Ryswyck, Antwerp, Belgium
VERAIN, MARCEL, M.D.
58 bla Rue de la Commandier, Nancy, France

YOUNG, DONALD, M.D.
50 Rodney St., Liverpool, Lancashire, England

GEOGRAPHICAL INDEX

FLORIDA

Auslander, Harold P.
Chrisman, R. B.
Cochrane, Cleland
Douglas, Joseph W.
Forman, Richard C.
Sory, J. R.
Schultz, John M.
Spicer, Robert

GEORGIA

Chappell, Amey
Goodman, Leon J.
Greenblatt, R. B.
Persall, John T.
Rieser, Charles
Williams, George A.

IDAHO

Hulme, Harold B.

ILLINOIS

CHICAGO

Benesohn, Sol.
Cohen, Melvin R.
Davis, M. Edward
Dobson, Catherine L.
Frank, Richard
Greenhill, J. P.
Heckel, Norris J.
Herrold, Russell D.
Huffman, John W.
Leventhal, Michael
Rubenstein, Boris B.
Stein, Irving F.
Thompson, Willard O.

OTHER CITIES

Danforth, David
Dickerson, Donald L.
Garrett, Sherman S.
Lattuada, Henry P.
Mencarrow, William J.
Snow, Lucille
Zettelman, Henry J.

INDIANA

Cortese, Thomas A.
McCormick, C. O., Jr.
Romberger, Floyd T., Jr.

IOWA

Nelson, Warren
Stuermer, Virginia M.

KANSAS

Dieter, Donald D.

KENTUCKY

Gray, Laman A.

LOUISIANA

Davis, Julius
Getzoff, Paul L.
Goldman, Daniel W.
Johnson, C. Gordon
McCall, Milton L.
Steiner, Melvin D.
Weed, John C.
Weinstein, B. B.
Weinstein, David

MAINE

Coulton, Donald
Lorimer, Robert

MARYLAND

Jones, G. E. Segar

MASSACHUSETTS

BOSTON and BROOKLINE

Abramson, Daniel
Albert, Louis
Brodny, M. Leopold
Doyle, Joseph B.
Ingersoll, Francis M.
Mezer, Jacob
Meigs, Joe V.
Mitchell, George W.
Mulligan, William J.
Rock, John
Rogers, Joseph
Saphirstein, Hyman
Simmons, Fred A., Jr.
Stone, Bartlett
Sturgis, Somers H.
Taymor, Melvin L.

OTHER CITIES

Belding, David L.
Burke, John E.
Kirkendall, Henry L.
Williams, Walter W.

MICHIGAN

Andros, George J.
August, Ralph V.
Behrman, Samuel J.
Berlin, Allen
Mack, Harold C.
Peven, Philip S.
Platz, Carol
Rothman, Emil
Stevenson, Charles
Trythall, S. W.
Warren, Bernice

MINNESOTA

Albert, A.
Fortier, Quincy E.
Freidman, Louis L.
Garske, George Leo
Green, Lawrence
Hodgson, Jane E.
Seibel, David
Wilson, Robert B.

MISSISSIPPI

Lucas, J. F.
Street, R. A., Jr.
Wiener, William B.

MISSOURI

Carlson, Hjalmar
Crossen, Robert J.
Hartnett, Leo J.
Krebs, O. S.
Masters, William H.
Singleton, J. Milton
Zellermayer, J.

MONTANA

Howard, Lawrence L.

NEBRASKA

Anderson, Harley
Stuermer, Virginia M.

NEW JERSEY

Finkler, Rita S.
Berman, Robert
Cannis, John P.
Hartman, Carl G.
Frost, Inglis F.
Morgenstern, Mates
Rommer, J. Jay
Roth, Daniel B.
Steinberg, Werner
Tarta, Ciro
Vann, Felix H.
Ward, Elizabeth
Reifenstein, E. C., Jr.

NEW MEXICO

Young, Raymond L.

NEW YORK

NEW YORK CITY and BROOKLYN

Byron, Charles
Chidester, Augustus B.
Buxton, Charles L.
Ciner, Leonard F.
Crawley, Lawrence O.
Daniels, Anna K.
Decker, Albert
Engle, Earl T.
Fischer, Irving C.
Folsome, Clair E.
Freedman, Henry
Gepfert, Randolph
Gorbea, Ricardo L.
Goldfarb, Alvin
Greeley, Arthur V.
Guttmacher, Alan F.
Hollander, Arthur
Hotchkiss, Robert S.
Kaufman, Sherwin A.
Keshin, Jesse G.
Kleegman, Sophia J.
Kramer, Milton
Kupperman, Hebert S.
Kurland, Irving I.
Kurzrok, Lawrence
Kurzrok, Raphael
Kushner, J. Irving
MacLeod, John
McLane, Charles M.
Millen, Robert S.
Myller, Ernest
Papanicolaou, G. N.
Parks, Thomas
Portnoy, Louis
Rosenfeld, S. S.
Rubin, Isidor C.
Salmon, Udall J.
Schnall, Meyer D.
Shimmerlik, Lucy
Siegler, Alvin M.
Stein, Anna A.
Stone, Abraham

Stone, Martin L.
Tafeen, Carl H.
Tanz, Alfred
Topkins, Paul
Ward, Mildred E.
Weinstein, Mortimer
Weisman, Abner I.
Wexler, David J.
Wilson, Leo
Wimpfheimer, Seymour
Wollman, Leo

OTHER CITIES

Benjamin, John
Birnberg, Charles H.
Feldman, Harold
Fincher, Myron G.
Fond, Morris S.
Heckel, George P.
Hellman, Louis M.
Hughes, Edward C.
Kahn, Edward
Kohn, Anthony
McEntee, Kenneth
Niswander, Kenneth
Pommerenke, W. T.
Roland, Maxwell
Romberg, George H.
Simmons, Raymond
Stephenson, Gatton A.

NORTH CAROLINA

Carter, Bayard
Hamblen, Edwin C.
Kernodle, John Robert
Leary, Deborah
Pearse, Richard L.
Peters, William A.
Turner, Violet H.

NORTH DAKOTA

Hunter, G. Wilson

OHIO

Bennett, Alwne E.
Efstation, Thomas D.
Garber, Stanley
Hoffman, Kathryn E.
Lennox, Arthur L.
McDonough, John J.
Roth, Arthur A.
Silbernagel, Wynne M.
Weil, Alven M.
Weir, David R.
Weir, William C.

OKLAHOMA

Howard, R. Palmer

OREGON

Heller, Carl G.
Emmons, Carl W.

PENNSYLVANIA

PHILADELPHIA

Angelucci, Helen M.
Castallo, Mario A.
Charny, Charles
Cristol, Davis S.
Farris, Edmond J.
First, Arthur
Forman, Isador
Fried, Paul H.
Hahn, George A.
Israel, S. Leon
Marbach, A. Herbert
Mazer, Charles
Montgomery, John B.
Perloff, Wm. H.
Rakoff, Abraham E.
Schinfeld, Louis
Seitchik, Joseph N.
Wainer, Amos Shepard
Weber, Lennard L.

OTHER CITIES

Arnheim, Falk K.
Finegold, W. J.
Hance, B. M.
Leibold, George
Schaeffer, Frances C.

TENNESSEE

Black, William T.
Ogle, Luther Curtis
Truex, Allen

TEXAS

Crutcher, H. K.
Dippel, A. Louis
Essin, Emmett
Guerriero, William F.
Jinkins, J. L.
Kantor, Herman I.
Karnaky, Karl John
Lukeman, H. J.
Massey, Warren E.
Mendel, Evri B.
Morse, Walter S.

Powell, Norborne B.
Strasmann, Erwin O.
Von Pohle, K. C.
Goldzier, Joseph

UTAH

Fister, George M.

VIRGINIA

Bickers, William
Langston, Henry J.
Speck, George
Suggs, William D.
Tietze, Christopher
Ware, H. H., Jr.

WASHINGTON

Banks, Lawrence
Blandau, Richard J.
Frazier, William H.
Rutherford, Robert N.
Thomas, Leon B.

WEST VIRGINIA

Hudgins, Archibald P.
Seltzer, Leo Maurice

WYOMING

Kingman, H. E.
Wallin, S. P.

ARGENTINA

Ahumada, Juan C.
Bettinotti, Alberto
Chevalier, Raul M.
Brea, Cesar A.
de la Balze, Felipe
di Paola, Gullermo
Herrera, Roberto G.
Mezzadra, Jose M. E.
Murray, Edmundo G.
Trabucco, Armando E.

AUSTRALIA

Grant, Alan

BRAZIL

da Paz Filho, A. C.
de Andrade, Claudio
de Barros, Paulo
de Moraes, Arnaldo
de Rezende, Jorge

BELGIUM

DeMuylder, Edgard
Vandevelde, Peter

CANADA

Barker, C. A. V.
Mylks, G. W., Jr.
Pattee, Chauncey J.
Roberston, Edwin M.
Schram, E. L. R.
Shute, Evan V.

DENMARK

Hammen, Richardt H.
Madsen, Valdemar
Rydberg, Erik

ENGLAND

Lane-Roberts, Cedric S.
Young, Donald

FRANCE

Bayle, Henri
Beclere, Claude
Louyot, Jean
Palmer, Raoul
Verain, Marcel

INDIA

Rao, B. K.

IRELAND

Solomons, Edward

ISRAEL

Asherman, Joseph G.
Joel, Charles A.
Rabau, Erwin

ITALY

Nobile, Timoteo

MEXICO

Alvarez,Bravo, Alfonso
Arzac, Jose P.
Castro, Eduardo
Gallo, Delfino
Guerrero, Carlos D.
Guerra, Salas
Sordo-Moriega, Antonio
Young, Raymond L.

NETHERLANDS
Berge, Ten

NEW ZEALAND
Averill, L. C. L.

PANAMA
Carrizo, Aristobulo

PERU
Mori-Chavez, Pablo

SALVADOR
Guerrero, Jose G.

SCOTLAND
Sharman, Albert

SPAIN
Botella-Llusia, Jose
Nunez, Antonio C.
de la Pena, Alfonso

SWEDEN
Lagerlof, Nils
Nordlander, Eric

SWITZERLAND
De Watteville, Hubert

URUGUAY
Lopez, Manuel B.

VENEZUELA
Nouel, Carlos

S. R. 402

CITY OF NEW YORK
DEPARTMENT OF HOSPITALS
125 WORTH STREET
NEW YORK 13, N. Y.

MARCUS D. KOGEL, M. D.
COMMISSIONER

December 3, 1953

Dr. Ernest Myller
65 East 76th Street
New York City

Dear Doctor Myller:

On the recommendation of the Medical Board of Gouverneur Hospital, you are promoted to Associate Visiting Obstetrician-Gynecologist, effective September 9, 1953.

Very truly yours,

MARCUS D. KOGEL, M.D.
Commissioner

MDK:dms

AMERICAN ACADEMY OF OBSTETRICS AND GYNECOLOGY
Office of C. PAUL HODGKINSON, M.D., *Secretary*
116 South Michigan Avenue
Chicago 3, Illinois

September 18, 1953

Ernest Myller, M.D.
65 East 76th Street
New York 21, New York

Dear Doctor Myller:

It gives me great pleasure to inform you that the Executive Board of the American Academy of Obstetrics and Gynecology has elected you a Fellow of the Academy.

This election is contingent, of course, upon receipt of your check for $50 in payment of your initiation fee of $25 and your 1953 dues $25.

It is hoped that your participation in the Academy and its activities will be a continuing source of mutual advantage and pleasure.

I look forward to seeing you at coming meetings.

Very sincerely yours,

C. Paul Hodgkinson

C. Paul Hodgkinson, M.D.
Secretary

CPH:ac

The American Academy of Obstetrics and Gynecology

Executive Board

PRESIDENT

ROBERT A. KIMBROUGH, JR., M.D.
807 Spruce Street
Philadelphia 7, Pennsylvania

IMMEDIATE PAST PRESIDENT

CARL P. HUBER, M.D.
1040 West Michigan Street
Indianapolis 7, Indiana

1ST VICE PRESIDENT

HOWARD STEARNS, M.D.
833 S. W. Eleventh Ave.
Portland 5, Oregon

2ND VICE PRESIDENT

JOE VINCENT MEIGS, M.D.
Vincent Memorial Hospital
Boston, Massachusetts

Chairman of District I

SAMUEL B. KIRKWOOD, M.D.
1180 Beacon Street
Brookline 46, Massachusetts

Chairman of District II

EDWARD C. HUGHES, M.D.
713 E. Genesee Street
Syracuse 2, New York

Chairman of District III

JOHN B. MONTGOMERY, M.D.
1930 Chestnut Street
Philadelphia 3, Pennsylvania

Chairman of District IV

JOHN PARKS, M.D.
901 23rd Street, N.W.
Washington 7, D. C.

PRESIDENT ELECT

BAYARD CARTER, M.D.
Duke Hospital
Durham, North Carolina

TREASURER

HERBERT E. SCHMITZ, M.D.
55 E. Washington Street
Chicago 2, Illinois

SECRETARY

C. PAUL HODGKINSON, M.D.
17546 Meadowood, Lathrup Village
Birmingham, Michigan

ASSISTANT SECRETARY

CHARLES D. KIMBALL, M.D.
734 Broadway
Seattle 22, Washington

Chairman of District V

ALLAN C. BARNES, M.D.
2065 Adelbert Road
Cleveland 6, Ohio

Chairman of District VI

JOHN I. BREWER, M.D.
104 S. Michigan
Chicago 3, Illinois

Chairman of District VII

WILLIAM F. MENGERT, M.D.
2211 Oak Lawn
Dallas 4, Texas

Chairman of District VIII

R. GLENN CRAIG, M.D.
490 Post Street
San Francisco 2, California

EXECUTIVE SECRETARY, MR. DONALD F. RICHARDSON, 116 South Michigan, Chicago 3, Illinois

NEW YORK UNIVERSITY–BELLEVUE MEDICAL CENTER

OF NEW YORK UNIVERSITY

477 FIRST AVENUE, NEW YORK 16, N.Y.

OREGON 9-3200

June 29, 1951

Dear Doctor Myller:

You are hereby advised that the Board of Trustees at a meeting held June 19, 1951 approved and confirmed your re-appointment to the University Hospital staff as hereinafter set forth:

Title: Assistant In Obstetrics and Gynecology
Period: Effective September 1, 1951

It is understood that all staff appointments shall be for periods not in excess of one year, and shall terminate on August 31st of each year thereafter following the commencement of service under the appointment, provided however, that all such appointments shall be subject to the right of the Board of Trustees to modify or cancel the terms of service at any time in the event that conditions make such action desirable, the decision of the Board as to the desirability of such action being final.

Sincerely yours,

LeRoy E. Kimball

Secretary-Treasurer
(100 Washington Square East)

Doctor Ernest Myller
65 East 76th Street
New York 21, New York

NEW YORK UNIVERSITY–BELLEVUE MEDICAL CENTER

OF NEW YORK UNIVERSITY

477 FIRST AVENUE, NEW YORK 16, N.Y.

OREGON 9-3200

June 9, 1950

Dear Dr. Myller:

You are hereby advised that the Board of Trustees at a meeting held May 9, 1950 approved and confirmed your appointment to the University Hospital staff as hereinafter set forth:

Title: Assistant In Obstetrics and Gynecology
Period: Effective September 1, 1950

It is understood that all staff appointments shall be for periods not in excess of one year, and shall terminate on August 31st of each year thereafter following the commencement of service under the appointment, provided however, that all such appointments shall be subject to the right of the Board of Trustees to modify or cancel the terms of service at any time in the event that conditions make such action desirable, the decision of the Board as to the desirability of such action being final.

Sincerely yours,

LeRoy E. Kimball

Secretary-Treasurer
(100 Washington Square East)

Dr. Ernst Myller
875 Park Avenue
New York 21, New York

SR—402

CITY OF NEW YORK
DEPARTMENT OF HOSPITALS
125 WORTH STREET
NEW YORK 13, N. Y.

MARCUS D. KOGEL, M. D.
COMMISSIONER

April 28, 1950

Dr. Ernest Myller
65 East 76th Street
New York 21, N.Y.

Dear Doctor Myller:

On the recommendation of the Medical Board of Gouverneur Hospital, you are hereby appointed Assistant Visiting Obstetrician-Gynecologist, effective April 3, 1950.

Very truly yours,

MARCUS D. KOGEL, M.D.
Commissioner

MDK:dds

NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL
303 EAST TWENTIETH STREET
NEW YORK 3, N.Y.

DEPARTMENT OF GYNECOLOGY
OFFICE OF THE EXECUTIVE OFFICER

January 12, 1949

Ernest Myller, M.D.
875 Park Avenue
New York, New York

Dear Doctor Myller:

Some time in the near future I trust that you will receive an appointment as Assistant in Obstetrics and Gynecology to the University Hospital, as there will be no further Dispensary appointments.

The assignments are made by the Chairman of each Department and the assignment will be to the Clinic as heretofore. It does not carry with it the privilege of admitting private patients to the hospital itself.

Very truly yours,

Walter T. Dannreuther

Walter T. Dannreuther, M.D.
Chairman
Department of Obstetrics and Gynecology

WTD:nse

THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
ALBANY

BUREAU OF QUALIFYING CERTIFICATES
HORACE L. FIELD, CHIEF

November 18, 1941

Dr. Ernst Myller
383 West End Avenue
New York, New York

Dear Sir or Madam:

You passed your written examination in English for foreigners with a mark sufficiently high so that you may be excused from trying the oral examination.

You may use this letter as evidence that you have passed the complete examination in English for foreigners conducted by this Department in October, 1941.

Very truly yours

H. L. Field

CFN:AC

Chief

* Until Alien Registration Card is submitted

Postpartum Hemorrhage

1. What is the definition of postpartum hemmrrhage
2. Methods of measuring blood loss
3. The importance of clinical signs of hemorrhage
4. Necessity of cervical inspection
5. Technique of packing the vagina, cervix and uterus, and indications for
6. Oxytocics
7. Infusions including intravenous pituitrin
8. Transfusions
9. Rechecking
10. Hysterectomy - do not wait too long

Should be given by a member of the Obstetrical and Gynecological Department.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

OFFICE OF THE SECRETARY-TREASURER
PAUL TITUS, M.D.
1015 HIGHLAND BUILDING
PITTSBURGH (6), PA.

October 2, 1947.

Ernest Myller, M. D.,
875 Park Avenue,
New York 21, New York.

Dear Dr. Myller:

You made no reply to question #11 in your application and it is essential for our Credentials Committee to have this information. It is being attached below and I would appreciate your early attention to this matter.

Very truly ~~yours~~,

Paul Titus

Paul Titus, M. D.

PT/adf

Dr. Ernest Myller
65 East 76th Street
New York 21, N. Y.


Ernest Myller, M.D., Cor. Secretary
Rudolf Virchow Medical Society
64 East 76th Street
New York 21, New York

THE RUDOLF VIRCHOW MEDICAL SOCIETY
IN THE CITY OF NEW YORK

THE MEDICAL CIRCLE

THE AMERICAN SOCIETY OF
EUROPEAN CHEMISTS AND PHARMACISTS

request the pleasure of your presence at a

SPECIAL MEETING

in honor of the EIGHTIETH BIRTHDAY of

PROFESSOR OTTO LOEWI

Tuesday evening, June 2nd, 1953
at 8 o'clock sharp

to be held at the

ACADEMY OF MEDICINE
Hosack Hall
2 East 103rd Street
New York City

Felicitations will be conveyed by

PAUL H. HOCH
The Rudolf Virchow Medical Society

JOSEF NOVAK
The Medical Circle

HERMANN F. MARK
The American Society of European Chemists and Pharmacists

CURRIER McEWEN
Dean, New York University College of Medicine

ERNST NAVRATIL
Professor of Gynecology, University of Graz, Austria

McKEEN CATTELL
Professor of Pharmacology, Cornell University Medical College
Past President, The American Society for Pharmacology and Experimental Therapeutics

ALEXANDER T. MARTIN
President, New York Academy of Medicine

HORACE W. STUNKARD
Chairman, Department of Biology, New York University
Past President, New York Academy of Sciences

OTTO KRAYER
Professor of Pharmacology, Harvard University

ERNST P. PICK
Clinical Professor of Pharmacology, Columbia University
Formerly Professor of Pharmacology and Director of the Pharmacological Institute, University of Vienna

ADDRESSES

will be delivered by

CHARLES H. BEST

Professor of Physiology, University of Toronto

CARL F. CORI

Professor of Biological Chemistry, Washington University, St. Louis

SEVERO OCHOA

Professor of Pharmacology, New York University College of Medicine

Chairman:

PAUL H. HOCH

A Reception will be held after the Ceremonies in the

Presidents' Gallery

Refreshments will be served. Dress Optional.

RHODE ISLAND HOSPITAL
593 EDDY STREET, PROVIDENCE, R. I.
Dept. of Gynecology

June 30, 1952

Dear Doctor:

I have read with great interest your article entitled "Control of Postpartum Hemorrhage" as published in J. A. M. A., June 21, 1952

I shall appreciate it very much if you would be kind enough to forward to me one reprint of same.

I thank you for this courtesy.

Sincerely,

George W. Waterman M.D

George W. Waterman, M. D.

Chief, Department of Gynecology

(Dict.)

Doctor I. C. Rubin
911 Park Avenue
New York 21, N. Y.
BUtterfield 8-1980

January 19,1955

My dear Mrs. Myller:

I have had a request from the American Society for the Study of Sterility to write an obituary notice in the Fertility and Sterility journal for Doctor Myller. Would you be good enough to let me have a copy of the notice that appeared in the paper shortly after his passing?

Incidentally the enclosed is what I collected from Mme. Alexis Kyrou who was here recently. She needs an operation but prefers to have it done in Greece where she says it will cost her less.

Best regards to you and your son.

Sincerely yours,

I. C. Rubin

Mrs. Ernest Myller
450 East 63rd Street
New York City

BUtterfield 8-5929

ERNEST MYLLER, M. D.
65 EAST 76th STREET
New York 21, N. Y.

FOR PROFESSIONAL SERVICES

Cyclogesterine tablets. (Upjohn)
3 tablets for 10 days

NEW YORK UNIVERSITY–BELLEVUE MEDICAL CENTER
OF NEW YORK UNIVERSITY
POST-GRADUATE MEDICAL SCHOOL
303 EAST 20TH STREET, NEW YORK 3, N. Y.

July 21, 1953

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY
GOUVERNEUR HOSPITAL
621 Water Street
NEW YORK 2, N.Y.

GRAMERCY 7-2000

Ernest Myller, M.D.
65 E 76th Street
New York City

Dear Dr. Myller:

I shall appreciate your attending Wednesday afternoon at Gouverneur Hospital for the present.

I have already written concerning the matter which we discussed at the telephone. This is in the hands of Dr. Studdiford and I hope and believe we will have favorable reply shortly.

Sincerely yours,

Locke L. Mackenzie, M.D.

Dr.M/rj

Conclusions

The importance of cervical obturation in the procedure of uterotubal insufflation and hysterosalpingography has been emphasized. Desiderata of the ideal uterine cannula are:

1. Painless application unaccompanied by trauma.
2. Airtight closure of the cervical canal.
3. Maintenance of the normal anatomical position of the uterus.

A new cannula with inflatable balloon for cervical obturation has been described.

References

1. Personal communication. Acknowledgment is herewith made to R. B. Stout, M.D., for his kindness in letting us see his instrument.
2. Decker, Albert: Am. J. Obst. & Gynec. **54**: 1077, 1947.
3. Rubin, I. C.: Am. J. Obst. & Gynec. **45**: 419, 1943.

CERVICAL OBTURATION WITH INFLATABLE CANNULA IN UTEROTUBAL INSUFFLATION AND HYSTEROSALPINGOGRAPHY

I. C. RUBIN, M.D., F.A.C.S.
and
ERNEST MYLLER, M.D.
New York, N. Y.

Reprinted from
AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY
St. Louis

Vol. 56, No. 6, Pages 1077-1082, December, 1948

(Printed in the U. S. A.)

CERVICAL OBTURATION WITH INFLATABLE CANNULA IN UTEROTUBAL INSUFFLATION AND HYSTEROSALPINGOGRAPHY

I. C. Rubin, M.D., F.A.C.S., and Ernest Myller, M.D., New York, N. Y.

CERVICAL obturation is of major importance in the technical procedure of uterotubal insufflation and hysterography. Regurgitation of CO_2 gas or oil leads to unreliable estimation of the pressure employed, and not infrequently to wrong interpretation as to tubal patency. Obturation is usually secured by pressing a rubber or metal acorn against the cervical os. This is easily accomplished in the presence of a round and well-shaped external orifice. However, if the external os is irregular in contour as in lacerations and eversions, excessive pressure must be exerted by the acorn in order to prevent leakage of the contrast medium or of CO_2 gas as the case may be. To prevent regurgitation the cervix must be grasped firmly with a tenaculum forceps exerting counter pressure. In this maneuver, the uterus is either pushed upward or drawn down. To keep the balance by equal push and pull is sometimes difficult. The anatomic change in position may occasionally be sufficient to simulate closure of the tubes by causing artificial kinks at the uterotubal junction or by artifically stretching adhesions which do not otherwise obstruct the tubal lumen when the normal position of the uterus is undisturbed. The cannula devised by Colvin with screw tips of various sizes, later modified by Hudgins, affords tight obturation but involves a certain amount of trauma which theoretically may predispose to embolization.

After many years experience with hysterosalpingography and uterotubal insufflation the prerequisites of an ideal uterine cannula appear to be the following:

1. Its application should be painless and unaccompanied by trauma.
2. It must provide airtight obturation of the cervical canal.
3. It should maintain the normal anatomical position of the uterus.

The cannula presented in this paper has been devised with these desiderata in view. It is based on a rather old device, namely, the use of an inflatable rubber bulb in order to change the diameter of a rigid instrument. Nitze, the inventor of the cystoscope, made use of this principle for a ureteral catheter. In 1883, a United States patent was granted to Henry E. Finney for an instrument based on the same principle for "the treatment of the male urethra." About twelve years ago, one of us (I.C.R.) constructed a cannula similar in principle to the one about to be described. Dr. R. B. Stout had the same idea, except that he placed the rubber balloon within the uterine cavity.[1] Decker,[2] in a recent publication, also recommends inserting the rubber balloon surrounding the cannula tip into the uterine cavity. This principle has been employed by one of us in studying the differential between uterine and tubal contractions during uterotubal insufflation.[3]

The present cannula (Fig. 1) has developed out of a simple model which we have used since 1946 in 175 cases for cervical obturation. The cannula has the length and diameter of an ordinary uterine sound. It consists of two metal channels, one of which is very narrow and ends about 2 cm. behind the tip of the instrument. Its opening is covered by a thin, elastic rubber tube, 2 to 3 cm. long, which is tied at each end to the shaft of the instrument by surgical silk.*

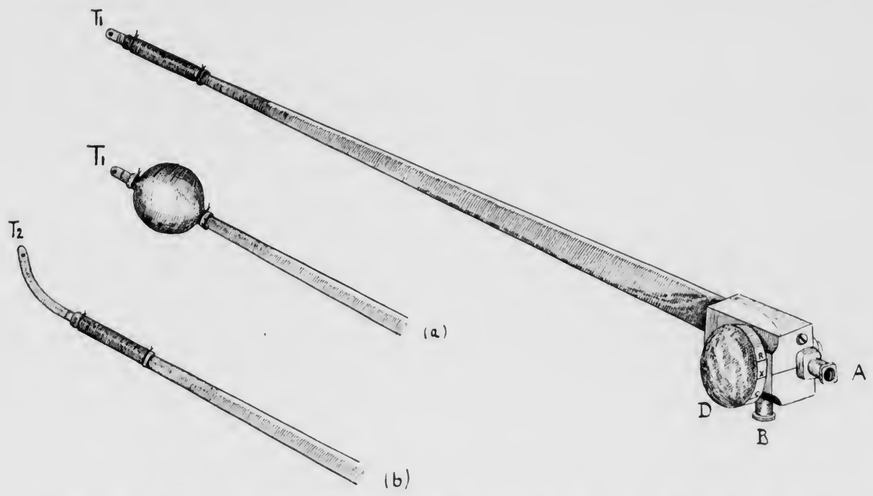


Fig. 1.—Cannula assembled ready for use with revolving disc, hubs for syringe and manometer connections and inflatable tip (letter B below letter C not visible). (*a*). Rubber tubing distended. (*b*). Extension tip for insertion into uterine cavity.

The instrument can be inserted easily into any cervical canal which admits a uterine sound. In most cases it is not necessary to grasp the cervix with a tenaculum forceps. The latter can be removed as soon as the rubber-covered tip has been inserted inside the cervical canal. In certain cases, e.g., stenosis of the internal os, it may be desirable to insert the cannula with its tip in the uterine cavity. For such purpose the short tip (T) (Fig. 1) may be replaced by a longer one (T_1) (Fig. 1). Preliminary dilatation, when desirable, should not be done just before the injection of contrast media or before insufflation. So far it has been possible in our cases to introduce the cannula in cervical stenosis after the latter was passed by a uterine sound.

The cannula is inserted with the revolving disc *D* in the position that presents the engraved letter *B* (bulb on the disc) (Fig. 1) opposite a fixed indicator. Through hub *A*, which fits the Luer syringe, 1 to 3 c.c. of water or air are injected and thus the rubber tube at the end of the instrument becomes distended (Fig. 1*a*). With a little experience one can soon feel whether the bulb is sufficiently expanded. If one is interested in checking the pressure in the inflated balloon, he need only turn the disc to *C*, remove the syringe, and attach a manometer to hub *A*. On turning the disc back to *B*, the pressure within the rubber balloon will be promptly indicated on the manometer. It is to be noted

*The cannula presented here is made and distributed by United Surgical Supply Co., 160 E. 56 Street, New York, N. Y.

that if less than 1 c.c. of air or water is used to inflate the balloon, the pressure readings in the balloon may not be accurate. Now the disc is turned to the position marked by the letter *C* (closed) and the instrument is ready for the procedure.

Fig. 2.—Inflatable cannula filled with diodrast obturating the cervical canal. Note that it is pyriform or acorn in shape as compared to the oval-shaped inflated cannula outside of the body.

The disc is now turned to the position X (= x-ray) thus connecting hub *A* directly with the tip of the instrument inside the cervical canal, or to tip T_2 in the uterine cavity. A Luer syringe containing the contrast medium is connected to hub *A* and the medium is injected into the uterus and the x-ray exposure follows. For fractional injection of contrast medium, the disc is turned to position *C* after the first fraction is introduced. Hands and syringe may now be removed because the expanded bulb retains the cannula in situ.* By turning the disc back to position X the second fractional injection can be made, and if need be, a third or fourth.

When the kymograph is employed it is connected to hub *A* and the disc is turned to position X. The insufflation test can be carried out with a 20 c.c.

*A special clamp adaptable to any vaginal speculum has been devised to keep the cannula in the horizontal position.

Luer syringe attached to hub *A*. The disc is turned to position R (= Rubin test) which enables us to measure the exerted pressure by connecting the manometer to hub *B*. In the simplified test, 20 c.c. of carbon dioxide injected by a syringe is sufficient because of the complete closure of the cervix without any leakage. A sudden fall of manometric pressure is indicative of tubal patency. If shoulder pains result they are minimal.*

By inflating the rubber bulb with an aqueous contrast medium (e.g. diodrast) one can easily demonstrate the relation of the bulb to the cervical canal (Fig. 2). In order to note the distensibility of the intracervical balloon and any changes that the cervical walls might exert upon it, another cannula with the balloon filled with an equal amount of diodrast was exposed at the same time on the same x-ray film. The shape of the balloon inside the cervix may be compared to the external balloon in Fig. 2. In Fig. 3, water has replaced the diodrast and is therefore invisible, while the uterine cavity is seen filled with contrast medium. Incidentally, the cervical balloon reveals a configuration which does not conform to what one notes in conventional drawings of the cervical canal because of distention by the rubber balloon. The cervical canal appears, from our study, to yield readily to a greater degree of dilatation than has hitherto been realized.†

Owing to rigid walls, some cervices were found to resist balloon distention with 2 to 3 c.c. of water. Nevertheless, good obturation could be obtained with less filling. If the rubber part of the instrument is not inserted deep enough into the cervical canal the balloon may bulge through the external os. However, this does not prevent airtight closure. Should the rubber bulb be pushed out entirely from the cervix it may be reinserted and kept in place by grasping the anterior lip of the cervix with a tenaculum forceps. In several cases the cervix was found transformed into a shallow cone. Airtight closure could be obtained in these cases by advancing the expanded rubber bulb into the cone while the cervix was held in place by a tenaculum forceps.

The present cannula has the advantage over the ordinary cannula with an acorn tip in that it brings a larger area of the endocervix in contact with the acorn. Hence, the pressure required to obturate the cervix is less. As this pressure is not only directed upward, but upon all sides, dislocation of the cervix does not as a rule result.

The pressure within the rubber balloon automatically predetermines the maximum pressure which is intended to be used for the insufflation test or salpingography. If, for example in the bulb is 250 mm. Hg and the pressure used during insufflation or salpingography is higher, no matter how little this may be, there is prompt escape of the gas, or oil from the cervix. The same physical law operates here as in measuring blood pressure. If the blood pressure exceeds the pressure in the armcuff, the pulse wave immediately returns. The balloon in the present cannula thus forms a desirable safety valve which automatically prevents an undue increase of pressure inside the uterus.

This feature of the instrument is of importance for salpingography. Usually a contrast medium is used which has a certain viscosity. Pressure determinations when lipiodol or other viscous fluid is used are not accurate because of the considerable friction inside the small lumen of the cannula where a rapid decrease of pressure takes place with each progressive centimeter of the lumen. When the constrast medium enters the uterine cavity the

*The senior author does not recommend or employ the use of the syringe for injecting CO_2 into the uterus for testing tubal patency, preferring insufflation by means of the automatic siphon meter with kymograph. The present cannula is admirably adapted for this apparatus.

†This point of elasticity of the cervix under various conditions will be the basis of a future publication.

pressure inevitably falls. If tubal obstruction is encountered there is a gradual increase of pressure inside the uterus until it equals that which is exerted by the syringe. Before this point is reached a high pressure may be exerted through the syringe which is not usually appreciated by the operator unless he uses a manometer. The rubber balloon affords safety because when the pressure exceeds that within the bulb, the oil escapes at once through the external cervical os.

Fig. 3.—Inflatable cannula filled with water (therefore invisible by x-ray) obturating the cervical canal. The contrast medium (rayopaque) demonstrates the uterine cavity. The rubber balloon distended by diodrast is seen below outside of the body for purpose of comparison.

The instrument can be sterilized by boiling. The rubber bulb can stand boiling many times; its cost, however, is so small that it may readily be replaced for each test. We have found it practical to fill the bulb before inserting the cannula in order to note whether it is watertight. However, should the rubber break it is immediately appreciated by the drop in resistance. The water escapes through the external os and does no harm. It is particularly to be noted that the operation of the cannula is exceedingly simple, and after some little experience, requires a minimum of time.

Landsberg Jan. 1918 - Jan. 192

Berlin Febr. 1920 - Dec. 1922

Düsseldorf Jan. 1922 - Dec. 1922

1918 Berlin Wien.

1934 Athens

1942 New York. Mass. Gen.

Würzburg 1911 2

Kiel 1912 2

München 1913 2

Edinburgh 1914 2

4 years army

Tübingen 1916

Berlin 1917 2

BULLETIN
of
THE AMERICAN BOARD
of
OBSTETRICS AND
GYNECOLOGY

EIGHTEENTH ISSUE
JUNE, 1947

OFFICE:
1015 HIGHLAND BUILDING
PITTSBURGH (6), PA.

PAUL TITUS, M.D., *Secretary*

The American Board of Obstetrics and Gynecology, Inc.

DIRECTORS

President
WALTER T. DANNREUTHER, M.D., New York City
A. A. O. G. and A. S.

Vice-President
JOSEPH L. BAER, M.D., Chicago, Illinois
A. G. S.

Vice-President
LUDWIG A. EMGE, M.D., San Francisco, Calif.
Section on O. and G., A. M. A.

Secretary-Treasurer
PAUL TITUS, M.D., Pittsburgh, Pennsylvania
A. A. O. G. and A. S.

Member Executive Committee
NORMAN F. MILLER, M.D., Ann Arbor, Mich.
Section on O. and G., A. M. A.

EDWARD A. SCHUMANN, M.D., Philadelphia, Pa.

NORMAN F. MILLER, M.D., Ann Arbor, Michigan
A. G. S.

WILLARD R. COOKE, M.D., Galveston, Texas
A. A. O. G. and A. S.

F. BAYARD CARTER, M.D., Durham, N. C.
Section on O. & G., A. M. A.

ROBERT L. FAULKNER, M.D., Cleveland, Ohio
A. G. S.

REED B. DAWSON, ESQ., New York City
Counsel

Former Directors of the Board

F. L. Adair, M.D., Chicago, Ill.
E. D. Plass, M.D., Iowa City, Iowa.
G. D. Royston, M.D., St. Louis, Mo.
J. C. Litzenberg, M.D., Minneapolis, Minn.
R. D. Mussey, M.D., Rochester, Minn.
E. A. Schumann, M.D., Philadelphia, Pa.
Norris W. Vaux, M.D., Philadelphia, Pa.
L. E. Phaneuf, M.D., Boston, Mass.

Associate Examiners Who Have Served With the Board

W. T. Black, M.D., Memphis, Tenn. (Deceased)
L. A. Calkins, M.D., Kansas City, Mo.
S. A. Chalfant, M.D., Pittsburgh, Pa. (Deceased)
C. G. Collins, M.D., New Orleans, La.
S. A. Cosgrove, M.D., Jersey City, N. J.
W. C. Danforth, M.D., Evanston, Ill.
W. J. Dieckmann, M.D., Chicago, Ill.
N. J. Eastman, M.D., Baltimore, Md.
J. R. Eisaman, M.D., Pittsburgh, Pa.
Frederick H. Falls, M.D., Chicago, Ill.
R. L. Faulkner, M.D., Cleveland, Ohio.
J. W. Harris, M.D., Madison, Wis.
W. P. Healy, M.D., New York City.
H. Close Hesseltine, M.D., Chicago, Ill.
James E. King, M.D., Buffalo, N. Y. (Deceased)
C. B. Lull, M.D., Philadelphia, Pa.
Harvey B. Matthews, M.D., Brooklyn, N. Y.
James R. McCord, M.D., Atlanta, Ga.
L. G. McNeile, M.D., Los Angeles, Calif.(Deceased)
Emil Novak, M.D., Baltimore, Md.
John L. Parks, M.D., Washington, D. C.
W. T. Pride, M.D., Memphis, Tenn.
L. M. Randall, M.D., Rochester, Minn.
G. D. Royston, M.D., St. Louis, Mo.
H. E. Schmitz, M.D., Chicago, Ill.
Otto H. Schwarz, M.D., St. Louis, Mo.
Ward F. Seeley, M.D., Detroit, Mich.
N. W. Vaux, M.D., Philadelphia, Pa.
W. H. Vogt, M.D., St. Louis, Mo. (Deceased)
W. H. Weir, M.D., Cleveland, Ohio.

THE AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

ORGANIZATION

In 1930 the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons, the American Gynecological Society, and the Section on Obstetrics and Gynecology of the American Medical Association, each elected three Fellows to constitute the American Board of Obstetrics and Gynecology.

Dr. Walter T. Dannreuther of New York, Dr. Paul Titus of Pittsburgh, and Dr. Grandison D. Royston of St. Louis were appointed to represent the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons; Dr. Jennings C. Litzenberg of Minneapolis, Dr. Joseph L. Baer of Chicago, and Dr. E. A. Schumann of Philadelphia were appointed to represent the American Gynecological Society; Dr. Fred L. Adair of Chicago, Dr. R. D. Mussey of Rochester, Minn., and Dr. E. D. Plass of Iowa City, Iowa, were appointed to represent the Section on Obstetrics, Gynecology, and Abdominal Surgery of the American Medical Association. Since formation of the Board several of the original members have resigned and others have been duly appointed to fill their places.

The Board was incorporated, organized and held its first meeting in September 1930. At that time the By-Laws were adopted and provisions were made by resolutions for its proper functioning.

This Board had been in the process of organization since 1927 and put into action a determined effort on the part of these three national organizations to improve the standards of practice of obstetrics and gynecology.

PURPOSES OF THE BOARD

First: To elevate the standards and advance the cause of obstetrics and gynecology.

Second: To determine the competence of practitioners professing to be specialists in obstetrics and gynecology.

Third: To arrange, control, and conduct examinations to test the qualifications of voluntary candidates appearing before the Board for certification as specialists in obstetrics and gynecology.

Fourth: To grant and issue certificates of qualification as specialists in the field of obstetrics and gynecology to candidates successful in demonstrating their proficiency.

Fifth: To serve the public, hospitals and the medical schools by preparing lists of specialists certified by the Board.

These activities proceed from the certificate of incorporation in which it is stated that "the nature of the business and the objects or purposes proposed to be transacted, promoted and carried on by it" are as follows:

> "To encourage the study, improve the practice, and advance the cause of obstetrics and gynecology, subjects which should be inseparably interwoven; and to grant and to issue to physicians duly licensed by law, certificates or other equivalent recognition of special knowledge in obstetrics and gynecology."

VALUE OF CERTIFICATES

The national obstetrical and gynecological organizations, which have participated in the formation of the Board and are sponsoring its activities, as well as other societies, attach considerable importance to its certificate. Both the medical and the lay public, including hospital directors, have come to utilize the certificate from this Board freely as a means of determining who are well grounded as specialists in obstetrics and gynecology.

Lists of those holding certificates from this Board and limiting their practice to obstetrics and gynecology are published in the Directory of Medical Specialists; similar lists are published by the American Journal of Obstetrics and Gynecology, and also appear in the American Medical Directory. This latter indicates Diplomates of this and other Boards by means of numerical symbols

appearing in the biographic records, but does not give such special recognition to Diplomates who are not members of the American Medical Association.

Each certificate granted or issued does not of itself confer or purport to confer upon any person any degree or legal qualifications, privileges or license to practice obstetrics or gynecology, nor does the Board intend in any way to interfere with or limit the professional activities of any duly licensed physician. Its chief aim is to standardize qualification for specialists in obstetrics and gynecology, and to certify as specialists those who voluntarily appear before the Board for such recognition and certification, according to its regulations and requirements.

This Board does not subscribe to any hospital rule that certification is to be required for medical appointments especially in ranks lower than Chief or Senior Staff of hospitals, or Associate Professorship in Schools of Medicine, for the obvious reason that such appointments constitute desirable specialist training.

Even though certification or its full equivalent may be considered a desirable requisite to appointment in key positions, as on the Senior or Chief Staff, particularly of hospitals expecting to conduct approved services for training of residents, it was never intended by this Board that certification should be required by any hospital as a prerequisite to appointment, especially in such lesser positions.

REVOCATION OF CERTIFICATES

Each Certificate of Qualification may be revoked by this Board in the event that:

1. Any representation or statement made to the Board or to any of its representatives by the physician so certified, including the statements contained in his application for certification, shall have been false or intentionally misleading.

2. The physician so certified shall not in fact have been eligible to receive certification, irrespective of whether or not the facts constituting such ineligibility were known to

or could have been ascertained by this Board, its members, directors, examiners, officers or agents at or before the time of issuance of such Certificate of Qualification.

3. Any rule governing examination for certification shall have been violated by the physician so certified and the fact of such violation shall not have been ascertained until after the issuance of the Certificate of Qualification.

4. The physician so certified shall fail to abide by the regulations governing the limitation of his practice to the specialty of obstetrics and gynecology.

5. The physician so certified shall violate the standards of ethical practice of medicine then accepted by organized medicine in the locality in which he shall be practicing, and, without limitation of the foregoing, the forfeiture, revocation or suspension of his license to practice medicine, or the expulsion from, or suspension from the rights and privileges of membership in, the American Medical Association or any state or county society affiliated therewith, any recognized Canadian medical society, the American Association of Obstetricians, Gynecologists and Abdominal Surgeons or the American Gynecological Society shall be conclusive evidence of a violation of such standards of ethical practice of medicine.

6. The physician so certified shall fail to comply with or violate, or the issuance or receipt by him of such Certificate of Qualification shall have been contrary to or in violation of, the Certificate of Incorporation, the By-Laws or the Rules and Regulations of this Board.

Upon revocation of any Certificate of Qualification by this Board as aforesaid, the holder thereof shall return his Certificate of Qualification and all other evidence of certification to the Secretary of the Board and his name shall be removed from the list of Certificate holders of this Board.

PREREQUISITES TO ELIGIBILITY

Each applicant before he may become eligible to receive such certificate or other evidence of recognition:

1. Must have had conferred upon him a degree in medicine by an institution of learning approved by the Advisory Board for Medical Specialties and the Council on Medical Education and Hospitals of the American Medical Association.

2. Must establish in a manner satisfactory to the Board of Directors that he is a physician duly licensed to practice medicine, and

(a) That he is of high ethical and professional standing.

(b) That he has received adequate training in both obstetrics and gynecology as a specialty. Training in one branch only is not acceptable.

3. Must make application for investigation of his credentials and a survey of his character.

4. Must assure the Board that he is limiting his practice to obstetrics and/or gynecology and that he intends to continue to do so, except for military duties, having limited for at least six (6) months before making application (except for active military duty).

5. Must have membership in the American Medical Association, or membership in such Canadian or other medical societies as are recognized for this purpose by the Council on Medical Education and Hospitals of the American Medical Association. (Membership in the AMA or equivalent society membership is waived, temporarily, for men in the Army or Navy, especially for those who proceeded directly or almost so from hospital services into Army or Navy Services, upon a statement of intention to join promptly upon return to civilian practice.)

6. This Board will not accept applicants for examination who are not full citi-

zens of the United States or of Canada, though they be residents of either country. Foreign born applicants must have been certified by either the National Board of Medical Examiners or licensed to practice medicine in the United States or Canada by a State or Provincial Board of Licensure. Notarized statements, *not* original citizenship papers, must be furnished when the application is filed attesting to the fact of full citizenship in the United States or Canada, if the applicant is foreign born. Further, there will be required a probationary period of at least three (3) years from the date of licensure in the practice of medicine in these countries before such a candidate may be admitted to examination.

7. The Board accepts the fifth or "intern" medical school year required at some schools in lieu of the usual fifth or intern "clinical training" year following graduation. As a substitute for special training, service with a qualified obstetrician-gynecologist preceptor, preferably one who has been certified by the Board, may be acceptable. The exact time basis for this has not been specified, and each case must be reviewed and decided individually by the Credentials Committee after the application is submitted in the regular manner. The time allowance for this type of training will vary with the amount of work done with the preceptor. Opportunity for personal responsibility during this period of training is essential.

8. The Board conformed with the general acceleration in programs in medical education in that it will accept a period of nine "accelerated" months as an academic year in satisfying our requirement for each of three years of residency training. Such allowances can be made only for services during the wartime period of the official "accelerated program" and are not made for services before 1944 or after the discontinuance of this acceleration in 1946.

9. The period of special training should emphasize the relation of the basic sciences,

anatomy, pathology, physiology, biochemistry, and bacteriology, to the application of surgical principles which are fundamental in all branches of surgery. In addition, the candidate must understand and be trained in the following subjects, viz., the care of emergencies, shock, hemorrhage, blood replacement, electrolyte and fluid balance, protein and nitrogen balance, choice of anesthetics, chemotherapy, acidosis, and alkalosis, narcotics and hypnotics, wound healing, etc.

10. Credit for graduate courses in the basic sciences which involve laboratory and didactic teaching rather than clinical experience or opportunities will be given credit for the time spent up to a maximum period of not more than six months regardless of the duration of the course.

11. An acceptable residency is one which has been approved by the Council on Medical Education and Hospitals of the American Medical Association jointly with this Board.

12. The Board has ruled that physicians who accept male patients in their private or other practice, for operative or other care, cannot be regarded as specialists in obstetrics and gynecology, except by special ruling when this is related to active military duty.

13. This Board deprecates engagement in fields of practice other than that in which candidates profess to be specialists. The Board does not exclude from examination, however, obstetricians and/or gynecologists who practice abdominal surgery and urology in the female, as well as breast surgery, because of the correlation of these activities.

Military service or any other similar patriotic service, such as work with Selective Service Boards, etc., have not been construed as non-limitation of practice in violation of the Board regulations.

REQUIREMENTS

The requirements for all candidates will be uniform as follows:

1. Completion of at least one (1) year

intern service in a hospital approved by the Council on Medical Education and Hospitals of the A. M. A. (This need not be a general rotating internship, although this latter is preferred.)

(A second year general internship is to be considered as one of a candidate's years of practice. No credit will be given toward special training during a second year general internship.)

2. A minimum of seven (7) years of practice after the intern year, including at least three (3) years of residency training in approved institutions, or adequate preceptorship training as a formal assistant, preferably full time, in approved institutions or with recognized specialists in obstetrics and/or gynecology satisfactory to the Board of Directors.

This Board, in cooperation with the Council on Medical Education and Hospitals of the American Medical Association, surveys institutions providing acceptable residencies in obstetrics and gynecology.

The American Board of Obstetrics and Gynecology establishes herewith requirements for its approval of a residency in a hospital department or service:

1. The Chief of the Active Visiting Staff of the Department must be certified by this Board with at least one other of his subordinates, the remaining members of the Staff must be otherwise acceptably qualified to teach and to practice obstetrics-gynecology.

2. In instances where the services of obstetrics-gynecology are not combined but are separate in any given hospital, the Chief of each such service and at least one of his subordinates must be certified.

3. If obstetrics and gynecology are not combined in one department, approval can be granted only if arrangements are made for some degree of rotation of residents between both services.

4. If gynecology is classified in the given hospital as a subdivision or subservice of

surgery, approval cannot be granted for residency training in gynecology.

5. Exceptions to the foregoing, in respect to the certified status of Chiefs of Service and others as outlined above, can be made only by unanimous assent of the Committee on Postgraduate Survey, for adequate and justifiable reasons. As examples of the latter, the degree of F.A.C.S. in obstetrics-gynecology might be accepted in lieu of one of the two required certifications if the general reputation of the person concerned is known to the Committee as national or sectional in scope, or a professorial rank without certification might be acceptable.

6. It should be recalled by all concerned that credits for graduate training may be obtainable for residency or assistantship service in hospitals not officially approved for residency training. Each such case must be individually considered, and credits will be largely dependent upon the teaching qualifications of those in charge of the service, and the clinical facilities of the hospital in question.

Lists of formally approved institutions for special residency training appear regularly in certain issues of the Journal of the A. M. A. Detailed information about any of these can be obtained by applying to the A. M. A.

It is possible for candidates trained in some unclassified or as yet unapproved hospitals to obtain credit for this training if properly supervised. Each such case must be considered on its own merits.

Candidates should offer as sponsors or references, two Diplomates of this Board with whom they are presently in contact, rather than men under whom they served as residents only.

APPLICATION AND FEES

Application must be made on a special blank which will be furnished by the Secretary's Office, 1015 Highland Building, Pittsburgh (6), Pa., and must be forwarded with the other required credentials and the application fee to the Secretary's Office at least ninety (90) days prior to the scheduled date of the examinations.

Application fee.....$15.00

Make checks payable to American Board of Obstetrics and Gynecology. Not returnable.

(Applications will not be considered for classification and action by the Credentials Committee unless accompanied by the application fee.)

Examination fee.....$85.00

(Payable when the candidate is notified of acceptance for examination. Not returnable after the candidate has been officially accepted by the Credentials Committee and notified to report for examination.)

Total fee.....$100.00

The fees have been carefully computed on a basis of cost of examinations and are used entirely for administrative expenses. Examiners serve without compensation other than actual expenses.

Many prospectve candidates write the Secretary's Office outlining in their letters their training qualifications and asking informally if they are eligible. Any candidate should be able to make a fair estimate of his eligibility after studying this Bulletin.

The Secretary cannot and will not make any eligibility rulings. These are made only by the Credentials Committee after reviewing those applications only, which are made on the special form provided for this purpose, and submitted to the Secretary with the candidate's application fee.

All candidates must comply with Board regulations in effect for the year in which the examination is taken, regardless of when the original application was filed.

Applicants declared ineligible for admission to examination may reopen their applications within two (2) years of the filing date without payment of an additional application fee.

Applicants declared eligible but who fail to exercise the examination privilege within three (3) years of the date of filing the application are re-

quired to file a new application and to pay a new application fee.

An applicant in military service during the war-time national emergency and assigned to work in general surgery under conditions acceptable to the Credentials Committee may receive credit up to a maximum of six (6) months applicable toward his three (3) required years of specialty training. The additional time may be applied toward the years of practice requirement.

An applicant serving under military orders in an Army or a Navy hospital in an obstetrical and/or gynecological service under supervision will be given the same credit as if he were working under a preceptor, since most of these departments are supervised by men who are Diplomates of this Board or who are recognized obstetrician-gynecologists. He may obtain full residency credit if such hospital is officially approved and listed for residency training in this specialty.

Additional time in military service with any type of general medical assignment may be applied toward the Board's years of practice requirement. The Credentials Committee of the Board will review and give consideration to each individual case.

Upon notice of acceptance for admission to examination, examination fee is due and also case records which should be shipped by the candidate to the Secretary's Office as soon as possible and not later than the date of the Part I written examination.

The candidate should make immediate acknowledgment of his notice of acceptance at which time he will notify the Secretary's Office approximately when to expect his case reports.

EXAMINATIONS

Part I examinations are scheduled annually for the first Friday in February. Grades cannot usually be mailed from the Secretary's Office until after April first following the examination. Arrangements will be made for candidates to report in any convenient city where there may be a Diplomate of this Board to conduct or to supervise the written examination which will be

sent out from the Board's Office under sealed cover.

Special arrangement will be made through senior officers for conducting the written portion of the Part I examination for men in military service. Such candidates are requested to keep the Secretary's Office informed at all times of changes in their mailing addresses.

All applicants accepted for examination will be required to obtain a passing grade in both the written examination and a review of case reports (Part I), before becoming eligible for the oral-clinical and pathology examinations (Part II). The passing grade for the written examination and case reports is 75 per cent. A candidate whose grade in either or both falls below 75 per cent is conditioned.

Re-examination for the removal of conditions in Part I may be taken after one year but within three years after the first failure, without payment of an additional fee.

Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held later in the year.

Candidates appearing for re-examination under a new application after two previous failures will not be required, if they have passed all or part of the Part I examinations on their first application, to repeat such examination items already successfully cleared.

After two ineligibility or postponement rulings on any candidate's application, an entirely new application form must be submitted (with or without fee, according to current requirements) in order to bring data down to date. The essential feature of this should be evidence of additional training and experience.

All original Group A candidates, who have allowed three years or more to elapse without taking examinations, and who care to apply again, must do so on the regular current basis. If accepted, they will now be subject to Part I and Part II examinations.

Former Group A candidates appearing for re-examination after first failure in Part II are not required to take the Part I examination.

Part I

Examination consists of:

1. A comprehensive written examination, conducted annually, including questions on both obstetrics and gynecology and related basic sciences.

2. The filing of twenty-five (25) obstetrical and gynecological case reports, in condensed form. Five (5) cases may concern major illnesses, not necessarily operative. These must be cases for which the candidate was personally responsible.

3. The written examination will be limited to a maximum period of three hours.

(For details regarding Case Reports see next page).

Part II

The oral-clinical and pathology examinations given all candidates are conducted by the entire Board and the Associate Examiners usually near the time and place of the annual meeting of one or more of the national societies represented on this Board, usually that of the American Medical Association. Advance announcements of examination dates and place will be made in medical journals throughout the country.

Examination consists of:

1. Oral examination before two to four examiners.

An endeavor is made to adapt the details of the oral examination to each candidate's experience and practice. The examination is particularly directed to ascertain his familiarity with recent obstetrical and gynecological literature, the related basic sciences, the breadth of his clinical experience, and his general qualifications as a specialist in obstetrics and gynecology.

2. Pathology examination.

The candidate is expected to identify and to discuss several obstetrical and gynecological pathologic specimens and sections.

Examiners report orally upon each candidate to the assembled Board, after which the results of their investigations are considered jointly by the

entire Board and Associate Examiners. After a general consideration of the details of the candidate's oral and pathology examinations, including a review of his capability and general adaptability, the candidate is passed or failed by the entire Board.

The final action of the Board is based upon the candidate's ethical and professional record, training and attainments, as well as on the results of his formal examination.

No conditions are given in Part II of the examination. When a candidate fails in Part II of the examination, he is not required to repeat Part I, but to take a re-examination in the oral-clinical and pathology portions only. One re-examination may be taken within three (3) years of the original examination or first failure without reapplication or payment of an additional fee.

The candidate may reappear at the examination following the one failed by him. In applying for reappearance he should outline additional training or experience acquired in the interim. The Board may, at its discretion, deny the candidate the privilege of re-examination.

Failure to exercise the privilege of re-examination within three (3) years, entails the filing of a new application with the usual application and examination fees.

After two failures in either Part I or Part II on the first application, the candidate may reapply and be readmitted to examinations once only. Exceptions to this ruling can be made only by action of the entire Board in annual session, usually to be based upon evidence of additional training and experience sufficient to warrant such action.

CASE REPORTS

Case reports are to be sent by the candidate to the Secretary as soon as possible after receiving notification of eligibility, and not later than the date of the Part I written examination.

Twenty-five (25) important obstetrical and gynecological case reports, in condensed form, are required. Five (5) cases may concern major illnesses, not necessarily operative. These reports must include a variety of material rather than a

number of cases of one type and must be cases treated within four (4) years of the date of the candidate's application. The number of cases from one's residency service should not be more than half the total number.

These reports are not to be copied verbatim from hospital records, but must be sufficiently complete so that the Examiners can evaluate the judgment of the candidate in his choice of procedure.

Candidate should indicate on each case record whether this is from his residency service or from his private practice and all records failing to have this information will be considered unacceptable.

These reports should be prepared in condensed form in line with the following items:

1. Heading each separate case report must be the hospital number and date, name of the hospital at which the patient was operated, with all pertinent dates, together with the candidate's name or identifiable initials, name of each patient, name of operator (candidate). The case reports should be given sequence numbers from 1 to 25 and must specify whether from residency service or from private practice.

2. (a) Preoperative diagnosis and basis for this, in brief.

(b) Postoperative diagnosis, based on findings.

3. Nature of operation, omitting descriptive technical details, but including pathologist's findings on tissue removed.

4. Critical summary or analysis of each case, with critical deductions derived from correctness or incorrectness of diagnosis, operative findings, postoperative course, and from final results on discharge from hospital and at six months "follow-up" examination.

5. Histories must be typewritten on standard size paper, 8½ x 11 inches, and must be assembled by individual cases.

6. Reports must not be bound with any form of binding other than light weight paper folders or covers.

7. Two (2) separate verified index lists of case reports must be made for each individual hospital at which operations were performed. All verifications must be formally signed by the responsible hospital official, attesting in each instance that the candidate was the operator and must state:

Sequence numbers of case reports.
Candidate's name at head of each page.
Name and address of hospital.
Whether from residency service or from private practice.
Patients' names or identifiable initials.
Patients' admission numbers.
Date of each patient's admission.
Date of each patient's operation.
Date of each patient's discharge.

The critical summary or analysis which must be prepared for each case must include:

1. An account of the candidate's personal observations of the case both prior to and subsequent to operation.

2. The basis for the diagnosis.

3. The facts that determined the course of treatment. Details of operative technic should not be included.

4. Critical conclusions to be drawn from the outcome of the case.

Case reports which do not include such discussion and comments will not be reviewed or graded by the Examiners.

Obstetrical case reports should show:

(a) Date of first prenatal visit and any special features bearing on the case.

(b) The weight and condition of the child at birth and at time of discharge from the hospital.

Obstetrical reports which do not include pelvic measurements either by calipers and, as indicated, by x-ray pelvimetry, will be considered incomplete.

For lists of certificate holders of this, as other

Boards, consult the Directory of Medical Specialists Certified by American Boards (1946).

Communications should be addressed to the Secretary:

DR. PAUL TITUS

1015 Highland Building, Pittsburgh (6), Pa.

Make checks payable to the American Board of Obstetrics and Gynecology.

ADVISORY BOARD FOR MEDICAL SPECIALTIES

Organized in 1933-34 to coordinate graduate education and certification of medical specialists in the United States and Canada.

This Board holds active membership in the Advisory Board for Medical Specialists and reports directly to its member groups and functions in close cooperation with the Council on Medical Education and Hospitals of the American Medical Association.

Officers and Executive Committee

Robin C. Buerki, M.D., *President*
Philadelphia, Pa.

L. R. Chandler, M.D., *Vice President*
San Francisco, Calif.

B. R. Kirklin, M.D., *Secretary-Treasurer*
Rochester, Minn.

Victor Johnson, M.D.
Chicago, Ill.

Conrad Berens, M.D.
New York, N. Y.

Member Organizations

The Association of American Medical Colleges

The American Hospital Association

The Federation of State Medical Boards of the U. S. A.

The National Board of Medical Examiners

The American Board of Ophthalmology

The American Board of Otolaryngology

The American Board of Obstetrics and Gynecology

The American Board of Dermatology and Syphilology

The American Board of Pediatrics

The American Board of Psychiatry and Neurology

The American Board of Radiology

The American Board of Orthopaedic Surgery

The American Board of Urology

The American Board of Internal Medicine

The American Board of Pathology

The American Board of Surgery

The American Board of Neurological Surgery

The American Board of Anesthesiology

The American Board of Plastic Surgery

The American Board of Physical Medicine

DIRECTORY OF MEDICAL SPECIALISTS

Publication Office

210 East Ohio Street, Chicago, 11, Illinois

The joint Directory of Medical Specialists certified by the fifteen special Boards was first published in 1940 by the Advisory Board for Medical Specialties; a second edition appeared in February, 1942; and a third edition in 1946. The third edition of the Directory referred to above is published by the A. N. Marquis Company, 210 East Ohio Street, Chicago, 11, Illinois. List price is $10.30. Between editions frequent bulletins are to be issued to Directory subscribers, listing new names as they are certified up to the time of issuance of the succeeding Directory.

25 years ago Rubin introduced a method.....

With normal patency the gaspressure rises to 70mm and falls to 40 mm. Confirmation by shoulder pain. Referred pain.

Indication. it should be the first test after the husbands semen has been examinned.

Contra indications: Bleeding
Purulent discharge
Recent inflammations
Large tumors
Serious cardiac disease
Bleeding on insertion of cannula
Pregnancy

Apparatus used.
Carbondioxyd superior to air.
Description of apparatus
Use of syringe
Cannulas.

Time for test.
Endometrium has least thichness
no danger of endometriosis
no interference with pregnancy

The test:
Testing of apparatus
Placing od patient
Desinfection
Direction of canal
examination
sounding, better not
Stenosis of internal os
Don't dilate
Cervix:
Insertion with pressure
Grasping of cervix
Dislocation possible
Where is the tip of the cannula?

Injection of gas or opening of valve.
Watch for escape at cervix . readjust
Auscultation

Pressure.
Amount of gas. Rate of flow.

Patient sits up. Shoulderpain.
If strong, let her lay down.

Interpretation:
Manometer, Kymograph
Shoulderpain
delayed.

If closed:
200 mm
Don't exceed. Experiments.

If gas passes at loomm and higher
partial block.
May be caused by spasme or by
adhesions.

Location of pain give hint of location
of blockage.
medication.

Fasten Photograph Here

NEW YORK UNIVERSITY POST-GRADUATE MEDICAL SCHOOL

477 FIRST AVENUE, NEW YORK 16, N. Y.

APPLICATION FOR ADMISSION TO POSTGRADUATE COURSES

Last Name..... First Name..... Middle Name.....

Permanent Address.....

Present Address ..... Telephone No.....

Age.....Sex.....Citizenship ..... Marital Status.....

Attended..... Medical School from..... To..... Degree.....

HOSPITAL INTERNSHIPS OR RESIDENCIES:

(1)..... From.....To.....
(Name of Hospital) (City) (State)

(2)..... From.....To.....
(Name of Hospital) (City) (State)

(3)..... From.....To .....
(Name of Hospital) (City) (State)

State below the nature of each of the internships or residencies (*i.e., whether rotating, medical or surgical*):

(1).....(2).....(3).....

PREVIOUS GRADUATE OR POSTGRADUATE MEDICAL STUDY:

..... From.....To .....
(Subject) (School)

..... From.....To .....
(Subject) (School)

..... From.....To .....

Licensed to practice medicine in (*state*)..... (*year*).....License No.....

Type of Practice (*indicate whether general, including obstetrics and pediatrics, or confined to a specialty*):

.....

Of what professional organizations are you a member?.....

PRESENT HOSPITAL AFFILIATIONS:

..... Date Appointed .....
(Hospital) (City) (Appointment and Service)

..... Date Appointed.....
(Hospital) (City) (Appointment and Service)

Military service (*with dates and brief indication of type of professional experience*):.....

.....

Specialty Board certification .....
(Date) (Board)

Other evidence of specialist qualifications (*membership in special academies, colleges, etc.*).....

.....

Scientific Publications (*use reverse of this blank or an attachment if necessary*).....

.....

I HEREBY APPLY FOR ADMISSION TO THE FOLLOWING COURSES:

No.....Subject.....Beginning.....

No.....Subject.....Beginning.....

No.....Subject.....Beginning.....

No.....Subject.....Beginning.....

Date..... .....
(Signature of Applicant)

Approved.....

NEW YORK UNIVERSITY
BULLETIN
VOL. LII, NO. 25 MAY 19, 1952

COURSES FOR PHYSICIANS

POST-GRADUATE MEDICAL SCHOOL

71ST SESSION 1952-1953

NOTICE

The procedures of admission, the program of instruction, including degree requirements, the schedule of fees, and the personnel of the teaching staff and their respective assignments announced in this bulletin are subject to such changes, at any time, as may be deemed necessary or advisable by the administration. Any course of instruction may be discontinued before completion if the administration deems such discontinuance for the best interests of the University. Upon discontinuance, the University will refund to students in good standing all fees for instruction in such course.

NEW YORK UNIVERSITY BULLETIN

Vol. LII, No. 25 May 19, 1952

Published weekly from December, for forty-five consecutive weeks, by New York University, Main Building, 100 Washington Square East, New York 3, N.Y. Re-entered as second-class matter December 5, 1951, at the Post Office at New York, N.Y., under the Act of August 24, 1912. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized June 17, 1924.

NEW YORK UNIVERSITY

POST-GRADUATE MEDICAL SCHOOL

1952–1953

A Unit of New York University–Bellevue Medical Center

477 FIRST AVENUE • NEW YORK 16 • NEW YORK

The teaching program is carried out in the laboratories and conference rooms of the University and in the following hospitals:

Beekman-Downtown Hospital
Bellevue Hospital
Beth Israel Hospital
Goldwater Memorial Hospital
Gouverneur Hospital
Irvington House
Lenox Hill Hospital
New York Eye and Ear Infirmary
New York State Rehabilitation Hospital
St. Vincent's Hospital
University Hospital
Willard Parker Hospital

OFFICERS OF ADMINISTRATION

Robert Boggs, A.B., M.D.,C.M. [McGill], *Dean*
Clarence E. de la Chapelle, B.S. (Med.), M.D., *Associate Dean*
C. Travers Stepita, M.S., M.D., *Associate Dean* (Foreign Student Affairs)
Frode Jensen, A.B., M.D., *Associate Dean*
Katherine L. Stevens, *Recorder*

•

PROFESSORS EMERITI

Walter T. Dannreuther, M.D., *Obstetrics and Gynecology*
Austin Flint, A.M. (Hon.), M.D., *Obstetrics*
Howard Fox, A.B., M.D., Sc.D. (Hon.), *Dermatology and Syphilology*
Emanuel D. Friedman, B.S., M.D., *Neurology*
Charles Gottlieb, M.D., *Radiology*
Daniel B. Kirby, A.B., A.M., M.D., LL.D., *Ophthalmology*
Arthur Krida, M.D., *Orthopedic Surgery*
Walter G. Lough, B.S., M.D., *Medicine*
George Miller MacKee, M.D., *Dermatology and Syphilology*
Alfred T. Osgood, A.B., M.D., *Urology*
Charles Hendee Smith, B.S., M.D., *Pediatrics*

CALENDAR OF COURSES
1952–1953

DATE	COURSE	NUMBER
July		
1	Dermatology and Syphilology	525-A
	Medicine	5429-A
7	Medicine	5414-A
14	Medicine	5424-A
	Medicine	5430-A
	Ophthalmology	579-A
	Ophthalmology	5710-A
	Physical Medicine and Rehabilitation	7311-A
21	Medicine	5422-A
	Ophthalmology	5711-A
	Ophthalmology	5713-A
September		
2	Anesthesiology	513-A
	Anesthesiology	512-A
	Obstetrics and Gynecology	734-A
8	Medicine	5427-A
	Pediatrics	614-A
	Surgery	663-A
9	Surgery	6610-A
11	Medicine	5433-A
15	Obstetrics and Gynecology	563-A
	Obstetrics and Gynecology	566-A
	Otolaryngology	591-A
	Otolaryngology	592-A
	Pediatrics	618-A
	Radiology	652-A
16	Pathology	442-A
17	Pathology	441-A
22	Dermatology and Syphilology	524-A
	Medicine	5420-A
	Ophthalmology	5714-A
	Pediatrics	6110-A
	Physical Medicine and Rehabilitation	7310-A
	Psychiatry and Neurology	647-A
	Psychiatry and Neurology	648-A
29	Comprehensive Medicine	740-A
	Anatomy	411-A
	Anatomy	413-A
	Anatomy	414-A
	Anesthesiology	514-A
	Forensic Medicine	531-A
	Industrial Medicine	481-A
	Medicine	5429-A
	Ophthalmology	576-A
	Otolaryngology	593-A
	Otolaryngology	596-A
	Otolaryngology	5911-A
	Pathology	443-A
	Physical Medicine and Rehabilitation	738-A
	Psychiatry and Neurology	645-A
	Psychiatry and Neurology	649-A

DATE	COURSE	NUMBER
October		
1	Dermatology and Syphilology	525-A
	Radiology	651-A
3	Radiology	651-B
6	Medicine	546-A
	Medicine	5434-A
	Neurosurgery	551-A
	Obstetrics and Gynecology	561-A
	Pediatrics	612-A
7	Obstetrics and Gynecology	567-A
	Obstetrics and Gynecology	568-A
13	Medicine	5421-A
	Obstetrics and Gynecology	560-A
	Orthopedic Surgery	582-A
14	Obstetrics and Gynecology	569-A
20	Physical Medicine and Rehabilitation	7312-A
21	Radiology	655-A
27	Medicine	5424-B
	Medicine	5435-A
	Obstetrics and Gynecology	562-A
	Ophthalmology	574-A
November		
3	Ophthalmology	577-A
	Otolaryngology	597-A
	Pediatrics	611-A
10	Medicine	5414-B
	Medicine	5415-A
	Medicine	5422-B
	Ophthalmology	575-A
	Ophthalmology	578-A
	Otolaryngology	594-A
	Surgery	6611-A
	Urology	674-A
17	Medicine	5418-A
	Medicine	5423-A
24	Otolaryngology	598-A
December		
1	Surgery	664-A
8	Industrial Medicine	484-A
	Obstetrics and Gynecology	564-A
	Otolaryngology	599-A
	Surgery	666-A
January		
5	Anatomy	412-A
	Anatomy	413-A
	Anatomy	415-A
	Anatomy	416-A
	Anesthesiology	512-B
	Orthopedic Surgery	581-A
	Orthopedic Surgery	583-A

DATE	COURSE	NUMBER
January (cont'd)		
	Radiology	653-A
	Surgery	665-A
	Surgery	661-A
	Urology	672-A
	Otolaryngology	5910-A
	Preventive Medicine	735-A
	Psychiatry and Neurology	641-A
	Psychiatry and Neurology	644-A
8	Pathology	444-A
12	Medicine	5436-A
	Neurosurgery	552-A
	Pediatrics	617-A
	Physical Medicine and Rehabilitation	738-B
	Physical Medicine and Rehabilitation	7310-B
	Psychiatry and Neurology	643-A
19	Dermatology and Syphilology	522-A
	Ophthalmology	579-B
	Ophthalmology	5710-B
	Otolaryngology	595-A
	Pediatrics	613-A
	Physical Medicine and Rehabilitation	7312-B
	Surgery	660-A
20	Pathology	441-B
26	Ophthalmology	5711-B
	Ophthalmology	5713-B
	Surgery	662-A
28	Medicine	5426-A
29	Radiology	654-A
February		
2	Anesthesiology	510-A
	Industrial Medicine	482-A
	Medicine	5427-B
	Surgery	668-A
5	Medicine	5433-B
9	Otolaryngology	594-B
16	Radiology	652-B
18	Medicine	5431-A
23	Medicine	5420-B
	Obstetrics and Gynecology	562-B
	Ophthalmology	575-B
	Ophthalmology	578-B
24	Obstetrics and Gynecology	569-B
March		
2	Industrial Medicine	483-A
	Medicine	5428-A
9	Medicine	5416-A
	Ophthalmology	571-A

DATE	COURSE	NUMBER
	Pediatrics	614-B
16	Medicine	5415-B
	Ophthalmology	572-A
17	Pathology	442-B
23	Microbiology	432-A
	Obstetrics and Gynecology	563-B
	Obstetrics and Gynecology	566-B
	Ophthalmology	574-B
	Surgery	667-A
30	Anatomy	411-B
	Anatomy	413-C
	Anatomy	414-B
	Medicine	5423-B
	Ophthalmology	573-A
	Surgery	661-B
April		
1	Pediatrics	619-A
2	Pediatrics	615-A
	Surgery	669-A
7	Pediatrics	616-A
13	Medicine	541-A
	Medicine	547-A
	Medicine	548-A
	Medicine	549-A
	Obstetrics and Gynecology	561-B
14	Medicine	542-A
	Medicine	546-B
	Medicine	5413-A
	Obstetrics and Gynecology	567-B
	Obstetrics and Gynecology	568-B
15	Medicine	545-A
	Medicine	5410-A
	Medicine	5411-A
16	Medicine	544-A
	Medicine	544-B
17	Medicine	543-A
	Medicine	5412-A
20	Physical Medicine and Rehabilitation	7312-C
May		
11	Anesthesiology	512-C
18	Dermatology and Syphilology	523-A
	Medicine	5432-A
June		
15	Medicine	5419-A
	Medicine	5421-B
	Neurosurgery	553-A
	Orthopedic Surgery	582-B
	Radiology	656-A
22	Medicine	5418-B
29	Medicine	5425-A

ANATOMY

College of Medicine

Donal Sheehan, B.S., M.S., M.B.,CH.B., M.D., SC.D. [MANCHESTER], *Professor and Chairman of the Department*

Louis L. Bergmann, M.D., *Associate Professor*

Pinckney J. Harman, B.S., M.S., PH.D., *Associate Professor*

Joseph Pick, M.D. [VIENNA], *Associate Professor*

Benjamin G. P. Shafiroff, M.D., *Associate Professor of Clinical Surgery (Assigned to Anatomy)*

Joseph M. Odiorne, B.S., A.M., PH.D., *Assistant Professor*

Louis M. Rosati, B.S., M.D., *Assistant Professor of Clinical Surgery (Assigned to Anatomy)*

Seelig Freund, B.S., M.D., *Instructor in Surgery (Assigned to Anatomy)*

May B. Hollinshead, A.B., PH.D., *Instructor*

Maude V. Vance, A.B., M.D., *Instructor*

Harold S. Auerhan, A.B., M.D., *Assistant*

Henry Huber, A.B., M.D., *Assistant*

Quan Y. Kau, A.B., M.D., *Assistant*

Eugene P. Liston, A.B., M.D., *Assistant*

Bernard O. Nemoitin, A.B., A.M., M.D., *Assistant*

Marvin P. Rhodes, A.B., M.D., *Assistant*

Morton Roberts, A.B., M.D., *Assistant*

Henry I. Scheer, B.S., M.D., *Assistant*

The following courses may be taken full time by special arrangement on a prorata basis of $100.00 per month.

411-A. ANATOMY OF THE HEAD AND NECK

A twelve weeks' course, 1 to 5 p.m., Mondays, Wednesdays, and Fridays, September 29 through December 19, 1952. Designed for graduate students interested in the fields of ophthalmology, otorhinolaryngology, or general or thoracic surgery. The fascial planes of the neck and their continuities are intensively studied. The surgical anatomy of the thyroid gland, parathyroid glands, pharynx, and larynx are dissected in detail. Other special studies involve the recurrent laryngeal nerves, the superior laryngeal nerves, the sympathetic nervous system, and the carotid sinus mechanism. Surgical aspects are considered in relation to practical anatomy.

Given under the direction of Dr. Benjamin G. P. Shafiroff. Tuition $90.00.

This course is repeated as 411-B, March 30 through June 19, 1953.

412-A. ANATOMY OF THE THORAX AND ITS VISCERA

A twelve weeks' course, 1 to 5 p.m., Mondays, Wednesdays, and Fridays, January 5 through March 27, 1953. It is designed primarily for the thoracic or general surgeon or internist. The thoracic bony cage is completely dissected. The anatomy of the lung is studied in detail especially from the standpoint of bronchovascular segments. The mediastinum is carefully investigated. The cardiovascular structures are studied with recent developments in cardiac surgery. Congenital anomalies are considered. The surgical anatomy of the esophagus, autonomic nervous system, and lymphatic system are included.

Given under the direction of Dr. Benjamin G. P. Shafiroff. Tuition $90.00.

413-A. ANATOMY OF THE ABDOMEN

A twelve weeks' course, 1 to 5 p.m., Mondays, Wednesdays, and Fridays, September 29 through December 19, 1952. A dissection course of the entire abdomen and pelvis. Variational anatomy is particularly stressed. All organs are studied from the surgical standpoint. The genitourinary system and viscera of pelvis are included. The surgical anatomy of hernia is stressed.

Given under the direction of Dr. Benjamin G. P. Shafiroff. Tuition $90.00.

This course is repeated as 413-B, January 5 through March 27, 1953, and as 413-C, March 30 through June 19, 1953.

414-A. ANATOMY OF THE FEMALE PELVIS

A twelve weeks' course, 1 to 5 p.m., Mondays, Wednesdays, and Fridays, September 29 through December 19, 1952. It is a practical dissection course of the female pelvis. The pelvic fascia and their practical applications are stressed. The perineum is dissected in detail. All the pelvic viscera and their surgical relationships are correlated. The pelvic autonomic system is dissected.

Given under the direction of Dr. Benjamin G. P. Shafiroff. Tuition $90.00.

This course is repeated as 414-B, March 30 through June 19, 1953.

415-A. ANATOMY OF THE GENITOURINARY SYSTEM

A twelve weeks' course, 1 to 5 p.m., Mondays, Wednesdays, and Fridays, January 5 through March 27, 1953. It combines the general features of 413 and 414.

Given under the direction of Dr. Benjamin G. P. Shafiroff. Tuition $90.00.

416-A. ANATOMY OF THE MUSCULOSKELETAL SYSTEM

A twelve weeks' course, 1 to 5 p.m., Mondays, Wednesdays, and Fridays, January 5 through March 27, 1953. It is a general dissection course of the musculoskeletal system involving the upper and lower extremities, the muscles of the back, and their neurovascular structures.

Given under the direction of Dr. Benjamin G. P. Shafiroff. Tuition $90.00.

Instruction in Applied Anatomy

ANESTHESIOLOGY

ANESTHESIOLOGY

Emery A. Rovenstine, A.B., M.D., SC.D. (HON.), *Professor and Chairman of the Department*
Raphael W. Robertazzi, B.S., DOT. MED. CHIR. [NAPLES], *Professor of Clinical Anesthesia*
Seymour Goldenberg, A.B., M.D., *Associate Professor of Clinical Anesthesia*
Louis R. Orkin, A.B., M.D., *Assistant Professor*
Solomon G. Hershey, B.S., M.D., *Clinical Professor*
Donald L. Burdick, B.S., A.M., M.D., *Associate Clinical Professor*
Charles L. Burstein, B.S., M.D. [PARIS], *Associate Clinical Professor*
Jack Milowsky, B.S., M.D., *Associate Clinical Professor*
James Marin, A.B., M.D., *Assistant Clinical Professor*
D. Jeanne Richardson, B.S., M.D., *Assistant Clinical Professor*

513-A. ANESTHESIOLOGY (GRADUATE COURSE)

The instruction, largely clinical, with special classes, demonstrations, conferences, etc., occupies the student full time during one calendar year, beginning September 2, 1952. Intensive didactic, seminar, and laboratory study in the basic medical sciences as applied to anesthesia is included. The major subjects are anatomy, physiology, pharmacology, pathology, biochemistry and biophysics, experimental anesthesia, inhalation therapy, and toxicology.

Students who satisfactorily complete the first year of work may continue their training in residence for a minimum of one year. The residency must be approved by the Post-Graduate Medical School. It offers the student an opportunity to undertake individual original investigation in some phase of clinical experimental anesthesia.

Given under the direction of Professor Emery A. Rovenstine. Maximum class 6. Tuition $700.00. (Enrollment after September 2, 1952, by arrangement.)

510-A. ANESTHESIOLOGY: ENDOTRACHEAL AND RELATED METHODS

A one-week, full-time course, February 2 through 7, 1953, covering the principles and clinical practices of endotracheal procedures including operating-room bronchoscopy. Two hours daily are given to didactic instruction, the remainder of the time to supervised clinical work. Only those actively engaged in clinical anesthesiology are accepted.

Given under the direction of Professor Emery A. Rovenstine. Maximum class 4. Tuition $75.00.

511-A. ANESTHESIOLOGY (FOR SPECIALISTS)

An intensive refresher course of two weeks' duration beginning on any Monday (September through June). The present practices in general, regional, intravenous, and rectal anesthesia are presented from the theoretical and clinical standpoints.

Given under the direction of Professor Emery A. Rovenstine. Maximum class 2. Tuition $150.00.

512-A. REGIONAL ANESTHESIOLOGY

An intensive two-week course in regional anesthesia, including therapeutic nerve blocking. The entire day is utilized to present the subject by cadaver dissection, lectures, clinical demonstration, and practice. September 2 through 13, 1952.

Given under the direction of Professor Emery A. Rovenstine. Maximum class 16. Tuition $200.00.

This course is repeated as 512-B, January 5 through 16, 1953, and as 512-C, May 11 through 22, 1953.

514-A. ANESTHESIOLOGY

A full-time course of twelve weeks' duration, September 29 through December 19, 1952. One half of the student's day is occupied five days weekly with assigned exercises in classrooms and laboratories covering the fundamental sciences of physiology, pharmacology, therapeutics, anatomy, pathology, toxicology, physics, and chemistry in their relation to anesthesiology. Practical supervised instruction in clinical anesthesia and its related practices occupies the remainder of the student's day.

A student may arrange to take the first, second, and/or third sessions of the course. The clinical instruction given mornings is consistent throughout the course. Afternoons:

Part I—September 29 through October 24, 1952. Didactic instruction in the fundamental sciences in their relation to anesthesiology.

Part II—October 27 through November 21, 1952. Didactic instruction in clinical anesthesiology.

Part III—November 24 through December 19, 1952. Didactic instruction in subjects related to the clinical practice of anesthesiology. Inhalational and parenteral therapy, management of comatose states, etc.

A practical knowledge of modern anesthesia is a prerequisite. Given under the direction of Professor Emery A. Rovenstine. Maximum class 24. Tuition $300.00. (Any four weeks $125.00.)

Practical Demonstration of Modern Anesthesia

CHEMISTRY

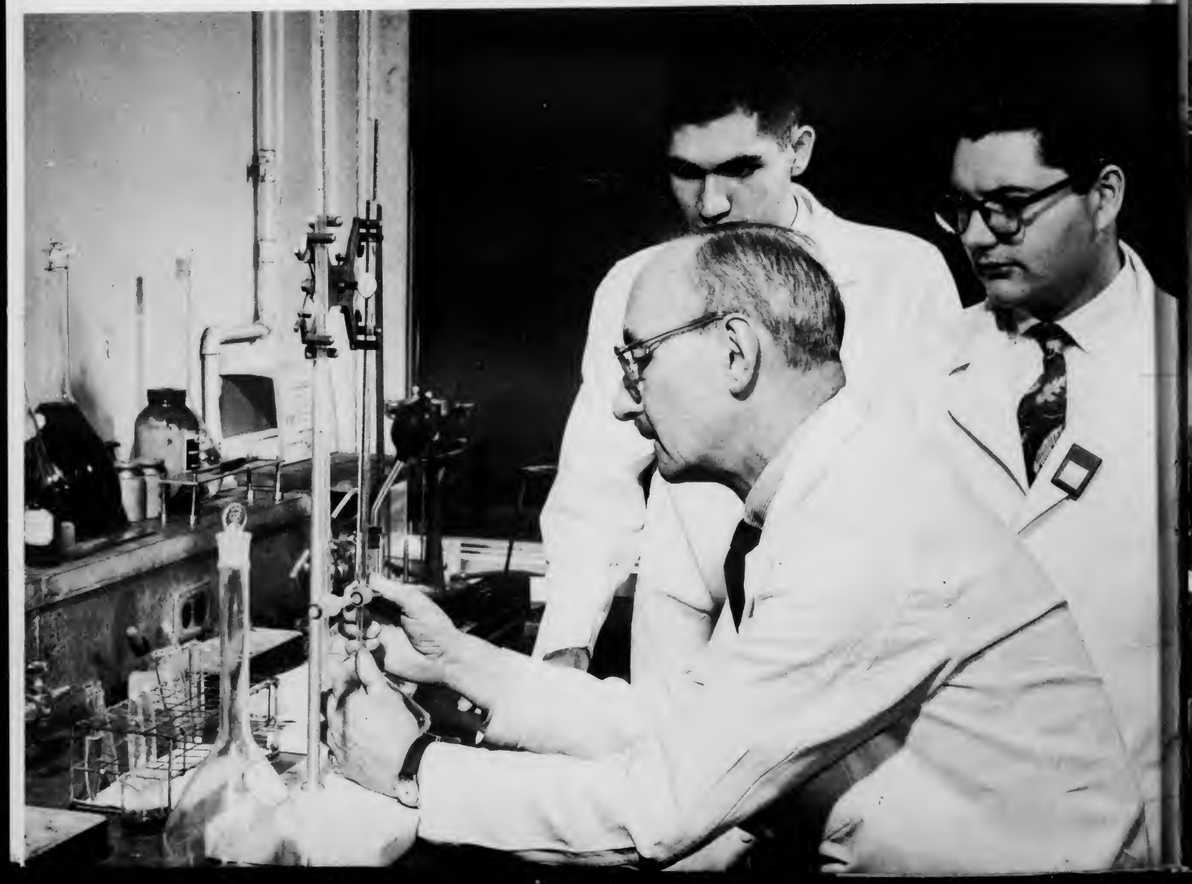
CHEMISTRY

College of Medicine

R. Keith Cannan, B.S., M.S., SC.D. [LONDON], *Professor and Chairman of the Department*
Isidor Greenwald, A.B., PH.D., *Professor*
Milton Levy, B.S., PH.D., *Associate Professor*
Maxwell Schubert, A.B., A.M., PH.D., *Adjunct Associate Professor (Assigned to Medicine)*
Albert S. Keston, A.B., M.S. PH.D., *Assistant Professor*
Robert C. Warner, B.S., M.S., PH.D., *Assistant Professor*
Hildegard Wilson, A.B., A.M., PH.D., *Assistant Professor (Assigned to Medicine)*
Mary E. Dumm, A.B., A.M., PH.D., *Adjunct Assistant Professor (Assigned to Medicine)*
Walton B. Geiger, A.B., PH.D., *Adjunct Assistant Professor (Assigned to Medicine)*
Ione Weber, B.S., A.M., PH.D., *Adjunct Assistant Professor*
Mary E. Carsten, A.B., M.S., PH.D., *Fellow*
Joseph Dancis, A.B., M.D., *Fellow*
Seymour Ehrenpreis, B.S., *Fellow*
Jacques R. Fresco, A.B., M.S., *Fellow*
Clifford Jackson, B.S., M.S., *Fellow*
Kenneth C. Leibman, B.S., M.S., *Fellow*
Joseph Lospalluto, B.S., *Fellow*
Evelyn Slobodiansky, A.B., M.S., PH.D., *Fellow*

The members of the department take part in the basic science instruction in the courses offered by the clinical departments.

Integration of Clinical Problems with Laboratory Techniques



DERMATOLOGY AND SYPHILOLOGY

DERMATOLOGY AND SYPHILOLOGY

Marion B. Sulzberger, M.D. [ZURICH], *Professor and Chairman of the Department*
Frank C. Combes, M.D., *Professor*
Evan W. Thomas, A.B., M.D., *Professor of Clinical Medicine (Assigned to Syphilology)*
Franz Herrmann, M.D. [FRANKFURT], *Associate Professor*
Rudolf L. Baer, M.D. [FRANKFURT], *Associate Professor of Clinical Dermatology and Syphilology*
David Bloom, M.D. [BERN], *Associate Professor of Clinical Dermatology and Syphilology*
Maurice J. Costello, B.S., M.D., *Associate Professor of Clinical Dermatology and Syphilology*
Max Jessner, M.D. [KOENIGSBERG], *Associate Professor of Clinical Dermatology and Syphilology*
Frances Pascher, M.D., *Associate Professor of Clinical Dermatology and Syphilology*
Charles R. Rein, B.S., M.D., *Associate Professor of Clinical Dermatology and Syphilology*
Herman Sharlit, A.B., B.S., M.D., *Associate Professor of Clinical Dermatology and Syphilology*
Nathan Sobel, M.D., *Associate Professor of Clinical Dermatology and Syphilology*
Jesse A. Tolmach, M.D., *Associate Professor of Clinical Dermatology and Syphilology*
Jack Wolf, A.B., M.D., *Associate Professor of Clinical Dermatology and Syphilology*
Morris Leider, A.B., M.D., *Assistant Professor*

Practical Instruction in Examination Technique of Skin

Gerald Flaum, A.B., M.D., MED.SC.D., *Assistant Professor of Clinical Medicine (Assigned to Syphilology)*
Louis Schwartz, A.B., M.D., *Adjunct Clinical Professor*
David B. Ballin, M.D., *Associate Clinical Professor*
Else Ann Barthel, B.S., M.D., *Associate Clinical Professor*
Hans H. Biberstein, M.D. [BRESLAU], *Associate Clinical Professor*
Orlando Canizares, DOC. UNIV. [MED. FAC., PARIS], *Associate Clinical Professor*
William Director, M.D., *Associate Clinical Professor*
Samuel B. Frank, A.B., M.D., *Associate Clinical Professor*
Andrew G. Franks, B.S., M.D., LL.B., *Associate Clinical Professor*
Herman Goodman, B.S., M.D., *Associate Clinical Professor*
Irving N. Holtzman, M.D., *Associate Clinical Professor*
Arthur B. Hyman, M.B., B.S. [LONDON], *Associate Clinical Professor*
Samuel Irgang, M.D., *Associate Clinical Professor*
Paul R. Kline, M.D., *Associate Clinical Professor*
William Leifer, M.D., *Associate Clinical Professor*
John F. Mahoney, M.D., *Associate Clinical Professor*
H. Victor Mendelsohn, M.D., *Associate Clinical Professor*
Joseph L. Morse, M.D., *Associate Clinical Professor*
Emanuel Muskatblit, PHYSICIAN [ODESSA], *Associate Clinical Professor*
Ernst W. Nathan, M.D. [GIESSEN], *Associate Clinical Professor*
Frederick Reiss, M.D. [BUDAPEST], *Associate Clinical Professor*
Timothy J. Riordan, M.D., *Associate Clinical Professor*
Gdali Rubin, M.D. [PARIS], *Associate Clinical Professor*
Lionel C. Rubin, A.B., M.D., *Associate Clinical Professor*
Herman H. Sawicky, B.S., M.D. [EDINBURGH], *Associate Clinical Professor*
Charles F. Sims, A.B., M.D., *Associate Clinical Professor*
Howard T. Behrman, A.B., M.D., *Assistant Clinical Professor*
Frank E. Cross, M.D., MED.SC.M., *Assistant Clinical Professor*
Lopo de Mello, M.D., *Assistant Clinical Professor*
Richard Emmet, A.B., M.D., *Assistant Clinical Professor*
Alexander A. Fisher, A.B., M.D., *Assistant Clinical Professor*
John Garb, M.D., *Assistant Clinical Professor*
Thomas N. Graham, M.D., *Assistant Clinical Professor*
Joseph Hahn, B.S., M.D., *Assistant Clinical Professor*
Delmas K. Kitchen, A.B. (CHEM.), B.S. (MED.), M.D., *Assistant Clinical Professor*
Ralph I. Kreisberg, B.S. (MED.), M.D., *Assistant Clinical Professor*
Emory Ladany, M.D. [BUDAPEST], *Assistant Clinical Professor*
Simeon E. Landy, A.B., *Assistant Clinical Professor*
Juan Larralde, M.D. [PARIS], MED.SC.D. [UNIV. CENTRAL, VENEZUELA], *Assistant Clinical Professor*
Charles S. Miller, A.B., M.D., *Assistant Clinical Professor*
Abraham J. Orfuss, B.S., M.D., *Assistant Clinical Professor*
Julius H. Pollock, B.S., M.D., *Assistant Clinical Professor*
Morris J. Rothstein, B.S., M.D., *Assistant Clinical Professor*
Ludwig Schwarzschild, M.D. [WUERZBURG], *Assistant Clinical Professor*
Mabel G. Silverberg, A.B., M.D., *Assistant Clinical Professor*
Jacob Skeer, M.D., *Assistant Clinical Professor*
Jacob Wachtel, M.D., *Assistant Clinical Professor*
Jacob A. Goldberg, A.B., A.M., PH.D., *Lecturer*
Theodore Rosenthal, B.S., M.D., *Lecturer*
Joseph R. Klaar, M.D. [VIENNA], *Instructor*
Ludwig S. Kleeberg, M.D. [JENA], *Instructor*
Ludwig W. Loewenstein, M.D. [COLOGNE], *Instructor*
Nathan Pensky, A.B., M.D., *Instructor*
Max Wolf, M.D. [VIENNA], *Instructor*
Isidor Apfelberg, M.D., *Instructor in Clinical Dermatology and Syphilology*
Benjamin Bender, B.S., M.D., *Instructor in Clinical Dermatology and Syphilology*
Vagharshag Boghosian, M.D. [BEYROUTH], *Instructor in Clinical Dermatology and Syphilology*
Max Braitman, B.S., M.D., *Instructor in Clinical Dermatology and Syphilology*
Theodore H. Finkle, A.B., M.D., *Instructor in Clinical Dermatology and Syphilology*
Abraham J. Gewirtz, B.S., M.D. [LAVAL], *Instructor in Clinical Dermatology and Syphilology*
John Groopman, B.S., M.D., *Instructor in Clinical Dermatology and Syphilology*
Ernest L. Kadisch, M.D. [FREIBURG], *Instructor in Clinical Dermatology and Syphilology*
Kate Freeman Miller, A.B., M.D., *Instructor in Clinical Dermatology and Syphilology*
Helen Neave, A.B., M.D., *Instructor in Clinical Dermatology and Syphilology*
Laurence L. Palitz, A.B., PH.D., M.D., *Instructor in Clinical Dermatology and Syphilology*
Morris M. Reschke, M.D. [BERLIN], *Instructor in Clinical Dermatology and Syphilology*
Sidney J. Robbins, B.S., M.D. [VIENNA], *Instructor in Clinical Dermatology and Syphilology*
Ernst Rosenbaum, M.D. [BRESLAU], *Instructor in Clinical Dermatology and Syphilology*
Walter F. Rosenberg, M.D. [HEIDELBERG], *Instructor in Clinical Dermatology and Syphilology*
Gerald A. Spencer, B.S.; DOC. UNIV. [MED. FAC., LYON], *Instructor in Clinical Dermatology and Syphilology*
Louis H. Tobin, M.D., *Instructor in Clinical Dermatology and Syphilology*
Henry R. Corwin, A.B., M.D., *Clinical Instructor*
Benjamin D. Erger, M.D., *Clinical Instructor*
Hans Field, M.D., *Clinical Instructor*
John Heinlein, M.D., *Clinical Instructor*
Edward G. Jeruss, B.S., M.D., *Clinical Instructor*
Norman B. Kanof, A.B., M.D., MED.SC.D. (DERM.), *Clinical Instructor*
George H. Kostant, A.B., M.D., *Clinical Instructor*
Irving L. Milberg, A.B., M.D., *Clinical Instructor*
Julius L. Rosenfeld, M.D.,C.M. [DALHOUSIE], *Clinical Instructor*
Jessie Rubin, A.B., M.D. [LAUSANNE], *Clinical Instructor*

Joseph J. Sher, B.S., M.D., *Clinical Instructor in Radiology (Assigned to Dermatology)*
Hilda G. Straker, A.B., M.D., *Clinical Instructor*
Victor H. Witten, B.S., M.D., *Clinical Instructor*
Harold L. Adler, B.S., M.D., *Assistant in Clinical Dermatology and Syphilology*
Arthur Back, M.D., *Assistant in Clinical Dermatology and Syphilology*
Earle Brauer, M.D., *Assistant in Clinical Dermatology and Syphilology*
Elfriede W. Ehrenreich, M.D., *Assistant in Clinical Dermatology and Syphilology*
William Eller, M.D., *Assistant in Clinical Dermatology and Syphilology*
Martin Fischer, M.D., *Assistant in Clinical Dermatology and Syphilology*
Dorothy Fisher, A.B., M.D., *Assistant in Clinical Dermatology and Syphilology*
Harold Glick, M.D., *Assistant in Clinical Dermatology and Syphilology*
Morton Kulick, B.S., M.D., *Assistant in Clinical Dermatology and Syphilology*
Rene Leviticus, M.D., *Assistant in Clinical Dermatology and Syphilology*
Irwin I. Lubowe, A.B., M.D., *Assistant in Clinical Dermatology and Syphilology*
Irving E. Marks, M.D., *Assistant in Clinical Dermatology and Syphilology*
Martin G. Marmon, A.B., M.D., *Assistant in Clinical Dermatology and Syphilology*
Frederick R. Mebel, A.B., M.D., *Assistant in Clinical Dermatology and Syphilology*
Adrian Neumann, M.D., *Assistant in Clinical Dermatology and Syphilology*
Leo Orris, A.B., M.S.(PUB.HEALTH), M.D., *Assistant in Clinical Dermatology and Syphilology*
George Popkin, M.D., *Assistant in Clinical Dermatology and Syphilology*
Milton S. Ross, B.S., M.D., *Assistant in Clinical Dermatology and Syphilology*
Adolph S. Sternberg, M.D. [FREIBURG], *Assistant in Clinical Dermatology and Syphilology*
Jules E. Vandow, M.D., *Assistant in Clinical Dermatology and Syphilology*
Harold S. Appell, M.D., *Fellow*
Alexander Borota, M.D. [BUDAPEST], *Fellow*
Olga-Sophie Dobkevitch-Morrill, M.D. [PARIS], *Fellow*
Ruth W. Piccagli, M.D. [FRANKFURT], *Fellow*
Philip H. Prose, B.S., M.D. [LAUSANNE], *Fellow*
Norman Goldfarb, M.D., *Assistant in Clinical Dermatology and Syphilology*
Solomon Goldman, B.S., M.D., *Assistant in Clinical Dermatology and Syphilology*
Otto B. Hitschmann, M.D. [VIENNA], *Assistant in Clinical Dermatology and Syphilology*
Beatrice Kalish, A.B., M.D., *Assistant in Clinical Dermatology and Syphilology*
Leonard V. Kornblee, A.B., M.D., *Assistant in Clinical Dermatology and Syphilology*

525-A. DERMATOLOGY AND SYPHILOGY (GRADUATE COURSE)

A full-time course of one calendar year, October 1, 1952, through September 30, 1953. (This course may be entered July 1, 1952.) Covers the basic science aspects of the specialty and consists of didactic lectures as well as practical and laboratory exercises in histopathology, mycology, bacteriology, physiology, hematology, allergy and immunology, serology, radioactive isotopes, radiation and other physical therapy, and other basic fields as applied to the skin and its diseases and to venereal diseases. The facilities of the Skin and Cancer Unit, University Hospital, Bellevue Hospital, Willard Parker Hospital, and the other affiliated hospitals are utilized. This course should be taken in conjunction with a two-year residency or in conjunction with a combined fellowship and preceptee training program to comprise a full three-year training period.

A limited number of scholarships are available.

Given under the direction of Professor Marion B. Sulzberger. Tuition $700.00.

521-A. AN INTENSIVE AND COMPREHENSIVE REVIEW IN DERMATOLOGICAL HISTOPATHOLOGY

A full-time intensive course of five days' duration consisting of a series of lectures, illustrated by microscopic slides. A complete review of both the normal histology of the skin and the essential histopathology of diseases of the skin. Includes study at the microscope and slides representing common and unusual microscopic features of dermatoses. The dates of this course will precede that of the examination by the specialty board and will be announced in American medical journals.

Given under the direction of Professor Marion B. Sulzberger. Maximum class 20. Tuition $75.00.

522-A. SEMINAR IN DERMATOLOGY AND SYPHILOGY

A full-time intensive course of five days' duration, January 19 through 23, 1953, consisting of illustrated lectures and demonstrations of patients and methods. The latest accepted methods used in the diagnosis and

therapy of the following dermatoses are included: precancers and cancers of the skin; acne vulgaris; various forms of eczema; industrial dermatoses; warts; scars and birthmarks; fungus infections; bacterial infections of the skin; psoriasis; lichen planus; allergic dermatoses, including various forms of eczema, hives, drug reactions, etc.; baldness and excessive hair; syphilis in all stages, including discussion of serologic changes. The use of special modalities is detailed, including: ACTH and cortisone; other hormones; vitamins; antibiotics; antihistaminics; and radioactive agents.

Given under the direction of Professor Marion B. Sulzberger. Maximum class 20. Tuition $75.00.

523-A. SYMPOSIUM ON DERMATOLOGY AND SYPHILOLOGY (FOR DERMATOLOGISTS)

A full-time course of five days' duration, May 18 through 22, 1953, consisting of a survey and critical evaluation of recent advances and research in dermatology and syphilology, including such subjects as radioactive isotopes, grenz-ray and thorium-X therapy; ACTH, cortisone, and other new drugs and hormones; drug eruptions; new methods of treatment of common skin diseases; new causes for industrial dermatoses; the present concept of eczema; management of benign and of dangerous nevi; diagnosis and management of syphilis, lymphoblastomas, allergic skin diseases, fungus diseases; selected rare conditions; and the psychosomatic aspects of dermatology. Demonstration of patients and application of new techniques are included.

Given under the direction of Professor Marion B. Sulzberger. Maximum class 20. Tuition $85.00.

524-A. DERMATOLOGY AND SYPHILOLOGY IN INFANTS AND CHILDREN

An intensive full-time review course of five days' duration, September 22 through 26, 1952. Includes clinical sessions and demonstration of patients together with the application of modern diagnostic and therapeutic modalities, illustration of the common and rare skin diseases, illustrated lectures covering the differential diagnosis, causes and newest forms of treatment of nevi, tumors, warts, allergies, eczemas, urticarias, pyodermas, drug eruptions, acnes, psoriasis, and other skin diseases as they occur in the young.

Given under the direction of Professor Marion B. Sulzberger. Tuition $75.00.

482-A. OCCUPATIONAL DERMATOSES (IN CONJUNCTION WITH THE DEPARTMENT OF INDUSTRIAL MEDICINE)

A two-week, part-time course given under the direction of Dr. William Leifer (see page 16).

735-A. TROPICAL MEDICINE

Lectures on tropical fungus diseases given by members of the department in conjunction with the above listed course (see page 63).

SHORT-TERM AND PRACTICAL COURSES IN DERMATOLOGY AND SYPHILOLOGY

Part-time and full-time courses ranging from one week to one year are available by arrangement, on a prorata basis of $125.00 per month, full time.

The applicant may select instruction in one or more of the subdivisions of the specialty, including dermatologic allergy; histopathology; mycology; dermatologic hematology; photography; dermatologic therapy; dermatologic surgery; physical therapy – radiation therapy, use of isotopes and thorium X; venereal diseases and serology.

Opportunities may be made available for qualified students to work on original laboratory and clinical research projects under the supervision of staff members.

A prospectus may be obtained by writing to the Office of the Dean, Post-Graduate Medical School, 477 First Avenue, New York 16, N.Y.

FORENSIC MEDICINE

Harrison S. Martland, A.B., M.D., *Professor and Chairman of the Department*
Thomas A. Gonzales, M.D., *Professor*
Milton Helpern, B.S., M.D., *Associate Professor*
Rudolf M. Paltauf, M.D. [VIENNA], *Assistant Professor*
Alexander S. Wiener, A.B., M.D., *Assistant Professor*
Alexander O. Gettler, B.S., A.M., PH.D., LL.D., *Lecturer (Toxicology)*
Charles J. Umberger, B.S., PH.D., *Lecturer*

531-A. FORENSIC MEDICINE (GRADUATE COURSE)

Opportunity is provided for a few physicians to undertake advanced training in the field of forensic medicine. This study covers a period of not less than one academic year, full time, or an equivalent period on a part-time basis, beginning September 29, 1952.

The course is given in the laboratories of the Chief Medical Examiner and the Toxicologist of the City of New York. Students work both in the laboratory and in the field and may undertake independent research. The first part of the period of study is spent chiefly in the basic medical sciences as related to forensic medicine; the latter is largely given over to applied work in the necropsy room, the toxicological laboratory, the field, and the courts.

Given under the direction of Professor Harrison S. Martland. Tuition $700.00.

532-A. FORENSIC MEDICINE

Postgraduate courses of varying duration are offered in forensic medicine, on the prorata basis of $100.00 per month, full time.

533-A. TOXICOLOGY (DATES BY ARRANGEMENT)

Section I. Three months. Introduction to Toxicological Procedures and Analysis for Gaseous Poisons.

Methods and proctocol in the toxicological laboratory; collection of the samples for toxicological analysis; appropriate organs for particular toxicological analyses; information needed by the toxicologist prior to the analysis; relation between the pathologist and the toxicologist; handling evidence and establishing the chain of evidence; general procedures in toxicological analysis; qualitative and quantitative analysis for gaseous poisons. Tuition $300.00.

Section II. Three months. Analysis for Volatile Poisons.

Methods for the detection of volatile poisons isolated from tissue and body fluids by steam distillation. Emphasis is placed on the qualitative methods for the identification of the wide variety of volatiles. Quantitative methods are considered only for the more common substances such as the alcohols, cyanide, phenols, halogenated hydrocarbons, and commercial hydrocarbon mixtures. Tuition $300.00.

Section III. Six months. Inorganic Poisons.

Subsection 1. Three months. Metallic Poisons.

The period is devoted exclusively to learning the principles and manipulative techniques and plate interpretation of spectrographic analysis. A study is made of the characteristic spectra of all the toxic metals. Tuition $300.00.

Subsection 2. Three months. Quantitative Analysis of the Metals and Analysis of the Nonmetallic Inorganic Poisons.

Preparation of biological samples for inorganic metal and nonmetal analysis and quantitative chemical methods for the common metal poisons. Qualitative and quantitative analysis for the inorganic nonmetallic poisons, such as phosphorus, fluorides, borates, nitrites, nitrates, and chlorates is also studied.

Tuition $300.

For full six months, tuition $500.00.

Section IV. Nine months. The Nonvolatile Organic Poisons.

Subsection 1. Three months. Fundamental Techniques for the Analysis of Nonvolatile Organic Poisons.

The period is devoted to the study of procedures for the isolation and purification of the organic drugs from tissue and body fluids, the development of micro-manipulative techniques which include micro-sublimation, micro-manipulation, micro-melting points, the essentials of chemical microscopy, and carbon, hydrogen, and molecular weight determinations.

Subsection 2. Three months. Detection of the Acid-Type Nonvolatile Organic Poisons.

The period covers the detection of the acid-type drugs with special attention to the barbiturates.

Subsection 3. Three months. Detection of the Basic-Type Nonvolatile Organic Poisons.

This period is devoted to methods for the detection and determination of the basic-type drugs, such as the narcotics, local anesthetics, antihistamines, etc.

Tuition for nine months $700.00.

Section V. Three months. Application of Instrumentation to Toxicological Analysis.

Essentials of infrared and ultraviolet spectrophotometry, high voltage technique in spectrographic analysis, special applications of conductometric and electrometric methods. Special procedures in forensic medicine, such as the comparison of physical evidence, detection of powder, determination of entrance and exit wounds. Tuition $300.00.

INDUSTRIAL MEDICINE

Anthony J. Lanza, M.D., *Professor and Chairman of the Department*
David H. Goldstein, A.B., M.D., MED.SC.D., *Associate Professor*
Merril Eisenbud, B.S. (ELEC. ENGR.), *Associate Professor (Industrial Hygiene)*
Norton Nelson, A.B., PH.D., *Associate Professor*
Herman N. Eisen, A.B., M.D., *Assistant Professor*
Sidney Laskin, A.B., *Assistant Professor*
Edward D. Palmes, B.S., M.S., PH.D., *Assistant Professor*
William E. Smith, A.B., M.D., *Assistant Professor*
Edgar Mayer, A.B., M.D., *Clinical Professor*
Ronald F. Buchan, A.B., M.D.,C.M. [MCGILL], *Associate Clinical Professor*
Leonard Greenburg, C.E. (SANITARY ENGR.), PH.D., M.D., *Associate Clinical Professor*
Joseph P. Holt, B.S., M.S., PH.D., M.D., *Associate Clinical Professor*
Willard F. Machle, B.S., M.D., *Associate Clinical Professor*
Robert C. Page, A.B., M.B., M.D., *Associate Clinical Professor*
George M. Saunders, A.B., M.D., *Associate Clinical Professor*
Frank R. Ferlaino, B.S., M.S., M.D., *Assistant Clinical Professor*
Frank P. Guidotti, M.D. [NAPLES], *Assistant Clinical Professor*
Ralph F. Schneider, B.S., M.D., *Assistant Clinical Professor*
Barnett S. Fox, *Lecturer*
Nathan Van Hendricks, B.ENGR., CH.E., *Lecturer*
Henry D. Sayer, *Lecturer*
Royd R. Sayers, A.B., A.M., M.D., *Lecturer*
Edward J. Stieglitz, B.S., M.S., M.D., *Lecturer*
Arthur J. Vorwald, A.B., PH.D., M.D., LL.D., SC.D.(HON.), *Lecturer*
George W. Wright, B.S., M.D., *Lecturer*
Bernhard Altshuler, B.S. (ENGR.PHYSICS), *Instructor*
Lawrence F. Dieringer, B.S. (CHEM.ENGR.), *Instructor (Industrial Hygiene)*

481-A. INDUSTRIAL MEDICINE (GRADUATE COURSE)

A full-time course of one calendar year beginning September 29, 1952, in industrial medicine and industrial hygiene given in the Institute of Industrial Medicine and the College of Engineering. Under a co-operative agreement with the College of Engineering, this course is offered jointly to physicians and engineers. It comprises nine months of class and laboratory work and three months of in-plant work. The course includes the following:

A. *For physicians and engineers jointly*
Epidemiology, preventive medicine, and biostatistics including statistical procedures and analysis; the relationship of environmental conditions in work places to health and disease; workmen's compensation and legal aspects.

B. *For physicians*
Organization, administration, and economics of an industrial medical department; occupational diseases; roentgenology with particular reference to pulmonary diseases; psychiatry, geriatrics, and industrial relations; rehabilitation.

C. *For engineers*
Air conditioning, control of atmospheric pollution, disposal of industrial wastes; methods of sampling and analysis; illumination standards and designs; accident and fire prevention; physiologic effects of toxic substances and their maximum allowable concentrations. In-plant work is in approved industrial medical departments or approved industrial-hygiene laboratories.

The institute maintains three laboratories for research and teaching—industrial toxicology, industrial physiology, and industrial hygiene. Students participate in the work of these three laboratories.

Given under the direction of Professor Anthony J. Lanza. Tuition $700.00.

482-A. OCCUPATIONAL DERMATOSES

A five-day, full-time course, February 2 through 6, 1953, in the diagnosis, treatment, and prevention of occupational dermatoses.

Given under the direction of Dr. William Leifer. Tuition $50.00.

483-A. INDUSTRIAL MEDICINE

An intensive three months' course in industrial medicine to be given March 2 through May 29, 1953. Designed for industrial physicians who wish to become conversant with the more recent developments in industrial medicine, especially in its preventive aspects.

Given under the direction of Professor Anthony J. Lanza. Maximum class 25. Tuition $300.00.

484-A. MEDICAL ASPECTS OF COMPENSATION

A one-week course, December 8 through 13, 1952, given in co-operation with the American Academy of Compensation Medicine, covering the compensation aspects of the various medical specialties by specialists in each field.

Given under the direction of Professor Anthony J. Lanza in association with Dr. William B. Rawls of the American Academy of Compensation Medicine. Tuition $50.00. For members of the Academy, tuition $25.00.

5432-A. PULMONARY DISEASES IN RELATION TO INDUSTRY

A full-time course of five days' duration, May 18 through 22, 1953, for the purpose of giving the matriculate a practical approach to the problems of industry in relation to thoracic disease. To this end, a brief background of pathology and physiology is the basis for the presentations on the various illnesses and occupational diseases that are encountered. Emphasis is placed on treatment and rehabilitation, problems of extreme importance to the industrial physician. Some of the legal aspects of compensable disease are touched. Ample opportunity is presented for forum discussion.

Given under the direction of Dr. David Ulmar. Tuition $50.00.

Short courses in various specialties of industrial medicine, including the pneumoconioses at the Saranac Laboratory, Saranac Lake, New York, are offered by special arrangement on a prorata basis of $100.00 per month, full time.

Courses in industrial hygiene engineering are given in co-operation with the College of Engineering. For further information consult the Graduate Division bulletin of the college.

MEDICINE

Charles F. Wilkinson, Jr., B.S.(CHEM.ENGR.), M.D., *Professor and Chairman of the Department*
Clarence E. de la Chapelle, B.S. (MED.), M.D., *Professor*
Charles A. Poindexter, B.S., M.D., M.S., *Professor*
A. Wilbur Duryee, B.S., M.D., *Professor of Clinical Medicine*
Charles H. Nammack, A.B., M.D., *Professor of Clinical Medicine*
Will C. Spain, A.B., M.D., *Professor of Clinical Medicine*
Maurice Bruger, B.S., M.S., M.D.,C.M. [MCGILL], *Associate Professor*
J. Scott Butterworth, B.S., M.S., M.D., MED.SC.D., *Associate Professor*
Raymond S. Jackson, M.D., *Associate Professor*
Benjamin I. Ashe, B.S., M.D., *Associate Professor of Clinical Medicine*
Irving Graef, A.B., M.D., *Associate Professor of Clinical Medicine*
Robert McGrath, B.S., M.D., *Associate Professor of Clinical Medicine*
Lester J. Unger, A.B., A.M., M.D., *Associate Professor of Clinical Medicine*
Laurence G. Wesson, Jr., A.B., M.D., *Assistant Professor*
Charles A. R. Connor, A.B., M.D., MED.SC.D., *Assistant Professor of Clinical Medicine*
Maximilian Fabrykant, M.D. [CHARLES UNIV., PRAGUE], *Assistant Professor of Clinical Medicine*
J. Russell Twiss, A.B., M.D., *Assistant Professor of Clinical Medicine*
Arthur M. Fishberg, A.B., M.D., *Clinical Professor*
Edgar A. Lawrence, B.S. [MCGILL], M.D., *Clinical Professor*
Henry A. Rafsky, M.D., *Clinical Professor*
Emanuel Appelbaum, A.B., M.D., *Associate Clinical Professor*
Joseph Eidelsberg, M.D., *Associate Clinical Professor*
Abner M. Fuchs, M.D., *Associate Clinical Professor*
Clarence C. Fuller, B.S., M.D., *Associate Clinical Professor*
Elmer S. Gais, B.S. (MED.), M.D., *Associate Clinical Professor*
Richard E. Gordon, M.D., *Associate Clinical Professor*
Carl H. Greene, A.B., PH.D., M.D., *Associate Clinical Professor*
Edward F. Hartung, A.B., M.D., *Associate Clinical Professor*
Max-Wilhelm Johannsen, M.D., *Associate Clinical Professor*
S. Edward King, B.S., M.D., M.S.P.H., *Associate Clinical Professor*
Arnold Koffler, M.D., *Associate Clinical Professor*
Lawrence Meyers, B.S., A.M., M.D., *Associate Clinical Professor*
Jack Nelson, B.S., M.D., *Associate Clinical Professor*
Elliot Oppenheim, M.D. [EDINBURGH], *Associate Clinical Professor*
Edward H. Reisner, Jr., A.B., M.D., *Associate Clinical Professor*
Matthew Shapiro, M.D., *Associate Clinical Professor*
Harry A. Solomon, M.D., *Associate Clinical Professor*
Saul Solomon, A.B., M.D.,C.M. [MCGILL], *Associate Clinical Professor*
Otto Steinbrocker, B.S., M.D., *Associate Clinical Professor*
Max Trubek, A.B., M.D., *Associate Clinical Professor*
David Ulmar, A.B., M.D., *Associate Clinical Professor*
Harry Vesell, A.B., M.D., *Associate Clinical Professor*
Michael Weingarten, M.D., *Associate Clinical Professor*
Hyman Alexander, B.S., M.D., *Assistant Clinical Professor*
Frances L. Bailen-Rose, B.S., M.D., *Assistant Clinical Professor*
Z. Taylor Bercovitz, B.S., M.S., PH.D., M.D., *Assistant Clinical Professor*
Louis F. Bishop, Jr., PH.B., M.D., *Assistant Clinical Professor*
Edwin Boros, M.D., *Assistant Clinical Professor*
Maurice R. Chassin, A.B., M.D., *Assistant Clinical Professor*
Abraham W. Freireich, B.S., M.D., *Assistant Clinical Professor*
Maxwell L. Gelfand, B.S., M.D., *Assistant Clinical Professor*
Samuel U. Greenberg, A.B., M.D., *Assistant Clinical Professor*
Frode Jensen, A.B., M.D., *Assistant Clinical Professor*
Mennasch Kalkstein, B.S.; M.B.,CH.B. [ST. ANDREWS], *Assistant Clinical Professor*
Winifred C. Loughlin, A.B., M.D., *Assistant Clinical Professor*
George C. McEachern, A.B., M.D., *Assistant Clinical Professor*
Jerome A. Marks, A.B., M.D., *Assistant Clinical Professor*
George Pollack, M.D. [LONDON], *Assistant Clinical Professor*
Anna R. Spiegelman, A.B., M.D., *Assistant Clinical Professor*
John J. Thorpe, B.S., M.D., *Assistant Clinical Professor*
Leo Weiner, B.S.; M.D. [VIENNA], *Assistant Clinical Professor*
William J. Welch, A.B., M.D., *Assistant Clinical Professor*
Paul K. Boyer, A.B., M.D., MED.SC.D., *Instructor*
Irwin R. Cohen, M.D., *Instructor*
Joseph Kovacs, A.B., M.D. [BUDAPEST], *Instructor*
Teresa McGovern, B.S., M.S., M.D., *Instructor*
Lawrence R. Prouty, B.S.(BIOCHEM.), M.D., *Instructor*
Ralph I. Alford, A.B., M.D., *Instructor in Clinical Medicine*
Michael S. Bruno, A.B., M.D., *Instructor in Clinical Medicine*
Herbert A. Dann, A.B., M.D., *Instructor in Clinical Medicine*
Alfred D. Dennison, Jr., A.B., M.D., *Instructor in Clinical Medicine*
Helen S. Haskell, A.B., A.M., M.D., *Instructor in Clinical Medicine*
Jacob Heyman, A.B., M.D., *Instructor in Clinical Medicine*
Delavan V. Holman, A.B., M.D., *Instructor in Clinical Medicine*
Sidney I. Kreps, A.B., M.D., *Instructor in Clinical Medicine*

William S. Ling, A.B., M.D., *Instructor in Clinical Medicine*
James Tesler, M.D., M.S.(MED.), *Instructor in Clinical Medicine*
Allan R. Aronson, B.S., M.D., *Clinical Instructor*
Shepard G. Aronson, A.B., M.D., *Clinical Instructor*
Harry Bartfeld, M.D., *Clinical Instructor*
William V. Berger, M.D., *Clinical Instructor*
Audrie L. Bobb, A.B., M.S., M.D., *Clinical Instructor*
Ralph G. Bonime, B.S., M.D., *Clinical Instructor*
Joel J. Brenner, B.S.; A.B., M.B.,CH.B., A.M. [OXON.], *Clinical Instructor*
Leonard B. Burness, B.S., M.D., *Clinical Instructor*
Clifford Cohen, A.B., M.D., *Clinical Instructor*
John Staige Davis, Jr., M.D., *Clinical Instructor*
Ned Doscher, B.S., M.D., *Clinical Instructor*
Alfred Gabel, M.D., *Clinical Instructor*
Thomas H. Gleeson, M.D. [TORONTO], *Clinical Instructor*
Herbert Greenfield, A.B., M.D., *Clinical Instructor*
Stanley Isenberg, A.B., M.D., *Clinical Instructor*
Mildred E. Kamner, A.B., A.M., PH.D., M.D., *Clinical Instructor*
Theodore Kaplan, M.D., *Clinical Instructor*
Benjamin M. Kaufman, M.D., *Clinical Instructor*
Paul Kuhn, M.D., *Clinical Instructor*
Harry G. Kupperman, A.B., M.D., *Clinical Instructor*
Robert S. Levin, M.D., *Clinical Instructor*
Harold J. Livingston, A.B., M.D., *Clinical Instructor*
Morton F. Mark, A.B., M.D., *Clinical Instructor*
Richard S. Marton, M.D., *Clinical Instructor*
Murray L. Maurer, B.S.; M.D. [BASEL], *Clinical Instructor*
Morris O. Pearlmutter, A.B., M.D., *Clinical Instructor*
Albert A. Pollack, A.B., M.D., M.S.(MED.), *Clinical Instructor*
Isador Ripps, B.S., M.D., *Clinical Instructor*
Dino Sandroni, B.S., M.D., *Clinical Instructor*
Philip M. Schulman, B.S., M.D., *Clinical Instructor*
M. Stephen Schwartz, A.B., A.M., M.D., *Clinical Instructor*
Myron F. Sesit, A.B., B.S., M.D., *Clinical Instructor*
Walter C. Spiess, Jr., M.D., *Clinical Instructor*
James M. Tarsy, M.D. [BOLOGNA], *Clinical Instructor*
John V. Waller, A.B., M.D., *Clinical Instructor*
William Wolins, M.D., *Clinical Instructor*
Chester B. Allen, Jr., A.B., M.D., *Assistant*
Harry Blutman, M.D., *Assistant*
George Bruzza, A.B., M.D., *Assistant*
Lisgar B. Eckardt, A.B., A.M., PH.D., M.D., *Assistant*
Irving A. Glass, A.B., M.D., *Assistant*
Hazel Isenberg, *Assistant (Hematology)*
Leopold C. Lazarowitz, M.D. [WARSAW], *Assistant*
Francis A. Pflum, B.S., M.D., *Assistant*
Francis T. Rogliano, B.S., M.D., *Assistant*
Sheldon Schwartz, B.S., M.D., *Assistant*
Margaret Strauss-Ballard, A.B., M.S., *Assistant (Allergy)*
Stanley J. Wittenberg, B.S., M.D., *Assistant*
Stewart F. Alexander, A.B., M.D., *Clinical Assistant*
Samuel H. Belgorod, A.B., M.D., *Clinical Assistant*
Graham L. Bennett, A.B., M.D., *Clinical Assistant*
Carlos Bertran, A.B., M.D., *Clinical Assistant*
Herbert R. Blain, B.S.; M.D. [EDINBURGH], *Clinical Assistant*
Neal S. Bricker, A.B., M.D., *Clinical Assistant*
Earl B. Brown, B.S., M.D., *Clinical Assistant*
Robert L. Cella, A.B., M.D., *Clinical Assistant*
Theodore Cohen, M.D., *Clinical Assistant*
Leonard Felder, A.B., M.D., *Clinical Assistant*
Benjamin S. Fishman, A.B.; M.D. [LONDON], *Clinical Assistant*
J. Wilfrid Forster, M.D. [QUEEN'S UNIV., KINGSTON], *Clinical Assistant*
Morton Glen, A.B., M.D., *Clinical Assistant*
Louis W. Granirer, A.B., M.D., *Clinical Assistant*
Edwin A. Henck, M.D., *Clinical Assistant*
Edwin H. Kaufman, B.S., M.D., *Clinical Assistant*
Max S. Konigsberg, B.S.; M.D. [HAMBURG], *Clinical Assistant*
Frederick O. Kraus, B.S., M.D., *Clinical Assistant*
Samuel B. Levy, B.S., M.D., *Clinical Assistant*
Gunther Lomnitz, M.D. [FRANKFURT], *Clinical Assistant*
John McGaley, M.D., *Clinical Assistant*
Louis Mamelok, A.B., M.D., *Clinical Assistant*
Richard E. Passenger, B.S., M.D., *Clinical Assistant*
Andrew B. Paul, M.D. [BUDAPEST], *Clinical Assistant*
Jacob Prager, M.D., *Clinical Assistant*
Richard B. Quan, M.D., *Clinical Assistant*
Edward H. Roston, A.B., M.D., *Clinical Assistant*
Harry Shilkret, B.S., M.D., *Clinical Assistant*
Max A. Sklar, B.S., M.D., *Clinical Assistant*
William A. Tansey, A.B., M.D., *Clinical Assistant*
Arthur R. Thomas, A.B., M.D., *Clinical Assistant*
Hobart H. Todd, B.S., M.S., M.D., *Clinical Assistant*
Aaron Weiner, M.D. [MILAN], *Clinical Assistant*
John Winslow, A.B., M.D., *Clinical Assistant*
Anne B. Wright, A.B., M.D., *Clinical Assistant*

5429-A. INTERNAL MEDICINE (GRADUATE COURSE)

A full-time course of one academic or one calendar year with daily exercises Mondays through Fridays, 9 a.m. to 5 p.m., beginning September 29, 1952. (This course may be entered July 1, 1952.) The training in internal medicine includes special consideration of the various subdivisions, such as cardiovascular diseases, allergy, metabolic disturbances, pulmonary diseases, etc. In addition, the technical disciplines of bacteriology, biochemistry, physiology, pathology, and pharmacology are elaborated in relation to clinical medicine. Students come in contact with patients on the medical services of Bellevue Hospital, University Hospital, and Willard Parker Hospital (Tuberculosis Division). They participate in conferences, seminars, and other forms of instruction. Assignments are also made to the various specialty clinics in Bellevue Hospital. Problems pertaining to the medical sciences as

applied to clinical medicine are developed under the guidance of a member of the department of medicine and in conjunction with other departments according to the nature of the problem. Through the various clinical facilities enlarged experience is made available particularly in the practical matters of diagnosis and treatment.

Given under the direction of Professor Charles F. Wilkinson, Jr. Tuition $700.00.

541-A. SEMINAR IN INTERNAL MEDICINE

A full-time, eight weeks' course, April 13 through June 5, 1953, consisting of a survey of the field of internal medicine by means of lectures and case demonstrations in the various medical specialties. The program is composed of the part-time courses 542-A, 543-A, 544-A, 544-B, 545-A, 546-B, 547-A, 548-A, 549-A, 5410-A, 5411-A, 5412-A, 5413-A (described below), weekly one-hour lectures on an evaluation of modern therapeutics, and weekly staff conferences.

Given under the direction of Professor Charles F. Wilkinson, Jr. Maximum class 20. Tuition $250.00.

542-A. ARTHRITIS AND ALLIED RHEUMATIC DISORDERS

A part-time course of eight sessions, 9 a.m. to 12 m., Tuesdays, April 14 through June 2, 1953, consisting of a systematic survey of arthritis and rheumatic diseases. Special attention is given to current diagnostic procedures and advances in therapy.

Given under the direction of Dr. Edward F. Hartung. Tuition $50.00.

543-A. ALLERGY

A part-time course of eight sessions, 2 to 4 p.m., Fridays, April 17 through June 5, 1953. Consists of a discussion of the fundamentals of allergy together with a description of the diagnosis and treatment of its various clinical forms, combined with the demonstration of cases.

Given under the direction of Dr. W. C. Spain. Tuition $40.00.

544-A. CARDIOLOGY

A part-time course of eight sessions, 2 to 5 p.m., Thursdays, April 16 through June 4, 1953.

Designed as a review course for physicians doing general practice or internal medicine. As far as possible, emphasis is placed on clinical cardiology and an attempt is made to review all the major forms of heart disease with discussion of modern trends in treatment and demonstration of patients. Many teaching aids are used such as the electron vectroscope (see page 63) with stethoscopic amplification and the fluoro-demonstrator. The former instrument enables each member of the class to listen to each patient and at the same time to see the simultaneous electrocardiogram or stethogram of the patient. The fluoro-demonstrator is an apparatus for teaching large groups the fundamentals of cardiac fluoroscopy without some of the drawbacks of the darkroom. This equipment, designed exclusively for teaching, has been developed in this laboratory.

Given under the direction of Drs. Charles A. Poindexter and J. Scott Butterworth. Maximum class 40. Tuition $75.00.

544-B. CLINICAL ELECTROCARDIOGRAPHY

A part-time course of eight sessions, 12:30 to 2 p.m., Thursdays, April 16 through June 4, 1953, dealing with modern electrocardiography and stressing the basic electrophysiology of the heart rather than pattern diagnosis. Extremity potentials, unipolar leads, and esophageal leads are fully covered. An introduction to vectrocardiography is also included. The electron vectroscope is frequently used (see page 63) rather than placing too much emphasis on slides.

Given under the direction of Dr. Charles A. Poindexter. Tuition $40.00.

545-A. NORMAL AND PATHOLOGICAL PHYSIOLOGY: FUNCTIONAL AND CHEMICAL ASPECTS

A part-time course of eight sessions, 9 to 11 a.m., Wednesdays, April 15 through June 3, 1953. A lecture course presenting a rapid review of the normal and pathological physiology of those systems of particular importance in internal medicine. The clinical value, indications, and interpretations of functional and chemical tests designed to reveal disturbed physiology are discussed. Does not include actual demonstrations of chemical technique but the importance of laboratory data in diagnosis is stressed.

Given under the direction of Dr. Maurice Bruger. Tuition $40.00.

546-A. CLINICAL HEMATOLOGY

A part-time course of ten sessions, 9 to 11 a.m., Mondays, October 6 through December 8, 1952. Consists of a discussion of the techniques used in hematology, with the interpretation of hematological laboratory data. The pathogenesis, symptomatology, and treatment of the anemias, polycythemia, disorders of the white cells, spleen and lymph nodes, and the hemorrhagic diatheses are reviewed. The use of folic acid, vitamin B_{12}, nitrogen mustards, radioactive phosphorus, urethane, folic-acid antagonists, and pituitary and adrenal hormones is considered, as well as the use of blood and blood substitutes and the clinical importance of the Rh factor.

Given under the direction of Dr. Edward H. Reisner, Jr. Tuition $40.00.

This course is repeated as 546-B, in sixteen sessions, 12 m. to 1 p.m., Tuesdays and 9 a.m. to 10:30 a.m., Thursdays, April 14 through June 4, 1953.

547-A. PROBLEMS IN DIAGNOSIS

A part-time course of eight sessions, 9 to 11:45 a.m., Mondays, April 13 through June 1, 1953, consisting of case teaching with special emphasis on disease seen in office and hospital practice. The history, interpretation of physical findings, X-ray, and laboratory analyses are included in the discussion of differential diagnosis. A part of each session is devoted to the examination of patients by the matriculates.

Given under the direction of Dr. Matthew Shapiro. Maximum class 20. Tuition $35.00.

548-A. ACUTE AND CHRONIC DISEASES OF THE CHEST

A part-time course of eight sessions, 2 to 4 p.m., Mondays, April 13 through June 1, 1953, consisting of diagnosis and treatment, practical discussion and demonstration of acute and chronic pulmonary diseases, correlation of X-ray findings with clinical studies, and fluoroscopy.

Given under the direction of Dr. David Ulmar. Maximum class 20. Tuition $35.00.

549-A. ENDOCRINOLOGY

A part-time course of twenty-four sessions, Mondays, 12 m. to 1 p.m., Thursdays, 10:30 to 11:30 a.m., and Fridays, 9 to 10 a.m., April 13 through June 5, 1953. Surveys the fields of endocrinology and covers a comprehensive review of the recent developments in the diagnosis and treatment of diseases of the thyroid, parathyroid, adrenal, pituitary, gonads, and the everyday and emergency management of the diabetic patient.

Given under the direction of Dr. Benjamin I. Ashe, assisted by the staff. Tuition $40.00.

5410-A. DISEASES OF THE LIVER AND BILIARY TRACT

A part-time course of eight sessions, 11 a.m. to 1 p.m., Wednesdays, April 15 through June 3, 1953, consisting of recent advances in the diagnosis and medical management of functional and organic disorders of the liver and biliary tract; technique and interpretation of biliary drainage; pancreatic function tests; liver function tests; surgical indications.

Given under the direction of Dr. J. Russell Twiss. Tuition $35.00.

5411-A. GASTROENTEROLOGY

A part-time course of eight sessions, 2 to 5 p.m., Wednesdays, April 15 through June 3, 1953, consisting of diagnosis and treatment of diseases of the esophagus and stomach, with particular attention to peptic ulcer; gastroscopic examinations; diseases of the large and small intestines, with particular attention to ulcerative colitis; sigmoidoscopic examinations; correlation of X-ray findings with clinical studies.

Given under the direction of Dr. Clarence C. Fuller. Tuition $40.00.

5412-A. NEPHRITIS AND HYPERTENSION

A part-time course of eight sessions, 9 a.m. to 1 p.m., Fridays, April 17 through June 5, 1953. A comprehensive but concise presentation of recent developments and current concepts in the diagnosis and treatment of the nephritides and vascular hypertension. Basic pathologic physiology is applied to the management of clinical problems. Biochemical and body electrolytic disturbances in renal disease are considered in relation to actual therapeutic problems. A demonstration and discussion of hemodialysis (artificial kidney) in the treatment of anuria is included. The relationships of the various specialties to hypertension and nephritis are discussed by the individual departments in an informal clinical review.

Given under the direction of Dr. S. Edward King. Tuition $30.00.

5413-A. PERIPHERAL VASCULAR DISEASES

A part-time course of eight sessions, 2 to 4 p.m., Tuesdays, April 14 through June 2, 1953. Consists of the use and interpretation of methods of diagnosis and treatment of diseases of the vascular system, including thromboangiitis obliterans, Raynaud's disease, and arteriosclerosis.

Given under the direction of Dr. A. Wilbur Duryee. Maximum class 30. Tuition $40.00.

5414-A. ARTHRITIS AND ALLIED RHEUMATIC DISORDERS

A full-time course of two weeks' duration, July 7 through 18, 1952. The first week covers the fundamental concepts of anatomy, physiology, and path-

ology necessary for a basic understanding of the subject, together with a detailed exposition of the main disease entities and their treatment, including rheumatoid arthritis, osteoarthritis, specific infectional arthritis, gout, acute rheumatic fever, and fibrositis. The second week affords a survey of the most recent advances in this field, and to this end the staff of the entire Center has been drawn upon liberally. During the entire two-week period the student has actual contact with the arthritic patient and observes and participates in all forms of therapy.

Given under the direction of Dr. Edward F. Hartung. Tuition $125.00.

This course is repeated as 5414-B, November 10 through 21, 1952. (To be offered in July 1953 also.)

5415-A. ALLERGY

A full-time course of two weeks' duration, November 10 through 21, 1952, consisting of morning sessions devoted to laboratory instruction in the preparation and standardization of protein extracts, while afternoon sessions in the large outpatient clinic deal with the diagnosis and treatment of asthma, hay fever, and other allergic diseases, the technique of skin tests and hyposensitization, and the role of focal infections in allergy.

Given under the direction of Dr. W. C. Spain. Maximum class 12. Tuition $200.00.

This course is repeated as 5415-B, March 16 through 27, 1953.

5416-A. ACUTE AND CHRONIC PULMONARY DISEASES

A full-time course of five days' duration, March 9 through 13, 1953, consisting of diagnosis and treatment; practical discussion and demonstration of acute and chronic pulmonary diseases; correlation of X-ray findings with clinical studies; fluoroscopy. Lectures and bedside teaching.

Given under the direction of Dr. David Ulmar. Maximum class 15. Tuition $45.00.

5418-A. PERIPHERAL VASCULAR DISEASES

A full-time course of five days' duration, November 17 through 21, 1952, consisting of differential diagnosis; the use and interpretation of diagnostic methods including the oscillometer, nerve block, hot-water immersion tests and surface-temperature studies, arteriography; the medical and surgical treatment of diseases of the peripheral vascular system including thromboangiitis obliterans, Raynaud's disease, scleroderma, and arteriosclerosis; venous and lymphatic pathology; surgical aspects of vascular diseases; and demonstration of apparatus. Case studies are stressed throughout the course.

Given under the direction of Dr. A. Wilbur Duryee. Maximum class 30. Tuition $50.00.

This course is repeated as 5418-B, June 22 through 26, 1953.

5419-A. SYMPOSIUM ON INTERNAL MEDICINE

A full-time course of ten days' duration, June 15 through 26, 1953. Registrations are accepted for the entire ten days or for either the first or second five-day period.

Offers the internist and general practitioner a concise review of present-day therapy in the field of internal medicine. Indications and contraindications in the use of the newer drugs are discussed. Presentations include the following topics: cardiovascular disease, antibiotics, hematology, arthritis, hypertension, nutrition, diabetes, renal disease, gastroenterology, and endocrinology. Lectures are given on the present status of radioactive isotopes in the treatment of malignant disease, fluid balance in health and disease, and the newer antihistamine drugs in allergic diseases.

Given under the direction of Professor Charles F. Wilkinson, Jr. Tuition for five days $50.00; ten days $90.00.

5420-A. NORMAL AND PATHOLOGICAL PHYSIOLOGY: FUNCTIONAL AND CHEMICAL ASPECTS

A full-time course of ten days' duration, September 22 through October 3, 1952. A lecture course presented as a review of normal and pathological physiology of those systems of particular importance in internal medicine. Discussions include fat, protein, and carbohydrate metabolism, respiratory physiology, hematopoietic system, the vitamins, bile physiology, the functional testing of the stomach, pancreas and liver, the endocrine glands, phosphatase metabolism, cerebrospinal fluid chemistry, mineral metabolism, cardiac physiology, blood volume, water balance, and acid-base metabolism. The clinical value, indications, and interpretation of functional and chemical tests designed to reveal disturbed physiology are discussed. Does not include actual demonstrations of chemical technique but the importance of laboratory data in diagnosis is stressed.

Given under the direction of Dr. Maurice Bruger. Tuition $100.00.

This course is repeated as 5420-B, February 23 through March 6, 1953.

5421-A. GASTROENTEROLOGY

A full-time course of five days' duration, October 13 through 17, 1952, covering diseases of the esophagus, stomach, rectum, liver, biliary tract, and pancreas, with special reference to diagnosis and treatment. Gastroscopy, sigmoidoscopy, and duodenal drainage are demonstrated and their significance discussed. The newer methods of treatment are presented.

Given under the direction of Dr. Clarence C. Fuller. Maximum class 40. Tuition $45.00.

This course is repeated as 5421-B, June 15 through 19, 1953.

5422-A. ENDOCRINOLOGY

A full-time course of five days' duration, July 21 through 25, 1952. Surveys the field of endocrinology and covers a comprehensive review of the recent developments in the diagnosis and treatment of diseases of the thyroid, parathyroid, adrenal, pituitary, gonads, and the everyday and emergency management of the diabetic patient. These are discussed under the headings: the detection of diabetes and its differential diagnosis, the objectives to be attained by therapy, the criteria for good control, the use of diets and how much can be accomplished by their use, when and how to use the various types of insulin, the management of emergencies including ketosis and coma, the detection and management of hypoglycemia, and complications and intercurrent problems in the course of diabetes and their management by modern methods.

Disorders of the thyroid gland are discussed along the following lines: diagnostic laboratory procedures, such as protein-bound iodine, radioactive iodine uptake, and basal metabolism; diagnosis and treatment of toxic goiter; diagnosis and treatment of hypothyroidism; selection of cases for surgery, the types and incidence of complications following thyroidectomy.

The course considers the other glands of internal secretion—the pituitary, the adrenals, parathyroids, ovaries, and testes and includes a discussion of the hormones, their physiology, the more important clinical syndromes, and their diagnosis and treatment.

Given under the direction of Dr. Benjamin I. Ashe, assisted by the staff. Tuition $50.00.

This course is repeated as 5422-B, November 10 through 14, 1952. (To be offered in July 1953 also.)

5423-A. ELECTROCARDIOGRAPHY

A full-time course of five days' duration, November 17 through 21, 1952, dealing with modern electrocardiography and stressing the basic electrophysiology of the heart rather than pattern diagnosis. Extremity potentials, unipolar and esophageal leads are fully covered. An introduction to vectrocardiography will also be included. The electron vectroscope is used (see page 63).

Given under the direction of Dr. Charles A. Poindexter. Tuition $75.00.

This course is repeated as 5423-B, March 30 through April 3, 1953.

5424-A. NEPHRITIS AND HYPERTENSION

A five-day, full-time course, July 14 through 18, 1952. A comprehensive review of recent developments in renal diseases and vascular hypertension. Essential physiologic advances, including renal clearance methods and electrolytic disturbances in renal disease, are presented. A demonstration of hemodialysis (artificial kidney) is given. Most types of renal disease, including glomerular nephritis, the nephroses, acute renal insufficiency (lower nephron nephritis), pyelonephritis, and renal vascular lesions associated with pregnancy, are covered.

Psychiatric, endocrine, and urologic factors in hypertension are considered, as well as cardiac, cerebral, and renal complications. The general management of hypertension, including the indications for sympathectomy is reviewed. Major emphasis throughout is placed upon practical clinical methods of diagnosis and treatment.

Members of the departments of surgery, urology, psychiatry and neurology, and ophthalmology present the various specialties in their relationship to renal and hypertensive vascular disease. Lectures are supplemented by demonstrations, ward-case presentations, and round-table conferences.

Given under the direction of Dr. S. Edward King. Tuition $50.00.

This course is repeated as 5424-B, October 27 through 31, 1952. (To be offered in July 1953 also.)

5425-A. CARDIOLOGY

A full-time, four weeks' comprehensive course, June 29 through July 24, 1953. An attempt is made to summarize the basic knowledge and the recent advances in cardiology in regard to diagnosis and treatment. Electrocardiography is an integral part of the course and emphasis is placed on the modern electrophysiology of the heart. Subjects such as extremity potentials, esophageal leads, unipolar leads, and exploratory leads are fully discussed, and the electron vectroscope is used to demonstrate to the entire group electrocardiograms from test subjects and patients.

Auscultation of the heart is studied under ideal conditions by use of the electronic stethoscope whereby each student and the instructors listen at the same time to each patient through individual electronic stethoscopes. The electrocardiogram or stethogram of the patient can be visualized on the electron vectroscope at the same time. The fluoro-demonstrator is available for the teaching of cardiac fluoroscopy. The electron vectroscope (see page 63), the multiple electronic stethoscopes, the fluoro-demonstrator, and other devices have all been developed in this laboratory to improve the teaching of cardiology by audio-visual methods.

Given under the direction of Drs. Charles A. Poindexter and J. Scott Butterworth. Maximum class 40. Tuition $250.00.

5426-A. GERIATRICS

A three-day, full-time course, January 28, 29, and 30, 1953, designed to familiarize physicians with the broader aspects of the care of elderly patients. It is realized that geriatrics is not a true specialty and, therefore, the subject matter is presented from a point of view that encompasses the medical and surgical subspecialties as well as the psychosomatic and rehabilitation aspects. Emphasis is placed on the diagnosis and treatment of diseases commonly associated with aging as well as the altered physiological and metabolic conditions found in this older group.

Given under the direction of Professor Charles F. Wilkinson, Jr. Tuition $30.00.

5427-A. AUSCULTATION OF THE HEART

A three-day, full-time course, September 8 through 10, 1952, designed to stress the types of heart disease where important findings are present on physical diagnosis and to present auscultatory findings. Numerous audio-visual aids have been developed in the laboratory which are particularly useful in the teaching of auscultation. These include the electron vectroscope (see page 63), and the use of tape recordings for illustrating unusual sounds.

Given under the direction of Dr. J. Scott Butterworth. Tuition $50.00.

This course is repeated as 5427-B, February 2 through 4, 1953.

The Electron Vectroscope Visually Records the Sounds of the Living Heart

5428-A. INTERNAL MEDICINE

Instruction is given five mornings a week, March 2 through 27, 1953, for four weeks. Designed for physicians in general practice who wish a practical review of recent advances in diagnosis and treatment. Instruction is given to small groups at the bedside by a member of the staff, usually a specialist in the field which is the subject of discussion. Once each week members of the course attend a clinical pathological conference.

Given under the direction of Dr. Charles H. Nammack. Maximum class 12. Tuition $100.00.

5430-A. REVIEW COURSE IN GENERAL MEDICINE

A full-time course of ten days' duration, Mondays through Fridays, July 14 through 25, 1952, making a total of sixty hours of instruction. Designed especially for members of the American Academy of General Practice but other physicians are eligible to attend. It includes the main features of internal medicine and its subdivisions, as well as dermatology and syphilology, pediatrics, neuropsychiatry, physical medicine, and the diagnosis and pre- and postoperative care of surgical conditions. Instruction is given in Bellevue Hospital by means of ward rounds, conferences, seminars, and clinics.

Given under the direction of Professor Charles F. Wilkinson, Jr. Maximum class 50. Tuition $100.00. (To be offered in July 1953 also.)

5431-A. ACTH AND CORTISONE

A full-time course of three days' duration, February 18, 19, and 20, 1953. An intensive discussion course in the use and relationship of ACTH, cortisone, and other adrenal steroids to many of the phases of medicine, making use of the clinical facilities of the Medical Center.

Given under the direction of Professor Charles F. Wilkinson, Jr. Tuition $35.00.

5432-A. PULMONARY DISEASES IN RELATION TO INDUSTRY

A full-time course of five days' duration, May 18 through 22, 1953, for the purpose of giving the

Bedside Teaching Is Constantly Emphasized

matriculate a practical approach to the problems of industry in relation to thoracic disease. To this end, a brief background of pathology and physiology is the basis for the presentations on the various illnesses and occupational diseases that are encountered. Emphasis is placed on treatment and rehabilitation, problems of extreme importance to the industrial physician. Some of the legal aspects of compensable disease are touched. Ample opportunity is presented for forum discussion.

Given under the direction of Dr. David Ulmar. Tuition $50.00.

5433-A. FLUOROSCOPY OF THE HEART

A two-day, full-time course, September 11 and 12, 1952, dealing primarily with examination of the heart by fluoroscopic methods. The techniques of making accurate orthodiagrams are described and illustrated. Various types of chamber abnormalities are discussed and, in addition, procedures such as roentgenkymography, electrokymography, and angiocardiography are given special attention. For a description of some of the equipment used in this course, see the special section on audio-visual aids (page 63).

Given under the direction of Drs. Charles A. Poindexter and J. Scott Butterworth. Tuition $30.00.

This course is repeated as 5433-B, February 5 and 6, 1953.

5434-A. CONGENITAL HEART DISEASE

A three-day, full-time course, October 6 through 8, 1952, designed to give a survey of congenital heart disease. It takes up the common and some of the more unusual types of congenital cardiac malformations and includes discussions and illustrations of the various types of procedures used in arriving at diagnosis. These procedures include cardiac catheterization with pressure readings, oxygen contents, studies, and electrocardiograms from inside the heart as well as angiocardiography. For a description of some of the equipment used in this course, see the special section on audio-visual aids (page 63).

Given under the direction of Dr. Charles A. Poindexter. Tuition $40.00.

5435-A. RHEUMATIC HEART DISEASE

A three-day, full-time course, October 27 through 29, 1952, organized to give a general review of rheumatic heart disease with emphasis on the newer methods of diagnosis and therapy. All types of rheumatic lesions from acute rheumatic fever to the end result of rheumatic valvular disease are discussed. For a description of some of the special equipment used in this course, see the section on audio-visual aids (page 63).

Given under the direction of Dr. Charles A. Poindexter. Tuition $40.00.

5436-A. DEGENERATIVE HEART DISEASE

A three-day, full-time course, January 12 through 14, 1953. Concerning degenerative heart disease in general, the material consists of diseases of a degenerative nature which affect the coronary arteries and the myocardium. This includes arteriosclerosis of the coronary vessels and hypertensive heart disease. Special attention is given to more recent concepts of diagnosis and treatment of the degenerative diseases. For a description of the special methods used in teaching, see the section on audio-visual aids (page 63).

Given under the direction of Dr. Charles A. Poindexter. Tuition $40.00

* * *

740-A. COMPREHENSIVE MEDICINE FOR FOREIGN PHYSICIANS

One academic year of full-time study, Mondays through Fridays from 9 a.m. to 5 p.m., September 29, 1952, through June 19, 1953. A comprehensive course in American medicine for graduates of foreign medical schools desiring to practice in this country. *Conditional admission to the examinations of one of the State or National Boards of Medical Examiners is a prerequisite for admission.* (All departments participate in this course.) Further information may be obtained from the Office of the Dean, Post-Graduate Medical School, 477 First Avenue, New York 16, N. Y.

MICROBIOLOGY

College of Medicine

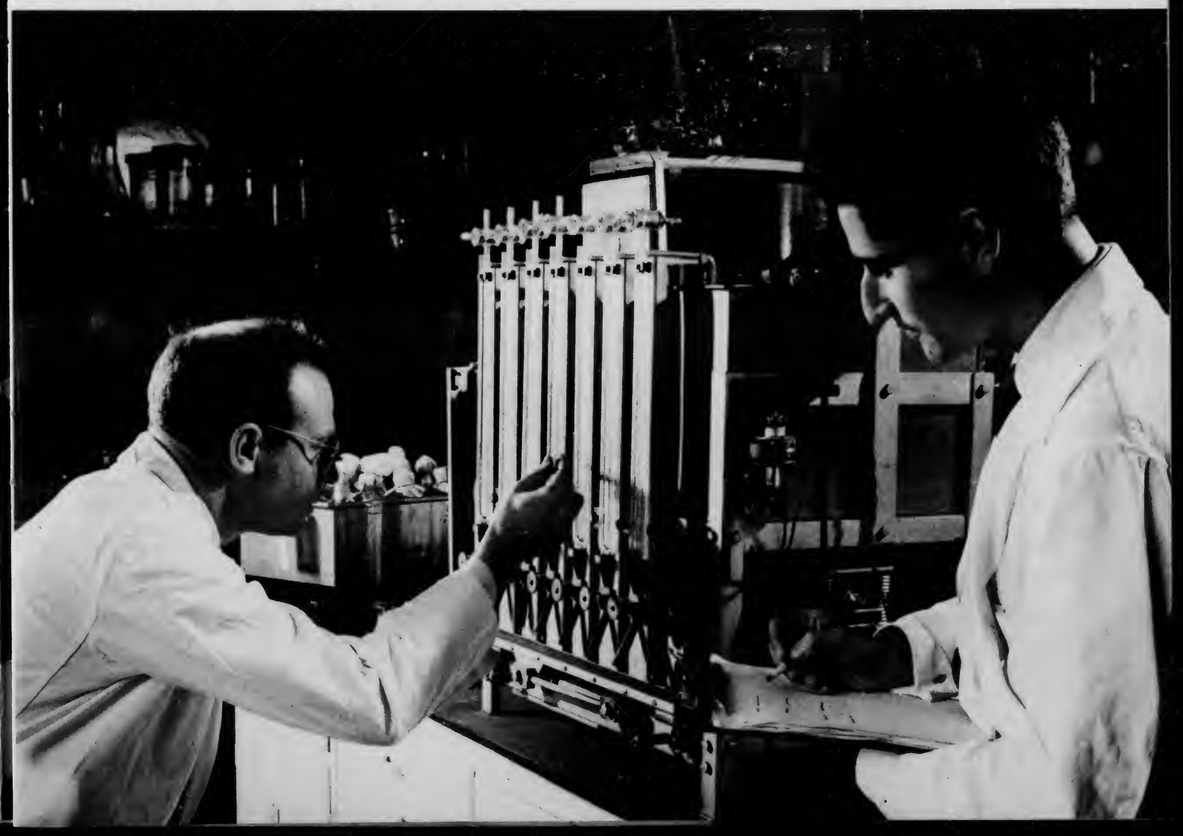
Colin M. MacLeod, M.D.,C.M. [MCGILL], *Professor and Chairman of the Department*
Alwin M. Pappenheimer, Jr., B.S., PH.D., *Professor*
Mark H. Adams, A.B., PH.D., *Associate Professor*
James E. Ziegler, Jr., A.B., M.D., *Associate Professor*
Alan W. Bernheimer, B.S., A.M., PH.D., *Assistant Professor*
L. Royal Christensen, B.S., PH.D., *Assistant Professor*
Efraim Racker, M.D. [VIENNA], *Assistant Professor*
Norma C. Styron, A.B., B.S., M.S., *Instructor*
Benjamin Mandel, B.S., M.S., PH.D., *Assistant*
Walter L. Barksdale, *Fellow*
Odd A. Wager, M.D. [HELSINKI], *Fellow*

432-A. VIRUSES AND VIRUS DISEASES

A full-time course of seven weeks' duration, 9 a.m. to 5 p.m., Mondays through Fridays, March 23 through May 9, 1953. Half of the time devoted to laboratory exercises, the remainder to lectures, seminars, and conferences. No other work should be undertaken as it is anticipated that the full time of the student will be occupied by this course. Designed to acquaint advanced students with techniques currently used in virus research and with recent advances in our knowledge of virus infections, using both bacterial and animal viruses as illustrative materials. Prerequisite: a working knowledge of bacteriological techniques. Further details may be obtained on request.

Given under the direction of Professor Colin M. MacLeod. Maximum class 16. Tuition $211.00.

A Modern Microbiology Laboratory



NEUROSURGERY

NEUROSURGERY

Thomas I. Hoen, A.B., M.D., *Professor and Chairman of the Department*
Francis A. Echlin, M.D.,C.M. [MCGILL]; MED.SC.D.; M.SC. [MCGILL], *Associate Professor*
James T. Daniels, M.D., *Associate Professor of Clinical Neurosurgery*
Irving S. Cooper, A.B., M.D., M.S., PH.D., *Assistant Professor*
Stanley Stellar, A.B., M.D., *Assistant Professor*
Thomas Q. Garvey, Jr., B.S., M.D., *Assistant Professor of Clinical Neurosurgery*
J. Arthur MacLean, M.D., *Assistant Professor of Clinical Neurosurgery*
Leo M. Davidoff, M.D., *Clinical Professor*
Carlos Guillermo de Gutiérrez-Mahoney, A.B., M.D., *Clinical Professor*

551-A. THE INTERVERTEBRAL DISC

A full-time course of five days' duration, October 6 through 10, 1952. An intensive study of the problems of intervertebral disc disease. Consists of lectures, clinical, pathological, and X-ray demonstrations. For qualified neuro-, general, and orthopedic surgeons.

Given under the direction of Professor Thomas I. Hoen. Maximum class 10. Tuition $60.00.

552-A. DIAGNOSIS AND TREATMENT OF PERIPHERAL NERVE INJURIES

A full-time course of five days' duration, January 12 through 16, 1953. Lectures, case presentations, and study of pathologic material, including demonstration and instruction in electrodiagnostic methods. Surgical treatment is given in considerable detail with demonstrations in animals, and clinical material if available.

Given under the direction of Professor Thomas I. Hoen. Maximum class 10. Tuition $90.00.

553-A. TRAUMA OF CENTRAL NERVOUS SYSTEM

A full-time course of six days' duration, June 15 through 20, 1953, for general surgeons. Consists of lectures, presentation of pathologic material, clinical conferences, and attendance at operations.

Given under the direction of Professor Thomas I. Hoen. Maximum class 15. Tuition $75.00.

OBSTETRICS AND GYNECOLOGY

OBSTETRICS AND GYNECOLOGY

Professor and Chairman of Department (to be announced)
Locke L. Mackenzie, A.B., M.D., *Associate Professor*
Mortimer N. Hyams, M.D., *Associate Professor of Clinical Obstetrics and Gynecology*
Michael J. Jordan, B.S., M.D., *Associate Professor of Clinical Obstetrics and Gynecology*
Theodore Neustaedter, M.D., *Associate Professor of Clinical Obstetrics and Gynecology*
E. Lawrence Hecht, B.S., M.D., *Assistant Professor of Clinical Obstetrics and Gynecology*
Henry C. Falk, M.D., *Clinical Professor*
Salvatore di Palma, M.D., *Associate Clinical Professor*
Adolph Jacoby, M.D., *Associate Clinical Professor*
Isador W. Kahn, M.D., *Associate Clinical Professor*
John A. Kelly, M.D., *Associate Clinical Professor*
Gerard L. Moench, M.D., *Associate Clinical Professor*
Benjamin Rabbiner, M.D., *Associate Clinical Professor*
Samuel Schmerzler, M.D., *Associate Clinical Professor*
Joseph N. Tesi, M.D. [FLORENCE], *Associate Clinical Professor*
George Blinick, B.S., M.D., *Assistant Clinical Professor*
Matthew Di Giorgi, M.D., *Assistant Clinical Professor*
Emanuel M. Wainess, M.D., *Assistant Clinical Professor*
Ben B. Wetchler, B.S., M.D., M.S., *Assistant Clinical Professor*
Martin J. Clyman, B.S., M.D., *Instructor*
Benedict B. Benigno, B.S. (BIOLOGY), M.D., *Instructor in Clinical Obstetrics and Gynecology*
John C. DuBois, A.B., M.D., *Instructor in Clinical Obstetrics and Gynecology*
G. Thurman Fulmer, B.S., M.D., *Instructor in Clinical Obstetrics and Gynecology*
Louis Gordon, M.D., *Instructor in Clinical Obstetrics and Gynecology*
Morton K. Hertz, M.D., *Instructor in Clinical Obstetrics and Gynecology*
Peter La Mariana, B.S., M.D., *Instructor in Clinical Obstetrics and Gynecology*
John Messina, M.D. [NAPLES], *Instructor in Clinical Obstetrics and Gynecology*
Ernest Myller, M.D. [BERLIN; ATHENS], *Instructor in Clinical Obstetrics and Gynecology*
Gottfried Neumann, M.D. [LEIPZIG], *Instructor in Clinical Obstetrics and Gynecology*
Anna Earl Purdy, A.B., M.D., *Instructor in Clinical Obstetrics and Gynecology*
Maxwell Schram, B.S.(MED.), M.D., *Instructor in Clinical Obstetrics and Gynecology*
Ethel Torten Sokal, M.D. [LWÓW], *Instructor in Clinical Obstetrics and Gynecology*
Anna A. Stein, M.D., *Instructor in Clinical Obstetrics and Gynecology*
David L. Bobker, B.S., *Clinical Instructor*
Robert M. Cushing, B.S., M.D., *Clinical Instructor*
Jacob Donshik, B.S., M.D., *Clinical Instructor*
Phyllis DeVit Gallaher, M.D., *Clinical Instructor*
Stefano Miele, M.D. [NAPLES], *Clinical Instructor*
Milton H. Miller, M.D., *Clinical Instructor*
Charles R. Moog, B.S., M.D., *Clinical Instructor*
John E. O'Connor, A.B., M.D., *Clinical Instructor*
William B. Quinn, B.S., M.D., *Clinical Instructor*
Samuel Ratowsky, B.S., M.D., *Clinical Instructor*
Nathan E. Ross, B.S., M.D., *Clinical Instructor*
Herbert Z. Teichner, M.D. [NAPLES], *Clinical Instructor*
Alfred Widetsky, B.S., M.D., *Clinical Instructor*
Frederick S. Kinder, A.B., M.D., *Assistant*
Robert H. Berman, PH.B., M.D., *Clinical Assistant*
Morris I. Eisenstein, M.D., *Clinical Assistant*
Charles H. Immordino, B.S., M.D., *Clinical Assistant*
Helen Z. Jern, PHYSICIAN [MOSCOW], A.M., *Clinical Assistant*
Edward R. Laus, M.D., *Clinical Assistant*
Maxwell Roland, A.B., M.D. [LAUSANNE], *Clinical Assistant*
Raymond W. Sass, B.S., M.D., *Clinical Assistant*
Feliciano J. Scire, M.D. [NAPLES], *Clinical Assistant*

560-A. GYNECOLOGICAL MALIGNANCY

A full-time ten-day course, October 13 through 24, 1952. Designed for specialists in obstetrics and gynecology only. The anatomy of the female pelvis is discussed with particular attention to considerations affecting the spread of malignant disease, including lectures on embryology and pathology, as well as lectures and laboratory work on exfoliative cytology in the diagnosis of the malignancy. The newer chemical tests for carcinoma are discussed; the diagnosis, differential diagnosis, and treatment, both surgical and by radioactive energy. It also includes a discussion of the fundamental concepts of radiant energy, the atomic structure of matter, and the interreaction of radiant energy with tissue, both physical and biological, and it covers practical considerations and dosage in X-ray and radium therapy. The diagnosis and surgery of carcinoma of the breast as well as urological complications are covered also.

Given under the direction of Dr. Locke L. Mackenzie. Tuition $150.00.

561-A. SEMINAR IN GYNECOLOGY

A full-time course of four weeks' duration, October 6 through November 1, 1952. Clinical lectures (illustrated with lantern slides, anatomical specimens, and motion pictures), clinics, and ward rounds provide systematic instruction in gynecological pathology, diagnosis and office treatment, cystoscopy and endo-

scopy, vaginal and endometrial cytology, and gynecological endocrinology.

Given under the direction of Professor Emeritus Walter T. Dannreuther. Maximum class 6. Tuition $150.00.

This course is repeated as 561-B, April 13 through May 9, 1953.

562-A. GYNECOLOGY: DIAGNOSIS AND OFFICE TREATMENT

A part-time course of ten sessions, 10 a.m. to 12 m., Mondays, Wednesdays, and Fridays, October 27 through November 17, 1952.

Given under the direction of Dr. Matthew Di Giorgi. Maximum class 6. Tuition $50.00.

This course is repeated as 562-B, February 23 through March 16, 1953.

563-A. GYNECOLOGY: DIAGNOSIS AND OFFICE TREATMENT

A part-time course of fifteen sessions, 2 to 4 p.m., Mondays, Wednesdays, and Fridays, September 15 through October 17, 1952.

Given under the direction of Dr. Mortimer N. Hyams. Maximum class 6. Tuition $75.00.

This course is repeated as 563-B, March 23 through April 24, 1953.

Both of the above courses are presented by demonstrations, lantern slides, and practical application. Opportunity is given to examine a large number of patients and to develop diagnostic ability. Course 563 also includes electrotherapy as it applies to gynecology, methods of conization of the uterine cervix, uterosalpingography, sterilization by coagulation of the uterine cornu, and transuterine insufflation.

564-A. INFERTILITY

A three-day, full-time course given jointly by the department of urology and the department of obstetrics and gynecology, December 8 through 10, 1952. Problems of sterility are presented as related to both husband and wife. Methods of diagnosis and treatment are presented by lectures, outpatient demonstrations, and laboratory techniques.

Tuition $40.00.

566-A. CYSTOSCOPY AND ENDOSCOPY

A part-time course of fifteen sessions, 10 a.m. to 12 m., Mondays, Wednesdays, and Fridays, September 15 through October 17, 1952.

Essentially practical and includes the following subjects: review of anatomy of the urinary tract, technique of cystoscopy and endoscopy, use of water dilatation cystoscope, examination of bladder for various pathological conditions, ureteral catheterization and passage of bougie, irrigation of renal pelvis, pyelography and intravenous urography, examination and treatment of urethra with both air and water dilatation, fulguration of bladder growths, and indigocarmin and phenolsulphonphthalein tests.

Given under the direction of Dr. Samuel Schmerzler. Maximum class 6. Tuition $75.00.

This course is repeated as 566-B, March 23 through April 24, 1953.

567-A. GYNECOLOGICAL ENDOCRINOLOGY

A part-time course of twenty-four sessions, 10 a.m. to 12 m., Tuesdays, Thursdays, and Saturdays, October 7 through December 6, 1952. Consists of the relation of the endocrine glands and their hormones to physical development, menstrual derangements, sterility, and menopausal disturbances; the clinical application of organotherapy. An adequate knowledge of biological chemistry, histopathology, and the physiology of the female pelvic organs is required for admission to this course because laboratory procedures are correlated with the daily clinical work. Applicants are admitted only after an interview with the instructor in charge. This class is invited to attend Dr. Mackenzie's lecture on vaginal smears, Tuesdays.

Given under the direction of Dr. Theodore Neustaedter. Maximum class 4. Tuition $125.00.

This course is repeated as 567-B, April 14 through June 6, 1953.

568-A. VAGINAL CYTOLOGY (FOR SPECIALISTS)

A part-time course of sixteen sessions, 12 m. to 1 p.m., Tuesdays, and 9 a.m. to 12 m., Thursdays, October 7 through December 4, 1952. Consists of lectures and laboratory periods dealing with the technique of taking, preparing, and examining vaginal smears. Subjects of study include the normal vaginal cells, changes observed during the menstrual cycle, the amenorrheas, pregnancy, the menopause, and other physiological and pathological gynecological conditions, as well as the diagnosis of malignancy of the genital tract.

Given under the direction of Dr. E. Lawrence Hecht. Maximum class 6. Tuition $100.00.

This course is repeated as 568-B, April 14 through June 4, 1953.

569-A. SURGICAL ANATOMY AS APPLIED TO GYNECOLOGY: CADAVER

A part-time course of twelve sessions, 11 a.m. to 12:30 p.m., Tuesdays, Thursdays, and Saturdays, October 14 through November 11, 1952, consisting of the surgical anatomy of the following operations considered in detail, illustrated by lantern slides and blackboard drawings, as well as by dissection:

1. Anterior vaginal wall
   - *a)* Relaxed bladder sphincter
   - *b)* Vesicovaginal fistula
   - *c)* Repair of cystocele
2. Postvaginal wall
   - *a)* Simple perineorrhaphy
   - *b)* Perineorrhaphy with torn anal sphincter
   - *c)* Postcolpotomy
3. Diagnostic curettage with insertion of intrauterine pessary
4. Repair of lacerated cervix
5. Operations for retro-displaced uterus (choice of technique)
6. Operations on broad ligaments, tubes, and ovaries
7. Choice of a complete or supracervical hysterectomy
8. Operations for gynecological ureteral injuries
9. Repair of gynecological intestinal injuries
10. Bladder and sigmoid
11. Hemorroidectomy

Restricted to surgeons.

Given under the direction of Dr. Salvatore di Palma. Maximum class 6. Tuition $175.00.

This course is repeated as 569-B, February 24 through March 21, 1953.

734-A. GYNECOLOGY (FOR SPECIALISTS)

Covers a sixteen-week period, September 2 through December 19, 1952. The matriculant's time is fully occupied from 8:30 a.m. to 12 m., Mondays through Fridays, and from 1:30 to 4 p.m. on Wednesdays. Sessions are assigned to ward rounds, lectures, and clinical and laboratory demonstrations. Throughout the course, emphasis is directed toward the commonly encountered diseases as well as presentation of the recent advances in gynecology.

Among the subjects covered in discussion are the diagnosis and treatment of abnormal uterine bleeding, gonorrhea, and postabortal infection, radium and X-ray in gynecology, newer concepts in the management of carcinoma of the cervix and fundus of the uterus (including reference to the vaginal smear as a method of diagnosis), and sterility in the female. Time is devoted to a study of the endopelvic fascia in relation to prolapse and its surgical treatment. The clinical management of tumors of the uterus and ovary are reviewed. Finally, there are demonstrations of the common procedures in office gynecology.

Ward rounds emphasize differential diagnosis and problems in the preoperative and postoperative care of the patient. A clinical pathological conference is held weekly and includes case teaching, differential diagnosis, and pathology in relation to the clinical picture.

The course is given at Beth Israel Hospital under the direction of Dr. Henry C. Falk. Maximum class 6. Tuition $250.00.

This course is repeated as 734-B (dates to be announced).

scopy, vaginal and endometrial cytology, and gynecological endocrinology.

Given under the direction of Professor Emeritus Walter T. Dannreuther. Maximum class 6. Tuition $150.00.

This course is repeated as 561-B, April 13 through May 9, 1953.

562-A. GYNECOLOGY: DIAGNOSIS AND OFFICE TREATMENT

A part-time course of ten sessions, 10 a.m. to 12 m., Mondays, Wednesdays, and Fridays, October 27 through November 17, 1952.

Given under the direction of Dr. Matthew Di Giorgi. Maximum class 6. Tuition $50.00.

This course is repeated as 562-B, February 23 through March 16, 1953.

563-A. GYNECOLOGY: DIAGNOSIS AND OFFICE TREATMENT

A part-time course of fifteen sessions, 2 to 4 p.m., Mondays, Wednesdays, and Fridays, September 15 through October 17, 1952.

Given under the direction of Dr. Mortimer N. Hyams. Maximum class 6. Tuition $75.00.

This course is repeated as 563-B, March 23 through April 24, 1953.

Both of the above courses are presented by demonstrations, lantern slides, and practical application. Opportunity is given to examine a large number of patients and to develop diagnostic ability. Course 563 also includes electrotherapy as it applies to gynecology, methods of conization of the uterine cervix, uterosalpingography, sterilization by coagulation of the uterine cornu, and transuterine insufflation.

564-A. INFERTILITY

A three-day, full-time course given jointly by the department of urology and the department of obstetrics and gynecology, December 8 through 10, 1952. Problems of sterility are presented as related to both husband and wife. Methods of diagnosis and treatment are presented by lectures, outpatient demonstrations, and laboratory techniques.

Tuition $40.00.

566-A. CYSTOSCOPY AND ENDOSCOPY

A part-time course of fifteen sessions, 10 a.m. to 12 m., Mondays, Wednesdays, and Fridays, September 15 through October 17, 1952.

Essentially practical and includes the following subjects: review of anatomy of the urinary tract, technique of cystoscopy and endoscopy, use of water dilatation cystoscope, examination of bladder for various pathological conditions, ureteral catheterization and passage of bougie, irrigation of renal pelvis, pyelography and intravenous urography, examination and treatment of urethra with both air and water dilatation, fulguration of bladder growths, and indigocarmin and phenolsulphonphthalein tests.

Given under the direction of Dr. Samuel Schmerzler. Maximum class 6. Tuition $75.00.

This course is repeated as 566-B, March 23 through April 24, 1953.

567-A. GYNECOLOGICAL ENDOCRINOLOGY

A part-time course of twenty-four sessions, 10 a.m. to 12 m., Tuesdays, Thursdays, and Saturdays, October 7 through December 6, 1952. Consists of the relation of the endocrine glands and their hormones to physical development, menstrual derangements, sterility, and menopausal disturbances; the clinical application of organotherapy. An adequate knowledge of biological chemistry, histopathology, and the physiology of the female pelvic organs is required for admission to this course because laboratory procedures are correlated with the daily clinical work. Applicants are admitted only after an interview with the instructor in charge. This class is invited to attend Dr. Mackenzie's lecture on vaginal smears, Tuesdays.

Given under the direction of Dr. Theodore Neustaedter. Maximum class 4. Tuition $125.00.

This course is repeated as 567-B, April 14 through June 6, 1953.

568-A. VAGINAL CYTOLOGY (FOR SPECIALISTS)

A part-time course of sixteen sessions, 12 m. to 1 p.m., Tuesdays, and 9 a.m. to 12 m., Thursdays, October 7 through December 4, 1952. Consists of lectures and laboratory periods dealing with the technique of taking, preparing, and examining vaginal smears. Subjects of study include the normal vaginal cells, changes observed during the menstrual cycle, the amenorrheas, pregnancy, the menopause, and other physiological and pathological gynecological conditions, as well as the diagnosis of malignancy of the genital tract.

Given under the direction of Dr. E. Lawrence Hecht. Maximum class 6. Tuition $100.00.

This course is repeated as 568-B, April 14 through June 4, 1953.

569-A. SURGICAL ANATOMY AS APPLIED TO GYNECOLOGY: CADAVER

A part-time course of twelve sessions, 11 a.m. to 12:30 p.m., Tuesdays, Thursdays, and Saturdays, October 14 through November 11, 1952, consisting of the surgical anatomy of the following operations considered in detail, illustrated by lantern slides and blackboard drawings, as well as by dissection:

1. Anterior vaginal wall
   - *a)* Relaxed bladder sphincter
   - *b)* Vesicovaginal fistula
   - *c)* Repair of cystocele
2. Postvaginal wall
   - *a)* Simple perineorrhaphy
   - *b)* Perineorrhaphy with torn anal sphincter
   - *c)* Postcolpotomy
3. Diagnostic curettage with insertion of intrauterine pessary
4. Repair of lacerated cervix
5. Operations for retro-displaced uterus (choice of technique)
6. Operations on broad ligaments, tubes, and ovaries
7. Choice of a complete or supracervical hysterectomy
8. Operations for gynecological ureteral injuries
9. Repair of gynecological intestinal injuries
10. Bladder and sigmoid
11. Hemorroidectomy

Restricted to surgeons.

Given under the direction of Dr. Salvatore di Palma. Maximum class 6. Tuition $175.00.

This course is repeated as 569-B, February 24 through March 21, 1953.

734-A. GYNECOLOGY (FOR SPECIALISTS)

Covers a sixteen-week period, September 2 through December 19, 1952. The matriculant's time is fully occupied from 8:30 a.m. to 12 m., Mondays through Fridays, and from 1:30 to 4 p.m. on Wednesdays. Sessions are assigned to ward rounds, lectures, and clinical and laboratory demonstrations. Throughout the course, emphasis is directed toward the commonly encountered diseases as well as presentation of the recent advances in gynecology.

Among the subjects covered in discussion are the diagnosis and treatment of abnormal uterine bleeding, gonorrhea, and postabortal infection, radium and X-ray in gynecology, newer concepts in the management of carcinoma of the cervix and fundus of the uterus (including reference to the vaginal smear as a method of diagnosis), and sterility in the female. Time is devoted to a study of the endopelvic fascia in relation to prolapse and its surgical treatment. The clinical management of tumors of the uterus and ovary are reviewed. Finally, there are demonstrations of the common procedures in office gynecology.

Ward rounds emphasize differential diagnosis and problems in the preoperative and postoperative care of the patient. A clinical pathological conference is held weekly and includes case teaching, differential diagnosis, and pathology in relation to the clinical picture.

The course is given at Beth Israel Hospital under the direction of Dr. Henry C. Falk. Maximum class 6. Tuition $250.00.

This course is repeated as 734-B (dates to be announced).

OPHTHALMOLOGY

A. Gerard DeVoe, A.B., M.D., MED.SC.D., *Professor and Chairman of the Department*
Rudolf Aebli, A.B., M.D., *Professor of Clinical Ophthalmology*
Conrad Berens, M.D., *Professor of Clinical Ophthalmology*
George N. Wise, B.S., M.D., MED.SC.D., *Assistant Professor*
Girolamo Bonaccolto, M.D. [ROME], *Clinical Professor*
Truman L. Boyes, M.D. [TORONTO], *Clinical Professor*
Harold W. Brown, B.S., M.D., *Clinical Professor*
W. Guernsey Frey, Jr., A.B., M.D., *Clinical Professor*
Wendell L. Hughes, M.D. [WESTERN ONTARIO], *Clinical Professor*
Raymond E. Meek, B.S.(MED.), M.D., *Clinical Professor*
R. Townley Paton, B.S., M.D., *Clinical Professor*
Brittain F. Payne, A.B., M.D., *Clinical Professor*
James W. Smith, M.D., *Clinical Professor*
Ervin A. Tusak, M.D. [GERMAN UNIV., PRAGUE], *Clinical Professor*
Walter S. Atkinson, M.D.,C.M. [MC GILL], *Associate Clinical Professor*
Isadore Givner, B.S.(MED.), M.D., *Associate Clinical Professor*
Alfred Kestenbaum, M.D. [VIENNA], *Associate Clinical Professor*
Domenico Cappetta, M.D. [FLORENCE], *Assistant Clinical Professor*
Max Chamlin, A.B., M.D., *Assistant Clinical Professor*
Gerald E. Fonda, B.S., M.D., *Assistant Clinical Professor*
Sidney A. Fox, A.B., M.D., M.S.(OPHTHAL.), *Assistant Clinical Professor*
Bernard Fread, B.S., M.D., *Assistant Clinical Professor*
James M. Houlahan, A.B., M.D., *Assistant Clinical Professor*
Abraham L. Kornzweig, A.B., M.D., *Assistant Clinical Professor*
Arthur Linksz, M.D. [KIEL], MED.SC.D. [PECS], *Assistant Clinical Professor*
Hunter H. Romaine, M.D., *Assistant Clinical Professor*
Anthony A. Scimeca, M.D., *Assistant Clinical Professor*
Byron C. Smith, B.S., M.D., *Assistant Clinical Professor*
Frederick H. Theodore, A.B., M.D., *Assistant Clinical Professor*
Goodwin M. Breinin, B.S., A.M., M.D., *Instructor*
J. Gordon Cole, B.S., M.B., M.D., *Instructor*
Frank H. Constantine, A.B., M.D., *Instructor*
William L. Donnelly, M.D., *Instructor*
A. Marvin Gillman, A.B., M.S.(PUB.HEALTH), M.D., *Instructor*
Louis J. Girard, A.B., M.D., *Instructor*
Bernard Kronenberg, B.S., M.D. [BERN], *Instructor*
Joseph H. Krug, A.B., M.D., *Instructor*
Walter J. Maher, M.D., *Instructor*
Alfred Weintraub, M.D. [VIENNA], *Instructor*
Leon M. Weiss, B.S., M.D., *Instructor*
Joshua Zuckerman, B.S., M.D.,C.M. [MCGILL], *Instructor*
Irwin J. Cohen, A.B., M.D., *Clinical Instructor*
William J. Garvin, *Clinical Instructor*
Richard W. Greene, M.D., *Clinical Instructor*
Gerald B. Kara, A.B., M.D., *Clinical Instructor*
Francis C. Keil, Jr., A.B., M.D., MED.SC.D., *Clinical Instructor*
Jesse W. Overton, B.S., M.D., *Clinical Instructor*
Bernard A. Roberts, B.S., M.D., *Clinical Instructor*
Chih Chiang Teng, M.D. [SHANGHAI], *Clinical Instructor*
Bernard M. Teschner, A.B., M.D., *Clinical Instructor*
Howard K. Weisberg, M.D., *Clinical Instructor*
Helena Fedukowicz, PHYSICIAN [JEKATERINOSLAW], *Fellow*

576-A. OPHTHALMOLOGY (GRADUATE COURSE)

A nine months' course, September 29, 1952, through June 19, 1953, in the basic sciences as applied to ophthalmology, the successful completion of which is to be followed by a residency in a hospital approved by the school.

Given under the direction of Professor A. Gerard DeVoe. Tuition $700.00.

571-A. MOTOR ANOMALIES OF THE EYE (Part I) (FOR SPECIALISTS)

A full-time course of six days' duration, March 9 through 14, 1953. The course is made as practical as possible, and the relation of the muscle balance to refraction is always considered in the prescribing of glasses. Anatomy of the ocular muscles, nerve supply, action of individual muscles, anomalies of associated movements, anomalies of convergence, of divergence, and of sursumvergence. Case demonstrations follow the lectures.

Given under the direction of Dr. Harold W. Brown. Tuition $90.00.

572-A. MOTOR ANOMALIES OF THE EYE (Part II) (FOR SPECIALISTS)

A full-time course of five days' duration, March 16 through 20, 1953. A continuation of 571-A, with drills in making tests and examination of patients for diagnosis. The question of treatment, both operative and nonoperative, and the use and limitations of each are considered. Open only to those who have taken 571-A.

A set or box of prisms is required and must be furnished by the student.

Given under the direction of Dr. Harold W. Brown. Tuition $75.00.

573-A. OPHTHALMIC PLASTIC SURGERY (FOR SPECIALISTS)

A part-time course of five days' duration, 2 to 5 p.m., March 30 through April 3, 1953. This course covers the essentials of ophthalmic plastic surgery for the practicing ophthalmologist. Special emphasis is laid on the more common fundamental procedures peculiar to lid surgery. These include such minor surgery as tarsorrhaphy, canthoplasty, excision and repair of lid margin lesions as well as the usual classical procedures for the correction of ptosis, ectropion, entropion, socket lesions, etc. Instruction is by lecture and demonstration. The steps in the various techniques are systematically outlined and the choice of the suitable technique for various clinical conditions is considered.

Given under the direction of Dr. Sydney A. Fox. Tuition $75.00.

574-A. SURGERY OF THE EYE (FOR SPECIALISTS)

A full-time course of six days' duration, October 27 through November 1, 1952, consisting of lectures on cataract surgery, glaucoma surgery, ocular muscle surgery, ptosis surgery, surgical treatment of retinal detachment, corneal transplantation, and plastic surgery of the eye. Practical work on technique of eye operations on the cadaver. Operative clinics at the University Hospital, Bellevue Hospital, and Lenox Hill Hospital.

Given under the direction of Dr. Rudolf Aebli. Maximum class 11. Tuition $100.00.

This course is repeated as 574-B, March 23 through 28, 1953.

575-A. DIFFERENTIAL DIAGNOSIS WITH THE SLIT LAMP (FOR SPECIALISTS)

A part-time course of five days' duration, 9 a.m. to 1 p.m., November 10 through 14, 1952, consisting of differential diagnosis of diseases of the anterior segment of the eyeball and of the different mediums of the eye. Includes a thorough demonstration of the principles of illumination by means of the slit lamp. The important elementary lesions of the conjunctiva, cornea, iris, lens, and vitreous are analyzed and illustrated by means of slides and presentation of cases. The differential diagnosis of pathological lesions of these structures is stressed.

Given under the direction of Dr. Girolamo Bonaccolto. Maximum class 12. Tuition $75.00.

This course is repeated as 575-B, February 23 through 27, 1953.

577-A. EXTERNAL DISEASES OF THE EYE (FOR SPECIALISTS)

A part-time course of five days' duration, 2 to 5 p.m., November 3 through 7, 1952. Consists of clinical differential diagnosis of types of conjunctivitis. Office procedures are demonstrated as an aid in differential diagnosis. The clinical types of bacterial, virus, and allergic inflammations of the outer eye are presented with lectures, photographs, and clinical demonstrations.

Given under the direction of Dr. Frederick Theodore. Tuition $75.00.

578-A. OCULAR EXPRESSIONS OF SYSTEMIC DISEASE

A part-time course, five days, 2 to 5 p.m., November 10 through 14, 1952. Covers clinical and pathological changes associated with diabetes, hypertension, nephritis, thyroid dysfunction, blood dyscrasias, and optic-nerve diseases. Some associated eye and skin evidences of systemic diseases are discussed. These include lupus erythematosus, dermatomyositis, sarcoid, brucellosis, and the phakomatoses.

Given under the direction of Dr. Isadore Givner. Tuition $50.00.

This course is repeated as 578-B, February 23 through 27, 1953.

579-A. NEURO-OPHTHALMOLOGY

A part-time course of five days' duration, 9 a.m. to 12 m., July 14 through 18, 1952. Consists of a review of the anatomy of the nerve fibers, instrumental and noninstrumental perimetry, classification and significance of field defects, optic atrophy, chiasmal syndromes, and pupillary reactions. Discussion of the types of nuclear and peripheral abducenspalsy, diverse forms of gaze palsy (supranuclear palsy), nystagmus, vertigo, and convergence disturbances. A short review of cerebro-ocular diseases and functional disturbances of the eye is given.

Given under the direction of Dr. Alfred Kestenbaum. Tuition $50.00.

This course is repeated as 579-B, January 19 through 23, 1953.

5710-A. PERIMETRY

A part-time course of five days' duration, 2 to 5 p.m., July 14 through 18, 1952. An intensive review of methods in the practical use of the perimeter and tangent screen. Emphasis is laid on the detection of minimal defects in the visual fields produced by early

lesions, both ocular and intracranial. The differential diagnosis of papilledema, optic neuritis, and various congenital and developmental anomalies of the disc are considered, making use of the tangent screen.

Typical field defects produced by classical intracranial lesions, especially tumors, are demonstrated. Their interpretive value in relation to site of lesion, localizing or lateralizing value, and other clinical interpretations is covered. Methods of recording findings and transposing them to the chart are reviewed. Further attention is paid to the quality of defective fields and methods of recording such qualities. Emphasis is placed on the follow-up of visual fields in brain tumor cases being treated with radiotherapy.

Given under the direction of Dr. Max Chamlin. Tuition $50.00.

This course is repeated as 5710-B, January 19 through 23, 1953.

5711-A. OPHTHALMOSCOPY

A part-time course of five days' duration, 9 a.m. to 12 m., July 21 through 25, 1952. A study of ophthalmoscopic diseases of the vitreous, retina, choroid, and optic nerve. Congenital anomalies and traumatic fundus changes. Manifestations of general diseases in the eye grounds. Ophthalmoscopic case presentations. Students are required to bring their own ophthalmoscopes.

Given under the direction of Dr. George N. Wise. Tuition $50.00.

This course is repeated as 5711-B, January 26 through 30, 1953.

5713-A. OCULAR THERAPEUTICS

A part-time course of five days' duration, 1 to 4 p.m., July 21 through 25, 1952, which reviews current methods of therapy in ocular diseases. Although emphasis is placed on medical treatment, indication for surgical intervention is also discussed. Particular attention is directed to the antibiotics, adrenocorticotropic hormones, and the newer antiglaucomatous drugs.

Given under the direction of Dr. A. Gerard DeVoe. Tuition $50.00.

This course is repeated as 5713-B, January 26 through 30, 1953.

5714-A. HISTOPATHOLOGY

A part-time course of six days' duration, 1 to 4 p.m., September 22 through 27, 1952. Consists of lectures, demonstrations, and microscopic study of intraocular inflammations, pyogenic, nonspecific, specific granulomas, tumors of the eye and adnexae, pathology of glaucoma, pathology of trauma and complications following intraocular surgery, pathology of the eye in systemic disease states. All this to be introduced with a lecture on general principles of ophthalmic pathology and a system for reading ophthalmic pathology slides.

Given under the direction of Dr. A. Marvin Gillman. Tuition $100.00.

Practical Instruction in Ophthalmology

ORTHOPEDIC SURGERY

Walter A. L. Thompson, M.D., *Professor and Chairman of the Department*
George Anapol, M.D., *Professor of Clinical Orthopedic Surgery*
John C. McCauley, Jr., B.S., M.D., *Associate Professor*
M. Beckett Howorth, B.S., M.D., MED.SC.D., *Clinical Professor*
William H. Irish, M.D., *Clinical Professor*
Ernst W. Bergmann, M.D. [ERLANGEN], *Associate Clinical Professor*
William A. Walker, A.B., M.D., *Associate Clinical Professor*
Joseph Buchman, B.S., M.D., *Assistant Clinical Professor*
Alvin Hulnick, A.B., M.D., *Assistant Clinical Professor*
Samuel H. Nickerson, B.S., M.D.,C.M. [MCGILL], *Assistant Clinical Professor*
Antonio J. Pisani, B.S., M.D., *Assistant Clinical Professor*
Robert L. Preston, B.S., M.D., *Assistant Clinical Professor*
Mario E. Stella, B.S., M.D., *Assistant Clinical Professor*
David M. Bosworth, A.B., M.D., *Lecturer*
George D. Appold, B.S., M.D., *Instructor*
Alvin M. Arkin, B.S., M.D., M.S., *Instructor*
Arthur I. Blieden, B.S., M.B., M.D., *Instructor*
Irving V. Glick, A.B., M.D., *Instructor*
Constantine L. Jeannopoulos, A.B., M.D. [ROME], *Instructor*
Albert J. Schein, B.S., M.D., *Instructor*
John P. Stump, A.B., M.D., *Instructor*
Harry Weiner, M.D., *Instructor*
H. Leslie Wenger, B.S.(MED.), M.D., *Instructor*
Edward J. Haboush, B.S.(MED.), M.D., *Instructor in Clinical Orthopedic Surgery*
Albert B. Accettola, B.S., M.D., *Assistant*
Emanuel Blumenfeld, B.S., M.D., *Assistant*
Maccabae Boorstein, B.S., M.D., *Assistant*
Robert M. Richman, A.B., M.D., *Assistant*
John T. Croft, M.D., *Assistant in Clinical Orthopedic Surgery*

Postgraduate courses of varying duration may be undertaken by special arrangement on a prorata basis of $100.00 per month, full time.

581-A. BASIC SCIENCES AS RELATED TO ORTHOPEDIC SURGERY (GRADUATE COURSE)

A full-time course of six months' duration, January 5 through June 19, 1953, for orthopedic surgeons who intend to achieve American Board certification. The course includes anatomical dissection, pathology, physiology, biochemistry, microbiology, and pharmacology. The study of bone tumors is under the direction of Dr. Bradley L. Coley. Conferences correlating the basic sciences with clinical orthopedics are held under the direction of Dr. M. Beckett Howorth.

Given under the direction of Professor Walter A. L. Thompson. Maximum class 20. Tuition $450.00.

582-A. ORTHOPEDICS IN GENERAL PRACTICE

A full-time course of five days' duration, October 13 through 17, 1952. A review of orthopedic conditions encountered in general practice. Common errors made in the treatment of fractures is included. Instruction is given in Bellevue and University Hospitals by means of ward rounds and conferences and clinics. Extensive clinical material makes possible the presentation of the course by practical demonstrations.

Given under the direction of Professor Walter A. L. Thompson. Maximum class 20. Tuition $75.00.

This course is repeated as 582-B, June 15 through 19, 1953.

583-A. ANATOMY FOR ORTHOPEDIC SURGEONS

A full-time course of five days' duration, January 5 through 9, 1953, providing the students with the opportunity to personally dissect the extremities and the spine. The instruction is given by qualified orthopedic surgeons actively engaged in clinical work and particularly experienced in anatomy.

Given under the direction of Dr. Alvin Hulnick. Maximum class 20. Tuition $90.00.

Correlation of Diagnostic and Therapeutic Procedures in Children's Orthopedics

OTORHINOLARYNGOLOGY

John F. Daly, A.B., M.D., *Professor and Chairman of the Department*
James B. Shannon, M.D., *Professor of Clinical Otorhinolaryngology*
Joseph L. Goldman, A.B., M.D., *Associate Professor of Clinical Otorhinolaryngology*
William Wallace Morrison, M.D. [WESTERN ONTARIO], *Associate Professor of Clinical Otorhinolaryngology*
Paul S. Seager, A.B., M.D., *Associate Professor of Clinical Otorhinolaryngology*
John C. Cardona, A.B., M.D., *Assistant Professor of Clinical Otorhinolaryngology*
Daniel S. Cunning, M.D., *Clinical Professor*
Andrew A. Eggston, B.S., M.D., *Clinical Professor of Pathology (Otorhinolaryngology)*
J. Swift Hanley, A.B., M.D.,C.M. [QUEEN'S UNIV., KINGSTON], *Clinical Professor*
Girard F. Oberrender, B.S., M.D., *Clinical Professor*
Greydon G. Boyd, A.B., B.S., M.D., *Associate Clinical Professor*
Virginius B. Hirst, B.S., M.D., *Associate Clinical Professor*
Earl F. Limbach, A.B., M.D., *Associate Clinical Professor*
William B. Allan, B.S., M.D., *Assistant Clinical Professor*
Miles Atkinson, M.B.,B.S. [LONDON], *Assistant Clinical Professor*
Richard J. Bellucci, B.S., M.S., M.D., *Assistant Clinical Professor*
David Bernstein, B.S., M.D., *Assistant Clinical Professor*
John A. Cinelli, A.B., M.D. [ROME], *Assistant Clinical Professor*
Ward C. Denison, M.D., *Assistant Clinical Professor*
Charles W. Depping, M.D., *Assistant Clinical Professor*
David I. Frank, M.D., *Assistant Clinical Professor*
Leopold I. Glushak, M.B.,CH.B. [GLASGOW], *Assistant Clinical Professor*
Joseph H. Hersh, B.S., M.D., *Assistant Clinical Professor*
William J. Hochbaum, A.B., M.D., *Assistant Clinical Professor*
Alexander F. Laszlo, M.D. [BUDAPEST], *Assistant Clinical Professor*
Anthony Nigro, M.D., *Assistant Clinical Professor*
Max Rabbiner, B.S.(MED.), M.D., *Assistant Clinical Professor*
Max L. Som, B.S., M.D., *Assistant Clinical Professor*
Darrell G. Voorhees, B.S., M.D., *Assistant Clinical Professor*
Ernest A. Weymuller, B.S., M.D., *Assistant Clinical Professor*
Joseph E. Zbar, A.B., M.D.,C.M. [QUEEN'S UNIV., KINGSTON], *Assistant Clinical Professor*
Walter A. Petryshyn, A.B., M.D., *Instructor in Clinical Otolaryngology*
Murray Abrams, B.S., M.D., *Clinical Instructor*
Godfrey E. Arnold, M.D. [VIENNA], *Clinical Instructor*
Mark H. Barnes, A.B., M.D., *Clinical Instructor*
Louis F. Castaldo, B.S., M.D., *Clinical Instructor*
James V. Conway, A.B., M.D., *Clinical Instructor*
Rector T. Davol, A.B., M.D., *Clinical Instructor*
Louise Fischer, B.S., M.D., *Clinical Instructor*
Joseph Freeman, A.B., M.D., *Clinical Instructor*
Otto Gambacorta, A.B., M.D., *Clinical Instructor*
Edward S. Orzac, M.D., *Clinical Instructor*
Ralph Peimer, A.B., M.D., *Clinical Instructor*
Alan A. Scheer, M.D., *Clinical Instructor*
Francis S. Weinstein, B.S., M.D., *Clinical Instructor*
Joseph P. Connolly, B.S., M.D., *Clinical Assistant*
Samuel Eisenberg, B.S., M.D. [VIENNA], *Clinical Assistant*
Seymour Jacobson, A.B., M.D., *Clinical Assistant*
Saul C. Newman, B.S., M.D., *Clinical Assistant*
Frank J. Riccio, B.S., M.D. [ROME], *Clinical Assistant*
Morris M. Rossman, A.B., M.D. [ROME], *Clinical Assistant*
Francis Kwok, M.D. [ST. JOHN'S UNIV., SHANGHAI], *Fellow*

593-A. BASIC SCIENCES OF OTORHINOLARYNGOLOGY (GRADUATE COURSE)

A full-time course of nine months' duration, September 29, 1952, through June 19, 1953, designed particularly for those who intend to specialize in otorhinolaryngology and who will complete their training with a residency. Emphasis is placed on the basic sciences and the allied clinical subjects of otorhinolaryngology, such as allergy, neurology, diseases of the chest, bronchoscopy, and head and neck surgery. These are covered in detail in their relationship to problems of otorhinolaryngology. The course is planned to give the student a firm foundation in the basic sciences, the fundamentals of diagnosis, and a broad outlook on ear, nose, and throat problems that arise in other clinical fields.

Given under the direction of Professor John F. Daly. Tuition $700.00.

591-A. INTENSIVE COURSE IN BASIC SCIENCES

An intensive ten-day course in basic sciences—including embryology, anatomy, physiology, bacteriology, principles of operative surgery, and audiology—9 a.m. to 1 p.m., September 15 through 26, 1952.

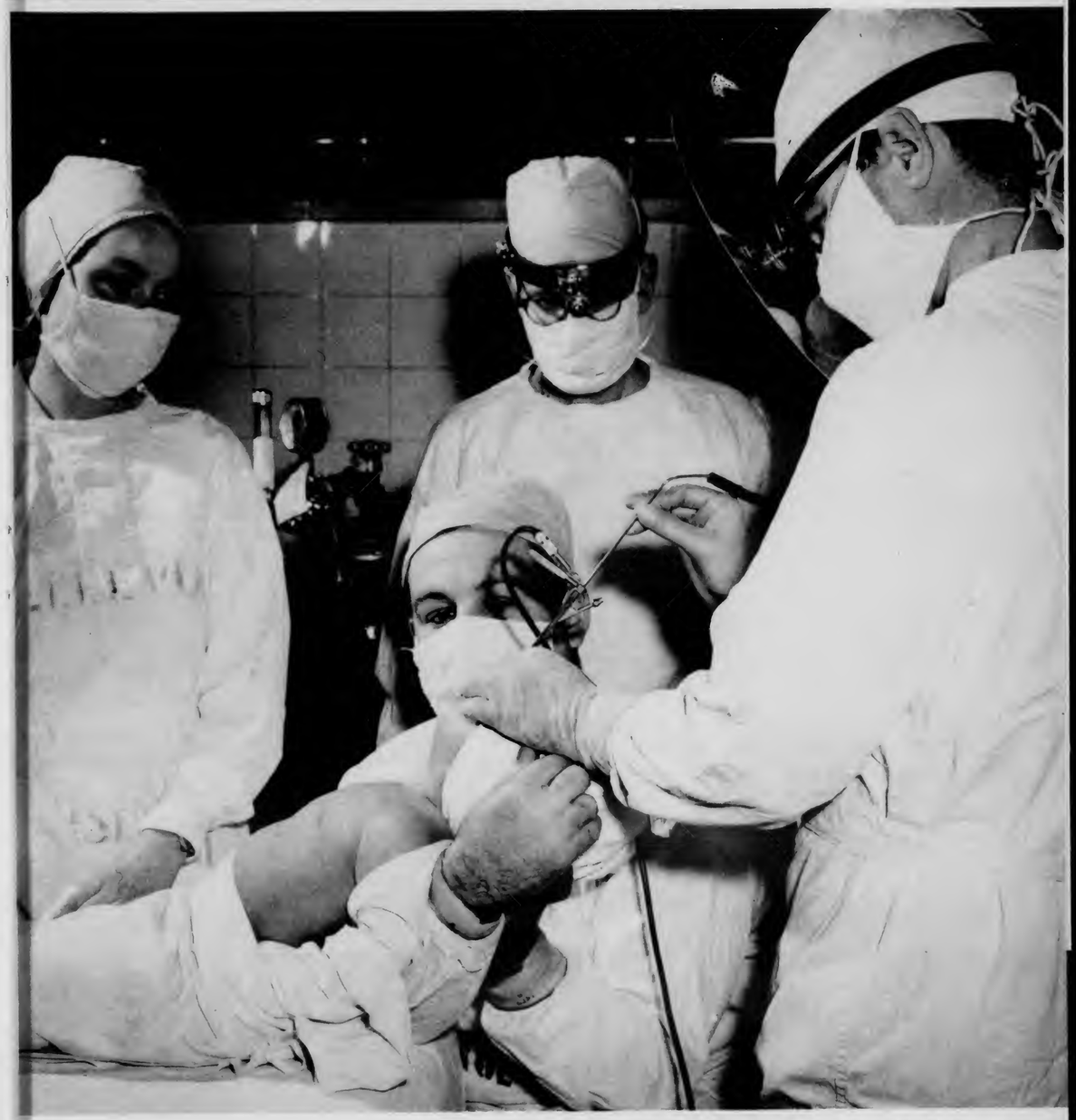
Given under the direction of Professor John F. Daly. Maximum class 12. Tuition $100.00.

This course will be repeated in the spring of 1953.

592-A. HISTOPATHOLOGY OF THE EAR, NOSE, AND THROAT

An intensive review of histology and the general and special pathology of the ear, nose, throat, and head and neck. Material is covered using microscopic slides, demonstrations, lectures, and specimens. The clinical course of the common pathological processes is discussed. Given for a ten-day period, 2 to 5 p.m.,

OTORHINOLARYNGOLOGY



Practical Instruction in the Use of the Bronchoscope

September 15 through 26, 1952.

Given under the direction of Dr. Andrew A. Eggston and staff. Maximum class 12. Tuition $100.00.

This course will be repeated in the spring of 1953.

594-A. ENDAURAL SURGERY

A full-time course of ten days' duration, November 10 through 21, 1952. The anatomy of the temporal bone is presented and the technique of endaural surgery is taught using cadaver material. The indications for temporal bone surgery are discussed in lectures and seminars.

Given under the direction of Professor John F. Daly. Maximum class 7. Tuition $150.00.

This course will be repeated as 594-B, February 9 through 20, 1953.

595-A. ADVANCED BRONCHOESOPHAGOLOGY AND LARYNGOLOGY

The presentation of recent advances in the management of diseases of the larynx, esophagus, and tracheobronchial tree. Current trends and new techniques are presented in seminars and demonstrations. Subjects covered include: suspension laryngoscopy, pediatric bronchoscopy, and voice and speech problems, as well as an intensive review of the diseases commonly seen by the endoscopist. A full-time course of five days' duration, January 19 through 23, 1953.

Given under the direction of Professor John F. Daly. Maximum class 12. Tuition $100.00.

596-A. ANATOMY OF THE HEAD, NECK, AND THORAX FOR OTOLARYNGOLOGISTS

A part-time six weeks' course giving complete anatomical dissection of the head and neck and thorax, supplemented with lectures, demonstrations, and discussion groups. Given 9 a.m. to 12 m., Mondays through Fridays, September 29 through November 7, 1952.

Given under the direction of Professor John F. Daly. Tuition $125.00.

597-A. NEUROANATOMY, NEUROPHYSIOLOGY, AND NEURO-OTOLOGY

A five-day course, full-time, November 3 through 7, 1952. The neuroanatomy of the cranial nerves and their principle pathways is presented. Physiology of vestibular apparatus—hearing, voice, and speech, plus their clinical application—is covered.

Given under the direction of Professor John F. Daly. Tuition $75.00.

598-A. PATHOLOGY OF THE HEAD AND NECK

This course of four weeks' duration is given 9 a.m. to 12 m., November 24 through December 19, 1952. It covers a complete review of general pathology and its application to ear, nose, and throat problems. Particular attention is given to normal histology of the nose, sinuses, upper digestive and respiratory tracts, and histopathology of the temporal bone. Considerable time is spent on pathology of tumors of the head and neck that fall within the realm of the specialty of otolaryngology. The students are given training in slide diagnosis with unknown material.

Given under the direction of Professor John F. Daly. Tuition $125.00.

599-A. ALLERGY FOR OTOLARYNGOLOGISTS

Principles and practical methods of treatment for allergic diseases of the upper respiratory tract are presented in lectures and clinical demonstrations. A five-day, full-time course, December 8 through 12, 1952.

Given under the direction of Professor John F. Daly and Dr. Will Cook Spain. Tuition $75.00.

5910-A. SURGERY OF THE HEAD AND NECK

The modern surgical procedures in the head and neck region covered in lectures and on the cadaver. Surgery of the nose, paranasal sinuses, oral cavity, and salivary glands. Basic procedures in neck surgery covering laryngectomy, laryngofissure, cysts of neck, arytenoidectomy, diverticulum, and neck dissection are included. A ten-day, full-time course, January 5 through 16, 1953.

Given under the direction of Professor John F. Daly. Maximum class 8. Tuition $200.00.

5911-A. ADVANCED SURGERY OF THE NECK

Principles of block dissections of the neck and its variations for the qualified laryngeal surgeon. Supraomohyoid, complete radical neck, bilateral and unilateral radical neck dissection in continuity with laryngectomy and pharyngectomy. A ten-day, full-time course, September 29 through October 10, 1952.

Given under the direction of Professor John F. Daly. Maximum class 4. Tuition $250.00.

PATHOLOGY

College of Medicine

William C. Von Glahn, B.S., M.D., *Professor and Chairman of the Department*
Maurice N. Richter, B.S., M.D., *Professor*
Sigmund L. Wilens, B.S., M.D., *Professor*
John W. Hall, B.S., M.D., *Associate Professor*
Lewis D. Stevenson, A.B., M.D.,C.M. [QUEEN'S UNIV., KINGSTON], *Associate Professor of Neuropathology*
Stanley Gross, B.S., M.D., *Assistant Professor*
Adolf Hochwald, M.D. [MASARYK UNIV.], *Assistant Professor*
Leon Sokoloff, A.B., M.D., *Assistant Professor*
William Antopol, B.S., M.D., *Clinical Professor*
Andrew A. Eggston, B.S., M.D., *Clinical Professor (Otorhinolaryngology)*
Maxwell J. Fein, M.D., *Clinical Professor*
Norman S. Cooper, A.B., M.D., *Instructor; Dean W. Horace Hoskins Fellow in Comparative Pathology*
Antonio Rottino, B.S., M.D., *Instructor*
Harry D. Bucalo, Jr., M.D., *Assistant*
Barbara S. Ferguson, A.B., M.D., *Assistant*
*Sidney Z. Gellman, M.D., *Assistant*
Ruth Gussen, A.B., M.D., *Assistant*
William J. Hutchins, B.S., M.S., M.D., *Assistant*
Robert T. McCluskey, A.B., M.D., *Assistant*
Gloria A. Rudisch, *Assistant*
Harry H. Stumpf, A.B., M.D., *Assistant*

*Leave of absence, military service.

441-A. GYNECOLOGICAL PATHOLOGY (FOR SPECIALISTS)

A part-time course of sixteen sessions, 11 a.m. to 1 p.m., Wednesdays, September 17 through December 31, 1952. Consists of a systematic review of the pathology of the more common gynecological conditions, presented by lectures, demonstrations, and microscopic study. The correlation of clinical and pathological features is emphasized. (442-A is a prerequisite for this course.)

Given under the direction of Dr. Maxwell J. Fein. Maximum class 16. Tuition $100.00.

This course is repeated as 441-B, 2:30 to 4:30 p.m., Tuesdays and Thursdays, January 20 through March 17, 1953.

442-A. SURGICAL PATHOLOGY (FOR SPECIALISTS)

A part-time course of thirty sessions, 2:30 to 4:30 p.m., Tuesdays and Thursdays, September 16 through January 13, 1953. Designed for surgeons and pathologists. Consists of the study of important pathological conditions with particular reference to those of interest in general surgery. Instruction is by lectures, demonstrations, and the study of gross and microscopic preparations. Material from the operating rooms of the University Hospital is available for demonstrations of gross specimens, and prepared slides illustrate microscopic changes. The pathological changes are correlated with clinical findings whenever possible.

Given under the direction of Dr. Maxwell J. Fein. Maximum class 16. Tuition $200.00.

This course is repeated as 442-B, March 17 through June 25, 1953.

443-A. PRINCIPLES OF PATHOLOGY

Review of principles of general pathology with study of the characteristic lesions found in various diseases. Conducted with lectures and demonstrations of gross material and histologic preparations. Especial emphasis on correlation of clinical and pathologic features. Twenty-four sessions, 1 to 4 p.m., Mondays and Wednesdays, September 29 through December 17, 1952. Given for students in the graduate courses, but open to others providing space permits.

Given under the direction of Professor William C. Von Glahn. Tuition $100.00.

444-A. SPECIAL PATHOLOGY FOR SURGEONS

Prerequisite: Course no. 443-A, Principles of Pathology. Presentation of material that is of interest to the general surgeon, consisting of gross specimens and histologic preparations with correlation of clinical and pathologic aspects. Twenty-four sessions, Thursdays, 1 to 4 p.m., January 8 through June 18, 1953.

Given under the direction of Professor William C. Von Glahn. Tuition $125.00.

Surgical Pathology Taught by Class Demonstration and Individual Observation

PEDIATRICS

Adolph G. DeSanctis, M.D., *Professor and Chairman of the Department*
Leslie O. Ashton, B.S., M.D., *Professor of Clinical Pediatrics*
Rosa Lee Nemir, A.B., M.D., *Associate Professor*
John Dorsey Craig, B.S., M.D., *Associate Professor of Clinical Pediatrics*
D. William Scotti, M.D., *Associate Professor of Clinical Pediatrics*
Beatrice Bergman, M.D., *Assistant Professor of Clinical Pediatrics*
Oliver L. Stringfield, B.S., M.D., *Assistant Professor of Clinical Pediatrics*
Julian Rogatz, M.D., *Associate Clinical Professor*
Frederick Castrovinci, A.B., A.M., M.D., *Assistant Clinical Professor*
Robert Chobot, A.B., M.D., *Assistant Clinical Professor*
Edward M. DiTolla, M.D., *Assistant Clinical Professor*
Daniel J. Dolan, A.B., M.D., *Assistant Clinical Professor*
Louis Hodes, B.S., M.D., A.M., *Assistant Clinical Professor*
Vincent de Paul Larkin, A.B., M.D., *Assistant Clinical Professor*
Martin M. Maliner, M.D., *Assistant Clinical Professor*
Benjamin Silberg, M.D., *Assistant Clinical Professor*
Irwin P. Sobel, A.B., M.D., *Assistant Clinical Professor*
Edward T. Wilkes, B.S., M.D., *Assistant Clinical Professor*
Oscar Bodansky, A.B., A.M., PH.D., M.D., *Lecturer*
*Robert J. Waldron, A.B., M.D., *Instructor*
Philip S. Chasin, B.S., M.D. [DUSSELDORF], *Instructor in Clinical Pediatrics*
Francis C. DeLorenzo, B.S., M.D., *Instructor in Clinical Pediatrics*
Joseph Di Leo, M.D. [BOLOGNA], *Instructor in Clinical Pediatrics*
Peter A. Perillo, A.B., M.D., *Instructor in Clinical Pediatrics*
George E. Pittinos, A.B., M.D., *Instructor in Clinical Pediatrics*
Joseph F. Raffetto, A.B., M.D., *Instructor in Clinical Pediatrics*
Alfred B. Amler, M.D. [LAUSANNE], *Clinical Instructor*
Sol D. Amsterdam, B.S., A.M., M.D. [LAUSANNE], *Clinical Instructor*
*Noah Barysh, B.S., M.D., *Clinical Instructor*
Nathan Cabot, B.S., M.D., *Clinical Instructor*
Marie L. Coté, A.B., M.D., *Clinical Instructor*
James Dick, A.B., M.D., *Clinical Instructor*
Harold S. Douglas, M.D., *Clinical Instructor*
Sol N. Keen, B.S., M.D., *Clinical Instructor*
Thomas F. X. Lenihan, A.B., M.D., *Clinical Instructor*
Harold R. Mancusi-Ungaro, A.B., M.D., *Clinical Instructor*
William P. Riley, B.S., M.D., *Clinical Instructor*
Flora F. Silberbush, M.D. [BASEL], *Clinical Instructor*
Pasquale A. Statile, B.S., M.D., *Clinical Instructor*
Harold D. Dundy, B.S., M.D., *Assistant*
James J. Farley, M.D., *Assistant*
Vincent J. Felitti, A.B.(MED.), M.D., *Assistant*
B. Winston Jarvis, B.S., M.D., *Assistant*
Chester H. Myron, A.B., M.D., *Assistant*
Italo Palmieri, M.D., *Assistant*
Frank A. Delaney, PH.B., A.M., *Clinical Assistant (Speech)*
Vincent J. Fiocco, B.S., M.D., *Clinical Assistant*
Bernard Greenberg, B.S., M.D., *Clinical Assistant*
Rafael R. Muniz, B.S., M.D., *Clinical Assistant*
A. Downey Osborn, B.S.; M.B.,CH.B. [EDINBURGH], *Clinical Assistant*
Lewis J. Schloss, A.B., M.D., *Clinical Assistant*
Lawrence M. Shapiro, A.B., M.D., *Clinical Assistant*
Brona Szuldberg, M.D. [WARSAW], *Clinical Assistant*
Martin Turkish, B.S., M.D., *Clinical Assistant*
Irving H. Uvitsky, M.D., *Clinical Assistant*
*Leave of absence.

6110-A. PEDIATRICS (GRADUATE COURSE)

A full-time course of nine or twelve months' duration, beginning September 22, 1952, covering not only experience in the care of infants and children but also lectures in the basic sciences, microbiology, chemistry, and physiology. Pediatric experience is obtained on the wards of the University Hospital as well as in Children's Medical Service, Bellevue, St. Vincent's, and Memorial Hospitals, and Irvington House for Cardiac Children, where, in addition to the usual pediatric problems, specialties such as tuberculosis, cardiology, allergy, tumors, care of the newborn, etc., may be studied. The well-baby clinic furnishes experience with the problems of infant feeding and immunization, and experience in the appraisal of growth and development is obtained in a developmental clinic. Opportunities are given to attend seminars, conferences, and lectures in the department, including those on child psychiatry. Extensive experience in the reading of X-rays in children is furnished and supervised by both clinicians and radiologists.

Given under the direction of Dr. Rosa Lee Nemir. Maximum class 12. Tuition $700.00.

611-A. CLINICAL PEDIATRICS

A ten-week, part-time course of thirty sessions, 9 a.m. to 1 p.m., Mondays, Wednesdays, and Fridays, November 3, 1952, through January 16, 1953, designed for the general practitioner or pediatrician who can devote only part of his time each week to refresher studies. Consists of didactic lectures, bedside

rounds, clinical conferences, case demonstrations, and active participation in the various specialty clinics. All basic pediatric problems are reviewed. Special emphasis is placed on normal development in infancy and childhood, infant care and feeding (including the premature), chemo- and antibiotic therapy, pediatric endocrinology, preventive pediatrics, pediatric X-ray diagnosis, and the management of acute and chronic illnesses.

Given under the direction of Professor Adolph G. DeSanctis. Tuition $125.00.

612-A. CLINICAL PEDIATRICS

A full-time course of four weeks' duration, October 6 through 31, 1952. A review of clinical pediatrics including ward rounds, clinical conferences, and case demonstrations in special clinics dealing with cardiology, allergy, endocrinology, chest diseases, and speech defects. Clinical lectures on neurological, orthopedic, urological, surgical, and otolaryngological conditions are given by specialists in these fields. Recent developments in antibiotic therapy, infant nutrition, and infectious and metabolic diseases are discussed. The practical application of these developments is stressed from the viewpoint of the general practitioner as well as the pediatrician. Active participation on the wards and in the clinics of the University Hospital is included in the program for each physician enrolled in this course. Each participating physician is assigned to examine patients on admission to the hospital, to perform diagnostic and therapeutic procedures as indicated, and to follow the progress of individual patients.

Given under the direction of Professor Adolph G. DeSanctis. Maximum class 16. Tuition $150.00.

613-A. PEDIATRIC REFRESHER COURSE

A full-time course of two weeks' duration, January 19 through 31, 1953. A variety of common pediatric problems are presented in clinical lectures and conferences. Specialists in the various phases of pediatrics conduct ward rounds and present interesting cases. Recent developments are presented along with basic considerations.

Given under the direction of Professor Adolph G. DeSanctis. Tuition $100.00.

614-A. REVIEW OF CLINICAL PEDIATRICS

A full-time course of six days' duration, September 8 through 13, 1952, consisting of a review of the practical problems encountered in pediatric practice. Clinical lectures, conferences, ward rounds, and case demonstrations are given by specialists in the various phases of pediatrics. Special emphasis is placed on infant feeding, preventive pediatrics, chemotherapy, cardiology, and care of the premature infant.

Given under the direction of Professor Adolph G. DeSanctis. Maximum class 40. Tuition $50.00.

This course is repeated as 614-B, March 9 through 14, 1953.

615-A. PRACTICAL PEDIATRIC ENDOCRINOLOGY

A part-time course of ten sessions, 10 a.m. to 12 m., Thursdays, April 2 through June 4, 1953, in the basic principles and clinical applications of the most recent advances in pediatric endocrinology. Consists of didactic lectures, case demonstrations, and conferences. Patients are presented and, whenever necessary, additional material is presented in detail with the use of lantern slides and photographs. In each instance the practical aspects of pediatric endocrinology are stressed. An organized system of diagnosis and management is offered. Designed for pediatricians but, enrollment permitting, is available to general practitioners.

Given under the direction of Dr. Beatrice Bergman. Tuition $50.00.

616-A. PEDIATRIC ALLERGY

A part-time course of ten sessions, 9:30 a.m. to 12:30 p.m., Tuesdays, April 7 through June 9, 1953. Consists of didactic lectures, case demonstrations, clinical conferences, and active participation in the Pediatric Allergy Clinic of the University Hospital. All problems commonly encountered in allergic children are discussed in detail. Special emphasis is placed on the management of hay fever, eczema, asthma, gastrointestinal allergies, practical experience with skin testing and other diagnostic techniques, drug allergies, and the use of the new antihistaminic preparations. Designed for pediatricians but, enrollment permitting, is available to general practitioners.

Given under the direction of Dr. Robert Chobot. Tuition $60.00.

617-A. COMMUNICABLE DISEASES

An intensive full-time course of five days' duration, January 12 through 16, 1953, in the basic and practical aspects of the common communicable diseases. The problems encountered are discussed by outstanding authorities in lectures, and the participating physician actively engages in the examination of patients at the Willard Parker Hospital for Contagious Diseases. Basic diagnostic and therapeutic principles are em-

phasized. A summary of present aspects of tuberculosis as it is encountered in children is also included.

Given under the direction of Dr. John Dorsey Craig. Tuition $50.00.

618-A. PEDIATRIC CARDIOLOGY

A full-time course of five days' duration, September 15 through 19, 1952. Offers an intensive review of the most recent advances in pediatric cardiology including rheumatic fever, rheumatic heart disease, and congenital heart disease. The various diagnostic procedures are included, such as electrocardiography, fluoroscopy, cardiac visualization, and venous catheterization. An attempt is made to present the most practical and most modern means of treating the various cardiac problems as they arise.

Given under the direction of Dr. Martin M. Maliner. Maximum class 30. Tuition $50.00.

619-A. PEDIATRIC CARDIOLOGY

A part-time course of ten sessions, Wednesdays, 9 a.m. to 12 m., April 1 through June 3, 1953. Consists of didactic lectures, case demonstrations and conferences, and active participation in the Pediatric Cardiac Clinic of the University Hospital. Special emphasis is placed on the basic considerations of pediatric cardiology. Among the numerous topics considered are rheumatic fever, congenital heart disorders, fluoroscopic and X-ray examination of the normal and pathological heart (including cardiac visualization with contrast mediums and venous catheterization), normal and abnormal electrocardiograms, acute infections as related to pediatric cardiology, surgical correction of congenital anomalies, anesthesia in cardiac children, and the newer drugs used in the therapy of cardiac disorders. Ample opportunity is offered to study actual cases in the Pediatric Cardiac Clinic. Diagnosis and surgical treatment of congenital cardiac disease is included. Designed for pediatricians but, enrollment permitting, is available to general practitioners.

Given under the direction of Dr. Martin M. Maliner. Tuition $60.00.

Care of the Premature Infant

PHARMACOLOGY

College of Medicine

Severo Ochoa, M.D. [MADRID], *Professor and Chairman of the Department*
Otto Loewi, M.D. [STRASBOURG], SC.D.(HON.), *Research Professor*
Richard C. de Bodo, M.D. [BUDAPEST], *Associate Professor*
Seymour Korkes, M.D., *Assistant Professor*
Sarah Ratner, A.B., A.M., PH.D., *Assistant Professor*
Seymour Kaufman, B.S., M.S., PH.D., *Instructor*
Joseph R. Stern, A.B., A.M., M.D. [TORONTO], *Instructor*
Minor J. Coon, A.B., PH.D., *Fellow*
Osvaldo Cori, MED. CIR. [CHILE], *Fellow*
Issac Harary, A.B. [WESTERN ONTARIO], *Fellow*
Saul R. Korey, M.D., *Fellow*
Nathan Lane, A.B., M.D., *Fellow*
Dorothy Newmeyer, B.S., M.S., PH.D., *Fellow*
Marvin W. Sinkoff, A.B., M.D., *Fellow*
Harold J. Strecker, B.S., PH.D., *Fellow*
Wolf Vishniac, A.B., M.S., PH.D., *Fellow*
Israel Zelitch, B.S., M.S., PH.D., *Fellow*

The members of the department take part in the basic science instruction in the courses offered by the clinical departments.

Modern Clinical Investigation

PHYSICAL MEDICINE AND REHABILITATION

College of Medicine

Howard A. Rusk, A.B., M.D., SC.D.(HON.), LL.D., *Professor and Chairman of the Department*
George G. Deaver, B.P.E., M.D., *Professor of Clinical Rehabilitation*
Donald A. Covalt, B.S., M.D., *Associate Professor of Rehabilitation*
Hans Kraus, M.D. [VIENNA], *Associate Professor of Clinical Physical Medicine and Rehabilitation*
Joseph Moldaver, M.D., *Associate Professor of Clinical Physical Medicine and Rehabilitation*
Edward W. Lowman, B.S., M.D., M.S.(MED.), *Assistant Professor*
Allen S. Russek, A.B., L.R.C.P.S. [EDINBURGH, GLASGOW], *Assistant Professor*
Joseph G. Benton, A.B., M.S., PH.D., M.D., *Adjunct Assistant Professor*
Michael M. Dacso, M.D. [BUDAPEST], *Assistant Professor of Clinical Physical Medicine and Rehabilitation*
Edward E. Gordon, A.B., M.D., *Assistant Professor of Clinical Physical Medicine and Rehabilitation*
Bruce B. Grynbaum, M.D., *Assistant Professor of Clinical Physical Medicine and Rehabilitation*
Eugene J. Taylor, B.S.(EDUC.), A.M., *Assistant Professor of Clinical Physical Medicine and Rehabilitation*
Samuel E. Bilik, M.D., *Associate Clinical Professor*
John D. Currence, B.S., M.D., *Associate Clinical Professor*
Arthur S. Abramson, B.S., M.D.,C.M. [MCGILL], *Assistant Clinical Professor*
Harold Brandaleone, B.S., M.D., MED.SC.D., *Assistant Clinical Professor of Medicine (Assigned to Rehabilitation)*
Leo Dobrin, A.B., M.D., *Instructor*
Dominic A. Donio, B.S., M.D., *Instructor*
Vera S. Emanuel, A.B. [SOUTH AFRICA], M.D.,CH.B. [WITWATERSRAND], *Instructor in Pediatrics (Assigned to Physical Medicine and Rehabilitation)*
Gerald J. Friedman, B.S., M.D., *Instructor*
Irving M. Friedman, A.B., M.S., *Instructor*
Morris Grayson, B.S.; M.D. [LAUSANNE], *Instructor in Psychiatry (Assigned to Physical Medicine and Rehabilitation)*
Edith L. Kristeller, M.D., *Instructor*
Edward J. Lorenze, M.D., *Instructor*
Morton Marks, A.B., M.D., *Instructor in Neurology (Assigned to Physical Medicine and Rehabilitation)*
Michael Miller, B.S., M.D., *Instructor*
Eugene Moskowitz, B.S.; M.D. [BASEL], *Instructor*
Herbert F. Mulholland, B.S., M.D., *Instructor*
Seymour H. Rinzler, A.B., M.D., *Instructor*
Samuel S. Sverdlik, B.S., M.D., *Instructor*
Henry Viscardi, Jr., B.S., LL.B., *Instructor*
Lawrence H. Wisham, B.S., M.D., *Instructor*
William Woolner, A.B., M.D., *Instructor*
Joseph Levi, B.S., A.M., PH.D., *Clinical Instructor in Medical Psychology (Assigned to Physical Medicine and Rehabilitation)*
Henry Brown, B.S., M.D., *Assistant*
Klaas Smidt, M.D. [LEIDEN], *Assistant*
Muriel R. Benton, A.B., M.D., *Clinical Assistant in Psychiatry (Assigned to Physical Medicine and Rehabilitation)*
Stanley Berenstein, B.S., M.D., *Fellow*
Anthony L. Brittis, A.B., M.D., *Fellow*
Karl E. Carlson, A.B., M.D., *Fellow*
A. Bernice Clark, A.B., M.D., *Fellow*
Anna Kara, M.D. [MONTREAL], *Fellow*
Philip R. Lee, A.B., M.D., *Fellow*
Judith Rosenschein, A.B., M.D., *Fellow*

738-A. PHYSICAL MEDICINE AND REHABILITATION (GRADUATE COURSE)

A nine-month, full-time course, September 29, 1952, through June 19, 1953. Didactic and practical instruction in the evaluation and treatment of physical disabilities by physical, psychosocial, and vocational-rehabilitation procedures, the uses of the physical modalities, and the therapy of the "third phase" of medical care. The clinical aspects of rehabilitation and physical medicine as they relate to internal medicine, surgery, and other specialties are presented in didactic lectures, seminars, and clinical demonstrations.

Given at Bellevue Hospital, University Hospital, and at the Institute of Physical Medicine and Rehabilitation under the direction of Professor Howard A. Rusk. This course is repeated as 738-B, January 12 through October 10, 1953. Tuition $700.00.

739-A. PHYSICAL MEDICINE AND REHABILITATION

A twelve- or twenty-four-week course at Bellevue Hospital, University Hospital, and the Institute of Physical Medicine and Rehabilitation. Arranged by interview.

Given under the direction of Professor Howard A. Rusk and staff. Tuition $200.00 for twelve weeks; $400.00 for twenty-four weeks.

7310-A. PHYSICAL MEDICINE AND REHABILITATION

A four-week, full-time course for specialists in physical medicine and rehabilitation, September 22 through October 17, 1952. Includes advanced methods of diagnosis, evaluation, practical training methods, and program planning in hospital practice.

Given under the direction of Professor Howard A. Rusk and staff.

This course is repeated as 7310-B, January 12 through February 6, 1953. Fee $100.00.

7311-A. PHYSICAL MEDICINE AND REHABILITATION

An intensive ten-day course for specialists in physical medicine and rehabilitation, July 14 through 25, 1952. Includes methods for evaluation and practical training of patients with physical disabilities.

Given under the direction of Professor Howard A. Rusk and staff. Tuition $75.00.

7312-A. SEMINAR ON THE REHABILITATION OF CHILDREN

An intensive full-time, five-day course, October 20 through 24, 1952, for general practitioners and pediatricians. Designed to give a picture, through lectures, demonstrations, clinics, and conferences, of the organization, administration, integration, equipment, theory, and practice of a pediatric rehabilitation service.

Given under the direction of Professor Howard A. Rusk and staff. Tuition $40.00.

This course is repeated as 7312-B, January 19 through 23, 1953, and as 7312-C, April 20 through 24, 1953.

PHYSIOLOGY

PHYSIOLOGY

College of Medicine

Homer W. Smith, A.B., SC.D., M.S.(HON.), *Professor and Chairman of the Department*
W. Parker Anslow, Jr., B.S., PH.D., *Associate Professor*
Chester W. Hampel, A.B., A.M., PH.D., *Associate Professor*
Samuel Standard, M.D., *Lecturer*
E. Lovell Becker, A.B., M.D., *Instructor*
Preston G. McLean, M.D., *Instructor*
Lot B. Page, M.D., *Instructor*
John C. Scott-Baker, M.B.,B.S.[LONDON], *Instructor*
Himansu S. Chakravarti, M.B., B.S., M.D. [CALCUTTA], *Fellow*
Alfred P. Fishman, A.B., M.S., M.D., *Fellow*
Felice Martignomi, M.D. [PAVIA], *Fellow*
George A. Zak, *Fellow*

Course Nos. 545-A and 5420-A & B, Normal and Pathological Physiology: Functional and Chemical Aspects (see pages 20 and 22).

Metabolism Studies in Applied Physiology

PREVENTIVE MEDICINE

PREVENTIVE MEDICINE

College of Medicine

Henry E. Meleney, A.B., M.D., *Hermann M. Biggs Professor and Chairman of the Department*
Donald Mainland, M.B.,CH.B., SC.D. [EDINBURGH], *Professor (Medical Statistics)*
Harry Most, B.S., M.D., MED.SC.D., *Professor (Tropical Medicine)*
Jacob H. Landes, M.D., M.P.H., *Assistant Professor*
Donald V. Moore, A.B., A.M., PH.D., *Assistant Professor*
Ray E. Trussell, A.B., M.D., M.P.H., *Clinical Professor*
Abraham Stone, B.S., M.D., *Associate Clinical Professor*
Arthur B. Robins, A.B., M.D., MED.SC.D., D.P.H., *Assistant Clinical Professor*
Jacques M. May, B.S. [SORBONNE], M.D. [PARIS], *Lecturer (Geographical Medicine)*
Jack H. Sandground, B.S., M.S. [SOUTH AFRICA], SC.D., *Lecturer*
Arthur Schindelheim, D.D.S., *Lecturer*
George Simon, M.D., *Lecturer*
Harry Strusser, D.D.S., M.S.(PUB.HEALTH), *Lecturer*
Frederik Van Assendelft, PHYSICIAN [AMSTERDAM], *Lecturer (Tropical Medicine)*
Louis Weiner, E.E., *Lecturer*
Lee F. Herrera, B.S., *Instructor (Medical Statistics)*
Florence E. Ritner, *Instructor (Social Service)*
Frances T. Poe, A.B., A.M., M.S., *Assistant (Social Service)*

735-A. TROPICAL MEDICINE

A full-time intensive course, in tropical and parasitic diseases, of seven weeks' duration, January 5 through February 20, 1953. Consists of lectures, laboratory exercises, and clinical demonstrations covering etiological agents, arthropod vectors, pathology, diagnosis, treatment, and prevention. The diseases covered include infections caused by viruses, rickettsias, bacteria, fungi, spirochetes, protozoa, and helminthes; also nutritional diseases, tropical ophthalmology, dermatology, and sanitation, and physiological problems of the tropics.

Given under the direction of Dr. Harry Most and staff. Tuition $300.00.

Laboratory Exercise in Tropical Medicine (Schistosomiasis)

PSYCHIATRY AND NEUROLOGY

College of Medicine

S. Bernard Wortis, A.B., M.D., *Lucius N. Littauer Professor of Psychiatry, Professor of Neurology and Chairman of the Department*

Psychiatry

Morris Herman, B.S., M.D., *Menas S. Gregory Professor of Clinical Psychiatry*
Lauretta Bender, B.S., A.M., M.D., *Professor of Clinical Psychiatry*
Lewis I. Sharp, B.S., M.D.,C.M. [MCGILL], *Associate Professor of Clinical Psychiatry*
Marvin Stern, B.S., M.D., *Assistant Professor*
Hans L. Teuber, PH.D., *Assistant Professor (Experimental Psychology)*
John Frosch, B.S.; M.D. [BERN], *Assistant Professor of Clinical Psychiatry*
James F. Garrett, A.B., A.M., PH.D., *Assistant Professor of Clinical Psychology (Assigned to Physical Medicine and Rehabilitation)*
Florence Halpern, A.B., A.M., PH.D., *Assistant Professor of Clinical Psychology*
Thomas K. Davis, A.B., M.D., *Clinical Professor of Neuropsychiatry*
Louis Hausman, A.B., M.D., *Clinical Professor of Neuropsychiatry*
Philip R. Lehrman, M.D., *Clinical Professor*
Benjamin Apfelberg, M.D., *Associate Clinical Professor*
John H. Taterka, M.D. [BRESLAU], *Associate Clinical Professor*
David Wechsler, A.B., A.M., PH.D., *Associate Clinical Professor of Medical Psychology*
Gustav Bychowski, M.D. [ZURICH], *Assistant Clinical Professor*
David J. Impastato, A.B., M.D., *Assistant Clinical Professor*
Sidney Klein, B.S., M.D., *Assistant Clinical Professor*
Meyer H. Maskin, A.B., M.B., M.D., *Assistant Clinical Professor*
Bela Mittelmann, M.D. [GERMAN UNIV., PRAGUE], *Assistant Clinical Professor*
Joseph W. Owen, M.D., *Assistant Clinical Professor*
Arnold Z. Pfeffer, B.S., M.S., M.D., *Assistant Clinical Professor*
Charles B. Thompson, A.B., M.D., *Assistant Clinical Professor*
Helen Thompson, A.B., A.M., PH.D., *Assistant Clinical Professor of Medical Psychology (Assigned to Pediatrics)*
Joseph Wortis, A.B.; M.D. [VIENNA], *Assistant Clinical Professor*
Zuleika Yarrell, M.D., *Assistant Clinical Professor*
Frances C. Macgregor, A.B., A.M., *Research Associate in Sociology (Psychiatry)*
Elsa Bay, B.S., *Instructor (Psychiatric Social Work)*
Morris Grayson, B.S.; M.D. [LAUSANNE], *Instructor (Assigned to Physical Medicine and Rehabilitation)*
Ruth M. McGuire, B.S., M.S., *Instructor in Psychiatric Social Work*
Sadi Oppenheim, A.B., A.M., *Instructor in Medical Psychology*
Earle Saxe, B.S., M.D., *Instructor*
Isidor Bernstein, A.B., M.D., *Clinical Instructor*
Saul H. Fisher, B.S., M.D., *Clinical Instructor*
I. Peter Glauber, M.D., *Clinical Instructor*
Daniel L. Goldstein, B.S., M.D., *Clinical Instructor*
Joseph Levi, B.S., A.M., PH.D., *Clinical Instructor in Medical Psychology (Assigned to Physical Medicine and Rehabilitation)*
Joseph H. Merin, B.S., M.D., *Clinical Instructor*
Emanuel Messinger, A.B., M.D., *Clinical Instructor*
Edith Nachmansohn, M.D. [BERLIN], *Clinical Instructor*
Leo L. Orenstein, B.S., M.D., *Clinical Instructor*
Lilly Ottenheimer, *Clinical Instructor*
Selig J. Ross, B.S., M.D., *Clinical Instructor*
Dora Schaffer, M.D. [BERLIN], *Clinical Instructor*
Howard H. Schlossman, M.D., *Clinical Instructor*
Rubin L. Siegel, B.S., *Clinical Instructor*
Archie Silver, B.S., M.D., *Clinical Instructor*
Kona Simon, B.S., M.D. [VIENNA], *Clinical Instructor*
Alexander Thomas, B.S., M.D., *Clinical Instructor*
Montague Ullman, B.S., M.D., *Clinical Instructor*
B. Frank Vogel, B.S., M.D. [PARIS], *Clinical Instructor*
Theodore S. Weiss, M.D., *Clinical Instructor*
Paul Zimmering, A.B., M.B.,CH.B. [BRISTOL], *Clinical Instructor*
Marvin L. Blumberg, A.B., M.D., *Assistant*
John A. Frank, B.S., M.D., *Assistant*
Irving L. Bauer, A.B., M.D., *Clinical Assistant*
Muriel R. Benton, A.B., M.D., *Clinical Assistant (Assigned to Physical Medicine and Rehabilitation)*
Seymour Berg, A.B., M.D., *Clinical Assistant*
Albert Bryt, M.D. [PARIS], *Clinical Assistant*
John R. Cates, Jr., B.S., M.D., *Clinical Assistant*
Abraham S. Effron, A.B., M.B. [BELFAST], *Clinical Assistant*
Aaron Esman, M.D., *Clinical Assistant*
Charlotte Feibel, *Clinical Assistant in Medical Psychology*
Barbara Fish, M.D., *Clinical Assistant*
Alfred M. Freedman, A.B., M.B., M.D., *Clinical Assistant*
David B. Friedman, A.B., M.D., *Clinical Assistant*
*Herman P. Gladstone, A.B., M.D., *Clinical Assistant*
Harry Kosovsky, A.B., M.D., *Clinical Assistant*
Malvina W. Kremer, A.B., A.M., M.D., *Clinical Assistant*
John J. Macbride, A.B., M.D., *Clinical Assistant*
Warren J. Muhlfelder, M.D. [BASEL], *Clinical Assistant*

Alfred H. Rifkin, B.S., M.D., *Clinical Assistant*
Joseph E. Rubinstein, A.B., M.D.,C.M. [MCGILL], *Clinical Assistant*
John B. Scanlan, B.S., M.D., *Clinical Assistant*
Bernard H. Shulman, A.B., M.D. [EDINBURGH], *Clinical Assistant*
Leonard R. Sillman, B.S., M.D., *Clinical Assistant*
Sylvia B. Simon, A.B., M.D. [VIENNA], *Clinical Assistant*
Harry F. Tashman, M.D., *Clinical Assistant*
James M. Toolan, A.B., M.D., *Clinical Assistant*
George J. Weinstein, M.D., *Clinical Assistant*
Herbert Wieder, B.S., M.D., *Clinical Assistant*
Edith Wladkowsky, B.S., *Clinical Assistant in Medical Psychology*
Arthur Zitrin, B.S., M.S., M.D., *Clinical Assistant*
Dorothy Colodny, A.B., A.M., M.D., *Fellow*
Paul Dince, M.D., *Fellow*
Richard C. Robertiello, A.B., M.D., *Fellow*
Jerome Silverman, A.B., M.D., *Fellow*

Neurology

Samuel Brock, M.D., *Professor*
Morris B. Bender, B.S., M.D., *Professor of Clinical Neurology*
Bernhard Dattner, J.D., M.D. [VIENNA], *Clinical Professor*
Alexandra Adler, M.D. [VIENNA], *Assistant Clinical Professor*
David J. Flicker, B.S., M.D., *Assistant Clinical Professor*
Israel S. Freiman, B.S., M.D., *Assistant Clinical Professor*
Max Helfand, M.D., *Assistant Clinical Professor*
Ira S. Ross, A.B., M.D., *Assistant Clinical Professor*
Morton Marks, A.B., M.D., *Instructor (Assigned to Physical Medicine and Rehabilitation)*
Morton Nathanson, A.B., M.D., *Instructor*
Alvin Robins, M.D., *Instructor*
Ernest V. Altman, *Clinical Instructor*
Francis C. Ansanelli, B.S., M.D., *Clinical Instructor*
Thomas E. Bamford, Jr., A.B., M.D., MED.SC.D., *Clinical Instructor*
George S. Cattanach, A.B., M.D., *Clinical Instructor*
Lawrence H. Gahagan, B.S., A.M., PH.D., M.D., *Clinical Instructor*
Lawrence I. Kaplan, A.B., M.D., *Clinical Instructor*
Joachim Luwisch, M.D. [ERLANGEN], *Clinical Instructor*
Russell G. MacRobert, M.D. [WESTERN ONTARIO, TORONTO], *Clinical Instructor*
Arthur W. Schappell, A.B.(CHEM.), M.D., *Clinical Instructor*
Mortimer F. Shapiro, A.B., M.D., *Clinical Instructor*
John L. Simon, A.B., M.D., *Clinical Instructor*
Joseph A. Winn, M.D. [CHARLES UNIV., PRAGUE], *Clinical Instructor*
Philip S. Bergman, A.B., M.D., *Assistant*
Gustave G. Gordon, M.D. [BERN], *Clinical Assistant*
Martin A. Green, B.S., M.D., *Clinical Assistant*
Elias Savitsky, B.S., M.D., *Clinical Assistant*
Walter Sencer, B.S., M.D., *Fellow*
*Leave of absence, military service.

645-A. NEUROLOGY (GRADUATE COURSE)

Training in neurology is given starting September 29, 1952. This program for qualified physicians includes residency training in neurology and in the neurological aspects of medicine. Includes (1) clinical neurology, (2) the basic neurologic sciences (neuroanatomy, neurophysiology), (3) measurement methods in neurology—including X-ray diagnosis, neuro-ophthalmology, and psychometric testing methods, (4) child neurology, (5) techniques and methods of examination and treatment, (6) rehabilitation procedures for neurologic disabilities. Participation is required in case presentations, seminars, clinical conferences, and survey of pertinent literature. Each candidate is required to participate in some clinical or laboratory investigation. The course is designed to cover one academic year; however, two additional years devoted to a neurologic residency in an approved hospital is recommended.

Given at Bellevue Hospital, University Hospital, and Goldwater Memorial Hospital under the direction of Professor S. Bernard Wortis. Tuition $700.00.

649-A. PSYCHIATRY (GRADUATE COURSE)

Training in psychiatry is given September 29, 1952, through June 19, 1953. This program for qualified physicians includes residency training in psychiatry and in the psychodynamic aspects of medicine. Includes study of (1) clinical psychiatry, (2) the basic psychiatric sciences (study of the social, cultural, environmental, and personal psychodynamic factors in health and illness), (3) the basic neurologic sciences, (4) psychosomatics, (5) measurement methods in psychiatry (both psychologic and physiologic), (6) child psychiatry, (7) techniques and methodology of interview and therapy, (8) medicolegal aspects of psychiatry. Participation is required in case presentations, seminars, clinical conferences, and survey of pertinent literature. Each candidate is required to participate in some clinical or laboratory investigation. This is a full-time course designed to cover one academic year; however, two additional years devoted to a psychiatric residency in an approved hospital is recommended under the direction of Professor S. Bernard Wortis. Tuition $700.00.

PSYCHIATRY AND NEUROLOGY

641-A. PSYCHIATRIC AND NEUROLOGIC PROBLEMS IN GENERAL PRACTICE

A part-time course of three weeks' duration, 9 a.m. to 12 m., Mondays through Saturdays, January 5 through 24, 1953. Covers the common psychiatric problems seen in general practice. Problems of etiology, diagnosis, and methods of management and treatment are stressed.

Given under the direction of Professor S. Bernard Wortis. Maximum class 12. Tuition $100.00.

642-A. ELECTROENCEPHALOGRAPHY

A part-time course of eight weeks' duration, four hours each day, by arrangement, Mondays through Saturdays. Instruction in the general principles of electroencephalography in general medical, psychiatric, and neurologic disorders. The student participates in the recording and reading of electroencephalographic tests.

Maximum class 6. Tuition $300.00.

643-A. TREATMENT METHODS IN PSYCHIATRY

A part-time course of eight weeks' duration, 9 a.m. to 12 m., Mondays through Saturdays, January 12 through March 7, 1953. Includes instruction in, and critical review of, the physiologic, pharmacologic, electrical, and psychodynamic treatment methods. Open only to physicians who have had previous medical and psychiatric training acceptable to the department of psychiatry.

Given under the direction of Professor S. Bernard Wortis. Tuition $250.00.

644-A. NEUROANATOMY AND NEUROPHYSIOLOGY

A part-time basic science course of twelve weeks' duration on the structure and function of the nervous system. The course is held three mornings a week, by arrangement, 8:30 a.m. to 12 m., September 22 through December 13, 1952.

Given under the direction of Professor S. Bernard Wortis. Maximum class 30. Tuition $250.00.

646-A. PSYCHIATRY IN THE PRACTICE OF MEDICINE AND PEDIATRICS

A full-time, three months' course in psychiatry for internists and pediatricians. Additional basic three months' periods of continued and advanced work can be arranged. The subjects covered include etiology, symptomatology, dynamics, and therapy in behavior disorders, neuroses, psychoses, and organic brain diseases in children and adolescents. In addition to lectures and seminars, there is daily practical work with patients. Intended to give the internist and pediatrician an orientation to psychiatric problems in their respective fields. Enrollment on various dates by arrangement.

Tuition $300.00 for each three months' period.

647-A. PSYCHIATRY AND NEUROLOGY

A twelve-week, full-time course, September 22 through December 13, 1952, in psychiatry and neurology. The subjects covered include clinical psychiatry, clinical neurology, therapy, psychosomatic problems, neuroanatomy, neurophysiology, neuropathology, X-ray diagnosis, electroencephalography, and other related subjects.

Early application, on a special and regular form for registration, is recommended because of the limited enrollment that can be accommodated. Preference is given to applicants who have had previous approved psychiatric and neurologic training.

Tuition $300.00.

648-A. PSYCHOLOGY AND PSYCHODYNAMICS

A three months', part-time course, hours by arrangement, Mondays through Saturdays, September 22 through December 13, 1952, in the structure and development of normal personality; the theory and use of psychometric testing methods; and study of the interrelations of sociology, cultural anthropology, social work, religion, and the law with psychiatry. Medical and social psychology are considered from the psychodynamic and physiologic aspects.

Given under the direction of Professor S. Bernard Wortis. Maximum class 6. Tuition $200.00.

Class in Neurology—Emphasis Is Placed on Visual Aids in All Departments

RADIOLOGY

Professor and Chairman of the Department (to be announced)
Milton Friedman, M.D., *Associate Professor of Clinical Radiology*
Maxwell H. Poppel, M.D., *Associate Professor of Clinical Radiology*
Ira I. Kaplan, B.S., M.D., *Clinical Professor*
Henry K. Taylor, M.D., *Clinical Professor*
Arthur J. Bendick, M.D., *Associate Clinical Professor*
Francis H. Ghiselin, A.B., M.D., *Associate Clinical Professor*
George P. Robb, A.B., M.D., *Associate Clinical Professor*
Sidney Rubenfeld, B.S., M.D., *Associate Clinical Professor*
Francis F. Ruzicka, Jr., A.B., M.D., *Associate Clinical Professor*
C. Wadsworth Schwartz, PH.B., M.D., *Associate Clinical Professor*
Samuel L. Beranbaum, A.B., M.D. [TORONTO], *Assistant Clinical Professor*
Alexander J. S. Chilko, M.D. [BUDAPEST], *Assistant Clinical Professor*
Harold G. Jacobson, B.S., M.B., M.D., *Assistant Clinical Professor*
Morris Kaplan, M.D., *Assistant Clinical Professor (Radiation Therapy)*
Bernard Kurz, M.D., *Assistant Clinical Professor*
Frederick H. McKee, A.B., M.D., *Assistant Clinical Professor (Radiation Therapy)*
Rieva Rosh, PHYSICIAN [KHARKOV], *Assistant Clinical Professor*
Irving Schwartz, B.S., M.D., *Assistant Clinical Professor*
Jesse D. Stark, A.B., M.D., *Assistant Clinical Professor*
Elmer M. Claiborne, M.D., *Lecturer*
Edgar N. Grisewood, A.B., A.M., *Lecturer in Radiology (X-Ray Physics)*
Hans R. Sielman, M.D. [MUNICH], *Lecturer*
Anthony A. Blasi, A.B.; M.D. [ROME], *Instructor*
Stanley H. Craig, B.S.; M.D. [BASEL], *Instructor*
Lawrence A. Davis, A.B., M.D., *Instructor*
Lewis J. Friedman, M.D., *Instructor*
Samuel T. Herstone, A.B., M.D., *Instructor*
Howard J. Hutter, M.D., *Instructor*
Max Miller, B.S., M.D. [VIENNA], MED.SC.M., *Instructor*
Eleanor Oshry, B.S.(PHYSICS), *Instructor (Radiological Physics)*
Herbert S. Sharlin, A.B., M.D., *Instructor*
Harry Weaver, A.B., M.D., *Instructor*
Constantino Zaino, B.S., M.D., *Instructor*
Joseph Zausner, B.S.; M.D. [VIENNA], *Instructor*
Alfred J. Bernstein, B.S.; M.B.,CH.B. [ST. ANDREWS], *Clinical Instructor*
Abraham Geffen, A.B., M.D., *Clinical Instructor*
Joseph J. Sher, B.S., M.D., *Clinical Instructor (Dermatology)*

651-A. DIAGNOSTIC RADIOLOGY FOR GENERAL PRACTITIONERS

A part-time course of thirty-two weeks' duration, 8 to 10 p.m., Wednesdays, October 1, 1952, through May 6, 1953. Emphasis is placed on the diagnosis of diseases of the heart, lungs, stomach, kidneys, and bones.

Maximum class 20. Tuition $100.00.

This course is repeated as 651-B, 2 to 4 p.m., Fridays, October 3, 1952, through May 8, 1953.

652-A. DIAGNOSTIC RADIOLOGY

A part-time course of twelve weeks' duration, 4 to 6 p.m., Mondays, Wednesdays, and Fridays, September 15 through December 5, 1952. Designed for the general practitioner in medicine. Consists of lectures, practical demonstrations, and conferences covering the physical principles underlying roentgenology, basic normal X-ray anatomy, the principles and practice of fluoroscopy, and the application of X-ray diagnosis to the study of fractures, bone lesions, diseases of the joints, lungs, heart, brain, gastrointestinal tract, gall bladder, urinary tract, and the mastoid and sinuses.

Maximum class 20. Tuition $100.00.

This course is repeated as 652-B, February 16 through May 8, 1953.

653-A. RADIOLOGY, BASIC SCIENCES

A full-time course of nine months' duration, September 29, 1952, through June 19, 1953. Includes anatomy, radiophysics, biochemistry, physiology, bacteriology, pathology, and the principles and application of radiobiology.

Given under the direction of Dr. Milton Friedman. Tuition $700.00.

654-A. RADIOBIOLOGY

A part-time course of twenty sessions, 5 to 7 p.m., Thursdays, January 29 through June 11, 1953. Open to postgraduate students in radiation therapy and also to practicing radiologists.

Consists of lectures and seminars and is designed to bridge the gap between radiation physics and clinical radiation therapy, by giving the student a background of the biological as well as physical effects of irradiation. After a review of the biological, physical, chemical, and histological effects of radiation on tissue, the application of these basic phenomena to practical radiation therapy is discussed. Radiation genetics, recovery phenomena, time-dose studies, and gamma roentgen dosage system for radium therapy are reviewed. Problems are assigned which entail directed outside reading to amplify the lectures.

Given under the direction of Dr. Milton Friedman. Maximum class 20. Tuition $75.00.

655-A. RADIOPHYSICS

A part-time course of fifteen sessions, 9 to 10:30 a.m., Tuesdays, October 21, 1952, through February 3, 1953, consisting of didactic lectures and practical demonstrations. Includes a consideration of the basic concepts of electricity, magnetism, radiation; the production and measurement of X rays; natural and artificial radioactivity, including dosage determinations.

Given under the direction of Dr. Milton Friedman. Maximum class 20. Tuition $75.00.

656-A. DIAGNOSTIC RADIOLOGY

An intensive five-day course, full time, June 15 through 19, 1953, consisting of lectures, practical demonstrations, and conferences covering X-ray diagnosis, diseases of the heart, lungs, and gastrointestinal, urinary, and biliary tracts.

Tuition $50.00.

RADIOLOGY

Practical Seminar in Radiology

SURGERY

J. William Hinton, M.D., *Professor and Chairman of the Department*
L. Corsan Reid, M.D.,C.M. [MCGILL], *Professor of Experimental Surgery*
R. Franklin Carter, B.S., M.D., *Professor of Clinical Surgery*
Robert H. Kennedy, A.B., M.D., *Professor of Clinical Surgery*
Arthur S. McQuillan, A.B., M.D., *Professor of Clinical Surgery*
Herbert Willy Meyer, A.B., M.D., *Professor of Clinical Surgery*
Walter W. Fischer, M.D., *Associate Professor of Clinical Surgery*
S. Arthur Localio, A.B., M.D., MED.SC.D., *Associate Professor of Clinical Surgery*
Jere W. Lord, Jr., A.B., M.D., *Associate Professor of Clinical Surgery*
Louis R. Slattery, A.B., M.D., *Associate Professor of Clinical Surgery*
Robert T. Crowley, M.D., M.S. (SURGERY), MED.SC.M., *Assistant Professor of Clinical Surgery*
David Lyall, B.S., M.D., *Assistant Professor of Clinical Surgery*
Charles G. Neumann, A.B., M.D., *Assistant Professor of Clinical Surgery*
Louis M. Rosati, B.S., M.D., *Assistant Professor of Clinical Surgery*
George M. Saypol, B.S., M.D., *Assistant Professor of Clinical Surgery*
Alexander Zimany, A.B., M.D., *Assistant Professor of Clinical Surgery*
Philip A. Zoller, M.D., *Assistant Professor of Clinical Surgery*
Bradley L. Coley, A.B., M.D., *Clinical Professor*
Lester Blum, A.B., M.D., *Associate Clinical Professor*
Lester Breidenbach, B.S., M.D., *Associate Clinical Professor*
Harold E. Clark, A.B., M.D., *Associate Clinical Professor*
Norman L. Higinbotham, M.D.,C.M. [MCGILL], *Associate Clinical Professor*
Miguel Grausman Elias, B.S., M.D., *Associate Clinical Professor*
Walter D. Ludlum, Jr., A.B., M.D., *Associate Clinical Professor*
Sigmund Mage, A.B., B.S., M.D., *Associate Clinical Professor*
Herbert F. Newman, A.B., M.D., *Associate Clinical Professor*
*Robert T. Findlay, M.D., *Assistant Clinical Professor*
William T. Medl, A.B., M.D., *Assistant Clinical Professor*
William Batiuchok, A.B., M.D., *Instructor*
Frank S. Butler, A.B., M.D., *Instructor*
Jameson L. Chassin, B.S., M.D., *Instructor*
Donald A. Davis, B.S., M.D., *Instructor*
Stephen L. Gumport, A.B., M.D., *Instructor*
Hector A. McDougall, B.S., M.D.,C.M. [MCGILL], *Instructor*
Carl S. Oakman, A.B., M.D., *Instructor*
Carl W. Roessel, A.B., M.D., *Instructor*
Charles F. Schetlin, A.B., M.D., *Instructor*
Reynold E. Church, B.S., M.D., *Clinical Instructor*
Lee Gillette, A.B., M.D., *Clinical Instructor*
Gabriel P. Seley, M.D., *Clinical Instructor*
Meyer M. Stone, CH.E., M.D., *Clinical Instructor*
Louis Venet, B.S., M.D., *Clinical Instructor*
Harry Chasserot, A.B., M.D., *Assistant*
Frederick W. Finn, B.S., M.D., *Assistant*
James K. Keeley, A.B., M.D., M.S.(SURGERY), *Assistant*
Rockwood Keith, B.S., M.D., M.S. (MED.), MED.SC.D., *Assistant*
Jane A. La Fetra, B.S. (MED. TECH.), *Assistant*
Graham C. Newbury, M.D., *Assistant*
Gaspare A. Salvia, A.B., M.D., *Assistant*
Hugh E. Stephenson, Jr., B.S., M.D., *Assistant*
*Peter William Stone, M.D., *Assistant*
Harry B. Underwood, B.S., M.D., *Assistant*
Jerrold von Wedel, M.D., *Assistant*

*Leave of absence, armed forces.

665-A. SURGERY (GRADUATE COURSE)

Designed for one academic year, September 29, 1952, through June 19, 1953, of full-time study to precede or follow two or more years of surgical residency in an approved hospital. In this course approximately three quarters of the time is devoted to basic sciences while the remainder is alloted to clinical subjects. The basic sciences include anatomy, physiology, biochemistry, bacteriology, pharmacology, surgical pathology, and experimental surgery. Clinical teaching is correlated with the basic sciences and is conducted as informal round-table conferences. These conferences are devoted to general surgery, tumor surgery, pediatric surgery and the surgery of trauma. Diagnostic roentgenology is given as part of the course. Library periods are assigned for study of surgical literature.

Given under the direction of Professor J. William Hinton. Tuition $700.00.

660-A. ANATOMY AND PHYSIOLOGY OF THE AUTONOMIC NERVOUS SYSTEM AND THEIR CLINICAL APPLICATION

A full-time, one-week course, January 19 through 24, 1952, devoted to the anatomy and physiology of the autonomic nervous system. Anatomical demonstrations and prosections are correlated with lectures and conferences. The diagnostic, therapeutic, and surgical procedures performed upon the autonomic nervous system for pathologic processes are thoroughly covered as well as the relation of the autonomic nervous system to anesthetic, endocrinologic, and psychosomatic problems.

Given under the direction of Professor J. William Hinton and Dr. Joseph Pick of the department of anatomy. Maximum class 12. Tuition $150.00.

661-A. REVIEW OF GENERAL SURGERY (FOR SPECIALISTS)

A full-time course of four weeks' duration for qualified surgeons, September 29 through October 25, 1952. Provides advanced instruction in general surgery by means of demonstrations, lectures, and a review of applied surgical anatomy on the cadaver. Special measures employed in the preoperative and postoperative care of patients are emphasized in clinical demonstrations and lectures by specialists from the medical, surgical, and laboratory staffs. Differential diagnosis and treatment are discussed and demonstrated in specialty clinics for the management of diseases of the thyroid, stomach, colon and rectum, biliary tract, pancreas, thorax, and cardiovascular system. Similar clinical demonstrations are given by the Tumor Service for diseases of the breast, tumors of the head and neck, and malignant melanoma. Physiological and biochemical aspects of surgical practice are stressed and use of antibiotics discussed.

Given under the direction of Professor J. William Hinton. Maximum class 20. Tuition $300.00.

This course is repeated as 661-B, March 30 through April 25, 1953.

662-A. BASIC PROBLEMS IN CANCER THERAPY (FOR SURGEONS)

A full-time course of twelve days' duration for qualified surgeons, January 26 through February 7, 1953, on the basic problems of cancer therapy. Early diagnosis and modern methods of surgical therapy are discussed in didactic lectures and case demonstrations. The operative technique of block lymph-node dissections and radical surgery for cancer of the head, neck, thorax, breast, abdomen, and extremities is stressed in cadaver demonstrations.

Given under the direction of Dr. Herbert Willy Meyer. Maximum class 20. Tuition $200.00.

663-A. RECENT ADVANCES IN SURGERY

A full-time course of two weeks' duration, September 8 through 20, 1952, consisting of didactic lectures and demonstrations that cover the recent advances in general surgery stressing physiological and biochemical considerations. Emphasis is placed on recent advances in surgery of the thyroid, thorax, and cardiovascular system, including portal hypertension and cirrhosis of the liver. The physiological background of gastric surgery and vagotomy in the management of peptic ulcer is stressed, as well as the biochemical and physiological advances related to surgery of the intestines, biliary tract, and pancreas. The extended concepts of cancer surgery and lymphatic drainage are covered from the pathological and anatomical standpoints. The diseases of the autonomic nervous system are covered and the physiological basis of surgical procedures on this system emphasized.

Given under the direction of Professor J. William Hinton. Tuition $200.00.

664-A. TRAUMA (EXCLUDING FRACTURES) (FOR SURGEONS)

A full-time course of five and one-half days' duration, December 1 through 6, 1952. Emphasis is placed on training in the correct methods of suturing tendons, nerves, blood vessels, and intestines, and in the preparation and application of skin grafts and flaps in the surgical laboratory. In preparation for this, the mornings are spent in presentations of the indications for and value of these procedures.

Given under the direction of Dr. Robert H. Kennedy. Maximum class 30. Tuition $125.00.

666-A. DIAGNOSIS AND TREATMENT OF TRAUMA

A full-time course of six days' duration, December 8 through 13, 1952. Planned for those physicians who are now, or expect to be, concerned with industrial or civilian injuries of all types. It is also aimed at preparing physicians for better care of injury in the event of civilian disaster. An intensive course of lectures and demonstrations on the care and treatment of the injured. Case demonstrations and ward rounds are held at Beekman-Downtown, Bellevue, University, and Gouverneur Hospitals.

Given under the direction of Dr. Robert H. Kennedy. Maximum class 20. Tuition $90.00.

667-A. SURGERY OF THE HAND

A full-time course of six days' duration, March 23 through 28, 1953. Considers the anatomy and physiology of the hand. A series of lectures and demonstrations based on the practical clinical viewpoint toward management, soft-tissue defects, fractures, infections, burns, crush injuries, tendon repair, grafts and trans-

plants, vasomotor and tropic lesions, rehabilitation and reconstruction. Given at Beekman-Downtown, Gouverneur, Bellevue, and University Hospitals.

Given under the direction of Dr. Robert H. Kennedy. Maximum class 20. Tuition $90.00.

668-A. DIAGNOSIS AND TREATMENT OF FRACTURES AND DISLOCATIONS

A full-time course of two weeks' duration, February 2 through 14, 1953. Consists of review of current methods of diagnosis and treatment, lectures, demonstrations, ward rounds, and ambulatory clinics at Beekman-Downtown, Gouverneur, and Bellevue Hospitals. Includes presence at one or more bone operations.

Given under the direction of Dr. Robert H. Kennedy. Maximum class 20. Tuition $125.00.

669-A. SURGERY OF TRAUMA

A part-time course of ten sessions, 1 to 5 p.m., Thursdays, April 2 through June 4, 1953, covering the field of trauma. Ward rounds, clinical demonstrations, follow-up clinics, round-table discussions, and lectures. Includes presence at one or more bone operations. Given at Beekman-Downtown and Bellevue Hospitals.

Given under the direction of Dr. Robert H. Kennedy. Maximum class 20. Tuition $100.00.

6610-A. TRAUMA OF THE GENITOURINARY SYSTEM

A part-time course of six sessions, 2 to 4 p.m., Tuesdays, September 9 through October 14, 1952. Consists of lectures and demonstrations covering the field of genitourinary trauma. A review is made of the essential anatomy, abnormal physiology and pathology, differential diagnosis, and the principles of treatment. Particular emphasis is placed on the methods of examination, including a discussion of the investigation of the acutely injured patient at the bedside. An evaluation of the various injuries as related to workmen's compensation is made also. Given at Beekman-Downtown Hospital.

Given under the direction of Dr. Robert H. Kennedy. Tuition $50.00.

6611-A. PITFALLS IN INTERNAL FIXATION OF FRACTURES (SPECIALISTS)

A full-time course of six days' duration, November 10 through 15, 1952. A series of lectures and demonstrations on the physical, chemical, and physiological characteristics of bone plates and screws; errors in their manufacture and in technique of application; intramedullary fixation and hip nailing. There are also operations and case demonstrations. Given at Beekman-Downtown Hospital.

Given under the direction of Dr. Robert H. Kennedy. Maximum class 20. Tuition $90.00.

Physicians Learning Surgical Technique in the Laboratory

UROLOGY

Robert S. Hotchkiss, B.S., M.D., *Professor and Chairman of the Department*
Meredith F. Campbell, B.S., M.S., M.D., *Professor*
William Delzell, A.B., M.D., *Professor of Clinical Urology*
C. Travers Stepita, M.D., M.S., *Professor of Clinical Urology*
Herbert Brendler, A.B., M.D., *Assistant Professor*
Thomas F. Howley, A.B., M.D., *Associate Clinical Professor*
Herbert R. Kenyon, A.B., M.D., *Associate Clinical Professor*
Dean Makowski, A.B., M.D., *Associate Clinical Professor*
Maximilian M. Nemser, M.D., *Associate Clinical Professor*
George W. Slaughter, A.B., M.D., *Associate Clinical Professor*
Seymour F. Wilhelm, B.S., M.D., *Associate Clinical Professor*
John L. Alley, A.B., M.D., *Assistant Clinical Professor*
Alvin C. Drummond, A.B., M.S., M.D., *Assistant Clinical Professor*
Gaetano J. Mecca, M.D., *Assistant Clinical Professor*
Harry R. Newman, M.D. [TORONTO], M.S., *Assistant Clinical Professor*
Bernard D. Pinck, A.B., M.D., *Assistant Clinical Professor*
Allen Abrahams, B.S., M.D., *Instructor*
Joseph H. Marvin, B.S., B.S.S., A.M., M.D., *Instructor*
Samuel S. Newman, M.D., *Instructor*
Lazarus A. Orkin, B.S., M.D., *Instructor*
John M. Silberblatt, A.B., M.D., *Instructor*
Gustav Friedmann, M.D., *Clinical Instructor*
Ira J. Holzman, A.B., M.D., *Clinical Instructor*
Sol S. Katz, M.D. [LAUSANNE], *Clinical Instructor*
Robert E. Lucey, M.D., *Clinical Instructor*
Noah Meyerson, M.D., *Clinical Instructor*
Irving M. Schneider, B.S., M.D., *Clinical Instructor*

Postgraduate study of varying duration may be undertaken by special arrangement on a prorata basis of $200.00 per month, full time.

672-A. UROLOGY (GRADUATE COURSE)

A full-time course of one academic year, September 29, 1952, through June 19, 1953, designed particularly for those who intend to specialize in urology and who will complete their training with a residency. Major emphasis is placed on the basic sciences, including anatomy, biochemistry, bacteriology, and pathology. Application of the clinical science study is presented by means of cadaver and experimental surgery, as well as by staff conferences and round-table discussions. The allied clinical subjects, such as anesthesiology, medicine, general surgery, gynecology, and pediatrics, are presented by specialists in the respective fields. The purpose of the course is to give the student a firm foundation in the basic sciences as well as the fundamentals of diagnosis and clinical management of urologic problems. In exceptional circumstances, the applicant may elect to pursue this course over a three-year period. The first year he may be in attendance for the first trimester (September to December). The second year he may progress to the second trimester (January to March), and in the third year may complete the last trimester (April to June).

Given under the direction of Professor Robert S. Hotchkiss. Tuition $700.00.

671-A. ADVANCED COURSE IN UROLOGY (FOR SPECIALISTS)

A full-time course of four weeks' duration, to be held in May or June (dates to be announced later). All surgical operative procedures are reviewed on the cadaver and in operative clinics with ward rounds for instruction in preoperative and postoperative care. Advanced instruction in cystoscopic and urethroscopic diagnosis and treatment in urography is given in the outpatient department. The newer aspects of correlated subjects such as anesthesiology, cardiovascular disease, microbiology, and renal physiology are presented. Topics related to recent advances in urology are reviewed.

Given under the direction of Professor Robert S. Hotchkiss. Tuition $175.00.

564-A. INFERTILITY

A three-day, full-time course given jointly by the department of urology and the department of obstetrics and gynecology, December 8 through 10, 1952. Problems of sterility are presented as related to both husband and wife. Methods of diagnosis and treatment are presented by lectures, outpatient demonstrations, and laboratory techniques.

Tuition $40.00.

674-A. REFRESHER COURSE IN BASIC UROLOGY

A one-week, full-time course, November 10 through 15, 1952, devoted to anatomical-surgical demonstrations on the cadaver. A review of embryology, pathology, and physiology of the genitourinary system.

Given under the direction of Professor Robert S. Hotchkiss. Tuition $60.00.

POST-GRADUATE MEDICAL SCHOOL

The New York University Post-Graduate Medical School was founded on December 1, 1947, through the consolidation of the New York Post-Graduate Medical School and the Postgraduate Division of the College of Medicine.

The New York Post-Graduate Medical School and Hospital was incorporated in 1882 and chartered by the state in 1886. The College of Medicine of New York University offered postgraduate studies first in 1914 and, because of the large number of physician veterans interested in retraining, organized the Postgraduate Division of the College of Medicine in 1945. This was made possible through a three-year grant from the W. K. Kellogg Foundation.

The consolidated Post-Graduate Medical School through its clinical services offers courses in practically all fields of medicine and surgery for the general practitioner and the specialist.

The present greatly expanded program has been made possible through the generosity of the Samuel H. Kress Foundation, which has made a substantial contribution for a ten-year period for the support of the Post-Graduate Medical School.

The following hospitals participate in the graduate and postgraduate program of the school:

Bellevue Hospital, the oldest of 26 municipal hospitals owned and operated by the Department of Hospitals of New York City, was founded in 1736 and was given its present name in 1816. It accommodates over 3,000 patients, primarily those with acute disease. Yearly admissions average 65,000. The hospital is organized in four divisions, the fourth being the teaching division of the Post-Graduate Medical School.

Beekman-Downtown Hospital, a voluntary hospital of 180 beds, is known for its large number of admissions of patients with acute surgical conditions, particularly of traumatic origin.

Beth Israel Hospital, a voluntary institution of 382 beds and 80 bassinets.

Goldwater Memorial Hospital for Chronic Diseases. The New York University Division has 750 beds divided among medical, surgical, neurological, and research services.

Gouverneur Hospital, a municipal hospital of 200 beds.

Irvington House, a voluntary hospital of 103 beds located at Irvington-on-Hudson, New York. The institution specializes in the care of children with rheumatic fever and rheumatic heart disease.

Lenox Hill Hospital, a voluntary hospital of 600 beds.

New York Eye and Ear Infirmary, a voluntary hospital, was the first institution established in this country limited to diseases of the eye, ear, nose, and throat. It has 171 beds in addition to a very large outpatient service.

New York State Rehabilitation Hospital, at Haverstraw, New York, is a specialty hospital of 300 beds, which is limited to the care of children and adults with orthopedic conditions, as well as poliomyelitis.

St. Vincent's Hospital is a voluntary hospital of 544 beds. An extensive building program will increase its capacity to 626 beds.

University Hospital, formerly the New York Post-Graduate Hospital, has been an integral part of the Medical Center since December 1, 1947. It has 406 beds.

Willard Parker Hospital, a municipal institution of 433 beds, is limited to the treatment of contagious disease. In addition to the usual contagious diseases, there are available 100 beds for the care and study of patients with pulmonary tuberculosis.

The number of beds directly affiliated with the Medical Center totals approximately 6,500.

NEW YORK UNIVERSITY–BELLEVUE MEDICAL CENTER

New York University established the Medical Center in 1948 in order to carry out an expanded program of medical education, research, and patient care. The Medical Center includes the College of Medicine, the Post-Graduate Medical School, and the twenty-three hospitals in which the clinical part of the program of the two schools is carried out. All the hospitals are operated by outside agencies, either municipal or voluntary, except the University Hospital, which is owned and operated by the University. By far the largest part of the clinical program is in Bellevue Hospital, in which the University has operated its teaching and research programs for over a century.

Through the facilities of the Medical Center, the University is now able to offer to students—undergraduate, graduate, and postgraduate—and to research workers one of the finest opportunities now available.

REGIONAL HOSPITAL PLAN

The REGIONAL HOSPITAL PLAN provides to nonteaching hospitals in suburban and rural areas association with the teaching and research staffs of the Medical Center. Resident physicians of these affiliated hospitals have the privilege of spending an academic year in a graduate course at the center, with the tuition waived subject to the rules and regulations governing the Regional Plan.

The objective of the Regional Hospital Plan is the improvement of the medical care in the communities served by the hospitals. It also provides a distinct broadening of the opportunities for postgraduate education to the practicing physicians in these areas.

The Regional Hospital Plan is supported by a grant from the W. K. Kellogg Foundation.

Participating hospitals as of April 1, 1952, are:

Easton Hospital, Easton, Pennsylvania
Fitkin Memorial Hospital, Neptune, New Jersey
Grasslands Hospital, Valhalla, New York
Greenwich Hospital, Greenwich, Connecticut
Hunterdon Medical Center, Flemington, New Jersey*
Meadowbrook Hospital, Hempstead, New York
Monmouth Memorial Hospital, Long Branch, New Jersey
Mountainside Hospital, Montclair, New Jersey
New Rochelle Hospital, New Rochelle, New York
Overlook Hospital, Summit, New Jersey
St. Luke's Hospital, Newburgh, New York
St. Vincent's Hospital, Bridgeport, Connecticut
Vassar Brothers Hospital, Poughkeepsie, New York

*Under construction.

The Regional Hospital Plan of the Medical Center is administered by the Division of Affiliated and Regional Hospitals of which Associate Dean Clarence E. de la Chapelle and Associate Dean Frode Jensen are in charge.

Physicians from 27 Foreign Countries, 45 States, and 2 Territories Studied Last Year in the Post-Graduate Medical School

POSTGRADUATE COURSES

The school offers numerous postgraduate courses on a part-time or full-time basis in the various fields of medicine and surgery. These courses are designed to meet the needs of physicians in practice whether specialists or general practitioners. Whenever possible, the school will endeavor to establish courses for special groups. The minimum requirements for admission to these courses are:

1. Graduation from a medical college, or its equivalent, approved by the Post-Graduate Medical School.

2. Completion of an internship of at least one year (or nine months of the accelerated wartime schedule) in a hospital approved by the Post-Graduate Medical School, except in the case of foreign students who will be required to have an equivalent amount of hospital experience.

All applications and inquiries concerning admission should be addressed to the Office of the Dean, Post-Graduate Medical School, 477 First Avenue, New York 16, N. Y.

NEW YORK UNIVERSITY · POST-GRADUATE MEDICAL SCHOOL

477 First Avenue · New York 16 · New York

APPLICATION FOR POST-GRADUATE COURSES

*Last Name*_____ *First Name*_____ *Middle Name*_____

*Permanent Address*_____

(City) (State)

*Age*_____ *Sex*_____ *Citizenship*_____ *Marital Status*_____

*Attended*_____ *Medical School from*_____ *to*_____ *Degree*_____

HOSPITAL INTERNSHIPS OR RESIDENCIES:

*(1)*_____ *from*_____ *to*_____

(Name of Hospital) (City) (State)

*(2)*_____ *from*_____ *to*_____

(Name of Hospital) (City) (State)

State below the nature of each of the internships or residencies (i.e., whether rotating, medical, or surgical):

*(1)*_____ *(2)*_____ *(Use back for additional data)*

*PREVIOUS GRADUATE OR POSTGRADUATE MEDICAL STUDY*_____ *(List on back)*_____

*Licensed to practice medicine in (state)*_____ *(year)*_____ *License No.*_____

*Professional organizations or specialty board certification*_____

*PRESENT HOSPITAL AFFILIATION*_____

(Hospital) (City) (State) (Date App'd) (Service)

*Type of Practice.*_____

Military service (list on back with dates and brief indication of type of professional experience):

I HEREBY APPLY FOR ADMISSION TO THE FOLLOWING COURSES:

*No.*_____ *Subject*_____ *Beginning*_____

*No.*_____ *Subject*_____ *Beginning*_____

*Date*_____

*Approved*_____

(Signature of Applicant)

GRADUATE COURSES

Graduate courses of one year's duration at the Post-Graduate Medical School are offered to provide advanced training in medicine and surgery and also in the medical and surgical specialties. They may be taken as part of a residency training program or in preparation for examinations of the various specialty boards. The minimum requirements for admission to these courses are:

1. Graduation from a medical college approved by the Post-Graduate Medical School or the Council on Medical Education and Hospitals of the American Medical Association

2. Completion of an internship of at least one year in a hospital approved by the Post-Graduate Medical School or, in the case of foreign students, an equivalent amount of hospital training

3. Approval by the head of the department in which the course is to be given

It is not possible for the committee on admissions to interview all candidates for admission to these studies. However, candidates may be requested to appear before the committee.

Examinations, either written or oral or both, are required of student physicians before completion of the graduate courses.

The regulations governing examinations are subject to change at any time.

A certificate will be granted to those physicians who have fulfilled all the requisites of a graduate course of study, including the successful passing of required examinations. (*See* page 62)

NEW YORK UNIVERSITY · POST-GRADUATE MEDICAL SCHOOL

477 First Avenue · New York 16 · New York

APPLICATION FOR GRADUATE COURSE

*Last Name*_____ *First Name*_____ *Middle Name*_____

*Permanent Address*_____

(City) (State)

*Age*_____ *Sex*_____ *Citizenship*_____ *Marital Status*_____

*Attended*_____ *Medical School from*_____ *to*_____ *Degree*_____

HOSPITAL INTERNSHIPS OR RESIDENCIES (Indicate whether rotating, medical, surgical, etc.):

*(1)*_____ *from*_____ *to*_____ *Type*_____

(Name of Hospital) (City) (State)

*(2)*_____ *from*_____ *to*_____ *Type*_____

(Name of Hospital) (City) (State)

*(3)*_____ *from*_____ *to*_____ *Type*_____

(Name of Hospital) (City) (State)

PRESENT HOSPITAL AFFILIATION:

_____ *from*_____ *to*_____ *Type*_____

(Name of Hospital) (City) (State)

*If in practice, indicate whether general or confined to a specialty*_____

_____ *Licensed*_____ *Year*_____

I HEREBY APPLY FOR ADMISSION TO THE FOLLOWING COURSE:

*No.*_____ *Subject*_____ *Beginning*_____

*Date*_____

*Approved*_____

(Signature of Applicant)

The applicant must *supplement this form with: (1) transcript of medical college record; (2) certification of hospital internship (and residency); (3) three letters of recommendation from qualified physicians; (4) applicant's photograph; (5) applicant for the course in* surgery *must furnish written assurance of a residency or appointment to the attending staff of an approved hospital following completion of the course.*

The graduate courses are:

	Number	Page
Anesthesiology	513-A	8
Dermatology and Syphilology	525-A	13
Forensic Medicine	531-A	15
Industrial Medicine	481-A	16
Medicine	5429-A	19
Neurology	645-A	49
Ophthalmology	576-A	32
Orthopedic Surgery	581-A	35
Otorhinolaryngology	593-A	36
Pediatrics	6110-A	40
Physical Medicine and Rehabilitation	738-A	44
Psychiatry	649-A	49
Surgery	665-A	54
Urology	672-A	57

DEGREES

Master of Science

This degree in a designated clinical field, e.g., M.S. (in Ophthalmology), M.S. (in Dermatology and Syphilology), etc., may be awarded after the candidate has fulfilled the following requirements:

1. He must be or have been registered as a graduate student for one year in the school subsequent to 1951 when this degree was approved by the University.

2. He must give evidence of at least two additional years of graduate training beyond the internship. Graduate training other than that obtained at the school must be in hospitals or institutions approved by the faculty. A fellowship or preceptorship may be accepted in lieu of a residency but prior approval must be obtained by the faculty.

3. He must submit an acceptable thesis following completion of three years of graduate work. However, yearly registration is necessary until the candidate has submitted his thesis. This thesis may represent laboratory or clinical investigation. Before the candidate is recommended for the degree, his thesis must be approved by a committee of readers appointed by the dean.

The matriculation fee is $6.00 per year except for the one year spent in a graduate course at the school. No credit will be allowed by the University toward a doctorate in philosophy for work done in satisfying the requirements of the Master of Science degree.

Doctor of Medical Science (Med.Sc.D.)

A physician regularly matriculated in the Post-Graduate Medical School may, in exceptional circumstances, be recommended as a candidate for the degree of Doctor of Medical Science (Med.Sc.D.). Such a student, if enrolled in one of the graduate studies, must not only satisfactorily complete the special requirements of the course including examinations but must also show unusual professional ability and exceptional academic attainments. Other candidates, especially those participating in full-time research in a preclinical and/or clinical department, may at the completion of at least one year of such work be recommended by the department head as a candidate for the advanced degree. In the event that a candidate is approved, he will be required to meet the following regulations:

He shall spend at least three years in graduate study, of which at least one year shall be at the Post-Graduate Medical School.

A student must maintain his matriculation in the Post-Graduate Medical School throughout the period of his candidacy for the degree. A matriculation fee of $6.00 is payable each year.

A preliminary examination, conducted at least one year before the time the candidate will apply for the degree, is designed to demonstrate a comprehensive and accurate knowledge of the preclinical sciences as requisite for mastery of his special field. This examination will be both oral and written. If the candidate successfully passes this examination, he will be permitted to continue his graduate work including independent investigation and the preparation of his thesis. It is expected that the preparation of an acceptable thesis will usually require not less than an academic year. The thesis must conform to regulations printed in a separate pamphlet obtainable from the dean's office.

The final examination is a defense of the thesis. The chairman of the examining board will submit to the dean, as soon as possible after the examination, the opinion of the committee as a whole regarding the candidate's qualifications for the degree.

No candidate will be recommended for a degree until the graduation fee and all other required fees have been paid. These fees are due and payable on or before May 15.

AUDIO-VISUAL METHODS AND AIDS USED BY THE DIVISION OF CARDIOLOGY

The division of cardiology has developed, during the last several years, certain audio-visual methods that have special application in the teaching of cardiovascular diseases.

The first of these is the fluoro-demonstrator, which is a device using heart models and allows visualization of the silhouette of the heart in all positions. This silhouette has all the appearances of the heart under the fluoroscope with the exception of pulsating motion.

The classroom is equipped with ultraviolet light, known as "black light," which allows the use of fluorescent paints and chalks that stand out brilliantly with the room darkened for viewing X rays, lantern slides, or oscilloscopes.

The Educational Electron Cardioscope uses a sixteen-inch, television-type tube on which the instantaneous electrocardiogram, stethocardiogram, or ballistocardiogram may be shown. Thus, it is possible to do much of the teaching of electrocardiography and stethocardiography directly from patients without the use of slides. The Educational Electron Cardioscope is also equipped with a special sound channel, and each seat is wired so that the individual student, by using an electronic stethoscope, may hear the sounds and murmurs from the patient's heart as he would through his own stethoscope.

Inasmuch as suitable cases are not always available for demonstration, a special tape recorder for heart sounds has been developed, and a large library of these recordings is available for the demonstration of all types of auscultatory phenomenon.

DISCIPLINE

In order to safeguard its ideals of scholarship, character, and personal behavior, the University reserves, and the student concedes to the University, the right to require the withdrawal of any student at any time for any reason deemed sufficient to it. A prorata return of fees will be made if further attendance of any student is prohibited before the end of a course for which such student has paid his fees.

The University reserves the right to withhold all information about the record of any student who is in arrears in the payment of fees or other obligations.

REGISTRATION

All students must register in person at the office of the dean before attending any course. Payment of tuition must be made at the time of registration.

To make a definite reservation, a deposit *may* be required in advance of the opening date of a course. This deposit will not be returned if the applicant fails to attend; however, he may attend a course within this or the following academic year, and the original deposit will be credited. No refund will be made to a student who fails to complete the course in which he has enrolled (except in case of serious illness of the student).

VETERANS

Veterans who plan to use the educational benefits of Public Law 346 must secure from the Veterans Administration a Certificate of Eligibility and Entitlement. Veterans who have previously used benefits at another institution must obtain a Supplemental Certificate of Eligibility. In either case, the certificate must be presented at the time of registration or the student will be held responsible for the fees. Refunds will be made from the effective date of the certificate.

It is to be noted that the name of New York University, the name and dates of the course must appear on the certificate.

Recipients of New York State War Service Scholarships should present, at the time of registration, evidence of the award from the New York State Education Department authorizing use of the scholarship at New York University.

General Information

BOOKS AND SUPPLIES

In some of the courses, certain books and instruments are required; in others, they are merely recommended. Students are advised to avail themselves of the service offered by the Center bookroom since it offers the advantage of lower prices. The bookroom is in the Twenty-sixth Street building.

FOREIGN STUDENTS

Students from abroad should consult the office of the dean concerning admission and course offerings. Such applicants must have achieved superior records and have sufficient proficiency in English to enable them to profit from their educational experience in the United States. A written application, including a complete chronological outline of education abroad, together with full educational credentials in the original and authorized or notarized translations thereof, constitutes the first step in the admission process. If approved, certificates of admission will be forwarded so that the necessary arrangements may be made through the office of the American consul. A registration fee of $50.00 per academic year is required of a foreign student undertaking recommended postgraduate work *outside of the school.*

STUDENT HEALTH SERVICE

The physicians of the Student Health Service are available for consultation by physicians enrolled in the Post-Graduate Medical School who may become ill.

The Student Health Service is located in the administration building of the Post-Graduate Medical School at 477 First Avenue. Office hours are from 12:30 to 1:30 p.m., Mondays through Fridays. Provision can be made for caring for emergencies occurring at other hours by telephoning Oregon 9-3200, Extension 389.

LIBRARY

The library of the Medical Center, located in the Twenty-eighth Street building, is the consolidation of the libraries of the College of Medicine and the New York Post-Graduate Medical School.

The library contains standard textbooks and monographs in all fields of medicine, and about 375 different periodicals including foreign ones, are received regularly. The library has about 59,000 volumes.

A reading room is maintained in the Post-Graduate Medical School building. This room contains textbooks and recent periodicals.

THE TEACHING STAFF

The list of members of each department was accurate at the time this announcement went to press. Because appointments were not complete at that time, some of the lists are subject to change.

OFFICERS OF ADMINISTRATION OF THE UNIVERSITY

Henry T. Heald, B.S. in C.E., M.S. in C.E., D. Engr., LL.D., *Chancellor*

Harry Woodburn Chase, A.B., A.M., Ph.D., L.H.D., Litt.D., LL.D., *Chancellor Emeritus*

Frank Leo Howley, B.S., LL.D., *Vice Chancellor for University Development*

LeRoy Elwood Kimball, A.B., A.M., LL.D., *Vice Chancellor and Comptroller*

Harold Oliver Voorhis, B.S., A.M., LL.D., *Vice Chancellor and Secretary*

*Rufus Daniel Smith, A.B., A.M., LL.D., *Provost*

Thomas Clark Pollock, A.B., A.M., Ph.D., Litt.D., *Acting Provost*

Elwood Curt Kastner, B.S., LL.D., *Registrar; Supervisor of Admissions*

Wesley Raymond Hendershot, B.C.S., *Bursar*

Ernest Leopold Hettich, A.B., A.M., Ph.D., *Director of the Libraries*

Ralph W. Sockman, A.B., A.M., Ph.D., D.D., S.T.D., L.H.D., Litt.D., LL.D., *University Chaplain*

*On leave of absence to March 1, 1952

OFFICERS OF ADMINISTRATION OF THE MEDICAL CENTER

Edwin A. Salmon, *Director*

Donal Sheehan, M.S., M.B.,Ch.B. [Manchester], M.D., Sc.D., *Associate Director*

Currier McEwen, B.S., M.D., Sc.D. (Hon.), *Dean, College of Medicine*

Robert Boggs, A.B., M.D.,C.M. [McGill], *Dean, Post-Graduate Medical School*

Edwin M. Bernecker, M.D., *Hospital Administrator*

Edgar S. Tilton, A.B., *Executive Secretary*

INDEX

Proceedings *of the* Rudolf Virchow Medical Society *in the City of New York*

VOLUME XII
1953

Edited by the Publication Committee
HANS BEHRENDT JOSEPH BERBERICH
LOTHAR KALINOWSKY

BASLE (Switzerland) S. KARGER Publishers NEW YORK

Proceedings *of the* Rudolf Virchow Medical Society *in the City of New York*

VOLUME XII

1953

Edited by the Publication Committee

HANS BEHRENDT — JOSEPH BERBERICH — LOTHAR KALINOWSKY

BASLE (Switzerland) — S. KARGER Publishers — NEW YORK

Printed in Switzerland by Buchdruckerei Zur Neuen Aargauer Zeitung, Aarau.

CONTENTS

MEETING OF JANUARY 5TH

MEETING OF FEBRUARY 2ND

MEETING OF MARCH 2ND

MEETING OF APRIL 6TH

MEETING OF MAY 4TH

MEETING OF OCTOBER 5TH

MEETING OF November 2ND

MEETING OF DECEMBER 7TH

AESTHETIC CONSIDERATIONS IN RECONSTRUCTIVE PLASTIC SURGERY

Gustave Aufricht

The plastic surgeon deals with the reconstruction and repair of defects and deformities mostly on the surface of the body. The defects may be acquired by trauma, such as war injuries, automobile accidents, burns, etc., or caused by pathologic conditions, such as neoplasm, or infectious diseases (lues, tuberculosis, etc.) or they may be congenital such as hare lip, congenital absence of ear, syndactylia, extensive nevi, etc. The condition actually is a surgical problem and the reason for the plastic surgeon's interest and aptitude to deal with these reconstructions is not only his experience with transplantation for replacing tissue losses but his special training and attention to the aesthetic details and accuracy. From the plastic surgeon's point of view it is not sufficient to close the defect or cover it with a skin graft or flap. The reconstructed part has to be re-built to normal contours and the transplant should be as good a match as possible to the original, in thickness, texture, color, hairiness, etc. The scars with the neighboring region should be placed as inconspicuously as possible. Attention must be paid also not to cause unsightly secondary disfigurement at the place of the donor site. The plastic surgeon always keeps before his eyes the aesthetic requisites of reconstruction.

(Illustrated with slides and film.)

TREATMENT OF HYPERTENSION WITH GANGLIONIC BLOCKING AGENTS

Paul H. Kuhn

A physician who is called upon to treat a hypertensive patient would do well to be guided by the following known facts which have emerged from the wealth of clinical experience and experimental work in the field of hypertension.

1) Many cases of essential hypertension follow a benign course.
2) The etiology of essential hypertension is not yet clearly understood. There are probably several factors, neurogenic, humoral, endocrine, infectious, etc., which in combination lead to the development of what is known as essential hypertension. The clinical features of this entity do not disclose in which proportion these factors bear upon the etiology of the disease.
3) The height of the diastolic blood pressure is directly related to the amount of resistance encountered by the blood flow within the narrowed lumina of the smaller arteries and arterioles.
4) The prognosis depends upon the elevation of the patient's diastolic blood pressure.

The logical deductions from these facts are as follows: There is no etiological treatment of this disease. The patients do well for many years on a conservative regime, such as physical and mental rest, reassurance by the physician, moderation in their living habits, and mild sedation. Only a small percentage of patients show either disturbing subjective symptoms or alarming objective findings that are sufficiently serious to warrant drastic therapeutic measures; and even in those cases, the physician should give his patients the benefit of a

prolonged rest and thorough clinical observation before rushing them into a therapeutic adventure, which, like surgical intervention, is irreversible and which, like drug treatment, may be hazardous.

Contemplation of more drastic therapeutic measures at once raises the question as to which hypertensive patients should be subjected to more aggressive methods of treatment and which method is the most desirable for the individual case.

Pickering (1) and others have shown that a patient with a permanently elevated diastolic blood pressure above 140 mm. Hg is in the danger zone and the benign course of his disease may, at any time, change into the malignant phase. Hemiplegic death occurs twice as often in the group with pressure above 200/120 as in that with pressure of 180/110 (Beckman, 2). There are patients with disturbing and, at times, disabling manifestations of intractable headaches, dizziness, vertigo, breathlessness, repeated epistaxis, recurrent pulmonary edema and serious visual disturbances caused by rapidly deteriorating fundus changes exceeding Grade 2 of Keith's and Wagener's classification. Last, but not least, there are the toxemias of pregnancy, which, at times, can be classified as hypertensive emergencies. All these patients need special consideration.

True, some of these cases at times have reacted favorably to sodium restriction in their diet and/or to sodium and protein restriction (rice diet Kempner). However, in time, these strict and unpalatable diets become so monotonous that the patients resent them and finally refuse to continue with the dietary regime, even though they are convinced of its value.

Surgical sympathectomy has been of benefit to some patients whereas others have had relapses of their hypertensive disease after an operation, and some have not reacted at all to surgical intervention. Unfortunately, there is no method known to insure that only those patients will be operated upon who will respond to operative treatment.

E. V. Allen (3) writes: "It is, therefore, logical to believe that, if the problem of essential hypertension is solved, it will be solved by medical measures." If the blocking of the transmission of nervous impulses decreases the tonus of the smaller blood vessels and lowers the

Table 1
Criteria for Effectiveness of Hypotensive Drugs
(Edward D. Freis, Medical Clinics of America, 32, 5. Sept. 1948)

1) Agent should lower blood pressure significantly in a fair proportion of patients.
2) Hypotensive effect should be accomplished without serious detriment to the patient.
3) Hypotensive response should be accompanied by clinical indication of arrest or preferably reversal of the disease (symptomatic relief, reduction in cardiac size, clearing of neuroretinitis, etc.).
4) Drug should have a duration action of at least 8 hours.
5) Satisfactory drug should be effective by mouth or at least subcutaneous injection.

resistance to the blood flow, the blood pressure logically will fall, and secondary organic changes, like retinitis, cardiac hypertrophy, etc., will disappear. This has been proved to be the case after surgical sympathectomy and there is no reason to assume that "chemical sympathectomy" cannot do the same thing. In the last few years, old drugs have been re-examined for their pressure-reducing qualities and new drugs have been designed for this purpose. The drugs now at our disposal can be conveniently divided as follows:

1) Drugs whose action is not due to any reversal of vascular changes.
2) Drugs whose primary action is upon the sympathetic and parasympathetic nervous system (adrenergic and sympatholytic drugs).
3) Drugs which interrupt the transmission of nervous impulses from the central nervous system to the periphery at the level of the ganglionic synapse (ganglionic blocking drugs).

The selection of the most suitable drug for the individual patient has already become a serious problem due to the list of "effective" drugs provided by the busy pharmaceutical industries. A few basic principles of drug treatment, first formulated by Freis (4), will help to make a selection (Table 1, 2, 3). Points 4 and 5 of Table 3 need particular emphasis. A duration of drug action of about 8 hours is important either to minimize the danger of infection from too frequent injections, or its interference with digestion and proper resorption of the drug by oral administration. Effectiveness by mouth, or at least by subcutaneous injection, which the patient can be trained to give himself, makes

Table 2
Indications for the Use of Hexamethonium in Hypertensives

1) Persistent elevation of the diastolic blood pressure above 140 mm. Hg while patient is at complete rest and thoroughly relaxed and after conservative measures, such as bed rest, sedation, sodium restriction, rice diet and psychotherapy have been proven unsuccessful.
2) Severe and disturbing clinical manifestations, such as intractable headaches, dizziness, vertigo, breathlessness, pulmonary edema, repeated epistaxis and serious visual disturbances caused by rapidly deteriorating fundus findings exceeding Grade 2 of Keith's and Wagener's classification.
3) Toxemia in pregnancy and eclampsia.

Contraindications for the Use of Hexamethonium in Hypertensives

1) Impaired renal function (azotemia).
2) Recent blood losses.
3) Advanced coronary artery disease and cerebral thrombosis.
4) Persistent constipation, not yielding to proper management.

Table 3
Action of Hexamethonium Chloride

1) Inhibits or blocks the transmission of nervous impulses through the sympathetic and parasympathetic ganglia.
2) Produces reduction of blood pressure in hypertensive patients by removal of the abnormal vasoconstrictor tone. Effect obtained varies considerably, corresponding to the relative proportions of neurogenic and humoral components of the raised blood pressure.
3) Reduces bleeding during surgical operations by reducing or abolishing sympathetic tone and pooling of blood in the vessels of a dependent part of the body.
4) Depresses the volume and acidity of the gastric secretion and motality.
5) Causes dilatation of the pupils and dryness of the mouth (atropine-like effect).

the procedure itself independent of the physician's personal attendance, and contributes to the willingness of the patient to cooperate.

Our own experience has been restricted to the administration of one of the ganglionic blocking agents, the hexamethonium chloride (Methium). This should not be construed as a discrimination of other drugs. After searching the literature on these preparations and after having had a few preliminary experiences of our own with some of these drugs, Methium seemed the most suitable drug for our purpose, and, despite certain undisputed disadvantages, the most promising one for a prolonged treatment of essential hypertension. This drug did

Table 4
Toxic Reactions of Hexamethonium

All toxic reactions can be traced to the blocking action of Hexamethonium upon the autonomous nervous system:

1) Postural hypotension → faintness → vertigo → syncope
2) Atonia of the guts, causing constipation and a condition resembling paralytic ileus
3) Nausea, vomiting, diarrhea
4) Blurred vision, dryness of the mouth
5) Paralysis of the bladder with urinary retention.
6) Decrease in libido.

not seem too hazardous, provided a rather strict routine was followed during its administration, the details of which will be discussed. The convenient oral route of application is especially controversial and needs further study.

The Hexamethoniums, one of which is Methium (Hexamethonium chloride), are powerful hypotensive drugs, effective by the parenteral, as well as the oral route. One of their so-called disadvantages is the poor, irregular and erratic absorption from the intestinal tract. When the urinary excretion is used as an index of the amount of the dose absorbed, absorption ranges from 5–10 %. This index corresponds with the clinical observation that roughly ten times more of the drug must be given by mouth to obtain the same effect as with parenteral dosage (Paton and Zaimis, 5). For this reason, as well as the risk created by the irregular absorption of the drug, the oral administration has been termed unsatisfactory by many observers (Graham and Campbell, 6; M. L. Rosenheim, 7, and others). We disagree on the basis of our experience. The so-called poor absorption rate is an advantage, rather than a disadvantage, of the drug, provided a regular absorption of the 5–10 % from the intestinal tract can be achieved with a strict and proper regime. With the absorption rate regulated, the "poor" absorption prevents, rather than creates, overdosage and toxic side effects. It should be kept in mind that the action of Hexamethonium is considerably enhanced by a salt poor diet, and a smaller dosage of the drug can be given to patients following this dietary regime, which also tends to minimize the toxic side effects and has become an integral part of our therapeutic measures.

Table 3 gives a clear outline of the action of Methium, and Table 4 explains its possible toxic reactions which can be traced to ganglionic blocking action. Blurred vision and dryness of the mouth are the usual side effects of the drug and, as a rule, are not particularly bothersome. Decrease of libido has been observed more in the male than in the female patient, catching the patient by surprise, but is of no significance as it is a transitory symptom, disappearing immediately with the cessation of the medication. Postural hypotension is a desirable effect of the drug, rather than a toxic side effect. Atonia of the guts, together with its result constipation and paralytic ileus, seem to be features which can be avoided, and paralysis of the bladder has fortunately never occurred in our series.

Before reporting our own results, it may prove of value to discuss briefly the contraindications to the use of Methium in hypertensive patients. Hexamethonium is excreted as an unchanged compound solely by the kidneys and it is therefore only logical to postulate that the kidney function should be intact, or at least not damaged, to an extent as to interfere with the elimination of the drug from the blood. An undue increase of the blood level will naturally create the danger of toxic reactions. Elevated blood levels may also be due to a stepped-up resorption from the intestinal tract in cases of constipation, when the drug remains in the guts for too long a period of time. Therefore, the digestive functions of the patient need special attention, and chronically constipated patients not responding to proper management in their pre-treatment period are better excluded from the oral administration of Methium, as furthermore the drug lowers the blood pressure and slows down the blood flow. This increases the danger of thrombosis and, in cases of advanced coronary or cerebral thrombosis, or recent and extensive blood losses, makes the use of Hexamethonium inadvisable.

We have thus far employed Methium in 22 selected cases. The first patient began to take the drug in April, 1952, which makes the observation period rather short and the number of cases studied not large enough to give a fair impression as to the effectiveness, or failure, of the drug. This report is, therefore, a preliminary one. Its findings are of necessity highly subjective and its deductions may prove to be

premature and in need of correction in many of its ramifications. There is one point, however, which should be stressed in view of a few recent very antagonistic reports: Due to the fact that we were extremely careful in the selection of our cases and followed a very strict routine, we did not run into any serious trouble, discontinuing the treatment in several cases, where we were not certain that the routine we prescribed was followed by the patient in its minute detail. The following case reports will illustrate certain points of our hypothesis:

F. S., a 42 year old male clerk, was first seen at the office on April 21, 1952. For many years he had been suffering from "migraine headaches", which had disappeared spontaneously. In December, 1951, he felt light headed and, at times, dizzy, and visited his physician for a general examination. He was told that his blood pressure was considerably elevated and that he should take things easy and stop smoking 80 cigarettes a day. There was a family history of hypertension and both parents died from cerebral accidents at the age of 62 and 52 respectively. On April 20, 1952, he suffered a sudden severe epistaxis, which lasted for several hours and was stopped by tamponade of the nose. He was told by the attending physician that his blood pressure needed immediate treatment. The patient was 66½ inches tall and weighed (stripped) 175 lbs. The face was flushed and a slight dyspnea on exertion, as well as orthopnea, were present. Fundi showed Grade II hypertensive changes but no blurring of the discs. The enlargement of the heart was very marked and extended to the left anterior axillary line; a systolic murmur was audible over the entire precordium. His blood pressure was 240/160. The ECG showed a sinus tachycardia and marked left ventricular strain. The urine had a specific gravity of 1.018 and did not contain any albumin, sugar or urobilinogen. He was hospitalized and his basic blood pressure was established at 230/140. Further course and medication are shown in Fig. 1. His blood pressure slowly receded and the patient felt well and was discharged from the hospital on May 12, 1952, with a blood pressure of 140/95 and a weight loss of 10 lbs. His maintenance dose at that time was 2 grams a day, divided into 4 doses of 500 mg. each. He has continued this dosage ever since, with no toxic side effects whatsoever, and has not lost a single day of work. His blood pressure now ranges between 160–170 over 100–110. He has had no recurrence of his epistaxis. X-ray examination on December 20th showed marked reduction of the size of his heart. The ECG revealed a slurring of his heart rate, a lowering of the voltage, and a diminution of the left ventricular strain. There were no changes in the condition of the fundi.

E. B., a 57 year old housewife, was seen first in consultation on June 16, 1952. She was a known hypertensive for the past 10 years and had several mild cerebral vascular accidents. She complained of severe headaches, extreme general weakness, dizzy spells, shaking of the right hand (which interfered with writing and needlework) nycturia, and dyspnea on exertion. Her last cerebral accident a few weeks prior to the examination was coupled with vertigo. She collapsed early in the morning in the bathroom and struck her head against the wash basin, suffering several lacerations of the scalp which required hospital treatment. She

had been digitalized for several years and received Veratrite while in the hospital but without much relief. There also was a family history of hypertension. Both parents and one sister died from cerebral accident and coronary occlusion respectively. She was 64½ inches tall and weighed (stripped) 157 pounds. She had a slightly flushed face and mild cyanosis of the lips, but no dyspnea or orthopnea. There were minor varicosities of both legs but no pretibial edema. The heart was not enlarged, the heart sounds were distant and poor, and the second aortic sound was accentuated. A systolic murmur could be heard over the aortic area. The blood pressure was 190/110 and the ECG showed left axis deviation and left ventricular strain. There was slight posturing of the pronated forearm and fist-making was not as facile with the right as with the left hand. On walking there was a tendency towards diminished automatic swinging of the right arm, and a fine tremor of the right hand was present. The face was slightly set and the left corner of the mouth was somewhat lower than the right. Fundi showed AV nicking but no blurring of the discs. Urine analysis revealed a specific gravity of 1.010, no albumin, sugar or urobilinogen. Blood count and sedimentation rate were normal. PSP showed a total elimination of 63 % of the dye, and the highest concentration of the urine was only 1.015. A diagnosis of essential hypertension and hypertensive encephalopathy was made and the patient was hospitalized. Under bed rest, salt-poor diet, and sedation, her systolic blood pressure receded to 170, but the diastolic remained unchanged and her complaints continued. On June 19, 1952, she was put on 500 mg. of Methium and the blood pressure promptly dropped. On June 27th, a slight rise was again noticed and the dose of Methium was increased to 750 mg. On June 28th, her standing blood pressure had fallen to 130/80, she had no headaches any more and asked to be discharged in the care of her local physician. When I saw the patient again on July 10th, she had been kept on a maintenance dose of 750 mg. of Methium and her blood pressure was 150/90. Her general condition was very satisfactory. There was no headache, no dizziness, the weakness had disappeared and the shaking of her hand was no longer noticeable. She claimed that she was able to write and crochet again and that she had no more dyspnea. Her maintenance dose was again increased to 825 mg. of Methium daily and she was again seen on August 27th, when all subjective symptoms had practically disappeared and her blood pressure was 120/70. Ever since she is continuing her maintenance dose, her blood pressure does not change and she is feeling well.

E. G., a 62 year old hospital administrator, was first examined on May 21, 1952. His hypertension was discovered quite accidentally 5 years ago, when he applied for a life insurance policy. In September, 1950, he had a mild cerebral accident while riding in a subway and had to be hospitalized. He was treated with bed rest, diet, sedation and injections of an unknown drug. He did not improve and complained of dizziness, grogginess, fatigue, tremor of both hands, constant "funny feeling" in the head, and palpitations. He had stopped smoking 5 years ago on the advice of his physician and lives a very quiet life.

He was 65 inches tall and weighed (stripped) 135 lbs. He had a rigidity of facial expression and a very slow gait. There was edema of both legs and a rather coarse tremor of both hands. The fundi showed blurring of both discs, increased arteriolar reflexes and AV nicking, but no old or fresh hemorrhages. The heart was not enlarged, but the second aortic sound was accentuated and a rather

harsh systolic murmur could be heard over the entire precordium. Blood pressure was 195/100. The urine concentrated to 1.023 and showed a faint trace of albumin. PSP showed a 60 % excretion in the first hour, and the Urea Nitrogen was 14.3 mg.% Blood count and sedimentation rate were normal.

As this patient was a hospital administrator, he was not hospitalized but was seen daily at the hospital. From May 21st until July 10th, he was kept on a salt-poor diet, vitamins and sedation. His blood pressure went up to 210/110 and his condition remained unchanged. Following the administration of 500 mgs. of Methium in four divided doses, his blood pressure came down to 180/90. When we increased the dose to 750 mg., he first felt rather well, but on August 1st, he complained of weakness and a feeling of faintness, as well as a slight nausea, dryness in the mouth, and blurred vision. His blood pressure was 120/70. It was assumed that his maintenance dose was probably too high and it was again reduced to 500 mg. in four divided doses. On August 8th, there were no subjective complaints and the blood pressure had risen to 140/98 and he felt very well. On August 19th, his blood pressure was 132/94 and on September 2nd, it was 140/98. The patient spontaneously claimed that he had not felt as well in many years, he went to work every day despite the unusual summer heat. On October 15th, he complained of nervousness, palpitations, and giddiness, his blood pressure was 170/98, and his physical findings were satisfactory. He claimed that he was nervous because his sister-in-law had been attacked and robbed in the apartment house in which he and his wife were living, that he was in constant fear it could happen again, and could happen to him. Ever since, his systolic pressure has been higher, but the diastolic pressure remains at a level slightly below 100 mm. Hg.

J. H., a 65 year old French seamstress and war bride of World War I, was known to me since June, 1940, when she visited my office with complaints of occipital headaches, dizziness, insomnia and a choking sensation in her head. She had always been emotionally unstable. Her weight at that time was 145 lbs., and her blood pressure 170/90. In the 12 years I have observed the patient, her weight increased to 157 lbs., and the blood pressure to 260/140. She had a mild coronary occlusion in March, 1948, which left her with a moderate myocardial damage causing occasional premature beats, which, at times, became the source of highly emotional complaints. Her heart became enlarged in 1948 and a harsh systolic aortic murmur developed that was audible over the entire precordium. In September, 1951, she had a cerebral accident which, after a few days of a complete right-sided hemiparalysis, left her with a certain spasticity and weakness of that side of the body. Her blood pressure remained elevated (250/140) and she complained bitterly of dizziness, severe headaches, and blurring of her vision. The slightest effort, as climbing one short flight of stairs up to her room in the slums, left her shortwinded and exhausted for a long period of time. She always lived very irregularly, smoked excessively and ate poorly balanced meals. In the hope of getting some relief from her distressing symptoms, she agreed to cooperate in this new treatment. I should have known that a person accustomed to such an irregular mode of life would be uncooperative. She was briefed and put on 500 mg. of Methium on July 27, 1952. The initial response was favorable. By August 12th, her blood pressure had fallen to 180/110. She felt considerably better, her headaches had disappeared, she could walk better and climb the flight of stairs to her room without difficulties. However, she resented the strict diet, the laxatives,

and many of the rules and regulations. When the dose of Methium was increased to 625 mg. on August 20th, her blood pressure fell to 160/104 and the patient felt lightheaded, faint, and complained of palpitations. When the dose was reduced to 500 mg. the blood pressure went up and the readings became irregular. She conceded that she did not adhere to the regimen "too" strictly, and we thought it better to take her off the drug before dangerous reaction would occur.

In the foregoing discussion, we have stressed repeatedly the point that success or failure of treatment with ganglionic blocking drugs may very well be determined by the way in which cases are selected for this kind of therapy. Indication and contraindication for the use of hexamethonine in the individual patient can best be established by hospital observation. We are not satisfied – as many physicians are – with data obtained during ambulatory examinations. Each patient should be hospitalized for diagnostic work-up, proper briefing, and observation of the initial response to therapy.

Basic blood pressure must be established by instituting bed rest, salt-poor diet and sedation. Kidney function is ascertained by clearance and excretion tests, and the condition of the myocardium is properly evaluated.

Special attention should be paid to the regulating of bowel function. Mild saline laxatives should be administered routinely.

Patients whose constipation cannot be overcome are better rejected as poor risks. Among other things, the hospitalization period gives the patient an opportunity to receive some valuable hints from the dietitian in regard to the salt-poor diet which is an integral part of the entire therapeutic regimen.

Proper instruction and briefing of the patient is part of initiating the treatment. He has to be told in detail, what he has to expect, what the "normal" reactions to the drug may be, and how he can minimize or overcome them. The toxic reactions should be explained to him and he should be informed that he must contact his physician promptly each time he has a new reaction. Under no circumstances should he ever increase, decrease, or stop his medication without informing the physician as particularly severe kidney reactions have been observed after sudden withdrawal of the drug.

The so-called postural hypotension, meaning the drop of blood pressure in a standing position, is a desired effect of the ganglionic-

blocking drugs and not a manifestation of toxicity. It is the most sensitive indicator of proper dosage.

When the standing blood pressure is charted graphically, the development of tolerance or toxicity becomes evident immediately. In the latter case, the curve drops abruptly even before clinical symptoms appear, and in the former case, it increases slowly. The drop calls for an immediate reduction of the dose, and the rise for its increase. A dosage schedule, based on the evaluation of the standing blood pressure, safeguards the regulation of the drug therapy. It is inadvisable to follow rigid dose schedules as each and every case requires individual handling. It is always well to remember that hypertension is an adaptation syndrome, and that the body has made its adjustment to the altered physiological state of the vascular system over a period of many years. Therefore, it should, and will, take time for the body to re-adjust itself to lower blood pressure levels. For this reason, and in order to avoid serious side effects, the blood pressure should be reduced slowly over a period of many weeks. Relief from distressing symptoms, and the slow improvement with the disappearance of physical signs, are more important than the establishment of ideal blood pressure values. The smallest dose which can keep the blood pressure on an even level should be accepted as a maintenance dose.

The administration schedule of the drug also needs careful watching. The drug should be given on a fasting stomach at least 4 hours after the previous meal, and about 1 hour before the following meal, in order to obtain better resorption from the intestinal tract. As poor and irregular absorption is one of the pitfalls of oral administration, optimal conditions for the resorption of the drug should always be established. Also sudden discontinuation of the agent should be avoided, as cases have been reported in which a sudden withdrawal has caused serious kidney disturbances.

In case of serious complications, such as vertigo, giddiness, severe constipation, paralytic ileus, or retention of urine, the dose should be reduced immediately and antidotes be given at once: Urocholin and Neostigmin in paralytic ileus and urinary retention, and Neosynephrin in severe hypotensive states.

Our experience with oral medication of a ganglionic blocking agent (Methium) in 22 consecutive cases of essential hypertension can be summarized as follows:

The ganglionic blocking agents are powerful drugs, and their employment in hypertension has many pitfalls. However, with proper selection of cases and proper regard to technical requirements good clinical results can be obtained at not too great a risk.

The drug therapy in essential hypertension is in its infancy; better and less toxic agents will doubtlessly be available in the near future.

REFERENCES

1. Pickering, G. W: The pathogenesis of malignant hypertension. Circulation *6*, 599–610, 1952.
2. Beckman, H.: Pharmacology in clinical practice, p. 196–203. W. B. Saunders, Philadelphia 1952.
3. Allen, E. V.: Symposium on the treatment of hypertension. Proc. Mayo Clin. *27*, 473–474, 1952.
4. Freis, E. D.: Recent advances in the medical treatment of essential hypertension with particular reference to drugs. Med. Clin. N. Amer. *32*, 1247–1258, 1948.
5. Paton, W. D. M. and E. J. Zaimis: Actions and clinical assessment of drugs, which produce neuromuscular block. Lancet 2, 568–570, 1950.
6. Graham, J. G. and A. Campbell: Absorption of Hexamethonium. Brit. med. J. *1*, 1514–1515, 1951.
7. Rosenheim, M. L.: Medical treatment of hypertension. (Proc. roy. Soc. Med.) Lancet *1*, 492–493, 1952.

DISCUSSION

EMIL GLASS

I would like to emphasize the importance of the ganglionic blocking in the treatment of certain diseases. Years ago I introduced a method of blocking the ganglion sphenopalatinum by means of Isophenal (Doppler) for the treatment of headache due to spasm of the small vessels. Doppler was the first to introduce the so-called sympathicodiaphteresis; he used it as a substitute for the Lériche opera-

tion to relieve the vascular spasm affecting the testicle. Blocking of the nasal sympathetic pathways may check severe headache, for instance of premenstrual headache. According to Fliess, the blocking is achieved by cautherization of the tuberculum of the nasal septum or of the anterior portion of the middle turbinate. Ruskin obtained good therapeutic results in the treatment of backache by blocking the nasal ganglion in this way. The attempt seems justified to apply this method to the treatment of hypertension in lieu of the heroic surgical procedures presently used. The technique of the blocking method is simple, there is no risk involved, no pain and no side effects. I had good results with this method in some cases of Buerger's disease.

INSECTICIDES

Ludwig Teleky

Devastation by insects and other animal pests is an old story and so is the fight against it. In the second book of Moses we read that God sent over the Egyptians a cloud of stinging flies, grasshoppers and house vermin. The suggestion that fruit trees be treated with sulphur or tar vapors was made already 200 years before Christ. Since those antique ages man has made himself master of vast areas of the earth and turned them to his own purposes: agriculture, cattlebreeding, forestry. The gravity of pest devastation and man's struggle against it have accordingly intensified. Sixty kinds of insects cause damage in the United States estimated at a yearly total of $1,600,000,000. In the fight against pests we consume, yearly, sixty-six million kilograms of lead and calcium arsenate, twenty-two million kilograms of DDT, and smaller quantities of many other substances.

Both world wars added strong impetus to man's endeavor to find and test the efficacy of insecticides. In the last few years nearly five thousand substances have been tried out on insects and rodents. The problems involved are not simple; different insecticides must be used against different insects, for different plants, soils and seasons. For example: one animal may react to a poison quite differently from another animal – which indicates also how wrong it is to apply to human beings the results of animal experiments. In this connection let me mention a new rodenticide: *α-Naphthylthiurea, "Antu"*. This kills norway rats and dogs but has practically no effect on mice or squirrels.

We cannot speak here of the various properties and peculiarities of different insecticides, but we should mention the amazing fact that

certain insects build up resistance to particular poisons, an immunity that persists for generations. Thus in the United States generations of flies have now acquired resistance against DDT.

In addition to the older poisons, such as the arsenates and hydrocyanic acid, there are the new contact insecticides, which kill by contact alone. These may be grouped as follows:

Halogenated hydrocarbons, including DDT, Chlordan, Benzenehexachloride
Organic phosphates: Parathion, TEPP

We have further:

Organic sulphur compounds
Organic materials such as nicotine
Organic mercury compounds
Lead arsenates, etc.

It should be emphasized here that every insecticide has several *commercial names,* adopted by various firms and changing with the times.

We shall speak here only of a few of the most important insecticides and their danger to human beings – the factory workers who produce them, and the farmers who apply them. – We will learn how to protect them and how to treat poisonings.

Hydrocyanic Acid: Extremely dangerous. It can penetrate a thin wall, adheres to clothing and textiles. After it has been used as insecticide or rodenticide, rooms and textiles which have come in contact with it must be thoroughly aired for at least twenty-four hours. This poison is taken in by respiration and through the skin; it quickly causes unconsciousness, coma, death. The Reichsgesundheitsamt recommended a treatment as early as 1942, which has since been improved upon by Chen and Rose (1). First, inhalation of amylnitrite from broken phials, then intravenous injection of 2.5–5 cm^3 of a 3 % sodium nitrite solution; instantly thereafter, with the same needle, 25–50 cm^3 of a 50 % sodium thiosulfate solution. If necessary, repeat one hour later, in any case two hours later. The patient has to be observed for 24–48 hours and if necessary be treated again.

Organic Mercury Compounds. Commercial names: Ceresan, Germisan, Upsulan, etc. The clinical picture differs from that of mercury poisoning. There is little or no salivation or tremor, but we find vasomotoric disorders, hypoaesthesia in the lower extremities and psychic disturbances.

Example: Two girls are working in a storehouse 15 feet away from some piles of diethylene mercury. After 3 months of working they fall ill with gastric and nervous disturbances. In spite of treatment with BAL death occurs 6 weeks later.

Contact Insecticides. According to Lehman (2) their relative toxicity for human beings is as follows:

DDT	1
Chlordan	½
Methoxychlor	1/24
Parathion	70
TEPP	125

The most frequently used of these substances is DDT. It is supplied as a talcum powder containing 2–10 % DDT, and as a spraying liquid containing 6 % DDT in kerosene. Commercial names: Gesarol, Neocid, Duclid, etc. Up to 1951 there were 66 reported poisonings (one fatal) among agricultural workers, 263 poisonings (9 fatal) by accidental intake, and 22 poisonings by wilful intake, with 3 deaths.

Light cases bring on loss of appetite, gastric symptoms, burning of the eyes, dryness of the pharynx and irritability. Cases are reported among workers following a single exposure to heavy dust clouds, as well as following prolonged lighter contact, e.g., after an overnight stay in freshly and too heavily dusted rooms.

Klingemann (3) reports on a man who inhaled heavy clouds of dust for two or three hours and took in large quantities through his greased skin. He developed gastric symptoms, paraesthesia, paresis and albuminuria. Recovery was very slow. There are also chronic cases. Stone and Gladstone (4) report disturbances of speech, vision and locomotion after 4 years of constant exposure. Hertel (5) reports the fatal outcome of such a chronic case.

For his protection the worker should have a respirator (tested by the United States Department of Agriculture) and natural rubber gloves. The workers should be shifted every two to four weeks; they should not engage in this kind of work for any length of time. Stone and Gladstone tried their patient with 400 mg. of nicotinic acid daily for 3 days, then injected 150 mg. of thiamin daily for 6 days.

Chlordan, called "Velsicol 1068", is absorbed by the skin. Reports on poisoning are few and not entirely clear. Symptoms seem to be vertigo, irritability, tremor.

Benzenehexachloride and *Pentachlorphenol* (Baader and Bauer, 6) are skin irritants, the latter also causing bronchitis and neuralgia. *Dichlorbenzol* ("Globol") was formerly believed to be innocuous, but on one occasion four persons who had been treating clothes against moths with this substance lost consciousness, showed a weak pulse, excitation, then vomiting (7).

Organic Phosphorus Compounds. They are far more dangerous than the halogenated hydrocarbons; *Parathion* is the most widely used. The record on Parathion (called "E 605" or "Thiophos") up to the year 1950 shows 198 reported poisonings, including 7 fatal and 40 of serious nature. Of these cases 112 were farm workers (including 2 pilots), with 3 fatalities and 25 serious consequences. Parathion is a black-brown, oily liquid which is used in the United States as a 1–2 % powder with talcum or as a 0.06 % emulsion. Parathion inactivates the enzyme cholinesterase. Parathion is taken in through the skin and by respiration.

Case reports. A man working without a respirator fell ill at noon of the first day with vertigo, fainting, abdominal pains, vomiting, convulsions.

A man who sprayed himself with Parathion failed to get cleaned properly. 8 hours later there was nausea and tremor. Improvement set in after administration of atropine, but death occurred 21 hours later (8).

Another worker after being severely soiled with Parathion died within 15 hours.

But we have also reports indicating a more cumulative poisoning:

A man worked for two weeks, 5 days a week, filling spray apparatus. He fell ill, but recovered. A month later he started on the same kind of work again and died on the second day of the renewed contact.

An entomologist worked for 4 months off and on with Parathion. One day he failed to use a respirator; after a few hours of working he died.

To summarize, poisoning begins with nausea, vomiting, abdominal pains, salivation, and myosis (eye disturbances may cause accidents among pilots spreading the substance from a plane), increase in blood pressure, oppression, bronchitis with heavy secretion, muscle spasms, tremor, restlessness; eventually, stupor, confusion, convulsions and death may occur. Fatal outcome has been observed from one to 21 hours following the exposure and from one to 13 hours after the appearance of the first symptoms.

The American Cyanamid Co., which produces Thiopos (Parathion) in the United States, recommends the following prophylaxis: Avoid inspiration and contact with skin; for this purpose use approved respirator and gloves of natural rubber, cover every part of skin. After work wash face, arms, hands and all soiled parts carefully. It is best to take a bath and clean the whole body thoroughly. When symptoms appear, call the doctor, but even before his arrival, if there is disturbed vision, abdominal pain, oppression, take two tablets of atropine, 0.6 mg. each. If the physician finds hyperhydrosis, myosis, lacrimation, salivation, he is to give 1.30–1.95 mg. atropine intravenously every hour until dilation of the pupils occurs or until 19.5 mg. have been given. Give no morphine! If there is bronchial stasis apply "postural drainage", if necessary artificial respiration. The acute danger persists from 24 to 48 hours. A man who has once been poisoned should not work with Parathion again.

A sensitive test for Parathion poisoning is the determination of cholinesterase in red cells and plasma. A good method of detecting an impending poisoning would be the continuous control of the concentration of this enzyme. The first determinations must be made before the worker starts handling organic phosphates, in order to obtain his normal cholinesterase values. Weekly examinations should be made thereafter. Upon the first appreciable drop of one of the cholinesterase below the mean normal, the worker should be immediately removed from all possible contact with Parathion until a subsequent check indicates the return to normal values. Garlik (9) applied this method with excellent results. However, the method is rather involved and requires facilities not readily obtainable in rural surroundings.

TEPP is even more dangerous than Parathion.

In my opinion such extremely dangerous substances as the organic phosphates should not be used at all. The use of insecticides in general requires government regulation so that potential damage may be minimized and substances too perilous to man can be removed from the market.

REFERENCES

1. Chen, K. K. and C. L. Rose: J. Amer. med. Ass. *149,* 113, 1952.
2. Lehman, A.: Pests and their Control. July 17, 1949.
3. Klingemann: Ärztl. Wschr. *1949,* p. 465.
4. Stone, T. T. and L. Gladstone: J. Amer. med. Ass. *145,* 1342, 1951.
5. Hertel, H.: Dtsch. Arch. klin. Med. *199,* 256, 1952.
6. Baader, E. W. and H. J. Bauer: Ind. J. Surg. *20,* 286, 1951.
7. Robber, H.: in Sammlung von Vergiftungsfällen. 1928.
8. Bidstrup, P. L.: Brit. Med. J. *2,* 548, 1950.
9. Industr. Hyg. Newsletter *10,* No. 9, 1950.

LEAD POISONING IN CHILDREN

FREDERICK G. ZAK

A fatal case of lead encephalopathy in a child with pica is presented. The diagnosis was not suspected clinically and based on the presence of acid-fast nuclear inclusion bodies in kidney and liver. Typical microscopic changes of the brain and a significant increase of lead in this organ corroborated this.

The differential diagnoses are discussed from the standpoints of the clinician and the pathologist.

SELECTED LEGAL TOPICS

ALBERT HIRST

I accept, with thanks, your invitation to discuss with you tonight certain legal subjects which may be of practical interest to you. I shall touch upon these topics:

I. The unpleasant possibility that a physician may be sued both for malpractice and for breach of contract.

II. Some legal aspects of the physician's duty to keep confidential his patient's communications.

III. Certain provisions of the Penal Law of interest to physicians.

IV. Certain aspects of the law of Intestacy and Wills.

I.

We all realize the high obligation we owe to those who come to us for professional help; we realize that we owe them the highest duty, unflagging zeal and attention to their needs; we have no sympathy for the man who, careless of his professional standards, injures those who come to him and has to respond in damages for wrongs he has inflicted.

What concerns us, however, is the possibility, unfortunately not so remote, of the professional man being victimized by the crank or the crook.

Now, what I wanted to bring out in this part of my discussion is the even more unpleasant fact that that crank or crook has the opportunity of attacking a physician in two different ways. He may claim "malpractice". That term has been defined in Isenstein v. Malcomson, 227, App. Div., 66, 236 N. Y. S. 641, 643, where the court said that

it has been "used to indicate a corrupt or culpably incompetent practitioner of either law or medicine".

Now, in an action for malpractice, your defense can show that the methods which you used to treat the patient were the standard methods recognized by the profession, that you used due care and that the unsatisfactory result was not your fault.

Insurance companies make readily available to reputable physicians policies under which, in case of an action for malpractice, the insurance company bears the entire expense of the defense and in case of an adverse outcome, pays the judgment that the patient may recover.

I take it that so far I have told you nothing new. What I wanted to point out under this heading is the possibility, well established in our law, of an action by that same crank or crook not only for malpractice, but in addition, on a theory of a breach of contract. Thus, one of our courts stated (Frankel v. Wolper, 181 App. Div. 485, 169 N. Y. S. 15, 17):

> "I should say, that where a physician, with whatever prudence, agrees that his treatment *will cure*, and it does not, the patient is absolved from payment, may recover advances, may recover expenditures necessitated for nurses and medicines, and maybe for something else."

To make things worse, under our law, an action for malpractice must be commenced within two years after the act of malpractice has been committed. If not commenced within that period, it is forever barred. A claim for breach of contract, however, may be asserted any time within six years.

Let me give you the facts in Conklin v. Draper, 229 App. Div. 227, 241 N. Y. S. 529, aff'd. 254 N. Y. 620. In that case, plaintiff was operated for appendicitis. The surgeon left an arterial forceps in the abdominal cavity. The error was discovered after the two years had elapsed during which an action for malpractice could be commenced, but the court permitted the plaintiff to sue for a breach of the contract which the defendants had made that the operation "will cure". Significantly enough the defendants were the surgeon who performed the operation, as well as the general practitioner who had assisted in the pre- and postoperational care.

In another case*, the defendant had attempted to remove a cataract. The operation was unsuccessful. The patient sued, claiming that insufficient anesthesia

* *Colvin v. Smith*, 94 N. Y. S. 2d 98, aff'd. 276 App. Div. 9, 92 N. Y. S. 2d 794, 275 App. Div. 1018, 91 N. Y. S. 2d 713.

was given; because of that insufficiency, the patient moved the eye during the operation, which resulted in injuries. She sued the doctor in two separate actions, in each case claiming $ 20,000, one action for malpractice and the other one for breach of contract to cure. The courts held that she was entitled to maintain both cases.

Let me stress the difficulties these defendant physicians were subjected to in cases where the patient claims that a contract was broken. You, as a physician, may know that a promise that your "treatment will cure" would be ridiculous. As a matter of fact, you may have warned your patient that the possibility of success of the treatment is slight; you may even have discouraged continuance of the treatment. Just the same, the patient can come into court and claim that within the secrecy of your consultation room a conversation had taken place completely contrary to what actually was said; you will find yourself in the highly undesirable and dangerous position that there will be one person's word against the other's, with a jury left free to speculate whether to believe the patient or the physician, one of them obviously lying.

This situation is made all the more serious by the fact that you cannot obtain insurance to protect you against claims for breach of contract. Obviously, no insurer can undertake to protect a physician who, for all he knows, may have been making extravagant promises in order to attract business.

One consolation only can I offer – the damages recoverable in an action for breach of contract are likely to be considerably less than those in a malpractice action. Just the same, to be compelled to repay all fees received from the patient, to pay him for his expenditures for nurses and medicine, is an unpleasant possibility.

I can only recommend extreme care in predicting the outcome of treatments, by a physician or by a surgeon; to try, if possible, to have this type of conversation in the presence of a friendly witness, such as your nurse; and wherever possible, to obtain the patient's signed statement showing that no agreement was made that your "treatment will cure".

II.

The physician's duty to keep confidential what the patient has told him is too well known to call for discussion. What we shall discuss tonight are rather the exceptions to the rule:

1. No duty to keep disclosures confidential exists where the relationship is *not* that of physician and patient. If, for instance, a person sues an accident and health insurance company for disability benefits, or has been injured in an automobile accident and is suing in negligence, the defendant may arrange with you to examine the plaintiff; in that case, of course, you are perfectly free to disclose to the defendant not only your findings upon the examination, but whatever the plaintiff may have told you. You are not plaintiff's physician.

2. Your patient may authorize you to disclose your medical findings, including the medical history which he gave you, to another party; you may have treated a plaintiff whose medical status is now involved in litigation. Now, in any such situation, when your patient authorizes you to disclose your medical record to an outsider, it is advisable that you do not act, except upon your patient's written authorization. If you act under such a written authorization, it is essential that you insist that the writing be delivered to you and that you retain it in your files so that at any time in the future, you can protect yourself against any possible claims that your disclosures were not authorized.

3. You may be called to court as a witness. Such a call may come in two different forms: a) you may appear in court by arrangement, or b) you may appear under subpoena compelling you to attend. If you are subpoenaed, you are entitled to only the statutory witness fee which is trifling. It is quite proper, however, for you, whether you appear voluntarily or under the compulsion of a subpoena, to accept from the party that calls you to court, in addition to the witness fee, adequate compensation for your loss of time.

If you appear as a witness, whether voluntarily or under subpoena, the protection of your patient's confidential communication

has passed out of your hands. As a witness in court, it is your duty to answer all questions asked of you; it is up to the lawyer and not to you to object to questions if he considers that they call improperly for disclosure of confidential information. You can never be criticized for answering freely any question you are asked in court or in any judicial proceeding.

There is one additional bit of information that I would like to leave with you – certain matters that you personally, may consider confidential are not confidential as a matter of law. Even over objection, I can force you to disclose the dates when a person consulted you; I can also force you to answer the question whether on these occasions the person was well or sick. I cannot go further, but I can go that far. These questions you may safely answer to a stranger even though he does not have your patient's authorization.

III.

In this discussion, I shall confine myself to the Penal Law of this State; I take it that everyone in this audience is more or less familiar with his duties and liabilities under the United States Food and Drugs Act or the provisions of Federal law dealing with narcotics; as to narcotics, these are regulated by Federal and by State law; none of these matters shall I discuss tonight.

Again I shall confine myself to telling what the law *is;* this, I take it, is not the time and place to discuss what the law *ought* to be.

1. *Adultery* is defined in § 100 of the Penal Law to be: "Adultery is the sexual intercourse of two persons, either of whom is married to a third person". It is a misdemeanor. It is punishable by imprisonment up to six months or by a fine of $ 250. The possibility of prosecution for adultery is extremely slight. The type of evidence which is ample in an action for divorce is not sufficient in a criminal prosecution. There, the district attorney would have to prove "beyond a reasonable doubt" that intercourse actually took place. The mere finding of the parties alone in a hotel room, for instance, would not be sufficient.

2. *Abortion.*

"§ 80. Definition and punishment of abortion

A person who, with intent thereby to procure the miscarriage of a woman, *unless the same is necessary to preserve the life of the woman, or of the child with which she is pregnant,* either:

1. Prescribes, supplies, or administers to a woman, whether pregnant or not, or advises or causes a woman to take any medicine, drug, or substance; or,

2. Uses, or causes to be used, any instrument or other means,

Is guilty of abortion, and is punishable by imprisonment in a state prison for not more than four years, or in a county jail for not more than one year."

"§ 81. Killing of child in attempting miscarriage

A pregnant woman, who takes any medicine, drug, or substance, or uses or submits to the use of any instrument or other means, with intent thereby to produce her own miscarriage, unless the *same is necessary to preserve* her life, or that of the child whereof she is pregnant, is *punishable* by imprisonment for not less than one year, nor more than four years."

"§ 81–a. Witnesses' privileges

A female who has violated section eighty–a of this article or who has committed an attempt to violate such section shall not be excused from attending and testifying or producing any evidence, documentary or otherwise, in any investigation or trial relating to violations of sections eighty, eighty-one, eighty-two, ten hundred and fifty, or eleven hundred and forty-two of this chapter, or an attempt to commit any such violation, upon the ground or for the reason that the testimony or evidence, documentary or otherwise, required of her, may tend to convict her of a crime or to subject her to a penalty or forfeiture; but no such female shall be prosecuted or subjected to any such penalty or forfeiture for or on account of any transaction, matter or thing concerning which she is compelled, after having claimed her privilege against self-incrimination, to testify or produce evidence, documentary or otherwise, and no testimony so given or produced shall be received against her upon any criminal investigation, proceeding or trial *".

"§ 82. Selling drugs or instruments to procure a miscarriage

A person who manufactures, gives or sells an instrument, a medicine or drug, or any other substance, with intent that the same may be unlawfully used in procuring the miscarriage of a woman, is guilty of a felony."

"§1050. Manslaughter in first degree

Such homicide is manslaughter in the first degree, when committed without a design to effect death:

* * *

The wilful killing of an unborn quick child, by any injury committed upon the person of the mother of such child, is manslaughter in the first degree.

A person who provides, supplies, or administers to a woman, whether pregnant or not, or who prescribes for, or advises or procures a woman to take any medicine, drug, or substance, or who uses or employs, or causes to be used or

* In other words, the female may freely testify against the accused physician.

employed, any instrument or other means, with intent thereby to procure the miscarriage of a woman, unless the same is necessary to preserve her life, in case the death of the woman, or of any quick child of which she is pregnant, is thereby produced, is guilty of manslaughter in the first degree."

You will notice that § 80 defines the crime of abortion to be procuring "the miscarriage of a woman, *unless the same is necessary to preserve the life of the woman, or of the child with which she is pregnant*". I hardly need mention to this audience the well known practice that a surgeon before performing an abortion will have the case diagnosed by one, or preferably more than one, independent physicians and that he will not operate unless they certify in writing that the operation is necessary for the preservation of life.

3. *Contraceptives.* The law applicable to the use of contraceptives is found in §§ 1142, 1142–a and 1145 of the Penal Law. They read:

"§ 1142. Indecent articles

A person who sells, lends, gives away, or in any manner exhibits or offers to sell, lend or give away, or has in his possession with intent to sell, lend or give away, or advertises, or offers for sale, loan or distribution, any instrument or article, or any recipe, drug or medicine for the prevention of conception, or for causing unlawful abortion, or purporting to be for the prevention of conception, or for causing unlawful abortion, or advertises, or holds out representations that it can be so used or applied, or any such description as will be calculated to lead another to so use or apply any such article, recipe, drug, medicine or instrument, or who writes or prints or causes to be written or printed, a card, circular, pamphlet, advertisement or notice of any kind, or gives information orally, stating when, where, how, of whom, or by what means such an instrument, article, recipe, drug or medicine can be purchased or obtained, or who manufactures any such instrument, article, recipe, drug or medicine, is guilty of a misdemeanor, and shall be liable to the same penalties as provided in section eleven hundred and forty-one of this chapter."

§ 1142–a. Advertisements relating to certain diseases prohibited. Whoever publishes, delivers or distributes or causes to be published, delivered or distributed in any manner whatsoever an advertisement concerning a venereal disease, lost manhood, lost vitality, impotency, sexual weakness, seminal emissions, varicocele, self-abuse or excessive sexual indulgence whether described by such names, words, terms or phrases, or by any other names, words, terms or phrases, calculated or intended to convey to the reader the idea that any of said diseases, infirmities, disabilities, conditions, or habits are meant or referred to, and calling attention to a medicine, article or preparation that may be used therefor or to a person or persons from whom or an office or place at which information, treatment or advice relating to such disease, infirmity, habit or condition may be obtained, is guilty of a misdemeanor and upon conviction thereof shall be punished by imprisonment for not more than six months, or by a fine of not less than fifty dollars nor more than five hundred dollars, or by both such fine and imprisonment. This section, however, shall "not apply to didactic or scientific treatises which do not advertise or call attention to any person or persons from whom or any office or place at which information, treatment or advice may be obtained, nor shall it apply to advertisements or notices issued by an incorporated hospital, or by a licensed dispensary, duly certified by the local board of health as a venereal disease clinic, or by a municipal board or department of health or by the department of health of the state of New York".

"§ 1145. Physicians' instruments

An article or instrument, used or applied by physicians lawfully practising, or by their direction or prescription, for the cure or prevention of disease, is not an article of indecent or immoral nature or use, within this article. The supplying of such articles to such physicians or by their direction or prescription, is not an offense under this article."

Our highest court, the Court of Appeals, has said in *People v. Sanger,* 222 N. Y. 192, 194, 195, after quoting § 1145, that:

"This exception in behalf of physicians does not permit advertisements regarding such matters, nor promiscuous advice to patients irrespective of their condition, *but it is broad enough* to protect the physician who in good faith *gives such help or advice to a married person to cure or prevent disease.* 'Disease,' by Webster's International Dictionary, is defined to be, 'an alteration in the state of the body, or of some of its organs, interrupting or disturbing the performance of the vital functions, and causing or threatening pain and sickness; illness; sickness; disorder.'

The protection thus afforded the physician would also extend to the druggist, or vendor, acting upon the physician's prescription or order*".

It may also be of interest for you to know that in the case of *Barretta v. Barretta* 46 N. Y. S. 2d 261, a wife sued her husband for separation. He defended on the ground that the wife had refused any sexual relations with the husband unless he would use a contraceptive. The judge said:

"A wife who demands benefits under the marriage contract must prove that she is willing to discharge her obligations under it. The refusal of a wife without adequate excuse to have ordinary marriage relations with her husband strikes at the basic obligations of the marriage contract. Here she seeks the benefits of that contract while violating one of the fundamental obligations of it. Our law does not permit her to recover. *Mirizio v. Mirizio,* 242 N. Y. 74, 150 N. E. 605, 44 A. L. R. 714; *Downes v. Downes,* 225 App. Div. 886, 233 N. Y. S. 39."

The court refused to allow any alimony to the wife.

* In other words, only if you honestly believe that contraceptives are needed to cure or prevent disease may you prescribe them.

4. *Rape*. Rape in the ordinary sense, is defined in § 2010 and we shall not discuss it herein. I point out to you, however, the following definition of rape in the second degree as found in § 2010 of the Penal Law.

"A person of the age of twenty-one years or over who perpetrates an act of sexual intercourse with a female, not his wife, under the age of eighteen years, under circumstances not amounting to rape in the first degree, is guilty of rape in the second degree, and punishable with imprisonment for not more than ten years.

A person who perpetrates an act of sexual intercourse with a female, not his wife, under the age of eighteen years, under circumstances not amounting to rape in the first degree or rape in the second degree is guilty of a misdemeanor **".

The very serious aspect of rape in the second degree, or, as it is often called statutory rape, is that the crime is committed and the defendant is guilty *even though he did not know the age of the female* and, as a matter of fact, was misinformed by her as to her true age. I quote the following from *People v. Marks* 146 App. Div. 11, 130 N. Y. S. 524, 525 where the Appellate Division said of § 2010:

"By that enactment, and the statutory provisions from which it was taken, the Legislature in its wisdom determined to make the crime dependent upon the age of the female, and thereby *intercourse with a female the day before she attains the age of 18 years,* if not under circumstances constituting the crime of rape in the first degree, *is a felony; but it would not be a crime at all,* unless under another statute relating to adultery, *if the intercourse took place the day after.*

The manifest purpose of this legislation was to protect the morals of young girls; and, to render the enactment effective, *neither the consent, nor the previous unchastity of the girl, nor her representations nor information derived from others as to her age, nor her appearance with respect to age is a defense to a prosecution,* but such facts may doubtless be taken into consideration by the court in passing sentence * * *."

5. *Crime against nature; sodomy.* § 690 of the Penal Law provides, in part:

"A person who carnally knows any male or female person by the anus or by or with the mouth against the will and without the consent of such other person; or,

* * * *

5. When such other person is, at the time, unconscious of the nature of the act, and this is known to the defendant; or when such other person is in the custody of the law, or of any officer thereof, or in any place of lawful detention, temporary or permanent; or, a person who carnally knows in any manner *any*

animal or bird; or attempts sexual intercourse with a dead body, is guilty of sodomy in the first degree and is punishable with imprisonment for not more than twenty years or with imprisonment for an indeterminate term the minimum of which shall be one day and the maximum of which shall be the duration of his natural life.

A person twenty-one years of age or over who carnally knows by the anus or by or with the mouth any male or female person under the age of eighteen years, under circumstances not amounting to sodomy in the first degree is guilty of sodomy in the second degree and punishable with imprisonment for not more than ten years.

A person who carnally knows any male or female person by the anus or by or with the mouth under circumstances not amounting to sodomy in the first degree or sodomy in the second degree is guilty of a misdemeanor." * * * *

In concluding our discussion of the Penal Law, may we point out:

1. In cases of rape and crime against nature, the slightest sexual penetration is sufficient to complete the crime.

2. In any prosecution for adultery, for rape or for crime against nature, no conviction can be had on the uncorroborated testimony of the complaining witness.

3. In so far as any complaint against a physician is concerned for any violation of the Penal Law, we should realize that entrapment is perfectly legal. In other words, the unknown patient who comes to you may be a detective trying to entrap you into a violation of law.

IV.

In this final part of my talk, I propose to discuss a matter that concerns you, not in your capacity as physicians, but as family men. I would like to call to your attention certain aspects in which our system differs from the legal systems used on the Continent of Europe.

1. It is my understanding that in European countries where the civil or Roman law prevails, wills can be made very informally. For instance, I understand that, over there, if you write out your will with your own hand and sign it, it is perfectly good. Such a will has no effect whatever in this State. Here, while the law does not require that the will must be prepared by a lawyer, it does require certain formalities in its execution. The testator must sign the will at the end,

he must do so in the presence of at least two witnesses to whom he must declare that he is signing his will and he must ask them to sign as witnesses. The witnesses must see him sign and they must sign in his presence and in the presence of each other. A will not so executed is not a will.

2. Again, I understand that under European systems, regardless of your intentions, your wife and children each are entitled to a certain minimum share in what you leave at death. In this State, on the other hand, the only person who can insist on a certain minimum share, with exceptions not important to us tonight, is the widow or the widower; children have no claim of inheritance that a parent must respect. You are perfectly free, for no reason whatever, to disinherit some or all of your children.

3. It is my impression that in Europe, the heirs quite informally take over what has been left to them and that they do so directly. That is not our system. A person appointed by the court, which is, incidentally, called the Surrogate's Court, handles all the affairs of the deceased; collects the assets, pays the debts, prepares tax returns, pays the income and inheritance taxes, and after all that is done, distributes the balance of the estate to those entitled thereto. If you die leaving a will in which you appoint a person to handle your affairs, the person is called an "executor"; if you die without a will, the person appointed to handle your affairs is called an "administrator".

Both executors and administrators are entitled to certain compensation which is regulated by law. Their function is important. It is important, therefore, for you to decide by your will who should handle your estate because otherwise, the Surrogate will select an administrator under certain impersonal rules that the law lays down.

Another important fact for you to know is that your executor acts without furnishing a surety company bond. An administrator must furnish such a bond. The premium for a bond is high and the expense is considerable. Thus, the simplest kind of will naming an executor is likely to save your family quite a good deal of money.

4. I do not know what provisions Continental laws make for the protection of the property of minors. In this State, the protection of minors' property il very rigid. If you die intestate and your infant child becomes entitled to an inheritance, it will be entrusted to a court appointed guardian. The guardian usually is the child's parent, but again must furnish an expensive surety company bond for the protection of the minor. This bond must be renewed every year during minority. The minor's funds, be they capital or income, cannot be expended without court approval. If the infant is to be supported out of what you left him, a lawyer must be hired every year to file an accounting; if any money is to be used for the infant's education, maintenance and support, the Surrogate must authorize the expenditure in advance.

While these rigid rules are effective in protecting minors' funds from conversion and theft, they are very burdensome. You may, however, in your will, dispense with all of these safeguards. You can do that in a variety of ways; if your property is not large in amount, it may be wise to leave everything to your widow and nothing to your children, trusting to the mother to take care of her own children; or, you may leave some money to your children giving your widow or other relatives full authority to spend it on behalf of the child as they deem best.

5. In more substantial estates, a device, which I understand is unknown on the Continent, but in common use in this country is the creation of a trust. By this device, you take away the burden of management of investments from your wife and children and entrust it either to competent friends or to a trust company. In certain cases, the device has also substantial tax advantages.

6. In every estate beyond the smallest, we are seriously concerned with tax problems; income taxes as well as inheritance taxes, have to be considered and considerable savings can be effected by using proper measures. If you make no will, you cannot do that.

7. Finally, may I say that we here in this country use life insurance far more extensively than do Europeans. We use it to provide guaranteed and frequently income tax free incomes for our widows

and orphans; to pay the mortgage on the home; to pay estate taxes; to provide college funds for the children. Life insurance here is absolutely safe; life insurance companies do not fail. They meet their obligations promptly.

It is customary when one prepares one's will at the same time to make certain agreements with the life insurance companies about the method of their paying the death benefits. The disposition of your life insurance and of the rest of what you leave are intimately related and should be considered together.

These matters are of special importance to the family of professional people who are not usually included among the beneficiaries of the social security system.

In Conclusion

It is difficult for a lawyer to guess how much of legal subjects physicians will know. I cannot flatter myself that I have told you much that is new to you. I hope, however, that I have succeeded in stimulating your thinking in one or the other respect. In any event, let me thank you for the patience with which you have listened.

PSYCHIATRIC ASPECTS OF CRIMINAL BEHAVIOR

Leo L. Orenstein

What is criminal in human behavior is defined by legal rather than medical criteria, and depends on social and cultural determinants. Human behavior, whether criminal, or otherwise falls within the province of psychiatric investigation. The psychiatrist must concern himself with the careful examination of the criminal, that is the conscious manifestations and unconscious motivations observable and discernable in those accused and convicted of crime. By definition one is a criminal after apprehension and conviction only. This does not mean that so called asocial tendencies are limited to those adjudicated in our courts of law; nor does it follow that adjudication always proves beyond any doubt that the subject is a criminal.

Evidence has been collected and recorded in the literature (Borchard; Orenstein) indicating that innocent people may at times be convicted on charges of criminal acts. While this occurs infrequently, it does occur, and is most likely to happen in instances involving moral and ideological issues. It is our opinion that psychiatric investigations may prove very helpful in clarifying existing confusions, and this effort could be even more productive if our laws were permissive or helpful in subjecting complaining witnesses to psychiatric examinations, just as they are concerning the accused.

Since the responsibility of the psychiatrist is to investigate the criminal and not the crime, he must leave the latter to his associates in the legal and police professions. It remains the obligation of the psychiatrist to evaluate the person of the criminal, make a diagnosis, establish legal responsibility, and report the same. It remains for the

court and juries to determine the legal meaning and relevance of the medical facts presented by the psychiatrist.

Crimes are committed by psychotic and mentally defective persons. However, the majority of criminals are legally responsible for their acts, even though many show evidence of major disturbance in their character structure. It should be kept in mind that in some, neurotic traits are acted out in such ways as to lead to serious conflict with the law. The periodic appearance of headlines concerning the criminal who is insane is less threatening to our public safety and welfare than such headlines might imply. Sex crimes particularly attract much attention, and even though 17 states have enacted special legislation to deal with sex offenders, the basic question in this area is far from resolved.

There is much opportunity, challenging though it may be, for the psychiatrist in the field of penology. This should, and ultimately may broaden its horizons in the direction of rehabilitation and even therapy in a fuller medical sense.

In our approach to the therapeutic and preventive aspects of crime cognizance has to be taken of practical limitations. It is useless to become preoccupied with theories unless they are practical, laws unless they are meaningful, and ideas unless they are workable. The psychiatrist interested in crime realizes the limitations relative to all other phenomena in nature, and does not anticipate Utopian solutions. However as a physician cognizant of the great strides made in this field, and the many more challenging possibilities for the future, the psychiatrist readily accepts his obligation to participate in a forward moving rather than status quo medical and social effort.

MEDICAL ASPECTS OF ULCERATIVE COLITIS

Charles I. Krieger

Ulcerative colitis, also known as colitis gravis, was described by Wilke and Moxon as a separate disease entity as far back as 1875. But it was only after World War I that chronic ulcerative colitis was recognized as one among various other diseases of the colon associated with ulcer formation. Subsequently, the differential diagnostic criteria were established. However, there are still a few who consider chronic ulcerative colitis and chronic dysentery to be of common origin.

We know acute forms of the disease with sudden onset, high fever, bloody and mucous stools. On proctoscopy, there are ulcerative processes which look very similar to those seen in acute dysentery. Since this type of ulcerative colitis gives all the symptoms of an acute infectious disease of the large bowel, considerable efforts have been made to identify a specific organism as the etiologic agent (Bargen). The results were not conclusive and it is the present consensus that the bacterial flora is non-specific and plays no role in the etiology of the inflammatory process. The same holds true for certain viruses isolated from the mucosa. However, such secondary infections lead to further damage of the intestinal wall and contribute to the seriousness of the process.

Allergy, imbalance of the autonomous nervous system, and nutritional deficiencies have also attracted attention as potential etiologic factors. All 3 have been shown to effect experimental changes (blood and lymph supply) in the colon similar to those associated with ulcerative colitis.

Very much emphasis has been placed lately on the psychologic aspects which will be discussed by Dr. Meyer. In my own opinion,

there can be no doubt that in ulcerative colitis, as in peptic ulcer, "stress" plays an important part in producing localized lesions, provided the person is prone to such a psychosomatic reaction. If we accept ulcerative colitis as a disease of stress in persons with neurotic traits, there is still the problem of what the mechanism of the reaction may be both as to localization and pathogenesis of the intestinal lesions.

The importance of the psychogenic factor in the clinical picture of the disease is almost generally accepted. An ailment causing disability for a long period of time involving remissions and relapses, puts a tremendous strain on the patient. Alternating disappointment, and optimism, periods of pain, disturbed nights, loss of weight, inability to lead a normal social life – all this may imperil the balance even of well adjusted persons.

In order to establish a diagnosis we have to rule out a number of related conditions. Bacillary dysentery, acute and chronic forms of amebic colitis, an irritable colon, tuberculosis, regional ileitis, nutritional deficiency, primary congenital polyposis of the colon, and lymphogranuloma venerium are the most important diseases which should be considered.

The onset of ulcerative colitis is gradual, sometimes acute, very rarely fulminating. According to Palmer, 97 % of the cases show rectal involvement on proctoscopy. The observation of 2000 cases by Sloan, Bargen and Gage showed clearly that the most frequent type of disease involves the rectum and to a greater or lesser extent the entire colon. The milder form progresses slowly from the rectum to the sigmoid and colon. The process may be continuous for many years, heal and show relapses with further progress proximally. It is important to note that there is no direct correlation between the extent of the lesion and the clinical symptoms. Patients with extensive lesions of the rectum and sigmoid may complain of constipation, combined with some tenesm and expulsion of mucus with or without blood. On the other hand a process identified by proctoscopy and x-ray examination as relatively mild may produce violent pain and tenesm, as well as loose and bloody stools. We have seen cases with only a few loose bowel movements, which showed extensive polypoid

changes. The severest forms of the disease, with narrowing, scar formation and polypoid changes throughout the whole colon occasionally go into complete remission with formed, regular bowel movements and with little pain. Time does not permit to describe in detail the different proctoscopic pictures at the various stages of the disease. However, I may assure you that protoscopy in the hands of the experienced physician will almost always establish the diagnosis, the type, and the stage of the disease.

The two most frequent complications are stricture (in about 10 %) and polypoid changes (in almost 20 % of the cases). Most of the strictures are localized in the rectum and sigmoid; they do not interfere with the transport of fecal material. It must be kept in mind that ulcerative colitis may be a complication of primary polyposis of the colon.

As to the relationship between chronic ulcerative colitis and cancer, recent reports show that carcinoma occurs more frequently in patients with ulcerative colitis than in the average population (Kasich, Weingarten and Brown: in 7 of 143 cases = 4.9 %; Kiefer, Eytinge and Johnson: in 10 of 226 surgical cases = 4.4 %, and in 9 of 458 non-surgical cases = 2 %; Lyons and Garlock: in 9 of 226 surgical cases = 3.9 %). These figures alone are not alarming wouldn't it be for the fact that observed malignancies concerned relatively youthful patients, that multiple foci were present and that the tumors were highly malignant and metastasized frequently. Alvarez has stressed these points. The factors of age and of duration of the disease should, therefore, be taken into consideration when the indication of surgery comes up.

That ulcerative colitis during its prolonged course impairs the balance of fluid, electrolytes, and nitrogen, and causes nutritional deficiency and anemia is not surprising. The severest cases show extreme loss of weight and complete emaciation, a picture of pity and sorrow. What happens to metabolism and nutrition in milder cases when they extend over years is not yet sufficiently known. From a paper of Posey and Bargen it would appear that severe metabolic derangements may be presented at a time when the disease still causes rela-

tively mild symptoms. Such frequently described signs as glossitis, cheilosis, and raw beef tongue are commonly interpreted as vitamin deficiency.

Impairment of adrenocortical function is suggested by the frequently diminished urinary excretion of 17-Ketosteroids and increased excretion of corticosteroids. The sedimentation rate is increased in proportion to the severity of the disease. Leucocytosis is missing even in severe cases. Defective intestinal absorption due to abnormally fast passage of food prevents utilization of part of the food intake. Nitrogen balance becomes negative (Sappington and Bockus), calcium loss causes demineralization of bones. A significant potassium deficiency was reported by Smith, Pollard and Bolt, but not confirmed by others. Our own observations revealed quite frequently low serum potassium, low chlorides and low sodium, sometimes combined with metabolic alkalosis. Hypoproteinemia is frequently present. Patients in the state of malnutrition usually have very low BUN. This might be due in part to an inability to synthesize protein and this, in turn, might be the result of diminished production of those corticosteroids which are needed for the anabolism of protein.

Hepatic disturbances in ulcerative colitis are frequently mentioned in the literature, but their significance and origin has still to be explained. Fatty infiltration or cirrhosis of the liver are common findings. The question of liver damage has been recently investigated by Kleckner, Stauffer, Bargen and Dockerty by combined use of hepatic function tests and needle biopsy. The findings in 32 cases were as follows: Normal: 5 cases; fatty infiltration: 9 cases; pericholangitis: 3 cases; pericholangitis with stasis of bile: 3 cases; diffuse hepatitis: 2 cases; necrosis: 1 case; cirrhosis: 6 cases; metastatic carcinoma: 3 cases.

In 6 patients who had no clinical or laboratory evidence of hepatic dysfunction, only 2 had normal findings on biopsy. This confirms the commonly held view that liver damage is a frequent attribute of ulcerative colitis.

That renal changes may develop on the same basis seems possible. Jensen, Baggenstoss and Bargen's postmortem studies of 64 cases

revealed that glomerular tuft proliferation was present in 70 % of the patients and most pronounced in the active cases. Tubular degeneration and necrosis were found in 23 %, acute pyelonephritis in 6.7 %, renal calculus in one case. Compared with other severe chronic diseases of various kinds, chronic ulcerative colitis showed the highest incidence of renal damage, a fact which should reflect upon the indication of surgery.

The therapy of ulcerative colitis is one of the most difficult and complex problems. The character and the features of the disease are of such a diversity that we have to adjust the management to the ever-changing clinical situation. To retain the confidence of the patient and his family during the prolonged course of the ailment is a task very hard to achieve. On the other hand, the results may be less satisfactory if the patient has not complete confidence and is not willing to cooperate to the fullest extent. I can give you only an outline of the most important therapeutic procedures.

There has always been the general tendency towards an undue restriction of the diet, emanating from the idea that a non-residue diet is required by the presence of inflammatory intestinal lesions. Such a diet must become harmful if given for a prolonged period of time. The proper regimen should supply plenty of protein (at least 120 g.) and as many additional calories as the patient tolerates, restricting the total amount of fat. The tolerance for milk is generally poor. Fruits are valuable, but are apt to produce diarrhea in many cases. Fresh orange juice is preferable because it is rich in potassium. Replacement of water, electrolytes and nitrogen is of great importance. Blood transfusions are often needed to restore volume and protein level of the vascular compartment. Frequent blood counts and serum analysis for electrolytes must supply the criteria upon which the amount and kind of parenteral fluid therapy depends. The necessity of vitamin replacement is understood.

As to medication, anti-spasmodics are very valuable. Opium and its derivatives should be given with caution. When the first sulfa drugs became available, expectations were high. Today we know that only preparations which largely escape absorption from the intestinal tract

have beneficial effect. Sulfathalidine (Phthalysulfathiazole) and Sulfasuxidine (Succinylsulfathiazole) are the preparations of choice. They act primarily on the gram-negative flora of the intestines. Their therapeutic value in ulcerative colitis is not uniform. Patients with acute exacerbations may benefit temporarily from the medication, for instance, prior to surgery. The latest addition to these drugs is azulfidine, suggested by Svartz in Stockholm in 1940. It is gradually decomposed in the body to 5-Aminosalicylic acid and Sulfapyridine. To reduce the incidence and severity of side effects, the well known precautions must be observed and one should control the output and composition of urine as well as the blood count. As a whole, the value of sulfa drugs in the treatment of the acute and chronic phases of the disease is very limited.

Equally disappointing are the results obtained with *antibiotics*. There is no doubt that the bacterial flora can be influenced, even selectively, by the various preparations, when administered orally or parenterally. However, this effect is short and soon the bacterial count returns to or exceeds its original level. The antibiotics are valuable only in the acute flare-up and in the pre-operative management. The evaluation of the various antibiotics with respect to these two indications is still incomplete.

Finally, we have to discuss the therapeutic value of ACTH and cortisone. The observations gathered thus far cover a period of not more than 3 years, but give sufficient proof that the beginning of a new area in the treatment of ulcerative colitis is at hand. A critical analysis of the available studies indicates that the majority of observers consider ACTH or cortisone as an effective remedy at one time or the other. A few authors disagree and discourage the use of either one (Rosmiller, Brown and Ecker, Redish). Our own experience correlates well with that of Wirts-Carrol and Kirsner-Palmer who are convinced that ACTH is very valuable as an adjunct in the treatment of idiopathic ulcerative colitis. I feel that ACTH should be given a trial whenever the clinical condition warrants it, but that such a treatment requires hospitalization under any circumstances. I would not use these potent substances in mild cases unless all the other methods of internal therapy have failed. Patients who have a recur-

rence and are in good nutritional condition should not be subjected to ACTH injections and their potential side effects. Patients who have their first attack and show fulminating symptoms should receive an early course of treatment with ACTH. Quick response and complete restoration of the mucosa has been reported not infrequently. We had always thought that the anatomic lesions as seen on proctoscopy could hardly vanish as the result of any therapeutic procedure in so short a time. Yet, their rapid disappearance during administration of ACTH is a matter of record. Additional improvements consist in the decline of fever, and the number of bowel movements, the restoration of electrolyte balance, an increase in blood formation, gain in weight, and return of appetite. Furthermore, the patient will usually develop the euphoria that is so well known as a result of ACTH administration. If one observes such a drastic change in a severely ill patient, extreme caution is indicated not to overrate the significance of such an apparent improvement On the other hand, to bring about a remission by use of ACTH is an achievement that should not be underrated. It even seems as if we can sustain such remissions and prevent recurrences from getting out of control.

The risks and benefits of prolonged endocrine therapy with ACTH or cortisone are not yet fully understood. Among the known complications are masked perforation of peptic ulcer and ulcerating areas of the colon, the development of psychosis, and the production of hyperadrenocorticism.

Whether ACTH or cortisone is of greater efficiency in these therapeutic endeavors, has not yet been decided. I have seen patients who did not respond to ACTH but improved with cortisone, and vice versa. The quickest response is achieved by intravenous administration of ACTH. Most authors feel that sulfa drugs or antibiotics should be given in addition to ACTH whenever the danger of suppurative complications is threatening.

Treatment with ACTH or cortisone may also alter the surgical aspects of the disease. When we consider that the mortality rate in emergency operations is 50 % and in properly selected cases only 9 % (Bargen), attempts are justified to overcome emergency situations by

means of endocrine therapy and to postpone surgery until the patient's condition is under reasonable control.

The foregoing discussion did not conceal my somewhat reserved attitude with respect to the ultimate fate of patients suffering from this dreadful disease. There is, however, no doubt that the chances for recovery are considerably greater today than 10 years ago. New discoveries in the field of metabolism, drug therapy and endocrine control have been applied to the treatment of ulcerative colitis and, in combination with psychotherapy, have resulted in an entirely new pattern of medical management of the disease. The prospect of reducing the need for surgery has increased considerably, and if the surgeon is called upon to step in, the chances are today that he will take over many more good than bad surgical risks.

SURGICAL ASPECTS OF ULCERATIVE COLITIS

Helmuth Nathan

The ways of treating a disease of unknown etiology cannot be but solely empiric. Often the procedures will be palliative only. Among the etiologic factors which are assumed to play a role in the development of ulcerative colitis are infection, nutritional deficiency, allergy and psychosomatic reactions. Unfortunately, one rarely cures the existing disease by eliminating one or the other of these factors. Ulcerative colitis is a dreadful disease; it occurs frequently in young people who are in the prime of their life and above average intelligence. Almy states that the condition is apt to produce inflammations as huge as any observed in clinical medicine. Bacon compares it with a third degree burn of the colon, with severe secondary infection and coating of the mucosa with fecal purulent poultice. Ulcerative colitis starts usually in the rectum, proceeds to the sigmoid and ultimately involves the upper part of the colon and cecum. In a number of cases the process will pass the barrier of the ileocecal valve, and then we face the even more frightening disease of ileocolitis. In a smaller percentage of cases the disease starts off in the proximal part of the colon, and recently a number of cases have been reported where the colon was involved only secondarily as a result of an extending regional ileitis. I have seen a boy of 4 years who was afflicted with the disease, and there are reports on ulcerative colitis in the newborn. The disease is rarely seen in the aged.

Obscure in its etiology, uncertain in its prognosis, fluctuant in its remissions, the condition poses a difficult problem from the therapeutic viewpoint. It can be controlled without surgery in about 60 to 85 %, but as Jordan and Kiefer have stated, a cure is possible only

Indications for Surgery

Acute exacerbation
Multiple remissions
Uncontrolled, continuous diarrhea
Uncontrolled hemorrhage
(chronic, acute)
Perforation (chronic, acute)
Perirectal abscess
Anorectal fistulae
Obstruction (chronic, acute)
Pseudopolyposis
Malignant degeneration
Arthritis
Gangrenous pyodermy
Rigid-pipelike rectum and sigmoid

by surgical removal of the colon. We have heard Dr. Krieger's presentation of current medical aspects. The optimism which followed the introduction of ACTH and cortisone has received severe setbacks. More and more cases of ACTH-treated patients are reported in whom short improvement was followed by severe bleeding and perforation. Such occurrences are especially dangerous because they are often masked by the apparent well-being of the patient. Cooperation of family physician and surgeon is indispensable not only before but also after surgical intervention. Once it has been decided to resort to surgery, repair and maintenance of electrolyte and fluid balance has to be attended to, antibiotic therapy must be initiated and proper psychologic care must be provided. Dr. Crohn's opinion regarding psychotherapy is outdated; he maintained that a psychiatrist on the bedside of such a seriously ill patient is a wastage of time, energy, good thought and money. Not only the psychiatrist, but also the physician and the surgeon should take time out to give the patient mental comfort and confidence.

Surgical treatment must be fluctuant, both in its indication and in its technical procedures. Without going into details I shall first give you a brief outline of the indications for surgery as I see them from my relatively conservative point of view.

Early surgery seems to be indicated in all cases of the fulminating type; their mortality is very high with any kind of therapy, even with surgery. Catell and Cave had a mortality ranging from 53 to 75%. No wonder that Cave suggested recently an earlier and more radical application of surgery in these and other forms of ulcerative colitis.

Surgical Procedures

Indirect
Vagotomy
subdiaphragmatic
supradiaphragmatic
Pelvic neurectomy
sympathetic
parasympathetic
Lumbodorsal sympathectomy

Direct
Shortcircuiting
ileostomy
cecostomy
ileosigmoidostomy
Eliminating
colectomy
one-two-multiple stage
partial-subtotal-total
one + two team

Howard Lilienthal performed surgery in ulcerative colitis already in 1901; he used a multiple stage procedure with good results. If the mortality of ulcerative colitis is still high, we have to blame that at least partly on an unduly conservative attitude towards the indication for surgery. In the series of cases shown on the chart the mortality is high in both the medically and surgically treated patients. But if we consider that only the most severe cases came to surgery and that total colectomies show even better results than the combination of all available medical methods, advocation of early surgery seems to be justified. Only in one group of cases is utmost conservatism indicated, that is, in young children. Their mortality is terrifically high.

Operative procedures include 3 methods. The first, uses the indirect approach and is aimed at eliminating the nervous impulses and thereby changing the pattern of intestinal motility. Dennis, Torek and others advise vagotomy, either supra- or subdiaphragmatic. Since the vagus supplies only the right side of the colon, Hinton, Frykman and others have suggested to remove the autonomous presacral and pelvic parasympathetic ganglia. Vagotomy as advocated by Dennis has not been accepted as an effective method of treatment since it leads only to temporary improvement which takes place so often spontaneously in the course of the disease. Hinton's procedure (exposure of the ganglia by incision of the peritoneum on the sacrum) involves some postoperative complications (temporary disturbances in voiding and ejaculation) and is not yet recommended for general use, although it certainly represents one of the most promising approaches to the

problem. These methods, however, do not eliminate the potential development of cancer which occurs twice as frequently in patients with ulcerative colitis than in the average population and is often especially malignant.

The second category of methods is designed to establish short circuits: Ileostomy, cecostomy and ileosigmoidostomy. Their aim is to put the diseased colon at rest. After ileostomy, whether done as a double loop or closed and open end procedure, the mortality rate is 18 to 21 %. Dehydration, perforation, peritonitis and severe bleeding from the colon are among the sequelae. Improvements are only temporary, if they occur at all, and the re-anastomosis with the sigmoid usually causes a flare-up of the disease. Under these circumstances, the rule has been generally accepted: Once an ileostomy, always a colectomy.

Paradox as it might appear, patients in whom ileostomy failed are doing well on colectomy. This operation can be done in one, two or multiple stages, as partial, subtotal or total colectomy. In the one stage performance of subtotal colectomy, combined with immediate abdomino-perineal resection, two surgical teams may take part, one doing the perineal and the other the abdominal operation. The most modern and most successful operation is the one-stage immediate ileostomy with subtotal colectomy, followed within one to three months by the abdomino-perineal resection. Bacon, Gavon and Miller and his associates have introduced this new courageous approach into the surgery of ulcerative colitis. Figure 1 shows the amount of colon removed during one of these operations (details of the technique are given). The patients recover amazingly fast and may return in about two months to their occupational and social activities. This adjustment has lost much of its hardships thanks to the Rutzen bag which can be worn almost unnoticed under any kind of clothing (ladies' evening dress). The question may be asked whether abdominal ileostomy could not be circumvented altogether? Ravitch has suggested an ano-ileostomy as an alternative procedure in the treatment of polyposis but not in ulcerative colitis. Recently organized ileostomy clubs offer unique opportunities for patients with ulcerative colitis to join in their efforts of adjustment, to discuss their problems of rehabilitation, to give and receive encouragement in battling against technical difficulties and mental strain caused by the dreadful disease.

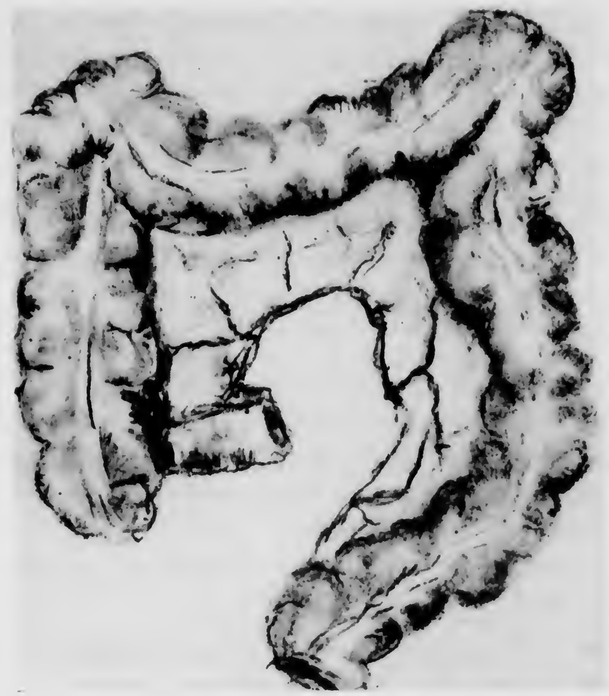


Fig. 1. Terminal Ileum and Colon to be removed in one stage.

I want to show you briefly two of our patients who were operated on recently. Both have total colectomies; one had a perforation, the other one a prolonged bleeding of such severity that we could hardly pour blood in as fast as he was losing it. That they are both living happily and doing full work now is sufficient proof for the fallacy of the old saying, "The patient is too sick to be operated on". Instead, we must have the courage to say, "He is too sick not to be operated on."

PSYCHIATRIC ASPECTS OF ULCERATIVE COLITIS

Bernhard C. Meyer

The attention of the psychiatrist to the problem of chronic ulcerative colitis embraces three phases:

1. Psychologic factors playing an etiologic or contributary role in the genesis of the illness.
2. Psychologic reactions to the illness.
3. Psychiatric manifestations associated with improvement or cure of the disease.

Of these three aspects of the problem the second, the psychic reactions of the patient to the physical illness, is so patent as to tend to overshadow the other two. Psychiatric and psychologic investigations, however, have shown that the pre-colitic personality of patients with chronic ulcerative colitis tends toward a certain type, characterizable as narcissistic, passive, vulnerable, infantile, dependent and repressed. Equally typical is the denial of emotional conflict and a rather vigorous defense, occasionally assuming hostile or paranoid proportions, against attempted penetration of this denial. Acute onset of the colitic syndrome often follows psychic trauma, especially the loss of a so-called "key person" from the life of the patient. Similarly, severe electrolyte disturbances in the ileostomy patient not infrequently occur after emotional disturbances, often of a seemingly minor degree. With the disease established the colitis patient tends toward a regressive preoccupation with the condition and its manifestations, exhibiting an abandonment of the fastidiousness and nicety so characteristic of the pre-colitic personality to a degree reminiscent of the coprophilic

behavior of severely regressed State hospital inmates. This finding is in keeping with other indications that the ulcerative colitis patient is often but delicately defended against an underlying psychosis. Injudicious psychologic probing has not infrequently unfolded severely psychotic productions and behavior. This impression of an underlying psychotic pattern is confirmed in Rorschach and other psychologic studies. In not a few instances a reciprocal relation between psychosis and colitis has been observed: the outbreak of a frank psychosis being accompanied by a disappearance of the colitic syndrome. Such occurrences as well as the reverse suggest that the colitis may serve a defensive purpose, protecting the individual against psychotic breakdown. Somatic conditions as well as psychotic episodes, e.g. asthma, have also been known to "replace" the colitis. In other instances colitis and psychosis occur concomitantly. Psychiatric treatment encouraging the production of repressed and phantasy material is often hazardous and may lead to psychotic upheaval. Most observers agree that the most effective therapeutic psychiatric tool is the establishment of a warm human relationship between doctor and patient, supplying to the latter a replica of the "lost" "key individual" in the person of the physician, whether internist, surgeon or psychiatrist.

4* Virchow Society, Vol. 12 (1953)

NEWER TECHNIQUES IN CINEPLASTIC AMPUTATIONS

ERNST W. BERGMANN

Cineplastic procedures have made slow headway in this country, yet the field of application should grow considering the ever increasing number of industrial and traffic accidents.

The principle of cinetization is to make use of certain muscles for purposes of activating an artificial hand or hook.

The initiative in transforming an arm stump into something more useful was taken by the Italians, but their method of forming tendon loops at the stump end proved not very successful and has not many advocates.

Sauerbruch's muscle canal operation is far more satisfactory. It uses a skin tube which is fashioned from a pedicle skin flap by sewing it inside out. This tube is passed through a tunnel in the muscle belly and it moves with the contracting muscle. It is this movement which is utilized to activate an artificial hand.

The operative technique as originally developed by Sauerbruch, has been modified by Lebsche und by Spittler as follows:

1. Canalization of the forearm muscles has more or less been given up even in stumps having the necessary length as stipulated in previous papers.
2. As a rule, the canalization is applied to the biceps alone. The idea of a double motor, that is the addition of a triceps tunnel for antagonistic action has been given up, leaving this action to a spring in the terminal device.

3. The skin tube is made considerably wider.
4. The biceps tendon is severed from its distal attachment, so that it no longer flexes the elbow, a function which is left to the brachialis alone.
5. In short arm stumps the method can be very successfully applied to the pectoralis muscle. This is in obvious contrast to what Sauerbruch and later Nissen and myself have said on sundry occasions. Lebsche's pectoralis tunnel has proven a most valuable procedure. (Demonstration of two patients with biceps tunnels.)

PULMONARY SARCOIDOSIS

F. C. Burgheim

Since roentgen examinations of the chest have become a routine office procedure, I should like to demonstrate a case which might easily be mistaken for tuberculosis or malignant tumor, the two conditions doctors are mostly concerned with. I also want to show this case of pulmonary sarcoidosis or Boeck's sarcoid in order to impress on you the most characteristic pattern of this disease.

Slide No. 1. This is the so-called sarcoid type (Garland) of bilateral, symmetrical enlargement of the peribronchial lymph nodes, while the paratracheal lymph nodes are involved only on the right side. Coarse lymphatic markings radiating toward the periphery and several small areas of pulmonary infiltration are also noted. – The patient, a young, healthy-looking man, active in all kinds of sports, was much surprised when he was rejected by the Army in 1942 after a routine chest film had been taken. I saw him a few days later in a very depressed mood, as he had been told that he was suffering from advanced tuberculosis.

However, this initial diagnosis was wrong, based solely on an erroneous interpretation of the X-ray film. The "sarcoid type" of pulmonary lymphadenopathy, the excellent general condition of the patient who had no cough, no dyspnoe and no fever, his negative sputum and negative tuberculin test, a normal blood sedimentation rate and, finally, the clinical course disclosed the identity of the disease: sarcoidosis.

Slide No. 2: Seven years later – I omit the films taken in the meantime –, without any treatment or change in the patient's daily habits, we find a marked improvement indicating that the condition

had been stationary for many years. This is also a characteristic finding in this disease. Sputum and other tests remained negative.

Slide No. 3: This film, taken more than 10 years since the disease was discovered, reveals further improvement: the coarse striations and the enlarged paratracheal lymph nodes on the right side have disappeared.

Slide No. 4: The last film was made only ½ year later. The patient had just been treated at a hospital with a total of 550 mg. cortisone for an allergic penicillin reaction. It is remarkable that this relatively small dose of cortisone has produced an immediate, though slight clearing of the lesions. Such effects of cortisone have been described in the literature following intensive treatment, and I believe that this also confirms our diagnosis.

Time does not permit to go into details of this interesting disease, originally described as skin lesion. We know that it may occur in any part and tissue of the body and that its course may be as variable as its manifestations. Since this is not my first observation of this kind I would like to emphasize once more that the bilateral and symmetrical hilar lymphadenopathy in an apparently healty person is suggestive of pulmonary sarcoidosis.

ACUTE MESENTERIC VASCULAR OCCLUSION FOLLOWING MUMPS

Wolf Elkan

Acute mesenteric vascular occlusion still remains one of the most serious surgical catastrophes with a mortality of 90–95 % according to recent comprehensive reviews of the literature. Ficarra in 1944 collected 569 cases with 35 survivals, a mortality of 94 %. McClenahan and Fisher in 1948 collected 616 cases with a mortality of 93 %, Whittaker and Pemberton at the Mayo Clinic in 1938 reported 3 survivals in 60 cases, a total mortality rate of 95 %. The actual mortality may even be higher since not all cases are correctly diagnosed preoperatively, many patients come to the hospital in moribund condition and often no autopsy is performed. The reasons for this high mortality are twofold: First, the rare incidence of the condition which ranges between 0.02 % and 0.05 % of all hospital admissions. Secondly the diagnosis is very difficult to make because Mesenteric Vascular occlusion has no typical clinical picture. The onset may be insidious, subacute or fulminating. The pre-operative diagnoses in most reported cases have been gastroenteritis, cholecystitis, acute pancreatitis, atypical pneumonia, lead poisoning, appendicitis, intestinal obstruction, volvulus, paralytic ileus, renal colic, perforated ulcer, carcinoma diverticulitis, etc.

Since the picture is often uncertain, much time is spent with diagnostic procedures. Mortality rises with every hour that passes between onset of the disease and surgical intervention. Death occurs both from shock due to the loss of blood volume caused by tremendous outpouring of blood into the intestinal lumen and peritoneum as well as from toxemia caused by gangrenous intestines.

Often operation is refused by the surgeon on account of the patient's poor condition. This is definitely wrong inasmuch as failure to operate will lead to certain death while surgery gives the patient his only chance for survival.

Many times, resection is not done because too much of the intestine appears to be involved. This is equally wrong since a number of cases have been reported where almost all of the small intestines had been resected leaving as little as 17 cm., 20 cm., and 45 cm. of ileum and one case where even the ascending and one half of the transverse colon had to be resected with subsequent survival of the patient. Massive involvement, therefore, is no contraindication for resection since, here again, failure to resect will lead to the death of the patient.

Symptomatology: The onset is frequently insidious with vague abdominal pains, indigestion, belching and vomiting for one to seven days; then the temperature rises up to about 101, the pulse becomes very rapid and the WBC generally is found between 20 and 30,000 with a high differential count.

Abdominal distention sets in but true rigidity is often absent. A typical symptom is very severe pain, out of all proportion to the physical findings. Blood tests show hemo-concentration; X-rays frequently show dilated loops which extend down to the splenic flexure suggesting intestinal obstruction. Barium, however, if given by enema passes freely beyond this point, a diagnostic sign which has been described by Harrington. The overall clinical picture has been described as a composite of internal hemorrhage and intestinal obstruction.

The *etiology* of this condition may be classified as follows:

1. Mechanical causes: a) adhesions, b) volvulus, c) strangulation, d) pressure of adjacent tumors and e) portal stasis.
2. Traumatic causes: a) trauma of the abdomen and b) tearing of the mesentery.
3. Blood dyscrasias: a) polycythemia vera and b) splenic anemia.
4. Infections: a) appendicitis, b) pelvic inflammation, c) cholecystitis, d) peritonitis, e) diverticulitis and f) thrombophlebitis.

5. Cardiac causes (for the arterial type): a) auricular fibrillation and b) rheumatic heart disease.
6. Miscellaneous causes: a) periarteritis nodosa, b) mesenteric thrombosis following lumbar sympathectomy or procaine block of the lumbar chain (Laufmann and Scheinberg, Bauer) and c) obesity.
7. Unknown causes: In a very large number of cases, thrombosis of the mesenteric vein must come under the etiologic heading of primary venous thrombosis or "Mesenteric vascular thrombosis without apparent cause". Since it seems unlikely that a condition of such gravity should develop by itself and for no reason whatsoever, it must be assumed that in those cases a causative factor does actually exist but has not become apparent to the clinician. Such cases range between 35 and 40 % in recent computations of the literature.

In the following case report, a new etiology is described which I have not found anywhere in the international literature up to the present date. It is a case of acute surperior mesenteric vein thrombosis following acute pancreatitis after mumps.

The patient, a 32 year old male with a non-contributory past medical history suffered from an attack of mumps, on May 9, 51. He received two injections of immune serum globulin on May 9 and 11, and 5 mg. of diethylstill-bestrol daily to prevent orchitis, and improved. Two weeks later he suffered from pain in the left hypochondrium and back, indigestion, belching and feeling of fullness; he passed soapsy stools. His spermatic cords were tender to the touch. The diagnosis of pancreatitis following mumps was made. He was treated with bed rest and a fat free diet. His pain and temperature increased and he was hospitalized on May 31, 51. His weight at that time was 195 lbs., temp. 100.2, pulse 90, respiration 20, BP 125/80. He had slight tenderness in the LUQ. RBC 5½ million hemoglobin 110 % indicating hemo-concentration; WBC 16,100, poly 83 %, stab forms 12 %, lymphs 3 %, monos 2 %. The urine was essentially negative. He was treated with intravenous fluids and penicillin and improved. Two days later he suddenly collapsed. His temperature rose to 103.4, pulse to 136. He assumed an ashen gray color and was covered with cold perspiration. His BP fell to 90/60 while his abdomen became distended and no peristalsis could be heard.

In spite of his precarious condition, immediate surgery was decided upon, on the assumption that a perforative hemorrhagic pancreatitis had occurred. On opening the abdomen about 2000 cm^3 of dark sanguinous fluid was aspirated. In the LUQ a convolut of distended gangrenous intestine was found beginning about 30 cm. below the ligament Treitz and extending for about 180 cm. The entire

involved intestine was rapidly resected and a side to side anastamosis was done, with about 20 cm^3 of overlap to safeguard against advancing marginal thrombosis.

During the operation the patient went into deep shock and became moribund and received last rites. About $^2/_3$ of the operation was carried out without anesthesia, carrying the patient on oxygen and blood transfusions only. The postoperative course was extremely stormy with a temperature rise to 106, absent pulse and BP, and heart rate of 180. The patient was treated with blood transfusions, parental fluids, vitamins and anticoagulants; using heparin intravenously for the first 48 hrs., and following with dicumarol thereafter. He received antibiotics and cortisone to overcome what appeared to be adrenal exhaustion. After the first critical days the patient had an uneventful recovery, except for what appeared to be a thrombotic episode on the 10th postoperative day. This, however, was overcome with anticoagulants. It was found at this point that the combination of heparin and dicumarol will in rare instances be antagonistic instead of symbiotic and dicumarol alone was given from then on with good results.

The patient was allowed out of bed on the 15th postoperative day and discharged from the hospital on the 21st postoperative day in excellent condition. He has been well now for two years.

It is suggested that the entity of mesenteric vascular occlusion be kept in mind in all cases of unexplained intra-abdominal conditions and that surgical intervention be not delayed by protracted diagnostic procedures.

This case as well as other cases in the literature prove that surgery must be done regardless of the apparent hopelessness of the patient's condition since failure to operate will lead to certain death. Intestinal resection must be done as widely as possible regardless of the extent of involvement.

TREATMENT OF EXCESSIVE SMOKING BY HYPNOSIS

EDITH KLEMPERER

Patient started smoking at 13 years and immediately smoked 2–3 packages daily, but took only a few puffs with each cigarette. A few months later, he smoked all cigarettes to the end. He is now 44 years old, is bored with his occupation (pressing clothes) and abets smoking. In 1949, diabetes, claudicatio intermittens, and a questionable Buerger's disease were diagnosed. Pulse of dorsalis pedis and tibialis were not palpable. After walking one or two blocks he had to stop because of pains in calves. He had no relief from his complaints after he had received 30–40 injections, and was told to stop smoking. However, "I just have to smoke" was his reply. Since a stomach ulcer was detected 4 months ago, he keeps to a diet and takes pills to combat the pain.

He was first seen on March 4, a Wednesday and was told that hypnoanalysis would be preferable to hypnosis in his particular case. All analytic endeavors failed, however, because of the patient's opposition. Hypnosis could be easily induced. He received the conventional soothing suggestions, some of negative nature (that he would not want to smoke) some of positive (that he would feel fine without smoking). Scheduled for another session on Saturday, March 7, he phoned saying that he had no desire any longer to smoke and would not return for treatment. Sunday he took up smoking again, under the following circumstances. Although he had no urge to smoke, not even in the smoker's lounge, his girl friend happened to ask him (in the cafeteria) to buy her a pack of cigarettes and to light one for her. When he did so, she refused to smoke it. Left with the lighted cigarette,

he didn't want to waste it and did smoke it. This started him on the old road.

He gave me this story on March 16, when he returned to see me. His stomach was fine and he no longer needed pills. He said that his legs were better. He was again hypnotized and got some additional suggestions. This time he stayed away from smoking for only two days.

He came again to see me on April 7. His stomach did not cause any discomfort, the condition of his legs was unchanged. When asked what kind of taste he disliked most, he named camphorated oil and "tasty" gasoline. In hypnosis, the suggestions were made that a cigarette would burn his fingers and that its taste would be like that of camphorated oil and "tasty" gasoline. When he returned on April 16, he reported not to have smoked thus far and to feel well. "There is a wonderful change with my stomach, I have no pains, I don't want to smoke". The same suggestions as made in the preceding hypnosis were repeated at this session.

Patient abstained from smoking for 17 days, until April 24. On this day, while he was eating in a restaurant, his bottom plate broke. He felt very upset and embarrassed and took to smoking again. But he threw the cigarette away after a few puffs because he did not "get any pleasure out of it". When he was seen on April 29, he had smoked only 2 packages and 6 cigarettes in these 5 days, about as many as he used to smoke formerly in one day. He was able to eat spicy food, his appetite had improved, he was gaining weight. Following the renewed treatment by hypnosis he surrendered cigarettes and matches and voiced his intention to see his physician in order to ask him for injections. He was not heard from since. It may be assumed that his habit was broken. It is of interest that there were no untoward signs of abstinence at any time.

CANCER OF THE LUNGS AND LOBECTOMY

R. Lewin

The incidence of malignant tumors of the lung has steadily increased in recent years. A broad program is needed to combat this form of malignancy at every level of medical service. The practitioner can participate in this program effectively and should make every effort to do so. A review of my own cases observed from an early stage through the critical phases of the disease may give you a realistic picture of its common course and of the problems concerning early diagnosis and surgical intervention.

The diagnostic difficulties are in no way an obstacle which cannot be overcome, as I have shown on a previous occasion. This should again be demonstrated today by two case histories. In both patients the presence of a bronchogenic carcinoma with abscess formation, as originally suggested by the X-ray appearance of the lesions, was not confirmed by the outcome. The lesions disappeared completely with antibiotic therapy and turned out to be lung abscesses. Another point seems worth while mentioning. While every unexplained pulmonary lesion in an adult patient should be looked upon as potentially malign, one should never fail to include tuberculosis into the differential diagnostic considerations. This is illustrated by the following case of a 50 year old white male patient. He was admitted to one of the hospitals for cancer and allied diseases because a chest film had disclosed the presence of lesions of potentially malignant character (film). However, the pulmonary findings turned out to be of tuberculosis nature. A chest film taken 15 months later, while the patient was still under treatment, showed that most of the ab-

normal densities seen at the first film had undergone calcification conforming to the patterns of healing of pulmonary tuberculosis.

I shall now discuss the history and films of a number of patients whom I saw during the last few years in my office.

The first and oldest patient, a man of 83 years, had a history of persistent coughing and hemoptoe. X-ray examination revealed a density in the lower lobe of the left lung. This proved to be a growing tumor. Local and general symptoms were mild and there was not much suffering. Progressive heart failure led to death.

The second case concerns a man aged 77 who for several years was suffering from hypertension, chronic bronchitis, and mild asthmatic manifestations. Frequently performed fluoroscopic examinations did not reveal anything suggestive of tumor. Then followed a short feverish sickness diagnosed as virus pneumonia. A large density in the left lung was found, with the characteristic appearance of a malignant process. The patient's advanced age and the fixed hypertension ruled out any surgical intervention. He was treated symptomatically and lived with relatively little discomfort for several months.

The next case is that of a woman in her 60's who had been treated for lymphatic leucemia over a period of many years. She suddenly showed a density in her right lung. Papanicolou was negative. Radioactive phosphorus, nitrogen mustard and X-ray radiation failed to have any beneficial results. Finally, bronchoscopic examination revealed that the pulmonary lesion was not of leucemic nature, but a bronchogenic carcinoma.

The next case was seen first when he had an acute coronary occlusion in 1948. He continued to have precordial pain on effort and had a second infarct in 1950. A few months later he underwent a successful gall bladder operation. About a year ago he took sick with fever and persistent coughing. My diagnosis was virus pneumonia. When the patient failed to improve, chest X-rays were taken which showed a diffuse infiltration of the right lower lobe. By bronchoscopy (visualization and biopsy) and examination of the pleural exsudate, this infiltration was established as a bronchogenic carcinoma. Since surgery could not be considered because of the cardiac status, X-ray treatment was initiated, but failed to prevent rapid deterioration.

Under similar circumstances I lost 4 other patients with pulmonary malignancies because surgical treatment was precluded.

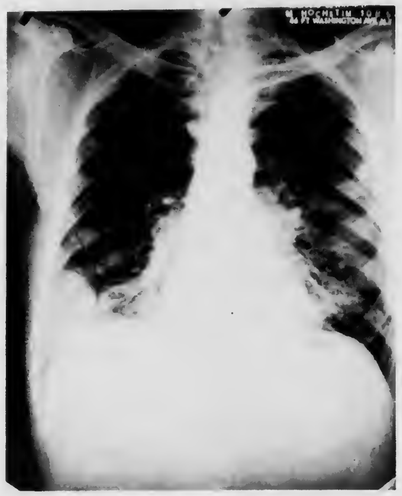


Fig. 1

The last case of this group looked much more promising when I saw him first in September, 1952 and I trusted that my ardent efforts in early cancer detection would be finally rewarded. This man was 57 years old and complaining about a distressing cough for some time. Like most of the patients reported on tonight, he was an excessive smoker and he attributed the coughing to this fact. On X-ray examination (Fig. 1) it became evident that he had a pulmonary tumor showing as a circumscribed oval shadow in the periphery of the right lower lobe. Lobectomy was performed. The anatomic diagnosis was squamous cell carcinoma. There was good reason to hope that surgery at this early stage would result in a complete cure. But his well being was only of short duration. Soon, the patient's condition worsened and the appearance of metastatic brain lesions once more turned our hopes into disappointment. Whether total pneumonectomy could have prevented this outcome is a very important question. From recent discussions of this problem I have gained the impression that pneumonectomy must be considered the superior method of treatment.

When one's own efforts in the management of malignant lung tumors bring nothing but failure and disappointment, one will readily understand why a campaign is being waged with the aim of improving early detection of lung cancer. We have to detect the disease in its very early stage when the patient is still symptomless and feels not yet impelled to ask for medical advice on his own initiative. Periodical examinations of all persons over 40 or better over 30 years of age is the safest prophylactic measure. This sounds utopic but could be done through a program of public education with teeth in it! Such a program must alert patients and physicians alike. Periodic X-ray examination of the chest must become a matter of routine. Existing cancer detection centers cannot do the job alone. Every practitioner is needed for the realization of a program of this magnitude. Many more opportunities must be provided for instruction in the recent methods of detection. Medical and clinical societies should participate in these efforts. When every doctor's office will function as a cancer detection center, it may well be that cancer of the lung is controlled and cured some day.

MYOCARDIAL INFARCTION IN A 24 YEAR OLD BOY

RUDOLF A. STERN

This report concerns the case of a young Iranian graduate student who has been under my care since July 1948. The past history is not contributory except for the fact that he has been of asthenic habitus, got easily exhausted from his work and was advised to have regular checkups. The last one, on March 31, 1952, did not reveal any abnormal findings.

On May 19, 1952, he phoned my office asking for an appointment the same day because of unbearable headache of three days duration. When I saw him, he looked extremely pale and shaky. His temperature was normal, and no signs of infection could be found. His pulse was 60, and regular, his blood pressure 75/60. (Previous readings were reported as 120/70.) No cardiac murmurs were heard and no pulmonary rales. On fluoroscopy, the diaphragm moved freely and the lung fields were clear. The heart appeared small but of normal configuration. The aortic arch was normal, Holzknecht free. A chest film revealed a drop heart but no pathology. The ECG showed regular sinus rhythm, a rate of 60, and a conduction time of 0.18. QRS measured 0.05, showed low voltage in Lead 1, and inversion in all chest leads. ST was slightly depressed in CF 5, but normal in the standard leads. T was also normal in the standard leads, but negative in all chest leads. The abdomen was soft and not tender. Urinalysis was normal. The white count was 13.000, the ESR 16 mm/one hour.

Although the electrocardiographic findings did not signify the

presence of an acute infarction*, I felt strongly they warranted my decision to treat this condition as an acute coronary. Only then, on intense questioning, the patient supplied additional data of the history, headache that had developed during the last three days and was left-sided (face and cranium), chest pain radiating to the left shoulder (it started soon after he had lifted a very heavy intrument).

I prescribed bed rest and phenobarbital. Four days later, the blood count was normal, while ESR had risen to 33 mm/one hour. ECG now showed the waxing and waving of T waves characteristic of myocardial infarction in its early stage. At strict bed rest the patient made a quick recovery. The pain subsided after a few days, the blood pressure returned gradually to normal. The temperature remained always normal. On June 6th, ESR was 14, and 9 on June 20. An ECG taken on June 25th showed satisfactory stabilization: QRS as well as T had become upright in lead CF 4 and 5, while all waves were inverted in CF 2.

Thereafter, the patient was allowed to increase his activities gradually. No signs or symptoms of any recurrence were noticed, and on August 1, 1952 he started a six weeks vacation. When he returned, he felt perfectly well. Since all findings were normal, he was allowed to resume his work, with the stipulation that he must strictly avoid any kind of strain and abstain from smoking (he used to smoke a pack a day prior to his illness). He has been seen at monthly intervals and has remained free from any signs and symptoms of pathology. As of today, he has completed his Ph. D. thesis and is working as a research assistant.

I believe that the presumptive diagnosis of myocardial infarction was confirmed by the course of the disease. This is a rare illness in a youth of 24 years. However, Yater and coworkers (2) could report on 255 such cases (between 18 and 30 years old) who were observed in the armed services during World War II. All these men had been subjected to extremely strenuous activities.

* The absence of characteristic findings in the ECG during the evolution of myocardial infarction has also been reported by Katz (1). His patient was 30 years old.

I want to emphasize the following points: Acute coronary in older persons is occasionally masked by various symptoms such as indigestion, severe tooth ache, headache etc. If younger persons are stricken, they have almost always typical angina and are in severe shock. The foregoing account demonstrates that even in young patients the characteristic clinical manifestations of acute coronary may be absent. Under such circumstances, the nature of the disease has to be suspected in order to be diagnosed.

REFERENCES

1. Katz, L. N.: Electrocardiographic Interpretation, p. 84, Lea and Febiger, Philadelphia 1946.
2. Yater, W. M., etc.: Amer. Heart J. *36,* 334, 1948.

BOVINE TUBERCULOSIS OF THE KIDNEY

ALFRED ZINNER

I would like to report the case of W. M., a 30 year old white male who consulted me because of an urologic condition of 3 years duration. The first abnormal sign he had noticed was heavy cloudiness of his urine. There was no increased frequency of urination and no burning sensation. His physician referred him to a hospital for diagnostic work-up. Upon completion of all test procedures (cystoscopy, intravenous and retrograd pyelography) he was discharged with the diagnosis of chronic cystitis. The guinea pig test was negative. Three years later he was referred to me.

He appeared well nourished and did not seem to be seriously ill. On examination there was no costo-lumbar tenderness, and no enlarged kidney was palpable. The prostate was enlarged and some hard but not tender nodules were present. The very cloudy urine contained albumen (+ +), numerous W. B. C. and some R. B. C. Numerous tubercle bacilli could be demonstrated in the stained sediment. The intravenous pyelogram revealed excretion of diodrast on both sides at normal rate and good concentration. While the left pelvis and the left ureter appeared normal, the calices of the right kidney were somewhat blunt and the right ureter was dilated to the width of a finger and completely atonic in its entire length.

I was afraid that there might be no cure anymore, considering the long duration of the tuberculous infection. On ureteral catheterization, however, normal urine was obtained from the left kidney, whereas urine from the right kidney contained pus and Koch bazilli. On cystoscopy, the bladder capacity was found to be normal, there was no ulceration, and indigo-carmine was excreted on both sides at

normal rate and concentration. There seemed to be no doubt about the presence of surgical tuberculosis of one kidney; the absence of bladder symptoms, however, and more so the negative guinea-pig test were puzzling. Then I learned that the man was a butcher and the diagnosis of bovine tuberculosis of the right kidney seemed probable.

Consequently, nephrectomy was performed on January 5, 1945. The surface of the kidney was studded with numerous isolated and conglomerate tubercles. The upper and middle calyx showed only mild excavation. There was only slight caseous necrosis. The specimen was taken immediately to the laboratory and both guinea-pigs and rabbits were inoculated with fresh material (Dr. G. Schwartzmann).* The guinea-pigs remained healthy, but the rabbits developed an infection.

To corroborate the diagnosis, a patch test with human tuberculin and an intracutaneous test with bovine tuberculin (1 : 10,000) was performed with the patient. The patch was negative, the bovine tuberculin produced a severe local reaction.

During the 7 years following the operation the patient has been treated in various hospitals with streptomycin, PAS, and more recently with isoniacid. Although he looks very healthy, the urine still contains tubercle bacilli.

There are 4 known types of tubercle bacilli: human, bovine, avian, and "cold-blooded". According to Topley and Wilson (13), only the first two types are found in the naturally occurring tuberculous infection of man. This is not correct. Loewenstein has published 3 cases of kidney tuberculosis in which the organisms were identified as those of the avian strain. Lederer has contributed another such case. However, these are rare exceptions.

Some remarks may be in order as to the methods of differentiation. Smith (12), Dorset (4), and Huserang (7) claim that bovine tubercle bacilli tend to remain short and plump, whereas those of the human type are slender. However, the majority of investigators do not believe that morphologic differences constitute a satisfactory diagnostic criterium. All agree that the growth of the human strain surpasses that of the bovine type on all media. For this reason the human

* This is the first reported direct inoculation of kidney tissue.

type is designated as eugone, the bovine as dysgone. On media containing glycerol, the human bacilli show a thick, confluent growth, the bovine type grows poorly if at all. The human strain often produces a pigment of yellow or orange color, the bovine type does not (Griffith and Stanley [6]).

Koch himself held (1901) that bovine tubercle bacilli were virtually non-pathogenic for man, but had to admit later (1908) that man might be infected. He maintained, however, that "bovine" infection would rarely lead to the development of a serious tuberculous disease. We now know better. Tuberculosis of the cervical glands in children is caused by bovine bacilli in 58–85 % of the cases below five years of age, and in nearly 50 % of those 5–14 years old. Primary abdominal tuberculosis is almost invariably due to the bovine type. As to genitourinary tuberculosis, the bovine type has been found in 15 % of the cases (Gervais, 5), and in 33 % of the patients with renal tuberculosis (Band 1).

There can be no doubt that tubercle bacilli of both the bovine and human type, if they are sufficiently virulent, may produce infections in guinea-pigs as well as in rabbits. However, bovine bacilli of low virulence infect rabbits much more readily than the organisms of any other strain (Villemin). Smith (12) states that "tuberculous virus of bovine origin possesses an exalted virulence for rabbits". Consequently, the rabbit test is generally considered as a reliable aid in determining the type of tubercle bacilli found in human tuberculous disease. It has long been known that the organisms found in renal tuberculosis are characterized by their low virulence (15). This explains why many cases of kidney tuberculosis verified at operation or autopsy, have not been diagnosed by means of the guinea-pig test (2, 3, 9, 14).

In conclusion, it may be stated:

1. Renal tuberculosis can be diagnosed in 94 % of the cases from the urinary sediment – positive findings on the stained (Ziehl-Neelson) smear (Hottinger, 8).

2. A negative guinea-pig test is not conclusive. Inoculation of rabbits is required in order to confirm or rule out infection with bovine bacilli.

3. The use of antibiotics does not assure sterilization of the urinary tract or the cure of advanced kidney tuberculosis. Strictly unilateral destructive (surgical) renal tuberculosis is best treated by nephrectomy. Postoperative treatment should include administration of PAS and streptomycin (Latimer et al., 10).

REFERENCES

1. *Band, D.:* Edinb. med. J. *42,* 162, 1935.
2. *Blatt:* Z. Urol. *19,* 321, 1925.
3. *Boeckel:* Tuberculose rénale. Chapelot, Paris 1912.
4. *Dorset, M.:* Wash. Gov. Printing Office, 1904, Bureau Anim. Ind. Bull. 52.
5. *Gervais:* Le bacille au type bovine. Lille 1937.
6. *Griffith* and *Stanley:* Edinb. med. J. *39,* 173, 1931.
7. *Huserang, A.:* Tuberculose humaine. Thèse, Paris 1940.
8. *Hottinger:* Z. Krankh. Harn-Sexualorgane *8,* 178, 1916.
9. *Hyman, A.* and *L. T. Mann:* J. Amer. med. Ass. *76,* 1012, 1921.
10. *Lattimer* et al.: J. Urol. *67,* 750, 1952.
11. *Legeu, J. D.:* J. Urol. *17,* 154, 1922.
12. *Smith, T.:* J. exp. Med. *3,* 451, 1898.
13. *Topley* and *Wilson:* The principles of bacteriology. 2nd ed. Arnold, London 1936.
14. *Wildbolz, H.:* Die Tuberkulose der Harnorgane. Handb. der Urologie, Bd. 4, 1927.
15. *Pels-Leusden:* Arch. klin. Chir. *95,* 245, 1935.

SUPERVOLTAGE ROENTGEN THERAPY

F. C. Burgheim

Supervoltage roentgen therapy represents one of the recent advances in the field of therapeutic radiology. The term "supervoltage" should not suggest any relationship to a superman's machine with supereffects. It simply conveys the fact that voltages above the conventional 200,000 limit are employed. It would be more precise to speak of radiation therapy with voltages above 200 Kv, as suggested some years ago in editorials of leading radiologic journals. However, I shall continue in using the less cumbersome and generally preferred term "supervoltage" until a better one is proposed.

What was the reason for building supervoltage machines? Roentgen therapy reached the highest peak in its short history when in the 1920's Regaud and Coutard reported about their new method, with which they had successfully treated cases of advanced cancer of the larynx. They were able to demonstrate that a much higher total dose could be given – without causing serious damage – when the single dose which produced a skin erythema and had been the limiting factor heretofore was divided in several smaller, daily doses. This discovery led to an almost revolutionary development in radiation therapy. The skin and, consequently, deep-seated tumors could be subjected now to doses capable of killing tumor cells, doses no radiologist had ever dared to dream of.

Once the divided-dose or protracted fractional method was established, further improvement in the treatment of radioresistant carcinomas was expected from more powerful X-ray apparatus. It was hoped that their harder radiation would provide for greater penetration and an increase of the depth dose, i.e. the dose measured at the

depth of the tumor (which is, of course, smaller than the dose impinging on the skin). It could also be expected that the potential specific effect of a shorter wave length (between 1 and 2 million volts, i.e. in the range of radium) would imitate the favorable action of radium.

Since the construction of roentgen apparatus with voltages above the conventional 200 Kv. was only a physical engineering problem, it could soon be carried out in this country. I had the privilege of working with one of the first 1 million volt machines ever built (at the Columbia-Presbyterian Medical Center). It was a big, inflexible apparatus, causing many inconveniences, headaches and frustrating delays in its use for cancer therapy. Compared with it the new 2 million volt machine I am using now for the same purposes at the Hospital for Joint Diseases seems to be one of the miracles of our technical age: a flexible, adjustable apparatus that can be handled almost as easily as the smaller conventional units.

On the basis of this experience I believe that supervoltage radiation is distinctly superior to that of 200 Kv. in the treatment of malignant disease. One of the advantages is the increase in depth dose. Although this increase is only moderate per field, in combination with the use of multiple portals it leads to a considerable gain. This is particularly valuable in the treatment of deep-seated lesions in obese patients or in situations which require the irradiation of small areas with only one field available. Another advantage (that came rather unexpected and was somewhat puzzling) is the fact that we can apply a dose to the skin that is still larger than that permissible with 200 Kv. under strict observation of the described Coutard principle. And a greater surface dose means a further increase in the dose that becomes effective in the neoplasm. Today, the explanation of this phenomenon is well known. Without going into physical details, I will say only this: the so-called back-scatter, i. e. the scattering of softer rays back toward the skin during the passage of the supervoltage rays through the tissues, is negligible in comparison with the back-scatter at 200 Kv. Furthermore, supervoltage rays have their greatest intensity at 3 mm. beneath the skin and not at the skin surface as with lower voltages. In view of theses different biologic actions we have

to look out for danger signals in other parts of the body such as the subcutaneous tissues and mucous membranes. However, if we strictly adhere to the principles laid down by Regaud and Coutard and administer each irradiation at a slow rate, no severe damage to any tissue will occur. I mention this because some radiologists make up their own modifications of the protracted fractional technique in order to save time. This willful deviation from the established technical rules may bring injury and discomfort to the patient and will certainly be avoided by those who appreciate fully the fundamentals of the biologic process involved.

I should like to report on the successful treatment of such radioresistant tumors as carcinoma of the bladder, lungs, esophagus and uterus; none of them received additional therapy, especially not radium treatment. Although tumor doses exceeding 6000 roentgen units (i.e. the lethal dose for cancer cells) were delivered in certain instances, the reactions of skin and mucous membranes were noticeably milder than those described by others. No subcutaneous or muscular fibrosis was observed during the years following the irradiation. The patients stayed rather comfortable throughout the course of treatments. I venture the opinion that the slow, protracted application of small intensities and moderate daily doses causes only little damage to the vascular-connective tissues, so that the normal cells of the tumor bed do not lose what Ewing once called their "power of adaptation". The highly gratifying results obtained in our series of malignancies seem to confirm the correctness of our method.

I must also state the important fact that, owing to the mentioned lack of back-scatter, we can now irradiate through fields that have been previously treated with the conventional 200 Kv. An increasing number of patients are being referred nowadays to institutions equipped with supervoltage machines because previously applied ordinary deep X-ray treatment did not result in complete sterilization of the tumor or could not prevent local recurrences.

Another important point is that large areas can be irradiated. This simplifies the technical procedure and guarantees a more homogeneous penetration not only into all portions of the tumor but also into the adjacent tissues and lymph nodes. This could never be

achieved by the most skilful arrangement of multiple portals. Supervoltage irradiation with only one large anterior and one posterior field is indicated, for instance, in cancer of the uterus and prostate. When still larger fields have to be exposed – as in all those desperate cases where tumor metastases have spread to almost every part of the body – irradiation of the whole body in one exposure (teleroentgen therapy) may be of benefit. Such a treatment when given with supervoltage machines requires only very short exposures, while it takes hours to achieve the same effect with 200 Kv. radiation. These spray irradiations with very small doses, applied daily, and combined with local treatment (small fields, higher doses) can be applied for many weeks and often lead to astonishing palliative results. It is certainly worth while trying this method. Detrimental effects upon the blood frequently observed upon teleroentgen therapy with lower voltages, were absent or negligible in my patients who received supervoltage teleroentgen therapy.

Time does not permit to discuss a number of other characteristic differences between supervoltage and conventional roentgen therapy. However, a most recent advance in this field cannot be omitted: the combination of supervoltage with rotation therapy. This new technique makes it possible to deliver a homogeneous high dose to the tumor and, if necessary, to regional lymph nodes, while the skin and other tissues receive a considerably smaller dose. After precise measurements have been taken with a body contourometer and the neoplasm is properly localized, the patient is placed on a rotation platform in such a position that the tumor forms the center of rotation. For purposes of adjusting the position to minute details, it is very helpful to employ a light beam corresponding to the central ray and to take films with the supervoltage machine while the patient is set up for the irradiation. This technique is recommended for the treatment of gynecologic tumors, cancers of the rectum, bladder, stomach, esophagus, mediastinum, bronchial carcinomas, and tumors of the pharynx, brain, and spine. (Slides were shown illustrating the procedure in general and its application in individual cases.)

THE PHYSICAL ASPECTS OF RADIOACTIVE COBALT THERAPY

Lillian E. Jacobson

This atomic age, with its creation of radioactive elements worth far more than gold, can rightfully be called the fulfilment of the alchemist's dream.

Until recently, only comparatively small amounts of radioactive material were produced for peace time use. However, with the production of radioactive Cobalt 60, the picture has changed. In each Cobalt Beam Therapy Machine the radioactivity of the metallic cobalt exceeds all the medically used radium in the whole world.

The principle of making atoms radioactive is simple. Small nuclear particles called neutrons are "shot" at the atoms of an element. Here and there a neutron strikes the nucleus and is there incorporated to form an unstable atom which at some time in the future will break up, giving out radiations, in other words, it will be radioactive.

The Cobalt used in the Cobalt Beam Therapy Machine at Montefiore Hospital was made radioactive by placing thin discs or wafers of metallic Co59 in the path of slow neutrons in the nuclear reactor or atomic pile at Chalk River, Canada. Some of the atoms of stable Co59 capture a neutron, become heavier, and change into unstable Co60. These wafers are left in the atomic pile for about six months. The source of radiation consists of seventeen thin discs placed one on top of another in an air tight steel container. The composite forms a cylinder like a pill box, one inch in diameter and one half inch thick.

In order to protect personnel, the cobalt is placed in a lead in steel drum about two feet in diameter and four feet high. The cobalt in

this form is used in the same manner as a supervoltage X-ray tube. Supervoltage refers to voltages above 2,000,000.

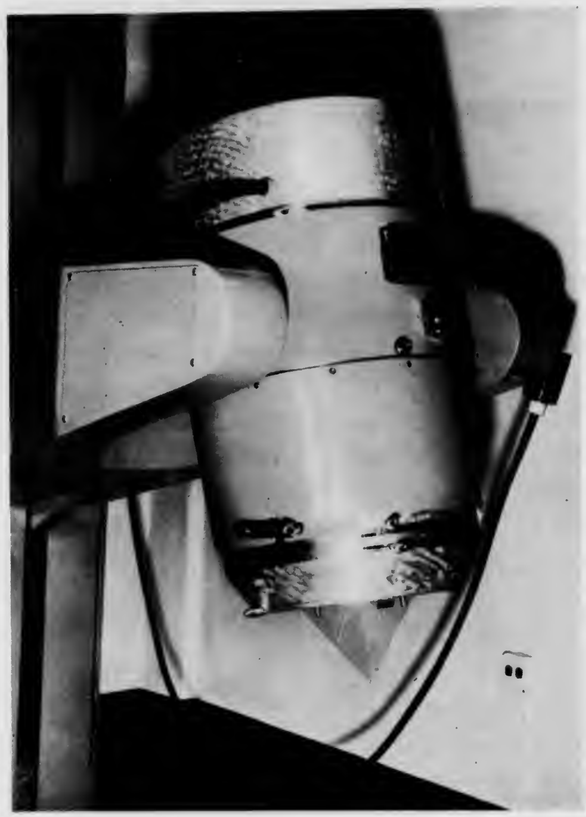


Fig. 1

The cobalt is housed in the center of the container shown in Figure 1. The head weighs 4000 pounds but can easily be positioned by a push of the control buttons, which causes it to ride up or down or to pivot around the axis, rotating from the vertical to ten degrees above the horizontal. The mechanism is finely controlled despite its weight.

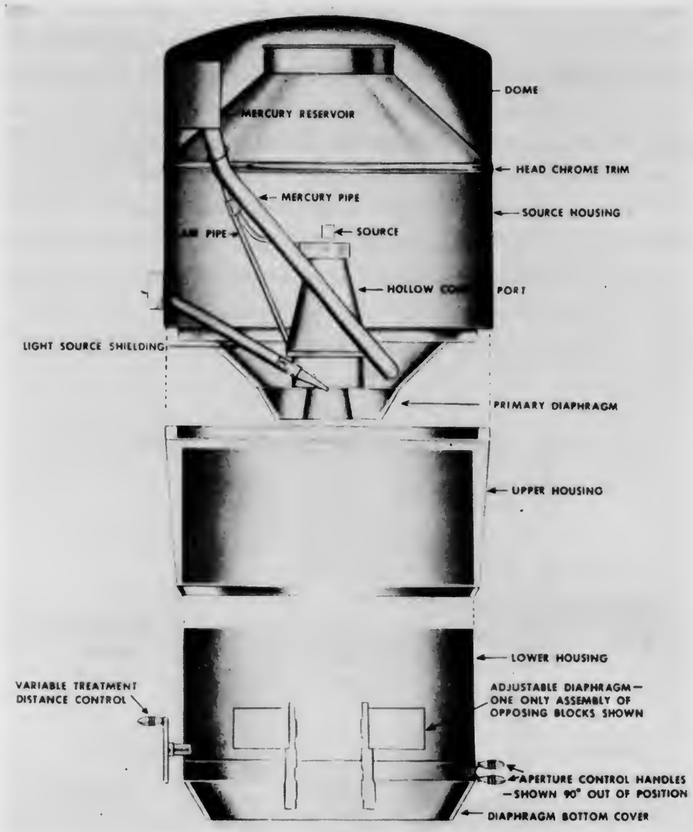


Fig. 2

Figure 2 shows the cross section of the drum. In front of the source is a hollow cone containing mercury which absorbs the radiation when the machine is not in use. The mercury is pumped out by remote control from the control room when a patient is to be treated. If the power should fail or the outside door be opened, the mercury runs back into the cone by gravity, so that the machine fails safe. The size of the field is varied by moving the lead blocks which act as a diaphragm.

The room in which the Cobalt Beam Therapy Machine was placed, see Figure 3, is well suited for this purpose. The outside wall for four and a half feet is below ground level and faces a garden which is not used. The beam is directed toward this wall or the floor, which is directly on the ground. Where the direct beam might strike it, the outside wall was built up to a thickness of three feet of concrete on the inside. This is sufficient to attenuate the direct beam to below the tolerance levels of 6.25 mr/hr. All the other walls were filled in to a thickness of twelve inches, which is sufficient to reduce the scattered radiation in all directions below the tolerance level. The ceiling was found by a boring to be eighteen inches thick with eleven inches of concrete. Nothing was added.

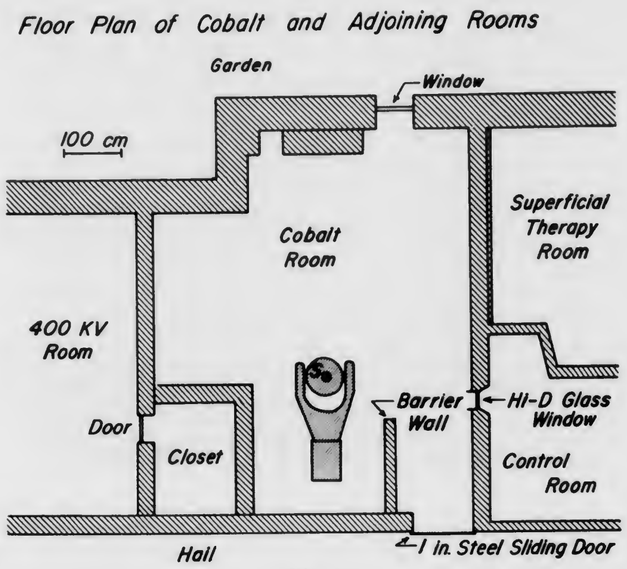


Fig. 3

The observation window from the control room to the therapy room is very interesting in that it is made of a special lead oxide glass, whose index of refraction is higher than that of any other glass heretofore made, so that even through an eight by eight inch window almost

the entire treatment room is visible. The window is two inches thick and gives the protection of one inch of lead.

A steel sliding door permits entrance from the hall to the Cobalt room.

Under the most adverse operating conditions, after very careful measurements, the stray radiation was found to be well below the permissible amount in all places except through the steel door. This has been remedied by the construction of a barrier wall perpendicular to the wall containg the door, as can be seen in Figure 3.

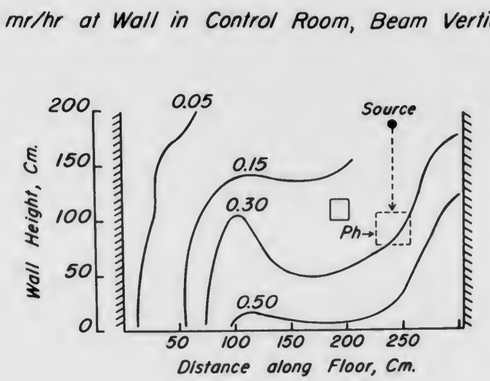


Fig. 4

The stray radiation measurements in the control room can best be shown by lines drawn through points where the stray radiation as measured with a survey meter is the same. These lines are called isostrays and are shown in Figure 4, when the beam is directed vertically downward. The stray radiation at chest level next to the wall of the control room is .2 mr/hr., at foot level .5 mr/hr. When the beam is directed horizontally, as in Figure 5, the stray radiation is less, about .05 mr/hr. were the technician sits.

The personnel operating the Cobalt unit have been monitored continuously by film badges and pocket dosimeters. The pocket dosimeters are read at the beginning and at the end of the day and indicate that about 1 mr is received. This is approximately the natural leakage of the instrument. In a two-week period the film badges have

received less than a measurable amount which is less than 20 mr. So the operation of a Cobalt unit is as safe as that of a well protected X-ray machine.

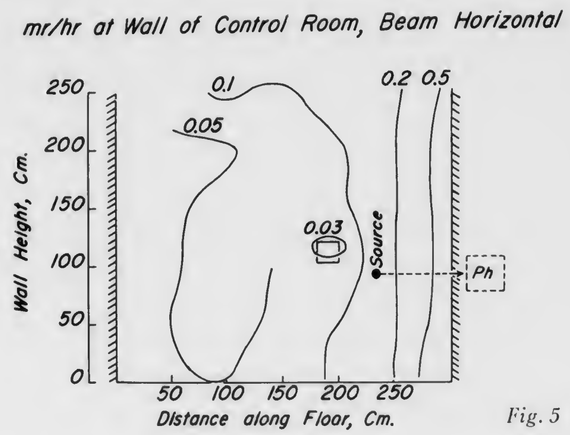


Fig. 5

Cobalt has distinct advantages over conventional X-rays in the 200 to 400 kv. range. Cobalt gives off gamma rays which are more penetrating than those of radium and equivalent in penetration to X-rays from a 3 MEV. X-ray machine.

In comparing Cobalt and 400 kv. radiation, one finds that for 400 kv., thirty-nine percent of the surface dose reaches a depth of 10 cm. for a 10 × 10 cm. field, and for cobalt radiation fifty-six percent. If one wanted to give a dose of 100 r to a tumor at that depth 256 r of 400 kv. X-rays would have to be given to the skin but only 179 r of Co60 radiation. Thus, for equal doses to the tumor, the skin and underlying tissues are spared with Co60 radiation. If the tumor is treated from several ports, the skin effect with Cobalt ceases to be the limiting factor as it has been with conventional X-rays.

When the tumor receives the same dose with conventional radiation as with Cobalt, the underlying healthy tissue receives a much greater dose, and therefore the systemic reaction is greater. Figures 6 and 7 illustrate this point. If the tumor receives 5000 r with Cobalt, the skin at the ports of entry receives 4000 r and most of the under-

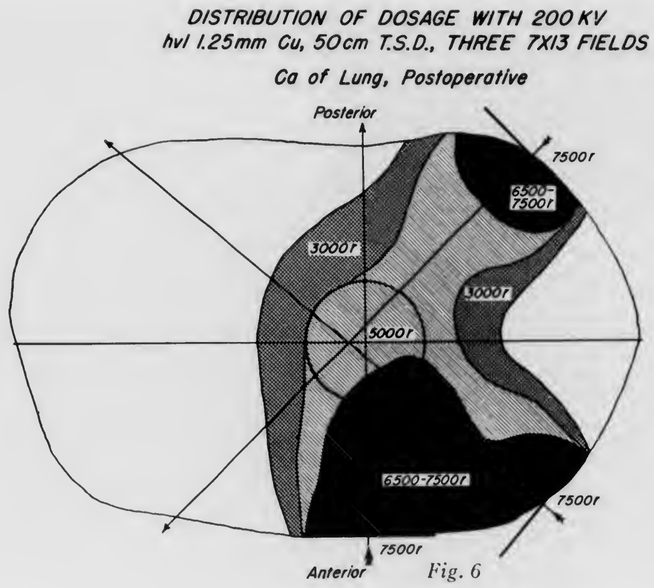


Fig. 6

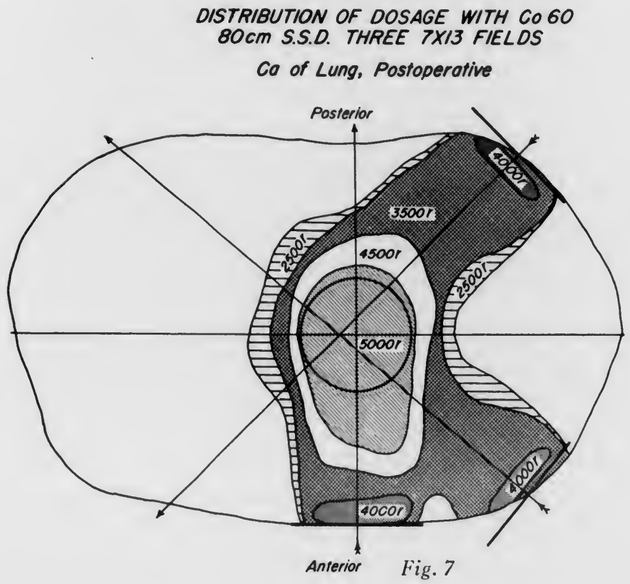


Fig. 7

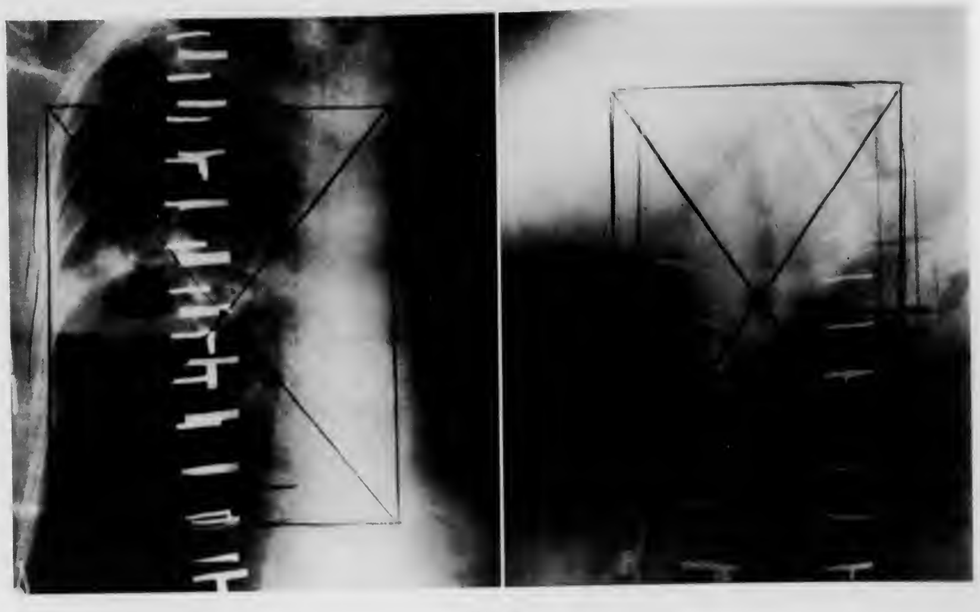


Fig. 8

lying tissue 3500 r. While with 200 kv., the skin and a large portion of the underlying tissues would receive 6500 to 7500 r. This dose is beyond tolerance and therefore, it is impossible to deliver a dose of 5000 r to this tumor from three ports with 200 kv. X-rays. Large doses not possible heretofore have been given to some patients with very little radiation sickness.

There is a great deal more scatter with conventional X-rays than with Cobalt or supervoltage, which increases the volume of tissue irradiated with conventional X-ray.

Even when equal doses are given to the skin, the effect on the skin is far less with Cobalt than with conventional X-rays. Only mild erythemas and bronzing were obtained with large fields and doses as high as 5500 r to 6000 r at 4 mm. below the upper surface of the skin where the maximum is received with our set-up, and doses of 4500 to 5000 r to the skin. Of course, one may question whether or not some differential action appears at a depth between conventional and super-

voltage radiation. This is still a moot question which needs further investigation.

Cobalt radiation penetrates bone almost as easily as soft tissue, whereas conventional X-rays are absorbed more by bone. Therefore, Cobalt can be used to treat a tumor underlying normal bone with less effect to bone than with regular X-rays.

Fig. 9

The Cobalt Beam Therapy Machine and the room protection for it are more expensive than a conventional X-ray installation, but considerably less expensive than supervoltage equipment and housing.

Fig. 10

One must take into account the decay of Cobalt 60. In five years half of it disintegrates and therefore, its activity is reduced to half of its original value. When the times of treatment become too long, the existing Cobalt source can be exchanged for one of high specific activity. Since one pays for the r output of a source, the cost of the new one is the difference between its price and that allowed for the activity of the old one. The old source is placed back into the pile, reactivated, and used over again. Whether this replacement is more expensive than the replacement of supervoltage X-ray tubes remains to be seen.

For the radiation to be most effective and do the least damage to healthy tissue, the rays must be so directed that they always strike the tumor from several ports of entry. A great deal of attention is given to the exact location of the tumor within the patient. After the tumor has been located on the X-ray film or by fluoroscopic examination, the following procedure occurs in all head, neck, and chest lesions which can be treated in the erect position. A light plaster of Paris cast is made of the portion of the body containing the lesion. Special lead markers

are placed on the cast anteriorly, posteriorly, and laterally. The patient is again placed in the cast and X-rayed in the same position as he is to be treated. An AP and a lateral film are taken. On these films the radiologist marks the lesion that he wants treated. See Figure 8. From the identification of the markers on the cast with the correction for distortion, the physicist locates two perpendicular axes through the center of the lesion as is seen in Figure 9.

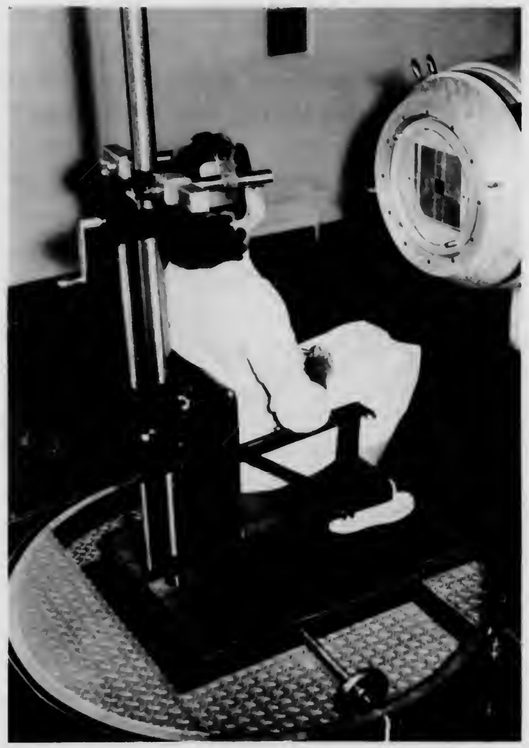


Fig. 11

The contour of the cross section through the center of the lesion of the body with the cast is drawn on tracing paper. By applying isodose curves from various angles, he finds the most efficient way to

get a uniform radiation field for the lesion, with a minimum of damage to important structures such as eyes, and spinal cord. The centers of the ports of entry and exit are then marked on the cast. Each time the patient is treated, he wears the cast, and the machine is so positioned that the lucite cone fits into the center of the port of entry and the back pointer fits into the center of the exit port, as is seen in Figure 10. This means that the beam always is angled exactly in the same direction. By using the Cobalt source as a diagnostic X-ray tube, we have devised a way of taking films to verify that the tumor is being irradiated as planned.

To get a minimum skin effect Cobalt can be used with a rotating platform as shown in Figure 11. Rotation is used where the lesion is located more or less in the central axis of the patient. The patient is so positioned that the center of the tumor is at the center of rotation. Sometimes instead of having a complete revolution, the patient is moved back and forth through a sector of an arc.

As a physicist, I dare not discuss results. However, this I can say, that if there is such a thing as a cancercidal dose, in most cases it can be delivered to any part of the body without undue skin effects, normal tissue effects, or radiation sickness.

Excellent radiotherapy can be given without Cobalt or supervoltage. However, both of these, when used judiciously, are very good tools with which to do a better job.

Lillian E. Jacobson, Radiation Physicist
Montefiore Hospital
210th Street and Gun Hill Road
New York 67, N. Y.

THE DIAGNOSTIC AND THERAPEUTIC USES OF RADIOACTIVE IODINE

Martin Perlmutter

Radioactive Iodine – I^{131} – is useful clinically because of its following properties:

1. It is so powerful that therapeutic doses are exceedingly dilute, in fact so dilute that the solutions are odorless, tastless, and will not cause reactions in patients who are unable to take Lugol's solution.

2. Practically all of the iodide is either retained by the thyroid gland or excreted in the urine.

3. The beta rays which destroy cells can penetrate only 2 mm. deep; as a result only the thyroid gland can be damaged.

4. The gamma rays which do not destroy cells, penetrate into far more distant tissues and are useful for detection of thyroid tissue.

5. The half-life of I^{131} is eight days – short enough to prevent damage through irradiation, and long enough to preserve the isotope's potency during its transport through the body.

Application of I^{131} for diagnostic purposes permits:

1. to assay the avidity of the thyroid gland for iodine. This test of thyroid function is not reliable when iodides (or various other drugs) have been administered prior to the performance of the test.

2. to make the diagnosis of thyroiditis and thyrotoxicosis factitia.

3. to localize thyroid tissue even at sites remote from the neck.

4. to detect functioning metastases of cancer of the thyroid.

5. to differentiate benign from potentially malignant isolated nudules.

The therapeutic uses are:

1. to destroy overactive thyroid tissue and thus restore the patient to euthyroid status (Graves' disease and toxic nodular goiter).

2. to destroy thyroid cancer tissue (after ablation of the thyroid and preparatory to administration of thiouracil).

3. to induce hypothyroidism in severely ill cardiac patients (by destroying part of their normal thyroid gland and thus lowering the metabolic rate).

THE KIMMELSTIEL-WILSON SYNDROME AND ITS CLINICAL VARIANTS

HAROLD RIFKIN

In 1936 Kimmelstiel and Wilson described characteristic post-mortem findings in the kidneys of 8 patients, seven of them known diabetics. The clinical records revealed that all these diabetic patients had albuminuria, hypertension, edema, and azotemia. Numerous reports have appeared attesting to the clinical importance of this syndrome. Although originally considered to be a disease of middle-aged and elderly diabetics, this so-called "complication" of diabetes is now known to occur also in children and adolescents whose diabetes has been manifest for at least ten years. The gravity of this syndrome is emphasized by reports that diabetic nephropathy takes first place as the cause of death in patients who had diabetes for twenty years or longer.

The fully developed syndrome includes retinopathy, proteinuria, hypertension, nephrotic and/or cardiac edema, and azotemia, in association with mild or severe diabetes. Occasionally, a patient may be observed from the onset of his diabetes through the various stages of the complicating syndrome. More frequently, however, time of onset and rate of the syndrome's progression are not known when the condition is diagnosed. There seems to be no doubt that the renal lesion is just one manifestation of the widespread angiopathic changes that develop in the course of the diabetic metabolic disorder. In a large group of patients studied at Montefiore Hospital we could observe the following clinical variants of the syndrome:

1. Diabetes mellitus, hypertensive disease, edema, proteinuria, and retinopathy; this represents the full-blown syndrome.

2. Mild diabetes mellitus, retinopathy, peripheral vascular disease, and proteinuria with or without hypertension or renal insufficiency.
3. Diabetes mellitus, hypertensive disease with or without cardiac failure, and proteinuria.
4. Diabetes mellitus, arteriosclerotic heart disease, congestive failure, proteinuria, and retinopathy.
5. Renal insufficiency and/or edema of undetermined etiology in a latent diabetic patient with some other major illness.
6. Nephrotic syndrome in a juvenile diabetic with retinopathy, with or without hypertension or renal impairment (in their early stages).
7. Diabetes mellitus, peripheral neuropathy, retinopathy and proteinuria.

All available data indicate that there is no correlation between the incidence of the syndrome and the patients' age or sex or the intensity of the diabetic disorder. Evidently, the most important etiologic factor is the duration of the diabetes. The earliest observed appearance of renal lesions is 8 years after the onset of manifest diabetes.

I should like to discuss briefly the clinical and postmortem findings in a recent series of 21 patients, from 45 to 65 years old. The diabetes was mild, moderate or severe. All patients had hypertension, with the exception of two in whom autopsy disclosed extensive myocardial infarction. A constant finding was the characteristic retinal microaneurysms of diabetes, in addition to extensive retinal hemorrhages and exudates. Edema was noted in approximately 75 % of the patients. No correlation could be established between the severity of the edema and the degree of hypoalbuminemia. In the older age group edema was chiefly due to congestive heart failure while nephrotic edema prevailed in the younger patients. A moderate to severe anemia, and azotemia was an almost constant feature.

The prognosis is poor regardless of the clinical picture. The average life expectancy following the onset of the syndrome is 6 to 7 years, with a range of 2–13 years. Uremia, myocardial infarction, and acute cardiac failure are the most frequent causes of death. Renal pathology consisted of afferent and efferent arteriolosclerosis and intercapillary glomerulosclerosis of varying degrees.

Differential diagnostic considerations must take into account the patient's age. In the young diabetic, the nephrotic or hypertensive stages of chronic glomerulonephritis as well as chronic pyelonephritis offer the chief diagnostic difficulties. In the elderly diabetic patient, co-existent hypertensive or arteriosclerotic renal disease with or without congestive heart failure, chronic pyelonephritis, and renal amyloidosis (tuberculosis!) have to be considered.

In our experience the diagnosis of the Kimmelstiel-Wilson syndrome is greatly aided by these test procedures: 1. Examination of the urinary sediment for anisotropic material, i.e. doubly refractile lipoid droplets enclosed in epithelial cells or casts. Under ordinary light, they appear yellowish-black; under polarized light, they can be easily recognized as the well known maltese crosses. The amount of anisotropic material present in the urine varies from day to day. The lipoid droplets are best demonstrated in fresh, acid urine, but are difficult to find in poorly preserved alkaline samples. Needless to say that these elements are significant of the K.-W. syndrome only when other diseases are ruled out as the potential cause of "lipoid" excretion in the urine, particularly chronic glomerulonephritis in cases of young diabetics. If red blood cells and hemoglobin casts are found, one should consider the presence of the K.-W. syndrome as extremely unlikely.

2. Electrophoretic analysis of plasma and urinary proteins. The K.-W. syndrome shows the following pattern in the serum: a low albumin, an elevated alpha-2 and beta globulin, and a normal gamma globulin. The urinary pattern signifies the preponderance of albumin and alpha-1 globulin, with normal i.e. small amounts of the beta and gamma globulin fractions. In contrast, patients with nephrotic glomerulonephritis have a serum pattern characterized by abnormally low gamma globulin. In renal amyloidosis, gamma globulin is increased in serum and urine. Normal alpha-2 globulin and elevated beta globulin is the serum pattern found in diabetics with hypertensive or arteriosclerotic heart disease. Whether the elevated serum alpha-2 globulin in patients with Kimmelstiel-Wilson syndrome is simply the result of mesenchymal injury and prolonged proteinuria or represents an abnormality that is specifically associated with diabetic glomerulosclerosis, cannot be determined at present.

Renal clearance tests have proved to be of no value in the diagnosis of the K.-W. syndrome.

Finally, renal biopsy as recently recommended by Iverson et al. may prove to be an invaluable aid in diagnosis.

Disturbances of lipid metabolism as well as alterations in the metabolism of complex mucopolysaccharides may be involved in the pathogenesis of the syndrome. Elevated levels of cholesterol and phospholipids as well as marked elevation of the Sf 12–20 class of lipoproteins have been found in the blood of patients presenting the syndrome. Furthermore, complex carbohydrate substances have been demonstrated histologically in the hyaline material of the retinal and renal lesions. That the deposition of this material might be due to an abnormally high concentration of circulating glycoproteins, as suggested previously, is indicated by our recent studies. Total serum polysaccharides bound to protein and glucosamine, were found to be increased only in those diabetic patients who showed retinopathy, neuropathy or the fully developed K.-W. syndrome. In the absence of degenerative vascular disease, neither diabetics nor non-diabetic patients, with or without arteriosclerotic disease, exhibited these chemical abnormalities. Renal insufficiency cannot be the sole cause of these abnormal levels of glycoprotein.

Our preliminary studies on the relationship between glycoproteins and lipoproteins in the serum of Kimmelstiel-Wilson patients indicate that the increases in alpha-2 globulin and complex carbohydrates run parallel.

MEDICAL MANAGEMENT OF PERIPHERAL VASCULAR DISEASES IN DIABETES

Heinz I. Lippmann

With few exceptions occlusive arterial disease in diabetic patients is due to arteriosclerosis. Since the etiology of arteriosclerosis is not yet known, no causal treatment exists at present. Medical management is, therefore, confined to the therapy of symptoms. Accordingly, the discussion tonight will deal with the treatment of conditions which represent the most frequently seen manifestations of peripheral vascular disease in diabetic patients:

1. Uncomplicated arteriosclerosis obliterans.
2. Infections (local, septic).
3. Ulcerations.
4. Gangrene.

Time does not permit to consider diabetic neuropathies, acute arterial occlusion, venous and lymph vessel diseases, and the pre- and postoperative medical care.

1. Uncomplicated arteriosclerosis obliterans (ASO) (Table 1)

The cardinal symptom is intermittent claudication. Objective sings are blanching on elevation and rubor in dependency, absent pulses on foot and leg, and abnormal oscillometric and thermometric* findings, particularly following posterior tibial nerve block with procain or intraarterial injection of small amounts of priscoline. Other diagnostic methods such as plethysmography, calorimetry, arterio-

* A reliable pocket-size skin thermometer is supplied by Marcks, Ltd., London.

Table 1
Arteriosclerosis Obliterans
(Intimal thickening, thrombotic occlusion)

Manifestations:	Intermittent claudication. Blanching on elevation, rubor on dependency. Absent pulses (palpation, oscillometry). Low skin temperature after vasodilatation.
Medical management:	Protection from heat or trauma. Exercise – No smoking – Cleanliness – Avoidance of hypoglycemia, of acidosis – Oral vasodilators
Of doubtful value:	Sympathetic blockade – Vitamins (A, C, E) Intra-arterial vasodilators.

graphy and radioactive soduim clearances are procedures not feasible for office use.

Arteriosclerosis, at least in the diabetic, is basically a progressive disease. However, ASO may become stationary for many years. The formation of collateral vessels which is the rule in untreated cases, may be enhanced by muscular exercise. Walking (but not beyond the onset of intermittent claudication) is the best therapeutic procedure known at present. Oral vasodilators are commonly given in these cases, but it is doubtful whether any medication, oral or parenteral, is of actual help. The same is true for all physiotherapeutic procedures known to me. Sympathetic nerve blocking and lumbar sympathectomy have been ineffective in the many patients I have had an opportunity to observe. I feel certain that favorable reports concerning sympathectomy (1) and intraarterial therapy (2) for intermittent claudication will not stand the test of time.

The main efforts in the management of ASO in the diabetic must be directed towards prophylaxis. Mechanical and thermal trauma to the involved limb must be carefully avoided. Still, in more than 50 % of our hospital patients minor burns were responsible for gangrene of feet or legs. It is clearly the medical profession's responsibility that patients realize the danger of applying direct heat to limbs showing signs of impaired circulation. Proper hygiene should include a daily foot bath in lukewarm soap water and application of mineral oil or lanolin to the skin. The patient should have his toenails clipped, but

should not do it himself. If trauma occurs, he should consult his physician without delay.

Some measure of protection may be obtained by lumbar sympathectomy (3) or intraarterial vasodilator therapy (4) in ASO in diabetics.

In order to bring home to every patient the nature of ASO and the importance of prophylaxis, I have found it expedient to hand out typewritten instructions, adapted to the patient's educational background .

No patients with ASO should be permitted to smoke. In hitherto unpublished follow-up studies on 400 patients observed over more than 10 years, and on another series of 250 patients followed over shorter periods of time, the following was found: In either group the smokers showed a statistically significant higher incidence of clinical deterioration than the non-smokers. There was no smoker among those who improved, subjectively or objectively. It is often said that nicotin excercises its damaging effect by causing vasoconstriction. I believe that additional factors are involved in the deleterious action of tobacco.

Hypoglycemic episodes should not be permitted to occur in a diabetic with ASO. I have the records of 12 such patients in whom hypoglycemia was followed by complete occlusion of the major leg arteries and distal gangrene. The occurrence of coronary thrombosis during hypoglycemia is common knowledge (5). We fear overdosage of insulin more than occasional hyperglycemia in diabetics with ASO. I give these patients the minimum dose of insulin compatible with adequate nutrition. They should spill traces of sugar in the urine. The other extreme, acidosis must be avoided as well.

2. *Infections* (Table 2)

The "uncontrolled" diabetic tends to develop infections. When excessive foot perspiration causes the skin to macerate, an intractable epidermophytotic infection may become amenable to treatment after sympathetic blockade or lumbar sympathectomy.

Table 2
Infections

	Management
Superficial infections	
e.g. Epidermophytosis	Fungicides – No penicillin – occasionally sympathetic blockade -- hygiene
Pyogenic inf.	Antibiotics – wet dressings, lukewarm – I & D (e.g. paronycchia)
Deep infections	
e.g. Abscess, tendon inf. phlegmone, osteomyel.	Antibiotics – surgical management as in non-p.v.d. (Culture sensitivity not helpful)
Septic infections	
e.g. S.B.E. (carditis or angiitis) Septic thrombophleb.	Antibiotics (Culture sensitivity helpful)
In all cases	Diabetic control Vigorous vasodilatation deleterious if circulation is good (skin maceration).

In the treatment of pyogenic infections, antibiotic sensitivity tests in bacterial cultures have not been helpful in the choice of the optimum dose or the appropriate antibiotic. Penicillin continues to be an effective agent in many cases. High antibiotic concentrations in infected tissues may be obtained by intraarterial administration (6). However, I do not believe that the clinical results after systemic administration are inferior. Apparently, an optimum tissue concentration of an antibiotic can be obtained by intramuscular injection, or by oral administration.

Intraarterial vasodilator therapy for diabetic infections should not be instituted in the presence of an adequate circulation. I have observed local peripheral edema, skin maceration and spread of the infection in several such cases.

3. Ulcerations (Table 3)

Treatment depends on the location and type of the ulcer, whether it is arterial or venous in origin, clean, infected or gangrenous, acute or chronic.

Subungual epidermophytotic ulcers occur frequently in diabetics. If a small triangular wedge is clipped into the nail, pus will often

Table 3
Ulcerations

Location	Usual cause	Management
Subungual	Fungus – mixed inf.	Relieve nail pressure
Digits	Trauma – arterial ins.	i.a. vasodilators – sedation antibiotics
Over digit joints	Osteomyelitis? (X-ray)	Local amputation – transmetatarsal amputation
Plantar (balls)	Callus	Careful debridement, pressure relief, – antibiotics – vasodilators
Lower leg (later.)	Arteriolosclerosis *	Sedation – dilators
Legs or thighs	Venous stasis *	Supportive therapy (Unna boot, Ace supportive bandage, etc.)

* Lues, squamous cell Ca.

empty under pressure; at a later date, more nail plate may be removed, carefully avoiding trauma to the edges and the base. Removal of an ingrown nail is an operating room procedure in these cases, and should be done with chisel and drill from above; dystrophic thickened nail should be thinned down with a drill file. These techniques must be learned and whether an ulcer will heal or spread depends more on the manner of manipulating these instruments than the procedure used. The general rule is to do as little as possible.

4. Gangrene (Table 4)

All factors which contribute to the development of gangrene, namely ischemia, infection, trauma, pain and the general status of the patient deserve equal therapeutic attention.

Intraarterial vasodilator therapy, judiciously applied, has proven valuable in the treatment of diabetic gangrene (7). Intraarterial injection of vasodilators * is indicated only for the relief of ischemia. There is some evidence that the formation of collaterals and cutaneous blood flow may be enhanced by a round-the-clock injection schedule,

* Sustained vasodilatation is difficult to obtain with histamin, and its application is too cumbersome for general use.

Table 4
Gangrene
Digits (toes, fingers) Foot, Leg, Heel, Localised skin areas, Massive gangrene
Medical management

For the purpose of	Therapeutic measure	
Prevention of spreading	Relief of local pressure – rest –? other	
Control of pain	General sedation – intraarterial procain	
Control of infection	Antibiotics (systemic)	
Demarcation	Preservation of body heat (cotton packing) Optimum moisture (bland ointments) –	
Improvement of ischemia	Intraarterial vasodilators	
Promotion of healing after demarcation	Positive N-balance (nutrition, activity) Control of anemia (Fe, liver, transfusion)	
	Granulation	Tocopherols (systemic)
	Epithelization	Vitamins A and D (local)
	Contraction	unknown

especially when combined with reflex heat (8). The amount of vasodilator injected is kept short of causing systemic reactions.

Buerger's exercises or the oscillating bed are often used. The value of these passive exercises has been questioned recently (9).

The control of pain is of utmost importance, since pain produces vasoconstriction and interferes in many ways with the general condition of the patient. Narcotics are freely used if necessary and without fear of addiction. Procain injected intraarterially has proven valuable in some cases, but may cause vasoconstriction, thereby offsetting the analgesic effect.

Any damage to the involved limbs must be avoided. Regular exercise should be given to all major joints. To prevent flexion contractures, removable plaster splints must be applied in somes cases. All patients with gangrene have bed rest or wheelchair privileges as long as the progress of demarcation is not entirely satisfactory. A cradle should protect the foot. A foam rubber cushion should be placed under the leg, but the heel should not touch the mattress and the bed should be raised in such a way that the limb is kept level and is not elevated.

When demarcation is complete, formation of granulation tissue may be speeded up by oral administration of vitamin E (alpha-tocopherol). Unpublished observations suggest that its stimulating effect corresponds with its concentration in the blood. The blood level can be raised by oral, rarely by parenteral administration.

Epithelization is enhanced by topical application of vitamin A and D or by ultraviolet irradiation. There is no known measure that would enhance wound contraction, the third known mechanism of wound closure.

In conclusion it can be said that the paramount task of the medical management is to prevent damage to a limb with poor circulation. The general condition of the patient must be watched continually. Antibiotics are given when needed. Intraarterial administration of vasodilators and analgesics offers promising results. The use of nerve-blocking procedures is occasionally indicated. To evaluate all these modalities, a thorough knowledge of the natural course of untreated occlusive arterial disease is indispensable.

Nature is kind, whether the physician interferes or not. In my experience, about three quarters of the patients who develop a thrombotic occlusion of a sclerotic femoral artery will get away without the loss of the limb or even parts thereof. Many more patients with occlusive arterial disease die with their feet on than with their feet off and can be managed conservatively. Many limbs can be saved by medical means, even when ulcerations or gangrene give rise to additional hazards.

Every patient in need of a major amputation is a living symbol of our failure. However, even then his chances to resume a useful life in society are not at an end. We have today in our midst one of the pioneers of conservative surgery for peripheral vascular diseases. Dr. S. Silbert's own presentation will bear better witness to his achievements than any words.

A diabetic patient's chance, then, to maintain his working capacity has improved through the years. Let us work for better chances for the patient of the future.

REFERENCES

1. De Bakey, M. E., O. Creech and J. P. Woodhall: Evaluation of Sympathectomy in Arteriosclerotic Peripheral Vascular Disease. J. Amer. med. Ass. *144,* 1227, 1950.
2. Mufson, I.: A New Treatment for the Relief of Obliterative Diseases of Peripheral Arteries. Ann. intern. Med. *29,* 903, 1948.
3. Edwards, E. A. and C. Crane: Lumbar Sympathectomy for Arteriosclerosis of Lower Extremities. New Engl. J. Med. *244,* 199, 1951.
4. Lippmann, H. I.: Unpublished observations.
5. Gilbert, R. A. and J. W. Goldzieher: The Mechanism and Prevention of Cardiovascular Changes Due to Insulin. Ann. intern. Med. *25,* 928, 1946.
6. Glasser, S. T., J. Herrlin jr. and B. Pollock: Intra-arterial Injection of Penicillin for Infections of the Extremities. J. Amer. med. Ass. *128,* 798, 1945.
7. Lippmann, H. I.: Intraarterial Priscoline Therapy for Peripheral Vascular Disturbances. Angiology *3,* 69, 1952.
8. Kappert, A.: Zur Behandlung mit intraarteriellen Injektionen. Helv. med. Acta *14,* 25, 1947.
9. Wisham, L. H., A. S. Abramson and A. Ebel: Value of Exercise in Peripheral Arterial Disease. J. Amer. med. Asso. *153,* 10, 1953.

SURGICAL MANAGEMENT OF PERIPHERAL VASCULAR DISEASES

Samuel Silbert

Five levels of amputation should be considered in patients with gangrene of the toes or foot. Amputation of a gangrenous toe frequently results in a gangrenous wound, and is usually not advisable. On the contrary if there is ulceration of a single toe, with or without osteomyelitis, amputation of such a toe usually heals by primary union and saves many weeks of disability. When gangrene involves two or more toes, a transmetatarsal amputation should usually be done. About 65 % of such amputations result in good healing. The great advantage of a successful transmetatarsal amputation is that a prothesis is not needed. When gangrene extends beyond the toes to involve the foot, and when there is gangrene of the heel, a mid-leg amputation should be done, saving the knee joint. The advantages of mid-leg amputation are: reduced operative mortality, improved outlook for rehabilitation and absence of persistent pain in the stump. In patients who are very toxic, it is frequently desirable to do a preliminary quick guillotine amputation just above the ankle in order to remove the gangrenous or infected foot. The general condition of the patient usually improves rapidly following this simple procedure, and secondary amputation through the mid-leg can then be done safely. Mid-thigh amputation is reserved for the special case where gangrene extends almost to the knee joint, or where there has been insufficient time for development of collateral circulation to the midleg following an acute femoral artery closure.

OCULAR MANIFESTATIONS IN PROTRACTED DIABETES

GEORGES KLEEFELD

Diabetes per se is one of the worst enemies of the eye. Cure and maybe, someday, prevention of this disease will be a boon for humanity.

Thus the physician should be trained for the detection of the earliest signs of eye changes at a time when still some therapeutic measures might be considered.

Forty years ago, people were not routinely examined for glycosuria. The ophthalmologists were practically the only ones who were trained in the use of the ophthalmoscope, and capable of making the diagnosis of "diabetic retinitis", as this condition was called at that time.

Today, every physician knows and possesses this instrument for gazing at the fundus of the eye. The general practitioner has to be familiar with the ophthalmoscope because he is the one who has to see the first signs of a retinopathy. And he has to perform the ophthalmoscopy without artificial dilatation of the pupil, because instilling any kind of mydriatic can lead to the development of glaucoma, and, positively, he should not take any chance. It is our belief that the physician who takes care of a diabetic case has the same responsibility when it comes to the detection of acidosis or to the detection of the first appearances of diabetic retinopathy. The ophthalmologists will be always very happy to discuss these findings with the general practitioner who detected them. Once the diagnosis of retinopathy is firmly established, a steady cooperation of general practitioner, laboratory and ophthalmologist will be required.

A routine examination of a diabetic should not bypass the external aspect of the eyes, nor should the interrogatory fail to include some very important points: whether the eyes are painful (symptom of a possible iritis-glaucoma); whether the vision is failing (iritis – cataract – retinopathy); whether there is double vision (involvement of eye-muscles); whether some days the vision is better than others (swelling of the lens going parallely with the variations of glycemia).

The present concept in the evolution of diabetic retinopathy can be deducted from papers issued by the English School (Ballantyne) and Johns Hopkins University (Friedenwald, Becker). The first appearance is a change in the veins of the retina. They lose their tonus, become irregularly enlarged. Their irregular shape contrasts with the regular pattern of the arteries. Friedenwald insists upon the presence of microaneurysms in the macular region as the forerunner of a diabetic retinopathy. These microaneurysms are fairly well pathognomonic of that condition. Later on appear the hemorrhages, varying in aspect according to their locations in the retina. Roundish yellowish exudates develop in the same region; they coalesce and form irregular scalloped masses, which contain frequently cholesterol crystals.

If the disease takes on a malignant character, hemorrhages spread into the vitreous body, and lead to proliferant retinitis with secondary incurable detachment of the degenerated retina, and blindness.

How stands the problem of diabetes as connected with ophthalmology? Diabetes Mellitus in the past was synonymous of glycosuria. This simplified concept is no longer accepted. Aglycosuria in diabetics does not bring about either the disappearance or even the arrest of the "so-called" diabetic eye lesions. The factor "sugar" is not the only one which has to be considered in the genesis of the eye changes.

It seems fairly well established that these changes occur only in protracted cases. All of the old diabetics are not necessarily ophthalmologic cases. One should not forget that most of the old diabetics show sclerosis of the blood vessels; whether the diabetic disorder leads to this sclerosis or whether there is a concomitance of diabetes and sclerosis is hard to say.

In the Kimmelstiel-Wilson disease corpuscles are found in the kidneys which show microaneurysms very similar in appearance to

those observed as a forerunner of diabetic retinopathy. By injecting rabbits with alloxan and corticotropin Becker and Friedenwald succeeded in producing renal and retinal lesions resembling those observed in man. These experiments as well as studies on diabetics have led them to conclude that there might be some logic in treating diabetic retinopathy by adrenalectomy.

Recently, Pelner and Waldman have explored and advocated the treatment of diabetic retinopathy with testosterone and estrogens. These hormones are considered as antagonizing the action of corticotropin.

Researches pertaining to the use of cortisone and cortisone-like substances in ophthalmology started with a systemic administration of these hormones. Later on, cortisone and hydrocortisone were applied topically in the conjunctival sac or underneath the conjunctiva. At present we know that cortisone therapy may lead to glycosuria. Treating eye conditions with these hormones may thus lead to glucosuria. Cortisone instilled in the conjunctival sac may pass through the tear duct and into the circulation. In particular, with the so-called "local drip cortisone treatment" (1 or 1.5 cc. of a 2½ % solution of cortisone in two minutes) the potentially absorbed amount of cortisone is not negligible, especially if this administration is repeated a few times daily. It is obvious that any cortisone treatment of eye conditons will require the constant supervision by the general practitioner. We say, "any cortisone treatment", this means general as well as local. It can happen that a diabetic suffering from episcleritis requires topical cortisone, or that a patient who has contracted an acute choroiditis is a diabetic. The close collaboration of internist and ophthalmologist is the best safeguard against eye complications in diabetes.

INSULIN MANAGEMENT OF DIABETES

MARTIN G. GOLDNER

Insulin management permits the diabetic patient to maintain or to re-establish optimal nutritional status with a minimal degree of hyperglycemia and glycosuria. Since maintenance of such optimal nutritional status must be the therapeutic aim in diabetes mellitus, as long as a cure is not yet at hand, it follows that every diabetic patient who is unable to do so by dietary means alone, should be placed on insulin management. It also follows that insulin management is related more directly to the patient's nutritional requirements than to the severity of the diabetes, which is difficult to define and which may depend on many other factors in addition to insulin deficiency.

Insulin management starts with dietary management. Optimal nutrition for the diabetic patient is the same as optimal nutrition for the non-diabetic. That is to say, that the diabetic organism has the same energy requirement as the non-diabetic and is subject to the same hazards of undernutrition and overfeeding. It is not possible in this context to evaluate critically the dangers of obesity; it may suffice to say that a diabetic patient should never be obese. A few words, however, should be said about under-nutrition in diabetes. Undernutrition was unavoidable in the pre-insulin era. Then, its dangers were obscured by the short life span of the diabetic patient. Since the advent of insulin, the life expectancy of the diabetic has become almost the same as that of the non-diabetic. It is, therefore, mandatory to provide for optimal nutrition in the management of all diabetic patients, children as well as adults. By meeting this requirement one will promote physical health and resistance, secure normal rate of

8 Virchow Society, Vol. 12 (1953)

growth and development, and may ward off the onset of degenerative diseases threatening the diabetic most seriously in the presence of malnutrition.

The proper diet should be as similar to a normal regimen as possible: with regard to caloric value, to content of vitamins, minerals, etc., and to relative distribution of the nutrients. It should be calculated in relation to ideal weight for sex and age. If placed on such a diet (provided that insulin administration is adequate), the undernourished patient will gain, the obese patient will gradually lose until they reach and maintain the desired weight. This procedure may be more time consuming than the temporary use of reducing or high caloric diets with subsequent placement on maintenance diet; but it has the advantage that diet and insulin can be adjusted at once. For the average adult, such a diet will provide about 2500 calories and will contain 250 g. of carbohydrates, 100 g. of protein, and 100 g. of fat. Experience has shown that the best results are obtained when such a diet is administered in 4 meals (breakfast, lunch, supper, and bedtime feeding) and when $^2/_5$ of the allotted carbohydrates are offered for breakfast, and $^1/_5$ for each of the other meals.

Only the mild diabetic (adult) will tolerate this kind of diet without receiving insulin. All other diabetics need substitution therapy with insulin. They include the following groups: 1) all diabetic children; 2) adults who cannot adjust to the above maintenance diet; 3) all cases of diabetes complicated by infection, surgical disease, pregnancy, diabetic acidosis and coma.

Insulin management starts after the patient has been placed on his proper diet. Insulin is adjusted to the diet, not the diet to an arbitrary amount of insulin! The proper dose should be the minimal amount of insulin which will lower the hyperglycemia to almost normal levels and decrease the glycosuria to a trace, without eliminating it entirely. The choice of this minimal effective dose is intended not only to prevent hypoglycemic reactions but also to prevent further depression of the remaining insulin producing power of the pancreas. It is rather well established that excessive exogenous insulin depresses endogenous insulin production.

Two types of insulin are presently at our disposal for insulin management: the slow-acting (long-lasting) and rapid-acting (short-lasting) preparations. The slow-acting are Protamine Zinc Insulin and Globin Insulin or NPH (Neutral Protamine Hagedorn); they are gradually absorbed over periods of 18 hours (NPH) to 36 hours (PZI) and have correspondingly prolonged action curves. They reach their maximal effect a few hours after injection. They are usually given once daily – NPH may sometimes be given twice a day, at 12 hours interval. If spaced properly, two consecutive doses may overlap in their action, the slow, incoming effect of the new dose being superimposed on the waning effect of the preceding dose. This permits a sustained suppression of the fasting diabetic hyperglycemia. The steady rate of absorption does, of course, not adequately check the rise of the blood sugar that follows intake of food. Nevertheless, in many instances when depression of the fasting level suffices to prevent excessive postprandial hyperglycemia, diabetes may be satisfactorily controlled by the use of slow-acting insulins alone.

However, in some forms of diabetes, particularly in children, the amount of slow-acting insulin required for adequate control during the period of food intake would precipitate hypoglycemia during the physiological fast at night time. In these cases, slow-acting insulin is administered in smaller doses to guarantee a "basic" sustained antiglycemic action. This must be supplemented by doses of rapid-acting insulin, either regular insulin, crystalline insulin or insulin derived from insulin zinc crystals. They all reach the peak of their effectiveness in less than 30 minutes after injection and have exhausted their action after 3–4 hours. They are added usually to the basic insulin prior to breakfast (which should have the greatest carbohydrate content). If NPH insulin is used as basic insulin, the supplementary dose of rapid-acting insulin and one dose of NPH can easily be mixed and injected through the same syringe. This should not be done, however, with PZI because this preparation contains an excess of protamine and any admixed rapid-acting insulin will be precipitated and converted into an insulin with long-lasting effect.

More than 90 % of all diebetics can be controlled in this fashion. Only in the rare instance of the so-called briddle diabetes more than

one supplementary dose of rapid-acting insulin may be required, for instance, prior to each of the 3 or 4 daily meals. Occasionally, even 2 doses of NPH may have to be administered.

Now a word about the dosage. The dose required in the individual case cannot be calculated from a simple formula. The rule that one unit of insulin permits the utilization of 2 g. of sugar is more often wrong than right. In most instances, one has to find the adequate dose by trial and error. Since insulin management is not an emergency procedure (with the exception of coma), there is always ample time to increase a small initial dose until the minimal effective dose is found. The initial dose should generally not be higher than 20 units of slow-acting insulin or 10 to 15 units of rapid-acting insulin. Then, 5 to 10 units are added at intervals of one or several days until urinalysis indicates that the minimal effective dose has been reached. This method may be time consuming, but is certainly safer than to give an arbitrary large dose initially and decrease it gradually until the minimal effective dose has been reached. The dose contained in a single injection should not exceed 80 units, except in the treatment of coma or insulin insensitivity. Slow-acting insulin needs time to establish its full effect. One will do best to give the same dose for 2 or 3 days before increasing it. Throughout the period of adjustment, urine should be examined for sugar (qualitatively before each meal and, quantitatively in the 24 hour specimen). The follow-up of fasting and preprandial blood sugar levels is less essential than the urinalysis. When the 24 hour output of glucose is less than 10 g., and when the degree of glycosuria is minimal throughout the day, the adjustment can be considered as satisfactory. If the glycosuria is heavy in only one of the composite urine specimens of the 24 hour output and absent in the others, the food distribution should be changed rather than the dosage of insulin or the caloric content of the diet. For instance, some of the carbohydrates are taken away from the meal preceding the heavy glycosuria, added to another meal or distributed over those meals following which the urine was found to be free or almost free of sugar.

When diet and insulin requirement have been properly established, maintenance of control is the next task. On the suggested adequate diet, the patient has seldom the desire to cheat; this eliminates

one great hazard. In addition, the patient must be instructed how to administer his insulin, not to inject it permanently at the same site, lest he may develop granulomata from which insulin is poorly absorbed. He has to know not only the prescribed dose of insulin, but also how to measure it.

He should be familiar with the various strengths of insulin preparations and learn to calculate the prescribed units from preparations which contain 40, 80 or 100 units in 1 cc. He also should be given an identification card, such as is issued by the American Diabetes Association, which identifies him as a diabetic patient and indicates the amount of insulin and the diet he is taking. Furthermore, he must know that even if he feels not well and is unable to eat his full diet, he has to take his full dose of insulin. Any intercurrent illness is apt to increase the insulin requirement or to decrease insulin sensitivity. Thus, in spite of decreased food intake, the same amount of insulin or even more, is needed. Omission of insulin because of an upset stomach or another minor illness is the most common cause of diabetic coma. Finally, the patient must be instructed about the symptoms of insulin reactions and how to take care of them. He must know that he should seek the advice of his physician at regular intervals and whenever the control of his disease becomes deficient, even if he himself was able to adjust the immediate derangement.

These are the basic problems of insulin management; time does not permit to discuss special aspects, such as switching from one type of insulin to another, insulin management of surgical complications, the management of diabetic coma, or the rare instances of insulin allergy and insulin insensitivity. These, however, are situations which commonly require hospitalization, while the basic establishment and maintenance of insulin therapy is a matter of office practice.

One more thought in closing; insulin therapy is substitution therapy. It has been tremendously successful. Nevertheless, it is not the ideal therapy. Insulin is secreted in constantly changing amounts into the portal system and reaches the periphery only after having passed the liver where it most likely exerts some of its effect or where it is altered. What we are doing, with insulin administration, is to substitute rather crudely subcutaneous injections for this internal secretion.

This may account for some of the difficulties in insulin management. It may also account for the fact that we have to use far larger doses of insulin than those known to be secreted under physiologic conditions.

Administration of insulin is the best therapy of diabetes today. Our goal, however, is not substitution but cure and prevention. This is what present research in diabetes is striving for.

SUPERFICIAL ULCERATION OF THE URETHRAL MEATUS IN MALE CHILDREN

Paul Freud

Superficial ulceration of the meatus in male infants and young boys is not generally recognized as a definite entity, in spite of its frequent occurrence.

The lesion consists of a superficial ulcer on the periphery of the meatus, cracking its labia to a width and depth of 1 to 3 mm. The ulceration always remains localized, sparing the inner surfaces of the urethra. There is no urethral discharge. Crust formation leads readily to temporary obstruction of the urethra and incomplete emptying of the bladder (divided stream or dribble). When the scabs come off, the first drop of urine touching the surface of the ulcer causes intense pain, and the children retain urine until an overflowing bladder enforces voiding. The condition does not cause fever. As soon as the scab peals off, bleeding occurs. Bright bloody spots on the diapers are frequently the first symptom that alarms the parents. Secretion on the surface of the ulcer soon starts again, leading to formation of new obstructing crusts, bleeding and difficulty in voiding. This vicious cycle may come to a halt, eventually, when the ulcer heals spontaneously and leaves only small constricting scars. After a pause, the lesion reappears and, if not treated, heals again with scar formation and intensification of the stricture. Any stricture located at the orifice or higher up will eventually lead to urinary retention, with all its dangers of pressure damage and infection.

Our experience based on the treatment of numerous cases shows that the disorder occurs only in circumcised children or when a wide prepuce leaves the tip of the meatus exposed to irritation.

However, development of the lesion is always conditioned by a congenitally tight meatus (anterior-posterior diameter less than 3 mm.) and the presence of a rash (ammonia dermatitis) or herpes. They narrow the tight meatal opening still further (inflammatory swelling).

Treatment consists of:

1. Installation of 1 drop of a 2 % novocain solution on the surface of the ulcer (relief of pain on voiding).
2. Use of non-volatile antiseptics directed against the action of bact. ammoniagenes; impregnation of diapers and topical application (ointment).
3. Repeated dilatation of the meatus in cases of moderate constriction; meatomy and dilatations in cases of "pin point" meatus.

SOME NON-TUBERCULOUS CHEST DISEASES IN CHILDREN

HELENE ELIASBERG

From the great variety of lung diseases in childhood I have chosen a group which has in common abnormal airspaces within or around the lungs. To be more specific I am going to discuss the occurrence of cysts, emphysema, abscesses and pneumothorax in infants and children.

Cysts

Lungcysts may be found at all ages; sometimes they are discovered by routine chest X-rays without having caused any symptoms. They may be single or multiple, but are usually located in one lobe. Some cysts are filled with mucoid fluid, secreted by the mucous glands in the lining of the wall; most cysts are airfilled. The fluid cysts are more or less stable in size and do not cause respiratory disturbances. Aircysts may communicate with a bronchus and if a check valve mechanism develops, they may enlarge to enormous proportions and cause serious displacement of the mediastinum and heart. They may burst and produce a tensionpneumothorax, or they may compress the adjacent lung tissue with ensuing cyanosis and severe respiratory and circulatory distress requiring emergency operations. Besides these complications, caused by mechanical forces, infection is a great hazard in pulmonary cysts, more so in older children than in infants. These dangers inherent in pulmonary cysts are the reason why many pediatricians and surgeons favor early operation. After several bouts of infection have produced adhesions, purulent exudate within the cyst and blurring of the lobar demarcations, the operation becomes more

difficult. Total pneumonectomy may be necessary instead of a segmental resection or lobectomy. Even if some of the patients escape all these complications, it seems to me of importance to restore the function of at least part of their lung rather than to maintain a functionless cystbearing lobe (which compresses the adjacent lobes). Early lobectomy is tolerated remarkably well by infants. The remaining lobes expand well and fill the entire pleural cavity. The youngest baby that ever underwent a successful lobectomy was operated on the 7th day of its life by Whitesell and White. A total pneumonectomy was even performed on a 3 weeks old baby who had a large cyst in the upper lobe. The results were excellent (Gross).

There are, however, other observers who advocate watchful waiting instead of immediate surgical intervention (Vollmer, Caffey). Caffey reported recently on 13 cases of lung cysts in infants under 6 months of age. Only 2 had to be operated on because of massive pulmonary emphysema. In the remaining infants the cystic lesions disappeared spontaneously after months or years.

Another controversy concerns the question whether the cysts are congenital (intrauterine error in the embryonic development of the lungbuds) or acquired (early postnatal mechanical origin). Some cysts found in stillborns and newborns at autopsy and birth, respectively, are undoubtedly of congenital nature. On the other hand, Caffey, Convey, Rappaport and Meyer believe that most lung cysts are of acquired origin even when bronchial epithelial lining, muscle and cartilage are found in their wall. Caffey bases his opinion on 5000 autopsies of newborns at Babies Hospital. The question is by no means theoretical since many surgeons insist that prognosis and therapy of congenital and acquired cysts are entirely different. Congenital cysts should be removed on account of the potential dangers mentioned above, whereas acquired cysts could be watched and rarely need operation. Acquired cysts usually can be traced back to a pulmonary infection, a factor which plays no etiologic role in the formation of the congenital cyst.

Emphysema

Emphysema occurs in 2 forms, the compensatory and the obstructive. Anatomically, the compensatory form is no true emphysema, but a reversible volumen pulmonum auctum: there is an increase in air content due to hyperventilatory function of a lobe or lung compensating for an atelectatic lobe. Clinically, one finds in addition to the atelectatic lung portion an enlarged size of part or whole of the remaining lung. On X-ray examination, the lung appears overaerated, the intercostal spaces are widened, the diaphragm is depressed, the mediastinum shifted to the opposite side. All these changes are more marked on inspiration. This type of emphysema is frequently seen in atelectasis of the newborn or following aspiration of foreign bodies if it results in total bronchial obstruction.

While compensatory emphysema is the beneficial result of a physiologic adjustment, the obstructive emphysema is a pathologic condition due to check valve type of bronchial obstruction. The overaeration can be regional, lobar or may involve an entire lung. The X-ray findings are very similar to those seen in compensatory emphysema, except for the absence of atelectasis in other parts of the lung. For the differentiation of the 2 types, fluoroscopy is of greater help than the film, unless one can be sure to get 2 exposures, one in inspiration, the other in expiration – a difficult task to achieve in children.

Cases of obstructive lobar emphysema not due to demonstrable compression of any kind may require thoracotomy and lobectomy. This proved to be a life saving procedure in cases of emphysema that turned out to be the result of vascular and other anomalies. Regional obstructive emphysema due to a check valve mechanism in a small bronchus has been known as an important manifestation of pulmonary pathology since its first description by Caffey. Such an obstruction may occur in the course of a pneumonia and may result in the formation of large tension cysts. Anatomically, they represent a gross distention of alveoli, small bronchioli or bronchi, yet without much destruction of lung parenchyma. The cysts may be single or multiple; they are air-filled and contain only a small amount of fluid, if any. They

are called pneumatocele. It is most characteristic that they easily undergo variation in size and that they have the tendency to disappear spontaneously. Though their appearance during the course of pneumonia may suggest the diagnosis of a lung abscess, the differentiation is not too difficult. In contrast to the abscess, the cyst develops without serious symptoms: there is no fever, no leucocytosis, no abnormal type of respiration, and no interference with the child's general condition. In fact, I believe that the development of a pneumatocele might very easily escape recognition unless serial X-rays are taken. After the pneumonia has cleared up, these cysts may persist for several months. When they disappear eventually they leave no residues; the lung tissue shows a completely normal structure. That the pneumatocele is actually due to a bronchial check valve obstruction has been confirmed by the finding of raised gas pressure within the cyst. In rare cases of very high pressure in a superficially located pneumatocele, an air bleb may burst and produce interstitial emphysema or pneumothorax. It is the rule, however, that the regional obstructive emphysema disappears with the clearing of bronchial obstruction, without any therapy. It is interesting that in the majority of the reported cases the bacteriological examination revealed an infection with staphylococcus hemolyticus aureus.

In the following films I will demonstrate some of the diagnostic difficulties relating to cysts. Diffuse bilateral obstructive emphysema due to bronchospasm and check valve occlusion of small bronchioli is the main feature of bronchial asthma, at least in children. Therefore, wheezing is very often diagnosed as bronchial asthma. However, one should always bear in mind that asthma is a bilateral condition. Unilateral conditions, e.g., one-sided bulge or lag, combined with wheezing, predominantly present over one lung have to be carefully studied until the cause of the obstruction is found.

Lung Abscess

The counterpart of the transient cysts in regional obstructive emphysema are the permanent cavities as seen in pulmonary abscesses. Here, severe tissue destruction takes place, either in pyogenic non-

resolving pneumonic infiltrations, in necrotizing infarcts or in caseous tuberculous infiltrations. Bronchiectatic cavities also tend to develop abscesses, especially after prolonged stagnation of purulent exudate.

An incipient pneumonic pulmonary abscess may present a difficult diagnostic problem. With a rise of temperature, high leucocytosis and the signs of severe illness, it is not always possible to establish the diagnosis, even if one suspects abscess formation. If one goes in with a needle, one will hardly hit a deep seated small abscess, and X-rays will not reveal anything but a definite pulmonary shadow in this early phase. With progressing necrosis and liquefaction the pulmonary shadow becomes less dense in the center. Eventually, when communication with the bronchus is established and air enters the cavity of the abscess, the X-ray findings become characteristic: fluid-air level within a cavity that is surrounded by a broad ring of infiltrated lung tissue. By contrast, pleural empyema leads to displacement of heart and mediastinum away from fluid shadow or empyema. However, to make things more difficult, it is by no means rare that one has to deal with simultaneously existing empyema and lung abscess.

Like pneumonia, lung abscesses in childhood are frequently caused by aspiration of foreign bodies, especially grains carrying bacteria and fungi. Pulmonary abscesses following tonsillectomy have fortunately become rather rare, thanks to the prophylactic use of antibiotics and sulfadrugs, proper postural drainage and suction during operation.

Spontaneous Pneumothorax

So called *spontaneous pneumothorax* is not infrequent in childhood. One may find it already in the newborn. Here, it is usually due to rupture of an emphysematous bleb in compensatory as well as in obstructive emphysema. However, obstructive emphysema is more likely to cause rupture and subsequent pneumothorax because the check valve mechanism induces steadily rising pressure. The prognosis of this condition in the newborn is better than one would expect. As soon as the intraluminal bronchial obstruction is released the emphysema disappears and the pneumothorax is quickly absorbed. This form of neonatal pneumothorax is usually discovered only by X-ray. In

older children, congenital bullae or blebs, trauma, tracheotomy and tuberculosis are the main causes of pneumothorax. Clinically, there is sudden pain in one side of the chest, severe dyspnoe, cyanosis or shock; occasionally, when the amount of air escaping into the pleural cavity remains small, only slight discomfort may be felt. The involved side is bulging and lagging in respiratory expansion. The radiologic signs are: collapse of the lung towards the pulmonary root; if adhesions exist the collapse is not complete and the fibrous strands extending from the lung surface to the parietal wall cause sharp, irregular, angular contours of the collapsed lung, over which the pleural lining is visible. The airspace surrounding the lung does not show any pulmonary markings, as seen in emphysema.

If the intrapleural pressure is elevated, the intercostal spaces are markedly widened, the diaphragm depressed, the mediastinum and heart displaced to the opposite side. Sometimes fluid appears (serous fluid, blood or pus) and produces the characteristic horizontal air-fluid line. The presence of a valvular mechanism at the tear leads to the development of a tension pneumothorax, with herniation into the mediastinum and the opposite pleural cavity, causing extreme dyspnoa and cyanosis.

Such patients have to be treated with continued closed aspiration by airsealtubing through a thoracocentesis. If there is no emergency, the pneumothorax is best left alone, permitting spontaneous absorption.

In conclusion I would like to stress the following points: In any patient presenting symptoms of respiratory distress the diagnosis and prognosis should be firmly established. Whether the management should be conservative or surgical will depend on the results of serial X-ray examinations, bronchoscopy and bacteriological and clinical studies. The age of the patient is not a contraindication, neither for bronchoscopy nor for surgery.

APOCRINE SWEAT GLANDS AND SEXUAL DEVELOPMENT

H. Behrendt

The pH on the surface of the axilla was tested colorimetrically in 502 boys of various maturity groups, including preadolescents and adolescents. The results can be summarized as follows:

1. The acidity on the surface of the axillary vault decreases considerably when the apocrine sweat glands in that area supply "alkaline" sweat.
2. The axillary vault pH indicates the presence or absence of apocrine sweat production.
3. The activation of apocrine sweat glands coincides with one of the phases of sexual maturation in boys.
4. The frequency distribution of pH readings on the axillary vault among boys of different sexual maturity shows a steady increase in the number of "positive apocrine" readings from preadolescence through maturation.
5. This shift of pH from acid to neutral or alkaline values (on the axillary vault) is one of the chemical signs of sexual maturation.

DISCUSSION

H. Vollmer

Dr. Freud's paper is of practical importance. Due to their localization, these lesions cause undue concern to parents and at times puzzle the physician. As a rule, they yield readily to treatment with indifferent ointments and control of ammonia formation. The most

common mistake is overtreatment which adds a therapeutic to the etiologic irritant, aggravating the condition. Antibiotic ointments may cause sensitization and their use should be restricted to cases in which secondary infection is obvious or bacteriologically proven. I wonder whether local application of hydrocortisone should be tried to avoid swelling, fibrosis and scaring. It is not for me to decide whether pediatricians or urologists are right with their etiologic concepts. Do we have valid standards as to normal size of the urethral meatus during infancy? Personally I have difficulties in understanding why a slight, functionally insignificant narrowing should cause such ulcerations. Most pediatricians agree that narrowing is the result rather than the cause of these lesions.

Dr. Behrendt, in his modesty, told me that he is going to present "an insignificant physiologic contribution". A study of such thoroughness is always significant, particularly if it concerns puberty, a period so long neglected by both internists and pediatricians. To take care of this age period is so to say the great finale of the pediatrician's job. Physiologic studies are basic in opening a new field to our understanding. Practical application of such knowledge will follow in due time.

Sweating can be caused experimentally by hypothalamic stimulation. Puberty is believed by many to be initiated by hypothalamus-pituitary mechanisms. It is therefore no surprise that puberty is accompanied by changes in sweat composition. The acidity of other secretions such as vaginal secretions is changed in the opposite direction. Besides the acidity, there may be other changes not yet understood which explain the spontaneous cure of tinea capitis at the age of puberty. To speak of another age period: Why does Leiner's disease clear up spontaneously at the age of 3 months? We don't know. Dr. Behrendt opened an important new field for study and we all hope he continues his work.

Dr. Eliasberg together with Neuland in 1920 made an essential contribution by their classic description of epituberculosis. Today Dr. Eliasberg presented interesting chest conditions which attracted increasing attention in recent years. If I may add an early own observation: In 1927 I described a 6 year old girl with a pulmonary cavity and an air-fluid level. In spite of negative tuberculin tests, Finkelstein

warned against my conservative attitude and thought this cavity to be tuberculous. The child did well without any treatment. Re-examination 21 years later revealed that this cavity had persisted without any change. The course was asymptomatic. Emphysematous cavity was the most probable diagnosis. This case was one of the first described in the literature with the longest follow-up period. It teaches that not all emphysematous cavities disappear spontaneously and that, nevertheless, a conservative attitude is to be recommended.

May I re-emphasize the importance of tuberculin tests for differential diagnosis. Their importance increased with the decrease of positive reactors in the population. When Pirquet described his cutaneous test 50 years ago, nearly 100 % of the Vienna population of military age was tuberculin positive. Therefore, the test was not of great diagnostic help except in early childhood. The situation today and in the United States is entirely different. In recent years, among all admissions to Babies Hospital from birth to puberty only 3 % positive reactors were found. It is obvious that under these circumstances a positive tuberculin test assumes a much greater significance.

Dr. Eliasberg's excellent presentation deserves a more competent discussion than I can offer. We are fortunate in having with us Dr. John Caffey of Babies Hospital, our great expert in pediatric roentgenology. Dr. Caffey graciously agreed to discuss Dr. Eliasberg's paper.

OBITUARIES

Read by PAUL HOCH

Dr. Hedwig Zweig

Dr. Hedwig Zweig was graduated in 1922 from Breslau. She was then Assistant at the Pediatric Clinic with Professor Stolte at Breslau. Later she was Assistant of Professor L. F. Meyer at Berlin. For fourteen years she practised as a pediatrician in Gleiwitz. In 1940 she went to Shanghai and worked at the American Mission Hospital with Chinese war orphans. In 1941 she came to New York and became assistant of Dr. Herman Schwartz. Dr. Zweig was on the staff of the Pediatric Department of Beth Israel Hospital and was a Pediatrician to the Health Department of the City of New York. Wherever she worked she devoted herself wholeheartedly to her patients and was much beloved and respected by her co-workers.

Dr. Rudolph Hoeber

was born in Stettin in 1873. He studied medicine in Erlangen, Freiburg and Berlin. He received his doctor's degree in Erlangen in 1897. In 1898 he became Privatdozent for Physiology in Zürich. In 1909 he went to Kiel where he became full professor of Physiology in 1915. He made outstanding contributions to physiology. His book "The Physical Chemistry of Cells and Tissues" which appeared in 1902 was a fundamental work in this field. Later he wrote his textbook on physiology which was widely used and esteemed. He also wrote "The Physical Chemical Investigative Methods of the Animal Cells and Tissues" in which he summarized the great progress made in this branch of science. His many publications dealt mainly with physics and chemistry as applied to physiology.

Dr. Max Einhorn

Dr. Max Einhorn was an outstanding gastroenterologist who died at the age of 91. He was consulting physician to the Lenox Hill Hospital who gave that institution the Max and Flora Einhorn Building and donated funds for awards to care for patients with gastroenterological ailments. He was on the faculty of the Post-Graduate Medical School from 1889 to 1922 when he became emeritus professor of medicine. Dr. Einhorn invented the stomach bucket, a method of transillumination of the stomach, a duodenal tube for diagnosis and treatment of intestinal disease, a pyloric dilator catheter for infants, and a fermentation saccharometer. He was the author of "Diseases of the Stomach" which appeared first in 1896, "Diseases of the Intestines", in 1900, "Practical Problems of Diet and Nutrition", in 1905, "Lectures on Diabetes", in 1914, and the "Duodenal Tube and Its Possibilities", in 1920. Dr. Einhorn who retired about fifteen years ago remained active until shortly before his death. For his outstanding achievements in medicine he held honorary degrees of the University of Tokyo. He was a member of most of the American national societies in medicine and was honorary member of the medical society of Munich, and of the Parisian, Japanese, and Belgian gastroenterological associations. With Dr. Einhorn's passing the Rudolph Virchow Society lost one of its most respected members.

Dr. Julius Fuchs

Dr. Julius Fuchs died at the age of 65, August 15, 1953. Dr. Fuchs was an internationally known orthopedic surgeon and founder of the treatment method, orthokinetics. He was born in Baden, Germany and received his medical degree at the University of Heidelberg in 1913. He was Chief Orthopedic Surgeon of the Veterans Hospital in Baden, Germany until 1920 when he founded his own orthopedic institute in Baden-Baden. It was here he developed his technique of orthokinetics which used flexible devices instead of rigid, plastic casts to brace orthopedic injuries, and thus allow limb motion. He came to the United States in 1940 where he continued his experiments. He wrote many textbooks and articles on orthopedics in both English and German. His latest was "Principles of Orthokinetics", published in 1951.

Dr. E. David Friedman

Dr. E. David Friedman was born in New York City, attended C.C.N.Y., and received his Medical Degree from New York University in 1907, after which he did post-graduate work at the Universities of Vienna and Berlin. He held numerous important staff appointments in New York hospitals. He was visiting neuropsychiatrist of the Gold-

water Memorial Hospital, Chief of the Neurological Service of Bellevue Hospital, Director of the Neurological Service of Beth Israel Hospital, and many others. He was Professor of Neurology at New York University from which position he retired in 1947. He continued his numerous activities in the field of neurology after his retirement. In 1949 he received the Townsend Harris Medal from City College for outstanding post-graduate achievement in "some significant field of human endeavor". He was President of the Park Avenue Synagogue and had been actively interested in many Jewish educational organizations. He was an outstanding neurologist with a great clinical knowledge. He was recognized as an outstanding teacher and his kindly and understanding personality made him much loved by his students and patients.

Dr. Ernest Myller

was born in Schmalkalden 60 years ago. He graduated from the University of Berlin in 1918. By the early 30's he had become chief gynecologist and head of a hospital in Nuremberg. After the rise of Hitler to power in 1933 Dr. Myller and his family were forced to flee to Greece. There he passed the medical examinations and opened a private hospital in Athens which he headed for the next 7 years. When the war began Dr. Myller undertook secret work in Greece for the British Intelligence and in 1941 when the Germans invaded Greece he and his family were evacuated from Greece. He then came to New York and resumed his medical practice. At his death he was Chairman of the Conference of the obstetrical board at Madison Avenue Hospital, assistant attending gynecologist at University Hospital, a member of the county, state and national medical societies, and a diplomat of the American Board of Obstetrics and Gynecology. He was an author of a number of scientific publications in the field of gynecology and a designer of instruments used in the field of sterility and for the detection of cancer of the uterus. For several years he was also the corresponding secretary of the Rudolf Virchow Medical Society. In him we lose a very highly esteemed colleague and one of the most efficient and conscientious officers of the Society. We were all very shaken by his sudden passing and I am sure that it will be difficult to replace him. We will all cherish his memory.

PRESIDENTS OF THE RUDOLF VIRCHOW MEDICAL SOCIETY

**Carl A. Krog*	1876–1877
**Emil Gruening*	1878–1879
**Carl A. T. Krog*	1880–1881
**Felix Nordemann*	1882–1883–1884
**Carl Heitzmann*	1885–1886
**Leonard Weber*	1887–1888
**Henry J. Garrigues*	1888–1890
**Abraham Jacobi*	1891
**Carl Heitzmann*	1892
**Joseph W. Gleitsmann*	1893–1894
**Willy Meyer*	1895–1896
**Wolff Freudenthal*	1897–1898
**Herman Klotz*	1899–1900
**George W. Jacoby*	1901–1902
**Hermann J. Boldt*	1903–1904
**J. S. Schmitt*	1905–1906
**Carl Beck*	1907–1908
**Franz Torek*	1909–1910
**Carl E. Pfeister*	1911–1912
**Gustav Seeligmann*	1913–1914
**Wolff Freudenthal*	1915–1916
**Hermann J. Boldt*	1917
Rudolf Denig	1918–1919–1920
**Hermann Fischer*	1921–1922
**Ernst Danziger*	1923–1924
**Thomas Scholz*	1925–1926
Carl Eggers	1926–1927
**Ludwig Oulmann*	1928–1929
Arthur Stein	1930–1931
Alfred Plaut	1932–1933
Gerhard L. Moensch	1934–1935
Paul K. Sauer	1936–1937
Robert Muller	1938–1939
**George Mannheimer*	1940–1941–1942
**Franz M. Groedel*	1943–1944
Charles Gottlieb	1945–1946
Rudolf Nissen	1947
Joseph Berberich	1948–1949
Kurt Goldstein	1950
Max Jessner	1951
Herbert Elias	1952
Paul Hoch	1953

* Deceased

MEMBERS OF THE RUDOLF VIRCHOW MEDICAL SOCIETY

HONORARY MEMBERS

Casper, Leopold (1945)
213 West 75th Street, N.Y.C.

Denig, Rudolf (1897)
56 East 58th Street, N.Y.C.

Einhorn, Max (1886)
20 East 63rd Street, N.Y.C.

Einstein, Albert (1941)
Princeton, New Jersey

Hoeber, Rudolf (1943)
Philadelphia, Pa.

Joslin, Elliot (1950)
81 Bay State Road, Boston, Mass.

Lieberthal, David (1944)
104 South Michigan Blvd.,
Chicago, Ill.

Loewi, Otto (1943)
155 East 93rd Street, N.Y.C.

Magnus-Levy, Adolf (1941)
121 West 105th Street, N.Y.C.

Meirowsky, Emil (1941)
1040-1232 West Michigan Street,
Indianapolis, Ind.

Neuberg, Carl (1947)
99 Livingston Avenue,
Brooklyn, N.Y.

Nissen, Rudolf (1941)
Bürgerspital Basel, Schweiz

Oppenheimer, B. S. (1950)
124 East 61st Street, N.Y.C.

Pick, Ernest P. (1942)
19 East 98th Street, N.Y.C.

Schick, Bela (1925)
17 East 84th Street, N.Y.C.

Sondern, Frederick E. (1892)
180 West 58th Street, N.Y.C.

CORRESPONDING MEMBERS

Kleeberg, Julius (1950)
Hadassah Hospital, Jerusalem, Israel

Liefmann, Emil (1950)
105 Grüneburgweg
Frankfurt a. M., Germany

Siegrist, Henry A. (1940)
Casa Serena
Pura, Ticino, Switzerland

Thannhauser, Sigfried
New England Center Hospital,
Corner Harrison Ave. and
Benett Street, Boston, Mass.

Zondek, Bernhard (1950)
Jerusalem, Israel

MEMBERS

Abraham, E. G. (1948)
993 Park Avenue, N.Y.C.

Adelsberger, Lucie (1949)
200 Central Park South, N.Y.C.

Adler, Alexandra (1946)
32 East 39th Street, N.Y.C.

Adler, Louis (1947)
61 West 74th Street, N.Y.C.

Adlersberg, D. (1936)
136 East 64th Street, N.Y.C.

Alden, Maurice (1946)
1610 University Ave., Bronx, N.Y.

Alexander, Hugo (1944)
35-06 94th Street, Jackson Heights,
L. I., N.Y.

Ambinder, Nathan (1949)
1212 Fifth Avenue, N.Y.C.

Ansfanger, Ludwig Anger (1946)
35-30 81st Street, Jackson Heights,
L. I., N.Y.

Apton, Adolph N. (1936)
911 Park Avenue, N.Y.C.

Aron, Frederick Simon (1946)
101 West 80th Street, N.Y.C.

Arons, Isidore (1946)
57 West 57th Street, N.Y.C.

Auerbach, Liese (1943)
155 West 71st Street, N.Y.C.

Aufricht, Gustave (1927)
103 East 86th Street, N.Y.C.

Auslaender, Jacob (1931)
286 West 86th Street, N.Y.C.

Bachenheimer, Max (1945)
398 East 152nd Street, Bronx, N.Y.

Bader, Edwin (1949)
42-20 Kissena Boulevard,
Flushing, L.I., N.Y.

Baer, Heinrich H. (1952)
101 West 126th Street, N.Y.C.

Baer, Richard (1948)
103 East 86th Street, N.Y.C.

Ball, Erna (1954)
87-02 166th Street, Jamaica, N.Y.

Bamberger, Ernest H. (1927)
140 West 86th Street, N.Y.C.

Bardach, Kurt Arthur (1947)
2 West 88th Street, N.Y.C.

Bardeleben, Walther (1946)
645 West End Avenue, N.Y.C.

Bash, Eric A. (1949)
28–18 36th Avenue,
Long Island City, N.Y.

Batzdorf, Erwin E. (1942)
865 Park Avenue, N.Y.C.

Baum, Samuel (1945)
200 West 58th Street, N.Y.C.

Beckhard, Erwin (1947)
87-40 Elmhurst Avenue,
Elmhurst, L.I., N.Y.

Behrend, H. J. (1941)
470 West End Avenue, N.Y.C.

Behrendt, Hans (1941)
1165 Park Avenue, N.Y.C.

Bejach, Hans (1948)
99 Warren Street, N.Y.C.

Benfey, Arnold T. (1944)
50 Park Terrace West, N.Y.C.

Benjamin, Harry (1918)
728 Park Avenue, N.Y.C.

Berberich, Joseph (1941)
784 Park Avenue, N.Y.C.

Berger, W. V. (1942)
38 East 73rd Street, N.Y.C.

Bergmann, Ernst W. (1941)
955 Park Avenue, N.Y.C.

Bergmann, Fanny (1947)
41-58 74th Street,
Jackson Heights, L.I., N.Y.

Bernstein, Eug. Traugott (1941)
100 Central Park South, N.Y.C.

Biberstein, Erna (1951)
667 Madison Avenue, N.Y.C.

Biberstein, Hans H. (1941)
667 Madison Avenue, N.Y.C.

Blasi, Anthony Albert (1945)
25 East Broad Street,
Mt. Vernon, N.Y.

Bleyer, Leon
St. Josephs Hospital
Providence, R.I.

Bloch, Rudolf G. (1953)
5 East 73rd Street, N.Y.C.

Blum, Joseph (1953)
106 East 85th Street, N.Y.C.

Blum, Theodor (1914)
101 East 79th Street, N.Y.C.

Blume, Hans L. W. (1945)
20 West 77th Street, N.Y.C.

Blumenthal, Ernest Joseph (1946)
118-14 83rd Avenue,
Kew Gardens, L.I., N.Y.

Boenheim, Flora (1948)
1175 Park Avenue, N.Y.C.

Boernstein, Walter (1949)
4 East 95th Street, N.Y.C.

Bonis, Alexander (1949)
145 East 54th Street, N.Y.C.

Borchardt, Paul Robert (1947)
2383 Walton Ave., Bronx, N.Y.

Brandt, Frederick C. (1948)
57 West 57th Street, N.Y.C.

Braude, Eugene (1946)
44 Bennett Avenue, N.Y.C.

Braun, Martin (1952)
366 Willis Ave., Bronx, N.Y.

Breuer, Joshua (1947)
461 Ft. Washington Avenue, N.Y.C.

Brinitzer, Hans F. (1940)
5 West 86th Street, N.Y.C.

Brodnitz, Friedrich S. (1943)
667 Madison Avenue, N.Y.C.
Brunell, Ernst Ludwig (1947)
35-55 73rd Street,
Jackson Heights, L.I., N.Y.
Buchbinder, Selma (1947)
295 Harvard Avenue,
Rockville Centre, N.Y.
Bucky, Gustav (1939)
5 East 76th Street, N.Y.C.
Buechler, Erick (1945)
420 East 86th Street, N.Y.C.
Burgheim, Fred C. (1939)
897 Park Avenue, N.Y.C.
Caan, Paul (1951)
545 West End Avenue, N.Y.C.
Caminer, Eric (1944)
2720 Broadway, N.Y.C.
Casper, Wolfgang A. (1939)
25 Central Avenue,
St. George, Staten Island, N.Y.
Cohn, Felix (1951)
215 West 105th Street, N. Y. C.
Dallos, Arthur (1939)
200 Central Park South, N.Y.C.
Dann, Richard (1943)
37-20 81st Street,
Jackson Heights, L.I., N.Y.
Dessauer, Morris (1946)
57 West 58th Street, N.Y.C.
Dessauer, Stephanie (1944)
1094 Greene Avenue,
Brooklyn, N.Y.
Deutschberger, Otto (1949)
27 West 86th Street, N.Y.C.
Domarus, Eilhard von (1946)
865 Park Avenue, N.Y.C.
Durham, Felix O. (1941)
829 Park Avenue, N.Y.C.
Duschak, Ernest T. (1941)
25 Central Park West, N.Y.C.
Edkins, Walter E. (1940)
112-50 78th Avenue,
Forest Hills, L.I., N.Y.
Ehrenreich, Max (1941)
350 East 77th Street, N.Y.C.
Ehrmann, Rudolf R. (1942)
568 Park Avenue, N.Y.C.
Eilbott, Wilhelm (1943)
755 West End Avenue, N.Y.C.
Einstein, Fritz I. (1951)
570 West 183rd Street, N. Y. C.

Einstein, Gustav (1939)
1175 Park Avenue, N.Y.C.
Elias, Ada (1952)
433 West End Avenue, N.Y.C.
Elias, Gunter M. (1948)
865 West End Avenue, N.Y.C.
Elias, Herbert (1941)
21 East 79th Street, N.Y.C.
Elias, Kurt (1951)
3455 Steuben Avenue,
Bronx 67, N.Y.C.
Eliasberg, Helene (1941)
65 East 96th Street, N.Y.C.
Eliasberg, Wladimir (1941)
151 Central Park West, N.Y.C.
Eliassow, Alfred (1946)
83-80 118 Street,
Kew Gardens, L.I., N.Y.
Elkan, Wolf (1947)
120 Central Park South, N.Y.C.
Elston, Anny (1949)
242 East 15th Street, N.Y.C.
Engel, Hermann (1951)
1143 Fifth Avenue, N.Y.C.
Engelmann, Curt (1938)
667 Madison Avenue, N.Y.C.
Erlanger, Gustav (1949)
20 West 77th Street, N.Y.C.
Fabian, Helen J. (1945)
57 West 57th Street, N.Y.C.
Falkson, Kurt Ferdinand (1951)
225 West 86th Street, N.Y.C.
Faltitschek, Josef (1949)
27 West 72nd Street, N.Y.C.
Farmer, Laurence (1951)
993 Park Avenue, N.Y.C.
Farkas, Aladar (1947)
133 East 58th Street, N.Y.C.
Feibes, Henry (1941)
1855 Monroe Ave., Bronx, N.Y.
Feigenheimer, Erwin (1949)
281 Covert Street, Brooklyn, N.Y.
Felden, Botho F. (1927)
38 East 85th Street, N.Y.C.
Ferrington, Elizabeth (1946)
Laboratory Service
Veterans Administration Hospital
Jackson, Mississippi
Fink, Heinrich Louis (1951)
2889 Briggs Ave., Bronx, N.Y.
Fischer, Martin (1951)
250 West 103rd Street, N.Y.C.

Fischer, Martin (1953)
176 Atlantic Avenue,
Lynbrook, N.Y.
Flake, Minna Margareta (1947)
161 West 86th Street, N.Y.C.
Flehinger, Benno (1945)
760 West End Avenue, N.Y.C.
Fliegel, Otto (1951)
29 West 64th Street, N.Y.C.
Forchheimer, Ludwig (1949)
52 East 68th Street, N.Y.C.
Fraenkel, Kurt F. (1947)
270 Fort Washington Ave., N.Y.C.
Frankel, Walter (1949)
85 Manor Drive, Newark, N. J.
Frankley, Greta (1947)
350 Central Park West, N.Y.C.
Freud, Frederick (1946)
103 East 86th Street, N.Y.C.
Freud, Paul (1940)
106-15 Queens Boulevard,
Forest Hills, L.I., N.Y.
Freudenthal, Siegmund (1946)
230 West 79th Street, N.Y.C.
Freund, Kate M. (1945)
115 East 89th Street, N.Y.C.
Friedemann, Max W. (1944)
251 Central Park West, N.Y.C.
Friedman, Geo. Alexander (1947)
133 East 58th Street, N.Y.C.
Friedman, Jechiel M. (1949)
166 Bayard Street,
Brooklyn 22, N.Y.
Froeschels, Emil (1941)
133 East 58th Street, N.Y.C.
Fryth, Walter B. (1946)
328 West 86th Street, N.Y.C.
Fuchs, Bert (1945)
412 West 110th Street, N.Y.C.
Fuchs, Felix (1947)
46 East 80th Street, N.Y.C.
Gans, Harry (1946)
141 West 73rd Street, N.Y.C.
Gerst, Ernst S. (1944)
34-43 89th Street,
Jackson Heights, L.I., N.Y.
Gersuny, Otto (1950)
625 Park Avenue, N.Y.C.
Glaubach, Susi (1944)
520 East 12th Street, N.Y.C.

Gluck, Annemarie Schmitz (1941)
1239 Madison Avenue, N.Y.C.
Gold, Ernest (1943)
111 East 80th Street, N.Y.C.
Goldbloom, Allen A. (1950)
2 East 95th Street, N.Y.C.
Goldman, Walter (1941)
1040 Park Avenue, N.Y. C.
Goldner, Martin G. (1951)
327 Central Park West, N.Y.C.
Goldschmidt, Aron (1939)
12 East 88th Street, N.Y.C.
Goldschmidt, Max (1943)
116 East 63rd Street, N.Y.C.
Goldschmitt, Solomon (1950)
333 Central Park West, N.Y.C.
Goldstein, Eli (1945)
150 East 94th Street, N.Y.C.
Goldstein, Kurt (1945)
1148 Fifth Avenue, N.Y.C.
Goldzieher, Max (1945)
104 East 40th Street, N.Y.C.
Gottlieb, Charles J. (1940)
101 East 81st Street, N.Y.C.
Gottschalk, Nora (1946)
215 East 164th Street, Bronx, N.Y.
Gould, Werner (1951)
219 Passaic Street, Hackensack, N.J.
Grafenberg, Ernest (1944)
865 Park Avenue, N.Y.C.
Graff, Hildigard K. (1945)
314 Parsons Drive
Syracuse 4, N.Y.
Graubard, David J. (1951)
1082 Park Avenue, N.Y.C.
Graupner, Frank H. (1945)
57 West 57th Street, N.Y.C.
Griesman, Bruno L. (1938)
47 East 61 Street, N.Y.C.
Grossmann, Friederick W. (1953)
20 Sherman Avenue, N.Y. C.
Grossmann, Herbert O. (1946)
500 West End Avenue, N.Y.C.
Gruenthal, Max (1947)
25 West 81st Street, N.Y.C.
Gudemann, Joseph (1945)
567 West 170th Street, N.Y.C.
Gundelfinger, Ernst (1943)
152 West 58th Street, N.Y.C.
Gurewitch, Vladimir (1943)
1165 Park Avenue, N.Y.C.

Gutmann, Max (1950)
1816 Madison Street,
Brooklyn, N.Y.
Haas, Alfred (1941)
143 East 88th Street, N.Y.C.
Hammerschlag, Ernst (1942)
109 East 81st Street, N.Y.C.
Hammerschlag, Fred G. (1948)
247 Cornwall Avenue,
Valley Stream, L.I., N.Y.
Handzel, Valerie (1950)
15 West 84th Street, N.Y.C.
Hass, Julius (1942)
17 East 82nd Street, N.Y.C.
Haymann, Hermann (1951)
102 East 22nd Street, N.Y.C.
Hecht, Sigmund (1949)
47 Arden Street, N.Y.C.
Heiman, Marcel (1949)
1148 Fifth Avenue, N.Y.C.
Heine, Ludwig (1940)
117-05 84th Ave, Richmond Hill,
L.I., N.Y.
Heinemann, Charlotte (1954)
601 West 174th Street, N.Y. C.
Heinemann, Walter (1939)
680 West End Avenue, N.Y.C.
Heller, William (1941)
200 Central Park South, N.Y.C.
Hermann, Franz (1944)
58 West 90th Street, N.Y.C.
Hertz, Arthur (1946)
114 East 54th Street, N.Y.C.
Hess, Leo (1944)
210 West 101st Street, N.Y.C.
Hesse, Hans (1946)
412 Audubon Avenue, N.Y.C.
Heymann, Hans (1941)
140 West 58th Street, N.Y.C.
Hirsch, Hans G. (1943)
333 West End Avenue, N.Y.C.
Hirsch, Sophie B. Glaser (1949)
262 Central Park West, N.Y.C.
Hirschfeld, Hans (1948)
350 Central Park West, N.Y.C.
Hirschfeld, Kurt Emil (1946)
1410 Grand Concourse, Bronx, N.Y.
Hirschhorn, Max Leo (1951)
5601–13th Avenue, Brooklyn, N.Y.
Hirschowitz, Martin (1947)
371 Fort Washington Avenue,
N.Y.C.
Hoch, Paul (1940)
1165 Park Avenue, N.Y.C.
Hochstetter, Werner (1945)
11 East 68th Street, N.Y.C.
Hoffmann, Karl F. (1926)
108 East 86th Street, N.Y.C.
Hoffmann, Margot (1947)
1409 Fulton Avenue, Bronx, N.Y.
Horowitz, Isaac (1943)
128 Central Park South, N.Y.C.
Hulse, Wilfred (1938)
110 West 96th Street, N.Y.C.
Icken, Ralph, L. (1953)
25–98, 36th Street, Astoria, L. I.
N.Y.
Isaak, Ludwig (1941)
45 East 85th Street, N.Y.C.
Isler, Leopold (1947)
120 West 70th Street, N.Y.C.
Israel, Arthur (1944)
155 East 72nd Street, N.Y.C.
Jacobson, Moritz (1951)
207 West 106th Street, N. Y. C.
Jacoby, Max (1948)
315 Central Park West, N.Y.C.
Jarecki, Max M. (1947)
905 Bergh Street, Asbury Park, N.J.
Jessner, Max (1945)
870 Fifth Avenue, N.Y.C.
Jolowicz, Ernst (1949)
147 West 50th Street, N.Y.C.
Jordan, Henry H. (1946)
110 East 93rd Street, N.Y.C.
Julius, Fred Siegfried (1946)
227 Central Park West, N.Y.C.
Jungster, Max (1946)
320 West 90th Street, N.Y.C.
Jurasz, Anthony (1953)
80-20 Broadway, Elmhurst, N.Y.
Kalinowsky, Lothar B. (1943)
115 East 82nd Street, N.Y.C.
Kallmann, Franz (1949)
959 Madison Avenue, N.Y.C.
Kaminsky, Anatol (1948)
433 West 34th Street, N.Y.C.
Kamnitzer, Siegbert (1946)
115 West 73rd Street, N.Y.C.
Kaskel, Ernst (1943)
520 West 110th Street, N.Y.C.
Katzenstein, Abraham A. (1948)
140 West 86th Street, N.Y.C.
Katzenstein, Margarete H. (1943)
514 West End Avenue, N.Y.C.

Kaufer, George (1951)
771 Seventh Avenue, N.Y.C.
Kautzky, Karl (1942)
440 West End Avenue, N.Y.C.
Kautz, Friedrich G. (1940)
784 Park Avenue, N.Y.C.
Kent, Charles (1950)
80-09 35th Avenue,
Jackson Heights, L.I., N.Y.
Kestenbaum, Alfred (1940)
470 Park Avenue, N.Y.C.
Kilman, Martin (1949)
118 East 54th Street, N.Y.C.
Kirschner, Max (1945)
109-20 Queens Boulevard,
Forest Hills, L.I, N.Y.
Kisch, Bruno (1941)
845 West End Avenue, N.Y.C.
Kiwi, Hans S. (1942)
305 East 88th Street, N.Y.C.
Klaar, Joseph (1942)
1239 Madison Avenue, N.Y.C.
Klaften, Emanuel (1947)
333 Central Park West, N.Y.C.
Kleeberg, Ludwig S. (1943)
2 East 95th Street, N.Y.C.
Kleemann, Erich Emanuel (1946)
680 West End Avenue, N.Y.C.
Klein, George (1943)
10 East 85th Street, N.Y.C.
Klein, Martin (1944)
574 West End Avenue, N.Y.C.
Klein, Paul (1951)
46 East 80th Street, N.Y. C.
Klein, Siegfried B. (1944)
784 Park Avenue, N.Y.C.
Klemperer, Edith (1945)
315 East 77th Street, N.Y.C.
Klinger, Oskar (1952)
850 Park Avenue, N.Y.C.
Kochmann, Alfred (1948)
667 Madison Avenue, N.Y.C.
Kolton, Hermann (1941)
250 West 94th Street, N.Y.C.
Kornitzer, Ernst (1941)
1239 Madison Avenue, N.Y.C.
Krieger, Charles I. (1941)
6 East 85th Street, N.Y.C.
Kriss, Bruno Reginald (1946)
970 Park Avenue, N.Y.C.
Kristeller, Leo (1941)
20 Seaman Avenue, N.Y.C.
Kron, Theodor (1946)
1628 University Avenue,
Bronx, N.Y.
Kroner, Jacques (1949)
333 Central Park West, N.Y.C.
Kroner, Karl (1948)
17 Morsemere Place
Yonkers, N.Y.
Krueger, Erich (1938)
Veterans Hospital,
Kingsbridge Road, Bronx, N.Y.
Kuhn, Paul H. (1940)
103 East 75th Street, N.Y.C.
Kurcer, Mendel (1945)
85-15 139th Street,
Jamaica, L.I., N.Y.
Lange, Hanna S. (1946)
110–45 Queens Boulevard,
Forest Hills, L.I., N.Y.
Lange, Kurt (1942)
116 Central Park South, N.Y.C.
Langstadt, Arthur (1946)
1165 Park Avenue, N.Y.C.
Lax, Henry (1943)
160 East 72nd Street, N.Y.C.
Layton, George A. (1946)
114 East 54th Street, N.Y.C.
Lefferts, David (1945)
230 West 79th Street, N.Y.C.
Lehfeldt, Hans M. (1945)
784 Park Avenue, N.Y.C.
Lehndorff, Heinrich (1941)
650 Main Street,
New Rochelle, N.Y.
Lehr, David (1953)
Flower Hospital,
Fifth Avenue and 105th Street,
New York City
Leiner, George (1949)
105 East 74th Street, N.Y.C.
Leipziger, Hans (1945)
558 West 164th Street, N.Y.C.
Lemos, Anita De (1946)
435 West 119th Street, N.Y.C.
Lendl, Wilhelmina (1941)
P.O.B. 706, Rome, N.Y.
Leopold, Harold (1942)
9 East 78th Street, N.Y.C.
Levi, Julius (1950)
140 East 2nd Street, N.Y.C.

Levi, Max (1948)
200 Central Park South, N.Y.C.
Lewi, Maurice J. (1928)
53 East 124th Street, N.Y.C.
Lewin, Richard (1944)
46 Fort Washington Ave., N.Y.C.
Lewinski, Moritz (1944)
875 West End Avenue, N.Y.C.
Lewy, Robert (1945)
91 Tulip Avenue,
Floral Park, L.I., N.Y.
Liebmann, George H. (1946)
32 West 82nd Street, N.Y.C.
Lippmann, H. (1942)
1192 Park Avenue, N.Y.C.
Lister, Jacob (1947)
1675 Grd. Concourse, Bronx, N.Y.
Loewenstein, L. W. (1938)
125 East 72nd Street, N.Y.C.
Loewy, Paul (1942)
440 West End Avenue, N.Y.C.
Lowenstein, Otto (1941)
865 Park Avenue, N.Y.C.
Lowenthal, Adolf (1941)
230 West 105th Street, N.Y.C.
Lubliner, Ruth (1952)
3439 Knox Place, N.Y.C.
Lussheimer, Paul (1949)
411 West End Avenue, N.Y.C.
Lust, Franz J. (1941)
17 East 89th Street, N.Y.C.
Maier, Bertha Spiegel (1946)
1685 Morris Avenue, Bronx, N.Y.
Maier, Max (1946)
216 West 89th Street, N.Y.C.
Mandelbaum, Recka (1943)
701 West 175th Street, N.Y.C.
Mandl, Gustav (1943)
43-08 41st Street,
Long Island City, L.I., N.Y.
Mannheim, Hans L. (1941)
784 Park Avenue, N.Y.C.
Marcus, Howard H. (1953)
200 Central Park South, N.Y.C.
Mark, Bruno (1944)
179 East 79th Street, N.Y.C.
Markham, Paul R. (1941)
34-20 83rd Street,
Jackson Heights, L.I., N.Y.
Markus, Nathan H. (1945)
50 West 96th Street, N.Y.C.
Mayer, Ida (1948)
336 Central Park West, N.Y.C.
Mayer, Paul J. (1945)
203 West 90th Street, N.Y.C.
Mayer, William (1942)
115 East 116th Street, N.Y.C.
Meinrath, Hans (1946)
75-14 Austin Street,
Forest Hills, L.I., N.Y.
Metzger, Emy A. (1944)
1172 Park Avenue, N.Y.C.
Metzger, Ernst (1939)
118 East 93rd Street, N.Y.C.
Meyer, George M. (1945)
4915 Broadway, N.Y.C.
Meyer, Max (1942)
645 West End Avenue, N.Y.C.
Meyer, Selma (1941)
84-51 Beverly Road,
Kew Gardens, L.I., N.Y.
Miller, Max (1943)
829 Park Avenue, N.Y.C.
Mohr, Jacob (1947)
780 West End Avenue, N.Y.C.
Moller, Raphael (1946)
600 West 169th Street, N.Y.C.
Mosbacher, Emil (1949)
200 Central Park South, N.Y.C.
Moser, Hanna Melzer (1952)
844 Carleton Road, Westfield, N.J.
Moses, Herman (1947)
262 West 107th Street, N.Y.C.
Mosse, Carl Emil
138-69 A Jewel Avenue,
Flushing 67, N.Y.
Mosse, Eric (1938)
57 West 57th Street, N.Y.C.
Muehsam, Edward (1945)
3 East 74th Street, N.Y.C.
Mueller, Ernst F. (1935)
784 Park Avenue, N.Y.C.
Muller-Deham, Albert (1941)
243 Riverside Drive, N.Y.C.
Musa, George (1936)
50 East 71st Street, N.Y.C.
Naegele, Alice (1950)
725 West 184th Street, N.Y.C.
Nahm, Eric (1941)
799 Park Avenue, N.Y.C.

Narath, Peter A. (1939)
State Road,
Yorktown Heights, N.Y.
Nathan, Ernest (1941)
133 East 58th Street, N.Y.C.
Nathan, Helmuth (1938)
667 Madison Avenue, N.Y.C.
Nathorff, Eric (1941)
30 West 70th Street, N.Y.C.
Nauenberg, Erna de (1951)
1107 Fifth Avenue, N.Y. C.
Neuberger, Siegfried (1946)
590 Bedford Avenue, Brooklyn, N.Y.
Neuburger, Joseph (1950)
542 West 112th Street, N.Y.C.
Neugarten, Ludwig (1934)
952 Fifth Avenue, N.Y.C.
Neuhaus, Fritz (1945)
715 West 175th Street, N.Y.C.
Neumann, Edith A. (1944)
83-44 Lefferts Boulevard,
Kew Gardens, L.I., N.Y.
Neumann, Gottfried (1950)
950 Park Avenue, N.Y.C.
Neumann, Rudolf (1948)
83-44 Lefferts Boulevard,
Kew Gardens, L.I., N.Y.
Neustadt, Adolph (1946)
3900 Greystone Ave., Bronx, N.Y.
New, Arthur (1944)
129 West 110th Street, N.Y.C.
Niemann, Walter (1930)
Jericho Turnpike, Hillside Boulev.,
New Hyde Park, N.Y.
Norris, Paul F. (1953)
37–32 79th Street,
Jackson Heights, L.I., N.Y.
Novak, Josef (1945)
865 Park Ave., N.Y.C.
Nussbaum, William (1949)
82-31 Austin Street,
Kew Gardens, L.I., N.Y.
Ochs, Isaak Julius (1946)
215 West 98th Street, N.Y.C.
Offenbacher, Richard (1949)
1320–51st Street, Brooklyn, N.Y.
Olnink, Ignatius Nic. W. (1942)
435 East 57th Street, N.Y.C.
Oppenheim, Henry (1947)
41-96 Gleane Street,
Elmhurst, L.I., N.Y.
Oppenheimer, Helmuth Ernst (1946)
865 Park Avenue, N.Y.C.
Ottenheimer, Lilly C. (1945)
36 East 68th Street, N.Y.C.
Ottenheimer, Julius G. (1945)
114 East 84th Street, N.Y.C.
Palmer, Herbert J. (1944)
170 East 77th Street, N.Y.C.
Paltauf, Rudolf (1935)
344 West 72nd Street, N.Y.C.
Paschkis, Rudolf (1942)
133 East 58th Street, N.Y.C.
Peller, Sigismund (1949)
164 East 81st Street, N.Y.C.
Perez, Willy M. (1939)
57 West 57th Street, N.Y.C.
Perls, Walter L. (1945)
525 West End Avenue, N.Y.C.
Pflaum, Alfred (1947)
225 West 71st Street, N.Y.C.
Pick, Paul (1952)
983 Park Avenue, N.Y.C.
Pineas, Herman O. (1949)
1225 Park Avenue, N.Y.C.
Pollak, Richard (1946)
27 West 72nd Street, N.Y.C.
Preminger, Max (1944)
Pemberton Road, New Lisbon, N.J.
Pribram, Bruno O. C. (1947)
910 Fifth Avenue, N.Y.C.
Proskauer, Arthur (1948)
69–40 108th Street,
Forest Hills, L. I., N.Y.
Rachmann, Walter (1946)
200 Bennett Avenue, N.Y.C.
Rapp, Menny (1940)
515 West End Avenue, N.Y.C.
Reis, Julius (1946)
245 Fort Washington Ave., N.Y.C.
Reissner, Albert (1943)
93 Eighth Avenue,
Brooklyn, N.Y.
Riesenfeld, Fritz D. (1947)
50 West 72nd Street, N.Y.C.
Robbins, Sidney (1947)
30 East 60th Street, N.Y.C.
Roos, Nathan (1946)
454 Fort Washington Ave., N.Y.C.
Rosenbaum, Ernst (1945)
5 West 86th Street, N.Y.C.
Rosenberg, Arthur (1945)
238 Fort Washington Ave., N.Y.C.

Rosenberg, Dora (1946)
53–75 65th Place, Maspeth, N.Y.
Roseno, Alfred (1940)
950 Park Avenue, N.Y.C.
Rosenow, Anna (1946)
371 Fort Washington Ave., N.Y.C.
Rosenow, George (1943)
944 Fifth Avenue, N.Y.C.
Ross, Alfred (1940)
20–35 Seagist Avenue,
Far Rockaway, L. I., N.Y.
Rothmann, Eva (1947)
1148 Fifth Avenue, N.Y.C.
Rubin, I. C. (1940)
911 Park Avenue, N.Y.C.
Sachs, Henry B. (1948)
145 Vermilyea Avenue, N.Y.C.
Sachs, Louis (1941)
116 East 58th Street, N.Y.C.
Salten, Rudolf (1942)
955 Park Avenue, N.Y.C.
Samson, Joseph W. (1944)
775 Riverside Drive, N.Y.C.
Samuel, Arthur (1944)
12 Dongan Place, N.Y.C.
Samuels, Saul (1948)
151 East 83rd Street, N.Y.C.
Sand, Herman (1951)
1158 Boynton Ave., Bronx, N.Y.
Schachter, Franz (1947)
963 Avenue St. John, Bronx, N.Y.
Schaefer, Erich (1944)
53 Main Street, Canton, N.Y.
Schalscha, Kurt (1952)
667 Madison Avenue, N.Y.C.
Schauder, Herman (1947)
4 East 95th Street, N.Y.C.
Scheyer, Hans E. (1945)
61 Elm Street, Potsdam, N.Y.
Schindler, Richard (1942)
360 Central Park Ave., N.Y.C.
Schlesinger, Benno (1944)
108 West 85th Street, N.Y.C.
Schmidt, Robert M. (1943)
108-24 71st Street, Forest Hills,
L.I., N.Y.
Schnebel, Emil (1942)
103 Thayer Street, N.Y.C.
Schnerb, Godschau (1947)
717 West 177th Street, N.Y.C.
Schoenfeld, Siegfried (1939)
200 Central Park South, N.Y.C.
Schomberg, Ernest (1950)
466 West 131st Street, N.Y.C.
Schwarz, Eugene E. (1952)
65 East 76th Street, N.Y.C.
Schwarz, Gottwald (1949)
63 East 84th Street, N.Y.C.
Schwarzbart, Irma Julia (1946)
110–35 72nd Avenue
Forest Hills, L.I., N.Y.
Schwarzmann, Emil (1942)
133 East 58th Street, N.Y.C.
Schwarzschild, Ludwig (1947)
514 West End Avenue, N.Y.C.
Schweitzer, Ernst E. (1953)
133 East 40th Street, N.Y. C.
Seidemann, Herta (1951)
1349 Lexington Ave., N.Y.C.
Seidenberg, Leopold (1941)
200 Central Park South, N.Y.C.
Selig, Rudolf (1941)
56 East 87th Street, N.Y.C.
Seligmann, Fred S. (1948)
501 32nd Street, Union City, N.J.
Senator, Hans (1941)
115-55 77th Avenue,
Forest Hills, L.I., N.Y.
Sichell, Jane (1952)
666 West End Avenue, N.Y.C.
Sichell, Max Josef (1946)
666 West End Avenue, N.Y.C.
Siegel, Erich (1942)
151 West 86th Street, N.Y.C.
Sielman, Hans R. (1941)
105 East 74th Street, N.Y.C.
Silbermann, Maximilian (1948)
893 Park Avenue, N.Y.C.
Simon, Arthur F. (1939)
86-10 34th Avenue,
Jackson Heights, L.I., N.Y.
Simon, Eugene (1949)
315 West 106th Street, N.Y.C.
Singer, Rudolf (1941)
1100 Park Avenue, N.Y.C.
Sonnenfeld, Anni (1951)
116 East 58th Street, N.Y.C.
Sonnenfeld, Arthur (1944)
116 East 58th Street, N.Y.C.
Spaeth, Kurth (1944)
562 West 148th Street, N.Y.C.
Stein, George (1952)
730 Fifth Avenue, N.Y.C.

Steinhardt, Max (1946)
2980 Valentine Avenue,
Bronx, N.Y.
Stern, Rudolf A. (1941)
1150 Fifth Avenue, N.Y.C.
Sternberg, Adolph S. (1947)
853 Seventh Avenue, N.Y.C.
Stone, Paul (1947)
47-02 Skillman Avenue,
Long Island City, L.I., N.Y.
Strauss, Elizabeth (1945)
315 Central Park West, N.Y.C.
Strauss, Hans (1940)
315 Central Park West, N.Y.C.
Sulzberger, Marion B. (1931)
999 Fifth Avenue, N.Y.C.
Sundheimer, Martin (1951)
70 Cortlandt Ave., New Rochelle,
N.Y.
Swienty, Wilhelm (1947)
50 West 72nd Street, N.Y.C.
Taterka, Henry M. (1947)
325 West End Avenue, N.Y.C.
Teichner, Herbert (1951)
195 Genesee Street, Geneva, N.Y.
Teleky, Ludwig (1948)
96 Wadsworth Terrace, N.Y.C.
Torner, Joseph (1944)
402 Clinton Avenue, Albany, N.Y.
Trautman, Edgar (1941)
57 East 88th Street, N.Y.C.
Trefousse, George L. (1947)
241 Central Park West, N.Y.C.
Treitel, Emil (1944)
57-26 61st Street, Maspeth, N.Y.
Tuch, Richard (1949)
189 Sherman Avenue, N.Y.C.
Ullman, Walther Hans (1951)
115 West 86th Street, N.Y.C.
Ulrich, Oscar (1939)
27 West 86th Street, N.Y.C.
Violin, Edward (1950)
57 East 88th Street, N.Y.C.
Vogl, Alfred (1942)
1165 Park Avenue, N.Y.C.
Vollmer, Hermann (1939)
25 Central Park West, N.Y.C.
Wachen, Robert (1947)
60-52 Palmetto Street,
Ridgewood, L.I., N.Y.
Wachstein, Max (1952)
St. Catherines Hospital,
Brooklyn, N.Y.
Wagner, Martin (1950)
215 West 88th Street, N.Y.C.
Wahl, Stephen (1948)
14 East 90th Street, N.Y.C.
Waitzfelder, Walter (1952)
229 West 78th Street, N.Y.C.
Waltuch, Max (1949)
119 East 84th Street, N.Y.C.
Weichsel, Manfred (1947)
47-07 41st Street,
Sunnyside, L.I., N.Y.
Weil, Rudolf (1944)
230 Central Park South, N.Y.C.
Weinberg, Frederick S. (1942)
375 Riverside Drive, N.Y.C.
Weiner, Ernst B. (1942)
133 East 58th Street, N.Y.C.
Weisenbeck, Max (1943)
East Avenue, Onondage Hill, N.Y.
Weiss, Frederick A. (1943)
11 Riverside Drive, N.Y.C.
Weiss, Harry (1946)
75 Fort Washington Avenue, N.Y.C.
Weiss, Herrman (1944)
300 Madison Ave., Madison, N.J.
Weiss, Samuel (1917)
146 Central Park West, N.Y.C.
Wendel, Gustav (1946)
43-10 44th Street,
Long Island, L.I., N.Y.
Wertheim, Frederick Max (1946)
143 West 96th Street, N.Y.C.
Winkler, Gunther E. (1948)
30 Central Park South, N.Y.C.
Wolf, Max (1941)
969 Park Avenue, N.Y.C.
Wolf, Gunther E. (1944)
Box A 241, Camarillo, Calif.
Wolfsen, Martin Richard (1947)
65 Central Park West, N.Y.C.
Zak, Frederick Gerard (1951)
25 East 94th Street, N.Y.C.
Ziegler, Joseph (1950)
510 Madison Avenue, N.Y.C.
Zinner, Alfred (1944)
17 East 82nd Street, N.Y.C.

ASSOCIATE MEMBERS

Molitor, Hans (1936)
Merck Institute, Rahway, N.J.

Schleger, Fred (1942)
108 East 79th Street, N.Y.C.

INACTIVE MEMBERS

Alexander, Berthold
Mt. Sinai Hospital, Chicago 8, Ill.

Colmers, Franz A. (1938)
3 East 74th Street, N.Y. C.

Feldstein, Zama (1913)
62 West 82nd Street, N.Y.C.

Fuld, Ernest M. (1951)
1125 Grand Concourse, Bronx, N.Y.

Glas, Emil
101 East 74th Street, N.Y.C.

Gordon, Irving (1945)
200 West 20th Street, N.Y.C.

Kreuder, Henry (1902)
635 Riverside Drive, N.Y. C.

Kruna, Richard B. (1941)
50 North Broadway,
White Plains, N.Y.

Kutner, Reynold (1949)
47 Fort Washington Ave., N.Y.

Mannheimer, Jacob (1941)
1125 Grand Concourse, Bronx, N.Y.

Plaut, Alfred (1929)
Armed Forces Institute
of Pathology, Washington, D.C.

Prinz, Leopold (1949)
143 West 96th Street, N.Y. C.

Schapiro, Bernard
Jerusalem, Israel

Seligmann, Albert (1946)
41 Forest Avenue,
Silverlake, L.I., N.Y.

Sellings, William (1942)
837 N. La Jolla Avenue,
Los Angeles, Calif.

Steffens, William (1894)
300 Convent Avenue, N.Y.C.

Strauss, Max (1941)
200 Central Park South,
New York City

Wiener, Joseph Charles (1946)
84-09 Talbot Street,
Kew Gardens, L.I., N.Y.

Wolf, Heinrich
85 Fifth Ave., N.Y.C.

Zuerndorfer, Louis (1952)
915 Bruckner Blvd. Bronx, N.Y.

The Journal of the American Medical Profession

Courtesy to Dr Myller

MEDICAL TIMES

Page 239

Vol. 77 May 1949 No. 5

of nausea and vomiting while taking dienestrol; this occurred on a dosage of 0.5 mg. daily; after stopping treatment for a week, it was begun again with a dosage of 0.3 mg. daily without further signs of toxicity. Only 2 patients had withdrawal bleeding; one of these was a castrate twenty-seven years of age, who had shown withdrawal bleeding with other types of estrogen therapy. By giving dienestrol in intermittent courses of twenty days with ten-day intervals, withdrawal bleeding simulating normal menstrual periods was obtained. The other patient was sixty-three years of age and showed slight bleeding (spotting) for a day after voluntarily discontinuing treatment for a week.

COMMENT

Judging from the author's clinical evaluation dienestrol is "just another" estrogenic hormone. We have had no experience with this particular hormone but apparently it is potent (even when taken by mouth) and has very few side effects. Given a potent preparation that can be given by mouth there is little choice in the multitude of estrogenic hormones available. H.B.M.

Vaginal Cytology of Postmenopausal Women

J. R. Kernodle and W. K. Cuyler *(Southern Medical Journal,* 41:861, 869, Oct. 1948) report a study of the cytology of 415 sets of vaginal and cervical smears from postmenopausal women; 70 of these smears came from women with malignant lesions of the genital organs. These smears were classified according to Papanicolaou and Traut with several subtypes created by the authors to define the cytology more acurately. One of the subtypes, AMA (atrophic menopause, acidophilic), has been the subject of a special study. In the group of 257 patients without malignant lesions, the average age was 53.2 years; the menopause was spontaneous in 207 cases, and surgical in 50 cases; 68 patients had had postmenopausal bleeding. Type II smears (atypical epithelial cells, but not malignant) were found in 80.5 per cent of the patients. Repeat smears were made in some cases (a total of 345 smears); in these smears, subtype R (regressive) was most frequently found. *Trichomonas vaginalis* was associated most frequently with subtype R. Chronic cervicitis was present in more than one-third of the patients and was associated most frequently with subtypes R and AMA. In the malignant group, subtype R was associated most frequently with malignancy, and subtype AMA was least frequently found. A special study of subtype AMA was made in the vaginal smears of 68 post-menopausal women. These smears show various types of basal cells, including normal basal cells, but all are acidophilic, most of the cells are smaller than normal, and some show various stages of necrocytosis. These smears were not frequently associated with malignancy. They represent an "accentuated degeneration," which is probably secondary to an endogenous hormonal imbalance; although sometimes associated with infection, infection was not present in the majority of cases showing this type of smear.

COMMENT

Vaginal cytology in postmenopausal women is destined to become a routine procedure. Indeed, it may be said to be "just that" right now. Any such patient coming to the office for a general check-up has not had a complete examination unless vaginal cytology is included. The authors have classified smears according to Papanicolaou and Trout and have created, for the sake of accuracy, several subtypes. At least two of these subtypes have received special study. One could be definitely said to be non-malignant, whereas the other was just as surely malignant. If you are interested in vaginal cytology read this article —yes, study it. Remember! early diagnosis is still the only hope for a positive cure of cancer. H.B.M.

The Treatment of Uterine Fibroids

F. L. Payne *(Surgical Clinics of North America,* Dec. 1948:1455) states that since uterine fibroids may give rise to no symptoms and have "a very low potential" for malignant degeneration, a diagnosis of uterine myoma is not necessarily an indication for active treatment. If a diagnosis of a fibroid tumor is definitely established in a woman approaching the menopause, the patient is kept under observation without treatment as long as there are no symptoms and the tumor does not exceed the size of a three months' pregnancy. The same is true of a woman past the menopause, if the tumor is small and there are no symptoms; such women should be seen at least every six months, and treatment instituted if pain or bleeding develops. Some younger women with very small fibroids may also be kept under observation if they desire to have a child prior to surgical treatment. In some patients approaching the menopause, who have a small uterine fibroid, with menorrhagia the only symptom, androgen therapy is of value to control the bleeding; androgen therapy must be used with care in order to avoid untoward reactions. It may also be used occasionally in younger women with small fibroids who wish to defer operation for a time. Radium has been used in the treatment of uterine fibroids in the author's clinic since 1912; and has been found to be indicated in about 20 per cent of cases. It is used chiefly in women approaching the menopause, who have relatively small uterine fibroids with abnormal bleeding; after a diagnostic curettage an intrauterine application of a menopausal dose of radium is given. It is also employed occasionally in younger women with abnormal bleeding and small uterine fibroids; in some of these cases operation can be deferred, and in others, the abnormal bleeding is controlled without operation. X-ray therapy may be used for the control of bleeding when radium or immediate operation is contraindicated; in some cases marked regression of the tumor results. Myomectomy is indicated in about 10 to 15 per cent of cases of uterine fibroids, chiefly in young women in the childbearing period. Hysterectomy is the operation of choice in most cases of uterine fibroids. Vaginal hysterectomy is done only when the uterus is slightly enlarged and there is no adnexal disease. Abdominal hysterectomy is usually the method of choice; the author does not perform total hysterectomy routinely, but prefers it to supravaginal hysterectomy if the general condition of the patient permits and benign cervical disease is present. Any healthy ovarian tissue is conserved.

COMMENT

We have taught and practiced for many years that "all fibroids need to be watched but not all fibroids need to be treated." We have "watched" fibroids that gave no clinical symptoms and did not suddenly change in size, consistency or sensitivity (5-10 years or longer) before instituting active treatment. Of course, the size and multiplicity of fibroids are always important. We can see no harm in such management and in not a few cases great good is accomplished by preserving the childbearing (also the menstrual) function as long as it is feasible to do so. As the author states, fibroids have "a very low potential" for malignant changes and if under constant continuous observation (pelvic examination every 3-6 months, more often if indicated) there is very little risk from this angle of the problem. We can agree 100 per cent with the plan of active treatment that the author advocates. It is conservative, without too much risk to the patient, and it is reasonable, particularly if the patient is in the childbearing age and is married or expects to get married. It requires more "guts" to be intelligently conservative than it does to be immediately radical. H.B.M.

Cervical Obturation with Inflatable Cannula in Uterotubal Insufflation and Hysterosalpingography

I. C. Rubin and Ernest Myller *(American Journal of Obstetrics and Gynecology,* 56:1077, Dec. 1948) describe a cannula with an inflatable rubber bulb used for obturation of the cervical canal during uterotubal insufflation or hysterosalpingography. This instrument can be inserted into any cervical canal that admits a uterine sound. The rubber bulb can be inflated with an aqueous contrast medium, so that the relation of the bulb to the cervical canal can be demonstrated. The advantages of this type of cannula are: It provides airtight closure of the cervical canal, which is essential for either uterotubal insufflation or hysterosalpingography; its application is painless and it causes no trauma; it maintains the normal anatomical position of the uterus. Another advantage of this cannula is that the pressure

within the rubber bulb determines the maximum pressure that can be used for tubal insufflation or hysterosalpingography, for if the pressure used in either of these procedures exceeds that in the rubber bulb, there is prompt escape of the gas or the opaque medium from the cervix. Thus the rubber bulb of the cannula acts as "a desirable safety valve" which prevents undue increase of pressure within the uterus.

COMMENT

Everybody who has ever done the Rubin test for patency of the fallopian tubes or hysterosalpingography knows that cervical obturation is of major importance. Regurgitation of CO_2 gas or oil leads to failure of these tests. The authors have devised a cannula with an inflatable bulb which can be inflated after passage through the cervical canal into the uterine cavity and by downward traction affords an affective means of plugging the internal cervical os. It works. We have had no personal experience but have seen Dr. Rubin demonstrate this cannula and it certainly has every advantage over all other methods of cervical obturation that we know about. If you perform the Rubin test get one of these cannulas. You will never regret it.

OBSTETRICS

Rh Sensitization in a Primipara Caused by Intramuscular Injection of Human Serum

J. Thornton Wallace and associates *(American Journal of Obstetrics and Gynecology,* 56:1163, Dec. 1948) report a case in which an Rh-negative woman in her first pregnancy showed Rh antibodies in the serum from the seventh week of pregnancy, which suddenly rose to a high titer in the thirty-second week. The husband was Rh-positive, and presumably heterozygous for the Rh factor. In this case there was no history of blood transfusions or injections of whole blood at any time in the patient's life, but there was a history of intramuscular injections of pooled adult serum as a prophylactic measure against poliomyelitis when the patient was eight years of age. At the time when the Rh antibody titer rose suddenly, a cesarean section was done in the hope of preventing severe erythroblastosis fetalis in the infant. Although an exchange transfusion was begun shortly after birth, the infant died on the second day; autopsy showed the typical pathological changes of erythroblastosis fetalis. The mother made a good recovery, but experience in similar cases indicates that it is doubtful if the Rh antibody in her serum will fall sufficiently to enable her to have a viable Rh-positive infant. As the husband is heterozygous, there is a possibility of an Rh-negative infant which would not be erythroblastotic. It is now generally recognized that transfusions or even intramuscular injections of Rh-positive blood in Rh-negative individuals cause Rh sensitization more frequently than pregnancy with Rh-positive fetuses. This case shows that the injection of serum or plasma into Rh-negative women may also cause Rh sensitization, and that careful inquiry should be made in regard to such injections in taking the obstetric histories of Rh-negative women.

COMMENT

The authors report a case of Rh sensitization in a primipara caused by the intramuscular injection of human serum years previously. This case report, among other things, brings out three points that should always be kept in mind by the accoucheur, viz.: (1) that cesarean section performed some weeks before term may not keep the baby from dying of erythroblastosis: (2) that an exchange transfusion does not always save an erythroblastotic baby; and (3) that the mere injection of serum or plasma into Rh-negative women may cause Rh sensitization and that a careful inquiry into the past history regarding injections and/or transfusions should always be undertaken. Take warning and "save face" when handling Rh-negative women. H.B.M.

The Treatment of Eclampsia by Means of Regional Nerve Block

F. E. Whitacre and associates *(Southern Medical Journal,* 41:920, Oct. 1948) report that they have used regional nerve block in the treatment of their most severe cases of eclampsia with good results. Restlessness is controlled with the sedative drugs commonly used; and hypertonic intravenous glucose is given, in addition to the regional nerve block. In the typical case reported, 8 cc. of "metycaine" in 1.5 per cent solution was first introduced into the sacral canal; as this produced no evidence of spinal anesthesia, an initial dose of 22 cc. of the "metycaine" solution was given and a segmental level of cutaneous anesthesia was maintained between thoracic 8 and 10, by giving 20 cc. of the "metycaine" solution every forty-five minutes. The blood pressure fell gradually. The regional nerve block was maintained and the blood pressure controlled for thirty-six hours, during which time a few uterine contractions occurred. As it became increasingly difficult to maintain the regional nerve block, labor was induced by artificial rupture of the membranes, and a satisfactory nerve block to control hypertension and to relieve the pain of labor was maintained by introducing the "metycaine" solution into the subarachnoid space, above the third lumbar interspace, in a dosage of 1 to 2 cc. every hour. The nerve block was continued for twenty-four hours after delivery, and there was no rise in blood pressure. Both the mother and her infant were discharged in good condition. Recently, in cases in which regional nerve block has been used to control blood pressure and increase the urine volume, intravenous injection of mannitol in distilled water has been employed every four hours, in addition to 5 to 10 per cent glucose solution, as necessary to produce effective diuresis and dehydration.

COMMENT

We, of course, have no specific treatment for the toxemias of pregnancy, including eclampsia. Therefore any adjunct to the commonly employed treatment of eclampsia is acceptable. The one case reportd by the authors naturally does not establish the trustworthiness of regional nerve block. On the other hand, the basic principles involved are sound and, under proper auspices, this method should prove of very great value. We have not personally employed the method but can see no reason for not using regional nerve block if the occasion arises. Go ahead and try it! Be sure you know the technic or, better still, have a qualified anesthetist perform the block. H.B.M.

Decidual Bleeding in Pregnancy

H. A. Power *(American Journal of Obstetrics and Gynecology,* 56:743, Oct. 1948) reports 13 cases in which vaginal bleeding occurred in the first four and one-half to five months of pregnancy and was not due to premature separation or low implantation of the placenta. The bleeding varied in amount, and in 4 cases was accompanied by cramps; all of these 4 patients aborted four to six weeks after the onset of symptoms, but in one instance the child was viable (seven months) and survived. In the other 9 cases the bleeding ceased and the pregnancy progressed to term or near term and all the infants survived. One of the patients was fully ambulatory, 5 were on bed rest, and 7 were kept in bed and given estrogen and progesterone therapy. In all cases, areas of decidual degeneration were found after delivery, the degeneration being most extensive in those cases in which pregnancy terminated early. No evidence of subplacental hematoma or of gross pathological changes in the placenta was found in any case. In one case there was an apparent cervical polyp, which was found to consist of degenerated decidua. These findings indicate that bleeding in early pregnancy may result from degenerating decidual tissue; in such cases, the bleeding gradually ceases, as a rule, and pregnancy progresses normally under conservative treatment; the value of endocrine therapy was not clearly demonstrated in this series. The final diagnosis depends upon examination of any tissue passed and inspection of the placenta and membranes following delivery.

COMMENT

Decidual bleeding in pregnancy is a real pathological entity. Clinically the diagnosis is difficult to make. Microscopically it is easy. Not infrequently a diagnosis of threatened or

Vol. 56, No. 6 (Pages 1021-1228) AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY DECEMBER

INDEX NUMBER

AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY

VOL. 56 DECEMBER, 1948 No. 6

OFFICIAL ORGAN

THE AMERICAN GYNECOLOGICAL SOCIETY
THE AMERICAN ASSOCIATION OF OBSTETRICIANS, GYNECOLOGISTS, AND ABDOMINAL SURGEONS
NEW YORK OBSTETRICAL SOCIETY; OBSTETRICAL SOCIETY OF PHILADELPHIA
BROOKLYN GYNECOLOGICAL SOCIETY; ST. LOUIS GYNECOLOGICAL SOCIETY
NEW ORLEANS GYNECOLOGICAL AND OBSTETRICAL SOCIETY
BALTIMORE OBSTETRICAL AND GYNECOLOGICAL SOCIETY
CHICAGO GYNECOLOGICAL SOCIETY; CINCINNATI OBSTETRIC SOCIETY
CENTRAL ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS
AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY
WAHINGTON GYNECOLOGICAL SOCIETY
PITTSBURGH OBSTETRICAL AND GYNECOLOGICAL SOCIETY
OBSTETRICAL SOCIETY OF BOSTON
LOUISVILLE OBSTETRICAL AND GYNECOLOGICAL SOCIETY
SOUTH ATLANTIC ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS
SEATTLE GYNECOLOGICAL SOCIETY
SOCIETY OF OBSTETRICIANS AND GYNECOLOGISTS OF CANADA
ALABAMA ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS
AKRON OBSTETRICAL AND GYNECOLOGICAL SOCIETY
KANSAS CITY OBSTETRICAL AND GYNECOLOGICAL SOCIETY
CENTRAL NEW YORK ASSOCIATION OF GYNECOLOGISTS AND OBSTETRICIANS
NEW JERSEY OBSTETRICAL AND GYNECOLOGICAL SOCIETY

PUBLISHED BY THE C. V. MOSBY COMPANY, 3207 WASHINGTON BLVD., ST. LOUIS 3, U. S. A.

TABLE OF CONTENTS ON PAGE 6

CONTENTS FOR DECEMBER, 1948

Original Communications

(*Continued on page 8*)

CERVICAL OBTURATION WITH INFLATABLE CANNULA IN UTEROTUBAL INSUFFLATION AND HYSTEROSALPINGOGRAPHY

I. C. Rubin, M.D., F.A.C.S., and Ernest Myller, M.D., New York, N. Y.

CERVICAL obturation is of major importance in the technical procedure of uterotubal insufflation and hysterography. Regurgitation of CO_2 gas or oil leads to unreliable estimation of the pressure employed, and not infrequently to wrong interpretation as to tubal patency. Obturation is usually secured by pressing a rubber or metal acorn against the cervical os. This is easily accomplished in the presence of a round and well-shaped external orifice. However, if the external os is irregular in contour as in lacerations and eversions, excessive pressure must be exerted by the acorn in order to prevent leakage of the contrast medium or of CO_2 gas as the case may be. To prevent regurgitation the cervix must be grasped firmly with a tenaculum forceps exerting counter pressure. In this maneuver, the uterus is either pushed upward or drawn down. To keep the balance by equal push and pull is sometimes difficult. The anatomic change in position may occasionally be sufficient to simulate closure of the tubes by causing artificial kinks at the uterotubal junction or by artifically stretching adhesions which do not otherwise obstruct the tubal lumen when the normal position of the uterus is undisturbed. The cannula devised by Colvin with screw tips of various sizes, later modified by Hudgins, affords tight obturation but involves a certain amount of trauma which theoretically may predispose to embolization.

After many years experience with hysterosalpingography and uterotubal insufflation the prerequisites of an ideal uterine cannula appear to be the following:

1. Its application should be painless and unaccompanied by trauma.
2. It must provide airtight obturation of the cervical canal.
3. It should maintain the normal anatomical position of the uterus.

The cannula presented in this paper has been devised with these desiderata in view. It is based on a rather old device, namely, the use of an inflatable rubber bulb in order to change the diameter of a rigid instrument. Nitze, the inventor of the cystoscope, made use of this principle for a ureteral catheter. In 1883, a United States patent was granted to Henry E. Finney for an instrument based on the same principle for "the treatment of the male urethra." About twelve years ago, one of us (I.C.R.) constructed a cannula similar in principle to the one about to be described. Dr. R. B. Stout had the same idea, except that he placed the rubber balloon within the uterine cavity.[1] Decker,[2] in a recent publication, also recommends inserting the rubber balloon surrounding the cannula tip into the uterine cavity. This principle has been employed by one of us in studying the differential between uterine and tubal contractions during uterotubal insufflation.[3]

The present cannula (Fig. 1) has developed out of a simple model which we have used since 1946 in 175 cases for cervical obturation. The cannula has the length and diameter of an ordinary uterine sound. It consists of two metal channels, one of which is very narrow and ends about 2 cm. behind the tip of the instrument. Its opening is covered by a thin, elastic rubber tube, 2 to 3 cm. long, which is tied at each end to the shaft of the instrument by surgical silk.*

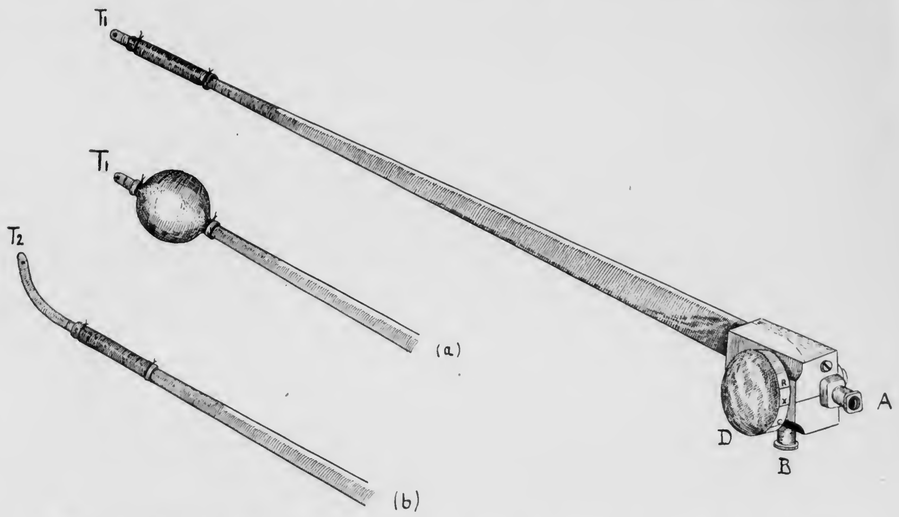


Fig. 1.—Cannula assembled ready for use with revolving disc, hubs for syringe and manometer connections and inflatable tip (letter B below letter C not visible). (*a*). Rubber tubing distended. (*b*). Extension tip for insertion into uterine cavity.

The instrument can be inserted easily into any cervical canal which admits a uterine sound. In most cases it is not necessary to grasp the cervix with a tenaculum forceps. The latter can be removed as soon as the rubber-covered tip has been inserted inside the cervical canal. In certain cases, e.g., stenosis of the internal os, it may be desirable to insert the cannula with its tip in the uterine cavity. For such purpose the short tip (T) (Fig. 1) may be replaced by a longer one (T_1) (Fig. 1). Preliminary dilatation, when desirable, should not be done just before the injection of contrast media or before insufflation. So far it has been possible in our cases to introduce the cannula in cervical stenosis after the latter was passed by a uterine sound.

The cannula is inserted with the revolving disc *D* in the position that presents the engraved letter *B* (bulb on the disc) (Fig. 1) opposite a fixed indicator. Through hub *A*, which fits the Luer syringe, 1 to 3 c.c. of water or air are injected and thus the rubber tube at the end of the instrument becomes distended (Fig. 1*a*). With a little experience one can soon feel whether the bulb is sufficiently expanded. If one is interested in checking the pressure in the inflated balloon, he need only turn the disc to *C*, remove the syringe, and attach a manometer to hub *A*. On turning the disc back to *B*, the pressure within the rubber balloon will be promptly indicated on the manometer. It is to be noted

*The cannula presented here is made and distributed by United Surgical Supply Co., 160 E. 56 Street, New York, N. Y.

that if less than 1 c.c. of air or water is used to inflate the balloon, the pressure readings in the balloon may not be accurate. Now the disc is turned to the position marked by the letter *C* (closed) and the instrument is ready for the procedure.

Fig. 2.—Inflatable cannula filled with diodrast obturating the cervical canal. Note that it is pyriform or acorn in shape as compared to the oval-shaped inflated cannula outside of the body.

The disc is now turned to the position X (= x-ray) thus connecting hub *A* directly with the tip of the instrument inside the cervical canal, or to tip T_2 in the uterine cavity. A Luer syringe containing the contrast medium is connected to hub *A* and the medium is injected into the uterus and the x-ray exposure follows. For fractional injection of contrast medium, the disc is turned to position *C* after the first fraction is introduced. Hands and syringe may now be removed because the expanded bulb retains the cannula in situ.* By turning the disc back to position X the second fractional injection can be made, and if need be, a third or fourth.

When the kymograph is employed it is connected to hub *A* and the disc is turned to position X. The insufflation test can be carried out with a .20 c.c.

*A special clamp adaptable to any vaginal speculum has been devised to keep the cannula in the horizontal position.

Luer syringe attached to hub *A*. The disc is turned to position R (= Rubin test) which enables us to measure the exerted pressure by connecting the manometer to hub *B*. In the simplified test, 20 c.c. of carbon dioxide injected by a syringe is sufficient because of the complete closure of the cervix without any leakage. A sudden fall of manometric pressure is indicative of tubal patency. If shoulder pains result they are minimal.*

By inflating the rubber bulb with an aqueous contrast medium (e.g. diodrast) one can easily demonstrate the relation of the bulb to the cervical canal (Fig. 2). In order to note the distensibility of the intracervical balloon and any changes that the cervical walls might exert upon it, another cannula with the balloon filled with an equal amount of diodrast was exposed at the same time on the same x-ray film. The shape of the balloon inside the cervix may be compared to the external balloon in Fig. 2. In Fig. 3, water has replaced the diodrast and is therefore invisible, while the uterine cavity is seen filled with contrast medium. Incidentally, the cervical balloon reveals a configuration which does not conform to what one notes in conventional drawings of the cervical canal because of distention by the rubber balloon. The cervical canal appears, from our study, to yield readily to a greater degree of dilatation than has hitherto been realized.†

Owing to rigid walls, some cervices were found to resist balloon distention with 2 to 3 c.c. of water. Nevertheless, good obturation could be obtained with less filling. If the rubber part of the instrument is not inserted deep enough into the cervical canal the balloon may bulge through the external os. However, this does not prevent airtight closure. Should the rubber bulb be pushed out entirely from the cervix it may be reinserted and kept in place by grasping the anterior lip of the cervix with a tenaculum forceps. In several cases the cervix was found transformed into a shallow cone. Airtight closure could be obtained in these cases by advancing the expanded rubber bulb into the cone while the cervix was held in place by a tenaculum forceps.

The present cannula has the advantage over the ordinary cannula with an acorn tip in that it brings a larger area of the endocervix in contact with the acorn. Hence, the pressure required to obturate the cervix is less. As this pressure is not only directed upward, but upon all sides, dislocation of the cervix does not as a rule result.

The pressure within the rubber balloon automatically predetermines the maximum pressure which is intended to be used for the insufflation test or salpingography. If, for example in the bulb is 250 mm. Hg and the pressure used during insufflation or salpingography is higher, no matter how little this may be, there is prompt escape of the gas, or oil from the cervix. The same physical law operates here as in measuring blood pressure. If the blood pressure exceeds the pressure in the armcuff, the pulse wave immediately returns. The balloon in the present cannula thus forms a desirable safety valve which automatically prevents an undue increase of pressure inside the uterus.

This feature of the instrument is of importance for salpingography. Usually a contrast medium is used which has a certain viscosity. Pressure determinations when lipiodol or other viscous fluid is used are not accurate because of the considerable friction inside the small lumen of the cannula where a rapid decrease of pressure takes place with each progressive centimeter of the lumen. When the constrast medium enters the uterine cavity the pressure inevitably falls. If tubal obstruction is encountered there is a gradual increase of pressure inside the uterus until it equals that which is exerted by the syringe. Before this point is reached a high pressure may be exerted through the syringe which is not usually appreciated by the operator unless he uses a manometer. The rubber balloon affords safety because when the pressure exceeds that within the bulb, the oil escapes at once through the external cervical os.

*The senior author does not recommend or employ the use of the syringe for injecting CO_2 into the uterus for testing tubal patency, preferring insufflation by means of the automatic siphon meter with kymograph. The present cannula is admirably adapted for this apparatus.

†This point of elasticity of the cervix under various conditions will be the basis of a future publication.

Fig. 3.—Inflatable cannula filled with water (therefore invisible by x-ray) obturating the cervical canal. The contrast medium (rayopaque) demonstrates the uterine cavity. The rubber balloon distended by diodrast is seen below outside of the body for purpose of comparison.

The instrument can be sterilized by boiling. The rubber bulb can stand boiling many times; its cost, however, is so small that it may readily be replaced for each test. We have found it practical to fill the bulb before inserting the cannula in order to note whether it is watertight. However, should the rubber break it is immediately appreciated by the drop in resistance. The water escapes through the external os and does no harm. It is particularly to be noted that the operation of the cannula is exceedingly simple, and after some little experience, requires a minimum of time.

Conclusions

The importance of cervical obturation in the procedure of uterotubal insufflation and hysterosalpingography has been emphasized. Desiderata of the ideal uterine cannula are:

1. Painless application unaccompanied by trauma.
2. Airtight closure of the cervical canal.
3. Maintenance of the normal anatomical position of the uterus.

A new cannula with inflatable balloon for cervical obturation has been described.

References

1. Personal communication. Acknowledgment is herewith made to R. B. Stout, M.D., for his kindness in letting us see his instrument.
2. Decker, Albert: Am. J. Obst. & Gynec. **54**: 1077, 1947.
3. Rubin, I. C.: Am. J. Obst. & Gynec. **45**: 419, 1943.

NEW YORK
Herald Tribune
New York OCT 24 1953

Dr. Ernest Myller, Gynecologist, 60

Dr. Ernest Myller, sixty, a gynecologist and obstetrician with offices at 65 E. 76th St., died yesterday of a heart attack at his home, 450 E. 63d St. He was on the staff of the Post-Graduate and Madison Hospitals.

In 1933 Dr. Myller, chief gynecologist, and surgeon at the Marthaheim Hospital in Nurnberg, Germany, was driven out of the country by the Nazis. He went to Athens where, within a year, he had passed the Greek medical examinations, though he had not known the language before his flight from Germany.

For seven years he was head of a private hospital in Athens. In 1941, when the Nazis invaded Greece, Dr. Myller was rescued with his family by the British Navy. He had been in the United States for twelve years.

Dr. Myller had designed instruments used in the detection of cancer in the uterus and apparatus used for the cure of sterility.

Surviving are his wife, Mrs. Liselotte Myller, and a son, Ralph Myller. Another son, Lt. Ulrich Myller, was killed in action in Korea.

AR 10006 Collection with
Addenda: Ernst Mueller Collection

~~A 224~~
A 1316

AR 10006

Ernst Mueller Collection

Folder 3

Ernst Müller, M.D.

Ernst Müller was born of February 26, 1893 in Schmalkalden, Thüringen, Germany. Schmalkalden, was a small town of approximately 10,000 inhabitants, including a few Jewish families.

Ernst's parents were Joseph and Clara who owned and operated a Pharmacy called *Germania Drogerie*. which was located on the main square of town in a house flanked by the hotel and the church. The living quarters were above the store.

After completing high school (Gymnasium), Ernst left to study medicine, and attended the Universities in München, Kiel, Berlin and Würzburg where he joined a Jewish fraternity called *Veda.* Throughout his life he stayed in contact with his fraternity "brothers". While in Berlin he decided to specialize in gynecology, obstetrics and surgery and interned at the clinic of Dr. Strassman.

In World War I, he served as an army doctor at several military hospitals as well as at the front, where he was wounded several times and was decorated with the *iron cross*. After the war, he settled in Nürnberg where his practice gradually flourished, as did his excellent reputation . He was 32 years old when he met the 19 year old Liselotte at a party. She was the daughter of Marta and Stefan Hirschmann, the director of the Bayerische Hypotheken & Wechsel Bank in Nürnberg.

Liselotte and Ernst were married in 1926 and had two sons, Rolf born in 1926 and Ulrich four and a half years later. The were a happy family who lived in a beautiful town house, content and prosperous, sharing their many interests and hobbies.

Then came the catastrophe: — Hitler!

In 1934 the Müller family escaped to Greece, where Ernst had to take and passed the medical licensing examination in Greek, before establishing a successful practice. The family acquired Greek citizenship and in the process the name Müller was changed to Myller. In 1941 they were forced to flee the Nazi invaders, this time ending up in America. In New York, after a long and hard struggle, Ernst built up his third successful career before he died at the age of 60. Ulrich, his younger son was killed in 1953 in the Korean war.

Rolf became an architect, married Lois Westerdahl, a lovely New York girl, and they have two wonderful daughters, Elise and Corinne. Liselotte married Ely Jacques Kahan, the New York architect, 10 years after Ernst's death.

For more information on Ernst Müller's life, please read Liselotte's *Memoirs*, which she wrote in 1970 under the name of Kahn, her second husband. A copy of her memoirs can be found in the archives of the Leo Baeck Institute in New York City.

donor

Liselotte Kalm
→ check address in Manhattan (member)

addenda to

- Ernst Mueller
AR 10006

and

- Liselotte Kalm
ME 720

DR. ERNEST MYLLER, GYNECOLOGIST, 60

Staff Aide of 2 Hospitals Here Who Headed Institutions in Germany and Greece Dies

Dr. Ernest Myller, gynecologist and obstetrician on the staffs of the Madison Avenue and University Hospitals, died of a heart attack early yesterday at his home, 450 East Sixty-third Street. His age was 60.

Dr. Myller had headed hospitals in his native Germany and in Greece before coming to this country as a refugee from the Nazis twelve years ago. He was the author of a number of scientific papers in the field of gynecology, and the designer of instruments used in the field of sterility and for the detection of cancer of the uterus.

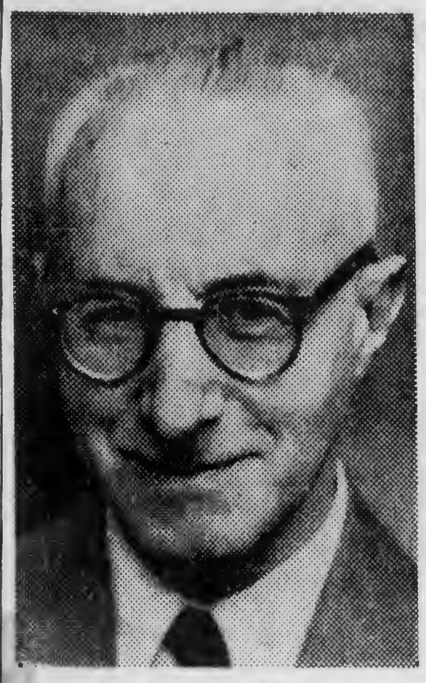
At his death he was secretary of the Rudolf Virchow Medical Society and chairman of the conference of the obstetrical board at Madison Avenue Hospital. He also was an assistant attending gynecologist at University Hospital, a member of the county, state and national medical societies, and a diplomat of the American Board of Obstetrics and Gynecology.

Born in the health resort village of Schmalkalden at the foot of the Thuringian Forest in former Prussian Saxony, Dr. Myller was graduated from the medical school at the University of Berlin in 1918. By the early Thirties he had become chief gynecologist and surgeon and head of a hospital in Nuremburg.

After the rise of Hitler to power in 1933, Dr. Myller and his family were forced to flee to Greece because they were Jewish. There he mastered the Greek language, passed the medical examinations within a year, and opened a small private hospital in Athens, which he headed for the next seven years.

When the war began Dr. Myller undertook secret work in Greece for British intelligence, and in 1941, when the Germans invaded Greece, he and his family were evacuated from the country on a British naval vessel. Within a year he came to this country and settled in New York, where he resumed his medical practice.

Dr. Myller is survived by his widow, Liselotte, and a son Ralph. His younger son, Lieut. Ulrich Myller, was killed in Korea three months ago.



Dr. Ernest Myller

NA95098

ΧΑΡΤΟΣΗΜΟΝ ΔΡ.20.ΕΙΚΟΣΙ ΠΡΟΣΘΕΤΟΝ ΠΟΣΟΣΤΟΝ ΔΡ.6

33483.

ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ

Ο ΔΗΜΑΡΧΟΣ ΑΘΗΝΑΙΩΝ

Πιστοποιεῖ ὅτι

ὁ Μύλλερ Ἐρνέστος τοῦ Ἰωσήφ —

ὑπήκοος Ἕλλην, [illegible]

[illegible] [illegible]

Ἀριθμὸν [illegible] 396 καὶ ἔτος γεννήσεως 1894 [illegible]

[illegible] 6329/27-2-935 [illegible] Νομαρχίας Ἀθηνῶν [illegible] Γ.Ε.Μ.Β. —

Τὸ παρὸν ἐκδίδεται τῇ αἰτήσει του ἵνα χρησιμεύσῃ

Ἐν Ἀθήναις τῇ 29 Ἰουνίου 1935

Ο ΔΗΜΑΡΧΟΣ [signature]

Ο ΕΙΣΗΓΗΤΗΣ [signature]

Ο ΣΤΡΑΤΟΛΟΓΟΣ [signature]

Οἱ ὑπογεγραμμένοι μάρτυρες
1/ Λοΐβαρης Τίμος τοῦ Δημητρίου ἐτῶν 64 ἔμπορος ὁδοῦ Κανάρη 12
2/ [illegible] Σπύρος τοῦ Σωκράτη ἐτῶν 30 ἰδ. ὑπάλληλος ὁδοῦ Κανάρη ἀρ. 10 ὅτι ὁ ἄνω [illegible] ὀνομ. [illegible] Μύλλερ Ἐρνέστος τοῦ Ἰωσήφ [illegible] ὁδοῦ [illegible] 15.

οἱ μάρτυρες
1/ [signature]
2/ [signature]

Βεβαιοῦμεν τὸ γνήσιον τῶν ὑπογραφῶν τῶν ἄνωθι μαρτύρων.—
Ἀθῆναι 15/3/41
Τὸ Γ. Ἀστυνομικὸν Τμῆμα.

ΑΣΤΥΝΟΜΙΚΟΝ ΤΜΗΜΑ

ΒΑΣΙΛΕΙΟΝ ΤΗΣ ΕΛΛΑΔΟΣ ΚΙΝΗΤΟΝ ΕΠΙΣΗΜΑ

Κ. Παπαδημητρίου [signature]
Ἀστυνόμος Δ.'

397

CITY OF NEW YORK
DEPARTMENT OF HEALTH
BUREAU OF RECORDS AND STATISTICS

Borough of **MANHATTAN** New York, N. Y. **NOV-5 1953**

Below is a photostatic copy of a certificate on file in the Bureau of Records and Statistics of the Department of Health of the City of New York

DIVISION OF RECORDS
DEPARTMENT OF HEALTH
BOROUGH OF MANHATTAN
FILED
1953 OCT 23 AM 11:53

Certificate of Death

Certificate No. 156-53-122818

1. NAME OF DECEASED (Print or Typewrite): Ernest. — Myller (First Name — Middle Name — Last Name)

PERSONAL PARTICULARS
(To be filled in by Funeral Director)

2 USUAL RESIDENCE: (a) State N.Y.
(b) Co. N.Y. (c) Post Office and Zone N.Y.
(d) No. 450 E. 63rd St. (If in rural area, give location)
(e) Length of residence or stay in City of New York immediately prior to death

3 SINGLE, MARRIED, WIDOWED, OR DIVORCED (write the word): Married

4 DATE OF BIRTH OF DECEDENT (Month) (Day) (Year)

5 AGE: 60 yrs. | If under 1 year: mos. days | If LESS than 1 day: hrs. or min.

6 Occupation: a. Usual Occupation (Kind of work done during most of working life, even if retired): Medical Doctor
b. Kind of Business or Industry in which this work was done

7 SOCIAL SECURITY NO

8 BIRTHPLACE (State or Foreign Country): Germany

9 OF WHAT COUNTRY WAS DECEASED A CITIZEN AT TIME OF DEATH? USA

10a. WAS DECEASED EVER IN UNITED STATES ARMED FORCES? No — 10b. IF YES, Give war or dates of service

11 NAME OF FATHER OF DECEDENT: Joseph Muller

12 MAIDEN NAME OF MOTHER OF DECEDENT

13 NAME OF INFORMANT: Liese Lotte Myller — RELATIONSHIP TO DECEASED: Wife — ADDRESS: 450 E. 63rd St

14a. Name of Cemetery or Crematory: Cedar Parks
14b. Location (City, Town or County and State): Emerson, N.J.
14c. Date of Burial or Cremation: Oct 23, 1953
15 FUNERAL DIRECTOR: Riverside Memorial Chpl — ADDRESS: 180 W. 76 — PERMIT NUMBER: 185

MEDICAL CERTIFICATE OF DEATH
(To be filled in by the Physician)

15 PLACE OF DEATH:
(a) NEW YORK CITY: (b) Borough Manhattan
(c) Name of Hospital or Institution 450 East 63rd St. (If not in hospital or institution, give street and number.)
(d) If in hospital, give Ward No. —

16 DATE AND HOUR OF DEATH: (Month) Oct. (Day) 23rd (Year) 1953 (Hour) 5:30 A.M.

17 SEX: male | 18 COLOR OR RACE: White | 19 Approximate Age: 60

20 I HEREBY CERTIFY that (I attended the deceased)* ~~(a staff physician of this institution attended the deceased)~~*
from 1946 19 , to Oct. 23rd 1953,
and last saw h im alive at 5:30 AM on Oct. 23rd 1953.

I further certify that death †was not caused, directly or indirectly by accident, homicide, suicide, acute or chronic poisoning, or in any suspicious or unusual manner, and that it was due to NATURAL CAUSES more fully described in the confidential medical report filed with the Department of Health.

* *Cross out words that do not apply.*
† *See first instruction on reverse of certificate.*

Witness my hand this 23 day of October 1953
Signature Fredric C. Brandt M. D.
Address 57 E. 57th St. N.Y.C.

This is to certify that I am [illegible] copy of a [illegible]

CARL L. ERHARDT
Director of Bureau

WARNING: DO NOT ACCEPT THIS TRANSCRIPT UNLESS THE RAISED SEAL OF THE DEPARTMENT OF HEALTH IS AFFIXED THEREON. THE REPRODUCTION OF THIS TRANSCRIPT IS PROHIBITED

NOTICE: In issuing this transcript of the Record, the Department of Health of the City of New York does not certify to the truth of the statements made thereon as no inquiry as to the facts has been provided by law

398

THE UNITED STATES OF AMERICA

ORIGINAL
TO BE GIVEN TO
THE PERSON NATURALIZED

CERTIFICATE OF NATURALIZATION

No. 6669586

Petition No. 448860

Personal description of holder as of date of naturalization: Age 53 years; sex Male; complexion Dark; color of eyes Green; color of hair White; height 5 feet 8 inches; weight 154 pounds; visible distinctive marks None; Marital status Married; former nationality Greek.

I certify that the description above given is true, and that the photograph affixed hereto is a likeness of me.

Sign here

Ernest Myller

(Complete and true signature of holder)

Ernest Myller

Seal

UNITED STATES OF AMERICA
EASTERN DISTRICT OF NEW YORK } ss:

Be it known, that at a term of the District Court of the United States held pursuant to law at Brooklyn on February 18, 1947 the Court having found that ERNEST MYLLER then residing at 88-35 Elmhurst Avenue, Elmhurst, New York intends to reside permanently in the United States (when so required by the Naturalization Laws of the United States), had in all other respects complied with the applicable provisions of such naturalization laws, and was entitled to be admitted to citizenship, thereupon ordered that such person be and (s)he was admitted as a citizen of the United States of America.

In testimony whereof the seal of the court is hereunto affixed this 18th day of February in the year of our Lord nineteen hundred and forty seven and of our Independence the one hundred and seventy first

Percy S. B. Silkey
Clerk of the U. S. District Court.

By Thomas MacPherson Deputy Clerk.

It is a violation of the U. S. Code (and punishable as such) to copy, print, photograph, or otherwise illegally use this certificate.

DEPARTMENT OF JUSTICE

Die chirurgische Therapie des Vorfalles der Genitalorgane durch subfundale Uterusamputation.

Von
Prof. Dr. Konstantin Logothetopulos, Direktor der I Frauenklinik in Athen.

Die chirurgische Therapie des Vorfalls der Genitalorgane besteht, wie bekannt:

1.) in der Wiederherstellung des muskulösen Beckenbodens mit der herausnahme des infolge des Vorfalls überflüssigen Teiles der vorderen und hinteren vaginalen Wand und
2.) in der Wiederaufrichtung des Uterus in Anteflexionsstellung.

Das Verfahren ist leicht bei Vorfall der Scheide mit leichter nach hinten und unten Verlagerung des Uterus. Bei diesen Fällen genügt die vordere und hintere Vaginalplastik mit der Aufrichtung des Uterus durch Verkürzung der ligg. rotunda nach irgend einer der zahlreichen Methoden zur Erreichung eines guten und dauernden Resultates. Bei dem parziellen oder totalen Vorfall des Uterus aber, mit oder ohne Verlängerung der Portio verlangt die Therapie einen erweiterten chirurgischen Eingriff, der oft das Leben der Frau gefährdet. Das Prinzip der Operation ist auch bei diesen Fällen im allgemeinen das gleiche, d.h. Bildung eines starken muskulösen Beckenbodens und Befestigung des Uterus in Anteflexionsstellung. Da aber die Verkürzung der ligg. rotunda in diesen Fällen sich als ungenügend erwiesen hat, wird der Uterus direkt auf die Bauchwand genäht, am besten nach der Methode von Kocher. Durch diese Methode wird der Uterus eher nach oben gezogen als in Anteflexionsstellung gebracht. Trotz dieser Befestigung kommt es oft vor, dass er durch Dehnung der Verwachsungen wieder nach unten verlagert wird. Die zwischen Uterus und Bauchwand entstandenen Taschenbildungen haben oft eine Darmverschlingung zur Folge. Eine gute Methode, die ich auch früher oft angewandt habe, ist die Vaginifixation nach Schauta-Wertheim. Durch diese Operation in Kombination mit der vorderen und hinteren vaginalen Plastik und die Bildung eines starken Perineums durch die Levatorennaht wird nicht nur eine feste muskulöse Basis gebildet, sondern auch der Uterus in Aneflexionsstellung befestigt, gleichzeitig wird die Blase nach oben verlagert und ruht nunmehr auf der hinteren Uteruswand. Zur Vermeidung von Rezidiven empfiehlt Wertheim die Verkürzung der ligg. sacrouterina durch Naht. Diese Operation gestaltet die Prognose noch schwerer. Wertheim selbst hat von 262 auf diese Weise operierten Fällen 16 verloren. Statt dieser Originalmethode ist die Modifikation nach Kielland vorzuziehen. Durch diese Operation wird der zwischen Corpus und Cervix

uteri vorhandene Winkel aufgehoben und die Cervix wird dadurch auf die hintere Vaginalaxe verlagert. Die Vaginifixation nach Schauta-Wertheim mit oder ohne die Modifizierung nach Kielland habe ich in der letzten Zeit wegen der relativ grossen Mortalität und wegen der nicht seltenen Rezidiven verlassen. Ebenso wende ich aus dem gleichen Grunde nicht mehr die vaginale Totalextirpation an, die ebenso gute statische Resultate gibt, aber doch einen grösseren Eingriff darstellt, sondern begnüge mich mit der Abtragung des ganzen unteren Teiles des Uterus im Zusammenhang mit der Bildung einer engeren Vagina und eines starken Perineums. Die Operation ist leicht auszuführen und hat mir bis jetzt die besten Resultate gegeben. Sie ist im Prinzip der hohen Portioamputation ähnlich, mit dem Unterschied, dass der Uterus viel weiter oben bis zum Fundus abgetragen wird, wofür ich den Nahmen <u>subfundale Uterusamputation</u> vorschlage.

Die Operation wird auf folgende Weise ausgeführt: die Portio wird mit Kugelzangen gefasst und stark nach abwärts gezogen. Nun wird die Scheidewand in ihrer ganzen Dicke mit einer kräftigen gebogenen Schere ½ cm. oberhalb des Überganges der Scheide in die Portioschleimhaut zirkulär umschnitten und teils stumpf, teils mit der Schere etwas nach oben prepariert. Die Blasenwand wird jetzt nach oben zu abgespannt und mit kleinen Schnitten die nun deutlich sichtbar werdenden vesicocervikalen Bindegliedstränge getrennt und dadurch die Blase von ihren festeren Verbindungen mit der Cervix losgelöst. Die Blase wird nun mit dem Finger nach oben geschoben. Nachdem auch die seitlichen Blasenpartien nach oben und nach der Seite geschoben werden sind, legen wir das vordere Vaginalspekulum unter die Blase und bringen sie und die Ureteren auf diese Weise ausserhalb des Operationsgebietes. Das nun deutlich sichtbare Peritoneum wird mit einer Pinzette gefasst und mit einem Scherenschlag geöffnet und die Öffnung nach beiden Seiten erweitert. Das so geöffnete Peritoneum zieht sich von selbst oder mit Nachhilfe des Fingers durch das Abwärtsziehen des Uterus zurück und wird mit einigen Nähten auf die vordere Uteruswand 2 1/2 - 3 cm. unterhalb der Fundusoberfläche befestigt. Die Scheide wird dann auf beiden Seiten hochgeschoben, nachdem die Uteringefässe mit Klemmen gefasst und unterbunden worden sind. Die Portio wird stark nach vorne gezogen, das Douglasperitoneum geöffnet, nach oben geschoben und auf die untere Uteruswand und in der gleichen Höhe mit dem Blasenperitoneum mit einigen Nähten befestigt. Der nun freiliegende Uterus wird direkt unterhalb der Peritonealnähte mit dem Messer oder mit der Schere abgetragen. Die Uteruswunde wird nach der Methode von Sturmdorf mit der Vaginalwandung bedeckt. Bei kleinen atrophischen

Uteri verzichte ich auf die Öffnung des Peritoneums, dasselbe wird möglichst hoch geschoben und der Uterus direkt unterhalb der Insertionsstelle des Peritoneums abgetragen. Anschliessend wird die vordere und hintere Vaginalplastik und die Bildung eines festen Beckenbodens vorgenommen.

Auf diese Weise habe ich selbst im ganzen 71 Fälle operiert, 30% davon waren äusserst heruntergekommen als Folge der schlechten Ernährungsverhältnisse, die seit mehreren Jahren in Griechenland herrschen. Ein Beweis, dass die mangelhafte Konstitution in der Ätiologie des Prolapsus eine grosse Rolle spielt.

Eine eingehende Beschreibung aller einschlägigen Krankengeschichten an dieser Stelle wäre wohl zu weitgehend, sie wird übrigens von meinem Assistenten Dr. Galanopoulos an anderem Ort veröffentlicht werden. Hier möchte ich nur noch kurz über die Resultate berichten.

Von den 71 Fällen hatten 27 einen partiellen und 44 einen totalen Uterusprolaps.

Der Uterus war in Mittelstellung bei 44 Fällen, in Retroflexio bei 36 und in anteflektierten Stellung bei 11. Bei 64 Fällen wurde allgemeine Aethernarkose angewandt, bei 7 Evipan-Na. und bei einem Lokalanästhesie. Die Dauer der Operation war im Mittel 29 Minuten. Die Länge der Uterushöhle schwankte zwischen 4 und 15 cm.

Von diesen Fällen sind zwei, gerade die letzten, gestorben. Der eine an septischer Urämie und der andere an Embolie.

Nachuntersucht wurden: 2 Fälle nach 3 Monaten, 4 Fälle nach einem Jahr (weitere 5 Fälle nur durch briefliche Anfrage). Ein zweites Mal kamen hiervon 20 Fälle nach 18 Monaten zur Nachuntersuchung.

Was die subjektiven Beschwerden betrifft, klagte von den mindestens 6 Monate danach untersuchten Fällen keine mehr über Zug oder Druck nach unten, 6 klagten über Kreuzschmerzen, 3 über Schmerzen beim Coitus, 5 hatten psychische Erscheinungen, alle Patientinnen waren voll arbeitsfähig.

Die Menstruation war normal bei 23, 8 hatten Amenorhoe wegen Unterernährung, 9 Oligomenorhoe und 24 Altersamenorhoe.

Die Objektive Untersuchung ergab bei 5 leichte

Inversion der vorderen Vaginalwand ohne subjektive Beschwerden. Alle anderen ohne besonderen Befund.

Die zweite Untersuchung bei 20 Kranken 10 Monate nach der Operation ergab folgendes: keine Patientin klagte über irgendwelche Beschwerden. 2 klagten über Kreuzschmerzen, 1 über Beschwerden in der Miktion. Alle waren arbeitsfähig. Bei keiner trat Gravidität ein.

Die objektive Untersuchung ergab bei einer eine leichte Inversion der vorderen Vaginalwand, sonst bei allen keinen besonderen Befund.

Wie aus dem Vorhergehenden sich ergibt, sind die Resultate dieser Operation so günstige (ich habe bis jetzt keine Rezidive beobachtet und ausser den beiden angeführten, nicht auf die Art der Operation zurückzuführenden Fällen, kein weiterer Todesfall), dass dieser Eingriff momentan in meiner Klinik bei grossen Uterusprolapsen die Operation der Wahl darstellt.

Der Vorteil der Operation ist, dass die Ausführung leicht ist, die Gefahr äusserst gering, da man mit der Peritonealhöhle gar nicht in Berührung kommt, und bei jungen Frauen bleibt die Periode erhalten.

Therapie der atonischen Blutung nach der Geburt der Plazenta.

von
Prof. Dr. Konstantin Logothetopulos, Vorstand der I. Universitätsfrauenklinik in Athen.

Eine der bis jetzt noch nicht ganz gelösten Fragen in der Geburtshilfe ist die Bekämpfung der atonischen Blutung nach der Geburt der Plazenta. Trotz allen bis jetzt bekannten Mitteln geht immer noch eine Anzahl von jungen, blühenden Frauen zu Grunde. Nur derjenige der solche Fälle miterlebt hat, ist im Stande, die Tragik eines solchen Todes zu beurteilen. Mit Recht sagt Labhardt "er habe das Gefühl, man könnte sich in einen Todesfall durch Eklampsie oder Plazenta praevia viel eher fügen als in einen durch Atonie veranlassten."

Alle die bis jetzt angegebenen Blutstillungsmittel sind unsicher und die direkt durch Druck oder Zug auf die Blutgefässe wirkenden Methoden schliessen grosse Gefahren in sich. Es wäre zu weitgehend, wenn ich alle diese Methoden und die Wirkung defselben kritisiere, es steht ausführlich in allen Lehrbüchern der Geburtshilfe.

Man rechnet jetzt auf eine Sterblichkeit an atonischer Blutung nach der Geburt von 0,05%. Grosse Blutverluste aber schädigen den Gesamtorganismus und schränken seine Abwehrkräfte gegen Infektion ein. Wenn man also auch die Fälle mit dazurechnet, die infolge des Blutverlustes an Infektion sterben, wird die Mortalitätsziffer sicher grösser sein.

Seit ich meine Blutstillungsmethode für Notfälle bei gynäkologischen Operationen angewandt habe[1] dachte ich diese Methode auch in der Geburtshilfe bei atonischen Blutungen anzuwenden. Trotzdem aber so viele Jahre vergangen sind, ist mir keine Gelegenheit geboten worden, bis ich vor zwei Jahren in meiner Klinik eine Patientin vorfand, die fortwährend blutete, trotzdem bei ihr Blutstillungsmittel und eine starke Uterustamponade angewandt worden waren. Ich habe sofort aus dem Uterus die Gaze entfernt und meinen Tampon eingeführt. Die Blutung sistierte sofort. Seit diesem Fall wurde in meiner Klinik die Methode noch sechsmal angewandt mit promptem Erfolg.

Sie wird auf folgende Weise ausgeführt: Die Pa-

[1] Gynaekologische Chirurgie. K. Logothetopulos 1939

tientin wird auf Querbett gelagert, die äusseren Genitalien werden gesäubert, die Scheide desinfiziert und die Blase durch den Katheter entleert. Nach Einlegung des vorderen und hinteren Vaginalspekulums werden die Muttermundlippen mit Kugelzangen hoch gefasst und die Portio fest nach unten gezogen. Dann werden die Vaginalspekula in den Uterus eingeführt, so dass der Muttermund weit offen gehalten wird. Darauf nimmt man ein quadratisches Gazestück, dessen Mitte mit einer langen anatomischen Pinzette oder mit einem Stopfer in den Uterus eingeführt wird. Nachdem die heraushängenden Zipfel der Gaze von dem Assistenten auseinandergehalten werden, wird ein langer Gazestreifen in den Uterus eingeführt und gleichmässig nach allen Richtungen verteilt, so dass ein Kindskopf grosses kugelförmiges Gebilde darin entsteht. Die vier Zipfel der äusseren quadratischen Gaze, sowie das heraushängende Ende des Streifens, welches zu unterscheiden etwas länger sein muss als die vier Zipfel, werden mit der rechten Hand gefasst und fest nach unten gezogen, bis der kugelige Tampon in das kleine Becken eintritt und auf die Uteringefässe einen Druck ausüben kann. Man zieht dann die 5 heraushängenden Zipfel durch ein grosses Ringpessar, das man mit der linken Hand fest gegen den unteren Teil der Symphyse, die absteigende Schambeinäste und den Beckenboden anpresst, während die rechte Hand mit aller Kraft an den Zipfeln zieht; Zur Vermeidung von Nekrosen, die durch zu starken Druck auf die Vulva entstehen könnten, lege ich zwischen Pessar und Vulva auf beide Seiten des Tamponstieles einen kleinen Wattebausch. Nun legt ein Assistent eine starke Klemme vor dem Pessar, dass das sich nun zwischen Vulva und dieser Klemme befindet. Die Blutung nach Einlegen des Tampons hört mit aller Sicherheit sofort auf, wie aus den Fällen über die ich gleich berichten werde zu ersehen ist. Bei allen Fällen wurde der Tampon nach 5 Stunden entfernt, um die Gefahr der Infektion infolge langen Liegens der Gaze im Uterus zu vermeiden. Man kann ev. dieselbe noch früher herausnehmen, wenn der Uterus sich inzwischen gut kontrahiert hat. Ausser der prompten Wirkung des Tampons infolge des ausgeübten Druckes auf die Uteringefässe, besitzt er auch die Vorteile der gewöhnlichen Tamponade, d.h. er ruft einen starken Kontraktionsreiz auf den Uterus hervor und beim Entfernen der Gaze werden Eihautfetzen und Blutkoagula mit entfernt. Die Nachteile der gewöhnlichen Tamponade fallen hier zum grossen Teil weg:

+Abb 1

+Abb. 2.

+Abb 3

+Abb 4

1. Die Durchführung dauert nicht lange, da nicht die ganze Uterushöhle mit Gaze gefüllt wird. Selbstverständlich muss der Tampon sterilisiert in einer Büchse immer bereit stehen.

2. Schädigungsmöglichkeit kommt nicht vor, da der Zipfel der Quadratgaze nicht bis zum Fundus Uteri eingeführt zu werden braucht.

3. Die Infektionsgefahr ist äusserst gering, da nur die

erste Gaze Direkt mit den Uteruswandungen in Berührung kommt.

4. Die Schmerzhaftigkeit bei entfernung der Gaze fällt hier weg.

Die nach Einführung des Tampons bemerkbare Zusammenziehung des Uterus ist nicht nur auf den ausgeübten Reiz, sondern auch auf die durch die Absperrung bedingte Anaemie des Organs wie es auch bei der Drosselung der Bluzufuhr durch die Aortenkompression der Fall ist. Vielleicht auch durch den ausgeübten Druck auf das Ganglion von Frankenhäuser.

Was die Indikationsstellung betrifft, bin ich der Ansicht, dass man mit der Anwendung des Tampons nicht zu lange wartet. Man kann ja im voraus nicht wissen, bis zu welchem Grade die Patientin eine Blutung vertragen kann. Wenn man sich über die Intaktheit der Plazenta überzeugt hat und die Blutung nach kräftiger Massage des Uterus und Einspritzung von Blutstillungsmitteln fortdauert, bereitet man die Patientin zur Einlegung des Tampons vor. Inzwischen kann man eine heisse vaginale oder Uterusspühlung vornehmen. Bleibt der Erfolg aus, wendet man gleich den Tampon an, indem man auf alle anderen bekannten Blutstillungsmethoden verzichtet.

Die Wirkung ist so prompt und sicher, dass ich es nunmehr als einen Kunstfehler betrachte, wenn eine Patientin an atonischer Blutung nach der Geburt stirbt.

Die in meiner Klinik beobachteten Fälle sind folgende:

Fall 1) Protokoll Nr. 557/1941. Frau K.K., 27jährige Ipara. Letzte Menses am 10.5.1940. Aufnahme in unserer Klimik 12.2.1941, 6h. Geburtshilflicher Befund: Fundus uteri 2 1/2 Finger breit unterhalb des Pros. xiph. I Schädellage, Schädel im Beckeneingang beweglich. Herztöne (-). Beckendurchmesser: 23, 25, 29, 18. Vaginal: Muttermund handtellergross von Plazentagewebe überdeckt, ziemlich starke Blutung. Allgemeiner Zustand schlecht, Puls 130, Temperatur 36,8. Mit Rücksicht auf das Fehlen der kindlichen Herztöne und des allgemeinen Zustandes der Graviden entschliess man sich zur Uterusentleerung per vias naturalis. 7h. Nach vorheriger Durchbohrung der Plazenta wurde der vordere Fuss gefasst und gewendet. 7h.15. Spontan-Entwicklung des Kindes. Die Plazenta wurde unmittelbar nach der Entwicklung der Frucht manual gelöst. Die Blutung dauert fort trotz der Verabreichung der

gewöhnlichen Blutstillungsmittel. Auch die Uterusscheidentamponade nach Bumm brachte nicht den gewünschten Erfolg. Deshalb wurde sie entfernt und statt ihrer mein Tampon eingeführt, worauf die Blutung prompt aufhörte und der Uterus sich stark kontrahierte. Obwohl der Erfolg der Blutstillung durch den Tampon in diesem Fall auffallend war, ist die Patientin 1/2 Stunde später wegen vorangegangenem grossen Blutverlustes ad exitum gekommen.

Fall 2) Protok. Nr. 608/1941. Frau K.D., 30jährige Ipara. Letzte Menses am 27.4.1940. 22h. 15.2.1941, Wehenbeginn. 9h.10, 16.2.1941, Aufnahme in unserer Klinik. Geburtshilflicher Befund bei der Aufnahme: Fundus uteri 3 Finger breit unterhalb des Proc. xiph., I Schädellage, Schädel im Becken eingetreten, Herztöne (+). 4h. 16.2.1941 Blasensprung. 9h.30 Spontangeburt einer männlichen 3200 g. schweren und 50 cm. langen Frucht aus H.H.H. 9h.45' Spontane Placentaausstossung. Unmittelbar nach der Placentaausstossung trat eine ziemlich starke Blutung auf, die auf die gewöhnlichen Blutstillungsmittel (Pituinal, Gynergen, Uterusmassage) nicht aufhört. Puls 130. 12h. Anhalten der Blutung. Puls 150. Allgemeiner Zustand schlecht. Mit Rücksicht darauf entschliesst man sich zu meiner Uterustamponade. Prompte Blutstillung. 17h. Entfernung des Tampons. Keine Nachblutung. Uterus stark kontrahiert. 26,2.1941 Nach normalem Wochenbettverlauf wurde die Wöchnerin gesund entlassen.

Fall 3) Protok. Nr. 624/1941. Frau Z.A., 23jährig, II Gravidität, I Partus. Letzte Menses am 5.5.1940. 16.2.1941, 20h. Wehenbeginn. 17.2.1941, 5h.10, Aufnahme in unserer Klinik. Geburtshilflicher Befund: Fundus uteri 4 Finger breit unterhalb des Proc. xiph. I Schädellage, Schädel im Becken eingetreten, Herztöne (+). Normale Beckenverhältnisse. 5h30' Blasensprung. 6h.5' Muttermund verstrichen, Blase gesprungen, Schädel eingetreten, Pfeilnaht schräg, kleine Fontanelle links vorne. Herztöne verlangsamt, 80 in der Minute. Mit Rücksicht darauf entschliesst man sich zur sofortigen Geburtsbeendigung. 6h.10' Anlegen der Zange und Extraktion einer 2200 g. schweren und 49 cm. langen weiblichen lebenden Frucht. 6h.25' Spontane Placentaausstossung. Unmittelbar nachher trat eine starke Blutung auf, die durch die gewöhnlichen Blutstillungsmittel nicht zu beeinflussen ist. Puls 140, allgemeiner Zustand schlecht. 7h. Tamponeinführung, worauf die Blutung prompt steht und der Uterus sich stark kontrahiert. 12h. Tamponentfernung. Keine Nachblutung. Puls 110, allgemeiner Zustand gut. 26.2.1941, Entlassung nach

normalem Wochenbettverlauf.

Fall 4) Protok. Nr. 832/1941. Frau E.L., 20jährige Ipara. Letzte Menses am 15.5.1940. 2.3.1941, 19h. Wehenbeginn. 3.3.1941, 19h. Aufnahme in unserer Klinik. Geburtshilflicher Befund: Fundus uteri 2 Finger breit unterhalb des Proc. xiph., I Schädellage, Schädel mit mittlerem Segment ins Becken ragend. Herztöne (-). 2.3.1941, 20h. Blasensprung. 3.3.1941, 21h.5, Muttermund verstrichen, Blase gesprungen, Schädel in Beckenmitte, Pfeilnaht quer, kleine Fontanelle links, Beckendurchmesser: 23,26,30,17. Temperatur 39°. Puls 95. Mit Rücksicht auf das Fehlen der kindlichen Herztöne und der Temperatursteigerung entschliesst man sich zur Baseothripsie. 21h.30' Anlegen des Braun'schen Kranioklastes womit eine männliche 2600 g. schwere tote Frucht entwickelt wurde. 21h.40' Spontane Placentaausstossung. Unmittelbar nachher trat eine mässig starke Blutung auf die die gewöhnlichen Blutstillungsmittel keine Wirkung haben. Puls 130, allgemeiner Zustand nicht gut. 22h. Tamponeinführung. Aufhören der Blutung, Uterus stark kontrahiert. 24h. Keine Blutung, allgemeiner Zustand wesentlich gebessert, Puls 110.2h., 4.3.1941 Tamponentfernung. Keine Nachblutung. Uterus stark kontrahiert. 10.3.1941 Entlassung nach normalem Wochenbettverlauf.

Fall 5) Protok. Nr. 1364/1941. Frau E.A., 30jährige Ipara. Letzte Menses nicht erinnerlich. 10.4.191, 22h.30' Wehenbeginn. 11,4.41, 11h. Aufnahme in unserer Klinik. Geburtshilflicher Befund: Grav, Mens. IX, Fundus uteri 3 Finger breit unterhalb des Proc. xiph. I Schädellage, Schädel im Becken fast eingetreten, Herztöne (+), frühzeitiger Blasensprung. 14h.15' Muttermund verstrichen, Blase gesprungen. Schädel eingetreten, Pfeilnaht schräg, kleine Fontanelle links vorne. Herztöne stark beschleunigt. Mit Rücksicht darauf entschliesst man sich zur Geburtsbeendigung. 14h.25' Anlegen der Zange. Entwicklung einer männlichen 3300 g. schweren und 50 cm. langen lebenden Frucht. 14h.30' Spontane Placentaausstossung. Unmittelbar nachher trat eine mässig starke Blutung auf, auf die die gewöhnlichen Blutstillungsmittel keine Wirkung haben. Puls 130. Ohnmachtsanfälle. 15h. Tamponeinführung. Aufhören der Blutung, Uterus stark kontrahiert. Puls 100. Allgemeiner Zustand wesentlich gebessert. 17.4.41, Entlassung nach Fieberfreiem Wochenbettverlauf.

Fall 6) Protok. Nr. 1780/1943. Frau P.T., 22jährige Ipara. Letzte Menses am 18.11.1942. Die Wöchnerin wurde zu Hause entbunden (Forceps), sie suchte aber unsere Klinik auf wegen der bestehenden Blutung die unmittelbar nach der Placentaausstossung auftrat. Puls 120. Temperatur 37°8 . Allgemeiner Zustand relativ gut. Die vorgenommene Uterusaustastung ergab dass der Uterus leer war. Die Revision des Genitalschlauches wies einen doppelseitigen Muttermund und Scheidenriss auf, die durch einige Catgutnähte versorgt wurden. Trotzdem hielt die Blutung noch an. Puls 150, Ohnmachtsanfälle. Da die gewöhnlichen Blutstillungsmittel die bestehende Blutung nicht beeinflussen konnten, entschloschloss man sich zur Tamponeinführung. Sofort nach der Tamponeinführung hörte die Blutung auf. Der Uterus kontrahierte sich gut und der allgemeine Zustand der Patientin besserte sich zunehmend. Fünf Stunden später wurde der Tampon entfernt, und 10 Tage nach der Tamponeinführung verliess die Wöchnerin gesund unsere Klinik.

Fall 7) Protok. Nr. 1664/1943. Frau A.P., 24jährige Ipara. Letzte Menses am 11.11.1942. 21.8.1943, 5h.30' Wehenbeginn. 9h.30' Aufnahme in unserer Klinik. Geburtshilflicher Befund: Fundus Uteri 2 Finger breit unterhalb des Proc. xiph., I Schädellage, Schädel fast eingetreten, Herztöne (+). 15h. Blasensprung. 16h. Spontangeburt einer lebenden, weiblichen 3250 g. schweren und 50 cm. langen Frucht aus H.H.H. 16h15' Spontane Placentaausstossung. Unmittelbar nachher trat eine ziemlich starke Blutung auf, auf die die gewöhnlichen Blutstillungsmittel keine Wirkung hatten. Puls 160, Ohnmachtsanfälle. 17h. Tamponeinführung, worauf die Blutung prompt stand und der Uterus sich stark kontrahierte. 22h. Tamponentfernung. Keine Nachblutung. Uterus stark kontrahiert, Puls 120, allgemeiner Zustand bedeutend gebessert. 2.9.43, Entlassung nach fieberfreiem Wochenbettverlauf.

Nachdiesen glänzenden Resultaten kann ich jetzt mit Freuden hier das gleiche sagen, was ich für die Blutstillung bei gynäkologischen Operationen gesagt habe, dass nämlich mein Tampon bei richtiger Anwendung auch bei schwer zu stillenden atonischen Blutungen nach der Geburt der Placenta eine sichere und nie versagende Hilfe bietet.

2 Expenses.

1947		
Dec. 20	Mr. Ross	50 -
27	Mr. Ross	37.50
	Patent fee	31 95
	Patent fee (Mester)	209 -
1948		
Jan. 20	Mr. Ross	48 -
Feb. 14	Mr. Ross (advance)	20 -
March 6.	Mr. Ross (10 instruments	120 -
	For Insufflator:	
	Brass tubing (1½" ø)	
March 1	(N.Y. Brass & Copper Co.	188
	Aluminum Co. tubing	-77
	Nohr Co Regulator #14	12 -
	Nohr Co Needle valve	2.59
	Aluminum sheet	1.02
	Aluminum tubing	.66
	Regulator (Winston)	6.63
	Soft copper tubing (Conklin)	170.
	2 gauges (Gotham Co.)	17 -
		551.70

4 Expenses.

1948			551.70
March (47)		1 gauge (Gotham Co)	5 -
March 8		Telechron	10 -
	25	Shipping	2 50
		Engraving	8 50
	29	Ross	80 -
		Bot	10 -
		Ross	40 -
	30.	Telechron	10 -
April.	19	Bellows	1.25
		"	2.85
		Stylographic pens	3.25
	26.	Electro-Phys. Lab.	20 10
May	3	Electro Phys. Lab.	2.50
	17	Aluminum sheet 1/8"	- 90.
	20	Ross, advance	10 -
June	12	Ross	140 -
		Bot	15 -
			912.75

Received

1948	Instrument (Miller)	20 -
	2 instruments (Rubin)	32 -
	10 instruments to Blackwood	
	2 instruments (Blackwood)	192 -
Nov.	10. Instrument Hamerby	22.50
		268.50

		9 12 45
July 7, 1948	Glassmaker Ewald	10 -
	United Surgical Supply	1 53
	Gotham Gauge	5 23
	Hobe, redmc. valve.	12 -
	needle valve.	2 25
August 31	Syringe of 2. mth.	7 -
Sept. 16	Ewald, Glass	11 75
18	Aluminum plate	16
	Electric Filig. Corp.	- 28
	Ross à conto	10 -
October 20.	For 30 scraper material	2 85
	3 screws	. 12
	Ross for scraper	27 -
Dec. 6	Patent scraper	150 -
Dec. 23	Ross 15 cannulas	200 -
	Ross Kymograph	102 -
		1446 38

268 50

Dec. 24. United Surgical

12 Rubin - Ulyller cannulas
with two valves
each $18 -
= $216
received 192
balance $ 24 -

17 cervical surgeons
each $ 1.50
= 25.50

$24 + 25.50 = $ 49.50 by Jan: 12.

United Surgical Received 49.50

318 —

8

1949

			1446.38
Dec. 28	Engraving and stamping		22.50
	Ross (clamps) (12 pieces)		18 -
			1486.88

1949

February 12	Ross	12 cannules	168 -
25	Sparklets		8.10
March 6, 49	Ross	12 cannules	168 -
April 21, 49	Ross	12 cannules	168 -
June 17, 49	Patent (Western)		56 -

1949 9

Jan. 6. 12 Universal clamps
each 2-
U.S. $ 24- Dr 24-
(Jan. 21)

Febr. 14, 49. 12 cannules
each 18-
March 17 U.S. $ 216- Dr 216-

March 7, 49 12 cannules
each 18-
U.S. $ 216- Dr 216-

1 cannula Dr La Marina Dr 23-

April 21, 49. 12 cannules each 18-
U.S. $ 216- (5/6) Dr 216-

Sept. 24, 49 Ross.

72 Scrapers à 1-	72-
Manometer chrom.	185

Nov. 25, 49 Ross

12 cannulas à 14-	168-
Implantation canula 2 (each 2-)	4-
Pellet compressor 2	10-

Sept. 26, 49	72 scrapers U.S. each $ 1.50		Lei 108 -
Nov. 28, 49	12 cannulas U.S.		
	each 18 - = 216 -		216 -
	6 reservoir tips	.30	1.80
	repair of one cannula	2 -	2 -
	12/12 Lei		219 80

12 1950

Jan. 4	1950	Patent Uleftem (Sayer)	35 -
April 22	1950	Mr. Ross	50 -
May 8	1950	Patent, final pay	35 -
June 1,	1950	12 canvas à 14 -	168 -
5		Ross (6 canvas repairs)	12 -
21		Ross (14 tips)	7 -
August 17		6 Doz. scrapers (each 1.15)	82.80
Sept. 7		1 Doz. Universal clamps each 1.50	18 -
		2 canvas repair	4 -
Nov. 4		6 canvas repaired	6 -
			417 80

June 1,50	12 cannulae United Surgical · by	216 -
5	6 cannulla repair by United Surgical	15 -
21	12 canula tips. United Surgical .75 x12 by	9 -
August	6 Doz. Scraper. (each 1.65) United Surgical. by 9/17/50	118.80
Sept. 7	1 Doz. Universal clamps. by	24 -
	Repair of canula by	3 -
Nov. 6	Canula repair (6 pieces) by	9 -
		394.80

		417.80
November 18	Ross 12 couples à 14 -	168 -
		585.80

394.80

Nov. 25, 50 12 Rubin-
Whyller counts
each 18- for 216-
United Surgical. _____
610.80

16

1952

Repairs

Jan. 14	Ross 12 cannula and 12 little pieces. (16- & 35 ct)	192 – 4.20 196.20
March 15	Repairs	3 –
June. 2.	6 Dozen Scrapers.	82.50
Nov. 30.	12 cannulas Ross à 18-	192 – 24 – 216 –
Dec. 15	to Ross (repairs)	5. –
		503.50

Income.

	12 cannulas à 21-	252 -
	12 little packs à .50	6 -
Jan 15,52	Bill to United Surg.	$ 258 -
	paid 3/28/52	
	Received	3 -
June 3,52	6 Dozen Scraper each 1.65	118.80
	United Surgical paid June 6,52	
~~Nov. 30,52~~		
	~~12 cannulas~~	
Dec. 1 52	12 cannulas à 21-	
	(this was paid 1953	252-
		379.80

x paid in Jan.

18

Repairs
1953

Jan.	31	Ross Repairs camera	4-
April.	26	Ross (camera) Alum.	38 50

Income
Jan. 1953

1/16/53	received U.S.S. 1/16/53	br 252 -
1/31	Repair of cannula (charge)	br 3 -
	Repair of cannula	4 -

nach der Geburt der Plazenta
wird jetzt im Leben in den Fam
vom Kurven gelehrt.
Ich würde mich sehr freuen
einen recht ausführlichen
Bericht über Ihnen Fall zu
erhalten.
Meine Frau und Töchter lassen
Ihre Frau und Sie recht
herzlich grüßen.

Mit collegialen Gruß.

Ihr

Logothetopulos

Athen Βασιλ. Σοφίας 35

1. Οἰκονομοῦ Βασιλίσσης Σοφίας 35

Athen den 10. XII 46

Lieber Herr Collega.

Von unserem gemeinsamen
Freund Dr Kopp höre ich mit
Freuden daß es Ihnen und Ihren
Familie gut geht, trotz der
Gefährlichkeit daß sie alle in der
Überfahrt nach Kreta verun-
glückt wäre. Sie haben sich
wohl in Lemnos ganz eingelebt,
ich glaube daß dies nicht schwer
ist, denn das Leben muß dort doch
viele Entbehrungen bieten.
Ich nehme an daß sie auch reichlich
Arbeit gefunden haben nachdem sie
auch die Schwierigkeiten haben nachkommen

lassen. Wie geht es Ihrer Frau und den Kindern? Diese müssen jetzt große Jungen sein. Sprechen Sie noch griechisch oder haben Sie das vergessen. Uns geht es so lala. Daß mein Schwiegersohn Prof Condiates in Albanien im Operationssaal durch eine Fliegerbombe getroffen ist werden Sie vielleicht noch gehört haben. Sonst leben wir Alle.

Ich lege Ihnen zwei Arbeiten bei, Vorträge die ich in Berlin und in Wien im Jahre 1943 gehalden habe. Wegen den Zuständen dort können sie nicht veröffentlicht werden, würden Sie auch dieses Mal un wieder die Mühe machen die Artikel in's Englische zu übersetzen und sie einer amerikanischen ärztlichen Zeitschrift zu zuschicken!

Die Operation „subfundale uterus amputation" habe ich in Berlin in der Stoeckelschen Klinik und in Wien bei Prof Antoine und Prof Amreich bei großen Uterusprolapsen ausgeführt. Die Methode hat große Anerkennung gefunden. Die Tamponade bei atonischen Blutungen

UNITED STATES PATENT OFFICE.

ETHELBERT REAVLEY, OF ROSTHERN, SASKATCHEWAN, CANADA.

CURETTE.

No. 839,641. Specification of Letters Patent. Patented Dec. 25, 1906.

Application filed December 21, 1905. Serial No. 292,747.

To all whom it may concern:

Be it known that I, ETHELBERT REAVLEY, a subject of the King of Great Britain, and a resident of Rosthern, in the Province of Saskatchewan and Dominion of Canada, have invented a new and Improved Curette, of which the following is a full, clear, and exact description.

The invention relates to uterine curettes, but may be likewise adapted for curetting in surgical work.

The purpose of the invention is to so construct the instrument that it will be of moderately soft or semipliable material, preferably rubber, and so that one shank and handle can be conveniently and accurately fitted to different sizes of the instrument, and, further, to provide an instrument that may be safely inserted without injury to the neck of the womb and which will act to effectively remove placenta or other fetal matter and substances without lacerating or inflaming intra-uterine tissue and without danger of producing new lesions and which will be in all respects much superior to metal instruments now used for the purpose or the finger of the operator.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the instrument complete. Fig. 2 is a horizontal section through the instrument, the shank of the handle and the blade appearing in side elevation. Fig. 3 is a view similar to that shown in Fig. 2, showing a slight change in the concavity thereof; and Fig. 4 is a perspective view of the blade-section of the shank.

The instrument A is provided with a removable shank B, having an attached or integral handle B′, which is usually flat, as illustrated, and at the outer end of said shank a collar 10 is formed, and a blade 11 extends outward from the shank adjacent to said collar, forming a shoulder 12 at what may be termed the "front" face of the blade, as is shown in Figs. 2 and 3, and, as is illustrated in Fig. 4, the longitudinal edges of the blade taper inward in direction of the shank, rendering said blade widest at its outer end.

The instrument A is made of moderately-soft rubber or an equivalent semiplastic material and is somewhat spoon-shaped in general contour. The instrument is of greatest breadth and depth at its outer end and of least such dimensions at its inner end, which is circular in cross-section. The back 13 of the instrument is convexed, and the outer end 14 is rounded off, while the front face 15 is concaved, the convex and the concave surface meeting at an acute angle, as clearly shown in Fig. 3, and it may be here remarked that the longitudinal taper of the entire instrument is quite gradual.

A concavity 16 is produced in the front face 15 of the instrument, which concavity is segmental in the cross-section of the instrument and gradually diminishes in depth in direction of its inner end, thereby forming side marginal lips 17, continuous with an outer end marginal lip 17ª, the said lips forming the scraping edge of the curette. I desire it to be understood that the instrument A may be made in different sizes, and the concavity 16 may be made deeper or shallower than shown, and shorter or longer, as demanded by the service required of them.

All sizes of the instrument are provided with a longitudinal slot 18, which extends outward from a circular opening 19 in its inner end. The slot 18 terminates short of the outer end of the instrument and is practically on a line drawn about centrally and longitudinally through the instrument, as is shown in Figs. 2 and 3. The slot 18 receives the blade 11 and the circular opening 19 the outer end of the shank B and its collar 10. The blade 11 does not extend to the outer end of the body of the instrument, in order that the flexibility of the instrument shall not be interfered with at such point, and the blade 11 is offset to the rear in order that it will not be too close to the inner end portion of the concavity 16 and yet permit the shank to sustain a central position relative to the instrument.

The rubber instrument is far superior to steel, as the moderately-soft rubber will not lacerate the inflamed intra-uterine tissue and thus produce a new lesion through which the germs would still further invade said tissues. It is superior to the finger because longer, and by its use all parts of the uterine cavity are easily accessible. Again, when using the

finger it is necessary to depress the inflamed uterus against the finger, and such pressure can be employed only when using an anesthetic, if much tenderness be present. The pressure applied to the uterus through the abdominal treatment aggravates the pain and produces a further extension of the inflammation. Furthermore, all risk of perforating the softened uterine tissue is very greatly reduced, if not absolutely abolished.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A curette comprising a rigid shank provided with a flattened and widened end, and with an annular flange at the junction of the shank and the flattened portion, and a body portion of flexible material having a slot for receiving the flattened end, and an annular groove for receiving the flange, said body portion being provided with a concavity having a scraping edge for the purpose set forth.

2. A curette comprising a rigid shank, and a flexible body portion, said body portion having in the side thereof a concavity provided with a scraping edge for the purpose set forth.

3. A curette comprising a rigid shank, and a flexible body portion or blade provided in one of its faces with a concavity, the surfaces of the concavity and the body portion meeting at an acute angle to form an edge for the purpose set forth.

4. A curette comprising a rigid shank, and a blade having a flexible edge for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ETHELBERT REAVLÆY.

Witnesses:
SUSAN CRAIG,
G. A. MCHUGH.

DEUTSCHES REICH

AUSGEGEBEN
AM 3. NOVEMBER 1922

REICHSPATENTAMT

PATENTSCHRIFT

— № 362997 —

KLASSE 30a GRUPPE 11

(K 77344 IX/30a)

Dr. Paul Klaar in Wien.

Gegen Perforationen sichernde Cürette.

Patentiert im Deutschen Reiche vom 27. April 1921 ab.

Für diese Anmeldung ist gemäß dem Unionsvertrage vom 2. Juni 1911 die Priorität auf Grund der Anmeldung in Österreich vom 18. Januar 1921 beansprucht.

Die bisher in der Frauenheilkunde verwendeten Instrumente zur Entfernung von Resten, die bei vorzeitigen oder normal verlaufenden Geburten in der Gebärmutter zurückbleiben, sowie zu anderen therapeutischen Zwecken, wie etwa Auskratzungen der Gebärmutterschleimhaut wegen Entzündungen usw., haben in bezug auf ihre Verwendung verschiedene Nachteile.

So besteht stets die Gefahr, daß bei der Be-

nutzung der bekannten Cüretten bei Einführung in die Gebärmutter, selbst wenn dies unter Führung der Finger geschieht, die Wandung der Gebärmutter durchstoßen wird; denn die Wandung des Organs hat infolge der verschiedenen abnormalen Veränderungen keinen großen Widerstand. Demzufolge kann man mit den derzeit gebräuchlichen Cüretten tiefer eindringen, was die Perforation der Wandung und damit gefährliche Folgen und selbst den Tod der Patientin zur Folge haben kann.

Es muß deshalb vor Einführung der Cürette mit Hilfe eines Meßinstrumentes (graduierte Sonde) die Tiefe der Gebärmutter festgestellt werden. Trotzdem ist aber für den Operateur kein Mittel gegeben, ein zu tiefes Eindringen mit der Cürette beim nachfolgenden Arbeiten hintanzuhalten, weil er bei der Auskratzung oder Abschabung wiederholt sehr verschieden große Widerstände zu überwinden hat und daher das Gefühl für ein zu tiefes Eindringen bzw. Durchstoßen zufolge der Weichheit der Wandung naturgemäß verliert.

Das den Gegenstand der vorliegenden Erfindung bildende Instrument beseitigt die geschilderten Nachteile und schließt jede Gefahr bei der Benutzung dadurch aus, daß eine Cürette in irgendeiner der bekannten Ausführungsformen mit einer gleichzeitig das Eindringen begrenzenden Stellvorrichtung in Verbindung gebracht ist, wobei der Abstand zwischen dem arbeitenden Kopfstück der Cürette und dem an den Scheidenteil der Gebärmutter anstoßenden Teil der Stellvorrichtung nach der jeweils durch die Sonde festgestellten Eindringungstiefe jederzeit vorher bestimmt werden kann.

Die Zeichnung veranschaulicht in Abb. 1 eine Cürette, in Abb. 2 die an dem Cürettenstiel angebrachte Stellvorrichtung. Die Abb. 3 und 4 stellen das gebrauchsfertige eingestellte Instrument in zwei zueinander rechtwinkligen Ansichten dar, wobei in Abb. 4 ein Hohlkörper gezeigt ist, in welchen das Instrument auf eine begrenzte Tiefe eingeführt erscheint.

Die Cürette *a* hat die gebräuchliche Form und einen stumpfen oder scharfen Kopfteil; sie ist zwecks Einsetzens in ihren Griff *b* mit einem Vierkant *a* versehen und wird durch eine Schraube *c* in der Hülse des Griffes festgehalten. Die mit der Cürette in Verbindung zu bringende Stellvorrichtung besteht aus einem Rohr *d* zur Aufnahme des Cürettenstieles, der als Führung für die an ihm verschiebbare Stellvorrichtung dient, zu welchem Zweck das Rohr *d* eine nach hinten ragende Schlitzführung *f* besitzt, die an einem Stift oder Zapfen *g* an der Griffhülse sich führt und mittels einer Stellschraube *h* am Griff *b* festgestellt werden kann.

Das vordere Ende des Rohres *d* trägt ein plattenförmiges Querstück *i*, welches, wie aus Abb. 4 zu ersehen, infolge seiner Breitenausdehnung am Eintritt in den verengten kanalartigen Scheidenteil der Gebärmutter gehindert ist, wogegen das Kopfstück und jener Teil des Stieles der Cürette, der aus dem Rohr *d* der Stellvorrichtung vorsteht, ungehindert durch den Scheidenteil hindurch in die Gebärmutterhöhlung eingeführt werden kann.

Nachdem mittels der Sonde die Tiefe der Körperhöhlung, in welcher die Auskratzung vorgenommen werden soll, bestimmt worden ist, wird die Cürette in dem Rohr der Stellvorrichtung auf die an der Sondenskala ermittelte Länge eingestellt und die Stellvorrichtung am Cürettengriff mittels der Schraube *h* festgestellt. Nunmehr ist der Abstand zwischen dem Cürettenkopfende und der Querplatte *i* gleich der zulässigen Eindringungstiefe des Instrumentes gemacht und dieser Abstand bleibt nach der durch die Querplatte begrenzten Einführung während der ganzen Dauer der Arbeit unverändert aufrechterhalten, so daß ein sicheres Arbeiten des Operateurs gewährleistet erscheint, da der Widerstand, den die Querplatte am Scheidenteil der Gebärmutter findet, ein noch so bedeutender ist, so erscheint dadurch ein zu tiefes Eindringen der Cürette ausgeschlossen.

Da das Instrument leicht zerlegbar ist, kann die sorgfältige Reinigung ebenso leicht wie der rasche Austausch der Cüretten vorgenommen werden.

Patent-Anspruch:

Gegen Perforationen sichernde Cürette, gekennzeichnet durch eine Stellvorrichtung, die aus einem an dem Cürettenstiel verschiebbaren und am Griff der Cürette feststellbaren Rohr besteht, an dessen dem Cürettenkopf zugekehrten Ende ein Querstück angebracht ist, welches die Einführung der auf die Tiefendistanz zu behandelnden Körperhöhle aus der Stellvorrichtung vorragenden Cürette begrenzt.

Hierzu 1 Blatt Zeichnungen.

BERLIN. GEDRUCKT IN DER REICHSDRUCKEREI

Abb. 1.

RÉPUBLIQUE FRANÇAISE.

MINISTÈRE DU COMMERCE ET DE L'INDUSTRIE.

DIRECTION DE LA PROPRIÉTÉ INDUSTRIELLE.

BREVET D'INVENTION.

Gr. 19. — Cl. 1. **N° 734.439**

Curette pour râclages utérins.

M. Adam Maksymiljan PAPÉE résidant en Pologne.

Demandé le 17 mars 1932, à 14h 34m à Paris.

Délivré le 1er août 1932. — Publié le 21 octobre 1932.

(Demande de brevet déposée en Pologne le 16 juin 1931. — Déclaration du déposant.)

On sait qu'en médecine chirurgicale on est fréquemment obligé, à la suite d'un accouchement, de faire un curettage de l'utérus pour en éliminer les débris placentaires, cette élimination étant pratiquée le plus souvent en partie à la main et en partie à l'aide d'une curette à manche raide, celle-ci étant indispensable toutes les fois que les débris placentaires adhèrent encore fortement aux parois de l'utérus.

L'emploi de la curette à manche raide ordinaire a l'inconvénient d'occasionner assez souvent des lésions des parois de l'utérus fatalement ramollies au cours de l'accouchement.

La présente invention a pour objet une curette obviant à cet inconvénient et remarquable en ce qu'elle peut être entièrement renfermée dans la main du médecin ou du chirurgien au moment où elle est introduite dans l'utérus de l'accouchée.

Cette nouvelle curette constitue un instrument moins dangereux que les curettes employées jusqu'à présent et permet de supprimer les diverses opérations manuelles suivies d'un curettage instrumentaire nécessitées antérieurement et de réduire le râclage des parois utérines à une opération manuelle unique sans les blesser.

Dans le dessin annexé :

Fig. 1 est une vue de côté de la nouvelle curette;

Fig. 2 en est la vue de face.

L'instrument se compose d'une curette proprement dite 3 pour raclage utérins, fixée sur un manche recourbé court 4 constitué par un métal ou une matière assez flexible pour être cintrée et adaptée à la main de l'opérateur. Ce manche 4 est terminé par un renflement arrondi 5 destiné à venir s'appuyer contre le centre du creux de sa main pour assurer la fixité de l'instrument au cours du curettage.

Le manche 4 est relié par un petit pont 2 à un anneau 1 destiné à s'enfiler sur le doigt médian de l'opérateur. Une fois l'anneau 1 maintenu de cette façon, le renflement 5 correspond au centre du creux de la main tandis que les bouts des doigts sont posés en dehors du bord supérieur de la curette 3.

La technique du curettage effectué à l'aide de cet instrument permet de décoller les résidus placentaires qui adhèrent fortement aux parois de l'utérus et qu'on ne pourrait décoller à la main. Comme les bouts des doigts se trouvent au-dessus de la partie cintrée constituant la curette pro-

Prix du fascicule : 5 francs.

NOV -1 1949

prement dite, ils contrôlent tactilement si un débris placentaire quelconque adhère aux parois de l'utérus.

En outre, le curettage opéré à l'aide de cet instrument donne à l'opérateur une plus grande sûreté, en ce sens qu'en contrôlant par le bout de ses doigts le mouvement de la curette, il évite de blesser les parois ramollies de l'utérus, tout en alliant les avantages du curettage manuel et du curettage instrumentaire.

RÉSUMÉ.

Curette pour raclages utérins, remarquable en ce qu'elle se compose d'une curette proprement dite prolongeant un manche recourbé terminé à son extrémité libre par un renflement arrondi, ce manche étant avantageusement flexible pour se courber et assez court pour être logé complètement dans la main en même temps que la curette, au manche étant préférablement relié par un petit pont un anneau s'enfilant sur un doigt de l'opérateur.

ADAM MAKSYMILJAN PAPÉE.

Par procuration :

MAULVAULT.

N° 734.439 M. Papée Pl. unique

Fig. 1.

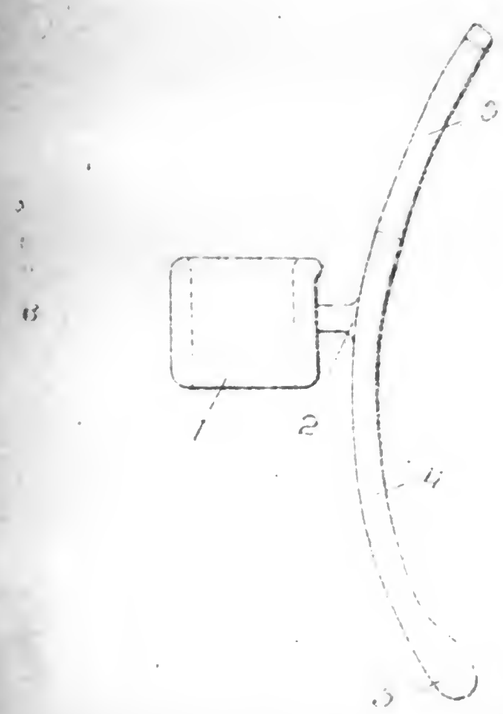
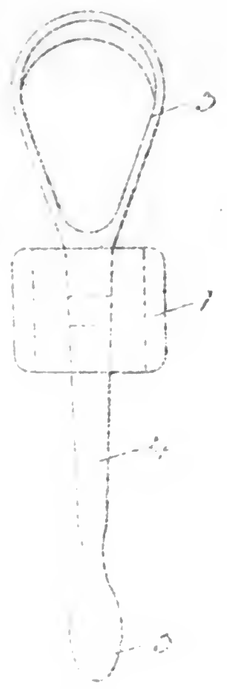
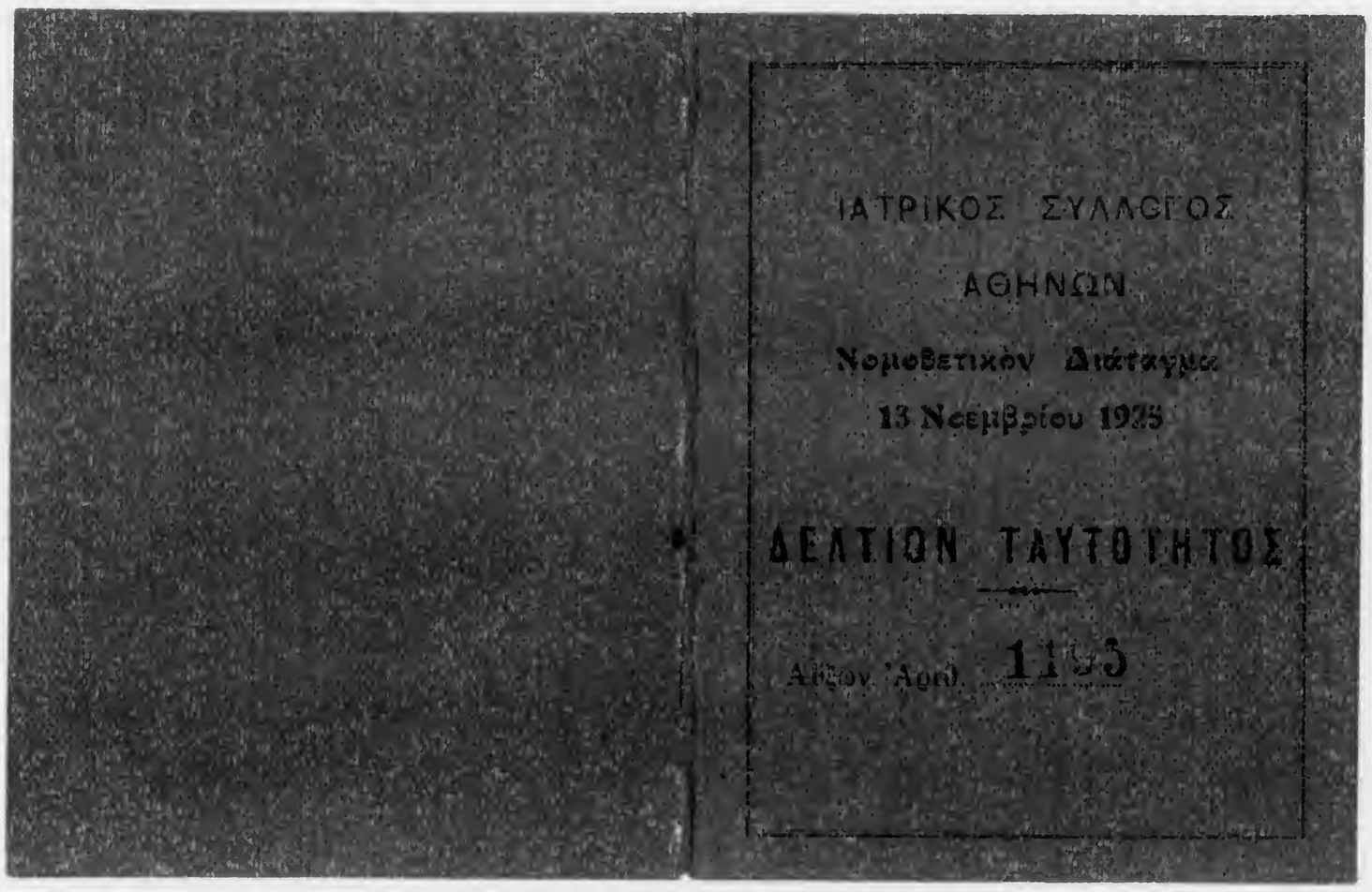


Fig. 2.



439

NOV -1 1949


ΙΑΤΡΙΚΟΣ ΣΥΛΛΟΓΟΣ

ΑΘΗΝΩΝ

Νομοθετικόν Διάταγμα

13 Νοεμβρίου 1925

ΔΕΛΤΙΟΝ ΤΑΥΤΟΤΗΤΟΣ

Αριθμ. Αρ. 1103

ΙΑΤΡΙΚΟΣ ΣΥΛΛΟΓΟΣ ΑΘΗΝΩΝ

Ὑπογραφὴ κατόχου

ΔΕΛΤΙΟΝ ΤΑΥΤΟΤΗΤΟΣ

Ἀριθ. μητρῴου 2047

Ὀνοματεπώνυμον Ερνέστος Ιούλιος Μύλλερ

Διεύθυνσις [illegible]

Εἰδικότης Χειροῦργος-Γυναικολόγος

Ἐθεωρήθη

τῇ 22 Μαΐου 1925

ὁ Πρόεδρος ὁ Γραμματεὺς

ΙΑΤΡΙΚΟΣ ΣΥΛΛΟΓΟΣ ΑΘΗΝΩΝ 1924

AE 62513

ΧΑΡΤΟΣΗΜΟΝ ΔΡ. 20. ΕΙΚΟΣΙ ΠΡΟΣΘΕΤΟΝ ΠΟΣΟΣΤΟΝ ΔΡ. 6

'Αριθ. Πρωτ. 9360

ΒΕΒΑΙΩΣΙΣ

'Ο 'Ιατρικός Σύλλογος 'Αθηνῶν βεβαιοῖ, ὅτι ὁ 'Ιατρός ΕΡΝΕΣΤΟΣ ΜΥΛΛΕΡ εἶναι ἐγγεγραμμένος εἰς τά Μητρῶα αὐτοῦ ὑπ' αὔξοντα ἀριθμόν 2047.

'Εν 'Αθήναις τῇ 28 'Οκτωβρίου 1937

Ο ΠΡΟΕΔΡΟΣ

ΙΑΤΡΙΚΟΣ ΣΥΛΛΟΓΟΣ ΑΘΗΝΩΝ - 193

Ο ΓΡΑΜΜΑΤΕΥΣ

4 4 3

Abb. 15 - Blutstillungsmethode nach Logothetopoulos bei atonischer Blutung nach der Geburt der Plazenta.

Sonderabdruck aus dem Zentralblatt für Gynäkologie 1933 Nr. 14

Aus dem Anatomischen Institut in Athen
Direktor: Prof. Dr. G. Sklawunos

Anatomische Ergebnisse der Blutstillungsmethode nach Logothetopulos[1]

Von Dr. **Ch. Christopulos,**
Assistenzarzt an der Gynäkologischen Universitätsklinik in Athen

Als vor 2 Jahren der Professor der Anatomie in Athen, G. Sklawunos, bei einer Operation die Blutstillungsmethode nach Logothetopulos anwenden sah, fand er es zweckmäßig, diese Methode einem Studium zu unterwerfen und sie auch an Leichen anzuwenden. Darauf wurde ein Assistenzarzt der Gynäkologischen Klinik, Dr. Ch. Christopulos, beauftragt, diese Untersuchungen im Anatomischen Institut unter Aufsicht von Prof. Dr. G. Sklawunos auszuführen.

Diese anatomischen Untersuchungen bezwecken einerseits die Feststellung der Art der Wirkung des Zugtampons, andererseits die Bestimmung der Lage und des Verhältnisses desselben zu den Organen des Beckens. Die Untersuchungen wurden bei fünf einbalsamierten Leichen ausgeführt. Es wurden 3mal vaginale und 2mal abdominale Totalexstirpationen vorgenommen. Es muß hier betont werden, daß sowohl die abdominale, wie auch die vaginale Anwendung der Tamponade und der Zug der Gazezipfel bei allen Fällen genau so ausgeführt wurde wie bei Lebenden.

Bei allen Fällen wurde die Einspritzung von Farbstoff in die Carotis den 2.—3. Tag nach Anwendung des Tampons vorgenommen. Die Eröffnung der Leichen wurde am 8.—12. Tag gemacht; die Beckenhöhle wurde freigelegt durch einen Längsschnitt in der Mitte und zwei anderen senkrecht auf dem ersteren verlaufend.

1. Fall. Abdominale Totalexstirpation des Uterus mit Hinterlassung der Adnexe. Die A. uterinae werden nicht unterbunden. Die Eröffnung des Leibes erfolgte den 8. Tag nach der mit der Operation verbundenen Tamponade. Nach Freilegung der Beckenhöhle sehen wir das Netz auf den Därmen liegen und dieselben wieder auf dem obersten Teil des Tampons. Nach Verschiebung der Darmschlingen nach aufwärts sehen wir, daß der oberste Teil des Tampons 4 cm nach vorn oberhalb der Symphyse reicht, hinten in der Höhe des III. Sakralwirbels und seitlich in der Höhe der Linea innominata und im Verhältnis zu den Iliacalgefäßen 3 cm unterhalb der Teilung der Iliaca comunis.

Der Douglas'sche Raum ist trotz des starken Zuges der Gazestreifen hinten frei, so daß man leicht mit dem Finger bis zum Beckenbogen kommen kann. Das Sigmoideum sowie das Rektum sind in ihrem ganzen Lauf vollkommen frei.

Der größte Druck wird außer auf die seitlichen Beckenwände hauptsächlich auf das Trigonum urogenitale ausgeübt. Der rechte Eileiterstumpf wird gedrückt, der linke liegt höher und ist infolgedessen frei. Wir nehmen den Tampon heraus und sehen, daß die Höhle, in welcher der Tampon lag, umgeben wird von der Blase, dem Mastdarm und dem Trigonum urogenitale, welches nach vorn und unten leicht verschoben ist.

[1] Vortrag, gehalten von Prof. Dr. K. Logothetopulos in der Gynäkologischen Gesellschaft in Wien am 20. XII. 1932.

Wir tasten die Höhle aus und finden, daß sie als feste Unterlage die innere Fläche des Os ischii hat. Darauf schreiten wir zur anatomischen Präparierung der Gefäße des kleinen Beckens. Zu diesem Zweck spalten wir das Becken in der Schamfuge. Nach der Freilegung der Gefäße der linken Beckenhälfte sehen wir, daß alle Äste der Arteria hypogastrica von Farbstoff gefüllt sind. Wir verfolgen speziell die Arteria uterina, welche bei der Operation nicht unterbunden wurde. Dieselbe ist oberhalb der Schnittstelle in einer Länge von 2 cm frei von Farbstoff. Daraus schließen wir, daß gerade auf diese Stelle der Tampon einen großen Druck ausübt. Aus den Kapillargefäßen merkt man keinen Austritt von Farbstoff.

2. Fall. Vor der Operation und Anwendung der Tamponade und 6 Tage nach der Einbalsamierung der Leiche wurden die Gefäße mit einer Lösung von 3proz. Natrium citricum durchgespült, um dieselben von eventuell vorhandenen Thromben zu befreien. Die Operation bestand in der vaginalen Totalexstirpation des Uterus mit Hinterlassung der Adnexe. Bei der Anlegung des Tampons wurden die Stümpfe der Eileiter etwas heruntergezogen, die Klemmen sind jedoch entfernt worden, ohne die Gefäße zu unterbinden, die Arteriae uterinae sind durchschnitten worden, ohne überhaupt angefaßt zu werden.

Die Eröffnung der Leiche wurde am 8. Tage vorgenommen, nach der Einspritzung des Farbstoffes durch Herausschneiden der ganzen vorderen Bauchwand. Das Netz und die Därme liegen auf dem Tampon, genau wie in dem 1. Fall. Ein Stück von dem Dünndarm liegt hinter dem Tampon tief im Douglas'schen Raum. Nach Herausziehen der Därme sieht man den Tampon, der eine ovale Form hat und dessen Oberfläche etwas unregelmäßig ist. Die Harnblase ist leer und liegt auf dem Tampon. Rechts hat das parietale Blatt des Peritoneums wegen des Zuges des Adnexstumpfes nach unten eine Falte gebildet, welche ungefähr im V. Lendenwirbel anfängt. Links sieht man nur die Falte des Lig. latum. Beiderseits sitzen die abdominalen Teile der Eileiter auf den Seitenflächen des Tampons. Der Stumpf aber des Eileiters liegt unter dem Druck des Tampons.

Wir wollen feststellen, inwiefern die Tamponade drückend auf die Ureteren wirkt, zu dem Zweck legen wir den linken Ureter vollkommen frei und eröffnen ihn etwas über seiner Kreuzungsstelle mit den Iliacalgefäßen. An der Eröffnungsstelle spritzen wir unter schwachem Druck mit einer Spritze etwas Wasser ein. Das Wasser tritt ungehindert in die Blase ein. Bei der Füllung der Blase wird die Dehnung derselben nach oben nicht gehindert, nur ein leichter Druck der gefüllten Blase wird im unteren Teil derselben bemerkt, und zwar nur, wenn die in die Blase eingelaufene Flüssigkeit 300 g überschreitet.

Wir vergrößern den Zug der Gazezipfel, die vor der Scheide liegen, auf das höchste und führen auf die gleiche Weise Flüssigkeit in den rechten Ureter ein. Trotz des großen Zuges wird bei dem Durchlaufen der Flüssigkeit durch den Ureter kein Hindernis bemerkbar. Nach Einlaufen von 200 g Flüssigkeit in die Blase drücken wir auf dieselbe, worauf die Flüssigkeit sich durch die Harnröhre entleert. Daraus schließen wir, daß trotz des starken Zuges kein Druck auf den ganzen Verlauf der Urethra ausgeübt wird. Der Tampon wird entfernt, wir präparieren die Gefäße des Beckens und finden, daß die A. uterinae 3 cm lang oberhalb des Schnittes keinen Farbstoff enthält.

3. Fall. Vaginale Totalexstirpation des Uterus ohne die Adnexe. Es wurde kein Gefäß unterbunden. Folgende Tamponade. In diesem Fall wollten wir den Druck feststellen, unter welchem der Farbstoff aus der Spritze in die Carotis eindrang. Zu diesem Zweck vereinigten wir den einen Teil der T-förmigen Röhre

mit der Carotis, den anderen Teil mit der Spritze, die Farbstoff enthielt, und den dritten Teil mit einem Quecksilbermanometer. Dieser Teil wird mit einer Klemme geschlossen gehalten. Sobald wir anfangen den Farbstoff einzuspritzen, nehmen wir die Druckklemme weg und lassen den Farbstoff mit dem Manometer in Berührung kommen. Der Druck steigt dauernd, und erst nachdem er 750 mm überschritten hat, zeigt sich der Farbstoff in den Beckengefäßen. Am 8. Tag nach der Einspritzung des Farbstoffes wird die Leiche geöffnet. Nach dem Herausziehen der Därme sehen wir die leere Blase auf dem Tampon liegen, genau wie bei den vorher beschriebenen Fällen.

Der Tampon wird herausgenommen und man sieht auf seinen seitlichen Flächen die Abdrücke, die die gedrückten Adnexen hinterlassen haben.

Die Stümpfe der Eileiter befinden sich auf den seitlichen Wänden des kleinen Beckens. Wegen des nach unten gedrängten Beckenbogens ist der Scheidenstumpf nach unten zusammengefaltet, ein Zeichen des ausgeübten Druckes des Tamponhalses. Nach dem Durchspalten des Beckens werden die Gefäße präpariert und wir bemerken, daß trotz des verhältnismäßig kleinen Druckes, unter welchem der Farbstoff eingespritzt wurde, alle Äste der Hypogastrica gefüllt sind.

Wir verfolgen die Aa. uterinae und präparieren sie sorgfältig. 3 cm von der Schnittstelle befindet sich wegen des auf diese Stelle ausgeübten Druckes kein Farbstoff. Ebenfalls befindet sich kein Farbstoff in den Kapillargefäßen der Umgebung. Auf die Harnröhre, Blase und den Mastdarm ist kein Druck ausgeübt worden.

4. Fall. Vaginale Totalexstirpation des Uterus. Kein Gefäß ist unterbunden. Tamponade. — Bei der Eröffnung der Leiche durch Mittel- und Querschnitt befinden sich die Grenzen des Tampons etwas höher als bei den bis jetzt beschriebenen Fällen. Die Harnblase ist leicht nach rechts verschoben. Der herausgenommene Tampon hat wie gewöhnlich eine ovale Form. Der Grenzunterschied derselben ist auf den gefüllten Mastdarm zurückzuführen. Das Becken wird gespalten und wir bemerken, daß trotz des gefüllten Mastdarms wenig Druck auf ihn ausgeübt wird.

Beide Eileiterstümpfe sind auf die seitlichen Beckenwände gedrückt. Wir präparieren die linke Beckenhälfte. Wir sehen, daß die A. uterina in der Länge von 2 cm vom Schnitt aus ohne Farbstoff ist.

5. Fall. Abdominale Totalexstirpation des Uterus ohne die Adnexe. Unterbunden sind nur die Adnexstümpfe. Die Grenzen des Tampons sind genau wie bei den anderen beschriebenen Fällen. Die unterbundenen Stümpfe liegen hoch und werden nicht von dem Tampon gepreßt. Blase und Mastdarm sowie Sigmoideum sind frei. Der Scheidenstumpf ist wegen des auf ihn ausgeübten Druckes zusammengefaltet. Die Präparierung der Gefäße zeigt, daß alle Farbstoff enthalten, außer an der gedrückten Stelle der Aa. uterinae.

Aus den beschriebenen anatomischen Untersuchungen ergibt sich, daß die Blutstillung durch die Tamponade nach Logothetopulos vollkommen sicher ist, und wie sich auch klinisch nachweisen läßt, wird auf kein anderes Organ ein irgendwie schädlicher Druck ausgeübt.

Die Nekrosen der Gewebe sind leicht zu vermeiden durch das Abnehmen der vor dem Pessar liegenden Klemme, 8 Stunden nach der Operation, wodurch der Druck aufhört.

Damit auch kein Druck auf die Blase ausgeübt wird, führt man während der 2 ersten Tage einen Dauerkatheter ein, damit die Blase dauernd leer ist.

ΑΙ ΠΡΟΟΔΟΙ ΤΗΣ ΧΕΙΡΟΥΡΓΙΚΗΣ

ΛΟΓΟ-ΤΑΜΠΟΝ ΚΑΙ ΑΝΑΙΜΑΚΤΟΣ ΚΑΙΣΑΡΙΚΗ ΤΟΜΗ

Μία νέα μέθοδος ἐπισχέσεως τῶν αἱμορραγιῶν κατὰ τὰς ἐγχειρήσεις

Ὑπὸ τοῦ κ. Κ. ΛΟΓΟΘΕΤΟΠΟΥΛΟΥ, τ. καθηγητοῦ τοῦ Πανεπιστημίου

Α΄.

Εἰς δυσκόλους, ἰδίᾳ κολπικὰς ἐγχειρήσεις, δυνατὸν νὰ ὀλισθήσῃ ἡ ἀπολίνωσις ἀγγείου τινὸς καὶ νὰ ὑποχωρήσῃ τοῦτο πρὸς τὸν συνεκτικὸν ἱστόν, ἢ δυνατὸν τὸ αἱμορροοῦν ἀγγεῖον νὰ μὴ εἶναι προσιτὸν πρὸς σύλληψιν, ἢ ἄλλοτε ἕνεκα τοῦ εὐθρύπτου τῶν ἱστῶν νὰ δυσχεραίνωνται αἱ ἀπολινώσεις καὶ ὡς ἐκ τούτου νὰ μὴ ἐπίσχεται ἡ αἱμορραγία.

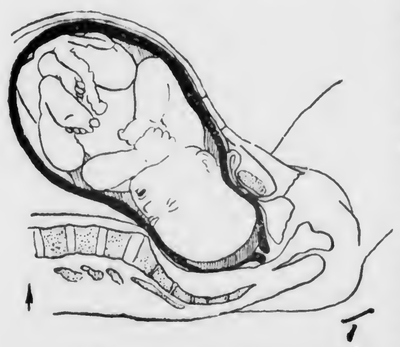
Εἰς τοιαύτας περιπτώσεις, ἄλλοτε, ἐτοποθετοῦντο λαβίδες εἰς τὸ αἱμάσσον μέρος, αἵτινες παρέμενον ἐπὶ 48 ὥρας, μὴ οὔσης κατορθωτῆς τῆς αἱμοστασίας δι' ἄλλου τρόπου. Εἰς ἄλλας πάλιν περιπτώσεις, μὴ οὔσης δυνατῆς τῆς αἱμοστασίας διὰ τοποθετήσεως λαβίδων, ἠναγκαζόμεθα νὰ προσφύγωμεν εἰς τὴν λαπαροτομὴν πρὸς ἀναζήτησιν τοῦ αἱμορροοῦντος ἀγγείου καὶ ἀπολίνωσιν τούτου.

Εἰς τὰς περιπτώσεις ταύτας ἐφαρμόζομεν ἀπὸ πολλῶν ἐτῶν ἰδίαν μέθοδον, τὴν ὁποίαν ὁ καθηγητὴς τῆς Γυναικολογίας ἐν Halle Nürenberger ἀπεκάλεσε Λ ό γ ο - τ α μ π ό ν.

Ἐπὶ τοῦ σημείου τούτου ὁ Eric Weber, εἰς τὸ βιβλίον του (1), ἐνῶ περιγράφει τὴν αἱμοστατικήν μου ταύτην μέθοδον λεπτομερῶς, γράφει τὰ ἑξῆς: «Προσωπικῶς, ἀφ' ὅτου γνωρίζομεν τὴν τεχνικὴν ταύτην, οὐδέποτε πλέον ἔσχομεν τὴν ἀνάγκην νὰ ἐγκαταλείψωμεν αἱμοστατικὴν λαβίδα κατὰ τὴν ἐγχείρησιν, ἔτι δὲ περισσότερον νὰ προβῶμεν εἰς λαπαροτομὴν πρὸς ἀναζήτησιν αἱμορροοῦντος ἀγγείου»

Ἐπίσης ὁ ἐν Βιέννῃ καθηγητὴς Paul Werner μετὰ τοῦ Julius Sederl (2) περιγράφοντες εἰς τὸ νεωστὶ ἐκδοθὲν βιβλίον των εἰς 6 σελίδας μετ' εἰκόνων τὴν μέθοδόν μου, γράφουν ἐπὶ τοῦ αὐτοῦ σημείου τὰ ἑξῆς: «"Ολων τῶν δυσκολιῶν τούτων ἀπηλλάγημεν σήμερον διὰ τῆς μεγαλοφυοῦς μεθόδου τοῦ "Ελληνος Γυναικολόγου Κωνσταντίνου Λογοθετοπούλου. Ἡ μέθοδος αὕτη μᾶς ἐπιτρέπει πάντοτε καὶ εἰς ὅλας τὰς περιπτώσεις νὰ σταματήσωμεν ἐντὸς ὀλίγων λεπτῶν τῆς ὥρας πᾶσαν αἱμορραγίαν ἀσφαλῶς. Δέον πᾶς χειρουργός, ὁστις θέλει ἐν πάσῃ ἡρεμίᾳ νὰ ἐκτελέσῃ καὶ δύσκολον ἔτι ἐγχείρησιν, νὰ γνωρίζῃ τὴν μέθοδον ταύτην».

Ἡ μέθοδος ἐκτελεῖται κατὰ τὸν ἀκόλουθον τρόπον: Πληροῦμεν καλῶς σάκκον ἐκ τετραγώνου γάζης διὰ μακρᾶς λωρίδος γάζης οὕτως, ὥστε νὰ σχηματισθῇ σφαιρικὸς ὄγκος



Καισαρικὴ τομή. Διάνοιξις κοιλιακῶν τοιχωμάτων καὶ μήτρας

περίπου κεφαλῆς ἐμβρύου. Τὸ μέγεθος τοῦ ταμπὸν ἐξαρτᾶται ἐκ τῆς θέσεως τοῦ αἱμορροοῦντος ἀγγείου, εἶναι δὲ τόσον μεγαλύτερον, ὅσον περισσότερον ἀπέχει τὸ ἀγγεῖον ἀπὸ τοῦ πυελικοῦ ἐδάφους. Τὰς τέσσαρας γωνίας τοῦ τετραγώνου γάζης, ὡς καὶ τὸ μεταξὺ τούτων ἄκρον τῆς λωρίδος γάζης, ὅπερ πρὸς διάκρισιν δέον νὰ εἶναι κατά τι μακρότερον τῶν τεσσάρων ἄκρων, συλλαμβάνομεν ὁμοῦ διὰ μιᾶς ἀγκιστροφόρου μήλης τοῦ Amman, ἣν ὁδηγοῦμεν, μετὰ τὴν ἀφαίρεσιν τῆς μήτρας, ἀπὸ τῆς κοιλιακῆς κοιλότητος διὰ μέσου τοῦ κόλπου πρὸς τὰ ἔξω γεννητικὰ ὄργανα. Ὁ βοηθὸς συλλαμβάνει τοῦτο καὶ ἕλκει ἰσχυρῶς πρὸς τὰ κάτω μέχρις οὗ τὸ σφαιρικὸν ταμπὸν εἰσέλθῃ εἰς τὴν ἐλάσσονα πύελον καὶ δυνηθῇ νὰ ἀσκήσῃ πίεσιν ἐπὶ τῶν ἀγγείων. Τὸ τοιοῦτον ἐπιτυγχάνεται καὶ δι' εἰσαγωγῆς διὰ τοῦ κολεοῦ μακρᾶς κυρτῆς αἱμοστατικῆς λαβίδος, ἥτις ἅμα ἀναφανῇ εἰς τὴν περιτοναϊκὴν κοιλότητα διανοίγεται καὶ συλλαμβάνει τὰ εἰς αὐτὴν εἰσαγόμενα ἄκρα τοῦ ταμπὸν καὶ ἕλκει πρὸς τὰ ἔξω. Καθ' ὃν χρόνον ὁ βοηθὸς ἕλκει, ὁ

Εἰσαγωγὴ τοῦ ταμπὸν μετὰ τὴν ἀφαίρεσιν τοῦ ἐμβρύου.

χειρουργὸς ὑποβοηθεῖ πιέζων ἐκ τῶν ἄνω καὶ διακρατῶν τὸ ταμπὸν βαθέως ἐντὸς τῆς πυέλου μέχρις ὅτου τοῦτο τελείως στερεωθῇ. Τὸ τοιοῦτον ἐπιτυγχάνεται ὡς ἀκολούθως: "Ελκομεν τὰ ἔξω τοῦ κολεοῦ κρεμάμενα ἄκρα τοῦ ταμπὸν διὰ μέσου ἑνὸς μεγάλου δακτυλιοειδοῦς πεσσοῦ ὃν ὠθοῦμεν διὰ τῆς ἀριστερᾶς χειρὸς ἐπὶ τοῦ αἰδοίου, ἐνῶ ἡ δεξιὰ χεὶρ μετὰ δυνάμεως ἕλκει τὰ ἄκρα τῆς γάζης. Ἀκολούθως ἄλλος βοηθὸς τοποθετεῖ ἰσχυρὰν λαβίδα ἀκριβῶς πρὸ τοῦ πεσσοῦ, ὅστις ἤδη εὑρίσκεται μεταξὺ αἰδοίου καὶ λαβίδος. Ἡ αἱμορραγία ἐπίσχεται πάραυτα, μετὰ τὴν ἀκριβῆ ἐφαρμογὴν τοῦ ταμπόν, ὁπότε δυνάμεθα νὰ ἐξακολουθήσωμεν τὴν ἐγχείρησιν ἐν πάσῃ ἡρεμίᾳ.

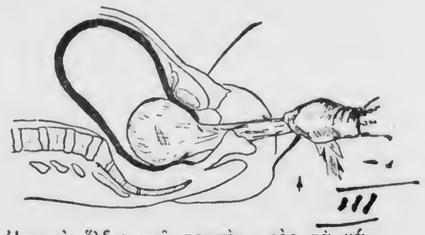
Πρὸς ἐπίσχεσιν αἱμορραγίας ἐπὶ κολπικῶν ἐγχειρήσεων ἐνεργοῦμεν κατὰ τὸν αὐτὸν τρόπον, μὲ τὴν διαφορὰν ὅμως ὅτι πρῶτον εἰσάγομεν τὸν κενὸν σάκκον διὰ μέσου τοῦ κολπικοῦ τραύματος εἴτε τῆς περιτοναϊκῆς κοιλότητος, διὰ στειλεοῦ ἢ μακρᾶς ἀνατομικῆς λαβίδος καὶ ἀκολούθως πληροῦμεν τὸν σάκκον διὰ μακρᾶς λωρίδος γάζης. Ἐκ παραλλήλου δέον νὰ προσέχωμεν ἵνα ἡ λωρὶς κατανέμεται ἰσομερῶς πρὸς ὅλας τὰς διευθύνσεις ἐντὸς τῆς πυελικῆς κοιλότητος, οὕτως ὥστε ὁ πληρωθεὶς σάκκος νὰ προσλάβῃ τὴν μορφὴν μήκυτος (griechenpilz), ὡς τὸ ὠνόμασε ὁ καθηγητὴς ἐν Λειψίᾳ (Sellheim). Πρὸς ἀποφυγὴν νεκρώσεων, αἵτινες δυνατὸν νὰ προκληθοῦν ὡς ἐκ τῆς ἰσχυρᾶς πιέσεως τοῦ πεσσοῦ ἐπὶ τοῦ αἰδοίου, τοποθετοῦμεν μεταξὺ πεσσοῦ καὶ αἰδοίου κατ' ἀμφότερα τὰ πλάγια τοῦ μίσχου τοῦ ταμπὸν μικρὸν στρῶμα βάμβακος. Διὰ τὸν αὐτὸν λόγον ἡ πρὸ τοῦ πεσσοῦ τοποθετουμένη λαβὶς ἀφαιρεῖται μετὰ 8 ὥρας. Πᾶς ὅμως περαιτέρω χειρισμὸς ἐπὶ τοῦ πεσσοῦ δέον νὰ ἀποφεύγηται, ἀφαιρουμένου τοῦ τελευταίου μετὰ 24 ὥρας. Ἀπὸ τῆς τρίτης ἡμέρας ἀρχόμεθα ἀφαιροῦντες τὴν ἐσωτερικὴν λωρίδα γάζης μέχρι τῆς πέμπτης ἡμέρας, ὁπότε ἀφαιροῦμεν ὡσαύτως καὶ τὴν ἐξωτερικὴν γάζαν τοῦ ταμπόν.

"Ινα διαπιστωθῇ ἡ ἐνέργεια τοῦ χρησιμοποιουμένου ταμπὸν ἀφ' ἑνὸς καὶ ἵνα καθορισθῇ ἡ θέσις αὐτοῦ ἐν σχέσει πρὸς τὰ ὄργανα τῆς πυέλου ἀφ' ἑτέρου, τῇ ὑποδείξει τοῦ καθηγητοῦ Γ. Σκλαβούνου καὶ ὑπὸ τὴν καθοδήγησιν τοῦ ἰδίου, ἐγένοντο εἰς τὸ ἐν Ἀθήναις Ἀνατομεῖον ὑπὸ τοῦ Ν. Χριστοπούλου ἔρευναι ἐπὶ 5 πτωμάτων (3) Ἐγένοντο τρεῖς κολπικαὶ καὶ δύο κοιλιακαὶ ὑστερεκτομαί, καθ' ἃς ἐφηρμόσθη τὸ ταμπὸν ἀκριβῶς ὡς ἐπὶ ζώσης γυναικός, ἄνευ ἀπολινώσεως τῶν μητριαίων ἀγγείων. Δύο ἕως τρεῖς ἡμέρας μετὰ τὴν ἐφαρμογὴν τοῦ ταμπὸν ἐνηργήθη ἔνεσις χρωστικῆς εἰς τὴν καρωτίδα, ἀσκηθείσης πιέσεως μεγαλυτέρας τῆς φυσιολογικῆς πιέσεως τοῦ αἵματος. Μετὰ 15 ἡμέρας ἐπηκολούθησεν ἡ διάνοιξις τῆς κοιλίας τῶν πτωμάτων, διεπιστώθη δὲ ὅτι τόσον τὸ ἀπευθυσμένον, ὅσον καὶ ἡ οὐροδόχος κύστις μετὰ τῶν οὐρητήρων ἔκειντο ἔξωθι τοῦ ὑπὸ πίεσιν εὑρισκομένου πεδίου, ἀποκλεισθείσης οὕτω ὁλασδήποτε βλάβης αὐτῶν, πρᾶγμα ὅπερ καὶ διὰ τῆς κλινικῆς πείρας ἔχει ἀποδειχθῆ. Ὡσαύτως διεπιστώθη ὅτι οἱ ἱστοὶ πέριξ τῶν διατμηθεισῶν καὶ μὴ ἀπολινωθεισῶν μητριαίων ἀρτηριῶν παρέμειναν ἄνευ χρωστικῆς διαλύσεως, πρᾶγμα τὸ ὁποῖον ἀποδεικνύει τὸ ἀσφαλὲς τῆς ἀρτηριακῆς αἱμοστασίας.

Ἐξετέλεσα μετ' ἐπιτυχίας κολπικὰς καὶ κοιλιακὰς ἐγχειρήσεις εἰς τὰς μεγαλυτέρας Πανεπιστημιακὰς Κλινικὰς τῆς Εὐρώπης ἄνευ ἀπολινώσεως κατὰ τὰς κοιλιακὰς ὑστερεκτομὰς τῶν μητριαίων ἀγγείων, κατὰ δὲ τὰς κολπικὰς ἐγχειρήσεις ἄνευ ἀπολινώσεως οὐδενὸς ἀγγείου, ἵνα ἀποδείξω τὴν ἐνέργειαν τοῦ ταμπόν. Πρέπει ὅμως νὰ τονίσωμεν ἐνταῦθα ὅτι τὸ ταμπὸν δέον νὰ χρησιμοποιῆται μόνον εἰς περιπτώσεις ἀνάγκης, ἐπὶ αἱμορραγίας ἤτις κατ' ἄλλον τρόπον οὐδόλως ἢ δυσχερῶς ἐπίσχεται, ὁπότε τοῦτο παρέχει βεβαίαν βοήθειαν.

Ἑτέρα περίπτωσις ἐφαρμογῆς τοῦ ταμπὸν εἶναι ἡ ἐπίσχεσις τῆς αἱμορραγίας μετὰ τὸν τοκετόν, ἕνεκα ἀτονίας τῆς μήτρας μετὰ τὴν ἐκβολὴν τοῦ πλακοῦντος, πρᾶγμα τὸ ὁποῖον ἐθεωρεῖτο μέχρι τοῦδε ἓν ἐκ τῶν ἀλύτων προβλημάτων τῆς Μαιευτικῆς.

Ἡ ἐφαρμογὴ τοῦ ταμπὸν εἰς τὰς τοιαύτας περιπτώσεις ἐκτελεῖται κατὰ τὸν ἑξῆς τρόπον: Ἡ ἀσθενὴς τοποθετεῖται ἐπὶ τῆς πλαγίας πλευρᾶς τῆς κλίνης οὕτως, ὥστε τὰ ἰσχία νὰ προέχουν. Τὰ ἐξωτερικὰ γεννητικὰ ὄργανα καθαρίζονται, ὁ κολεὸς ἀποστειροῦται καὶ ἡ οὐροδόχος κύστις κενοῦται διὰ καθετῆρος. Μετὰ τὴν τοποθέτησιν εὐρέων διαστολέων ἐν τῷ κόλπῳ συλλαμβάνομεν δι' ἀγκιστροειδῶν λαβίδων τὸ πρόσθιον καὶ τὸ ὀπίσθιον χεῖλος τοῦ αὐχένος καὶ ἕλκομεν ταῦτα ἰσχυρῶς πρὸς τὰ κάτω Εἶτα εἰσάγομεν τοὺς κολποδιαστολεῖς ἐντὸς τῆς κοιλότητος τῆς μήτρας οὕτως, ὥστε τὸ στόμιον αὐτῆς νὰ δι-



Ἰσχυρὰ ἕλξις τοῦ ταμπὸν πρὸς τὰ κάτω καὶ ἀφαίρεσις τοῦ πλακοῦντος.

ασταλῇ εὐρέως. Ἐν συνεχείᾳ προβαίνομεν εἰς τὴν ἐφαρμογὴν τοῦ ταμπόν, ὡς τὸ τοιοῦτον πράττομεν κατὰ τὰς κολπικὰς ὑστερεκτομὰς ἐν περιπτώσει αἱμορραγίας. Εἰσάγομεν πρῶτον τὸν κενὸν σάκκον εἰς τὴν κοιλότητα τῆς μήτρας διὰ στειλεοῦ ἢ μακρᾶς ἀνατομικῆς λαβίδος καὶ ἀκολούθως πληροῦμεν τὸν σάκκον διὰ μακρᾶς λωρίδος γάζης. Ἐκ πα-

(1) Eric Weber : Techniques chirurgicales vaginales. Editeur Baillère et Fils, Paris 1948.

(2) Univ. Prof. P. Werner, Dr. J. Sederl: Die Vaginalen - Bauchhoelen Operationen. Wien 1952. Urban und Schwarzenberg.

(3) N. Christopoulos : Anatomische Ergebnisse der Blutstillungsmethode nach Logothetopoulos. Zbl. Gynaekologie, 1933, No. 14.

ΜΕΤΡΗΤΗΣ

ΤΩΝ ΑΝΕΣΕΩΝ ΜΑΣ

Ἡ νέα ἐντυπωσιακὴ ἀμερικανικὴ ἐφεύρεσις εἶναι μία συσκευὴ διὰ τῆς ὁποίας καταμετρᾶται ὁ βαθμὸς τῶν ἀνέσεων εἰς τὰς ὁποίας ζῆ ἕνας ἄνθρωπος.

Ἡ συσκευή, ὅπως περιγράφεται ἀτελῶς εἰς ἕνα περιοδικὸν τῆς Νέας Ὑόρκης, εἶναι διηρημένη εἰς θερμόμετρον καὶ ὑγρόμετρον καὶ ὅταν οἱ δεῖκται ἀμφοτέρων συμπέσουν εἰς τὸ ἴδιον σημεῖον, τότε ἡ ἄνεσις εἶναι πλήρης. Οἱ δεῖκται τοῦ θερμομέτρου καὶ ὑγρομέτρου κινοῦνται ἐπὶ μιᾶς πλακὸς μὲ ζώνας χρωματιστὰς —ἐρυθράν, κυανῆν, πρασίνην καὶ κιτρίνην.

♣

Ἡ ἀρχὴ τοῦ ἐθίμου ὅπως σὲ ἕνα ἐπίσημον γεῦμα δίπλα ἀπὸ ἕνα κύριον πρέπει νὰ κάθεται καὶ μία κυρία, θὰ πρέπει νὰ ἀναζητηθῇ εἰς τὸν 14ον αἰῶνα, ὁπότε οἱ δύο σύζυγοι ἔτρωγαν ἀπὸ τὸ ἴδιον πιάτο καὶ ἐχρησιμοποίουν τὸ ἴδιον ποτήρι διὰ νὰ πίνουν.

ραλλήλου δέον νὰ προσέχωμεν, ἵνα ἡ λωρὶς κατανέμεται ἰσομερῶς πρὸς ὅλας τὰς διευθύνσεις ἐντὸς τῆς μητρικῆς κοιλότητος, ἵνα ὁ πληρωθεὶς σάκκος προσλάβῃ τὸ σχῆμα μήκυτος καὶ κατὰ τὴν ἔλξιν μὴ ἐξέλθῃ πρὸς τὰ ἔξω. Εἶτα διαπερῶμεν τὰ ἄκρα τῶν γαζῶν διὰ μέσου δακτυλιοειδοῦς πεσσοῦ, τὸν ὁποῖον ὠθοῦμεν διὰ τῆς ἀριστερᾶς χειρός ἐπὶ τοῦ αἰδοίου, ἐνῶ ἡ δεξιὰ χεὶρ ἕλκει ἰσχυρῶς τὰ ἄκρα τῶν γαζῶν. Ἀκολούθως ὁ βοηθὸς τοποθετεῖ ἰσχυρὰν λαβίδα ἀκριβῶς πρὸ τοῦ πεσσοῦ, ὅστις ἤδη εὑρίσκεται μεταξὺ αἰδοίου καὶ λαβίδος. Ἡ αἱμορραγία μετὰ τὴν τοποθέτησιν τοῦ ταμπὸν ἐπίσχεται πάραυτα.

Ὁ καθηγητὴς τῆς Α΄ Μαιευτικῆς καὶ Γυναικολογικῆς Κλινικῆς τοῦ Πανεπιστημίου τῆς Βιέννης Tassilo Antoine, εἰς τὸ Biologie und Pathologie des Weibes (4) διαπραγματευόμενος τὸ θέμα τῶν ῥήξεων τῆς μήτρας (τόμος IX, σελὶς 389—623) γράφει τὰ ἑξῆς σχετικῶς μὲ τὴν θεραπείαν τῶν βαρειῶν περιπτώσεων ῥήξεως τῆς μήτρας, καθ' ἃς περιπτώσεις ἡ ἐγχείρησις δὲν εἶναι δυνατὸν νὰ τελεσθῇ ἀμέσως πρὸς ἐπίσχεσιν τῆς ἐσωτερικῆς αἱμορραγίας: «Ἤδη πιστεύω ὅτι ἔχομεν ἓν μέσον, τὸ ὁποῖον εἰς τοιαύτας βαρείας ἀπελπιστικὰς καταστάσεις, καθιστᾷ δυνατὴν τὴν μεταφορὰν τῆς ἀσθενοῦς εἰς Νοσοκομεῖον πρὸς ἐγχείρησιν. Τὸ μέσον τοῦτο εἶναι τὸ ταμπὸν κατὰ Λογοθετόπουλον. Νομίζω, ὅτι τὸ ταμπὸν ἐπίσης καὶ εἰς περιπτώσεις ῥήξεων τῆς μήτρας δύναται νὰ προσφέρῃ ἐξαιρετικὰς ὑπηρεσίας. Τὸ ταμπὸν δέον νὰ ἐφαρμόζηται ἀμέσως, ὡς καὶ εἰς τὰς κολπικὰς ἐγχειρήσεις ἢ ἐνδομητρικῶς (εἰς χαλαρὰν μήτραν) ἢ διὰ μέσου τοῦ ῥήγματος εἰς τὴν περιτοναϊκὴν κοιλότητα. Διὰ τῆς ἐφαρμογῆς τοῦ ταμπὸν ἐπίσχεται ἡ αἱμορραγία κεραυνοβόλως, πρᾶγμα τὸ ὁποῖον δι' οὐδενὸς ἄλλου συντηρητικοῦ μέσου εἶναι κατορθωτόν. Πᾶς ὅστις ἅπαξ εὑρέθη εἰς τοιαύτην θέσιν, δύναται νὰ ὑπολογίσῃ, τί σημαίνει τοῦτο διὰ τὸν χειρουργόν».

Περαιτέρω ὁ Antoine περιγράφει λεπτομερῶς τὴν ἐφαρμογὴν τοῦ ταμπὸν παραθέτων καὶ εἰκόνας ἐκ τοῦ βιβλίου μου «Gynaekologische Chirurgie». Συνιστῶμεν ὅθεν, ἵνα τὰ διὰ τὴν ἐφαρμογὴν τοῦ ταμπὸν χρειώδη εἶναι εἰς πάντας τοὺς τοκετοὺς ἐκ τῶν προτέρων ἕτοιμα καὶ ἀπεστειρωμένα ἐντὸς μεταλλίνου δοχείου. Ἡ ἐνέργεια εἶναι τόσον ἄμεσος καὶ ἀσφαλής, λόγῳ τῆς μὴ εἰσχωρήσεως πλέον αἵματος ἐντὸς τῆς μήτρας, ὡς ἐκ τῆς συμπιέσεως τῶν μητριαίων ἀγγείων ὑπὸ τοῦ ταμπὸν ἐπὶ τῶν τοιχωμάτων τῆς πυέλου, ὥστε πᾶς ἐπερχόμενος θάνατος ἐξ αἱμορραγίας, ἕνεκα ἀτονίας τῆς μήτρας, δέον νὰ θεωρῆται ὡς ἀσυγχώρητον σφάλμα τοῦ ἰατροῦ.

ΕΙΣ ΤΟ ΕΠΟΜΕΝΟΝ: Τὸ τέλος

(4) Seitz - Amreich : Biologie und Pathologie des Weibes. Band IX, Geburtshifte (3), von Prof. Tassilo Antoine : Uterusruptur, 1950. Urban und Schwarzenberg.

ΜΙΑ ΣΧΕΔΟΝ ΠΑΝΑΚΕΙΑ

ΤΟ ΧΛΩΡΙΟΥΧΟΝ ΜΑΓΝΗΣΙΟΝ

Ἡ ἁπλουστάτη χρῆσις του.

Πρέπει κανεὶς νὰ ἐπαναλαμβάνῃ συχνὰ τὰς μεγάλας ἀληθείας, ὅταν ὁ κόσμος δὲν τὰς προσέχει ὅσον ἀρκεῖ. Καὶ πρέπει νὰ ὁμολογήσωμεν ὅτι ἔπειτα ἀπὸ τὸν θόρυβον ποὺ ἔγινεν ὀλίγον πρὸ τοῦ πολέμου μετὰ τὰς ἀνακοινώσεις τοῦ Γάλλου καθηγητοῦ Ντελμπὲ διὰ τὰ αἴτια τῆς καταπληκτικῆς διαδόσεως τοῦ καρκίνου κατὰ τὰ τελευταῖα ἔτη, ὅλος ὁ κόσμος ἐλησμόνησε τὰς συμβουλάς του.

Τρώγομεν κατὰ τὰ τελευταῖα ἔτη ἀλάτι «ραφιναρισμένο», δηλαδὴ τελείως ἀπηλλαγμένον ἀπὸ τὸ χλωριοῦχον μαγνήσιον, τὸ σπουδαιότατον συστατικόν του, τρώγομεν τὰ βρασμένα λαχανικὰ τελείως στεγνά, ἐνῶ τὰ κύρια συστατικά του, τὰ ἅλατα καὶ μεταξὺ αὐτῶν τὰ τοῦ μαγνησίου, φεύγουν μὲ τὸ νερὸ τοῦ βρασμοῦ, χρησιμοποιοῦμεν λόγῳ τῆς ἀναγκαστικῆς ἐντάσεως τῶν καλλιεργειῶν, γεωργικὰ προϊόντα ἐστερημένα τῶν ἁλάτων τοῦ μαγνησίου καὶ τῶν ἄλλων μετάλλων. Εἶναι δὲ τὰ ἅλατα αὐτὰ ἀπαραίτητα ὄχι μόνον διὰ τὴν πρόληψιν τοῦ καρκίνου, ἀλλὰ γενικῶς διὰ τὴν εὔρυθμον, κανονικὴν καὶ καλὴν λειτουργίαν τοῦ ὀργανισμοῦ.

Ἡ ἀπουσία τοῦ μαγνησίου κυρίως ἀπὸ τὴν διατροφήν μας, εἶναι ἀφορμὴ πλείστων ὀργανικῶν διαταραχῶν. Ὁ Ντελμπὲ τὸ ἔχει ἀποδείξει μὲ πλεῖστα πειράματά του. Ἐπῆρε, π. χ., ποντικοὺς καὶ τοὺς μισοὺς ὑπέβαλε σὲ δίαιταν ἀπηλλαγμένην ἐντελῶς μαγνησίου, τοὺς δὲ ἄλλους μισοὺς τοὺς ἔτρεφε μὲ τρόφιμα περιέχοντα ἀρκετὸν ἀπὸ τὸ ἅλας αὐτοῦ. Τὸ ἀποτέλεσμα ἦτο ὅτι μετὰ μερικὰς ἑβδομάδας οἱ τρεφόμενοι χωρὶς μαγνήσιον ποντικοὶ προσεβλήθησαν ἀπὸ καρκῖνον, ἐνῶ οἱ ἄλλοι μισοὶ δὲν ἔπαθαν τίποτε. Πέραν τῆς ἰδιότητός του ταύτης τὸ μαγνήσιον ξεκουράζει τὸν κουρασμένον ὀργανισμόν, καταπραΰνει τὰ νεῦρα, τονώνει τοὺς ἱστούς, παρέχει εἰς τὸν ἄνθρωπον τὸ ὡραῖον ἐκεῖνο αἴσθημα τῆς εὐφορίας καὶ τῆς αἰσιοδοξίας, τὸν κάμνει ἱκανὸν νὰ καταβάλλῃ μεγάλας προσπαθείας, ἐξαφανίζει τὴν κατάπτωσιν τῶν ἠθικῶν, ψυχικῶν καὶ σωματικῶν του δυνάμεων.

Ἐξ ἄλλου, δερματικαί, ἀρθριτικαί, ρευματικαὶ παθήσεις, μετρικαὶ ἀνωμαλίαι, ἐντερικαὶ διαταραχαί, παθήσεις τοῦ ἥπατος, προλαμβάνονται, βελτιώνονται καὶ συχνώτατα θεραπεύονται διὰ τῆς εἰσαγωγῆς χλωριούχου μαγνησίου εἰς τὸν ὀργανισμόν. Γενικώτερον ἡ κατάστασις τῆς ὑγείας τῶν ἡλικιωμένων ἀτόμων βελτιώνεται πολὺ μὲ τὴν πρόσληψιν χλωριούχου μαγνησίου. Ἡ ἔλλειψις τοῦ μετάλλου τούτου ἀπὸ τὸν ὀργανισμὸν ἀποτελεῖ ἕναν ἀπὸ τοὺς κυριωτέρους παράγοντας τῶν κακῶν τοῦ γήρατος.

Κανταντᾶ δηλαδὴ τὸ χλωριοῦχον μαγνήσιον σχεδὸν πανάκεια, καὶ μάλιστα εὐθηνωτάτη. Πράγματι ἡ τιμή του εἰς τὰ φαρμακεῖα εἶναι πολὺ μικρά.

Δὲν εἶναι ἀνάγκη νὰ προσφύγῃ κανεὶς εἰς τὰ σχετικὰ σπεσιαλιτέ. Ἐξ ἄλλου διάφορα ἰαματικὰ ὕδατα ποὺ κυκλοφοροῦν εἰς τὸ ἐμπόριον περιέχουν μεταξὺ τῶν ἄλλων χρησιμωτάτων ἁλάτων καὶ ἅλατα μαγνησίου.

Εὑρίσκει ὅμως κανεὶς χλωριοῦχον μαγνήσιον «χύμα» εἰς ὅλα τὰ φαρμακεῖα. Καὶ μία κουταλιὰ τοῦ γλυκοῦ κάθε ἡμέραν, εἰς ὁποιανδήποτε ὥραν, εἶναι ἀρκετή. Ἡ ἐλάχιστα ἄλλωστε δυσάρεστος γεῦσις του ἐξαφανίζεται μὲ μισὸ ποτῆρι νερό, εἰς τὸ ὁποῖον τὸ χλωριοῦχον μαγνήσιον εἶναι ἐξαιρετικὰ εὐδιάλυτον. Θὰ ἔλεγε κανεὶς ὅτι δὲν πρέπει νὰ ὑπάρχῃ ἄνθρωπος ποὺ θὰ συνεπλήρωνεν ἤδη τὴν ἡλικίαν τῆς σωματικῆς του ἀναπτύξεως, ποὺ νὰ μὴ παίρνῃ χλωριοῦχον μαγνήσιον.

ΤΑ ΗΛΕΚΤΡΟΝΙΑ ΕΝ ΤΗ ΠΡΑΞΕΙ

ΡΥΘΜΙΣΙΣ ΤΗΣ ΤΡΟΧΑΙΑΣ ΔΙ' ΗΛΕΚΤΡΟΝΙΚΩΝ ΕΓΚΕΦΑΛΩΝ

Ἐντὸς ὀλίγων ἐτῶν ἢ ἴσως καὶ μηνῶν, φαίνεται ὅτι δὲν θὰ ὑπάρχουν πλέον τροχονόμοι εἰς τὰς Ἡνωμένας Πολιτείας. Ὅλαι αἱ πόλεις παραγγέλλουν ἤδη καὶ ἐπιθυμοῦν νὰ ἐφοδιασθοῦν μὲ ἠλεκτρικοὺς ἐγκεφάλους, οἱ ὁποῖοι φαίνεται ὅτι λύουν κατὰ τὸν ἱκανοποιητικώτερον δυνατὸν τρόπον τὸ πρόβλημα τῆς κυκλοφορίας τῶν αὐτοκινήτων καὶ τῶν πεζῶν. Ἰδίως εἰς τὴν Ἀμερικήν, παρ' ὅλον τὸ τεράστιον ὁδικὸν δίκτυον, ἡ κυκλοφορία εἰς τὰς πόλεις εἶναι δυσχερεστάτη εἰς ὡρισμένας ὥρας τῆς ἡμέρας. Οἱ ὁδηγοὶ τῶν αὐτοκινήτων πρέπει νὰ ἔχουν Ἰώβιον ὑπομονὴν ὅταν ἀναμένουν πίσω ἀπὸ ἀτελειώτους σειρὰς τροχοφόρων, ἀναγκάζονται δὲ νὰ κινοῦνται πολὺ βραδύτερα καὶ ἀπὸ αὐτοὺς ἀκόμη τοὺς πεζούς.

Διὰ νὰ λύσουν τὸ πρόβλημα αὐτό, οἱ Ἀμερικανοὶ ἐσκέφθησαν νὰ καταφύγουν εἰς ἕνα ἐξαιρετικῶς ἐξυπηρετικὸν ἀστυνομικὸν τῆς Τροχαίας, ὁ ὁποῖος, χωρὶς μισθόν, θὰ διευθύνῃ τὴν κυκλοφορίαν ἀπὸ βάθους μερικῶν ἑκατοστομέτρων ὑπὸ τὴν ἄσφαλτον. Πρόκειται περὶ ἑνὸς...ἠλεκτρονικοῦ ἐγκεφάλου, ἀπὸ ἐκείνους ποὺ ἀπεδείχθησαν τόσον χρήσιμοι εἰς διαφόρους ἄλλους τομεῖς.

Εἰς μερικὰς ἀμερικανικὰς πόλεις χρησιμοποιοῦνται ἤδη οἱ ἐγκέφαλοι αὐτοὶ τῆς Τροχαίας. Τὰ ἀποτελέσματα εἶναι ἐκπληκτικά. Διασταυρώσεις ποὺ ἐφαίνοντο ἀπὸ ἐτῶν προωρισμέναι νὰ γίνωνται τόποι ἀφορήτου συνωστισμοῦ τροχοφόρων, δίδουν αἰφνιδίως εἰς τοὺς αὐτοκινητιστὰς ἀπιστεύτους εὐκολίας διαβάσεως. Τὸ πλέον κτυπητὸν παράδειγμα παρέχει τὸ Χουαίητ Πλαίην τῆς Ν. Ὑόρκης, τὸ σημεῖον ὅπου διασταυροῦται ἡ Μαίην Στρήητ μὲ τὴν Οὐέστσεστερ Ἄβενιου καὶ τὸ Νὸρθ Μπρόντγουαίη. Μία ἐπιτροπὴ μηχανικῶν εἶχεν εὕρει τῷ 1937 ὡς μόνην λύσιν τοῦ προβλήματος τῆς κυκλοφορίας εἰς τὴν διασταύρωσιν αὐτήν, τὴν κατασκευὴν ὑπογείων σηράγγων, αἱ ὁποῖαι ὅμως θὰ ἐστοίχιζαν περὶ τὰ 2.000.000 δολλάρια. Χάρις εἰς τὸν ἠλεκτρονικὸν ἐγκέφαλον ἐδαπανήθησαν μόνον 1.000 δολλάρια, δηλ. δύο ἐτῶν μισθοὶ ἑνὸς ἀστυφύλακος τῆς Τροχαίας. Σημειωτέον ὅτι εἰς τὸ Χουαΐτ Πλαίην ἀπησχολοῦντο μέχρι τοῦδε 5—6 τροχονόμοι οἱ ὁποῖοι ἤδη καθίστανται περιττοί.

Ὁ ἠλεκτρονικὸς ἐγκέφαλος τῆς Τροχαίας εἶναι ἐφεύρεσις τῶν Χένρυ Χώου, Χάρρυ Οὐΐλκοξ καὶ Τζὼν Μπάρκερ. Ἡ μηχανὴ αὐτή, τοποθετουμένη ὑπὸ τὴν ἄσφαλτον εἰς τὴν διασταύρωσιν δύο ἢ περισσοτέρων ὁδικῶν ἀρτηριῶν καὶ συνδυασμένη μὲ σύστημα φωτεινῶν σημάτων ὑπεράνω τῆς ἀσφάλτου, ἐπικοινωνεῖ μὲ ἄλλα μηχανήματα, ποὺ εὑρίσκονται πολὺ πρὸ τῆς διασταυρώσεως καὶ καταγράφουν ὅλα τὰ δεδομένα, ὅσον ἀφορᾷ τὸν ἀριθμὸν καὶ τὴν στιγμὴν διελεύσεως τῶν τροχοφόρων, ἀποστέλλουν δὲ τὰ δεδομένα αὐτὰ εἰς τὸν κεντρικὸν ἐγκέφαλον. Ὁ ἠλεκτρονικὸς ἐγκέφαλος ἀναλαμβάνει νὰ σταματήσῃ τὴν κυκλοφορίαν πρὸς μίαν λεωφόρον, νὰ ἐπιτρέψῃ τὴν κυκλοφορίαν πρὸς ἄλλην, νὰ ἐπιτρέψῃ τὴν δίοδον εἰς τοὺς πεζοὺς κλπ. Ὅλα γίνονται μὲ τόσην ταχύτητα, ὥστε ὁ χρόνος σταθμεύσεως περιορίζεται εἰς τὸ ἐλάχιστον.

Κατὰ τὴν διάρκειαν τελευταίας ἐπιδείξεως βρεταννικῶν ἁρμάτων μάχης καὶ ἄλλων τεθωρακισμένων ὀχημάτων εἰς τὸ Μπόβινγκτον τοῦ Ντόρσετ τῆς Μ. Βρεταννίας ἔκαμε τὴν ἐμφάνισίν του καὶ τὸ τελευταίου τύπου βρεταννικὸν ἅρμα μάχης «Κεντηρίων ΙΙΙ».

ΑΙ ΠΡΟΟΔΟΙ ΤΗΣ ΧΕΙΡΟΥΡΓΙΚΗΣ

ΛΟΓΟ-ΤΑΜΠΟΝ ΚΑΙ ΑΝΑΙΜΑΚΤΟΣ ΚΑΙΣΑΡΙΚΗ ΤΟΜΗ

Μία νέα μέθοδος ἐπισχέσεως τῶν αἱμορραγιῶν κατὰ τὰς ἐγχειρήσεις

Ὑπὸ τοῦ κ. Κ. ΛΟΓΟΘΕΤΟΠΟΥΛΟΥ, καθηγητοῦ τοῦ Πανεπιστημίου

Ἀνακοίνωσις ἐν τῇ Ἰατροχειρουργικῇ Ἑταιρίᾳ Ἀθηνῶν.

Β΄.

Ἤδη εἰσερχόμεθα εἰς τὸ κύριον θέμα τῆς ἀνακοινώσεώς μας, τοὐτέστιν εἰς τὴν τὸ πρῶτον προληπτικῶς ἐφαρμογὴν τοῦ ταμπὸν ἐπὶ Καισαρικῆς τομῆς.

Ἡ Καισαρικὴ τομὴ ἦτο γνωστὴ ἀπὸ τοὺς ἀρχαιοτάτους χρόνους εἰς τοὺς ἀρχαίους Αἰγυπτίους, Ἕλληνας καὶ Ρωμαίους. Ἐν τούτοις αἱ μέχρι τοὐδε ἀνακοινώσεις ἐπὶ τοῦ θέματος τούτου εἶναι ἀβέβαιοι, καταπολεμηθεισαι ὑπὸ πολλῶν οὕτως, ὥστε οὐδέποτε θέλει ἐπέλθῃ διαλεύκανσις τοῦ χρόνου τῆς ἀπαρχῆς τῆς ἐγχειρήσεως ταύτης. Ἐν Γερμανίᾳ ἡ πρώτη βεβαιωθεῖσα Καισαρικὴ τομὴ ἐξετελέσθη ὑπὸ τοῦ Trautmann τῷ 1610. Τὸ τραῦμα τῆς μήτρας δὲν συνερράφη, ἀλλὰ μόνον τὰ κοιλιακὰ τοιχώματα συνεπτύχθησαν. Ἡ γυνὴ ἀπεβίωσε τὴν 25ην ἡμέραν μετὰ τὴν ἐγχείρησιν κατὰ τὴν ἔγερσιν αὐτῆς ἐκ τῆς κλίνης, τὸ δὲ τέκνον ἔζησε μέχρι τοῦ 9ου ἔτους τῆς ἡλικίας του. Ἐπίσης πιθανολογεῖται ὅτι ὁ ἐξ Ἑλβετίας χοιροβοσκὸς Jacob Nufer ἐξετέλεσεν ἐπιτυχῶς τὴν ἐγχείρησιν ταύτην ἐπὶ τῆς συζύγου του.

Ἡ Καισαρικὴ τομή, ἐκ τοῦ λατινικοῦ sectio caesario, φέρει τὸ ὄνομα αὐτῆς οὐχὶ διότι δι' αὐτῆς ἐγεννήθη ὁ Ἰούλιος Καῖσαρ, καθ' ὅσον τὸ τοιοῦτον εἶναι λίαν ἀβέβαιον, οὔτε διότι ἡ ἐγχείρησις αὕτη ἐξετελεῖτο ὑπὸ τῶν Ρωμαίων. Τὸ πιθανώτερον εἶναι, κατὰ τὴν γνώμην ὅλων τῶν συγγραφέων, ὅτι ὁ ὅρος οὗτος προέρχεται ἐκ τοῦ λατινικοῦ caedere = κόπτειν, θεωρεῖται δὲ ὡς γλωσσικὸς πλεονασμός, καθ' ὅσον ἡ λέξις section, ὡς καὶ ἡ λέξις caedere ἔχουν τὴν αὐτὴν σημασίαν.

Τὸ 1844 ὁ ἐκ Κοπεγχάγης Kayser παρουσίασε στατιστικήν, δι' ἧς ἡ ἐκ τῆς ἐγχειρήσεως ταύτης θνητότης τῶν γυναικῶν ἀνήρχετο εἰς 62%, ὁ δὲ θάνατος ἐπήρχετο ὁτὲ μὲν ἐξ ἀφθόνου αἱμορραγίας, ὁτὲ δὲ ἐκ λοιμώξεως. Ἡ θνητότης ἠλαττώθη νῦν καταπληκτικῶς, ἀφ' ἑνὸς ἐκ τῆς ὑπὸ τοῦ Kroenig καὶ Sellheim εἰσαχθείσης τραχηλικῆς τομῆς καὶ ἀφ' ἑτέρου διὰ τῆς τελειοποιήσεως ὑπὸ τοῦ Saenger τῆς συρραφῆς τῆς μήτρας.

Ἔκτοτε, ἰδίᾳ δὲ μετὰ τὴν ἀνακάλυψιν τῶν ἀντιβιοτικῶν φαρμάκων, ἐπεξετάθησαν αἱ ἐνδείξεις τῆς ἐγχειρήσεως ταύτης ἐπὶ πλείστων μαιευτικῶν ἐπιπλοκῶν.

Ὅσον ἀφορᾷ εἰς τὸν τρόπον τῆς ἐκτελέσεως τῆς ἐγχειρήσεως ἡ τομὴ ἐπὶ τοῦ σώματος τῆς μήτρας, ἡ καλουμένη «κλασσικὴ Καισαρικὴ τομὴ» ἔχει ἤδη ἐγκαταλειφθῇ, ἕνεκα τῆς αἱμορραγίας ἥτις ἐπέρχεται κατὰ τὴν διατομὴν τῶν παχέων τοιχωμάτων τοῦ σώματος τῆς μήτρας, ὡς καὶ ἐκ τοῦ κινδύνου τῆς μετέπειτα προκλήσεως συμφύσεων μεταξὺ τῆς οὐλῆς καὶ τῶν ἐντερικῶν ἑλίκων. Ὁ Sellheim ἐτόνισε τοὺς κινδύνους, οὓς ἐνέχει ἡ διατομὴ τοῦ τοιχώματος τοῦ σώματος τῆς μήτρας, καθ' ὅσον ὁσονδήποτε στερεὰ καὶ ἂν τελεσθῇ ἡ ραφή, κατὰ τὴν παλινδρόμησιν τῆς μήτρος τὰ ράμματα χαλαροῦνται καὶ τὸ τραῦμα καθιστάμενον διαπερατὸν συνεπάγεται περιτονίτιδα, ὡς ἐκ τῆς ἐξόδου ὑγρῶν ἐκ τῆς μητρικῆς κοιλότητος. Τὸ τοιοῦτον συνετέλεσεν ὥστε νὰ προτιμᾶται τὸ τραχηλικὸν τμῆμα τῆς μήτρας, ὅπερ εἶναι λεπτότερον καὶ διὰ τῆς εἰς δύο στρώματα ραφῆς καὶ τῆς ἐπικαλύψεως τοῦ συρραφέντος τραύματος ὑπὸ τοῦ περιτοναίου τῆς κύστεως καθίσταται ἀδιαπέρατον. Ἡ ἐνδοπεριτοναϊκὴ τραχηλικὴ ἢ ἰσθμικὴ Καισαρικὴ τομὴ ἀποτελεῖ κατὰ τὰς στατιστικὰς τῶν Winter καὶ Naujoks τὰ 80% τῶν ἐκτελουμένων Καισαρικῶν τομῶν. Τὰ προτερήματα τῆς τομῆς ταύτης ἔναντι τῆς παλαιᾶς κλασσικῆς Καισαρικῆς τομῆς εἶναι πλεῖστα : Ὁ κίνδυνος τῆς περιτονίτιδος εἶναι μικρότερος, αἱ αἱμορραγίαι κατὰ τὴν διατομὴν τοῦ λεπτοῦ τοιχώματος τοῦ αὐχένος ἐλάχισται, τὰ αἱμάσσοντα ἀγγεῖα ἀπολινοῦνται εὐχερῶς, ἡ δὲ χαλάρωσις τῶν ραφῶν τοῦ τραύματος ἕνεκα τῆς αὐξομειώσεως τοῦ τμήματος τούτου τῆς μήτρας, ὡς τὸ τοιοῦτον συμβαίνει εἰς τὸ σῶμα, ἀποφεύγεται σχεδὸν πάντοτε. Ἐκ τῆς συγκαλύψεως τούτου ὑπὸ περιτοναίου ἀποφεύγονται ἐπίσης καὶ συμφύσεις τῆς οὐλῆς μετὰ τῶν ἐντερικῶν ἑλίκων. Ἡ ἰσθμικὴ διατομὴ τῆς μήτρας συνετέλεσε κατὰ πρῶτον λόγον εἰς τὴν τεραστίαν διάδοσιν τῆς Καισαρικῆς τομῆς.

Ἐκεῖνο τὸ ὁποῖον ἐνδιαφέρει ἐνταῦθα ἡμᾶς εἶναι νὰ ἐξετάσωμεν τὰ αἴτια τοῦ θανάτου κατὰ τὰς Καισαρικὰς τομάς. Κατὰ τὴν στατιστικὴν τῶν Winter καὶ Naujoks αἱ αἱμορραγίαι παίζουν σημαντικὸν ρόλον κατὰ τὴν Καισαρικὴν τομήν. Πολλαὶ περιπτώσεις θανάτου χαρακτηριζόμεναι ὡς καρδιακαὶ ἢ κυκλοφορικαὶ ἀνεπάρκειαι ὀφείλονται ἀσφαλῶς εἰς τὴν κατὰ τὴν Καισαρικὴν τομὴν ἐπερχομένην αἱμορραγίαν. Ἐπίσης γνωστοῦ ὄντος ὅτι ἡ λοίμωξις εὐχερέστερον προσβάλλει ἐξηντλημένας γυναῖκας, ὁ ἀριθμὸς τῶν ἐπερχομένων θανάτων θὰ ἦτο σαφῶς μικρότερος, ἐὰν κατὰ τὴν ἐγχείρησιν δὲν ἐπήρχετο αἱμορραγία. Αἱ αἱμορραγίαι κατὰ τὴν Καισαρικὴν τομὴν ὀφείλονται κατὰ κανόνα εἰς τὴν ἀδράνειαν τῆς μήτρας, ἥτις παρατηρεῖται συνηθέστερον ἢ εἰς ἄλλας μαιευτικὰς ἐπεμβάσεις. Ἕνεκα τοῦ λόγου τούτου ἀποφεύγεται ὑπὸ πολλῶν ἡ ἐγχείρησις πρὸ τῆς ἐνάρξεως τῶν ὠδίνων τῆς μήτρας, καίτοι εἶναι ἀποδεδειγμένον ὅτι ὅσον περισσότερος χρόνος παρέρχεται ἀπὸ τῆς ἐνάρξεως τοῦ τοκετοῦ, τόσον μεγαλύτερος καθίσταται ὁ κίνδυνος τῆς λοιμώξεως. Μεγάλην ἐπίσης σημασίαν ἔχουν αἱ αἱμορραγίαι αἱ προερχόμεναι ἐκ τῶν οὐλῶν τῆς μήτρας τῶν ὀφειλομένων εἰς προηγηθείσας Καισαρικὰς τομάς. Πολλάκις εἰς τὰς τοιαύτας περιπτώσεις, ἰδίᾳ ἐὰν ἡ ἀποκόλλησις τοῦ πλακοῦντος παρέχῃ δυσχερείας, ἐνδείκνυται ἡ ἐξαίρεσις τῆς μήτρας πρὸς διάσωσιν τῆς γυναικός. Αἱμορραγίαι ἀναφέρονται ἐπίσης ἕνεκα διασχίσεως τῆς μήτρας κατὰ τὴν ἔξοδον τοῦ ἐμβρύου, ἰδίᾳ κατὰ τὴν ἐγκαρσίαν κατὰ Pfannenstiel διατομήν, ὁπόταν δυνατὸν νὰ τρωθοῦν αἱ μητριαῖαι ἀρτηρίαι.

Ἐνδιαφέρουσα εἶναι ἡ ἀνακοίνωσις τοῦ Charles Gordon, Brooklyn, N.Y. εἰς τὴν Ἀμερικανικὴν Ἑταιρίαν Μαιευτήρων—Γυναικολόγων καὶ Χειρουργῶν εἰς Hot Springs, Virginia, 6, 7 καὶ 8 Σεπτεμβρίου 1951. Οὗτος ἀναφέρει τὴν στατιστικὴν τοῦ Dieckmann τῷ 1950 ἐπὶ 242 θανάτων ἐκ Καισαρικῆς τομῆς. Ἐκ τῆς στατιστικῆς ταύτης ἐξάγεται ὅτι 69 περιπτώσεις ὑπέκυψαν ἐκ λοιμώξεως, εἰς 15 δὲ ἐξ αὐτῶν ὑπῆρξε σοβαρὰ αἱμορραγία, 34 περιπτώσεις καθαρῶς ἀπὸ αἱμορραγίαν, 7 ἀπὸ ἐγχειρητικὸν shok. Εἰς 31 περιπτώσεις σοβαρὰ αἱμορραγία συνετέλεσεν εἰς θανάτους ἀποδοθέντας : εἰς καρδιακὸν νόσημα 2, εἰς ἐκλαμψίαν 2, εἰς ἐμβολὴν 3, εἰς ἀτυχήματα κατὰ τὴν μετάγγισιν καὶ ἀνεπάρκειαν νεφρῶν 10 καὶ εἰς μόλυνσιν 12.

Λαμβάνοντες ταῦτα ὑπ' ὄψιν βλέπομεν ὁποίαν σημασίαν ἔχει ἡ ἀπώλεια αἵματος κατὰ τὴν Καισαρικὴν τομήν. Ὁ Gordon τονίζει ὅτι ἡ θνησιμότης κατὰ τοὺς τοκετοὺς δύναται νὰ ἐλαττωθῇ ἔτι πλέον διὰ τῆς ἀναγνωρίσεως τοῦ γεγονότος τούτου.

Εἶμαι εὐτυχὴς διότι εἰς ἐμὲ ἔτυχεν ὁ κλῆρος νὰ λύσω τὸ σοβαρὸν τοῦτο ζήτημα δι' ἁπλουστάτης μεθόδου, δι' ἧς κατορθοῦται ἡ τελείως ἀναίμακτος διεξαγωγὴ τῆς ἐγχειρήσεως ταύτης. Ἡ ἐφαρμογὴ τῆς μεθόδου ταύτης γίνεται ὡς καὶ εἰς τὰς κοιλιακὰς ὑστερεκτομὰς ἐν περιπτώσει αἱμορραγίας, ἥτις κατ' ἄλλον τρόπον οὐδόλως ἢ δυσχερῶς ἐπίσχεται, ὡς ἀνωτέρω ἀνεφέρομεν. Πληροῦμεν καλῶς σάκκον ἐκ τετραγώνου γάζης διὰ μακρᾶς λωρίδος γάζης, οὕτως ὥστε νὰ σχηματισθῇ σκληρὸς σφαιρικὸς ὄγκος, σχήματος μήκυτος, περίπου κεφαλῆς ἐμβρύου, ἵνα μὴ κατὰ τὴν ἰσχυρὰν ἔλξιν πρὸς τὰ κάτω ἐξέλθῃ πρὸς τὰ ἔξω. Τὰ τέσσαρα ἄκρα τῆς τετραγώνου γάζης, ὡς καὶ ἡ μεταξὺ τούτων ἄκρα τῆς λωρίδος, γάζης, ἥτις πρὸς διάκρισιν δέον νὰ εἶναι κατά τι μακροτέρα τῶν ἄλλων, συλλαμβάνομεν ὁμοῦ διὰ μιᾶς ἀγκιστροφόρου μήλης τοῦ Amann, ἣν ὁδηγοῦμεν ἀπὸ τῆς τομῆς τοῦ μητρικοῦ τοιχώματος διὰ μέσου τοῦ κόλπου πρὸς τὰ ἔξω γεννητικὰ ὄργανα, ἀφοῦ προηγουμένως ἐξαγάγομεν τὸ ἔμβρυον. Ὁ βοηθὸς συλλαμβάνει τὰ ἄκρα ταῦτα καὶ ἕλκει ἰσχυρῶς πρὸς τὰ κάτω μέχρις οὗ τὸ σφαιρικὸν ταμπὸν εἰσέλθῃ εἰς τὴν ἐλάσσονα πύελον καὶ δυνηθῇ νὰ ἀσκήσῃ πίεσιν ἐπὶ τῶν μητριαίων ἀγγείων. Τὸ τοιοῦτον ἐπιτυγχάνεται καὶ διὰ τῆς εἰσαγωγῆς μακρᾶς κυρτῆς αἱμοστατικῆς λαβίδος, ἥτις ἅμα ἀναφανῇ εἰς τὴν κοιλότητα τῆς μήτρας διανοίγεται καὶ συλλαμβάνει τὰ εἰς αὐτὴν εἰσαγόμενα ἄκρα τοῦ ταμπόν, ἅτινα καὶ ἕλκει πρὸς τὰ ἔξω. Καθ' ὃν χρόνον ὁ βοηθὸς ἕλκει ἰσχυρῶς τὰ ἄκρα τοῦ ταμπόν, προβαίνομεν εἰς τὴν ἀφαίρεσιν τοῦ πλακοῦντος καὶ εἰς τὴν συρραφὴν τοῦ μητρικοῦ τραύματος. Μετὰ ταῦτα ἐκτελοῦμεν μαλάξεις τῆς μήτρας πρὸς πρόκλησιν συστολῶν αὐτῆς, ἐνισχύοντες ταύτας δι' ἐνέσεως πιτουϊτρίνης καὶ περαίνομεν τὴν ἐγχείρησιν διὰ συρραφῆς τῶν κοιλιακῶν τοιχωμάτων.

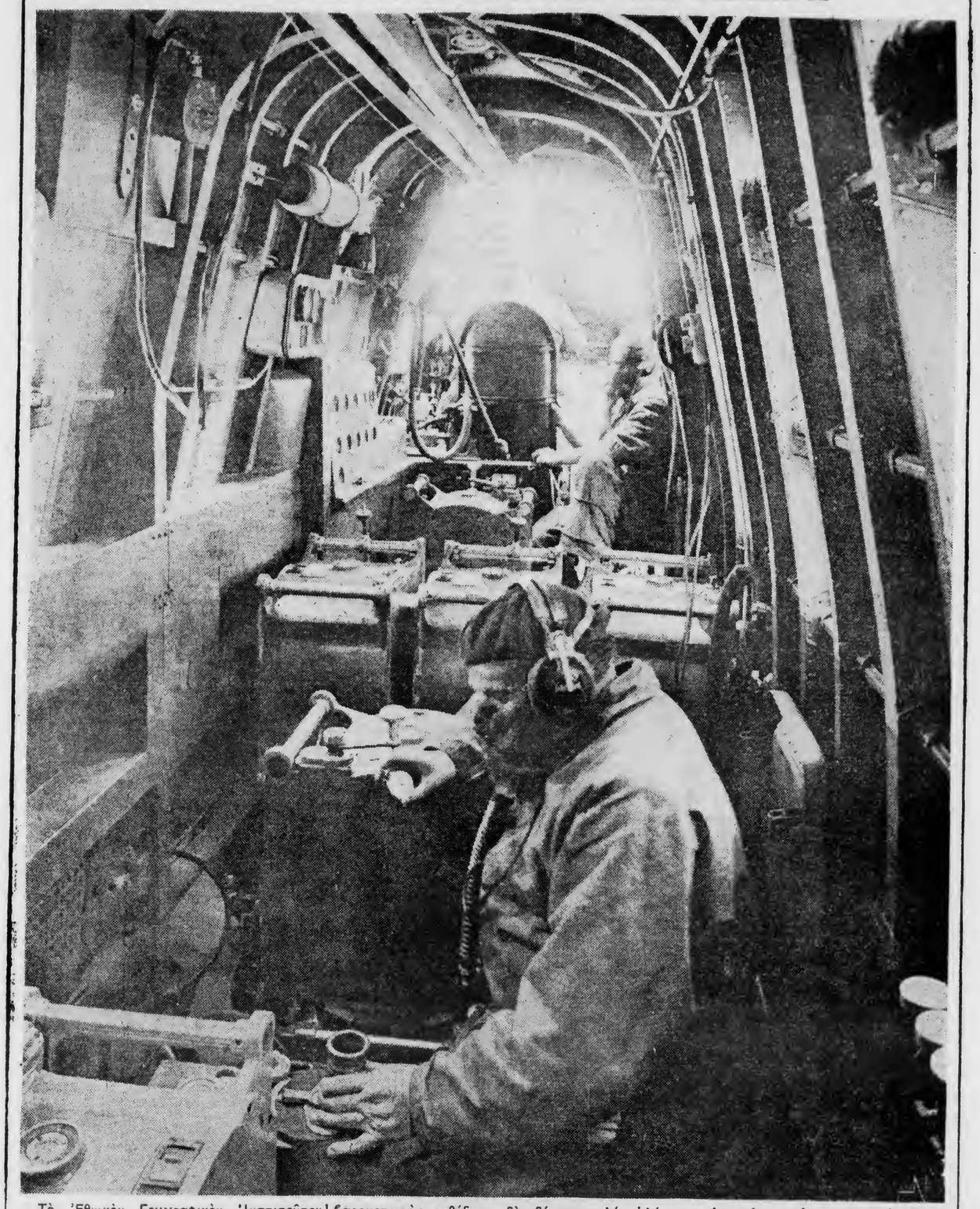
Ἐξετελέσαμεν μέχρι τοὐδε ὀκτὼ Καισαρικὰς τομάς, εἰς ἃς ἐφηρμόσαμεν τὴν μέθοδον ταύτην μετ' ἐξαιρετικῆς ἐπιτυχίας. Ἐπὶ τῇ βάσει τῆς πείρας ἣν ἐσχηματίσαμεν, ἡ ἐκτέλεσις τῆς ἐγχειρήσεως καὶ ἡ εἰσαγωγὴ τοῦ ταμπὸν δέον νὰ γίνεται κατὰ τὸν ἀκόλουθον τρόπον: Διανοίγομεν τὰ κοιλιακὰ τοιχώματα δι' ἐπιμήκους τομῆς καὶ ἀφοῦ εἰσαγάγομεν εἰς τὴν περιτοναϊκὴν κοιλότητα μεγάλα σπληνία, πρὸς ἀποφυγὴν εἰσρεύσεως εἰς ταύτην ἐναμνίου ὑγροῦ, διανοίγομεν τὴν μήτραν φέροντες ἐγκαρσίαν τομὴν εἰς τὸ ἀνώτερον τμῆμα τοῦ αὐχένος. Εἶτα συλλαμβάνομεν τὸ κατώτερον μὲν χεῖλος τοῦ τραύματος δι' ἀγκιστροειδῶν λαβίδων, τὸ δὲ ἀνώτερον διὰ διαστολέως καὶ διανοίγομεν τοῦτο εὐρέως, ὁφοῦ βεβαίως προηγουμένως ἔχομεν προβῆ εἰς τὴν ἐξαγωγὴν τοῦ ἐμβρύου. Μετὰ ταῦτα διοχετεύομεν τὰ ἄκρα τῆς γάζης διὰ τοῦ κολεοῦ πρὸς τὰ ἔξω, ἐνῶ δὲ ὁ βοηθὸς ἕλκει ταῦτα ἰσχυρῶς, ὑποβοηθοῦμεν διὰ τῆς χειρὸς τὴν εἴσοδον τοῦ ταμπὸν εἰς τὴν κοιλότητα τῆς μήτρας. Ἐὰν ἡ μήτρα ἔχῃ συσταλῇ καλῶς καὶ δὲν ὑπάρχει κίνδυνος δευτερογενοῦς αἱμορραγίας, ἕνεκα ἀτονίας τῆς μήτρας, τὸ ταμπὸν δύναται νὰ ἀφαιρεθῇ ἀμέσως μετὰ τὴν ἐγχείρησιν. Ἐν ἐναντίᾳ περιπτώσει ἐφαρμόζομεν τὸν πεσσὸν καὶ τὴν λαβίδα, ὡς τὸ τοιοῦτον πράττομεν κατὰ τὰς αἱμορραγίας ἕνεκα ἀτονίας τῆς μήτρας μετὰ τὸν τοκετόν. Ἐν τοιαύτῃ περιπτώσει ἡ ἀφαίρεσις τοῦ ταμπὸν τελεῖται μετὰ 2—3 ὥρας. Ἡ συστολὴ τῶν μητρικῶν τοιχωμάτων μετὰ τὴν εἰσαγωγὴν τοῦ ταμπὸν ἐπέρχεται εὐχερέστερον, οὐ μόνον ἕνεκα τοῦ ἐκ τούτου ἐπερχομένου ἐρεθισμοῦ, ἀλλὰ καὶ ἕνεκα τῆς ἐκ τῆς συμπιέσεως τῶν μητριαίων ἀρτηριῶν ἐπερχομένης ἀναιμίας τοῦ ὀργάνου, ὡς τὸ τοιοῦτον συμβαίνει καὶ κατὰ τὴν συμπίεσιν τῆς ἀορτῆς. Εἰς τοῦτο ἐπίσης συντελεῖ καὶ ἡ διὰ τοῦ ταμπὸν συμπίεσις τῶν γαγγλίων τοῦ Frankenhaeuser.

Αὐτονόητον εἶναι ὅτι πρὸ τῆς ἐγχειρήσεως δέον νὰ ὑπάρχῃ πρόχειρον ταμπὸν ἀπεστειρωμένον.

Τέλος, ἐπιθυμοῦμεν νὰ τονίσωμεν ὅτι ἡ μέθοδος αὕτη εἶναι τόσον ἀποτελεσματική, ὥστε πᾶσα Καισαρικὴ τομὴ εἰς τὸ μέλλον θὰ τελῆται ἀναιμάκτως, ἐλαττουμένης οὕτω τῆς θνησιμότητος τῶν γυναικῶν κατὰ τὰς ἐγχειρήσεις ταύτας εἰς τὸ ἐλάχιστον.

Κ. ΛΟΓΟΘΕΤΟΠΟΥΛΟΣ

ΧΑΡΤΟΓΡΑΦΕΙΤΑΙ ΟΛΟΚΛΗΡΟΣ Η ΓΑΛΛΙΑ
ΜΕ 17 ΜΕΓΑΛΑ ΕΙΔΙΚΑ ΑΕΡΟΠΛΑΝΑ



Τὸ Ἐθνικὸν Γεωγραφικὸν Ἰνστιτοῦτον τῆς Γαλλίας διὰ νὰ καταρτίση ἀκριβεστάτους χάρτας ὅλων τῶν Γαλλικῶν περιοχῶν ἐφωδίασε μὲ εἰδικὰ μηχανήματα δέκα ἑπτὰ ἀεροπλάνα καὶ ἤρχισε τὴν χαρτογράφησίν των σύμφωνα μὲ τὰς νέας ἀπαιτήσεις τῆς γεωγραφικῆς ἐπιστήμης. Ὁ ἰσχύων σήμερον ἐπίσημος χάρτης τῆς Γαλλίας, ὁ ὁποῖος εἶχε συνταχθῆ μὲ βάσιν τὰς τριγωνομετρικὰς καὶ τὰς παλαιοτέρας βαρομετρικὰς μεθόδους, δὲν δύναται πλέον νὰ ἐξυπηρετήση τὰς ἀνάγκας πολλῶν ὑπηρεσιῶν, πολὺ περισσότερον δὲ τὴν ἀεροπορίαν ἐν ὄψει γενικεύσεως τῶν συγκοινωνιῶν μὲ πυραυλοκίνητα καὶ ἑλικόπτερα. Ἡ νέα χαρτογράφησις παρ' ὅλον ὅτι δὲν εἶναι ἐπίπονος,—ὅπως ἡ παλαιὰ, διὰ τὴν ὁποίαν ὁ τοπογράφος ἦτο ὑποχρεωμένος νὰ ἀνέρχεται μὲ πλῆθος βαρέων ὀργάνων μετρήσεως εἰς δυσπρόσιτα σημεῖα—ἀπαιτεῖ ἐν τούτοις πολλὴν ἐργασίαν καὶ προσεκτικὸν ἔλεγχον τῶν ὅρων πτήσεως κατὰ τὴν ὁποίαν λαμβάνονται αἱ ἀεροφωτογραφίαι.

Μέχρι σήμερον ἔχει χαρτογραφηθῆ τὸ ἓν τρίτον τῆς Γαλλίας. Ἡ ἀνωτέρω φωτογραφία δεικνύει τὸ ἐσωτερικὸν ἑνὸς ἐκ τῶν 17 γαλλικῶν ἀεροπλάνων χαρτογραφήσεως καθ' ἣν στιγμὴν οἱ ἐπιβαίνοντες αὐτοῦ ἐλέγχουν τὰ μηχανήματα αὐτομάτου λήψεως ἀεροφωτογραφιῶν.

ΒΑΣΙΛΕΙΟΝ ΤΗΣ ΕΛΛΑΔΟΣ

ΥΠΟΥΡΓΕΙΟΝ ΚΡΑΤΙΚΗΣ ΥΓΙΕΙΝΗΣ ΚΑΙ ΑΝΤΙΛΗΨΕΩΣ

Διεύθυνσις .....

Τμῆμα ..... Κοιν. Ὑγιειν.

Γραφεῖον .....

Ἐν Ἀθήναις τῇ ..... 16/10/35 ..... 193...

Ἀριθ. πρωτ. Π2558

Ἀναγράφεται ὁ ἀριθμὸς καὶ ἡμερομηνία τοῦ παρόντος εἰς ἀπάντησιν ἐν τῷ ὑπηρεσιακῷ σημειωματίῳ ἢ ἀπαντώμενα. Ἀρχὴ ἰσχύος ἐν τῷ ὑπηρεσιακῷ σημειωματίῳ ἢ ἐν ἄλλῳ τόπῳ τοῦ παρόντος

Α Π Ο Φ Α Σ Ι Σ

Λαβόντες ὑπ'ὄψει:

Ι) Τήν ἀπό 26/6/35 αἴτησιν τοῦ ἰατροῦ κ. Ἐρνέστου Μύλλερ μετά τῶν προσηρτημένων ταύτῃ δικαιολογητικῶν αἰτουμένου τήν χορήγησιν ἀδείας λειτουργίας Χειρουργικῆς-Γυναικολογικῆς Μαιευτικῆς Κλινικῆς.

2)Τήν ὑπ'ἀριθ.1872 ἐ.ἔ.ἀναφοράν τοῦ Ὑγειονομικοῦ Κέντρου Ἀττικοβοιωτίας μετά τοῦ συνημμένου ταύτῃ σχετικοῦ δελτίου ἐπιθεωρήσεως.

3)Τήν ὑπ'ἀριθ.686 ἐ.ἔ. γνωμάτευσιν τοῦ Ἀνωτάτου Ὑγειονομικοῦ Συμβουλίου ἀποφανομένου ὑπέρ τῆς χορηγήσεως τῆς ἀνωτέρω ἀδείας.

Καί 4) Τάς διατάξεις τοῦ ἀπό 18 Ἰανουαρίου 1926 ἐκτελεστικοῦ Διατάγματος τοῦ Νομοθετικοῦ Διατάγματος "Περί ἱδρυμάτων ὑγιεινῆς καί ἰατρικῆς ἐνγένει"

Α Π Ο Φ Α Σ Ι Ζ Ο Μ Ε Ν

Χορηγοῦμεν εἰς τόν αἰτοῦντα τὸν ἰατρὸν Ἐρνέστον Μύλλερ ἄδειαν ἱδρύσεως καί λειτουργίας ἐνταῦθα καί ἐπί τῆς ὁδοῦ Λουκιανοῦ 15 Χειρουργικῆς Γυναικολογικῆς-Μαιευτικῆς Κλινικῆς.

Ὁ Ὑφυπουργός

Κ.ΛΟΥΡΟΣ

18/11 6.

(Fortsetzung auf Seite 36)

F_1. Statt dieser Originalmethode ist die Modifikation nach Kielland vorzuziehen. Durch diese Operation wird der zwischen Corpus und Cervix uteri vorhandene Winkel aufgehoben und die Cervix dadurch auf die hintere Vaginalaxe verlagert.

2) S u b f u n d a l e U t e r u s a m p u t a t i o n.

Die Vaginifixation nach Schauta-Wertheim mit oder ohne Modifizierung nach Kielland habe ich in der lezten Zeit wegen der relativ großen Mortalität und wegen der nicht seltenen Rezidiven verlassen. Ebenso würde ich aus dem gleichen Grunde nicht mehr die vaginale Totalextirpation an, die ebenso gute statistische Resultate gibt, aber doch einen größeren Eingriff darstellt, sondern begnüge mich mit der Abtragung des ganzen unteren Teiles des Uterus im Zusammenhang mit der Bildung einer engeren Vagina und eines starken Perineums. Die Operation ist leicht auszuführen und hat mir bis jetzt die besten Resultate gegeben. Sie ist im Prinzip der hohen Portio amputation ähnlich, mit dem Unterschied, daß der Uterus viel weiter oben bis zum Fundus abgetragen wird, wofür ich vorschlage subfundale Uterusamputation.

Die Operation wird auf folgende Weise ausgeführt: Die Portio wird mit Kugelzangen gefaßt und stark nach abwärts gezogen. Nun wird die Scheidewand in ihrer ganzen Dicke mit einer kräftigen gebogenen Schere 1/2cm. oberhalb des Überganges der Scheiden in die Portioschleimhaut zirkulär umschnitten und teils stumpf, teils mit der Schere etwas nach oben präpariert. Die Blasenwand wird jetzt nach oben zu abgespannt und mit kleinen Schnitten die nun deutlich sichtbar werdenden vesicocervikalen Bindegliedstränge getrennt und dadurch die Blase von ihren festeren Verbindungen mit der Cervix losgelöst. Die Blase wird dann mit dem Finger nach oben geschoben. Nachdem auch die seitlichen Blasenpartien nach oben und nach der Seite geschoben worden sind, legen wir das vordere Vaginalspekulum unter die Blase und bringen sie und die Ureteren auf diese Weise außerhalb des Operationsgebietes. Das nun deutlich sichtbare Peritoneum wird mit einer Pinzette gefaßt und mit einem Scherenschlag geöffnet und die Öffnung nach beiden Seiten erweitert (Abb. 71, 75, 76, 77). Das so geöffnete Peritoneum zieht sich von selbst oder mit Nachhilfe des Fingers durch das Abwärtsziehen des Uterus zurück und wird mit einigen Nähten auf die vordere Uteruswand 2½-3 cm. unterhalb der Fundusoberfläche befestigt. Die Scheide wird dann auf beiden Seiten hochgeschoben, nachdem die Uteringefäße mit Klemmen gefaßt und unterbunden worden sind. Die Portio wird stark nach vorne gezogen, das Douglasperitoneum geöffnet, nach oben geschoben und auf die hintere Uteruswand und in der gleichen Höhe mit dem Blasenperitoneum mit einigen Nähten befestigt. Der nun freiliegende Uterus wird direkt unterhalb der Peritonealnähte mit dem Messer oder mit der Schere abgetragen. Die Uteruswunde wird nach der Methode von Stumdorf mit der Vaginalwandung bedeckt.

Bei kleinen atrophischen Uteri verzichte ich auf die Eröffnung des Peritoneums, dasselbe wird möglichst hoch geschoben und der Uterus direkt unterhalb der Insertionsstelle des Peritoneums abgetragen. Anschließend wird die vordere und hintere Vaginalplastik und die Bildung eines festen Beckenbodens vorgenommen.

Die Resultate der Operation sind so günstig, daß dieser Eingriff in meiner Klinik bei großen Uterusprolapsen die Operation der Wahl darstellt. Ich habe bis jetzt bei 81 Fällen die ich selbst operiert habe nur ein Rezidiv des Scheidenvorfalles beobachtet, so daß eine Wiederholung der plastischen Operation der Scheide notwendig wurde. Die 2 Todesfälle die vorkommen sind nicht auf die Art der Operation zurückzuführen, da die eine an Embolie und die zweite an septischer Urämie starb. Es handelte sich bei beiden um sehr heruntergekommene Patientinen.

Der Vorteil der Operation ist, daß die Ausführung leicht ist und die Gefahr äußert gering, da man mit der Peritonealhöhle gar nicht in Berührung kommt.

Bei jungen Frauen besteht ein weiterer Vorteil daß die Menstruation erhalten bleibt.

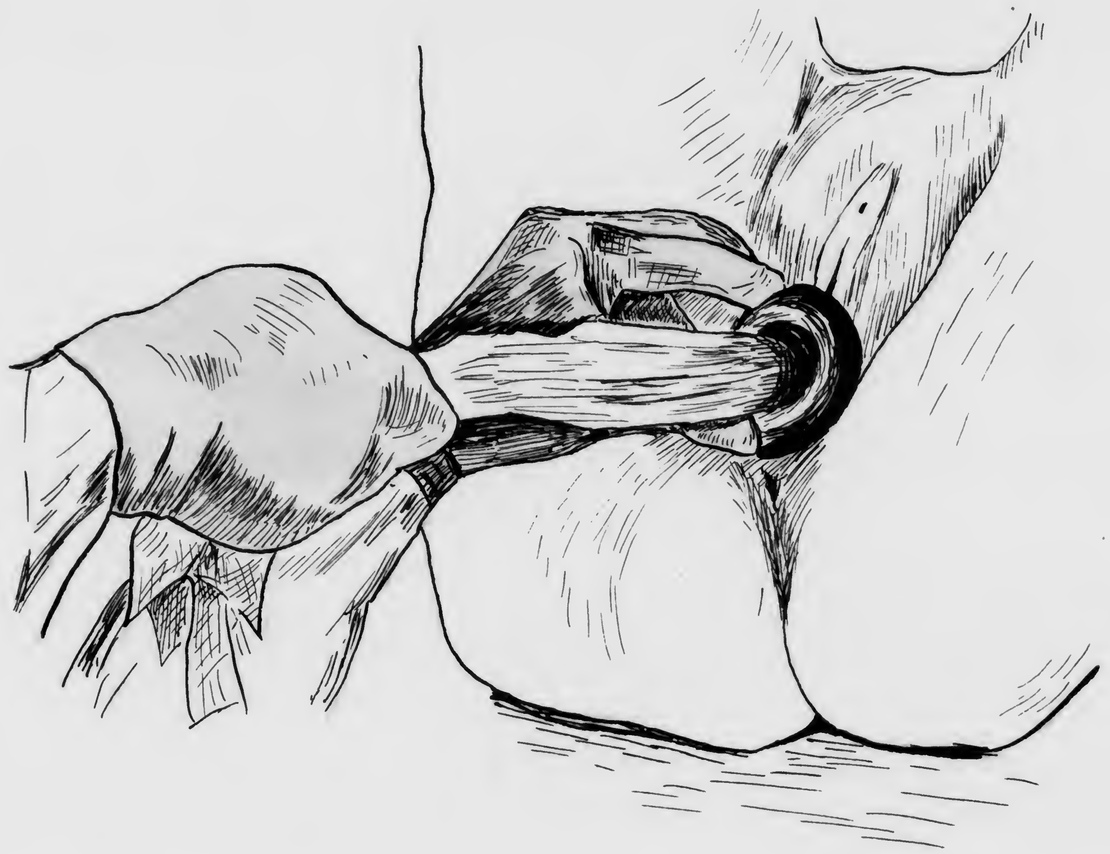
Vorwort zur zweiter Auflage.

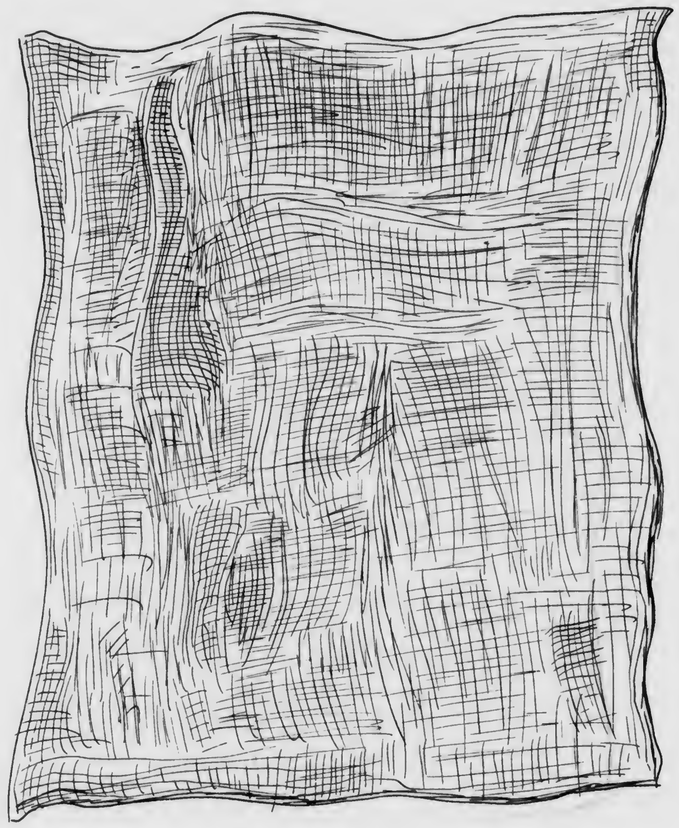
Obwohl die erste Auflage von längerer Zeit vergriffen war, ist es nicht möglich gewesen die zweite erscheinen zu lassen.

Bei der zweiten Auflage sind zwei neue Methoden hinzugefügt worden. Die erste betrifft die Geburtshilfe; es handelt sich um die Therapie der atonischen Blutungen nach der Geburt der Plazenta.
Die zweite ist die subfundale Uterusamputation bei Prolapsen und bei Metrorrhagien.

Da ich durch diese Methode bessere Resultate erreicht habe, werde ich nicht mehr die sagitale Uterusamputation beschreiben.

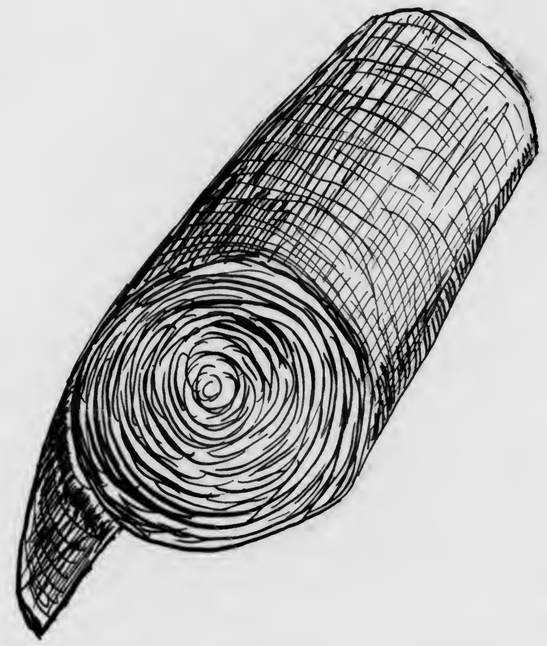
Athen den, *K. LOGOTHETOPULOS.*



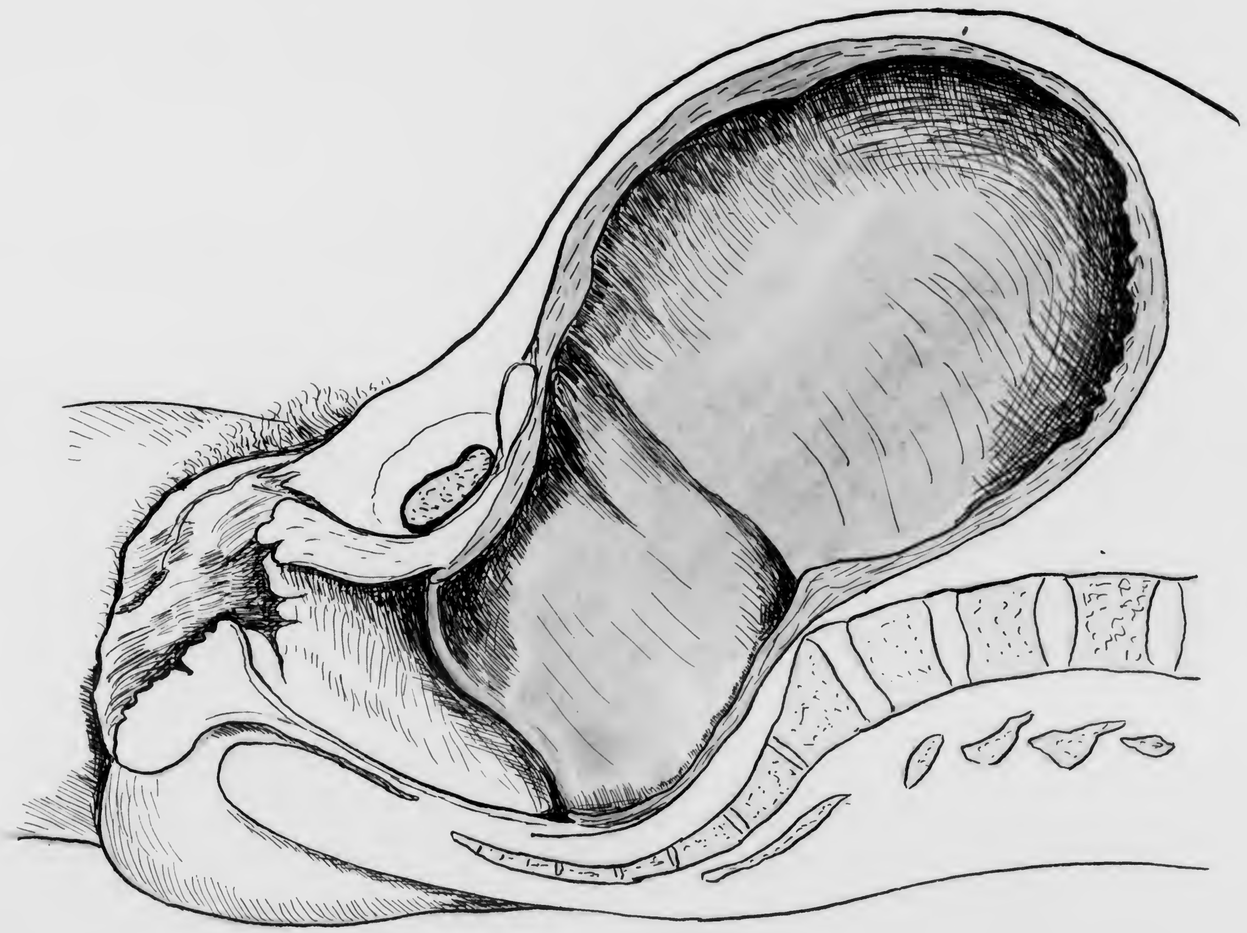


90 x 90 cm

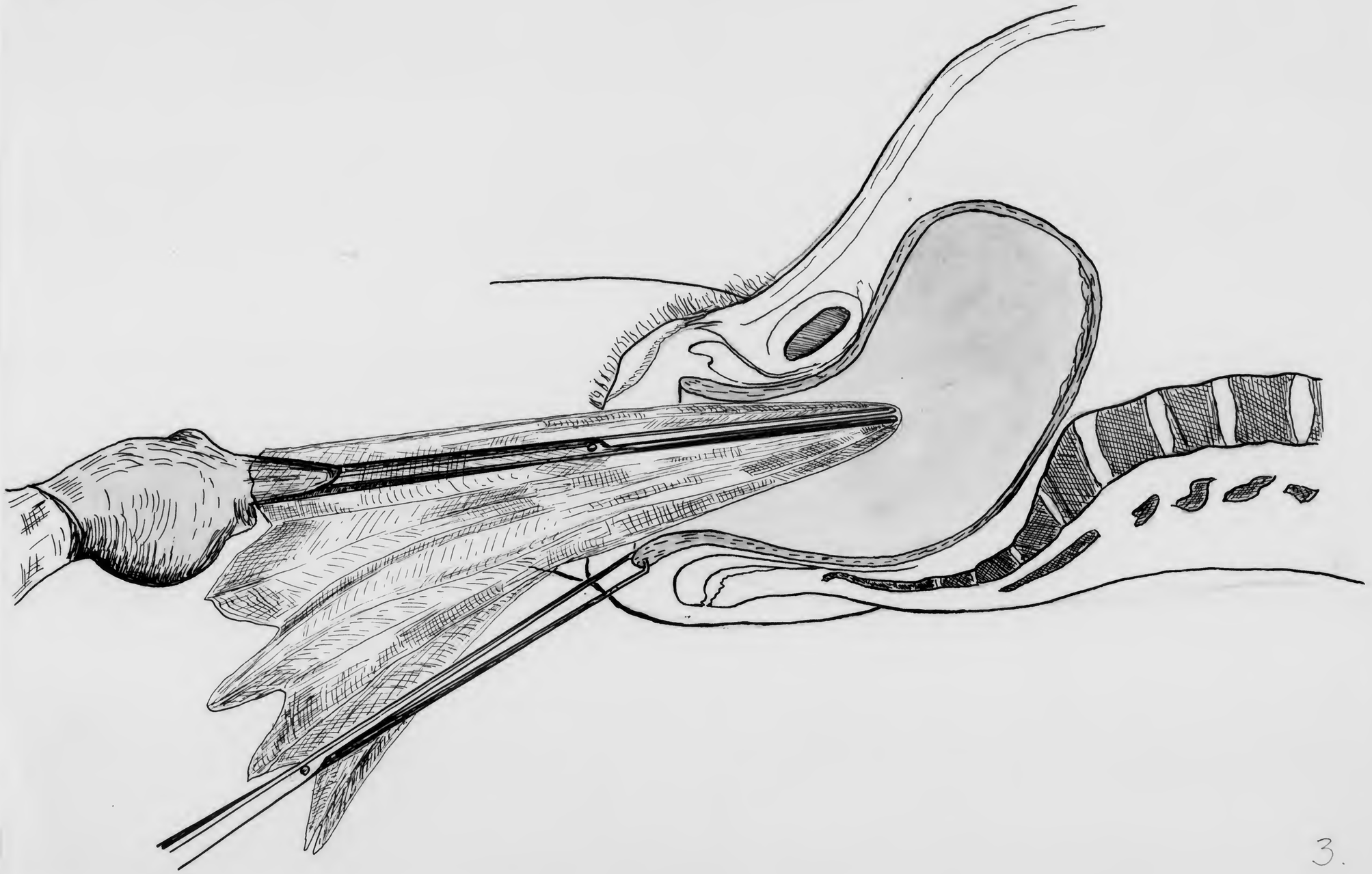
double

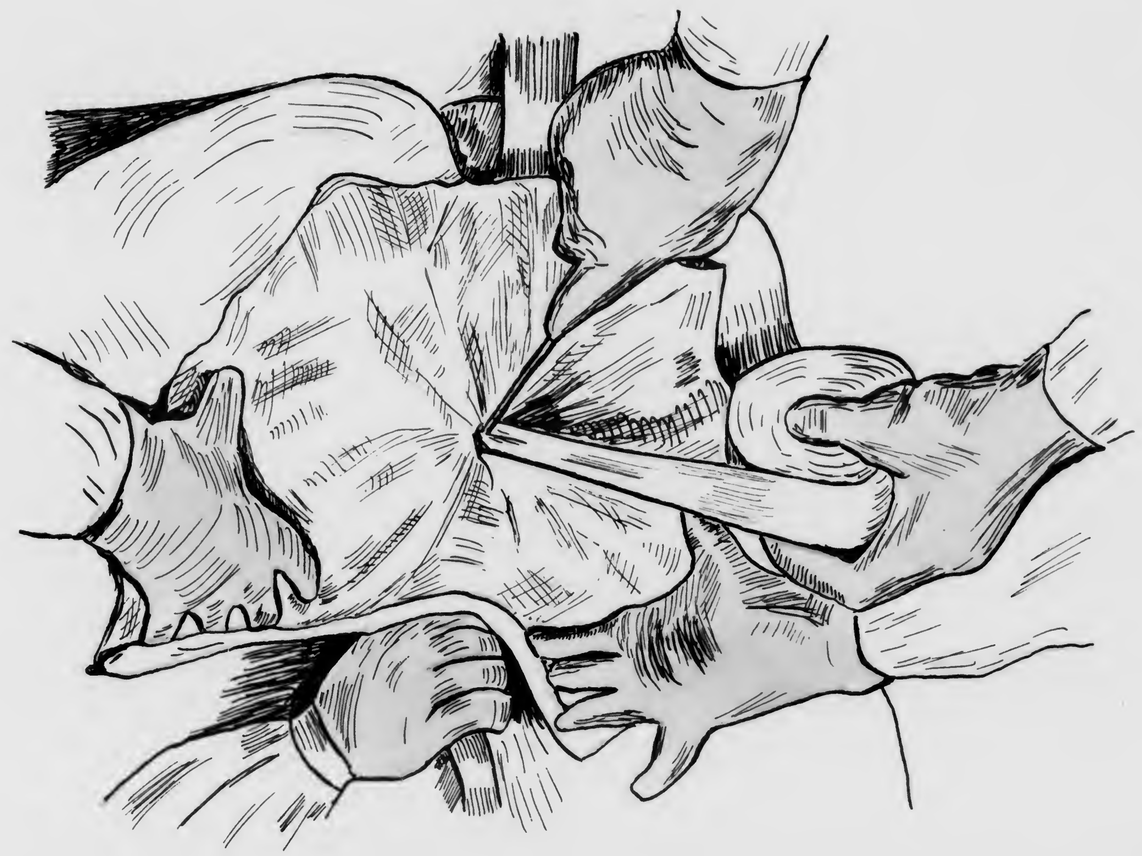


10cm x 15m



2.

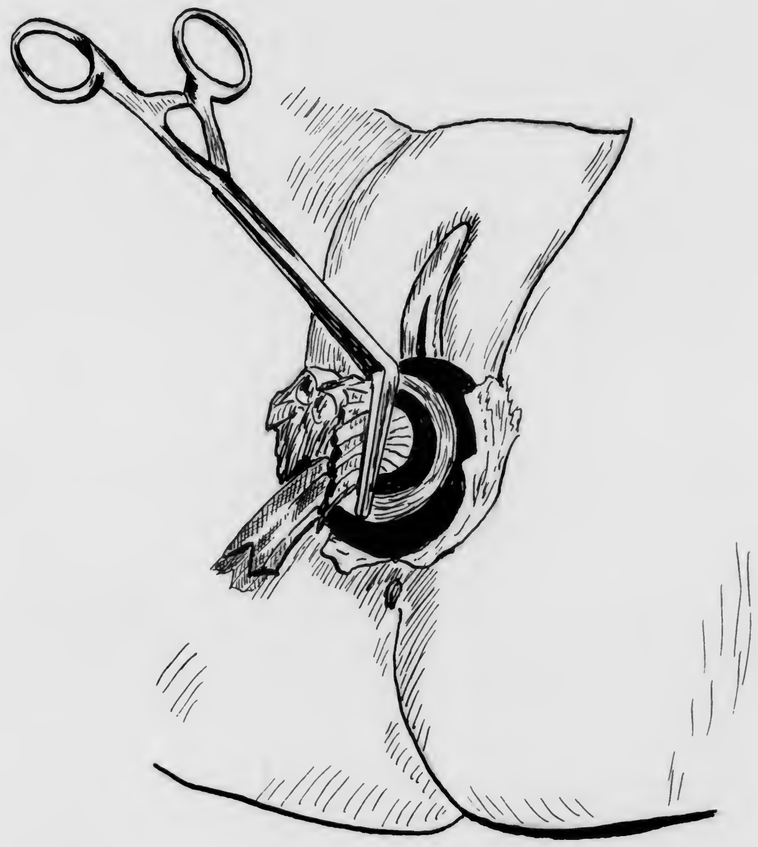


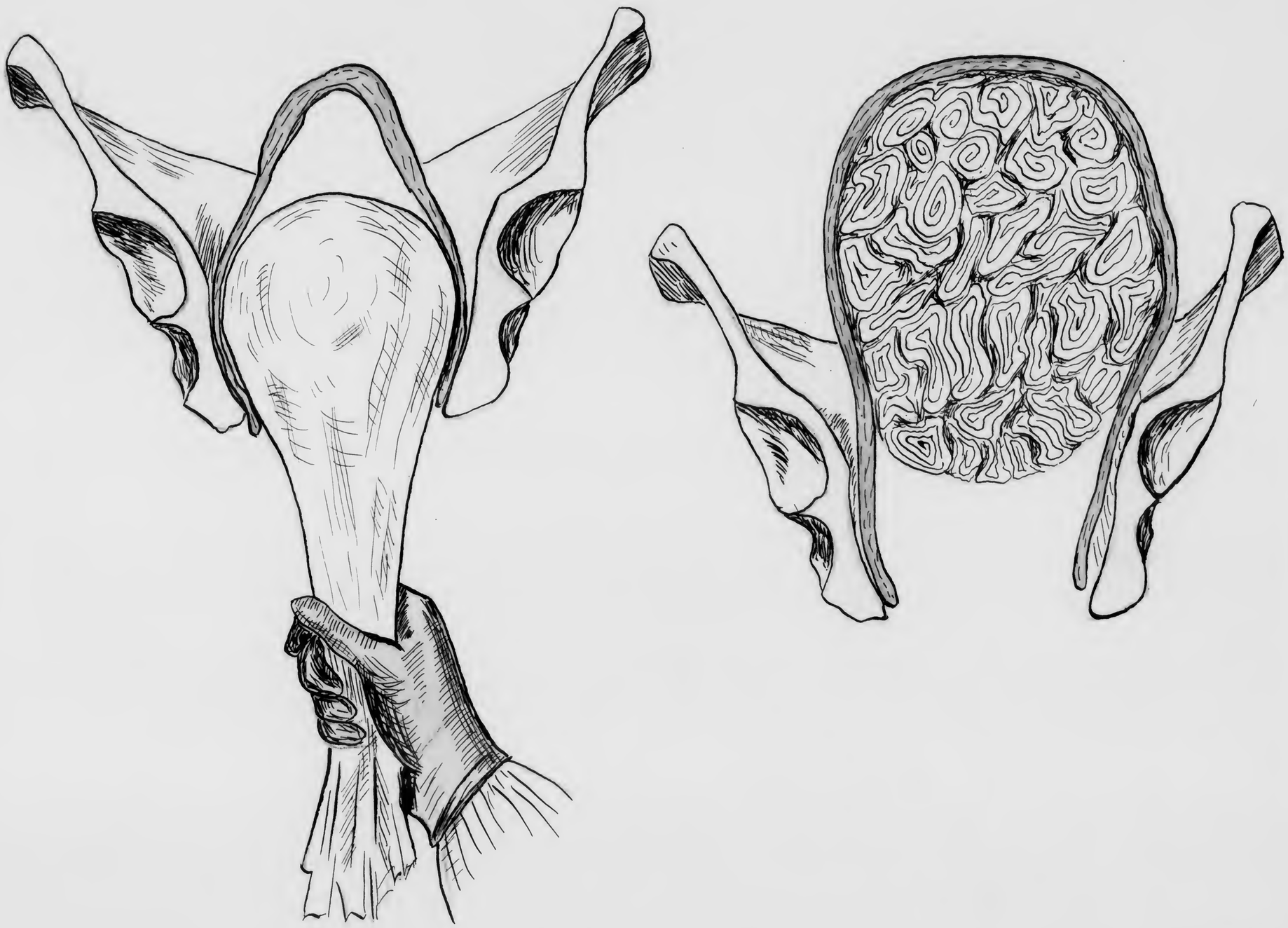


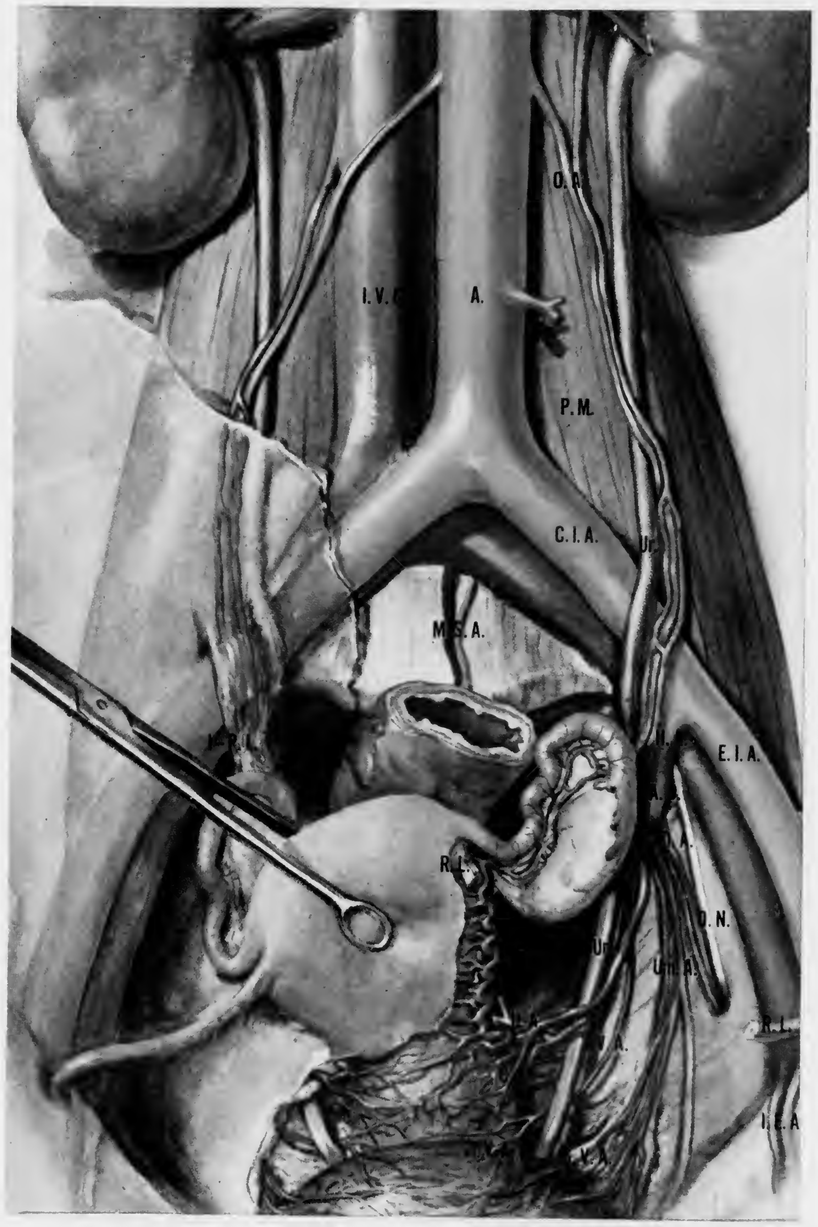
down

5.

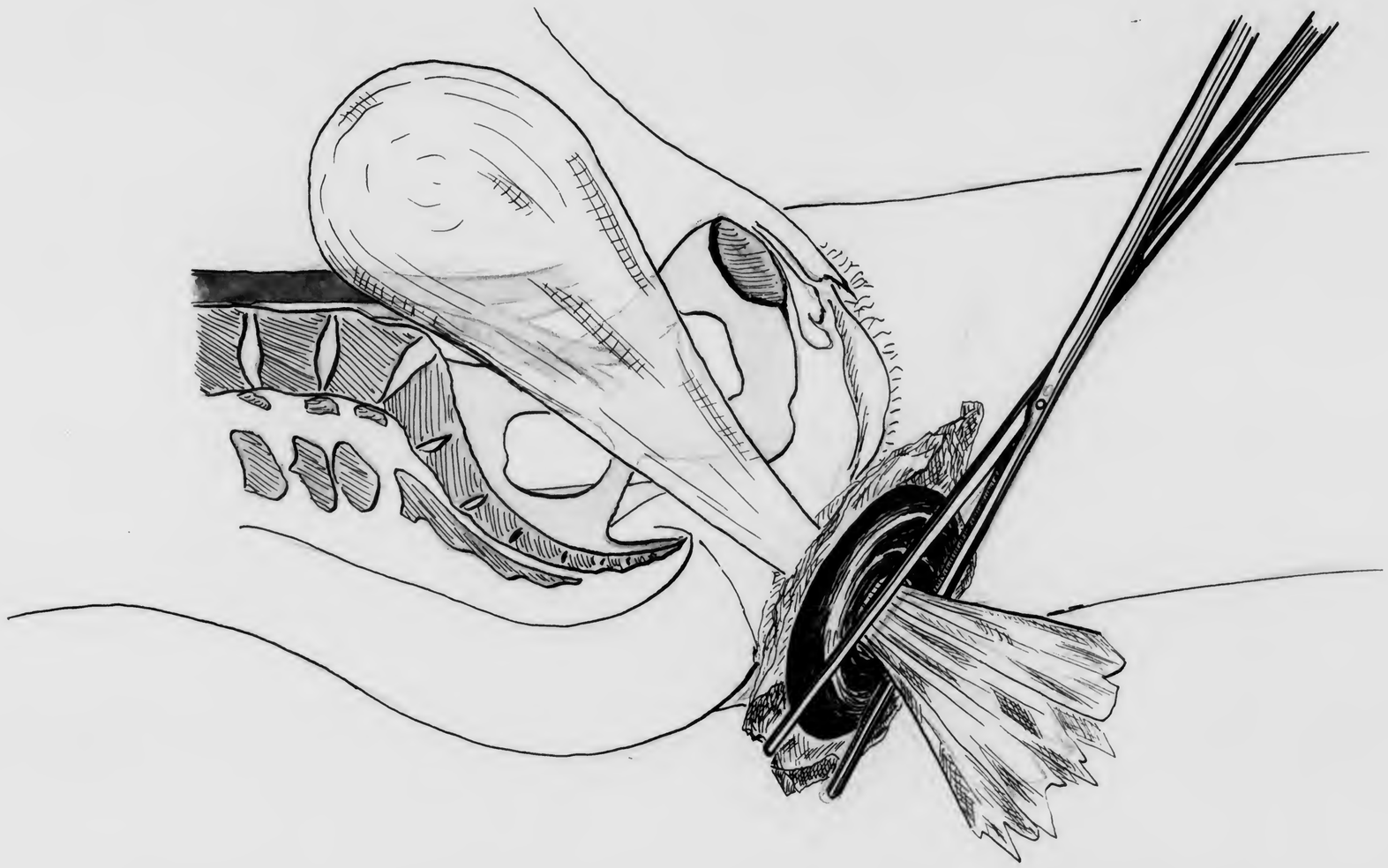
460

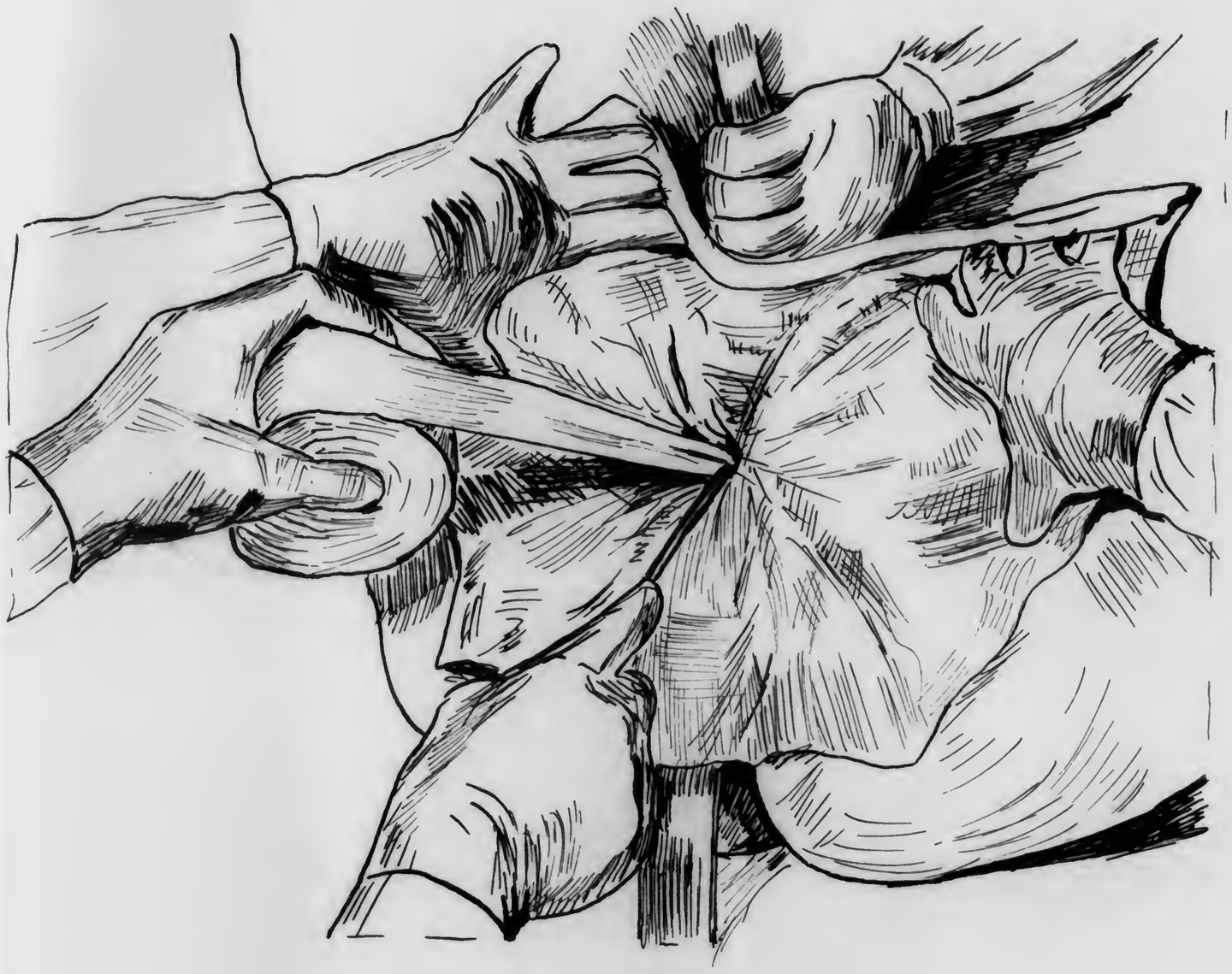




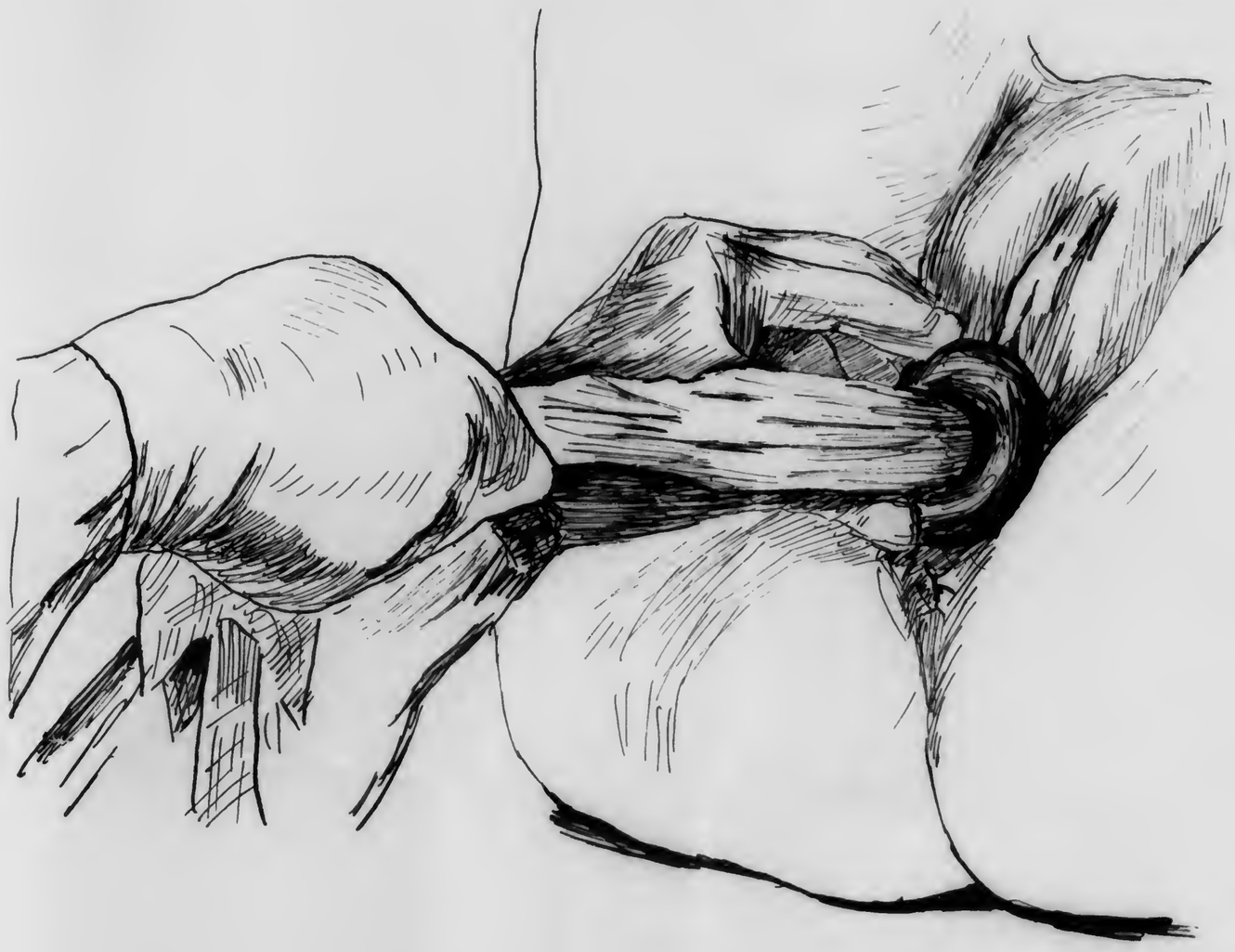

O. P.
I. V. C.
A.
P. M.
C. I. A.
Ur.
M. S. A.
E. I. A.
R. L.
G. N.
Ur.
Ure. A.
I. E. A.

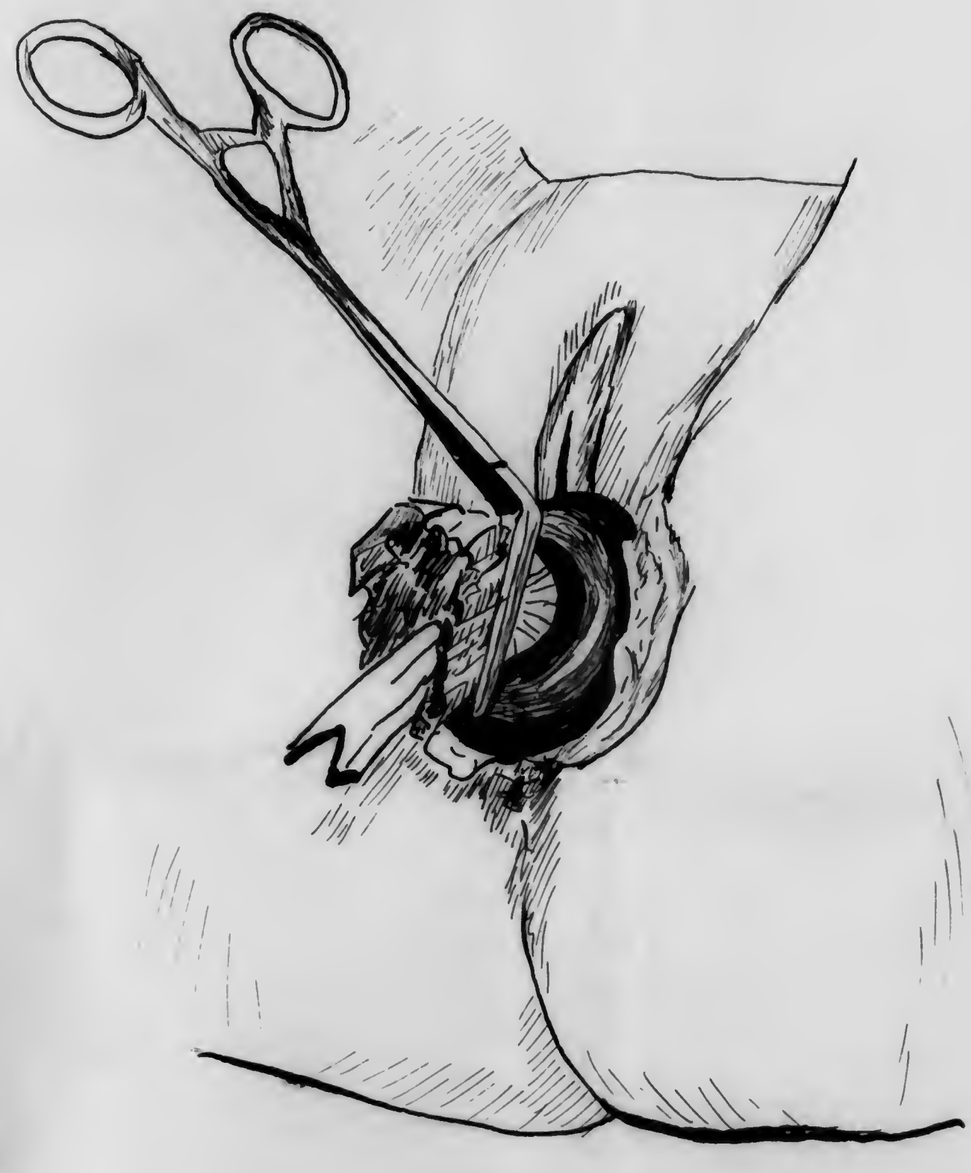
17





F. I





V

K. LOGOTHETOPULOS / GYNÄKOLOGISCHE CHIRURGIE

KONSTANTIN LOGOTHETOPULOS

GYNÄKOLOGISCHE CHIRURGIE

1 9 3 9

JOHANN AMBROSIUS BARTH / VERLAG / LEIPZIG

VORWORT zur ersten Auflage

Die Herausgabe einer neuen in deutscher Sprache geschriebenen gynäkologischen Operationslehre hieße „Eulen nach Athen tragen", da ja schon eine große Anzahl schöner, allen Anforderungen Rechnung tragender deutscher Werke vorhanden ist. Aber jeder Chirurg weiß, wie lehrreich und vorteilhaft es ist, andere erfahrene Operateure bei ihrer Arbeit zu beobachten, um dadurch sein eigenes Können, besonders hinsichtlich der Technik, zu erweitern. Ein solches direktes Beobachten wird nun oft aus äußeren Gründen nicht möglich sein, und man muß zu Ersatzmitteln greifen, zu Beschreibungen und Abbildungen, wie wir sie in den bekannten Operationslehren und in den Fachzeitschriften finden. Mancher Operateur hält die Veröffentlichung von technischen Kleinigkeiten für überflüssig, obwohl gerade durch solche Angaben die Ausführung der bekannten typischen Operationen erleichtert wird. In diesem Buch will ich die in meiner Klinik in Gebrauch befindlichen und bewährten Operationen, sowohl typischer Art wie auch von mir angegebene Modifikationen und eigene Methoden ausführlich beschreiben. Ich gehe jedoch auf Operationen, die in allen Kliniken in gleicher Art und Weise, sowie auf solche, die in unserer Klinik selten ausgeführt werden, wie z. B. die erweiterte abdominale Uterusexstirpation, nicht näher ein, da sie ja in allen Operationslehren ins einzelne gehend abgehandelt sind.

Besonderen Wert habe ich auf die genaue Schilderung der vaginalen Operationen gelegt, die meines Erachtens heute nicht mehr gebührende Berücksichtigung bei der Ausbildung junger Gynäkologen finden, obwohl nur der Gynäkologe, der die vaginale Technik voll und ganz beherrscht, die richtige Indikation stellen kann, ob vaginal oder abdominal vorgegangen werden soll, und alle Vorteile des vaginalen Weges gebührend zu schätzen weiß. Es dürfte nicht vorkommen, daß die einzige Indikation zum abdominalen Vorgehen die mangelnde Erfahrung und ungenügende Technik im vaginalen Operieren ist. Man darf auch nicht vergessen, daß dem im vaginalen Operieren Geübten seine subtilere Technik beim abdominalen Vorgehen sehr zustatten kommt.

Ich habe ferner vermieden, auf Indikationsstellung einzelner Operationen näher einzugehen, da das dem Zweck dieses Buches nicht entsprechen würde und da in fast allen Lehrbüchern genügend genaue Erörterungen vorhanden sind. Aus dem gleichen Grunde vermeide ich Beschreibung der Operationsvorbereitung, der Asepsis, sowie der Nachbehandlung und der Narkose.

Den größten Wert legte ich auf die sorgfältige Ausführung der Abbildungen, die unter Zuhilfenahme von während der Operation angefertigter Skizzen und Photographien von Frau Margarete Wendland unter meiner Kontrolle gezeichnet wurden. Für ihre unermüdliche, gewissenhafte Arbeit spreche ich der Künstlerin, die sich mehrere Monate in Athen aufhalten mußte, auch an dieser Stelle meinen Dank aus.

Athen, August 1939

K. LOGOTHETOPULOS

INHALT

476

ALLGEMEINER TEIL

Vor Ausführung einer jeden Operation hat der Operateur genau abzuwägen, ob die Größe und die Gefährlichkeit eines Eingriffes dem beabsichtigten Zweck entspricht und vor allen Dingen der Patientin Nutzen bringen wird.

Vorbedingung für einen günstigen Verlauf einer jeden Operation ist die genaue Befolgung aller Regeln der Asepsis. Um aber ein gutes Resultat zu erhalten, um nach Möglichkeit alle Gefahren auszuschalten, muß der operierende Arzt operative Begabung, also Gewandtheit und Technik besitzen. Diese Eigenschaften sind unerläßlich, um eine genügende Schnelligkeit beim Operieren zu erreichen, denn je kürzer die Operationsdauer, um so besser sind die Resultate infolge geringerer Narkosedauer, kleineren Operationschocks und, wie experimentell nachgewiesen ist, geringere Verunreinigung des Operationsfeldes mit Mikroben. Es bedarf nicht der Erwähnung, daß die Schnelligkeit nicht auf Kosten der Blutstillung und der Asepsis erzielt werden darf. Unter „aseptisch operieren" versteht man natürlich nicht nur Verwendung sterilisierter Instrumente, Tücher, Handschuhe usw., sondern hauptsächlich das Vermeiden der Übertragung von infektiösen Keimen durch sinnlose und unvorsichtige Manipulationen von infizierten Gebieten auf keimfreie während der Operation, wie z. B. bei der Eröffnung der Scheide, des keimhaltigen Uterus oder eitriger Adnextumoren.

Das wirklich schnelle Operieren wird nicht durch bloße Fingerfertigkeit erreicht, sondern vor allen Dingen durch systematische, zweckentsprechende Bewegungen unter Vermeidung unnützer Wiederholungen, was nur bei genauer Kenntnis der Operationsanatomie und persönlicher Erfahrung möglich ist.

1. Mittel zur Blutstillung

Immer muß der größte Wert auf genaueste Blutstillung bei der Operation gelegt werden. Große Blutverluste schädigen den Gesamtorganismus und schränken seine Abwehrkräfte gegen Infektion ein. Blutansammlungen in der Bauchhöhle können zur Vereiterung führen, Hämatome der Bauchdecken verhindern oft die prima intentio der Operationswunden. Kapillare Blutungen stehen meist von selbst und bedürfen keiner besonderen Beachtung, solche stärkeren Grades werden durch leichten Druck mit einer Gazekompresse zum Stehen gebracht. Kleinere Gefäße können mit einer Klemme gefaßt werden, die nach einiger Zeit ohne Unterbindung wieder entfernt werden kann. Man verwende immer das dünnste, eben noch ausreichende Katgut zur Unterbindung, um die Resorption zu erleichtern. Bei den meisten gynäkologischen Operationen fassen wir mit größeren, starken Klemmen mehrere Gefäße zusammen mit dem sie umgebenden Bindegewebe (Abb. 1—4). Viele Chirurgen lehnen diese Art der Unterbindung ab, da sie der Meinung sind, daß dadurch Gewebsnekrosen entstehen, die Infektionen begünstigen. Das ist jedoch nicht richtig, da einwandfrei erwiesen ist, daß trotz der starken Schnürung die Stümpfe noch genügend ernährt werden. Die Schürzung des ersten Knotens soll geschehen, während der Assistent die Klemme langsam und vorsichtig öffnet, wenn nötig mit beiden Händen, so daß der Faden langsam in die Klemmfurche hineinrutscht. Hierauf macht man den zweiten und bei Katgut auch noch einen dritten Knoten. Einen Fehler, den ich immer wieder bei jungen

Assistenten bemerke, möchte ich noch erwähnen. Sie stecken während der Unterbindung die Finger in die Löcher der Klemme und erschweren dadurch dem Operateur die Arbeit, weil während der Ausführung der verschiedenen Unterbindungsmanöver die Klemme nach allen Richtungen leicht beweglich sein muß; ist das nicht der Fall, so ist besonders in der Tiefe die Unterbindung kaum möglich. Erst im letzten

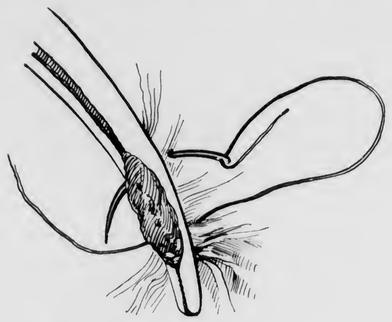


Abb. 1.

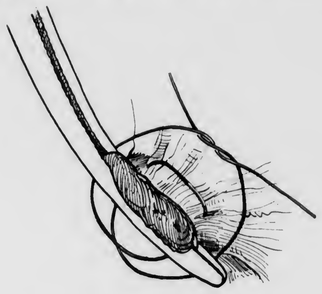


Abb. 2.

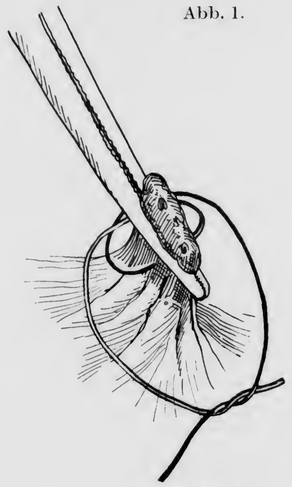


Abb. 3.

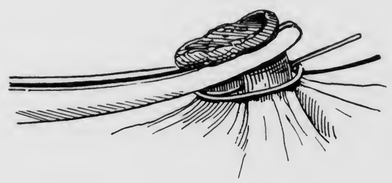


Abb. 4.

Abb. 1—4. Anlegung von Massenligaturen

Augenblick, wenn die Klemme geöffnet werden soll, führt man Daumen und Zeigefinger in die Ringe ein. Die Methode der Blutstillung nach Doyen und Tuffier, bei der mittels starker, kurzer Klemmen ein sehr starker Druck 2 Minuten lang auf die Gefäße ausgeübt wird, die dadurch ohne Unterbindung geschlossen werden sollen, ist wegen der Gefahr postoperativer Blutung wieder verlassen worden. Macht bei vaginalen Operationen die Unterbindung von Gefäßen in großer Tiefe Schwierigkeiten, so kann im Notfall die das Gefäß fassende Klemme für 2—3 Tage in der Wunde liegen bleiben. Im allgemeinen steht dann beim Abnehmen der Klemme aber die Blutung. Da das nicht immer der Fall ist, das Liegenbleiben der Klemme Schmerzen und

Unannehmlichkeiten sowie Nekrose der Stümpfe mit erschwerter Wundheilung verursacht, so ist nach Möglichkeit stets die Unterbindung zu erstreben. Diffuse Blutungen werden durch Umstechung zum Stehen gebracht, oder man tamponiert die blutende Stelle mit Gaze, setzt die Operation fort und entfernt den Tampon wieder am Schlusse der Operation. Sollte es dann trotzdem noch weiter bluten, so können wir erneut tamponieren und den Gazestreifen zwecks Ableitung des Wundsekrets nach außen leiten. Das geschieht besonders einfach bei der Totalexstirpation des Uterus, bei der wir die tamponierende Gaze mittels der Amannschen Führungssonde (Abb. 5) durch das Scheidenloch nach außen führen. Bleibt der Uterus erhalten oder amputieren wir supravaginal, so wird der Streifen durch ein zu diesem Zweck angelegtes Loch im hinteren Scheidengewölbe nach außen geleitet und dann die Bauchhöhle geschlossen. Zuweilen gelingt aber die Blutstillung mit einfacher Tamponade nicht, sei es, daß die blutende Fläche zu groß ist oder daß eine erhöhte Blutungsbereitschaft des Körpers besteht.

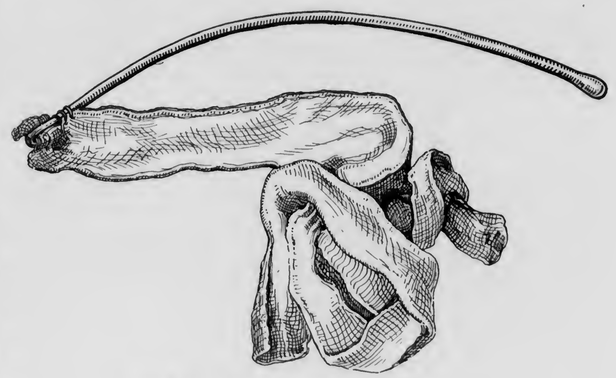


Abb. 5. Führungssonde nach Amann

In solchen Fällen, ebenso wenn Fassen und Unterbinden des Gefäßes mißlingt, wird die Tamponade nach Mikulicz empfohlen. Dieses Verfahren ist recht brauchbar, jedoch muß man mit die Rekonvaleszenz verlängernden Sekundärinfektionen rechnen, und falls es sich um die Tamponade durch eine Bauchwunde handelt, ist die Gefahr eines postoperativen Narbenbruches sehr groß. Außerdem versagt die Methode bei starken arteriellen Blutungen häufig vollkommen. Von lokal zu verwendenden blutstillenden Mitteln machen wir keinen Gebrauch, ebenso verzichten wir auf den Thermokauter, weil der sich bildende Schorf leicht Anlaß zu Infektionen gibt und die Bildung von Adhäsionen begünstigt. Die Unterbindung der Arteriae hypogastricae zur Bekämpfung abundanter Blutungen kommt für meine Klinik seit Einführung meiner Blutstillungsmethode nicht mehr in Frage. Sie wird noch von verschiedenen Operateuren prophylaktisch vor Ausführung der eigentlichen Operation zur Vermeidung starker Blutverluste ausgeführt, ist jedoch durchaus kein harmloser Eingriff, wie folgendes Vorkommnis zeigt. In meiner Klinik wurde von einem sehr bekannten ausländischen Gynäkologen eine abdominale Wertheimsche Operation lege artis ausgeführt, und zwar mit vorhergehender Unterbindung beider Art. hypogastricae. Die Bauchhöhle wurde offen gelassen und die große Wundhöhle mit Gaze austamponiert. 20 Tage nach der Operation bemerkte man Urinabgang aus der Scheide. Die Untersuchung zeigte eine Nekrose der Blasenwand, und das nekrotische Stück konnte von oben aus in toto entfernt werden. Nach $2^1/_2$ Monaten wurde die enorme Blasenscheiden„fistel“ (Fehlen des ganzen Blasenfundus und der hinteren Blasenwand!) unter Benutzung der vorderen Rektalwand als Ersatz für die fehlenden Blasenteile von mir geschlossen.

Um bei starken Blutungen das blutende Gefäß leichter auffinden zu können, drückt man mit dem Finger unter Zuhilfenahme einer Kompresse die Aorta fest gegen die Wirbelsäule, wodurch eine provisorische Blutstillung zustande kommt, die das Fassen der Gefäße ermöglicht.

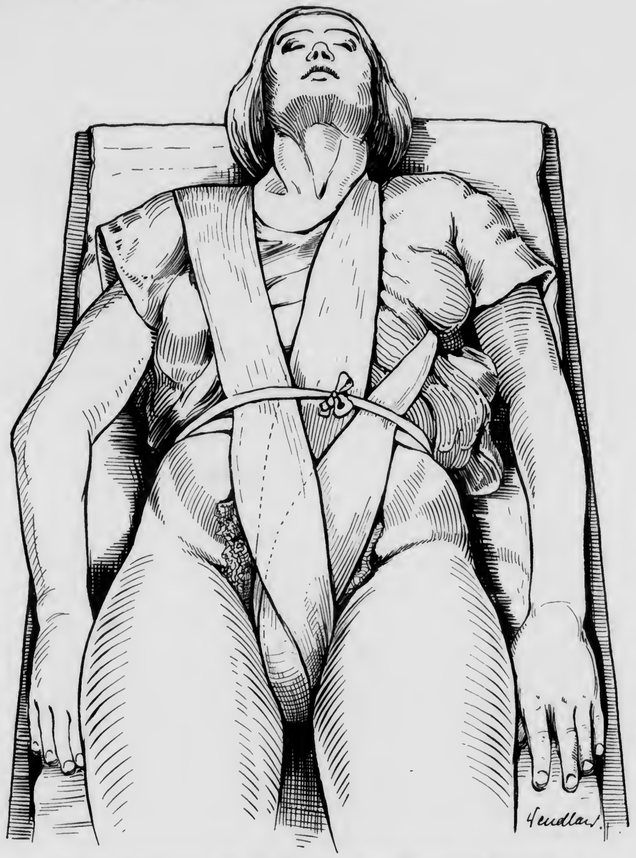


Abb. 6. Fixierung des vor der Vulva liegenden Wattebausches mittels eines um die Schulter gelegten Verbandes

Der Momburgsche Schlauch sowie die Vorrichtungen zur Aortenkompression von Riediger und Sehrt sind nicht ungefährlich und werden von uns nur im äußersten Notfall in der Geburtshilfe angewandt.

Bei Blutungen, die zuweilen nach Operationen an der Vagina oder an den äußeren Genitalien auftreten und die meist auf Frühresorption von Katgutunterbindungen zurückzuführen sind, kann eine Scheidentamponade den ganzen Erfolg einer Operation, z. B. einer Plastik, in Frage stellen. Folgendes Verfahren hat mir stets gute Dienste geleistet: Ich befestige einen vor den äußeren Genitalien liegenden Wattebausch mit Hilfe einer Binde, die man zuerst zirkulär um die Hüften anlegt. Von hinten geht man dann zwischen den Schenkeln nach vorn und über die Schultern und wiederholt

diese Tour mehrmals, auf diese Weise einen starken Druck auf die äußeren Genitalien ausübend. Aus Abb. 6 ist dieser Verband leichter verständlich wie aus einer genauen Beschreibung.

2. Blutstillungsmethode für Notfälle nach Logothetopulos

[Von Nürnberger[1]) „Logotampon", von Sellheim[2]) „Griechenpilz" genannt.]

Um die Tampondrainage von den Bauchdecken aus zu vermeiden und eine erfolgreiche Tamponade durch die Scheide ausführen zu können, habe ich eine besondere

Abb. 7. Blutstillungsmethode nach Logothetopulos. Einführung des Tampons in das Scheidenlumen nach der Exstirpation des Uterus

Methode erdacht, die imstande ist, jede, auch die stärkste arterielle Blutung zu stillen. Sie ist nur für den Notfall gedacht und hat sich in zahlreichen Fällen seit vielen Jahren glänzend bewährt. Ich gehe in folgender Weise vor:

Ich fülle einen aus einem quadratischen Gazestück bestehenden Beutel fest mit einem langen Gazestreifen aus, so daß ein etwa kindskopfgroßes, kugelförmiges Gebilde entsteht. Die Größe des Tampons hängt von der Lage des blutenden Gefäßes ab, sie muß um so größer sein, je weiter das Gefäß vom Beckenboden entfernt ist. Die vier Zipfel der äußeren, quadratischen Gaze sowie das heraushängende Ende des

[1]) Zbl. Gynäk. **1926**, Nr. 50, 3202.

[2]) Zbl. Gynäk. **1930** Nr. 21, 1318.

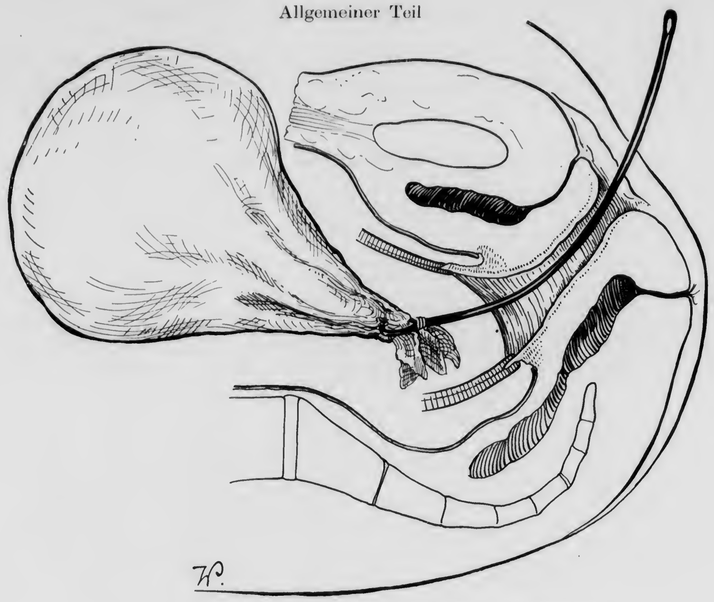


Abb. 8. Blutstillungsmethode nach Logothetopulos.
Schematische Darstellung des Vorganges in Abb. 7

Abb. 9.
Blutstillungsmethode nach Logothetopulos. Starker Zug nach abwärts bis zum Eintritt des Tampons ins kleine Becken

Abb. 13. Blutstillungsmethode nach Logothetopulos bei vaginalen Operationen. Ausstopfen des leer eingeführten Gazebeutels mit dem Streifen

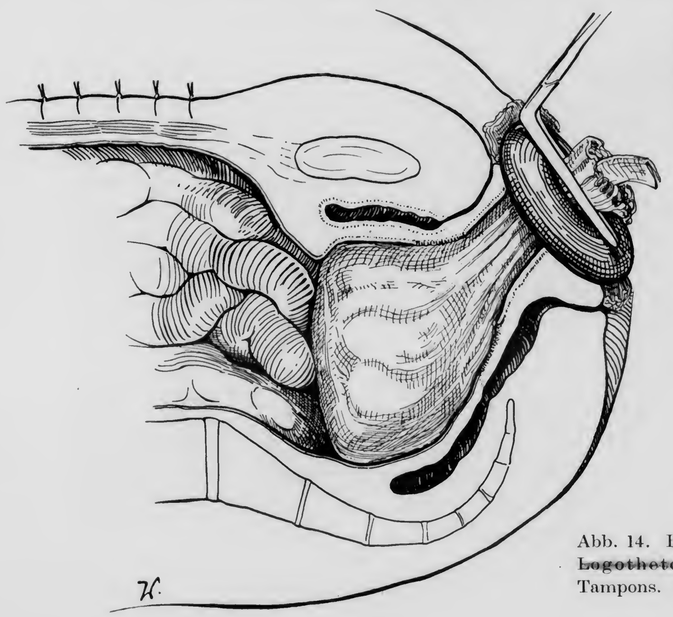


Abb. 14. Blutstillungsmethode nach Logothetopulos. Richtige Lage des Tampons. Schematische Darstellung

fülle. Hierbei muß man darauf achten, daß der Streifen gleichmäßig nach allen Seiten in die Beckenhöhle verteilt wird, so daß der gefüllte Beutel die Form eines Pilzes annimmt (Abb. 14).

Zur Vermeidung von Nekrosen, die durch zu starken Druck des Pessars auf die Vulva entstehen könnten, lege ich zwischen Pessar und Vulva auf beide Seiten des Tamponstieles einen kleinen Wattebausch. Aus dem gleichen Grunde wird die vor dem Pessar liegende Klemme nach 8 Stunden entfernt. Jede weitere Manipulation an der Gaze muß man aber vermeiden, weshalb man das Pessar am besten noch einen weiteren Tag liegen läßt. Am 3. Tag fängt man an, den inneren Streifen nach und nach herauszuziehen, und am 5. Tag entfernt man auch die äußere quadratische Umhüllungsgaze des Tampons.

Einerseits um zu bestimmen, wie der Tampon wirkt, andererseits um seine genaue Lage zu den Organen des Beckens festzustellen, wurden im hiesigen Anatomischen Institut von Christopulos unter der Leitung von Sclavunos Untersuchungen an der Leiche angestellt[1]). Es wurde einwandfrei festgestellt, daß Darm, Blase und Ureteren außerhalb des unter Druck gesetzten Gebietes liegen und jede Schädigung ausgeschlossen ist, was auch mit den klinischen Erfahrungen übereinstimmt.[2]) Ferner blieb die Umgebung der durchschnittenen und nicht unterbundenen Art. uterinae vollkommen frei von Farblösungen, die unter hohem Druck in die Karotiden eingespritzt wurden, Beweis für die Sicherheit der arteriellen Blutstillung.

Auch bei postoperativen Blutungen war mir der Tampon zu wiederholten Malen von größtem Nutzen. In solchen Fällen appliziere ich den Tampon nach Wiedereröffnung der genähten Scheidenwände und des Peritoneums von der Scheide aus, gleichgültig, ob vaginal oder abdominal operiert worden war. Bekommt der Tampon die richtige Größe, d. h. füllt er das kleine Becken genügend aus, so steht die Blutung in allen Fällen prompt.

Bei heruntergekommenen Patientinnen und komplizierten Bauchoperationen verzichte ich, besonders dann, wenn eine Scheidendrainage notwendig wird, auf die Unterbindung der in der Tiefe liegenden, schwer erreichbaren Gefäße und lege den Tampon ein, worauf die angelegten Klemmen wieder entfernt werden, bevor der Tampon endgültig in seiner Lage befestigt ist, in dem Augenblick also, in welchem der Assistent den Tampon nach unten zieht. Ich sehe nicht ein, warum das Leben der Patientin gefährdet werden soll, nur weil man die Blutstillung durch Unterbindung aller Gefäße oder die genaue Peritonisation erreichen will, wodurch die Dauer der Operation erheblich verlängert wird. Wer einmal die Anwendung des Tampons erlernt hat, wird seinen Wert immer höher schätzen: er wird merken, mit welcher Ruhe und Sicherheit er jede, auch die schwerste gynäkologische Operation ausführen kann, wenn er das Gefühl hat, jeder unvorhergesehenen Blutung mit Leichtigkeit Herr zu werden.

Ich habe vaginale und abdominale Uterusexstirpationen in den größten Kliniken Europas mit Erfolg ausgeführt (Paris: J. L. Faure; Leipzig: Sellheim; Wien: Halban; Berlin: Stöckel; Halle: Nürnberger), ohne ein einziges Gefäß zu unterbinden und ohne eine Klemme zu hinterlassen, um die Wirkung des Tampons zu zeigen. Aus diesem Grunde glaubten einige Kollegen, daß ich meine Blutstillung als Methode der Wahl betrachte. Daß das nicht der Fall ist, habe ich in den vorstehenden Ausführungen dargelegt. Ich betone nochmals, daß mein Tampon nur im Falle der Not bei anders nicht oder nur schwer zu stillenden Blutungen angewandt werden soll, dann aber eine sichere, nie versagende Hilfe bietet.

---

[1]) Zbl. Gynäk. **1933**, Nr. 14, 807. [2]) Küstner, Zbl. Gynäk. **1933**, Nr. 13, 773.

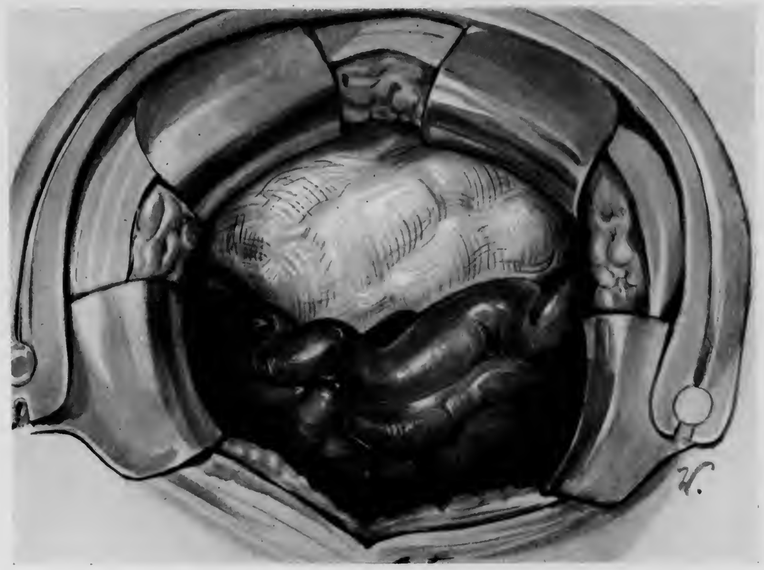


Abb. 10. Blutstillungsmethode nach Logothetopulos. Tampon in situ

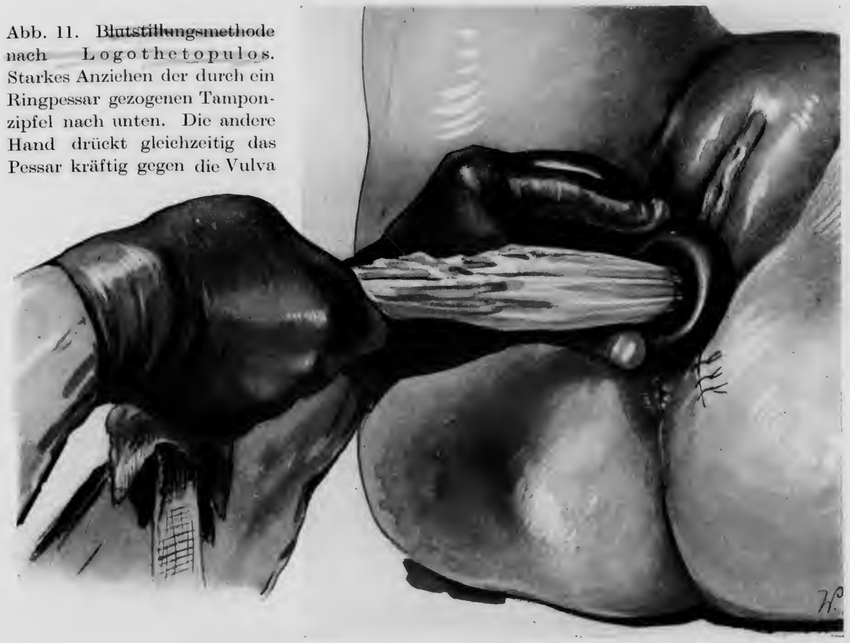


Abb. 11. Blutstillungsmethode nach Logothetopulos. Starkes Anziehen der durch ein Ringpessar gezogenen Tamponzipfel nach unten. Die andere Hand drückt gleichzeitig das Pessar kräftig gegen die Vulva

Streifens, das zur Unterscheidung etwas länger sein muß als die vier Zipfel, fasse ich nun zusammen mit einer Amannschen Führungssonde und führe sie von der Bauchhöhle aus durch die Scheide nach außen (Abb. 7 und 8), wo sie ein Assistent faßt und kräftig nach unten zieht, bis der kugelige Tampon ins kleine Becken eintritt und auf die Beckengefäße einen Druck ausüben kann (Abb. 9). Während der Assistent zieht, hilft der Operateur von oben durch Druck nach und hält den Tampon so lange tief im kleinen Becken fest, bis er endgültig befestigt ist (Abb. 10). Das geschieht auf folgende Weise: Man zieht die 5 aus der Scheide herausragenden Zipfel der Gaze durch ein großes Ringpessar, das man mit der linken Hand fest gegen den unteren Teil der Symphyse, die absteigenden Schambeinäste und den Bekkenboden anpreßt, während die rechte Hand mit aller Kraft an den Zipfeln zieht (Abb. 11). Nun legt ein anderer Assistent eine starke Klemme direkt vor das Pessar, das sich nun zwischen Vulva und dieser Klemme befindet (Abb. 12). Selbstverständlich muß ein vor der Operation vorbereiteter Tampon steril vorrätig gehalten werden. Ich rate jedoch immer, noch einen zweiten gebrauchsfertigen Tampon in Reserve zu halten, so daß beim unrichtigen Einlegen der schlechtsitzende Tampon sofort durch einen neuen ersetzt werden kann. Damit der Stiel des Tampons dünner wird und leichter herausgeleitet werden kann, schneidet man die sich beim Füllen des Beutels auf den Seiten bildenden überflüssigen Falten ab. Jede Blutung steht nach korrektem Einlegen des Tampons sofort, und man kann die Operation in aller Ruhe fortsetzen. Der Beutel wird von den oberen Teilen der Bauchhöhle abgeschlossen, indem man das Blasenperitoneum mit dem Rektum oder auch der Flexur vernäht, was in den meisten Fällen leicht gelingt.

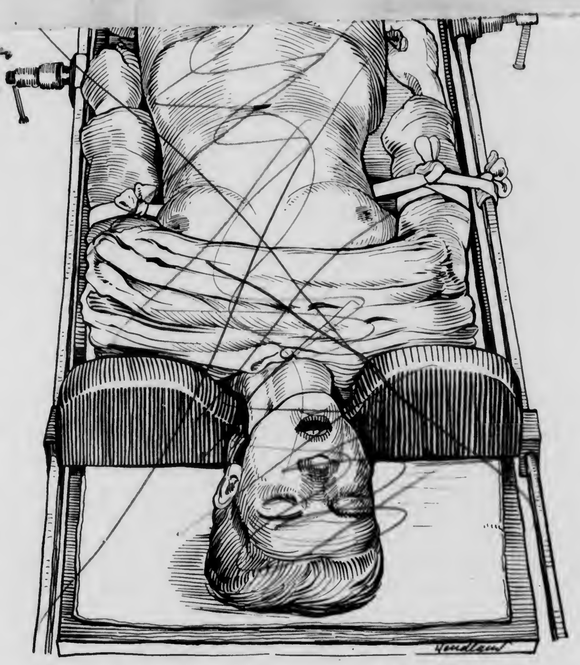
Abb. 12. ~~Blutstillungsmethode nach Logothetopulos.~~ Das Pessar wird durch eine starke Klemme in seiner Lage gehalten. Schutz der Vulva durch eine untergelegte Gazelage

Um Blutungen bei vaginalen Operationen zu stillen, gehe ich auf die gleiche Weise vor, nur mit dem Unterschied, daß ich zuerst den leeren Beutel durch die Scheidenwunde mit einem Stopfer (Abb. 13) oder mit einer langen anatomischen Pinzette in die Bauchhöhle einführe, und dann erst den Beutel fest mit dem langen Gazestreifen aus-

Seite 11.

Ich lege viel Gewicht darauf da ich einen Fall von Ulnarislähmung beobachtet habe, infolge Druckes des Armes auf die Kante des Operationstisches.

der Länge nach den Körper der Patientin berühren. Der Puls kann vom Narkotiseur an der Karotis beobachtet werden. Bei der Beckenhochlagerung (Trendelenburg) müssen die Schulterstützen sehr gut anliegen. Die Beine werden gespreizt am Tisch befestigt, so daß im Bedarfsfall leicht Manipulationen an der Vagina oder Blase vorgenommen werden können (~~Abb. 15~~). Der Narkotiseur soll nicht durch besondere Vorrichtungen von den Vorgängen im Operationsgebiet abgetrennt sein, damit er die Bauchatmung genau sehen und die Tiefe der Narkose nach dem Fortgang der Operation regeln kann, während dem Operateur die Kontrolle der Narkose ermöglicht ist. Der rechtshändige Operateur steht auf der linken Seite der Patientin, um leichter mit der rechten Hand in der Bauchhöhle manipulieren zu können. Ihm gegenüber stehen die Assistenten, und rechts und etwas hinter ihm die Operationsschwester. Der Instrumententisch soll möglichst nahe beim Operateur sein, damit er in der Lage ist, sich im Bedarfsfalle die Instrumente selbst auszusuchen oder zu nehmen. Die von manchen Operateuren benutzten kleinen Operationsbretter auf Brust oder Bauch der Patientin halte ich für überflüssig, ja sogar für störend. Man stellt besser hinter dem Assistenten noch einen kleinen Instrumententisch auf, auf den man einige Kocher, Scheren usw. legt. Hier in Griechenland können wir auf künstliche Lichtquellen fast verzichten, da das natürliche Licht jeder Kunstbeleuchtung überlegen ist, auf die wir nur nachts angewiesen sind; um zu grelles Licht zu vermeiden, müssen die Fenster des Operationssaales nach Norden zu liegen.



~~Abb. 15. Lagerung der Patientin bei Laparotomien~~

Abb. 12. Blutstillungsmethode nach Logothetopulos. Das Pessar wird durch eine starke Klemme in seiner Lage gehalten. Schutz der Vulva durch eine untergelegte Gazelage

5 aus der Scheide herausragenden Zipfel der Gaze durch ein großes Ringpessar, das man mit der linken Hand fest gegen den unteren Teil der Symphyse, die absteigenden Schambeinäste und den Bekkenboden anpreßt, während die rechte Hand mit aller Kraft an den Zipfeln zieht (Abb. 11). Nun legt ein anderer Assistent eine starke Klemme direkt vor das Pessar, das sich nun zwischen Vulva und dieser Klemme befindet (Abb. 12). Selbstverständlich muß ein vor der Operation vorbereiteter Tampon steril vorrätig gehalten werden. Ich rate jedoch immer, noch einen zweiten gebrauchsfertigen Tampon in Reserve zu halten, so daß beim unrichtigen Einlegen der schlechtsitzende Tampon sofort durch einen neuen ersetzt werden kann. Damit der Stiel des Tampons dünner wird und leichter herausgeleitet werden kann, schneidet man die sich beim Füllen des Beutels auf den Seiten bildenden überflüssigen Falten ab. Jede Blutung steht nach korrektem Einlegen des Tampons sofort, und man kann die Operation in aller Ruhe fortsetzen. Der Beutel wird von den oberen Teilen der Bauchhöhle abgeschlossen, indem man das Blasenperitoneum mit dem Rektum oder auch der Flexur vernäht, was in den meisten Fällen leicht gelingt.

Um Blutungen bei vaginalen Operationen zu stillen, gehe ich auf die gleiche Weise vor, nur mit dem Unterschied, daß ich zuerst den leeren Beutel durch die Scheidenwunde mit einem Stopfer (Abb. 13) oder mit einer langen anatomischen Pinzette in die Bauchhöhle einführe, und dann erst den Beutel fest mit dem langen Gazestreifen aus-

3. Laparotomie

a) Lagerung der Patientin

Die Lagerung der Patienten soll so sein, daß weder der Operateur noch die Assistenten in ihrer Arbeit behindert werden, auch darf für die Patientin keinerlei Schaden entstehen, wie z. B. Radialislähmung durch Druck des Nerven auf die ungepolsterte Tischkante und dgl. Ich vermeide das, indem ich die Arme mit Hilfe einer unter dem Körper durchgeführten Binde so befestige, daß sie gestreckt der Länge nach den Körper der Patientin berühren. Der Puls kann vom Narkotiseur an der Karotis beobachtet werden. Bei der Beckenhochlagerung (Trendelenburg) müssen die Schulterstützen sehr gut anliegen. Die Beine werden gespreizt am Tisch befestigt, so daß im Bedarfsfall leicht Manipulationen an der Vagina oder Blase vorgenommen werden können (Abb. 15). Der Narkotiseur soll nicht durch besondere Vorrichtungen von den Vorgängen im Operationsgebiet abgetrennt sein, damit er die Bauchatmung genau sehen und die Tiefe der Narkose nach dem Fortgang der Operation regeln kann, während dem Operateur die Kontrolle der Narkose ermöglicht ist. Der rechtshändige Operateur steht auf der linken Seite der Patientin, um leichter mit der rechten Hand in der Bauchhöhle manipulieren zu können. Ihm gegenüber stehen die Assistenten, und rechts und etwas hinter ihm die Operationsschwester. Der Instrumententisch soll möglichst nahe beim Operateur sein, damit er in der Lage ist, sich im Bedarfsfalle die Instrumente selbst auszusuchen oder zu nehmen. Die von manchen Operateuren benutzten kleinen Operationsbretter auf Brust oder Bauch der Patientin halte ich für überflüssig, ja sogar für störend. Man stellt besser hinter dem Assistenten noch einen kleinen Instrumententisch auf, auf den man einige Kocher, Scheren usw. legt. Hier in Griechenland können wir auf künstliche Lichtquellen fast verzichten, da das natürliche Licht jeder Kunstbeleuchtung überlegen ist, auf die wir nur nachts angewiesen sind; um zu grelles Licht zu vermeiden, müssen die Fenster des Operationssaales nach Norden zu liegen.

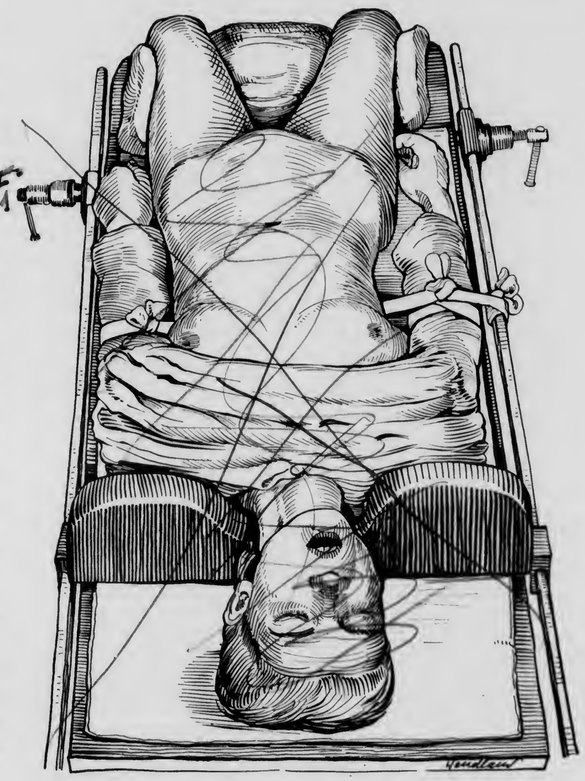


Abb. 15. Lagerung der Patientin bei Laparotomien

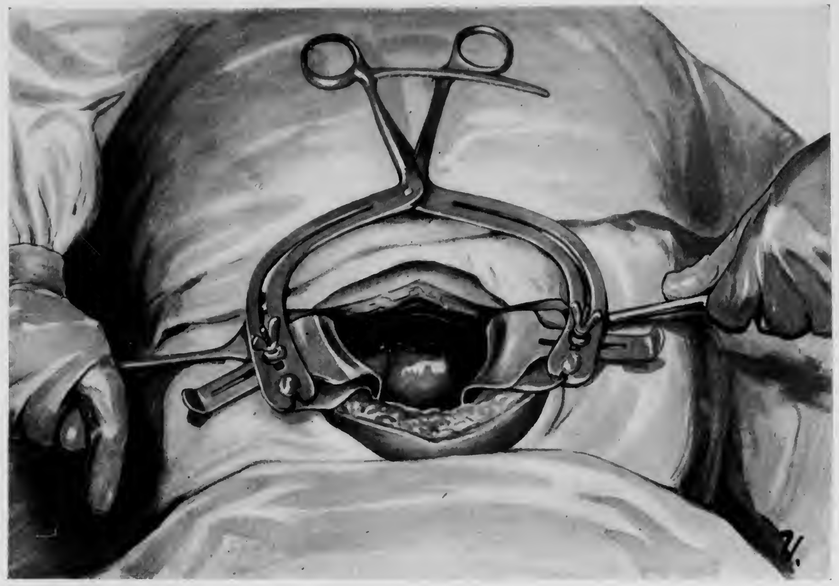


Abb. 16. Einlegen des Bauchdeckenhalters nach Logothetopulos

Abb. 17. Einlegen des Bauchdeckenhalters nach Logothetopulos. Spreizen der Blätter

Die bei Laparotomien gebräuchlichen Instrumente sind in meiner Klinik die in deutschen gynäkologischen Kliniken allgemein üblichen. Spezielle Instrumente werde ich besonders erwähnen. Große Erleichterung beim Nähen der Bauchdecken bietet die Reverdinnadel, von der man eine stark und eine schwach gebogene vorrätig hält. Ihre subtile Bauart verlangt sorgfältige Pflege, damit sie stets gebrauchsfertig bleibt. Sie wird in Frankreich fast ausschließlich zum Nähen benutzt.

Von der Firma Stiefenhofer in München wurde ein selbsthaltendes vierblättriges Spekulum nach meinen Angaben hergestellt (Abb. 16—17), dessen Anwendung sehr bequem ist, und das den großen Vorteil hat, auch bei kleinen Bauchschnitten beste Zugänglichkeit des Operationsgebietes zu erreichen. Die Blätter des Halters werden in zwei Größen hergestellt, entsprechend der verschiedenen Dicke der Bauchdecken. Sie sind leicht auswechselbar. Nach Eröffnung des Bauches zieht man zunächst mit gewöhnlichen Spekula die Bauchdecken auseinander, worauf das selbsthaltende Spekulum leicht eingelegt werden kann.

Abb. 18. Bauchdeckenlängsschnitt. Stumpfe Trennung der Mm. recti

b) Der Medianschnitt

Er fängt oberhalb der Symphyse an und wird genau in der Mittellinie senkrecht nach oben geführt, soweit es die Operation erfordert. Wir suchen mit nicht zu großen Schnitten auszukommen und beginnen stets mit einem kleinen Schnitt, der je nach Bedarf verlängert werden kann. Durch Spaltung der Haut nach abwärts über die Symphyse wird bei fetten Frauen das Operationsgebiet zugänglicher[1]). Eine Verlängerung nach oben über den Nabel hinaus kommt nur ausnahmsweise für ganz große Tumoren in Frage. Haut und Unterhautzellgewebe spalten wir bis auf die Aponeurose mit dem Messer. Diese selbst wird von einem kleinen Einschnitt aus mit der Schere gespalten und hierauf die beiden M. recti mit der geschlossenen Schere und den Fingern voneinander getrennt (Abb. 18). Jetzt führen wir zwei Bauchspekula ein und lassen sie vom Assistenten halten. Das Peritoneum wird mit zwei Pinzetten gefaßt, hochgehoben und durch Hineinstechen mit der geschlossenen stumpfen Schere eröffnet (Abb. 19), also nicht unter Verwendung schneidender Instrumente[2]). Durch das entstandene Loch dringt Luft in die Bauchhöhle und der Darm fällt zurück, worauf das Bauchfell leicht mit der Schere ganz eröffnet werden kann (Abb. 20). Bei diesem

[1]) Kuhlenkampf, Zbl. Chir. **1924**, Nr. 30.

[2]) Zbl. Gynäk. **1933**, Nr. 15.

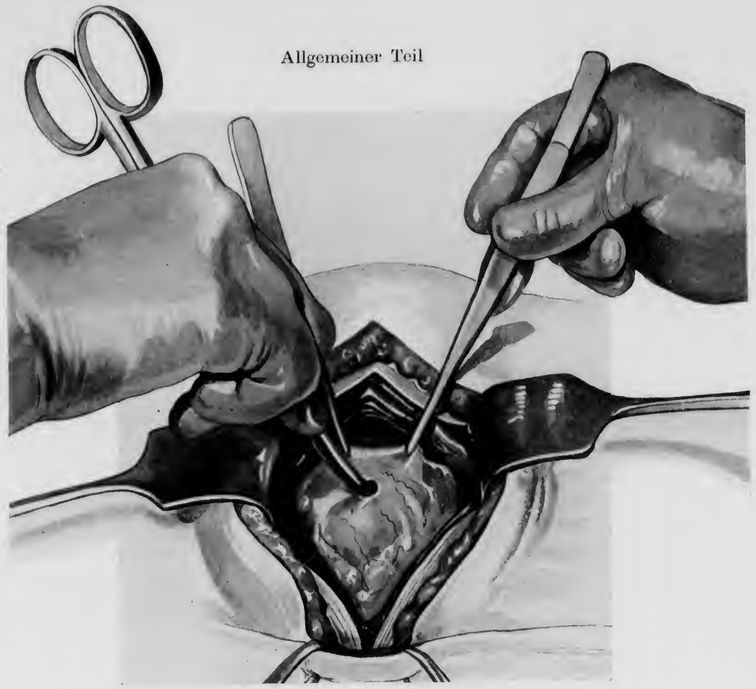


Abb. 19. Eröffnung des Peritoneum nach Logothetopulos. Anhebung des Peritoneum mittels zweier Pinzetten und Durchstechung mit der geschlossenen Schere

Abb. 20. Erweiterung der Peritonealöffnung mit der Schere

Vorgehen ist eine Verletzung des Darmes unmöglich, da im Augenblick der Durchbohrung der Darm zurückweicht und nicht verletzt werden kann, selbst wenn eine Schlinge versehentlich mit der Pinzette mitgefaßt sein sollte. Vorteile des Medianschnittes sind sein blutloser Verlauf, Fehlen von Funktionsstörungen an Muskeln und Nerven und die Möglichkeit, ihn beliebig nach oben zu vergrößern.

c) Suprasymphysärer Querschnitt nach Pfannenstiel

Wir durchschneiden mit dem Messer die Haut und das Unterhautzellgewebe 2—3 cm oberhalb der Symphyse in querer Richtung in einer Länge von 5—20 cm und mehr, je nach Art der Operation und Dicke der Bauchdecken. So wie beim Medianschnitt machen wir zuerst einen kleinen Einschnitt in die Faszie mit dem Messer und vergrößern ihn dann mit der Schere in querer Richtung. Faszie und Muskeln werden in der Mitte, wo sie in festem Zusammenhang stehen, mit der Schere voneinander getrennt, was durch Anheben der Faszie mit den Fingern erleichtert wird. Diese Abtrennung muß in möglichst großer Ausdehnung mit Hilfe eines Tupfers ausgeführt werden, damit das Operationsgebiet zugänglicher wird. Die Mm. recti werden, wie beim Längsschnitt, mit der geschlossenen Schere und den Fingern stumpf auseinandergedrängt, das Peritoneum in oben beschriebener Weise eröffnet und mein selbsthaltendes Spekulum eingeführt, durch das die Öffnung stark erweitert werden kann (Abb. 16—17).

d) Bauchdeckennaht

Sie wird in horizontaler Lage ausgeführt, nachdem man sich überzeugt hat, daß die Darmschlingen sich in ihrer normalen Lage befinden, und nachdem man das Netz mit der Hand symphysenwärts gezogen hat, so daß der Bauchinhalt gut bedeckt wird. Wir nähen schrittweise, zuerst das Peritoneum, dann die Mm. recti, deren Ränder beim Längsschnitt von der Aponeurose frei gemacht werden, hierauf die Faszie und zuletzt

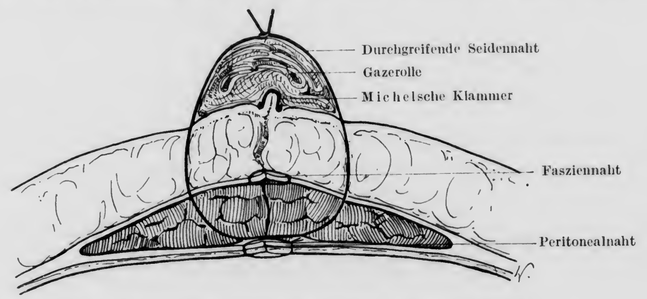


Abb. 21. Schematische Darstellung unserer Bauchdeckennaht

Unterhautzellgewebe und Haut. Für diese Etagennaht wird Katgut verwendet, da im Falle einer Eiterung bei Seidennähten die ganze Wunde eröffnet werden müßte, um alle Seidennähte zu entfernen, die andernfalls zu Fistelbildung Veranlassung geben könnten. Beim Längsschnitt legen wir durchgreifende Seidennähte nach Vollendung der Peritonealnaht durch Haut, Faszie und Muskulatur, dann wird die Faszie fortlaufend mit Katgut genäht, die Haut mit Michelschen Klammern geschlossen und zuletzt die durchgreifenden Seidennähte über einer längs der Wunde gelegten Gazerolle geknüpft (Abb. 21). Halban führt die durchgreifenden Nähte nur durch Haut und Faszie, J. L. Faure auch durch das Peritoneum.

Sehr gute Resultate ergibt die Amannsche Naht, bei der die durchgreifenden Nähte so gelegt werden, daß die entsprechenden Schichten der Bauchwand zur Vereinigung kommen. Nach der Naht des Peritoneum mit fortlaufendem Katgutfaden führen wir einen festen Seiden- oder Zwirnfaden mit einer 6—7 cm langen leicht gebogenen Nadel oder besser noch mit Reverdin durch die Bauchdecken der einen Seite, d. h. durch Haut, Faszie und Muskel, dann nur durch Muskel und Faszie der anderen Seite und kehren wieder auf die erste Seite zurück, wo wir die Faszie allein fassen.

Abb. 22. Bauchdeckennaht nach Amann

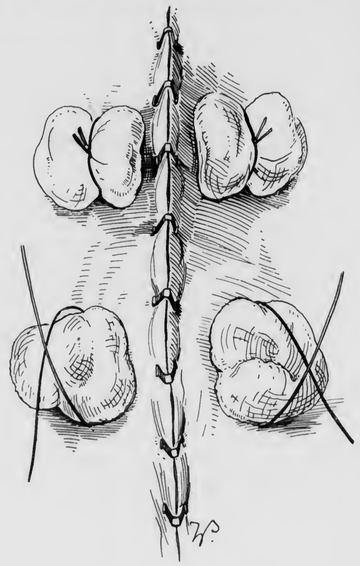


Abb. 23. Bauchdeckennaht nach Amann.
Knoten von je zwei benachbarten Nähten über Gazetupfern

Abb. 23.

Hierauf führen wir den Faden durch Faszie und Haut der andern Seite wieder heraus. Die herausragenden Fäden werden fest angezogen und je zwei derselben Seite über einem Tupfer verknotet (Abb. 22—23).

Die Naht des Schnittes nach Pfannenstiel erfolgt ebenfalls etagenweise, indem man zuerst Peritoneum, dann die Mm. recti, die Faszie, das subkutane Zellgewebe und die Haut näht. Bei diesem Schnitt halten wir die durchgreifenden Nähte für überflüssig, jedoch müssen wegen der Gefahr der Bildung von Hämatomen auch die kleineren Gefäße sorgfältig unterbunden werden.

Die Entstehung von Bauchbrüchen kann nur durch exakte etagenweise Bauchdeckennaht vermieden werden, aber nicht durch das ständige Tragen von Bauchbinden, die, im Gegensatz zu früheren Ansichten, keinen wesentlichen Einfluß auf die Hernienbildung haben.

c) Erleichterung der Appendektomie bei Längs- und Querschnitt nach Logothetopulos

Wir suchen bei jeder Laparatomie wegen Erkrankung der Genitalien die Appendix auf und entfernen sie, falls sie pathologische Veränderungen aufweist. Meist kann das leicht durch den vorhandenen Längs- oder Querschnitt geschehen. In Fällen aber, in denen das Herausziehen des Blinddarmes vor die Bauchwunde Verwachsungen

halber Schwierigkeiten bietet, sind wir gezwungen, den anfänglichen Schnitt zu vergrößern oder den rechten geraden Bauchmuskel quer zu durchschneiden, um den Wurmfortsatz herausholen zu können. Um dies unphysiologische Vorgehen zu vermeiden, verlege ich den Schnitt auf folgende Weise pararektal.

Nach Beendigung der gynäkologischen Operation entferne ich die Bauchdeckenhalter und befreie den rechten M. rectus in möglichst großer Ausdehnung von seinem hinteren und vorderen Faszienblatt, wie das auch bei Lennardschem Schnitt

Abb. 24. Verlagerung des M. rectus nach links
zwecks Freilegung des Ileozökalgebietes nach Logothetopulos

geschieht. Man setzt zwei Bauchdeckenhalter ein und zieht den freigemachten Muskel stark nach links, die übrigen Schichten der rechten Bauchdeckenhälfte, d. h. Haut, Faszie und Peritoneum nach der entgegengesetzten Seite, also nach rechts (Abb. 24). Nach Beendigung der Appendektomie nehme ich die Bauchdeckenhalter heraus, bringe das Peritoneum unterhalb vom rechten M. rectus wieder an seinen Platz und schließe die Bauchdecken etagenweise.

f) Freilegung des Operationsgebietes durch Abstopfen der Darmschlingen

Ein Haupterfordernis zum Gelingen einer Operation ist die einwandfreie Abtrennung der Genitalorgane vom übrigen Bauchraum, besonders wenn es sich um Eingriffe in infiziertem Gebiet handelt. Wir legen in Trendelenburgscher Lagerung gefaltete Gazekompressen von etwa 20 cm Breite und 80 cm Länge ein, von denen gewöhnlich 1—2 Stück zur vollkommenen Deckung ausreichend sind. Unsere Technik der Einlegung ist folgende: Wir fassen eine Kompresse mit der rechten Hand in der Mitte und schieben damit die in der Medianlinie vordringenden Darmschlingen nach

dem Diaphragma zu zurück. Die Kompresse wird dann mit der linken Hand in ihrer Lage festgehalten und mit der rechten Hand die seitlichen Kompressenteile auf die übrigen Darmschlingen gedeckt (Abb. 25). Auf die gleiche Weise wird die zweite und nötigenfalls dritte Kompresse eingeführt. Ich halte die Abdeckung auf diese Weise für sehr wichtig, da z. B. beim Platzen einer eiterhaltigen Geschwulst die infektiösen Massen nur die zuletzt eingeführte Kompresse verunreinigen können, die während der Operation leicht gewechselt werden kann. Die Zurückdrängung der

Abb. 25. Freilegung des Operationsgebietes durch Abstopfung der Darmschlingen. Die linke Hand hält die Mitte der eingeführten Gazekompresse fest, während die rechte Hand die Darmschlingen mit der Gaze bedeckt.

Därme macht Schwierigkeiten, wenn wegen zu oberflächlicher Narkose keine gute Entspannung der Bauchmuskulatur eintritt, so daß die Eingeweide immer wieder nach außen gepreßt werden. In einem solchen Falle warten wir ruhig ab, bis tiefe Narkose eingetreten ist und bedecken in der Zwischenzeit die Wunde mit einem sterilen Tuch. Gut eingelegte Kompressen erleichtern die Operation außerordentlich und machen alle zum Zurückhalten der Därme konstruierten Instrumente überflüssig. Preßt die Patientin, so hält man die Kompressen mit der Hand zurück, bis wieder ruhige Atmung eingetreten ist. Die Kompressen sollen nicht aus der Wunde herausragen, um eine Behinderung des Operateurs zu vermeiden, sie werden aber genau gezählt, damit keine in der Bauchhöhle zurückbleiben kann. Auf jeden Fall wird vor Schluß des Peritoneums nochmals gründlich kontrolliert, so daß jeder Zweifel ausgeschlossen ist. Nach der Eröffnung der Bauchhöhle haben alle kleinen Tupfer und Kompressen dem Operationsgebiet fern zu bleiben, und zum Tupfen werden nur Stieltupfer verwendet.

g) Peritonisierung und Drainage der Bauchhöhle

Jede Wundfläche im Bauche muß mit Peritoneum bedeckt werden, da wir im Peritoneum dank seiner bakteriziden Kraft ein vorzügliches Mittel gegen Infektion haben. Große Operationsstümpfe, die zur Infektionsquelle werden könnten, werden am besten extraperitoneal gelagert. Die sorgfältige Peritonisierung bildet den besten Schutz gegen Verwachsungen mit den Nachbarorganen und somit auch vor dem postoperativen Ileus (Quénu und Beutner). Bei den meisten typischen Operationen gelingt die Peritonisierung leicht, macht jedoch zuweilen große Schwierigkeiten, wenn es an Peritoneum fehlt, das man dann nehmen muß, wo immer man es findet. Für solche Fälle bedient man sich vorteilhaft der Amannschen Methode, bei der Sigmoid oder höher gelegene Teile des Rektums mit dem Blasenperitoneum vernäht werden. Sorgfältige Peritonisierung und Blutstillung machen eine Drainage meist überflüssig. Wegen der in bezug auf Asepsis immer etwas unsicheren Verhältnisse bei abdominalen Karzinomoperationen empfiehlt J. L. Faure in jedem Falle Offenlassen des Bauches und Mikulicz-Tamponade. Nach meinen Erfahrungen wird dadurch jedoch die Mortalitätsziffer auch nicht besser. Deshalb vermeiden wir prinzipiell die Drainage nach oben, und nur wenn es unumgänglich notwendig ist, drainieren wir nach der Scheide zu und schließen die Bauchdecken vollkommen.

4. Vaginale Operationen

Die Instrumente, die wir bei vaginalen Operationen gebrauchen, sind im allgemeinen die gleichen wie die bei Laparatomien üblichen, mit Ausnahme der Bauchspekula, an deren Stelle wir Scheidenspekula gebrauchen. Die Firma Stiefenhofer hat nach meinen Angaben ein spezielles Spekulum angefertigt (Abb. 26), das von den sonst gebräuchlichen sich dadurch unterscheidet, daß der eine Seitenflügel nach oben in Form eines Ohres verlängert ist, das zur Ausübung eines Druckes auf die seitliche Scheidenwand beim Schuchardt-Schnitt dient. Dadurch wird eine sehr gute Blutstillung erzielt, so daß man nur wenige Unterbindungen braucht und viel Zeit gewinnt.

Sehr wichtig ist die Lagerung der Patientin auf dem Operationstisch. Sie liegt auf dem Rücken mit abduzierten und in der Hüfte und Knie gebeugten Beinen, das Gesäß den Tischrand etwas überragend. Damit sie während der Operation unveränderlich festliegt, verwendet man Schulterstützen, und die Beine werden in ihrer Lage durch gerade Eisenstäbe unter den Knieen zurückgehalten. Um jede Störung der Assistenten zu vermeiden, sind die Stäbe nicht senkrecht, sondern stark schräg geneigt zum Operationstisch und nach dem Kopfe der Patientin zu angebracht (Abb. 27). Dadurch kommen die Beine der Patientin auf die Rücken der Assistenten zu liegen. Die Hände der Frau werden gekreuzt auf der Brust befestigt. Im Gegensatz zur Laparatomie brauchen wir bei größeren Vaginaloperationen stets zwei Assistenten, da keins der bis jetzt angegebenen selbsthaltenden Spekula einen Assistenten zu ersetzen vermag. Der erste Assistent stellt sich auf der rechten Seite der Patientin auf, um seine rechte Hand besser benutzen zu können. Der links stehende erleichtert sich das Halten des vorderen Blattes, wenn er seine Hand auf die Symphyse stützt (Abb. 28), dabei aber darauf achtet, daß er mit dem Ellbogen keinen Druck auf das Abdomen der Frau ausübt und die freie Atmung dadurch behindert. Die Tischplatte soll möglichst hoch sein, damit die Assistenten durch zu starkes Bücken nicht unnötig ermüdet werden. Der Operateur setzt sich vor die Vulva der Kranken; rechts und möglichst nahe von ihm steht der Instrumententisch und hinter diesem die Operationsschwester.

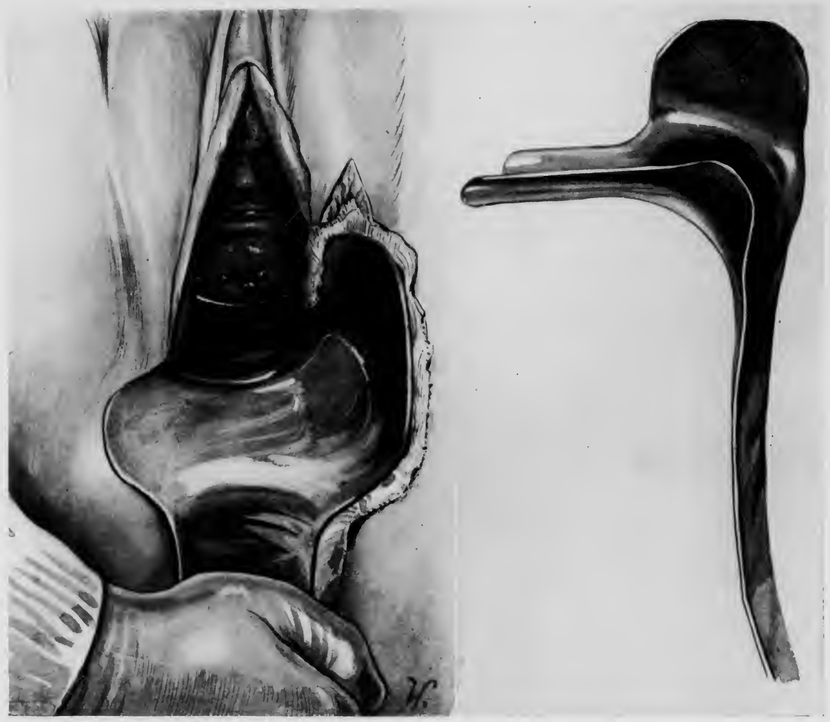


Abb. 26. Vaginalspekulum für den Schuchardtschen Schnitt nach Logothetopulos

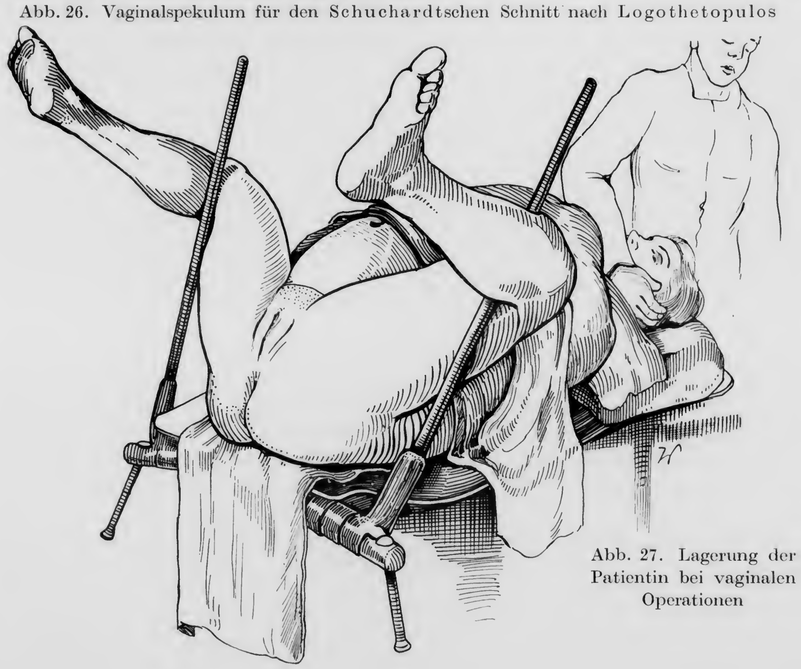


Abb. 27. Lagerung der Patientin bei vaginalen Operationen

Um den After und die umgebenden Partien gut abzudecken, wird das sterile Tuch mit einer Kugelzange oberhalb der Analöffnung und mit zwei Tuchklemmen seitlich an den Gesäßbacken befestigt (Abb. 29).

Die Scheidenspekula geben gewöhnlich genügend Raum zur Einführung der Instrumente und der Finger, handelt es sich jedoch um größere Tumoren bei enger

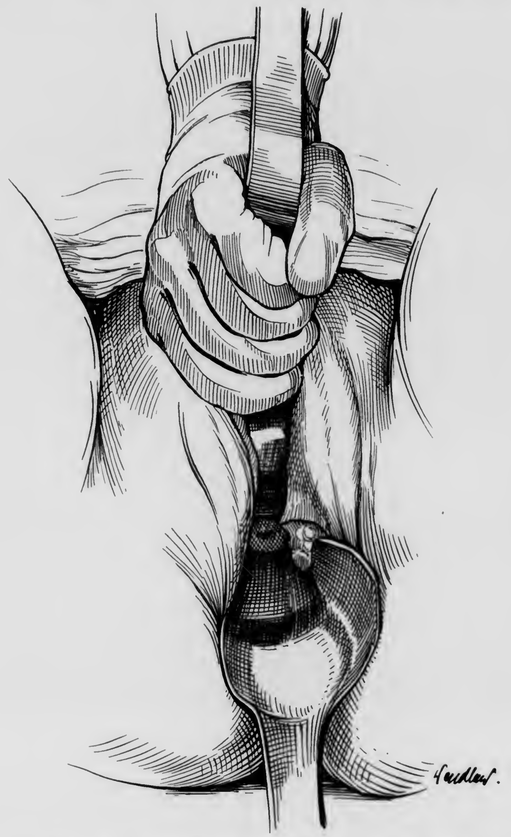


Abb. 28. Haltung des vorderen Scheidenspiegels. Die Hand des Assistenten stützt sich auf die Symphyse

Vagina, z. B. bei Nulliparen, so muß man eine Spaltung des Beckenbodens und der Scheide vornehmen (Schuchardt-Schnitt). Dadurch gewinnt man soviel Raum, um nicht nur die Finger, sondern nötigenfalls auch die ganze Hand einführen zu können. Wir kommen stets mit dem einseitigen, auf der linken Seite der Patientin ausgeführten Schnitt aus und konnten bisher den von Stöckel empfohlenen zweiten Schnitt auf der rechten Seite auch bei Totalexstirpation wegen Karzinom entbehren. Nach Unterbindung der größeren, hauptsächlich oben gelegenen Gefäße bedecken wir die Wunde mit einer kleinen Gazekompresse und führen unser Spezialspekulum ein, das den Einschnitt vor Verschmutzung schützt und gleichzeitig blutstillend wirkt (Abb. 26).

Die Eröffnung der Bauchhöhle von der Scheide aus kann durch die vordere oder durch die hintere Kolpotomie geschehen. Bei Operationen an Uterus oder Adnexen wenden wir die vordere Kolpoköliotomie an, da sie am besten die Vorwälzung des Uterus ermöglicht. Die hintere Kolpoköliotomie dient zur Eröffnung von Douglasabszessen und nur ganz ausnahmsweise in besonderen Fällen zu Operationen an Uterus oder Adnexen. Zur korrekten Ausführung der vorderen oder hinteren Kolpotomie muß man sich die anatomischen Verhältnisse stets genau vor Augen halten.

Abb. 29. Abdeckung des Operationsgebietes

Die Blase ist mit dem Uterus an der vorderen Wand der Zervix durch lockeres Bindegewebe verbunden, so daß bei normalen Verhältnissen die Ablösung der beiden Organe voneinander in der Mitte sehr leicht mit dem Finger geschehen kann (Abb. 76). Hierauf kommen die seitlichen Partien zu Gesicht, wo Blase und Uterus wesentlich fester miteinander verbunden sind, so daß wir von der Schere Gebrauch machen müssen. Beim Herunterziehen des Uterus folgt die Blase mit und wird ebenfalls verlagert, wobei sie eine Falte bildet. Dagegen bleibt die vordere Bauchfellfalte (Plica vesico-uterina), die bei normaler Lage der Genitalorgane bis zum inneren Muttermund reicht und 2 cm vom vorderen Scheidengewölbe entfernt ist, beim Herabziehen des Uterus in ihrer Lage, so daß ihre Entfernung vom Scheidengewölbe nunmehr etwa 4 cm beträgt. Das Douglasperitoneum reicht bis dicht an die Scheide, mit der es durch lockeres Bindegwebe verbunden ist. Beim Herabziehen des Uterus folgt es deshalb nur teilweise nach, so daß man es beim Eröffnen der Scheide erst in einer Tiefe von etwa 2 cm auffindet.

a) Colpocoeliotomia anterior

Nach Entfaltung der Scheide und Einstellung der Portio mittels der Spekula fassen wir die vordere Muttermundslippe mit einer Kugelzange und ziehen sie nach der Vulva zu und etwas dammwärts. Wir spalten die vordere Vaginalwand mit dem Messer in der Medianlinie, und zwar beginnt der Schnitt 2 cm unterhalb der Urethra und reicht bis zur Portio herab. An Stelle dieses Schnittes kann man je nach Lage des Falles einen quergelegenen oder einen T-förmigen anwenden. Der Quer- oder Bogenschnitt muß an der Blasen-Cervixgrenze angelegt werden, im allgemeinen $1\,^1/_2$—2 cm oberhalb des Muttermundes. Jeder dieser Schnitte muß unter allen Umständen bis zu dem unterhalb der Vaginalwandung liegenden Bindegewebe geführt werden, da nur dann Blase und Scheidenwand leicht voneinander getrennt werden können. Nach Spaltung der Scheidenwand in der Mittellinie fassen wir beiderseitig die Wundränder mit je einer Kocherklemme und beginnen die Ablösung nach beiden Seiten zu mit der Schere auf eine Entfernung von etwa 2 cm. Die Ablösung der Blase sowie der weitere Verlauf der Operation wird bei der vaginalen Uterusexstirpation beschrieben.

b) Colpocoeliotomia posterior

Infolge der einfachen anatomischen Verhältnisse ist sie leichter als die vordere ausführbar. Das Peritoneum reicht herab bis zur Scheidenwand, und die Ablösung der Blase fällt fort.

Man entfaltet die Vagina mit Hilfe der Spekula, stellt die Portio ein und faßt die hintere Muttermundslippe mit einer Kugelzange, die stark nach außen und symphysenwärts angezogen wird, nachdem man das störende vordere Spekulum entfernt hat. Nun wird die hintere Vaginalwand dicht unterhalb der Portio quer gespalten und damit gleichzeitig das Peritoneum eröffnet.

Vor jedem weiteren Eingriff wird aus diagnostischen Gründen eine eingehende Austastung des kleinen Beckens von der Operationswunde aus vorgenommen. Wenn eine Drainage sich als überflüssig erweist, wird nach Beendigung der Operation Peritoneum und Scheidenwandung mit Katgut geschlossen.

SPEZIELLER TEIL

I. Chirurgische Behandlung der Lageanomalien des Uterus

A. Retroversioflexio uteri

1. Fixation der Lig. rotunda

a) Operation nach Alexander-Adams

Der erste, der an die Ersetzung der Pessarbehandlung bei Retroflexioversio uteri durch eine Operation gedacht hat, war Alquier, der im Jahre 1840 in der französischen Akademie vorschlug, durch Verkürzung der Lig. rotunda eine Reposition des Uterus zu erzielen. Tatsächlich ausgeführt wurde diese Operation aber erst durch zwei englische Chirurgen, Alexander und Adams, im Jahre 1881.

Es ist bei der Ausführung dieser Operation wichtig, sich an ganz bestimmte Regeln zu halten, ohne die man auf Schwierigkeiten stößt. Um die Lig. rotunda im Leistenkanal leicht auffinden zu können, muß der 4—6 cm lange Hautschnitt, der am Tuberculum pubicum beginnt und parallel und etwas oberhalb des Poupartschen Bandes verläuft, bis zur oberflächlichen Faszie geführt werden, die man dann mit einem Tupfer von dem daraufliegenden Fett reinigt, bis sie weißschimmernd erscheint. Jetzt wird in der Gegend des äußeren Leistenringes der Imlachsche Fettpfropf sichtbar, der besonders bei fetten Patientinnen das Lig. rotundum verdeckt. Hier wird das Ligament aufgesucht, mit einer stumpfen Klemme gefaßt und nun erst die Faszie eröffnet. Vor Auffindung des Bandes darf man die Faszie keinesfalls eröffnen. Nach Spaltung der Faszie wird das Band leicht nach auswärts gezogen und längs seines ganzen Verlaufes im Leistenkanal freipräpariert. Man muß es recht vorsichtig behandeln, da es besonders bei Nullipara in seinen distalen Abschnitten oft sehr dünn und zerreißlich ist.

Der Processus vaginalis peritonei wird mit einem Tupfer zurückgeschoben oder besser mit der Schere eröffnet, damit man sich durch Einführung des Fingers in die Bauchhöhle über den genauen Zustand der inneren Organe orientieren kann. Hierauf wird das Peritoneum wieder geschlossen, und das Ligament mit einigen Nähten am Poupartschen Bande befestigt, wobei man darauf achten muß, es nicht ganz in die Naht zu nehmen, um Nekrosen zu vermeiden. Der überflüssige Teil des runden Bandes wird unterbunden und weggeschnitten. Man schließt die Bauchdecken im Sinne der Bassinischen Operation.

Wenn man das Band nicht finden sollte, was, wenn auch recht selten, selbst bei Einhaltung obiger Regeln vorkommen kann, so erweitert man den Schnitt und sucht es direkt an seinem Ursprung an der Uteruskante auf.

b) Operation nach Olshausen

Anheftung der Ligamenta rotunda in der Nähe ihres Ursprungs am Uterus an die Bauchdecken. Je eine mit Katgut oder dünner Seide armierte Nadel wird auf

beiden Seiten durch Faszie, Muskel und Peritoneum hindurchgeführt, das Ligament durchstochen und dann wieder nach außen zurückgeleitet. Nach Schluß der Bauchwunde werden vor der Hautnaht die Fäden jederseits geknüpft.

c) Operation nach Doléris

Eröffnung des Bauches mit Quer- oder Längsschnitt. Eine mit Seide armierte Déchampsnadel wird unterhalb des Lig. rotundum in einer Entfernung von 3 cm von der Uteruskante durch das Lig. latum geführt, und auf gleiche Weise auch das Ligament der anderen Seite angeschlungen. Mit einer stumpfen Klemme werden dann beiderseits etwas oberhalb der Symphyse und etwa 2 cm von der Mittellinie entfernt Muskel und Peritoneum durchstoßen und die Ligamentschleifen durch die beiden Öffnungen hindurchgezogen. Peritoneum und Muskel werden vereinigt und darüber die beiden Bänder untereinander und mit dem Muskel vernäht. Zur größeren Sicherheit kann man bei der Fasziennaht noch die Bänder mitfassen, und sie so auf der Rückseite der Faszie mitbefestigen.

Diese beiden letzten Methoden haben den Nachteil, daß zwischen Bauchwand und Uterus Darmschlingen eintreten können, und daß auf diese Weise ein Strangulationsileus entstehen kann. Abgesehen davon ist aber auch die Lage des Uterus anormal hoch, und seine physiologische Beweglichkeit ist sehr verringert.

Um diese Nachteile zu vermeiden, hat man empfohlen, die Ligamente auf die vordere (Polk, Menge, Dudley, Latzko) oder besser auf die hintere (Webster, Baldy) Wand des Uterus aufzunähen.

d) Operation nach Webster-Baldy

Nach Eröffnung der Bauchhöhle werden die Ligamenta rotunda beiderseits mittels einer Dechampsnadel und Faden in einer Entfernung von etwa 3 cm von der Uteruskante umfaßt und hochgezogen. Dann durchsticht man jederseits die Mesosalpinx mit einer Klemme (Péan), zieht mit ihrer Hilfe die Ligamentschleifen durch die Mesosalpinx hindurch und befestigt sie mit einigen Katgut- oder Seidenfäden auf der hinteren Uterusfläche. Man achte darauf, die Tuben nicht abzuknicken, wodurch ein Hindernis für die Konzeption geschaffen würde.

2. Abdominale Vesikofixation

Die von Werth im Jahre 1884 angegebene Methode, die auch heute noch zahlreiche Anhänger hat, beruht auf der Verödung des vorderen Douglasschen Raumes (Cavum vesicouterinum), um dadurch den von vorn und oben wirksamen intraabdominellen Druck auszuschalten. Der dann nur noch vorhandene Druck von hinten und oben auf die Uterusrückfläche drängt den Uterus in Anteversioflexionstellung.

Nach Halban geht man folgendermaßen vor:

Eine mit einem längeren Katgutfaden versehene Nadel wird am Fundus uteri knapp oberhalb der Tubeninsertionsstelle eingestochen; sie nimmt durch wiederholte Einstiche das ganze Peritoneum der vorderen Uterusfläche und der hinteren Blasenwand mit und wird knapp oberhalb des Blasenscheitels wieder ausgestochen (Tabaksbeutelnaht). Das gleiche geschieht symmetrisch mit einer zweiten Naht auf der anderen Seite. Die Enden beider Fäden werden verknotet, so daß der Uterusfundus auf den Blasenscheitel zu liegen kommt, und das Cavum vesicouterinum verödet wird.

3. Verkürzung der Ligamenta rotunda mit gleichzeitiger Vesicofixatio uteri nach Logothetopulos

Abb. 30. Verkürzung der Lig. rotunda mit gleichzeitiger Vesicofixatio uteri nach Logothetopulos. Der um das Lig. rotundum gelegte Faden wird mittels einer Klemme durch die Mesosalpinx hindurchgezogen

Um die Excavatio vesicouterina zu veröden und gleichzeitig direkt den Uterus in Anteversioflexio zu halten, vernähe ich zunächst entsprechend der Methode von Baldy-Webster die Ligamenta rotunda auf der hinteren Fläche des Uterus mit einigen Nähten und fixiere dann die Blase mit Knopfnähten auf die dem Fundus zunächstliegenden Teile dieser Bänder (Abb. 30, 31 und 32). Diese Methode ist seit längerer Zeit für mich die Methode der Wahl, da durch sie der Uterus eine doppelte Sicherung seiner Lage erhält, die der normalen weitgehend ähnelt.

Wichtig ist, daß bei der Vernähung der Ligamenta rotunda auf der Rückseite des Uterus nur die hinteren Schenkel dieser Bänder zur Verwendung kommen, damit ihre vorderen Teile, mit denen später die Blase vereinigt wird, dies ohne Spannung zulassen.

Der Vorteil der Operation liegt darin, daß die Blase ihre volle Beweglichkeit beibehält, und Nachuntersuchungen ergaben, daß niemals Blasenstörungen auftraten, auch nicht bei Fällen, bei denen es zu einer Gravidität gekommen war. Rezidive wurden bei weit über hundert von mir oder meinen Assistenten operierten Fällen nicht beobachtet.

Abb. 31. Verkürzung der Lig. rotunda mit gleichzeitiger Vesicofixatio uteri nach Logothetopulos. Vernähung der Blase mit den auf der Hinterwand des Uterus vereinigten Lig. rotunda

Abb. 32. Verkürzung der Lig. rotunda mit gleichzeitiger Vesicofixatio nach Logothetopulos. Die Blase ist mit vier Knopfnähten an den Lig. rotunda befestigt

4. Direkte Befestigung des Uterus an den Bauchdecken

Die Ventrofixation nach Leopold-Czerny, bei der man die mit einem Faden armierte Nadel durch Faszie, Muskulatur und Peritoneum der einen Seite führt, den Uterus faßt und durch die entsprechenden Schichten der anderen Seite wieder herauskommt, kann nur bei Frauen, die nicht mehr gebärfähig sind oder gleichzeitig sterilisiert werden sollen, angewandt werden. Bei Uterusvorfällen ist die Methode jedoch wertvoll und wird häufig benutzt. Eine noch zuverlässigere Anheftung des Uterus an die Bauchdecken für solche Fälle erreicht man aber mit der Kocherschen Exohysteropexie, die folgendermaßen ausgeführt wird:

Nach Eröffnung der Bauchhöhle wird der Uterus mit einer Kugelzange gefaßt und nach außen gezogen, worauf wir das Peritoneum derart an die hintere und vordere Uterusfläche annähen, daß der Uterus extraperitoneal zu liegen kommt. Bei der Bauchdeckennaht durchsticht man den Uterus mit zwei stärkeren Fäden gleichzeitig mit der Faszie und knotet dieselben nach der Fasziennaht.

B. Descensus und Prolapsus vaginae

1. Vordere Kolporraphie

Nach Einführung des hinteren Scheidenspekulum wird die vordere Vaginalwand genau in der Mittellinie, etwa 1 cm oberhalb des Muttermundes gefaßt und herabgezogen; mit einer zweiten Kugelzange faßt man die Vaginalwand dicht unterhalb

Abb. 33. Vordere Kolporraphie. Beginn der Abtragung des ovalen Scheidenlappens

Abb. 34. Vordere Kolporraphie. Fassen der Scheidenwundränder mit Kocherklemmen und scharfe Ablösung der Scheidenwand von ihrer Unterlage

der Urethralöffnung und zieht sie nach aufwärts. Bei der so gespannten Vaginalwand wird direkt oberhalb der unteren Kugelzange ein kleiner Einschnitt mit der Schere durch die ganze Dicke der Schleimhaut gemacht, die Schleimhauträndер mit einer Pinzette gefaßt und mit der Schere auf der linken Seite von unten nach oben ein bis zur oberen Kugelzange reichender bogenförmiger Schnitt geführt (Abb. 33—36). Die Vaginalwand wird von diesem Schnitt aus nach links zu abpräpariert und ein

Abb. 35. Vordere Kolporraphie. Die Ablösung des Scheidenlappens wird stumpf mit einem Tupfer fortgesetzt

Abb. 36. Vordere Kolporraphie. Die Ablösung des vorderen Lappens ist beendet. Die fortlaufende Naht faßt die Blasenwandung mit

ovaler Lappen herausgeschnitten, dessen Größe von der Ausdehnung des Vorfalles abhängt. Man achte darauf, daß die Wundränder einander ohne Spannung genähert werden können und berechne auch danach die Größe des wegzunehmenden Lappens. Arbeitet man in der richtigen Schicht, so ist es ein leichtes, den Lappen mit einem Tupfer abzulösen, indem man die Wundränder mit einer oder zwei Kocherklemmen faßt und über den Finger herüberstülpt. Die Vereinigung der Wundränder geschieht mit fortlaufender Naht, die man unten, d. h. an der Zervix, beginnt. Wenn man die Naht breit anlegt und gleichzeitig etwas von der Blasenwand mitfaßt, erübrigt sich eine Sonderraffung der Blase, falls es sich nur um einen kleinen Prolaps handelt (Abb. 36). Bei größeren Zystozelen jedoch führe ich eine Extraraffung der Blase aus.

Ist die erste Naht an der Portio gelegt, so wird die untere Kugelzange entfernt, und der Assistent zieht nur an dem Faden, so daß beim Weiternähen die Portio von selbst schrittweise in ihre alte Lage zurückkehrt. Handelt es sich um einen sehr großen Vorfall, bei dem die Größe des Lappens zuvor schwer festzulegen ist, so beginnt man die Plastik zweckmäßig mit einem großen medianen Längsschnitt, von dem aus die Scheidenwand in oben geschilderter Weise nach beiden Seiten abgelöst wird. Dann wird die Blase in die Höhe geschoben und mit einer Tabaksbeutelnaht gerafft. Die sich spannenden Blasenschenkel werden nur durchgeschnitten, wenn eine Portioamputation wegen Elongatio notwendig ist. Eine Blutstillung erübrigt sich bei kleinen Prolapsen meist, da die Blutung aus den Wundrändern bei der Naht zu stehen pflegt, bei größeren Vorfällen jedoch ist es sicherer, blutende Gefäße zu fassen und zu unterbinden.

2. Hintere Kolporraphie und Perineoplastik

Die Raffung der hinteren Scheidenwand muß stets mit der Bildung eines neuen festen Dammes zugleich geschehen. Der Erfolg der Operation ist weitgehend von der Höhe dieses neuen Dammes abhängig sowie von der Weite des entstehenden Scheidenrohres, das auf keinen Fall zu Kohabitationsschwierigkeiten Veranlassung geben darf. Fällt der neugebildete Damm zu niedrig aus, so ist das Ergebnis wenig vom Zustande vor der Operation verschieden, und die Patientin leidet weiter unter ihren Beschwerden. Wir legen deshalb von vornherein die Höhe des zu bildenden Dammes fest durch Bestimmung der Punkte, die nach ihrer Vereinigung die Stelle des früheren Frenulum einnehmen werden, und die im allgemeinen den unteren Enden der kleinen Labien entsprechen. Ein dritter Punkt in der Medianlinie der vorgefallenen hinteren Scheidenwand entspricht dem oberen Ende des zu resezierenden Scheidenlappens; seine Lage ist abhängig von der Größe des Vorfalles, und wir legen ihn am besten erst endgültig während des Ablösens des Lappens fest. Die Wahl dieser drei Punkte kann nicht nach bestimmten Regeln erfolgen, sondern ist in der Hauptsache von der operativen Erfahrung abhängig.

Wir gehen folgendermaßen vor: Die zwei seitlichen, unterhalb der kleinen Labien liegenden Stellen werden mit je einer Kugelzange gefaßt und vom Assistenten leicht nach der Seite und nach oben zu angezogen, so daß die Dammhaut sich linienförmig anspannt. Genau an der Grenze von Haut und Schleimhaut werden die beiden seitlich festgelegten Punkte mit der Schere durch einen Schnitt vereinigt, der nach unten zu leicht bogenförmig verläuft (Abb. 37). Man faßt dann den Scheidenwundrand in der Mitte mit zwei Kochern und beginnt von hier aus die Abpräparierung der hinteren Scheidenwand vom Rektum, was mit Schere und Tupfer sehr leicht geschieht, wenn man sich wie bei der vorderen Kolporraphie in der richtigen Schicht befindet (Abb. 38—39). Man kontrolliert mit dem Finger in der Vagina, wie hoch man die Ablösung fortsetzen darf und bezeichnet sich schließlich den obersten Punkt mit einer Kocherklemme, von der aus man nach beiden Seiten in Richtung der seitlichen Kugelzangen die Scheidenwand abträgt. Die Kocherklemme wird von der Wundseite des Lappens aus angesetzt (Abb. 40). Zieht man diese Klemme kräftig nach abwärts, so bilden sich zwei im spitzen Winkel zueinander verlaufende Wundränder, die man mit fortlaufenden Nähten vereinigt (Abb. 41—42). Die neue, verengte Scheide ist nun gebildet, und wir kommen zum für den Erfolg wichtigsten Teil der Operation, zur Levatornaht. Mit einer großen, kräftigen Nadel führt man, weit ausholend, einen starken Katgutfaden durch das Spatium pararectale von außen nach innen auf der linken Seite um den deutlich fühlbaren Levator herum. Das gleiche Manöver wird mit demselben Faden

Abb. 37. Hintere Kolporraphie. Schnitt an der Haut-Schleimhautgrenze

Abb. 38. Hintere Kolporraphie. Scharfes Abpräparieren der mit den Fingern vorgestülpten Scheidenwandung. Das Rektum wölbt sich unterhalb der Schere vor

Abb. 39. Hintere Kolporraphie. Weiteres stumpfes Abschieben der von den Fingern der linken Hand vorgestülpten Scheidenwandung

Abb. 40. Hintere Kolporraphie. Fassen des obersten Punktes des Scheidenlappens von der Wundseite her, Zug nach abwärts und Abtragung in der vorgezeichneten Linie mit der Schere

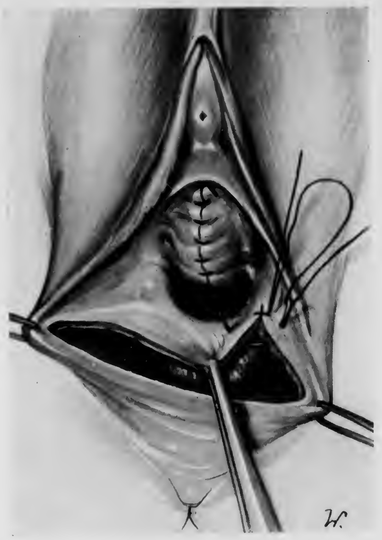


Abb. 41. Hintere Kolporraphie. Beginn der fortlaufenden Naht auf der linken Seite

Abb. 42. Hintere Kolporraphie. Linke Nahthälfte beendet. Beginn der fortlaufenden Naht rechts

Abb. 43. Hintere Kolporraphie. Scheidennaht beendet. Vereinigung der Levatoren unter Schutz des Darmes mit dem Finger

in umgekehrter Richtung auf der rechten Seite vorgenommen, und nachdem man drei bis vier solche Nähte gelegt hat, werden sie geknüpft. Man schützt das Rektum beim Anlegen dieser Nähte, indem man es mit dem linken Zeigefinger nach oben und hinten zu fortschiebt (Abb. 43). Seine Verletzung könnte zu unangenehmer Fistelbildung Veranlassung geben. Den Schluß der Operation bildet die Hautnaht der Dammwunde, die wir mit Katgut ausführen.

Bei allen plastischen Operationen müssen im Interesse des guten Enderfolges alle Nähte weit durchgreifend, die Schleimhaut mindestens $^1/_2$ cm vom Wundrande entfernt durchdringend, angelegt werden, so daß die Wundflächen breit aneinander zu liegen kommen, und um Nekrosen zu vermeiden, soll der Abstand der einzelnen Nähte voneinander mindestens 1 cm betragen.

In den ersten Tagen nach der Operation binden wir die Beine der Patientin zusammen. Ein Dauerkatheter wird bei uns nie eingelegt, und nur in seltenen Fällen ist Katheterismus nach der Operation erforderlich.

3. Operation des veralteten kompletten Dammrisses

Nach Ausschneidung des narbigen Gewebes wird der Mastdarm in ausgiebiger Weise von der Scheidenwand abgelöst, mit feiner Knopf- oder fortlaufender Seidennaht ohne Mitfassen der Darmschleimhaut genäht und nach sorgfältiger Freilegung

Abb. 44.

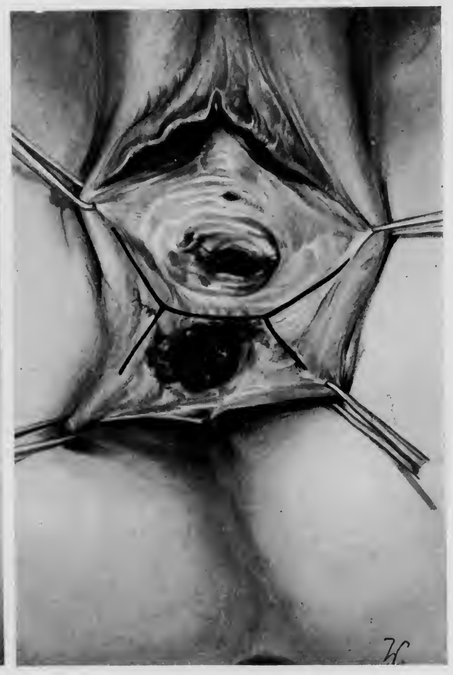


Abb. 45.

Abb. 44. Totaler Dammriß. — Abb. 45. Operation des totalen Dammrisses nach Logothetopulos. Das Operationsgebiet ist mit Kugelzangen freigelegt. Schnittführung durch starke Linien markiert

Abb. 46.

Abb. 46. Operation des totalen Dammrisses ~~nach~~ ~~Logothetopulos~~. Darm- und Sphinkternaht beendet. Die aufwärts freipräparierte Darmwandung ist mit zwei Kocherklemmen gefaßt und in einer Falte abgehoben. Die oberste hält die Scheidenschleimhaut nach oben

Abb. 47. Operation des totalen Dammrisses ~~nach~~ ~~Logothetopulos~~. Die herabgezogene Darmfalte deckt die Darmnaht und wird mit einigen Nähten auf dem Sphinkter befestigt

Abb. 48. Operation des totalen Dammrisses nach ~~Logothetopulos~~. Die herabgezogene und auf dem Sphinkter befestigte Darmfalte deckt die Darmnaht vollkommen ab

Abb. 47.

Abb. 48.

die Sphinkterenenden wieder mit feinen Seidennähten vereinigt. Es folgt die Naht der Scheidenwundränder mit Katgut, die Naht der Levatoren und die Hautnaht, wie wir es eingehend bei der Dammplastik geschildert haben.

Trotz sorgfältiger Technik wird wohl jeder Operateur bei dieser Operation Mißerfolge gehabt haben, die ihn zur Wiederholung des Eingriffes zwangen. Ich verwende seit längerer Zeit eine eigene Methode, die bisher in jedem Falle einen vollen Erfolg ergab und daher für uns die Methode der Wahl geworden ist.

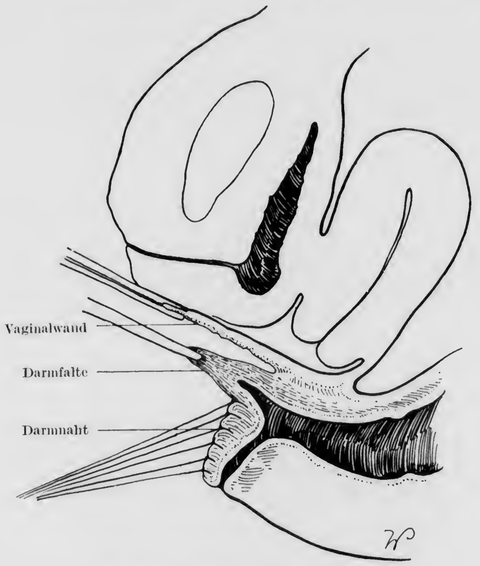


Abb. 49. Operation des totalen Dammrisses nach Logothetopulos. Schematische Darstellung der Operation

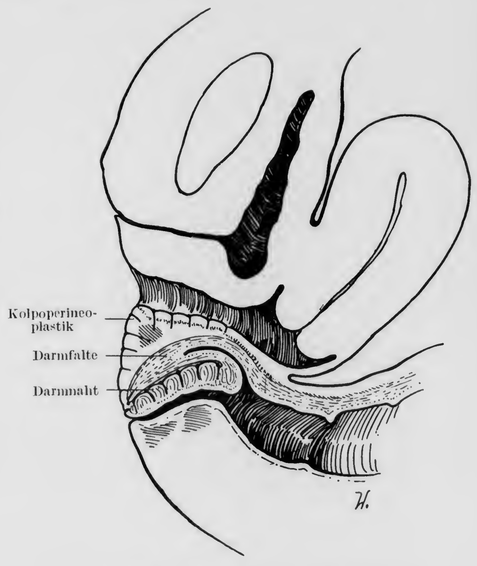


Abb. 50. Operation des totalen Dammrisses nach Logothetopulos. Schematische Darstellung der Operation

Ich beginne die Operation in der gewöhnlichen Weise mit Abtrennung des Narbengewebes, löse dann aber den Mastdarm von der Scheidenwand weit nach oben zu ab, so daß es nach der Darm- und Sphinkternaht ohne Schwierigkeit möglich ist, eine Falte der Rektumwand von den höher gelegenen Teilen nach abwärts als Deckung über die Darmnaht zu ziehen, was ohne Spannung geschehen muß. Diese Falte wird auf dem Sphinkter mit einigen Knopfnähten befestigt, worauf die Operation in der gewöhnlichen Weise beendet wird (Abb. 44—50).

Die vom Rektum aus deutlich fühlbare Tasche macht den Patientinnen in keiner Weise Beschwerden, wie man vielleicht annehmen könnte, und der postoperative Verlauf unterscheidet sich in nichts von demjenigen, wie wir ihn bei der üblichen Methode gewöhnt sind. Nach kurzer Zeit verschwindet die Tasche wieder, indem sich die Falte nach oben in ihre normale Lage zurückzieht.

Die Vorbereitung zur Operation muß sorgfältig sein. Man führt einige Tage mit einem beliebigen Mittel ab, gibt am Vorabend der Operation ein Reinigungsklysma und Opiumtropfen und nur eine leichte, wenig Stuhl bildende Kost. Durch geeignete Diät sorgen wir dafür, daß erst am 6. Tage nach der Operation Stuhl erfolgt. Wir geben

an diesem Tage Rizinusöl und gleichzeitig ein Ölklysma. Um den Abgang von Blähungen zu erleichtern, legt man zweckmäßig gleich nach der Operation ein Darmrohr ein.

Wir haben eine große Zahl kompletter Dammrisse nach dieser Methode operiert und stets eine prima intentio und völlige Kontinenz erreicht.

C. Descensus und Prolapsus uteri

Unter Berücksichtigung der Ätiologie der Erkrankung müssen bei einer erfolgversprechenden Operation zwei ganz verschiedene pathologische Zustände beseitigt werden. Die Operation gliedert sich in folgende Abschnitte:

1. Wiederherstellung des Beckenbodens mit Beseitigung der überschüssigen vorderen und hinteren Vaginalwandteile und
2. Befestigung des retroflektierten Uterus in normaler Lage.

Handelt es sich um einen leichten Deszensus des Uterus mit Vorfall der Scheidenwände, so kommt man in der Regel mit vorderer und hinterer Kolporaphie, Dammplastik und Reposition des Uterus nach Verkürzung der Lig. rotunda zum Ziel. Der Eingriff wird größer und komplizierter, wenn es sich um einen stärker deszendierten Uterus oder um einen vollständigen Vorfall desselben mit Elongation des distalen Uterusabschnittes handelt, aber auch hier bleibt das Prinzip die Wiederherstellung des Beckenbodens und die Fixierung des Uterus in Anteversioflexio. Die hierzu ersonnenen Methoden und Modifikationen sind zahllos, nicht alle jedoch sind im Enderfolg befriedigend, andere wieder gefährden das Leben der Patientin. Bei solchen schweren Fällen ist die einfache Verkürzung der Ligamenta rotunda nicht ausreichend, und an ihre Stelle müssen Verfahren treten, die den Uterus fest in Anteversioflexiostellung befestigen. Die Kochersche Hysteropexie bringt den Uterus in eine stark elevierte Stellung und gibt durch die außerordentlich feste Lagerung des Uterus innerhalb der Bauchdecken gute Resultate. Trotzdem sehen wir auch hier Rezidive, wobei die Verwachsungen zwischen Uterus und Bauchwand bandförmig ausgezogen werden, so daß sie eine Gefahr für die Darmschlingen bilden.

1. Interpositio uteri vesicovaginalis

Diese von Wertheim angegebene und von Schauta modifizierte Operation stützt sich auf die Freundsche Kolpohysteropexie, die heute nicht mehr angewandt wird. Bei der Schauta-Wertheimschen Interposition wird der Uterus als lebendes Pessar benutzt, das zur Zurückhaltung der prolabierten Blase dient, die auf seine Rückwand zu liegen kommt.

Der Operationsvorgang ist folgender: Die Portio wird mit zwei Kugelzangen angehakt und kräftig nach abwärts gezogen. Nun wird genau wie bei der vorderen Kolporraphie ein ellipsenförmiges Stück aus der vorderen Scheidenwand herausgenommen, dessen Größe von dem Grade des Vorfalles, aber auch von der Größe des zu interponierenden Uteruskörpers abhängig ist. Die Blase wird vom Collum uteri mit der Schere abgetrennt und dann mit dem Finger stumpf nach oben abgeschoben, wobei die seitlich von der Blase zum Uterus ziehenden festeren Bindegewebsbündel (Blasenschenkel) nach Möglichkeit geschont werden. Die Blase wird vom Assistenten mit dem vorderen Spekulum gut zurückgehalten und dadurch vor Verletzungen geschützt. Nach Eröffnung des Peritoneum wird der Uterus genau wie bei der

vaginalen Exstirpation hervorgewälzt, jedoch mit Vorsicht, um unnötige Zerfetzungen des Gewebes zu vermeiden, die zu Wundstörungen Veranlassung geben könnten. Befindet sich die Frau noch im gebärfähigen Alter, so muß unbedingt die Sterilisierung vorgenommen werden, die wir meist nach der Madlenerschen Methode ausführen. Dann wird die Bauchhöhle wieder geschlossen, indem wir das Blasenperitoneum mit zwei bis drei Katgutknopfnähten in Höhe des inneren Muttermundes der hinteren Uterusfläche aufnähen. Der Uterus wird nun wieder zurückgeschoben und über ihm die Scheidenwundränder mit fortlaufender Katgutnaht möglichst spannungslos vereinigt. Damit das möglich ist, muß von vornherein bei der Exstirpation des Scheidenlappens auf die Größe des zu interponierenden Uterus Rücksicht genommen werden, wie oben bereits erwähnt wurde. Läßt sich die Naht nicht ohne Spannung ausführen, so ist es besser, die Wundränder mit der Uterusvorderfläche zu vernähen und auf ihre Vereinigung zu verzichten. Ein zu großer, metritisch veränderter Uterus kann auch vor dem Einnähen durch sagittale Resektion in beliebiger Weise verkleinert werden, in der Art, wie ich es als spezielle Methode bei starken Menorhagieen angegeben habe (s. S. 46). Die von Wertheim vorgeschlagene Verkürzung der Ligamenta sacrouterina, die wohl geeignet erscheint die Operationsresultate zu verbessern, wenden wir nicht an, da dadurch die Prognose der Operation erheblich verschlechtert wird, wie schon aus Wertheims eigener Statistik hervorgeht (auf 262 Fälle 16 Todesfälle!). Vor Beginn der Operation empfiehlt es sich, die Größe des Uterus mit der Sonde zu bestimmen und nötigenfalls eine Amputation des elongierten Teils der Portio vorzunehmen.

Die Schauta-Wertheimsche Operation ist zweifellos die erfolgsicherste Prolapsoperation, erfordert aber große Erfahrung und spezielle vaginale Technik. Auch bei den besten Operateuren bleibt die Mortalität hoch, nach Reifferscheidt 3,4 bis 7,5%, was bei der relativen Harmlosigkeit des zu beseitigenden Leidens zu viel ist. Aus diesem Grunde ziehe ich jetzt bei älteren Frauen die vaginale Totalexstirpation mit vorderer und hinterer Kolporraphie und Dammplastik vor, da die Dauerresultate genau so gut sind wie bei jeder anderen Methode, die Prognose quoad vitam jedoch wesentlich besser ist.

II. Operationen an der Vulva

1. Exstirpation der Bartholinischen Drüse

In besonderen Fällen chronischer Entzündung führen wir die radikale Operation aus, d. h. wir entfernen die gesamte Drüse zusammen mit ihrem Ausführungsgang in folgender Weise:

Schnitt durch die Haut in Länge der Zystenoberfläche an der Grenze von großen und kleinen Schamlippen in Längsrichtung. Der Zystenbalg wird teils stumpf, teils mit der Schere herauspräpariert und entfernt, die ziemlich stark blutenden Gefäße gefaßt und unterbunden, und die Wunde schichtweise vernäht. Ein kleiner ableitender Gazestreifen muß in den meisten Fällen eingelegt werden. Bei der Präparation der Zyste ist große Vorsicht geboten, um ein Platzen derselben zu vermeiden. Es erschwert die weitere radikale Entfernung des Balges ungemein, da sich die Grenzen zum benachbarten Gewebe nicht mehr darstellen lassen. Wir helfen uns in einem solchen Falle, indem wir die Zyste ganz entleeren, sie mit physiologischer Kochsalzlösung sauber spülen und dann den ganzen Balg mit einem Gazestreifen bis ungefähr zur früheren Größe wieder auffüllen. Auf diese Weise kann man sehr bequem die Operation zu Ende führen und mit Sicherheit den ganzen Balg entfernen (Abb. 51—53).

Abb. 51.

Abb. 51. Bartholinische Zyste

Abb. 52. Operation der Bartholinischen Zyste. Die beim Freipräparieren geplatzte Zyste wird mit Gaze ausgestopft

Abb. 53. Operation der Bartholinischen Zyste. Herauspräparieren der mit Gaze ausgestopften Zyste

Abb. 52.

Abb. 53.

2. Carcinoma vulvae

Bei überhaupt noch angreifbarem Karzinom der Vulva ziehen wir die Operation der Strahlenbehandlung vor, da durch diese wohl der primäre Tumor günstig beeinflußt wird, die Wirkung auf die karzinomatösen Drüsen dagegen zumindestens zweifelhaft bleibt. Aus diesem Grunde kann eine kombinierte Behandlung gute Erfolge geben, d. h. man bestrahlt den primären Tumor und exstirpiert nachträglich die Drüsen.

Ich führe die Operation in zwei Sitzungen aus, um Infektionen nach Möglichkeit zu vermeiden. Zuerst wird der primäre Tumor exstirpiert, und nach Heilung der Wunde wird in einem zweiten Eingriff die Vulvektomie und die Drüsenexstirpation vorgenommen, d. h. die radikale Operation. Die Lymphbahnen, die von der Glans clitoridis ausgehen, schlagen zwei verschiedene Wege ein: der eine endet in den tiefen Inguinaldrüsen und im Ganglion internus retrocruralis (kruraler Weg), und der andere läuft dem Lig. rotundum entlang zum Ganglion retrocruralis externus und endet oft in den Inguinaldrüsen. Deshalb genügt es beim Sitz des Karzinoms in der Gegend des Vestibulum im Zusammenhang mit der Vulvektomie auf beiden Seiten die Inguinaldrüsen samt dem subkutanen Fettgewebe zu entfernen, während beim Klitoriskarzinom

Abb. 54. Radikaloperation des Vulvakarzinoms. Die punktierte Linie markiert den Hautschnitt zur Entfernung des Tumors

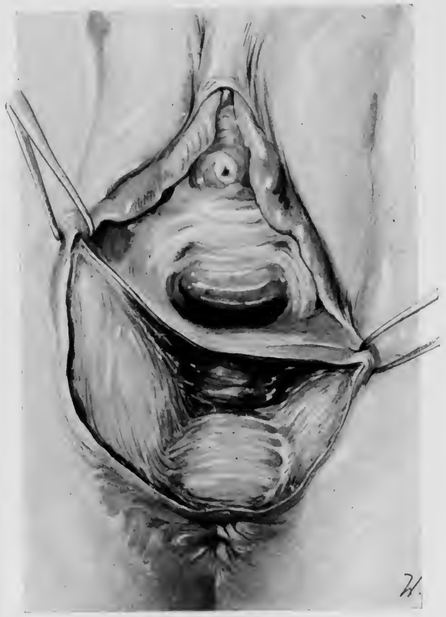


Abb. 55. Radikaloperation des Vulvakarzinoms. Der primäre Tumor ist entfernt

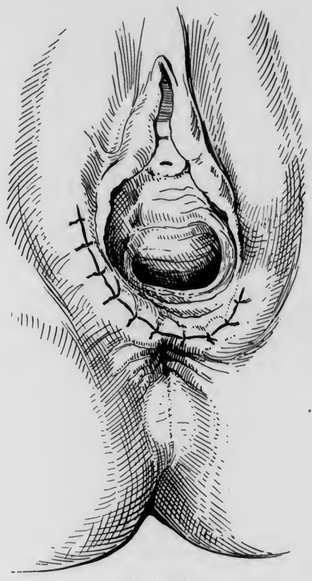


Abb. 56.

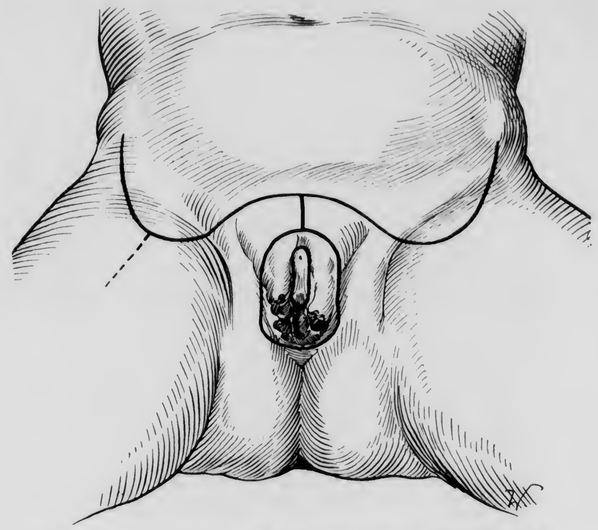


Abb. 57. Radikaloperation des Vulvakarzinoms. Schnittführung

Abb. 56. Radikaloperation des Vulvakarzinoms.
Schematische Darstellung der Naht nach Entfernung des primären Tumors

unbedingt noch die Iliakalgegend ausgeräumt werden muß. Die Operation verläuft auf folgende Weise:

In der ersten Sitzung exstirpieren wir, wenn keine Bestrahlung vorherging, den Tumor durch Umschneidung im Gesunden (Abb. 54 und 55) und Vernähung der Wunde mit Knopfnähten (Abb. 56). Erst nach vollständiger Heilung der Wunde folgt in zweiter Sitzung die Radikaloperation.

Der Hautschnitt verläuft von der rechten Spina iliaca ant. sup. bogenförmig in die rechte Kruralgegend, von hier in einem weiten Bogen durch den Mons veneris oberhalb der Klitoris nach der linken Kruralgegend, um dann an der linken Spina iliaca ant. sup. zu enden (Abb. 57). Von der Mitte des quer über die Klitoris verlaufenden Schnittes geht dann ein gerader Schnitt nach abwärts bis zur Vulva, die zirkulär umschnitten wird (Abb. 57).

Wir bevorzugen diese bogenförmigen Schnitte, weil die von Rupprecht angegebenen seitlich vom Mons veneris und parallel zur V. saphena verlaufenden leicht zu Nekrosen führen können.

Wir beginnen mit der Exstirpation der Iliakaldrüsen, die wir intra- oder extraperitoneal vornehmen können, und die keine nennenswerten Schwierigkeiten bietet. Die Ausräumung der inguinalen Drüsenpakete muß en bloc erfolgen, da man nur so wirklich alle Drüsen entfernen kann. Zu diesem Zweck muß man von unten nach oben zu fortschreitend die Aponeurose der Muskeln des Scarpaschen Dreiecks abpräparieren, wobei man sich immer hinter der Vena saphena magna hält, die man gleich nach genügend weiter Ablösung der Haut möglichst tief unten zwischen zwei Ligaturen durchtrennt. Geht man von hier nach oben zu weiter, so trifft man auf folgende zu unterbindende Gefäße: Aa. und Vv. pudendae ext., Aa. und Vv. circumfl. ilium superf.

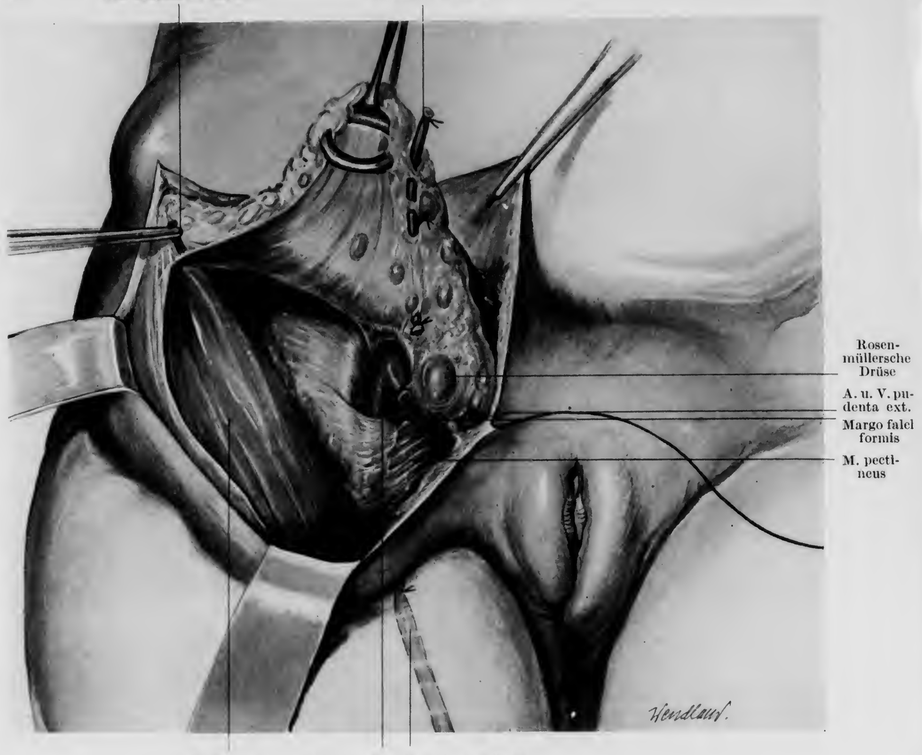


Abb. 58. Radikaloperation des Vulvakarzinoms. Ausräumung der rechten Inguinalgegend. Das Unterhautzellgewebe mit Fascien, Musc. sartorius und Pectineus ist teilweise abgelöst und wird hochgehalten

Abb. 59. Radikaloperation des Vulvakarzinoms. Photographie der bei der Radikaloperation exstirpierten Gewebsteile

und schließlich ganz oben die A. und V. epigastr. superfic. Die Vena saphena magna muß zum zweiten Male dicht an ihrer Einmündungsstelle in die Femoralis unterbunden und durchtrennt werden. Wie schon erwähnt, muß man die Aponeurose des M. sartorius und pectineus mitentfernen, weil nur in dieser Schicht die Ausräumung leicht und wirklich vollkommen vonstatten geht. Die unter dem Poupartschen Bande liegende Rosenmüllersche Drüse darf nicht vergessen werden. Nachdem die Ausräumung auf beiden Seiten beendet ist, wird die Vulva im Zusammenhang mit dem oberhalb von ihr befindlichen, die beiden Drüsenpakete verbindenden Unterhautzellgewebe entfernt (Abb. 58 und 60).

Die früher geradezu trostlosen Dauerresultate haben sich durch dieses radikale Vorgehen wesentlich gebessert, so daß Rupprecht bei 25 operierten Fällen 40% Dauerheilungen aufweisen kann.

Wir bestrahlen alle operierten Fälle nach. Die inoperablen Vulvakarzinome werden sofort der Bestrahlung unterzogen.

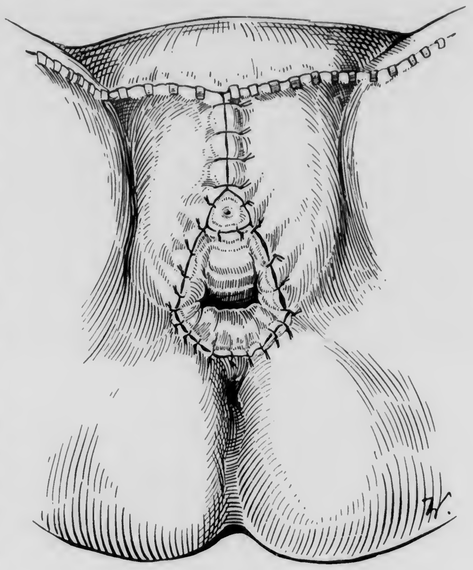


Abb. 60. Radikaloperation des Vulvakarzinoms. Schematische Darstellung der Naht nach Vollendung des Eingriffes

III. Vaginale Operationen am Uterus

1. Ausschabung des Uterus

Bei der gynäkologischen Ausschabung fassen wir die Portio mit ein oder besser mit zwei Kugelzangen an der vorderen Lippe und ziehen sie nach abwärts und außen. Dann führen wir in das Kavum eine biegsame Uterussonde ein, der wir eine entsprechende Form geben. Die vorhergegangene bimanuelle Untersuchung hat uns bereits über Größe und Lage des Uterus informiert, und die Handhabung der Sonde muß unter Berücksichtigung dieser Verhältnisse mit großer Vorsicht geschehen, um Verletzungen mit Sicherheit zu vermeiden. Man versuche nicht die Sonde mit Gewalt einzuführen, wenn sich irgendwelche Schwierigkeiten zeigen, sondern man verschiebe die Operation auf den nächsten Tag, wo man dann meist zum Ziele kommt. Die Sondierung unterrichtet uns genau über Größe und Verlauf der Uterushöhle und darf nie unterlassen werden. Nach Erweiterung des Zervikalkanals mit einigen Hegarstiften oder sonstigen Dilatatoren schaben wir ohne große Kraftanwendung die Gebärmutterhöhle mit einer scharfen Kurette aus.

Handelt es sich um einen Abortus, so erweitern wir stärker, entsprechend der Zeit der Schwangerschaft und der Größe der Abortreste. In den ersten 3—4 Schwangerschaftsmonaten benutze ich zur Entleerung stumpfe Kuretten. Sind noch große Plazentarstücke oder der Fötus zu entfernen, so nehme ich die Wintersche Abortzange oder die große Bummsche Kurette. Die Ausräumung mit dem Finger halte ich für viel schwieriger und unzweckmäßiger, und die Gefährlichkeit des Eingriffes wird

auf diese Weise auch nicht herabgesetzt, wie viele Statistiken beweisen. Hat sich der Uterus gut kontrahiert, so kann man mit entsprechender Vorsicht und ohne Kraft auch eine größere scharfe Kurette benutzen, um die letzen Plazentarstückchen zu entfernen, worauf ich großen Wert lege, weil dadurch den Patientinnen Schmerzen und Blutungen nach dem Eingriff erspart bleiben. Nach völliger Entleerung des Uterus wische ich das Kavum lediglich mit Jodtinktur aus und verzichte auf Spülung und Tamponade. Die Blutung steht in jedem Falle, wenn der Uterus tatsächlich keine Abortreste mehr enthält. Man erleichtert sich die ganze Operation durch vorhergehende Sekale- oder Pituitrininjektion, wodurch die Uterushöhle kleiner und die Wandung härter wird. Eine leichte Scheidentamponade, die wir nach der Operation machen, wird am nächsten Tage wieder entfernt.

Komplikationen bei der Ausschabung

Die Verhütung einer Infektion liegt meistens nicht in den Händen des Operateurs, sondern hängt vom mehr oder weniger aseptischen Zustand des Uterusinhaltes ab. Den besten Schutz zu ihrer Vermeidung bildet die sorgfältige, restlose Entleerung des Uterus unter Beachtung aller aseptischen Kautelen.

Ganz im Gegensatz hierzu bildet die Perforation des Uterus eine Komplikation, die meistens zu Lasten des operierenden Arztes geht, wenn auch zuzugeben ist, daß in manchen, besonders unglücklich gelagerten Fällen die weiche, fast unfühlbare

Abb. 61. Doppelte Perforation des graviden Uterus (M. V.). Der zerfetzte Fötus ist durch die große Perforation aus dem Uterus ausgetreten. In der kleinen, am Fundus uteri liegenden Öffnung sieht man das in den Uterus hineingezogene Netz

Wandung der schwangeren Gebärmutter ohne jedes Verschulden bei ganz korrektem Vorgehen durchbohrt werden kann. Schon gleich zu Beginn des Eingriffes kann eine Perforation des Uterus mit der Sonde vorkommen. Häufiger sind Verletzungen der Zervix durch zu forziertes Dilatieren mit den Hegarstiften, wobei häufig der Kurette ein falscher Weg gebahnt wird. Die schwersten Verletzungen sieht man nach fehlerhaftem Gebrauch der Winterschen Zange, besonders wenn die zuerst gesetzte Perforation nicht sofort bemerkt und durch das entstandene Loch Darmschlingen oder Netz in die Scheide und nach außen gezogen wird. Bei einem in meine Klinik gebrachten und von mir operierten Fall war der 5 Monate alte, halbzerstückelte Fötus durch eine große Perforationsöffnung in die Bauchhöhle geschlüpft, und durch eine zweite Öffnung hing ein großes Netzstück in die Vagina. Abdominale Uterusexstirpation mit Ausgang in Heilung (Abb. 61). Um Unheil zu verhüten, muß das wirklich wertvolle Instrument von Winter in folgender Weise

Abb. 62. Operative Behandlung des Abortus. Die Wintersche Abortzange wird unter Kontrolle der äußeren Hand bis zum Fundus eingeführt

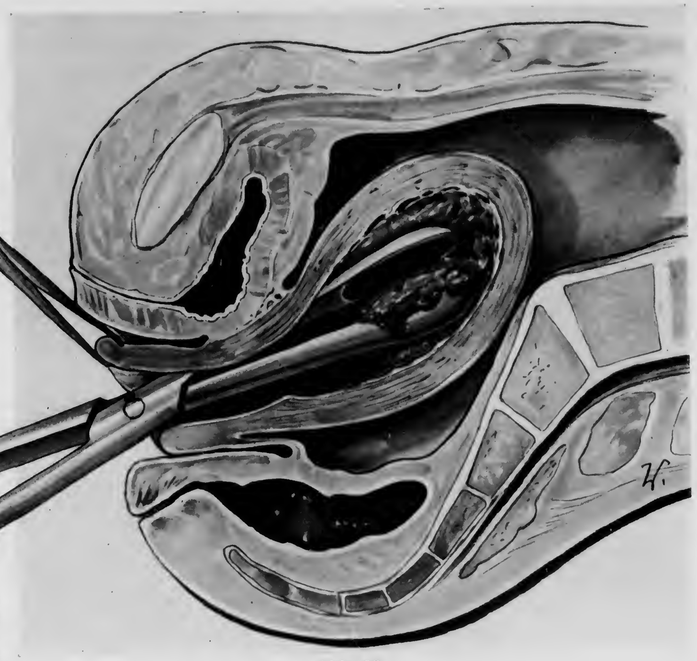


Abb. 63. Operative Behandlung des Abortus. Die Abortzange wird etwas zurückgezogen und geöffnet

Abb. 63.

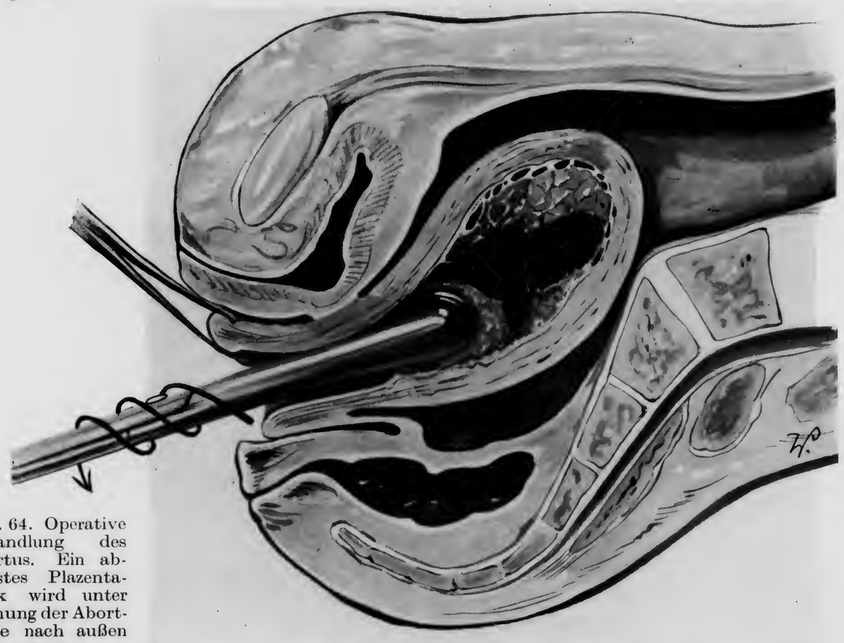


Abb. 64. Operative Behandlung des Abortus. Ein abgelöstes Plazentastück wird unter Drehung der Abortzange nach außen gezogen

Abb. 64.

angewandt werden: Die linke Hand umfaßt den Fundus uteri und fühlt so sehr deutlich die ohne Druck bis ganz nach oben eingeführte geschlossene Zange (Abb. 62), die jetzt ein wenig zurückgezogen und nun erst geöffnet wird (Abb. 63). Im Uterus befindliche Stücke der Plazenta oder des Fötus legen sich ganz von selbst zwischen die Löffel der Zange, die lediglich geschlossen zu werden braucht, ohne eine andere vorhergehende Bewegung. So vermeidet man mit Sicherheit das gefährliche Fassen der weichen Uteruswand. Führt man beim Herausziehen der Plazenta mit der Abortzange eine drehende Bewegung nach einer Seite hin aus (Abb. 64), so gelingt es sehr oft, die ganze Plazenta in toto herauszubefördern.

Hat man die Gewißheit oder auch nur den Verdacht perforiert zu haben, so stellt man jede weitere intrauterine Manipulation sofort ein. Bei gynäkologischen Fällen pflegt dieses Mißgeschick ohne ernste Folgen zu bleiben, und wir können uns darauf beschränken, Bettruhe zu verordnen und eine Eisblase aufzulegen. Zeigen sich jedoch peritonitische Erscheinungen, so ist die Laparotomie unvermeidbar. Wir führen sie sofort aus, wenn die Perforation sich gelegentlich einer Abortausräumung ereignete. Man fährt am sichersten mit der Exstirpation des verletzten Uterus, kann sich aber ausnahmsweise mit der Naht der Perforationsstelle begnügen, wenn man der Asepsis des Operateurs, der die Ausräumung des Uterus vorgenommen hat, sicher ist und es sich um einen wahrscheinlich bakterienfreien Uterus gehandelt hat (Schwangerschaftsunterbrechung).

2. Operation alter Zervixrisse

Die bei der Geburt entstehenden Zervixrisse mit ihren späteren Ektropien machen zuweilen erhebliche Beschwerden, so daß die operative Wiederherstellung normaler Verhältnisse angezeigt ist. Wir verwenden je nach dem Grad der Einrisse folgende Methoden:

a) nach Roser-Emmet:

Exzision der Narben, vollständige Anfrischung der Lappenränder. Bei der Naht des Risses muß man sich bemühen, den oberen Wundwinkel gut mitzufassen, da Nachblutungen aus dieser Stelle nicht selten sind;

b) nach Sturmdorff:

Diese ganz ausgezeichnete Resultate ergebende Methode verwenden wir nicht nur bei Zervixrissen größeren Umfanges, sondern auch bei sehr hartnäckigen Katarrhen mit Erosionsbildung, wobei die ganze Zervixschleimhaut durch Scheidenschleimhaut ersetzt wird. Man schneidet mit einem sehr scharfen, schlanken Messer ein kegelförmiges Stück aus der Portio, dessen Basis die ganze Portio umkreist, dessen Spitze in Höhe des inneren Muttermundes liegt. In diesem Kegel ist somit die ganze Unterfläche der Portio und die Zervixschleimhaut enthalten. Nun sticht man mit einer starken, scharf gekrümmten Nadel, die mit einem sehr kräftigen Katgutfaden armiert ist, in Höhe des inneren Muttermundes durch die Scheidenschleimhaut in den Zervikalkanal und führt die Nadel durch das Orificium ext. heraus. Nachdem man die Scheidenwand in der Mitte und oberhalb des Wundrandes mit der Nadel gefaßt hat, kehrt man auf dem gleichen Weg durch den Zervikalkanal zurück und durchsticht die Portio von innen nach außen etwa in 1 cm Entfernung seitlich von der Einstichöffnung. Beim Knoten der beiden Fadenenden wird die Schleimhaut tief in den Zervikalkanal hineingezogen und tritt an Stelle der exzidierten Innenfläche. Das gleiche Manöver wiederholt man in entsprechender Weise auf der Rückseite der Portio. Wenn nötig werden die schlitzförmigen Wunden auf beiden Seiten noch mit einigen Nähten verschlossen.

3. Diszision der Cervix nach Pozzi

Die in seltenen Fällen Sterilität verursachenden Stenosen des äußeren Muttermundes können durch Einlegen von Laminaria oder durch Dilatation mit Hegarstiften meist nicht dauernd beseitigt werden, im Gegenteil, es treten infolge der entstandenen kleinen Verletzungen zuweilen sogar noch narbige Verengerungen zur primären Stenose hinzu. Wir führen mit gutem Enderfolg hier die Stomatoplastik nach Pozzi aus, bei der die Zervix quer gespalten wird, so daß je zwei in der Mitte in Berührung stehende Wundflächen entstehen. Entsprechend dem Grade der Verengerung schneidet man aus diesen Flächen je einen kleinen Keil heraus und vernäht die Wundränder mit Katgut (Abb. 65—67).

4. Subfundale Uterusamputation

4. Partielle sagittale Uterusresektion von der Scheide aus

Bei Blutungen, die weder mit Bestrahlungen, noch mit Uterusexstirpation behandelt werden können, weil die Menstruation erhalten bleiben soll, wende ich folgendes Verfahren an: die subfundale Uterusextirpation an. S. 36

Ausführung einer vorderen Kolpocoeliotomie. Nachdem der Fundus uteri aus der Coeliotomieöffnung herausgewälzt ist, fassen wir ihn beiderseits neben den Ansatzstellen der Lig. rotunda mit je einer Kugelzange und führen nahezu parallel zur Uruskante und von ihr etwa 2 cm entfernt, links und rechts einen Längsschnitt bis zum inneren Muttermund, so daß ein keilförmiges Stück des Korpus entfernt wird, dessen Basis dem Fundus und dessen Spitze dem Isthmus entspricht (Abb. 68). Die Blutung hierbei ist sehr gering, da der Mittelteil des Uterus gefäßarm ist. Einzelunterbindungen sind nicht notwendig, und man kann sofort mit der Naht beginnen, die man zwecks leichterer Adaption der beiden Hälften zweckmäßigerweise am Fundus anfängt (Abb. 69 und 70). Sind alle Knopfnähte hinten und vorn gelegt, so heftet man mit einigen Stichen das Blasenperitoneum genau so wie bei der Interpositio uteri möglichst tief der hinteren Uteruswand an und schließt dann die Scheidenwunde. Da der Zweck dieser Operation die Erhaltung einer normalen Menstruation ist, so darf sie nur bei funktionstüchtigen Ovarien ausgeführt werden.

5. Die vaginale Totalexstirpation des Uterus

Wir führen sie in unkomplizierten Fällen, bei freibeweglichem und nicht besonders großem Uterus in folgender Weise aus:

Nach Entfaltung der Scheide mittels Spekula fassen wir die Portio mit zwei oder vier einzähnigen Kugelzangen und ziehen sie nach abwärts. Nun wird die Scheidenwand in ihrer ganzen Dicke mit einer kräftigen gebogenen Schere etwa $^1/_2$ cm oberhalb des Überganges der Scheiden- in die Portioschleimhaut zirkulär umschnitten (Abb. 71), und teils stumpf, teils mit der Schere etwas nach oben zu abpräpariert. Ist der Uterusinhalt nicht sicher aseptisch, so fassen wir beide Muttermundslippen mit Kugelzangen zusammen und vernähen nach zirkulärer Umschneidung der Portio die vordere und die hintere Vaginalwunde mit Knopfnähten, so daß der Muttermund vollkommen verdeckt ist (Abb. 72—74).

Bei enger Scheide kann man die Öffnung durch Hinzufügen zweier 1—2 cm langer Schnitte senkrecht zum Wundrand auf beiden Seiten leicht erweitern. Die Blasenwandung wird jetzt mit der Pinzette nach oben zu angespannt und mit kleinen Schnitten die nun deutlich sichtbar werdenden vesikozervikalen Bindegewebsstränge durchtrennt, und dadurch die Blase von ihren festeren Verbindungen mit der Zervix losgelöst (Abb. 75). Zum weiteren Abschieben der Blase verwenden wir nur den Finger, da

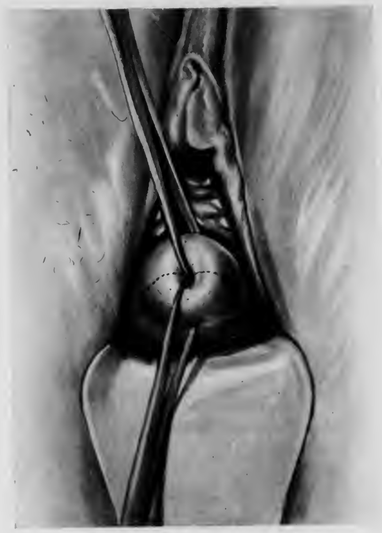


Abb. 65. Zervixspaltung nach Pozzi. Markierung der Schnittführung

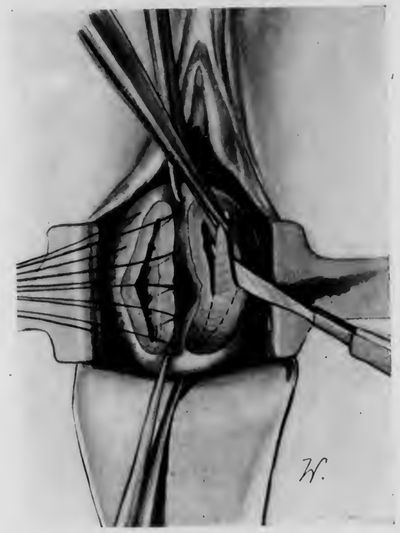


Abb. 66. Zervixspaltung nach Pozzi. Aus der Wundfläche der linken Seite wird ein keilförmiges Stück herausgeschnitten. Rechts werden die Wundränder nach der Herausnahme des Keils wieder vereinigt

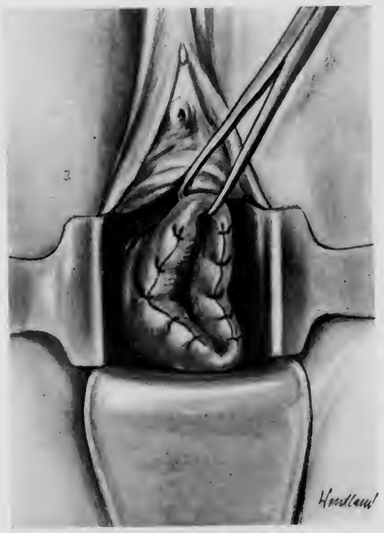


Abb. 67. Zervixspaltung nach Pozzi. Die Operation ist beendet

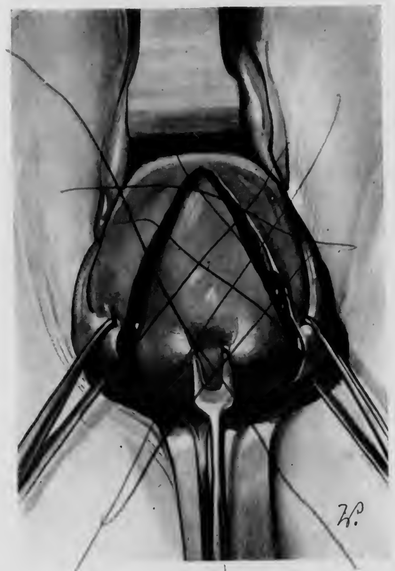


Abb. 68. Vaginale sagittale Uterusresektion nach Logothetopulos. Aus dem hervorgewälzten Uterus wird ein keilförmiges Stück herausgeschnitten

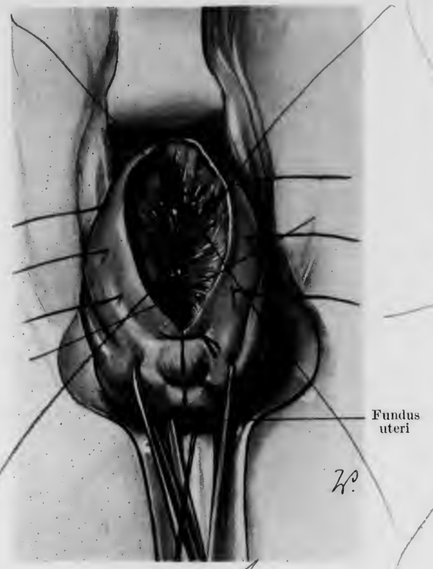


Abb. 69. Vaginale sagittale Uterusresektion nach Logothetopulos. Vereinigung der Wundflächen der Vorderseite des Uterus mit Einzelnähten

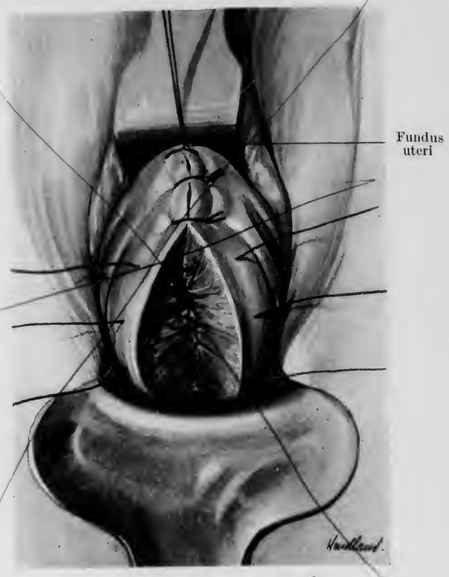


Abb. 70. Vaginale sagittale Uterusresektion nach Logothetopulos. Vereinigung der Wundflächen auf der Hinterseite des Uterus. Der zuerst am Fundus angelegte Faden dient als Zügel

beim Gebrauch von Tupfer oder Gazestückchen die Peritonealfalte zu leicht mit nach oben geht (Abb. 76). Man verhütet auch so am besten ein Einreißen der Blasenwandung, wenn Infiltrationen oder Verwachsungen bestehen, die nötigenfalls, wie es bei karzinomatösen Uteri häufig vorkommt, mit Pinzette und Schere scharf abpräpariert werden müssen. Nachdem auch die seitlichen Blasenpartieen mit beiden Zeigefingern gut nach oben und nach der Seite geschoben worden sind (Abb. 99), legen wir das vordere Blatt des Spekulums unter die Blase und bringen sie und die Ureteren auf diese Weise außerhalb des Operationsgebietes. Das an seiner weißen, glänzenden Farbe erkennbare Peritoneum, das nun deutlich sichtbar ist, wird mit der Pinzette angehoben, mit einem Scherenschlag eröffnet, und die Öffnung nach beiden Seiten erweitert (Abb. 77). Man entfernt das vordere Spekulum und führt ein breiteres Blatt in die Peritonealöffnung ein. Der Assistent zieht dieses Spekulum kräftig symphysenwärts und macht so die vordere Uteruswand zugängig, die mit einer doppelzähnigen Kugel- oder besser Krallenzange gefaßt und nach abwärts gezogen wird, während man mit der anderen Hand die Portio in die Scheide zurückschiebt (Abb. 78). Das oberhalb der Kugelzange sichtbar werdende Uterusstück wird mit einer zweiten Kugelzange gefaßt, nach abwärts gezogen und die erste Zange entfernt. So klettern wir nach und nach an der vorderen Uteruswand bis zum Fundus in die Höhe, der schließlich vor der Vulva erscheint (Abb. 79). Bei größeren Uteri erleichtert man sich das Vorwälzen des Fundus, indem man mit den Zangen nicht die Mitte, sondern die seitlichen Teile faßt und nun zuerst das linke, dann das rechte Horn entwickelt. Wenn man jetzt die Portio an den Kugelzangen oder am Zügel wieder nach außen zieht, liegt der ganze Uterus

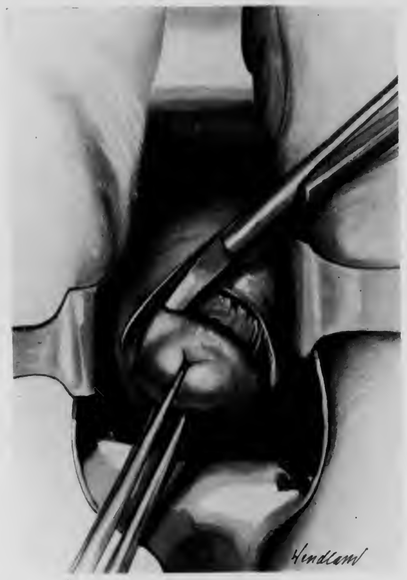


Abb. 71. Vaginale Uterusexstirpation. Die Vaginalschleimhaut wird mit der gebogenen Schere zirkulär umschnitten

Abb. 72. Vaginale Uterusexstirpation bei infektiösem Inhalt. Nach Zusammenfassen der vorderen und hinteren Muttermundlippe mit Kugelzangen wird die Schleimhaut zirkulär umschnitten

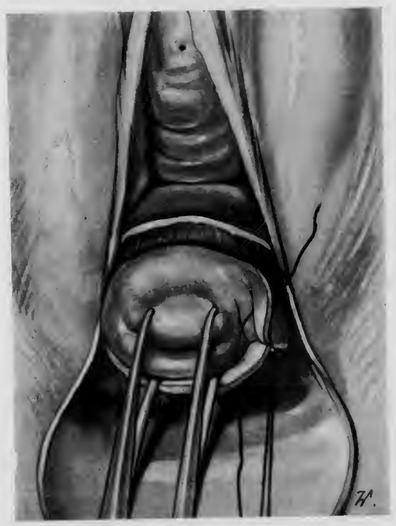
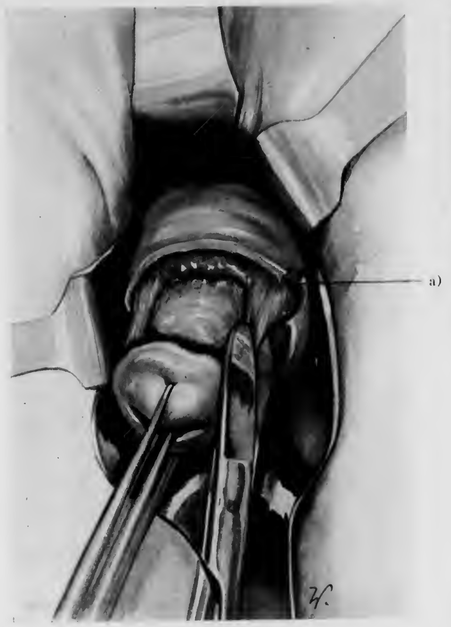


Abb. 73. Vaginale Uterusexstirpation bei infektiösem Inhalt. Vernähung des vorderen und hinteren Schleimhautlappens

Abb. 74. Vaginale Uterusexstirpation bei infektiösem Inhalt. Anlegen der letzten Knopfnaht



a) Seitlicher Einschnitt in die Scheide

Abb. 75. Vaginale Uterusexstirpation. Erweiterung des Zirkulärschnittes durch kleine Längsschnitte beiderseits. Die Blase wird von ihren festeren Verbindungen mit der Zervix scharf abgelöst

Abb. 76. Vaginale Uterusexstirpation. Die Blase wird mit dem Finger hochgeschoben

Abb. 77. Vaginale Uterusexstirpation. Die Blase wird mit dem vorderen Vaginalspekulum zurückgehalten und die Peritonealfalte eröffnet

Abb. 78. Vaginale Uterusexstirpation. Der mit einer Krallenzange gefaßte Fundus uteri wird durch die Peritonealöffnung nach außen gezogen unter gleichzeitigem Zurückschieben der Portio

vor der Vulva (Abb. 80). Durch Einführen einer großen, mit einem Faden versehenen Kompresse in die Bauchhöhle werden die Darmschlingen am Vorfallen verhindert. Während der Uterus stark nach rechts gezogen wird, faßt man mit einer starken Klemme etwa 1 cm vom Uterus entfernt, das linke Lig. rotundum, die Tube und das Lig. ovarii proprii unter sorgfältiger Kontrolle des Fingers und des Auges, um das Mitfassen eines anderen Organes zu verhindern. Die gefaßten Teile werden dicht am Uterus mit der Schere durchschnitten. Unter ständigem Zug des Uterus nach rechts wird jetzt mit einer zweiten Klemme von unten her die linke Arteria uterina und das Lig. sacrouterinum gefaßt und mit der Schere dicht am Uterus durchtrennt.

Die gleichen Manöver werden unter Zug des Uterus nach links auf der rechten Seite ausgeführt (Abb. 81). Das Seitenspekulum befindet sich immer auf der Seite, an der der Operateur gerade arbeitet. Wichtig ist, sich immer dicht am Uterus zu halten, um mit Sicherheit jede Verletzung des Ureters zu vermeiden. Bei glatten Fällen kann die ganze Absetzung des Uterus bis zu dieser Phase in $1^1/_2$—2 Minuten ausgeführt werden.

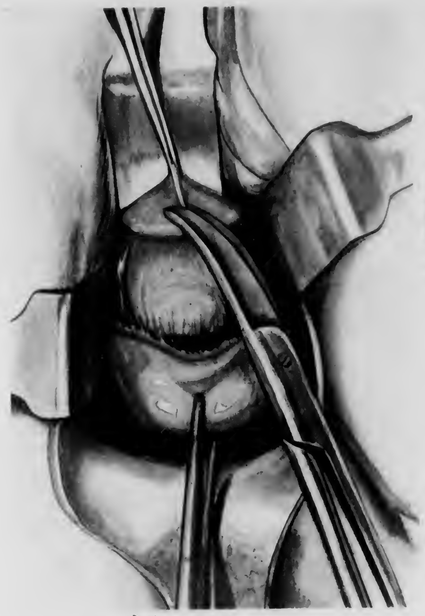


Abb. 77 (Unterschrift s. S. 50)

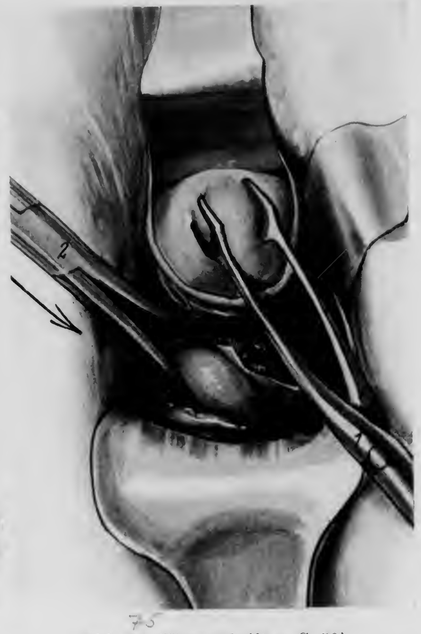


Abb. 78 (Unterschrift s. S. 50)

Abb. 79. Vaginale Uterusexstirpation. Der Fundus uteri ist nach außen gewälzt

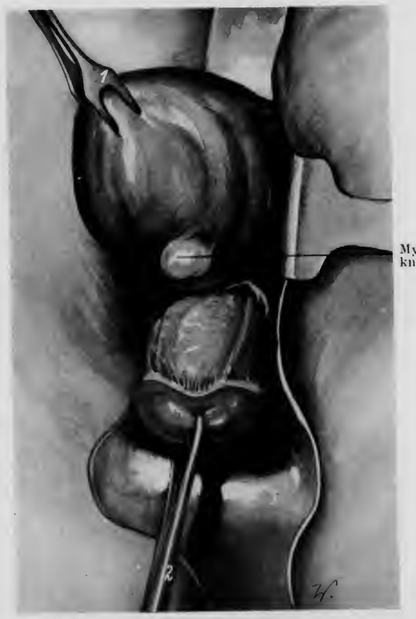
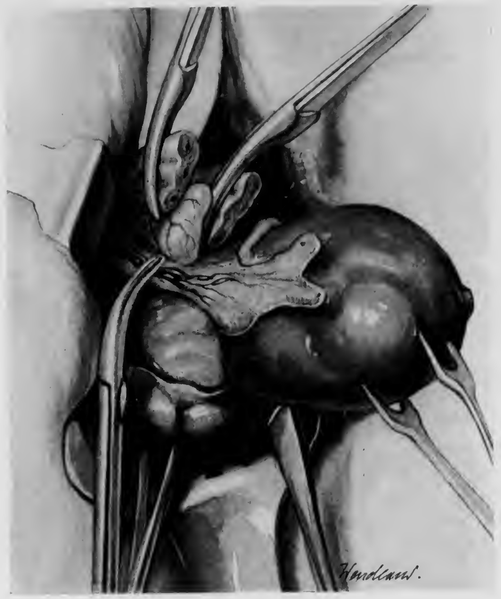


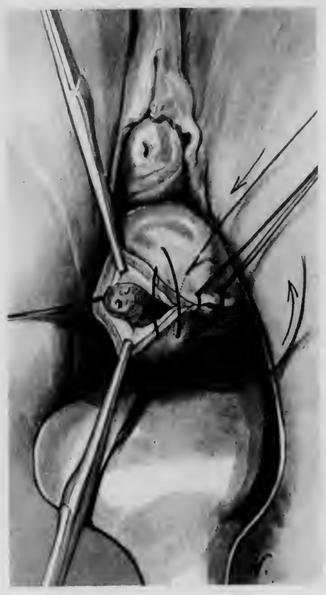
Abb. 80. Vaginale Uterusexstirpation. Auch die Portio ist jetzt hervorgezogen, so daß der ganze Uterus vor der Vulva liegt



78
Abb. ~~81.~~ Vaginale Uterusexstirpation. Fundus uteri und Portio werden kräftig nach links gezogen. Die Ligg. lata, die Tuben und die Ligg. ov. propr. sind zwischen Klemmen durchschnitten. Das rechte Parametrium mit den Uteringefäßen ist von unten gefaßt

79
Abb. ~~82.~~ Vaginale Uterusexstirpation. Die Klemmen werden durch Unterbindungen ersetzt

80
Abb. ~~83.~~ Vaginale Uterusexstirpation. Schluß des Peritoneums und der Scheide. Die Nähte fassen die Unterbindungsstümpfe mit



81
Abb. ~~84.~~ Vaginale Uterusexstirpation. Durch die Nahtführung wird erreicht, daß die Stümpfe extraperitoneal, aber von der Scheidenschleimhaut bedeckt, gelagert werden

Es folgt die Umstechung der in den Klemmen liegenden Bündel. Wir beginnen mit der am leichtest versorgbaren Klemme, hinter der wir das gefaßte Gewebe durchstechen und den starken Katgutfaden erst oberhalb und dann unterhalb der Klemme knoten, wobei man sehr darauf achten muß, daß der Faden wirklich um die Klemmenspitze herumgelegt wird (Abb. 82). Der Assistent öffnet die Klemme während des Zuziehens des Knotens sehr langsam, ohne die Stellung derselben zu verändern. Er läßt den Faden sozusagen in die Quetschfurche hineinrutschen. Nachdem alle Klemmen durch Unterbindungen ersetzt worden sind, entfernt man die in der Bauchhöhle befindliche Kompresse in leichter Beckenhochlagerung unter Zurückhaltung sich etwa vordrängender Darmschlingen mit einem Stieltupfer. Beim langsamen Zurückziehen des vorderen Seitenspekulums, nötigenfalls in leichter Beckenhochlagerung, um die Darmschlingen außer Sicht zu bringen, erscheint das Peritoneum, das man mit dem Scheidenwundrand zusammen in eine Klemme faßt. Ebenso verfährt man mit dem Douglasperitoneum, das beim langsamen Zurückziehen des hinteren Spekulums sichtbar wird. Mit einzelnen Knopfnähten oder mittels Tabaksbeutelnaht, die durch Scheidenwand, Peritoneum und Stümpfe geht, wird die Vagina geschlossen, so daß die Stümpfe außerhalb der Bauchhöhle zu liegen kommen (Abb. 83). Ich trachte aber, sie möglichst mit der Scheide zu decken, da sonst Tubengranulome entstehen, die für die Patientin lästig sein können (Blutungen, Ausfluß) (Abb. ~~84~~). Vor der Entlassung kontrolliere ich deshalb immer die Scheidenwunde und zerstöre gegebenenfalls Granulationen mit dem Galvanokauter.

79
80
81

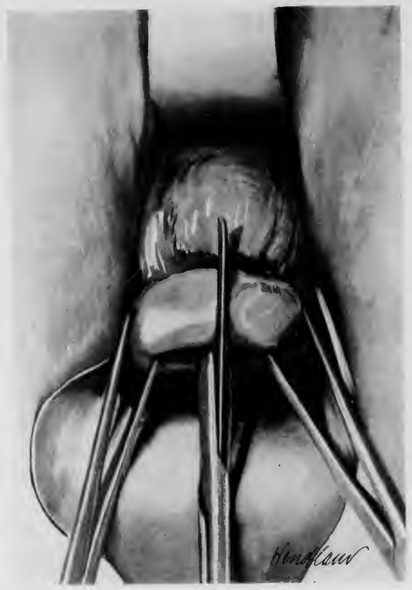


Abb. 85.

Abb. 86.

Abb. 87.

Abb. 85. Vaginale Uterusexstirpation durch Spaltung der vorderen Uteruswand. Die Blase ist abgelöst und wird vom vorderen Vaginalspekulum hochgehalten

Abb. 86. Vaginale Uterusexstirpation durch Spaltung der vorderen Uteruswand. Das vordere Vaginalblatt liegt in der Peritonealöffnung und hält die Blase zurück. Die vordere Zervixwand ist gespalten

Abb. 87. Vaginale Uterusexstirpation durch Spaltung der vorderen Uteruswand. Die mit Krallenzangen gefaßten Uteruswundränder werden auseinander und nach abwärts gezogen. Die vordere Uteruswand wird weiter nach oben zu gespalten

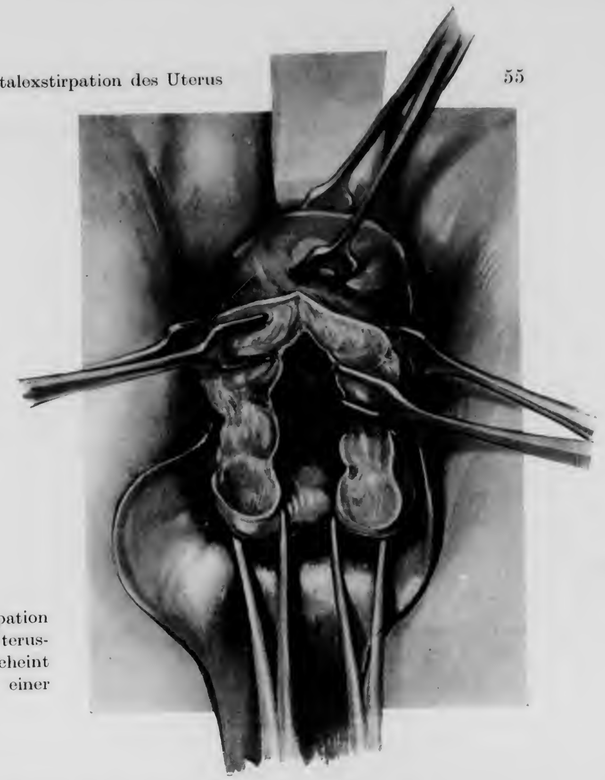


Abb. 88. Vaginale Uterusexstirpation durch Spaltung der vorderen Uteruswand. Nach weiterer Spaltung erscheint der Fundus uteri und wird mit einer Krallenzange gefaßt

a) Vaginale Totalexstirpation mit Spaltung der vorderen Uteruswand

Ist der zu exstirpierende Uterus erheblich vergrößert oder bestehen Verwachsungen und Infiltrationen, so kann das Hervorwälzen Schwierigkeiten machen, die wir in folgender Weise umgehen: Der Anfang der Operation verläuft wie bei der gewöhnlichen Totalexstirpation, also Hervorziehen der Portio, Umschneidung der Vaginalwand, Ablösen der Blase und Einführen des vorderen Blattes unter diese. Nach Entfernung der vorderen Kugelzangen von der Portio spalten wir die vordere Uteruswand mit einer geraden Schere, deren eine Branche wir in das Kavum einführen, genau in der Mittellinie (Abb. 85 und 86). Um bei diesen meist komplizierteren Fällen mehr Raum zu haben, ersetzen wir gern die Kugelzangen an der Portio durch starke Seidenfäden. Bei der Spaltung wird das Peritoneum ganz von selbst eröffnet, und wir führen sofort ein Spekulum in die Bauchhöhle ein, durch das die Blase nach oben gehalten wird.

Hierauf werden die Uteruswundränder beiderseits mit Krallenzangen gefaßt und nach unten gezogen (Abb. 87), gleichzeitig aber die gespaltene Portio in die Scheide zurückgeschoben. Unter stetigem Nachfassen mit den Krallenzangen wird die Uteruswandung bis hinauf zum Fundus gespalten, der schließlich vor der Vulva erscheint (Abb. 88). Jetzt wird die Portio wieder herausgezogen, und die Operation in genau der oben geschilderten Weise zu Ende geführt.

b) Vaginale Totalexstirpation des Uterus mit Spaltung der vorderen und hinteren Uteruswand

Wir wenden diese von Müller angegebene Methode hauptsächlich dann an, wenn es sich um Uteri handelt, die infolge entzündlicher Adnexerkrankungen gleichsam im Parametrium eingemauert erscheinen. Man spaltet den Uterus vollkommen in

zwei Hälften, die nacheinander exstirpiert werden, und zwar schiebt man die eine Hälfte während der Entfernung der anderen wieder in die Bauchhöhle zurück, um möglichst viel Raum zu haben. Die Hauptschwierigkeit dieser Operation liegt im Vermeiden von Verletzungen der Ureteren und der Blase, die sich der Verwachsungen wegen nur schwer abschieben läßt.

6. Vaginale Operationen bei Uterus myomatosus

a) Gestielte submuköse Myome (Polypen)

Die in die Scheide hineinragenden oder schon vor der Vulva erscheinenden submukösen gestielten Myome (Abb. 89) fassen wir mit einer Krallenzange und drehen sie ab, oder, falls das nicht gelingt, schneiden wir den Stiel an seiner Abgangsstelle mit der Schere durch. Liegt diese Stelle hoch oben, so müssen wir zuerst die vordere Zervixwand spalten, den Stiel abtragen und nun die Zervix wieder vernähen (Abb. 90). Eine erhebliche Blutung pflegt nicht zu entstehen, sie läßt sich fast immer durch eine leichte Uterustamponade stillen. Diese einfache Entfernung der myomatösen Polypen führen wir nur ungern aus, da der Enderfolg oft nicht befriedigend ist. Man ist nicht vor Rezidiven sicher, die oft infizierten Tumoren machen Entzündungserscheinungen in der Umgebung, und das Fieber bleibt nach der Operation weiter bestehen. In allen diesen Fällen schließen wir deswegen an die Abtragung des Polypen die Uterusexstirpation an.

b) Vaginale Enukleation von Myomknoten

Wir wenden dieses Vorgehen nur bei kleinen Tumoren und auch da nur ausnahmsweise an, da für konservative Myomoperationen der abdominale Weg vorzuziehen ist. Der Uterus wird in der gleichen Weise vorgewälzt, wie wir es bei der vaginalen Exstirpation geschildert haben, und dann die Enukleation der Knoten wie bei der abdominalen Operation ausgeführt (siehe S. 64).

c) Vaginale Uterusexstirpation bei Uterus myomatosus

Es ist möglich, vaginal sehr große Myome zu entfernen, wenn man sich durch einen Schuchardt-Schnitt Raum schafft und die Uterusspaltung nach Doyen ausführt. Wir ziehen aber doch den abdominalen Weg vor, da man unerwarteterweise oft den Uterus erhalten kann, was sich vor der Operation nicht mit Sicherheit sagen läßt. Auch bei sehr großen Tumoren, die nicht ins kleine Becken hineinpassen, oder beim Bestehen starker Adhäsionen, verzichten wir auf das vaginale Vorgehen.

Haben wir uns für die vaginale Operation entschlossen, so versuchen wir den gespaltenen Uterus hervorzuwälzen; mißlingt das bei zu großen Geschwülsten, so zerstückeln wir den Tumor (Morcellement nach Péan), eine bei richtiger Technik durchaus nicht schwierige und elegante Operation. Ich beginne mit der Spaltung der vorderen Uteruswand, soweit sie ausführbar ist, und ziehe dann die Wundränder mit Krallenzangen stark nach außen. Der Tumor wird mit einer Krallenzange oder mit dem Myombohrer gefaßt und mit dem Segondschen Messer (Abb. 91) ein kegelförmiges Stück herausgeschnitten. Bevor ich dasselbe aber ganz abtrage, fasse ich den Resttumor von neuem, um zu verhüten, daß er sich wieder zurückzieht (Abb. 92 und 93). Oft läßt sich auch ein großer Knoten im ganzen aus seinem Bett herausschälen (Abb. 94), und man arbeitet sich auf diese oder auf obige Art langsam bis

Abb. 89. Großer, in die Scheide geborener Polyp (submuköses Myom). Er ist mit einer Krallenzange gefaßt und wird durch Abdrehen entfernt

Abb. 90. Gestieltes submuköses Myom. Spaltung der vorderen Zervixwand zwecks Freilegung der Ansatzstelle des Stiels

Abb. 91. Vaginale Exstirpation des myomatösen Uterus durch Zerstückelung. Die im Bild sichtbaren Fäden liegen an der in die Scheide zurückgeschobenen, gespaltenen Portio. Aus der mit einer Krallenzange gefaßten vorderen Uteruswand wird mit einem Messer ein keilförmiges Stück herausgeschnitten

Abb. 92. Vaginale Exstirpation des myomatösen Uterus durch Zerstückelung. Vor der Abtragung des keilförmigen Stückes wird die Uterusschnittfläche erneut mit Krallenzangen gefaßt

Abb. 93. Vaginale Exstirpation des myomatösen Uterus durch Zerstückelung. Aus der gefaßten und stark nach abwärts gezogenen Uteruswand wird mit dem Messer ein weiteres Stück herausgeschnitten

Abb. 94. Vaginale Exstirpation des myomatösen Uterus durch Zerstückelung. Nach Abtragung der zwei ersten Stücke wird die Uteruswand an der linken Seite stark nach abwärts gezogen und seitlich ebenfalls ein Stück herausgeschnitten. Vor der vollständigen Abtragung ist an die rechte Uterushälfte eine andere Krallenzange angesetzt worden

Abb. 92 (~~95~~) Vaginale Exstirpation des myomatösen Uterus durch Zerstückelung. Ein großer Myomknoten wird aus seinem Bett herausgeschält

zum Fundus vorwärts (Abb. 92 (~~95~~)), indem man immer wieder neue Teile der Uteruswandung nach abwärts zieht, bis der ganze Uterus als große längliche Masse vor der Vulva erscheint (Abb. 93 (~~96~~)). Nun kann die Exstirpation zu Ende geführt werden, so wie sie bereits geschildert wurde. Es ist ratsam, beim Morcellement sich stets in der Mitte des Tumors zu halten, um die seitlich liegenden großen Gefäße zu vermeiden. Man verhütet das zu häufige Abreißen der Krallenzangen und unliebsame Verzögerungen der Operation, wenn man sich den Tumor von oben her ins Becken hineinpressen läßt. Das bildet gleichzeitig den besten Schutz gegen ein ungewolltes Abreißen und Zurückbleiben gestielter subseröser Myome in der Bauchhöhle.

Die von Döderlein empfohlene Spaltung der hinteren Uteruswand wende ich nur bei Myomen an, die hinter dem Uterus und tief im kleinen Becken sitzen.

7. Erweiterte vaginale Operation des Carcinoma colli uteri

Diese Operation bezweckt die Entfernung eines möglichst großen Teils der Parametrien im Zusammenhang mit dem Uterus nach Freilegung der Ureteren. Sie wurde von Schauta systematisch ausgearbeitet, aber erst durch den von Schuchardt eingeführten paravaginalen Erweiterungsschnitt wurde ein erfolgsicheres Arbeiten ermöglicht. Wir beschränken uns auf die Wiedergabe der in unserer Klinik gebräuch-

Abb. 93 (~~96~~) Vaginale Exstirpation des myomatösen Uterus durch Zerstückelung. Ein sehr großes, verjauchtes Myom wird durch Zerstückelung entfernt. Der größte Teil des Tumors ist bereits abgetragen, und der Uterus ist mit einem Rest des Myoms vor die Vulva gezogen

lichen Technik, die in einzelnen Punkten von dem in den verschiedenen Operationslehren geschilderten Verfahren abweicht[1]).

Die mit scharfen Klemmen gefaßte Scheidenwand wird zirkulär umschnitten (Abb. 94 (~~97~~)) und mit der gebogenen Schere ringsum von dem darunter liegenden Bindegewebe abgelöst. Die Entfernung des Schnittes von der Portio richtet sich ganz nach dem vorliegenden Fall, muß aber jedenfalls so bemessen sein, daß die karzinomatösen

[1]) Pankow, Die Therapie des Uteruskarzinoms. — Handbuch der Gynäkologie von Stöckel. VI. Band, 2. Heft, S. 410. — Mikulicz-Radecki, Gynäkologische Operationen. Verlag Johann Ambrosius Barth, 1933. — Peham-Amreich, Gynäkologische Operationen. Verlag Karger, 1930.

Massen vollständig von der zu bildenden Scheidenmanschette bedeckt werden können. Wir legen über die Portio einen mit Jodtinktur getränkten Gazebausch und vernähen über demselben mit nahe beieinander liegenden starken Seidennähten die vordere und hintere Scheidenwand (Abb. ~~98~~), so daß ein Austritt von infektiösem Material oder karzinomatösen Keimen mit Sicherheit verhindert wird. Handschuh- und Instrumentenwechsel. Nach Anlegung eines ausgiebigen Schuchardtschnittes wird das von mir angegebene, bereits früher beschriebene hintere Spekulum (Abb. 26) und die

Abb. ~~97~~. Erweiterte vaginale Uterusexstirpation bei Portiokarzinom. Die Scheidenwand wird mit vier scharfen Klemmen gefaßt und zirkulär umschnitten

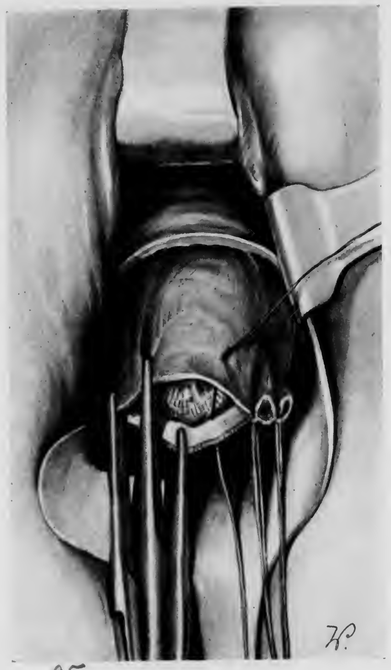


Abb. ~~98~~. Erweiterte vaginale Uterusexstirpation bei Portiokarzinom. Die vordere und hintere Vaginalwand wird miteinander vernäht, nachdem vor die Portio ein mit Tct. Jodi getränkter Gazebausch gelegt wurde

beiden Seitenspekula eingesetzt, und die mit einer Kocherklemme zusammengefaßten Seidenfäden werden stark nach abwärts gezogen. Die nun folgende Ablösung der Blase muß sehr vorsichtig erfolgen, da beim Vorhandensein von Infiltrationen Einrisse sehr leicht möglich sind. Wir benutzen die Schere (Abb. ~~100~~), lösen die Blase aber nicht so weit wie bei der einfachen Uterusexstirpation ab, sondern nur bis zum Abgang der Ureteren, die beim Vorliegen von parametranen Infiltrationen unter allen Umständen zu Gesicht kommen müssen. Nur in den leider nicht allzu häufigen frühen Stadien, bei denen die Parametrien noch ganz frei sind, können wir auf das Aufsuchen der Ureteren verzichten und sie einfach mit der Blase nach oben abschieben (Abb. ~~99~~). Besteht über die Lage der Ureteren kein Zweifel mehr, so werden sie zusammen mit der Blase mit dem vorderen Spekulum nach oben gehalten und das Parametrium sorgfältig weiter stumpf mit dem Finger freipräpariert (Abb. ~~101~~). Die Uteringefäße

werden zwischen zwei Klemmen durchtrennt (Abb. ~~102~~). Nachdem das Parametrium auch von der anderen Seite in gleicher Weise freigelegt worden ist, eröffnen wir die vordere Peritonealfalte und das Peritoneum des Douglasschen Raumes. Jetzt legen wir möglichst große Partien des Bindegewebes mit dem Finger frei, was infolge der vorgehenden Ligatur der Uteringefäße ohne wesentliche Blutung möglich ist. Nachdem der Uterus wie bei der einfachen Exstirpation mit Kugelzangen gefaßt und sein Fundus nach außen gestülpt worden ist (Abb. ~~103~~), werden die noch übrigen Gefäße durch

Abb. ~~99~~. Erweiterte vaginale Uterusexstirpation bei Portiokarzinom. Die Blase wird mit den Fingern nach oben zurückgeschoben, wodurch die Ureteren aus dem Operationsgebiet entfernt werden

Anlegen großer Klemmen an beide Seiten des Lig. latum und an die Adnexe gesichert, und der Uterus mit den Adnexen abgetragen. Die Operation wird mit der Naht des Peritoneums und der Scheide beendet, ganz in gleicher Weise wie bei der einfachen Kolpohysterektomie. Drainage oder meine Blutstillungsmethode wird nur angewandt, wenn sich keine genügende Blutstillung erzielen läßt, wie es bei vorgeschrittenen Fällen möglich sein kann.

8. Abdominale Operationen am Uterus

a) Das gestielte subseröse Myom

Nach Eröffnung der Bauchhöhle wird der Stiel des Tumors einfach unterbunden und durchschnitten. Falls es sich um einen breitbasig aufsitzenden Stiel handelt, schneiden wir ihn keilförmig aus der Uteruswandung heraus und vernähen mit einigen Einzelnähten die Wunde. In jedem Falle folgt eine genaue Untersuchung des Uterus auf Myomknoten, die wir alle zu entfernen pflegen, auch wenn es sich um sehr kleine Geschwülste handelt.

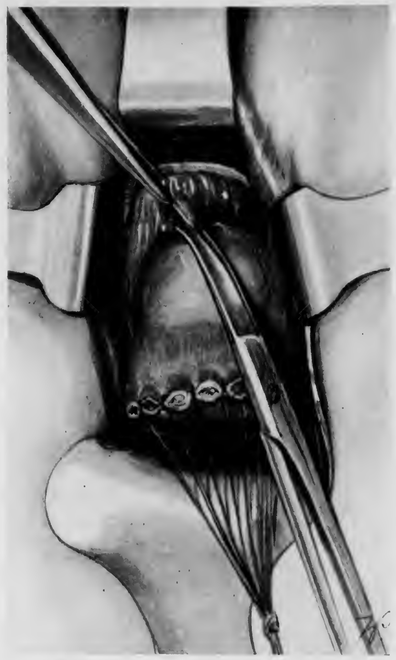


Abb. 97. Erweiterte vaginale Uterusexstirpation bei Portiokarzinom. Ablösung der Blase mit Schere und Pinzette

Abb. 98. Erweiterte vaginale Uterusexstirpation bei Portiokarzinom. Das linke Parametrium wird mit dem Finger freigelegt

b) Die Enukleation der Myome

Man versteht hierunter die Aushülsung der subserösen und interstitiellen Myome aus ihrer bindegewebigen Kapsel unter Erhaltung des Uterus. Ich wende diese Methode nur ausnahmsweise an, weil es in dem zur Myombildung disponierten Uterus doch häufig zur Wiederentwicklung von Tumoren kommt, und weil die Prognose dieser an sich zwar einfachen Operation in bezug auf Mortalität und Morbidität nicht besser ist wie die der totalen oder subtotalen Uterusexstirpation.

Man macht über dem Tumor einen Einschnitt, der die Kapsel eröffnet und schält den Knoten stumpf oder mit der Schere aus seinem Bett heraus. Nachdem alles überflüssige Gewebe abgetragen worden ist, vernäht man die Wunde schichtweise von innen nach außen fortschreitend, sorgfältig darauf achtend, daß keine toten Räume entstehen, die zu Sekretverhaltung mit ihren Folgen Veranlassung geben könnten.

c) Die abdominale sagittale Uterusresektion

Es handelt sich im Prinzip um die gleiche Operation, wie wir sie vaginal bereits geschildert haben (s. S. 60).

Nach der Resektion des keilförmigen Stückes aus dem mit zwei Kugelzangen seitlich gefaßten Uterus (Abb. 104), werden die Wundränder miteinander vernäht, und die jetzt einander stark genäherten Ligg. lata zur Peritonisierung benutzt. Wir vernähen die Mesosalpinx, das Mesovarium und nötigenfalls auch die Tuben auf der Rückseite des Uterus miteinander (Abb. 105). Zur Deckung der Vorderseite steht

Abb. 99. Erweiterte vaginale Uterusexstirpation bei Portiokarzinom. Der linke Ureter liegt frei. Die linken Uteringefäße sind mit Klemmen gefaßt

Abb. 100. Erweiterte vaginale Uterusexstirpation bei Portiokarzinom. Der Uterus ist vor die Vulva gezogen und an die linken Adnexe eine Klemme gelegt

Abb. 104. Abdominale sagittale Uterusresektion nach Logotheropulos. Die Uteruskanten sind mit Kugelzangen gefaßt. Aus dem Corpus uteri wird ein keilförmiges Stück herausgeschnitten

Abb. 105.

Abb. 106.

Abb. 105. Abdominale sagittale Uterusresektion nach Logothetopulos. Peritonisierung der vernähten Hinterwand unter Verwendung des Lig. latum und der Tuben

Abb. 106. Abdominale sagittale Uterusresektion nach Logothetopulos. Die vorderen Wundnähte werden mit Blasenperitoneum gedeckt

uns das Blasenperitoneum in beliebigem Umfange zur Verfügung. Nach seiner Ablösung vom Uterus wird es mit dem oberen freien Rand der vereinigten Ligamente und eventuell mit den Tuben vernäht (Abb. 106). Bei allen meinen so operierten Fällen war das Ergebnis ausgezeichnet, insofern, als durch die Erhaltung eines Teiles der Uterusschleimhaut die Menstruation in normalem Umfange bestehen blieb.

d) Die supravaginale Uterusexstirpation

Die Bauchhöhle wird mit einem Medianschnitt oder dem Pfannenstielschen Querschnitt eröffnet, den wir aber nur benutzen, wenn der Tumor den Nabel nicht überragt. Man könnte natürlich auch noch größere Myome mit dem Querschnitt entfernen und zwar mittels Zerstückelung (Morcellement), da jedoch bei eventueller Eröffnung des Cavum uteri die Asepsis nicht unbedingt gewährleistet ist, so ziehen wir den Längsschnitt vor, der sich nötigenfalls beliebig verlängern läßt.

Nachdem der Uterus mit der Krallenzange oder dem Myombohrer (Doyen) gefaßt und herausgezogen worden ist, beginne ich mit der Abtrennung der rechten Adnexe auf folgende Weise: Ich durchbohre mit dem rechten Mittelfinger das Lig. latum unterhalb des Ansatzes des Lig. rotundum an den Uterus und ziehe die auf dem Finger liegenden Gebilde (Lig. rotundum, Lig. ovarii proprium und Tube) nach lateralwärts. Nun gehe ich mit dem Zeigefinger der anderen Hand in das Loch im Lig. latum ein und entfalte die Ligamentblätter bis herab zur Blase, wobei gleichzeitig die Übergangsfalte in ihren seitlichen Partieen vom Uterus abgelöst wird (Abb. 107). Jetzt durchtrenne ich die auf dem Finger liegenden Gewebe zwischen zwei Klemmen (Abb. 108); liegt jedoch das Lig. rotundum von der Tube etwas weiter entfernt, wie man es bei Myomen des öfteren findet, so wird es isoliert unterbunden. Der bereits abgelöste Teil des Blasenperitoneums wird mit einer Pinzette gefaßt und quer bis zur linken Uteruskante hinüber durchschnitten. Im Gegensatz zur Total-

exstirpation braucht bei der supravaginalen Amputation des Uterus die Blase nur ganz wenig nach unten zu abgeschoben zu werden. Nun wird der Uterus stark nach außen und links gezogen, das rechte Parametrium mit den Uteringefäßen mit einer gebogenen Klemme gefaßt und durchtrennt, wobei man sich dicht an der Uteruskante zu halten hat, um den Ureter mit Sicherheit zu schonen (Abb. 109). Unter ständigem Zug am Myombohrer wird jetzt mit einer kräftigen Schere der Uterus oberhalb der Zervix quer durchschnitten (Abb. 110), worauf man die im linken Parametrium verlaufenden Uteringefäße zu Gesicht bekommt. Man faßt sie mit einer Klemme und durchschneidet sie (Abb. 111). Endlich wird von oben her das linke Lig. latum unter Zurücklassung der Adnexe mit ein oder zwei Klemmen gefaßt und der Uterus abgetragen. Auf diese Weise läßt sich bei einiger Übung die ganze Operation bis zu diesem Punkte in 2—3 Minuten ausführen.

Abb. 107. Supravaginale Uterusexstirpation. Der Uterus ist mit einer Krallenzange gefaßt und stark nach außen und links gezogen. Das rechte Lig. latum wird mit dem Mittelfinger durchbohrt und die auf demselben liegenden Gebilde (Lig. rotundum, Lig. ovarii proprium und Tube) stark lateralwärts gezogen. Der linke Zeigefinger entfaltet das linke Lig. latum bis zur Blase herab und löst die seitlichen Blasenpartien vom Uterus ab

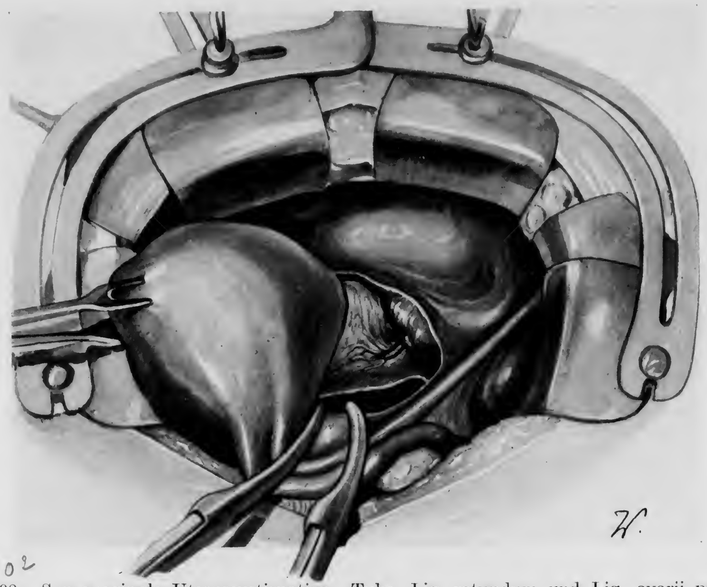


Abb. 102. Supravaginale Uterusexstirpation. Tube, Lig. rotundum und Lig. ovarii proprium werden mit Klemmen gefaßt

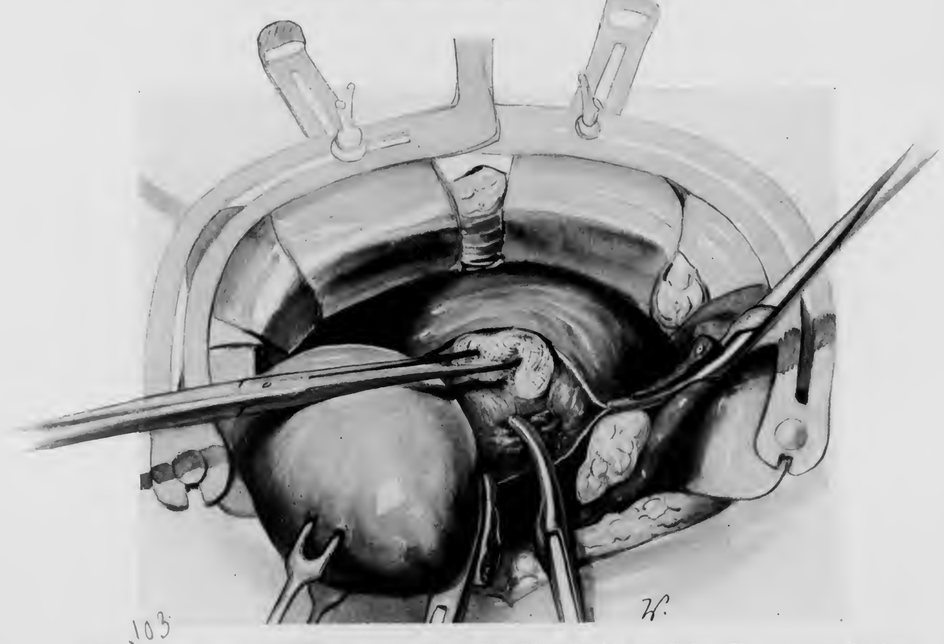


Abb. 103. Supravaginale Uterusexstirpation. Die Blase ist bis zur linken Uteruskante abgelöst und wird mit einem Stieltupfer nach unten gehalten. Das rechte Parametrium mit den darin befindlichen Uteringefäßen ist mit einer gebogenen Klemme gefaßt

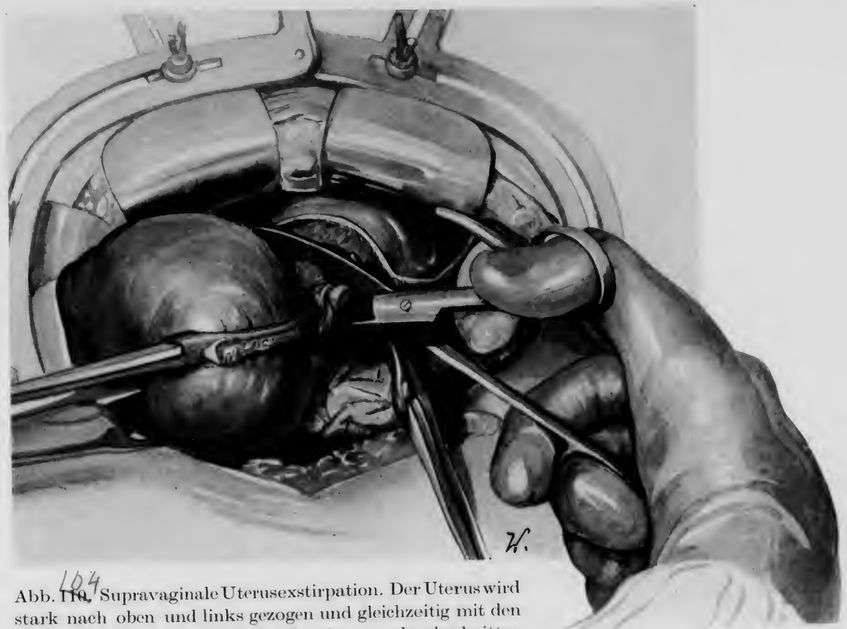


Abb. 104. Supravaginale Uterusexstirpation. Der Uterus wird stark nach oben und links gezogen und gleichzeitig mit den gefaßten Gefäßen oberhalb der Zervix quer durchschnitten

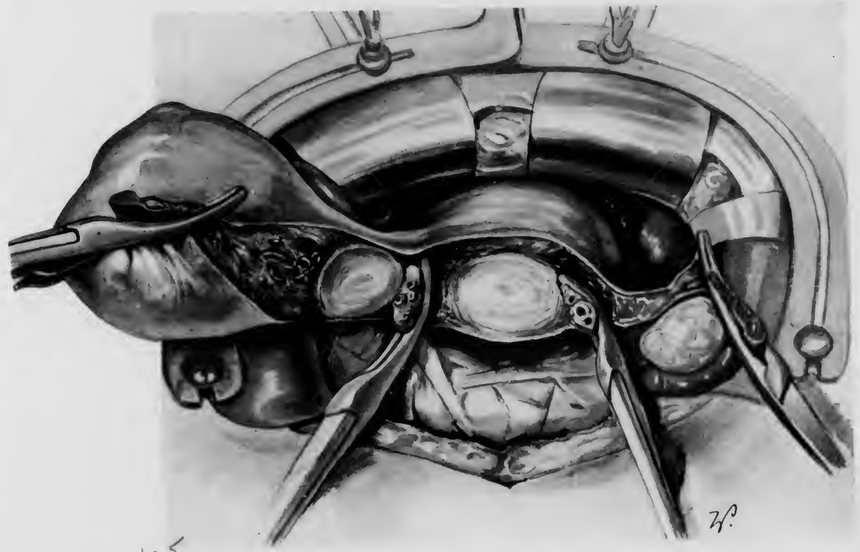


Abb. 105. Supravaginale Uterusexstirpation. Der Uterus ist quer durchtrennt. Die zu Gesicht gekommenen linken Uteringefäße wurden mit einer Klemme gefaßt und durchschnitten

Abb. ~~112~~. Supravaginale Uterusexstirpation. Vordere und hintere Zervixwand werden miteinander vernäht

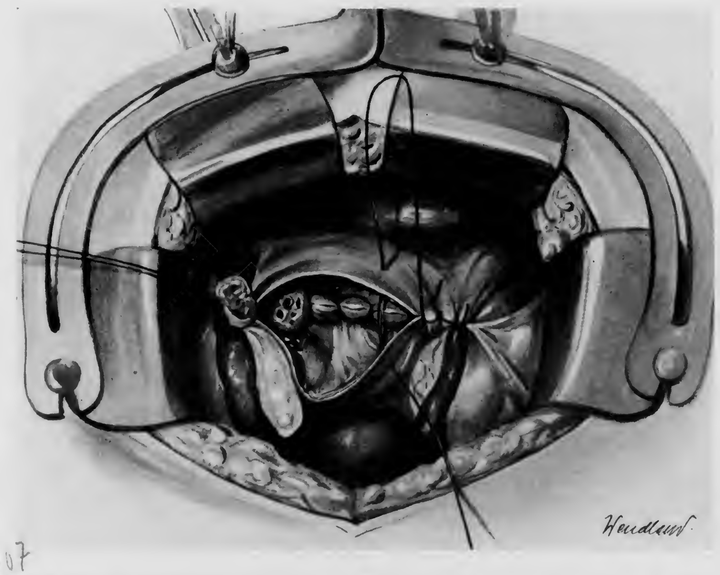


Abb. ~~113~~. Supravaginale Uterusexstirpation. Peritonisierung durch Vernähen des Blasen- mit dem Douglasperitoneum unter gleichzeitigem Einstülpen der Adnexstümpfe

Durch Vernähen der vorderen und hinteren Hälfte der Zervix mit einigen Knopfnähten stillt man die geringe Blutung aus der Uteruswunde, man ersetzt die Klemmen durch Ligaturen und beendet die Operation mit der exakten Peritonisierung (Abb. ~~112~~ und ~~113~~).

Die supravaginale Amputation wird von mir und wohl von den meisten anderen Operateuren in einfachen Fällen als Methode der Wahl angesehen, da sie schneller auszuführen ist und nach der Sammelstatistik von Albrecht[1]) eine geringere Mortalität aufweist wie die Totalexstirpation.

Die Stumpfexsudate, die die Morbidität der supravaginalen Amputation stark belasten, gehen unter konservativer Therapie fast immer zurück. Die an der zurückgelassenen Zervix möglicherweise auftretenden Karzinome sind an Zahl sehr gering (0,32—0,38%), so daß auch sie die Gesamtmortalität der supravaginalen Operation nicht wesentlich erhöhen.

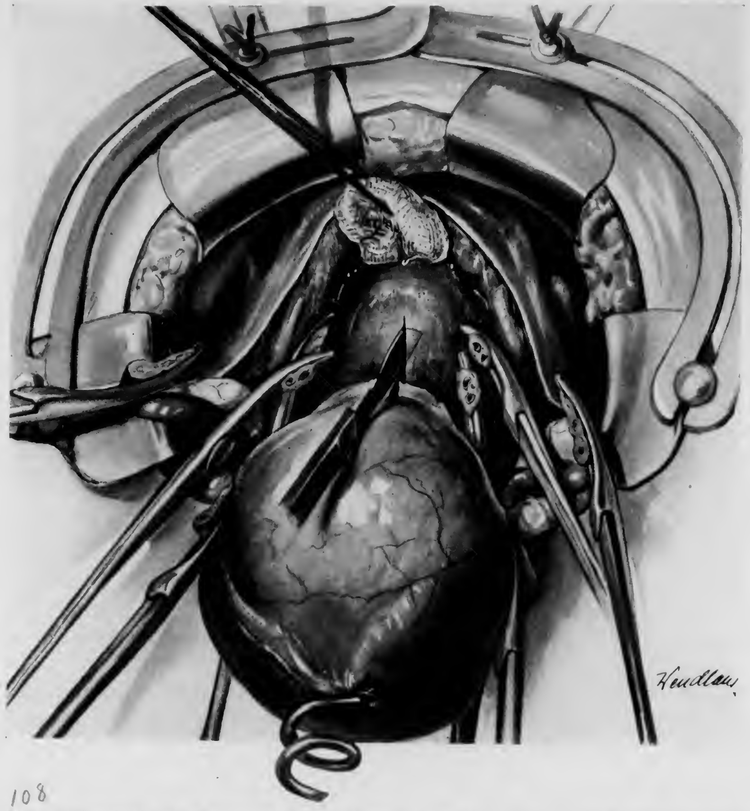
c) Die abdominale Totalexstirpation des Uterus

Nach gründlicher Desinfektion stopfen wir die Scheide mit einem Gazestreifen aus, der zur Aufsaugung der aus der Zervix während der Operation austretenden Sekrete dient. Sein Ende muß weit aus der Vulva herausragen, damit der Tampon jederzeit von einer Hilfsperson entfernt werden kann.

Der Beginn ist der gleiche wie bei der supravaginalen Exstirpation des Uterus. Fassen des Uterus mit einer Krallenzange oder mit dem Myombohrer, Herausziehen vor die Bauchwunde und Abtrennung desselben von den rechten Adnexen in der oben beschriebenen Weise (Abb. ~~107~~). Nun aber ist es wichtig, daß die Blase besonders in ihren seitlichen Teilen gut nach unten abgeschoben wird, so daß die obere Scheidenpartie frei liegt (Abb. ~~114~~).

Das Parametrium mit den darin liegenden Gefäßen wird möglichst dicht am Uterus gefaßt und durchtrennt. Der Ureter ist nicht gefährdet, wenn man zuvor die Blase gut abgeschoben hat und wenn man sich immer nahe der Uteruskante hält. In gleicher Weise werden die linken Adnexe und Uteringefäße gefaßt. Während der Uterus dann kräftig symphysenwärts gezogen wird, durchtrenne ich mit der Schere das Douglasperitoneum quer und schiebe mit einem Tupfer den Mastdarm etwas nach unten zu. Der Uterus wird wieder kranialwärts gezogen, und während der Assistent die Blase mit einem Stieltupfer gut nach abwärts hält, spalte ich mit dem Messer, dessen Schneide blasenwärts sieht, die vordere Zervixwand in der Medianlinie und verlängere den Schnitt, bis die Vagina genügend eröffnet ist, nach unten zu (Abb. ~~114~~). Bestehen Zweifel über die Lage der Zervix, so bringt der tastende Finger sofort Klarheit. Nachdem die bei der Vorbereitung eingelegte Gaze von einer Hilfsperson von unten herausgezogen worden ist, fasse ich die Scheidenwundränder unterhalb der Portio mit zwei Faßzangen, ziehe sie auseinander und führe einen Stieltupfer in das Scheidenlumen ein, der den Austritt von Scheidensekret verhindert. Die mit einer doppelzähnigen Kugelzange an der hinteren Lippe gefaßte Portio wird aus der Scheidenöffnung heraus und stark nach oben gezogen und nun mit der Schere die Scheide zirkulär durchtrennt (Abb. ~~115~~ und ~~116~~). Der in der Scheide befindliche Stieltupfer wird vorsichtig entfernt und, nachdem man den vorderen und hinteren Scheidenwundrand mit einer Kocherklemme fixiert hat, durch einen Gazestreifen ersetzt (Abb. ~~117~~). Man führt ihn mit einer Führungssonde (s. S. 3) ein und schneidet ihn, sobald sein unteres Ende in der Vulva erschienen ist, dicht über dem abdominalen

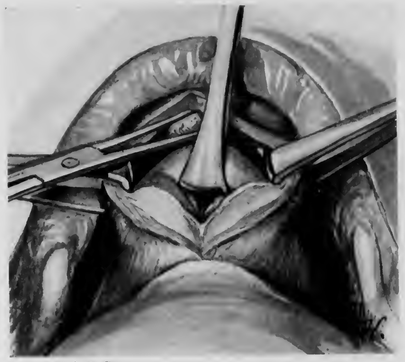
[1]) Halban-Seitz, Bd. IV, 480.



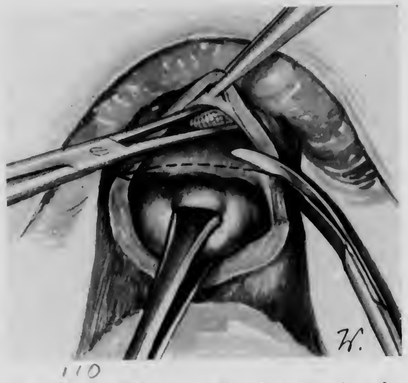
108
Abb. 114. Abdominale Totalexstirpation des Uterus. Das Lig. latum und die Uteringefäße sind zwischen den Klemmen durchschnitten. Während die weit nach unten zu abgeschobene Blase gut mit einem Tupfer zurückgehalten wird, wird das Messer mit nach vorn gerichteter Schneide in den unteren Teil der Scheidenwand eingestochen

Ende der Vagina ab. Dieser Streifen dient als Drainage. Blutungen aus dem Scheidenwundrand werden durch Umstechungen gestillt, alle Klemmen durch Unterbindungen ersetzt und das gesamte Operationsgebiet auf Bluttrockenheit untersucht. Die Vagina wird mit einer fortlaufenden Naht verschlossen, wobei man die Schleimhaut am besten nicht mitfaßt. Erst wenn jede Blutung steht, peritonisieren wir durch Versenken der Stümpfe und durch Vernähen des Blasenperitoneums mit dem des Rektum.

Die geschilderte Operation gestaltet sich nur bei unkomplizierten Fällen in dieser typischen Weise. Sind Verwachsungen vorhanden, so müssen sie zuvor präparatorisch mit Pinzette und Schere gelöst werden, ehe man die Exstirpation des Tumors vornimmt. Bei intraligamentärer Entwicklung des Myoms spaltet man das Lig. latum zwischen Lig. rotundum und Tube und löst den Tumor vorsichtig aus der Ligamentumhüllung aus. Man hat sich hierbei ganz besonders vor Verletzungen des Ureters zu hüten, der häufig durch den Tumor verlagert ist und am besten in seinem ganzen Beckenteil vor Fortsetzung der Operation isoliert wird.



109
Abb. 115. Abdominale Totalexstirpation des Uterus. Die vordere Zervixwand und der obere Teil der Vagina sind mit dem Messer gespalten. Die hintere Muttermundslippe ist mit einer Faßzange gefaßt. In die Vagina ist ein gestielter Tupfer eingeführt



110
Abb. 116. Abdominale Totalexstirpation des Uterus. Die vordere Vaginalwand wird mit einer Klemme angezogen. Unter starkem Zug an der Portio wird die hintere Vaginalwand dicht unterhalb der Portio durchschnitten

111
Abb. 117. Abdominale Totalexstirpation des Uterus. Der Uterus ist entfernt. Die vaginalen Wundränder sind mit Klemmen gefaßt und in das Vaginallumen ist ein Gazestreifen eingeführt. Die Vagina wird mit Nähten geschlossen, die die Schleimhaut nicht mitfassen. Einstülpen der Stümpfe bei der Peritonisierung

Die oft sehr schwierige Exstirpation zervikaler Myomknoten, die die Blase zuweilen hoch nach oben verschieben, kann man sich erleichtern dadurch, daß man einen zweiten Myombohrer in den tief liegenden Tumor einsetzt und ihn damit nach oben zieht. Gelingt auch das nicht, weil etwa der Knoten fest im Becken eingekeilt ist, so kommt man zum Ziel, wenn man die Myomkapsel einschneidet und den Tumor enukleiert.

Sind gleichzeitig entzündliche Adnextumoren vorhanden, so werden sie zunächst in oben beschriebener Weise freipräpariert und nötigenfalls entfernt, und dann erst geht man an die Exstirpation des Uterus heran. In solchen nicht sicher aseptischen Fällen lasse ich die Scheide offen und drainiere mit einem Gazestreifen durch dieselbe. Die Bauchdecken schließe ich dagegen immer in bekannter Weise.

9. Die Ovariektomie

Diese Operation (nicht ganz zutreffend als „Ovariotomie" bezeichnet) wurde zuerst im Jahre 1809 von Ephraim Mac Dowell (USA.) ohne Narkose bei einer Negerin ausgeführt und zwar mit vollem Erfolg, womit der Siegeszug der zunächst mit enormer Mortalität belasteten Bauchchirurgie begann. Die Herausnahme eines einfachen Ovarialtumors ist ein so einfacher Eingriff, daß er mit Recht als Anfängeroperation betrachtet werden kann, aber häufig finden sich Verwachsungen und andere Komplikationen, die das Können eines erfahrenen Operateurs erfordern.

Im allgemeinen bevorzugen wir bei der Ovariektomie die Laparatomie, da sich oft über die freie Beweglichkeit des Tumors oder seine intraligamentäre Entwicklung vor der Operation kein klares Bild gewinnen läßt. Man kann so oft den Uterus erhalten, während man beim vaginalen Vorgehen gezwungen ist, ihn mit zu entfernen, wenn es sich um einigermaßen komplizierte Fälle handelt. Haben wir es mit nicht ganz kleinen Tumoren zu tun, so muß man sie beim vaginalen Operieren eröffnen, was bei infiziertem Inhalt oder bei Malignität eine erhebliche Verschlechterung der Prognose bedeutet. Nur bei sehr fetten Frauen, oder wenn sowieso eine vaginale Operation vorgenommen werden muß (Prolaps oder dgl.), gehen wir Ovarialtumoren vaginal an, aber auch dann nicht, wenn es sich um maligne Tumoren oder um irgendwie komplizierte Fälle handelt.

a) Die abdominale Ovariektomie

Wir verwenden im allgemeinen den medianen Längsschnitt, der bei freien zystischen Tumoren sehr klein angelegt und im Bedarfsfall beliebig nach oben verlängert werden kann. Der Pfannenstielsche Querschnitt hat nur den Vorteil des ästhetisch besseren Aussehens und kann bei einfachen Tumoren natürlich ohne Schwierigkeit benutzt werden.

Nach Eröffnung des Peritoneums orientieren wir uns über Sitz, Größe und freie Beweglichkeit des Tumors und trachten möglichst immer danach, ganz besonders aber, wenn es sich um maligne Tumoren oder um solche mit verdächtigem Inhalt handelt, ihn uneröffnet zu entfernen, nötigenfalls mit Erweiterung des anfänglichen Bauchschnittes. Wir führen die Hand in die Bauchhöhle ein, umgreifen den Tumor und wälzen ihn vor die Bauchdecken, nachdem etwa vorhandene Verwachsungen stumpf oder scharf gelöst wurden. Der Stiel wird nach vorhergehendem Fassen mit Klemmen vom Uterus abgetrennt, unterbunden und peritonisiert. Man kann sich die Exstirpation eines Tumors durch eine kleine Bauchöffnung durch folgenden Kunstgriff sehr erleichtern: Nach Eröffnung der Bauchhöhle legen wir den Tumorstiel frei und durchtrennen ihn zwischen zwei Klemmen, so daß er sich frei in der Bauchhöhle befindet. Zieht nun der Assistent die Spekula gut auseinander, so gelingt es überraschend leicht, den an der Klemme gefaßten Tumor durch den kleinen Bauchschnitt zu „entbinden"[1]). Sind die zystischen Tumoren bestimmt gutartig und ihr Inhalt zweifellos aseptisch, was man an der Transparenz der Wandung meist recht gut erkennen

[1]) Beschrieben in meinem Lehrbuch der Gynäkologie II. Band, 1928. Halle, Buchdruckerei des Waisenhauses.

Abb. 118. Ovarektomie. Eröffnung der Zyste mit dem Messer. Der Zysteninhalt fließt aus

Abb. 119. Ovarektomie. Die Zystenwand ist an der geöffneten Stelle mit einer Klemme gefaßt und nach außen gezogen

Abb. 120. Ovariektomie. Die gänzlich außerhalb der Bauchhöhle gebrachte Zyste wird vom Uterus abgetrennt

kann, so ist die Eröffnung und Entleerung der Zyste vor der Entfernung zweckmäßig. Nach Eröffnung des Peritoneums stellt sich die Zyste meist von selbst in die Wunde ein, nötigenfalls helfen wir durch leichten Druck auf die Bauchdecken oberhalb der Schnittwunde nach. Nun gehen wir von der Trendelenburgschen Beckenhochlagerung zu einer Tieflagerung des Beckens über, um das Eindringen von Flüssigkeit in die Bauchhöhle zu erschweren, und eröffnen mit dem Messer die Zyste (Abb. 118). Die Verwendung eines Troikarts ist überflüssig, da die unter Druck stehende Flüssigkeit im Strahl herausfließt. Mit einigen Klemmen fassen wir sofort die Zystenwand an der Schnittstelle und ziehen sie langsam entsprechend der fortschreitenden Entleerung nach außen (Abb. 119), fassen gegebenenfalls mit anderen Klemmen nach, bis wir den Stiel erreichen und nach vorhergehendem Abklemmen unterbinden und abtragen können (Abb. 120). Man verwendet zur Unterbindung starkes Katgut und durchsticht den Stiel, da ein Abgleiten der Ligatur verhängnisvolle Folgen haben könnte. Liegt eine Stieldrehung vor, so bringen wir sie vor Anlegung der Klemmen durch Drehung des Stieles in entgegengesetzte Richtung zum Verschwinden. Wir decken den Stumpf stets sorgfältig mit Peritoneum, haben jedoch beim gelegentlichen Unterlassen der Peritonisierung zwecks Zeitersparnis keinerlei nachteilige Folgen bemerkt.

Intraligamentär entwickelte Tumoren können wegen der meist bestehenden Verlagerung der Nachbarorgane dem Operateur große Schwierigkeiten bereiten, und nur durch sorgfältigste Orientierung gelingt es, Verletzungen der Blase, des Darmes

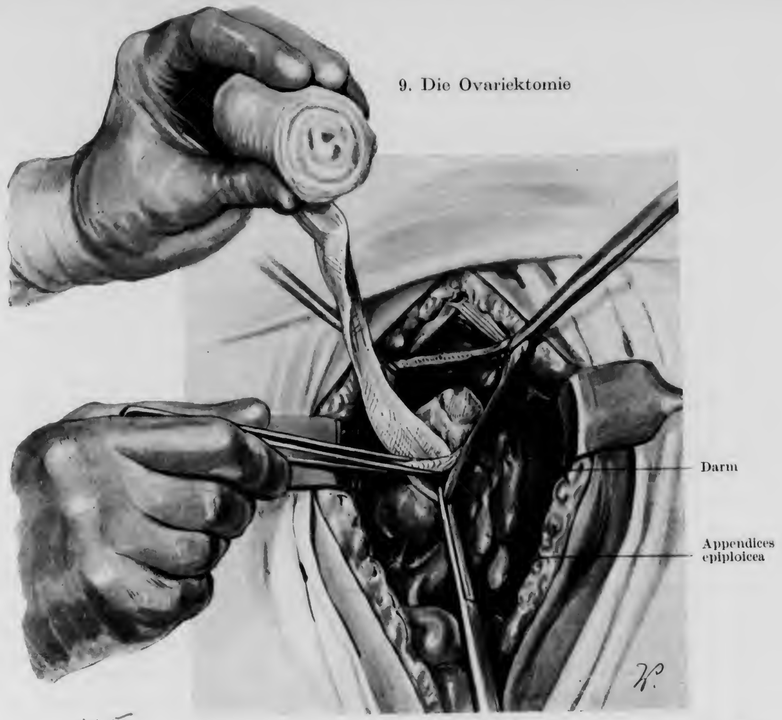


Abb. 121. Ovariektomie. Die dünnen Wände einer geplatzten Zyste werden mit Klemmen entfaltet, und nach vollständiger Entleerung des Inhaltes wird die Höhlung mit Gaze ausgestopft

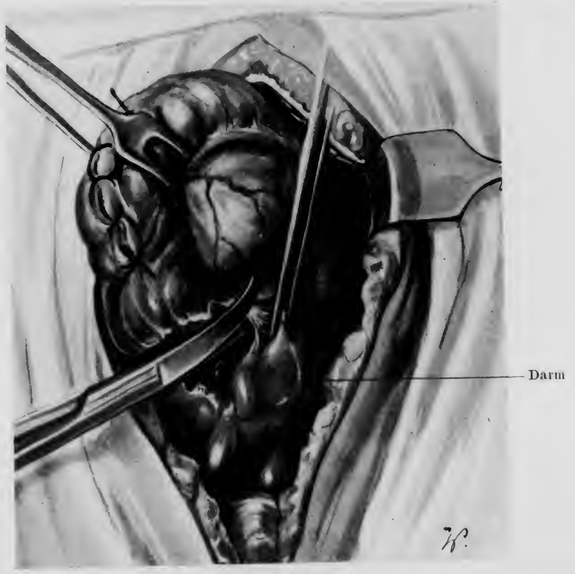


Abb. 122. Ovariektomie. Die Zystenöffnung ist mit einer fortlaufenden Naht geschlossen. Die ganz mit Gaze ausgefüllte Zyste kann nun wie ein solider Tumor gehandhabt, d. h. mit einer Krallenzange gefaßt und nach außen gezogen werden. Mit Pinzette und Schere werden die Verwachsungen zum Darm und Netz von der Zystenwandung abgelöst

und besonders des Ureters zu vermeiden. In einem meiner Fälle fand ich den Ureter in der Mitte der Vorderwand einer großen intraligamentären Zyste verlaufend! Die wichtigste Regel bei der Operation dieser Tumoren ist immer an den Ureter zu denken und ihn bei irgendwelchen Unklarheiten im ganzen gefährdeten Bezirk freizulegen. Kein Gewebsstrang darf abgeklemmt oder gar durchschnitten werden, ohne daß man sich über seine Natur absolut im klaren ist, und man schließe den Bauch nicht, bevor man sich nicht von der Unversehrtheit der Ureteren überzeugt hat.

Die oft umfangreichen Verwachsungen der Zysten mit der peritonealen Umgebung erfordern sehr vorsichtiges Vorgehen. Schon bei Eröffnung der Peritonealhöhe kann die mit dem Peritoneum parietale verbackene Zystenwand durchtrennt werden, ein zum mindesten unangenehmes Ereignis, falls es sich um infizierte oder maligne Tumoren handelt. Die Verwachsungen mit den Darmschlingen, Netz und Beckenwand können im allgemeinen mit der Hand stumpf abgelöst werden, zuweilen jedoch ist sorgfältige Präparation mit Pinzette und Schere notwendig, wobei gefäßführende Stränge zuvor abgeklemmt werden müssen. Gelegentliche Verletzungen des Darmes müssen sorgfältig unter Vermeidung jeder Stenosierung des Lumens vernäht werden, auch wenn es sich nur um Serosadefekte handelt.

Trotz aller Vorsicht reißt beim Lösen von Verwachsungen die Zystenwand leicht ein, wodurch die weitere Abpräparierung des nun schlaffen Sackes sehr wesentlich erschwert wird. In solchen Fällen wende ich eine Methode an, die ich seinerzeit für die Exstirpation der Zysten der Bartholinischen Drüse beschrieben habe. Wir tupfen die Zyste nach Möglichkeit trocken und stopfen sie dann fest mit Gazestücken aus (Abb. 121); die Öffnung wird mit einigen Stichen wieder vernäht, und nun läßt sich der gazegefüllte Sack ganz wie ein solider Tumor behandeln, mit Krallenzangen fassen, freipräparieren und nach außen ziehen (Abb. 122).

Bösartige Ovarialtumoren sind meistens doppelseitig und oft sekundär entstanden. Deshalb ist auch beim Fehlen sichtbarer Veränderungen stets auch das Ovarium der anscheinend gesunden Seite mitzuentfernen und regelmäßig die gesamten Bauchorgane nach dem Primärtumor abzusuchen.

b) Die vaginale Ovariektomie

Atlée (Amerika) hat im Jahre 1854 zuerst und durch Zufall diese Operation ausgeführt, planmäßig durchdacht und in die Tat umgesetzt wurde sie aber erst im Jahre 1870 durch Gaillard-Thomas, und der Vorkämpfer der vaginalen Operationsmethoden, Dührsen, hat sie nach gründlicher Ausarbeitung zu weiterer Verbreitung gebracht.

Nach der Eröffnung der Bauchhöhle, dem Sitz des Tumors entsprechend durch vordere oder hintere Kolpotomie, fassen wir den Tumor mit Muzeuxzangen, eröffnen ihn mit Messer oder Troikart und lassen den Inhalt abfließen. Hierauf ziehen wir die Zyste unter mehrmaligem Nachfassen mit Klemmen nach abwärts, bis der Stiel erscheint, den wir nach vorhergehendem Abklemmen abtragen und unterbinden.

Nicht ganz leicht ist die vaginale Entfernung multilokulärer Zysten, die eine nach der andern eröffnet werden müssen, wobei man sich sehr vor Verletzungen von Darmschlingen hüten muß. Am besten zieht man sich den Uteruskörper wie bei der vaginalen Totalexstirpation nach außen, durchtrennt den Tumorstiel zwischen zwei Klemmen und zieht nun am Stiel die Zyste nach abwärts. Man eröffnet nun die jeweils in der Kolpotomieöffnung erscheinende Zyste, entleert sie, faßt mit Klemmen nach und bringt sich so die nächste zu Gesicht, bis der ganze Tumor entfernt ist.

10. Entzündliche Adnexerkrankungen

Bei der Häufigkeit ihres Vorkommens, der langen Erkrankungsdauer und damit verbundenem Siechtum bilden die entzündlichen Erkrankungen der Adnexe trotz aller Fortschritte in der Behandlung nach wie vor eine ausgesprochene Crux medicorum. Glücklicherweise ist das Leben der Frauen in der Mehrzahl der Fälle nicht bedroht, und wir können durch frühzeitige Anwendung aller modernen konservativen Mittel meistens ernstere Komplikationen verhüten. Es gelingt, durch strenge Bettruhe und Anwendung des Eisbeutels die akuten Erscheinungen zum Rückgang zu bringen, und man sieht immer wieder mit Verwunderung, wie selbst sehr große Tumoren verschwinden. Die dann noch verbleibenden Reste der Entzündung kommen zur Resorption durch Anwendung von Mitteln, die eine lokale Hyperämie erzeugen, angefangen von den altbewährten heißen Sitzbädern bis zur Kurzwellenbehandlung, von der Terpentininjektion bis zur Hormontherapie. Das eine Mal sind die Behandlungsmethoden, das andere Mal die Geduld des Arztes, am häufigsten jedoch die Geduld der Patientin zuerst erschöpft. Es taucht die Frage der Operation auf, und wir müssen zugeben, daß in einer nicht unbeträchtlichen Zahl von Fällen nur durch diese eine Radikalheilung zu erreichen ist.

Die an sich zweckmäßigste Operationsmethode, die Exstirpation des Uterus mitsamt den Adnexen, die am sichersten zum Erfolg führt, bringt letzten Endes dem Operateur wenig Dank ein, da die meist noch im zeugungsfähigen Alter stehenden Frauen später schwer unter Ausfallserscheinungen zu leiden haben. Wir gehen deshalb an unserer Klinik möglichst konservativ vor und erhalten den Frauen zumindestens die Eierstöcke. Nur beim abdominalen Vorgehen läßt sich exakt beurteilen, was erhalten werden kann und was im Interesse des Enderfolges exstirpiert werden muß. Auch die für den Erfolg so wichtige Blutstillung und die peinliche Peritonisierung läßt sich nur von oben ausführen, so daß wir den für ungefährlicher geltenden vaginalen Weg in den letzten Jahren nur noch ausnahmsweise anwenden.

Ganz im Gegensatz hierzu operiere ich ausschließlich vaginal in den schweren Fällen, bei denen von vornherein nur die Exstirpation des Uterus und der erkrankten Adnexe in Frage kommt. Trotz aller modernen Laboratoriumsuntersuchungen (Leukozytenzählung, Blutbild, Senkungsgeschwindigkeit usw.) sind wir auch heute nicht in der Lage, mit aller Bestimmtheit vor der Operation den Grad der Infektiosität des zu erwartenden Eiters zu erkennen, und schon aus diesem Grunde sind unsere Resultate beim vaginalen Vorgehen lebenssicherer. Eine absolute Indikation für die vaginale Operation stellen für mich jene Fälle dar, bei denen die Frau, durch monatelanges Fieber geschwächt, eine Laparotomie nicht überstehen, und entweder am Eingriff als solchem oder an einer Peritonitis zugrunde gehen würde. Auch vorhergegangene Operationen, bei denen vaginal oder abdominal Abszesse eröffnet wurden, und die Fisteln hinterlassen haben, zwingen uns den vaginalen Weg auf. Ein Schuchardtscher Schnitt und die vorhergehende Exstirpation des Uterus gibt mir immer eine ausgezeichnete Übersicht des Operationsgebietes, so daß die Operation genau so klar und planmäßig verläuft wie bei der Laparotomie. Die anscheinend bestehende Gefahr der Darmverletzung ist nicht sehr erheblich, da nur die Verwachsungen der Adnexe mit der Beckenwand stumpf mit der Hand gelöst werden, worauf sich die Tumoren mit den Darmschlingen zusammen tiefer ziehen und unter Leitung des Auges mit der Schere sauber voneinander trennen lassen. Bei all diesen Manipulationen bleibt man außerhalb der freien Bauchhöhle, da die oberhalb der Eitersäcke von miteinander verwachsenen Darmschlingen gebildete Schutzdecke in den meisten Fällen nicht zerstört zu werden braucht; ein unschätzbarer Vorteil des vaginalen Weges!

a) Abdominale Operation der entzündlichen Adnexerkrankungen

Die Schwierigkeit der Exstirpation entzündlicher Adnextumoren per laparatomiam steht im direkten Verhältnis zum Grade der vorhandenen Adhäsionen. Wir eröffnen vorsichtig die Bauchhöhle möglichst an einer Stelle, die frei von Verwachsungen ist, ziehen den mit einer Kugelzange gefaßten Uterus leicht mit der linken Hand nach außen und versuchen, mit der anderen Hand vorsichtig die Verwachsungen zu lösen. Jede Gewaltanwendung ist zu vermeiden und bei der geringsten Schwierigkeit setzen wir die Ablösung mit der Schere unter Leitung des Auges fort, wobei die Blutung nur gering ist und meist durch leichten Druck provisorisch eingelegter Kompressen zum Stehen kommt. Sind die Adnexe völlig frei, so wird das Lig. infundibulo pelvicum und das Lig. ovarii proprium nach vorherigem Fassen mit Klemmen durchschnitten und unterbunden, während man das Ostium uterinum der Tube am besten keilförmig aus dem Uterus herausschneidet. Das Lig. latum wird einfach durchtrennt, die geringe Blutung kommt bei der Peritonisierung zum Stehen. Die Gefäßstümpfe werden sorgfältig versenkt.

Bei stärkeren Verwachsungen wählen wir den umgekehrten Weg. Wir durchtrennen den uterinen Teil der Tube zwischen zwei Klemmen und lösen mit der Hand die Adhäsionen, während wir an der Tube einen stetigen Zug von median nach lateral-

117

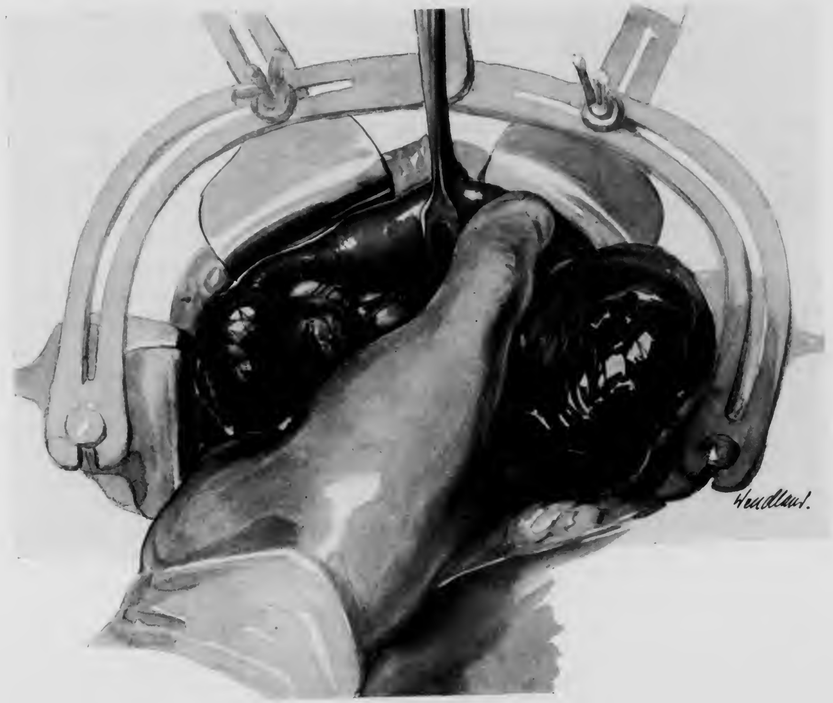
Abb. ~~123~~. Abdominale Operation der Adnextumoren. Der Uterus ist mit einer Krallenzange gefaßt und nach links und außen gezogen. Auf der Hand liegt der abgelöste rechtsseitige Adnextumor

wärts ausüben. Auch hierbei werden festere Stränge scharf durchtrennt. Entstehen auf der Uterusoberfläche größere Defekte, so werden sie zweckmäßig mit dem Blasenperitoneum gedeckt. Man durchtrennt es an seiner Übergangsstelle zum Uterus mit der Schere, schiebt die Blase etwas mit einem Tupfer zurück und kann nun leicht den Peritoneallappen an der Uterusrückfläche annähen (Liepmann).

Bei ausgedehnteren Prozessen muß außer den Adnexen auch der Uterus ganz oder partiell entfernt werden (Totalexstirpation, Amputatio supravaginalis oder Defundatio uteri nach Beuttner).

Am empfehlenswertesten ist die Totalexstirpation, weil sie eine ausgezeichnete Drainage nach der Scheide zu ermöglicht und weil die so unangenehmen, schwer zugänglichen Stumpfexsudate der supravaginalen Amputation vermieden werden.

Nach Eröffnung der Bauchhöhle finden wir in schweren Fällen das kleine Becken mit einer formlosen Masse ausgefüllt, die zunächst eine Orientierung unmöglich scheinen läßt. Die Genitalorgane sind mit Netz und Darmschlingen bedeckt, und nur durch geduldige, langsam in die Tiefe vordringende Präparation gelingt es, teils scharf, teils stumpf, die Adhäsionen zu beseitigen und schließlich den Uterus mit einer Krallenzange zu fassen. Wir ziehen ihn kräftig nach außen zu und stopfen die Bauchhöhle mit Kompressen besonders sorgfältig ab wegen der steten Gefahr des Platzens eiter-



118

Abb. ~~124~~. Abdominale Operation der Adnextumoren. Die linken Adnexe sind ebenfalls mit der Hand abgelöst worden

5 18

haltiger Tumoren. Nun erst gehen wir mit der freien Hand, während die andere einen ständigen Zug nach oben am Uterus ausübt, zwischen Tumor und Beckenwand in den Douglasschen Raum und versuchen, so wie wir es bei der manuellen Plazentarlösung zu machen gewohnt sind, durch langsames Vordringen mit der Handkante den Tumor unzerstückelt in die Hohlhand zu bekommen (Abb. 123 und 124). Auch hierbei sind stärkere Verwachsungen mit der Schere scharf zu durchtrennen. Ist der Tumor intraligamentär entwickelt, so suchen wir den stark gefährdeten Ureter hoch oben auf und verfolgen ihn während des Freimachens des Tumors bis zur Blase hinab.

Das von vielen Operateuren geübte Entleeren der Eitersäcke durch Punktion lehnen wir ab, da hierdurch die Infektionsgefahr nur unwesentlich verringert wird, die Auslösung der Tumoren dagegen sich bedeutend schwieriger vornehmen läßt. Da wir die freie Bauchhöhle zuvor gut abgedeckt haben, so ist das Platzen der Eitersäcke während der Operation, das sich in der Tat oft nicht vermeiden läßt, nicht allzu bedeutungsvoll, besonders wenn es sich um den meist sterilen gonorrhoischen Eiter handelt. Da wir jedoch eine sekundäre Infektion mit Bact. coli, mit Staphylo- oder Streptokokken niemals mit Sicherheit ausschließen können, so muß jeder ausfließende Eiter aufs Sorgfältigste mit Tupfern und Gazekompressen aufgefangen und weggetupft werden, die Abdeckkompressen ersetzen wir durch frische, und erst nachdem wir auch die Handschuhe gewechselt haben, fahren wir mit der Operation fort.

Darmverletzungen können vorkommen auch ohne Schuld des Operateurs, da die mit dem Tumor verbackene Schlinge an der Verwachsungsstelle nekrotisch geworden sein kann. Man vernäht die Öffnung mit zweifacher Lembertnaht möglichst senkrecht zum Darmverlauf, um Stenosen zu vermeiden.

Gewöhnlich nehmen wir die Exstirpation des Uterus erst nach der Ablösung der Tumoren vor. Handelt es sich jedoch um sehr schwierige Fälle mit stärksten Verwachsungen, so exstirpieren wir nach vorhergehender Medianspaltung zuerst den Uterus und lösen dann die Adnexe aus ihren Verklebungen aus (Methode von J. L. Faure). Die Technik ist folgende:

Wir fassen den Uterus auf beiden Seiten des Fundus mit zwei kräftigen Kugelzangen und spalten ihn mit einer geraden Schere median bis herab zur Portio. Mit einer weiteren Kugelzange fassen wir nun den tiefsten Punkt der einen gespaltenen Uterushälfte und schneiden mit kleinen Scherenschnitten die Zervix vom Scheidengewölbe ab, wobei die Uterina sichtbar wird. Nach ihrer Unterbindung lassen sich die Adnexe überraschend leicht unter fortwährendem Zug an den Uterusklemmen teils scharf, teils stumpf von median nach lateral fortschreitend, exstirpieren. In gleicher Weise wird dann die andere Uterushälfte mit den Adnexen entfernt. Diese Methode ziehen wir der in gleicher Weise ausführbaren supravaginalen Amputation vor, bei der nach Spaltung des Uterus bis zum Isthmus die Zervix mit einer gebogenen Schere quer durchtrennt wird, wonach die Exstirpation der Adnexe in oben geschilderter Weise folgt. Selbstverständlich muß vor Spaltung des Uterus die Blase nach vorhergehender querer Durchtrennung des Blasenperitoneums nach abwärts geschoben werden, und zwar möglichst tief bei der totalen, in geringerem Maße bei der supravaginalen Amputation.

Sehr empfehlenswert ist in schwierigen Fällen auch die Methode von Kelly. Wir beginnen auf der wahrscheinlich leichteren Seite mit der Ablösung der Adnexe und Durchtrennung des Lig. latum. Das Blasenperitoneum wird jetzt quer durchtrennt und die Blase mit einem Stieltupfer weit nach abwärts geschoben. Nun fassen wir die sichtbar werdende Uterina mit einer langen Klemme und durchtrennen mit Messer oder Schere den Uterus supravaginal in der Isthmusgegend. Wir ziehen ihn

kräftig nach der anderen Seite und unterbinden auch hier die Uterina, worauf die Adnexe wieder von median nach lateral zu ausgelöst werden.

Wir vernähen, gleichgültig nach welcher Methode wir vorgegangen sind, am Schlusse die vordere und hintere Scheidenwand miteinander, respektiv bei supravaginaler Amputation vorderen und hinteren Teil des Zervixstumpfes. Hierauf folgt sorgfältige Peritonisierung durch Vereinigung des Blasen- mit dem Rektumperitoneum und Einstülpung der Unterbindungsstümpfe. Ist Drainage erforderlich, so erfolgt sie entweder durch die Scheidenöffnung oder bei supravaginaler Amputation durch ein zu diesem Zweck im hinteren Scheidengewölbe angelegtes Loch. Bei schwer stillbaren Blutungen legen wir, besonders wenn durch die Scheide drainiert werden muß, mit promptem Erfolg meinen Blutstillungstampon ein (s. S. 19).

b) Vaginale Operation der entzündlichen Adnexerkrankungen

Die vaginale Exstirpation des Uterus bei entzündlichen Adnexerkrankungen mit nachfolgender Eröffnung der Eitersäcke ist zuerst von Péan ausgeführt worden, der dadurch eine gute Drainage nach der Scheide zu erzielen wollte. Da die Resultate nicht ermutigend waren, wurde diese Methode bald wieder verlassen, und man ging dazu über die Totalexstirpation des Uterus samt der Adnexe zu machen.

Wir gehen in folgender Weise vor:

Anlegung eines Schuchardtschnittes, der die Operation sehr erleichtert, und Exstirpation des Uterus in bereits beschriebener Weise. Gleich nach der Vorwälzung des Uterus führen wir eine mit einem Faden versehene große Kompresse in die Bauchhöhle ein. Sind sehr starke Verwachsungen und Infiltrationen vorhanden, so macht das Herauswälzen des Uterus manchmal Schwierigkeiten, deren man Herr wird nach Spaltung der vorderen Uteruswand (Doyen) oder der vorderen und hinteren Uteruswand (nach Müller). Döderlein empfiehlt die Spaltung der hinteren Uteruswand und Vorwälzen des Corpus uteri durch das hintere Scheidengewölbe, ein Vorgehen, das besonders bei retroflektiert liegendem Uterus angezeigt erscheint. Handelt es sich um leichtere Fälle, so kann die Exstirpation der Adnexe zusammen mit dem gespaltenen oder nicht gespaltenen Uterus leicht vorgenommen werden. Bei schwereren Verwachsungen jedoch ziehen wir die vorhergehende Entfernung des Uterus vor, wobei zur Vermeidung von Verletzungen des Ureters die Klemmen dicht an die Uteruskanten herangelegt werden müssen. Jetzt können wir die Adnexe entfernen. Es erfolgt Unterbindung der Gefäße und nach Entfernung der großen Kompresse, Schluß der Bauchhöhle falls keine Drainage erforderlich ist.

Diese Operation konnte man bis jetzt nur in den Fällen ausführen, in denen sich die Tumoren nur im untersten Teil des kleinen Beckens befanden, wogegen man weiter nach oben reichende Konglomerate nicht anzugehen wagte wegen der Unmöglichkeit einer exakten Blutstillung und der vermeintlichen Gefahr von Nebenverletzungen.

Vor einigen Jahren sah ich mich gezwungen eine Patientin mit äußerst schwerer Adnexerkrankung zu operieren. Die Tumoren überragten die Beckeneingangsebene, und die durch monatelanges Fieber gänzlich herabgekommene Frau verschlechterte sich in ihrem Befinden von Tag zu Tag. Notgedrungen versuchte ich die Patientin durch Laparatomie zu retten, aber sofort nach Eröffnung der Bauchhöhle und Ablösung einiger Darmschlingen entleerte sich massenhaft stinkender Eiter, so daß ich auf eine radikale Operation verzichten mußte und nach ausgiebiger Drainage die Bauchhöhle wieder schloß. Der jammervolle Zustand der Frau besserte sich nicht, und so entschloß ich mich 50 Tage nach dem ersten Eingriff Uterus und Adnexe vaginal zu ent-

Abb. 125. Vaginale Exstirpation von Adnextumoren nach Logothetopulos. Nach vaginaler Exstirpation des Uterus löst die ganz in die Bauchhöhle eingeführte linke Hand die linken Adnexe von den deckenden Darmschlingen und Netz ab, während gleichzeitig die rechte Hand die mit den Klemmen gefaßten Adnexstümpfe leicht nach abwärts zieht

fernen, mit dem Erfolg, daß die Frau gesund die Klinik verlassen konnte[1]). In der Folge habe ich noch 23 gleichartige Fälle operiert, von denen zwei ad exitum kamen, die eine an Peritonitis, die andere infolge Gangrän des Schuchardtschen Schnittes, der während der Operation von dem sehr virulenten Eiter infiziert worden war. Es handelte sich durchweg um außerordentlich schwere, infektiöse Fälle, bei denen eine Laparatomie wenig Erfolg versprach. Die meisten dieser Patientinnen waren schon monatelang in verschiedenen hiesigen chirurgisch-gynäkologischen Kliniken auf alle erdenkliche Weise behandelt worden und wurden speziell zu dieser Operation an mich überwiesen.

[1]) Zbl. Gynäk. **1933**, Nr. 14.

Meine Operationsmethode unterscheidet sich im wesentlichen von den bisher gebräuchlichen dadurch, daß ich mich nicht mit der Ablösung der Adnextumoren mit 1—2 Fingern begnüge, was nur bei ganz tief unten im Becken liegenden Konglomeraten möglich ist, sondern daß ich 4 Finger oder sogar die ganze Hand in die Beckenhöhle

Abb. 126. Vaginale Exstirpation von Adnextumoren nach Logothetopulos. Die abgelösten und nach außen gebrachten linken Adnexe liegen auf der Hand

einführe, wodurch ich auch noch so hoch liegende Tumoren abschälen und exstirpieren kann. Dasselbe Vorgehen wurde nach mir noch von Bucura empfohlen[1]).

Der Verlauf der Operation ist folgender:

Großer einseitiger Schuchardtschnitt mittels Galvano- oder Thermokauter ausgeführt, um die Infektion der Wundflächen möglichst zu erschweren. Nach der in oben beschriebener Weise vorgenommenen Uterusexstirpation entferne ich die Scheidenspekula, führe die ganze Hand in die Beckenhöhle ein und beginne mit der Ablösung der Tumoren. Ich gehe in gleicher Weise vor, als ob es sich um eine manuelle Plazentarlösung handeln würde, d. h., ich suche eine Stelle auf, von der aus ich am leichtesten

[1]) Bucura, Veit-Stoeckel, Handb. d. Geb., III. Aufl., Bd. VIII, S. 278.

zwischen Tumor und Beckenwand eindringen kann, und von hier aus löse ich schrittweise vorwärtstastend die Verwachsungen und ziehe den Tumor möglichst unzerstückelt herab, was natürlich nicht immer gelingt (Abb. 125—126). Meistens kommt es zum Platzen des Eitersackes, und ich fasse dann die schlaffen Wandungen mit Faßzangen und erleichtere mir durch Zug nach abwärts die weitere Ausschälung. Um eine Verletzung des die freie Bauchhöhle abschließenden, von verbackenen Darmschlingen gebildeten Daches oberhalb der Tumormassen zu vermeiden, bemühe ich mich, mit der Hand stets in Berührung mit der obersten Kuppe des Tumors zu bleiben. Sollte die Hand trotzdem einmal mit der freien Bauchhöhle in Verbindung treten, so hat das meiner Erfahrung nach auch keine unangenehmen Folgen. Um den Eiter während der Operation leichter nach außen abfließen zu lassen, finden alle Manipulationen bei leichter Beckentieflagerung statt. Mit auffallender Leichtigkeit lassen sich die Verwachsungen lösen, viel leichter sogar wie bei der Laparatomie. Die Blutstillung geschieht in der gewöhnlichen Weise durch Fassen der Gefäße und nachfolgender Unterbindung, aber es ist sehr interessant, daß die Blutung im allgemeinen nur sehr gering ist, so daß ich in einem Fall weder eine Unterbindung zu machen, noch meinen blutstillenden Tampon anzuwenden brauchte und nur einen einfachen Mikuliczschen Tampon einlegte. Natürlich verwende ich mit Vorliebe meinen blutstillenden Tampon, wenn die Blutung erheblich ist und sonst nicht gestillt werden kann, da ja in jedem Fall eine Drainage notwendig ist. Unerwarteterweise findet man nicht die größten Schwierigkeiten bei der Lösung der Adnexe, sondern bei der Uterusexstirpation, da das Corpus uteri zuweilen gleichsam in Adhäsionen eingemauert ist und seiner Dislokation hartnäckigsten Widerstand entgegensetzt. Ich betone nochmals, daß die Einführung der ganzen Hand einen wesentlichen Bestandteil meiner Technik bildet, da nur so ein genaues Abtasten aller Organe mit feinstem Gefühl möglich ist, wie es mit einzelnen Fingern niemals erreicht werden kann. Ohne Schwierigkeit kann man beurteilen, welche Verwachsungen stumpf gelöst, welche mit der Schere unter Leitung des Auges durchtrennt werden müssen. Sind Verwachsungen zwischen Darm und Adnexen vorhanden, so zieht man einfach die adhärente Schlinge mit dem Tumor zusammen nach unten, wo sie dann mit der Schere abgetrennt werden kann. In einem Fall konnte ich auf diese Weise sogar ein großes Stück nekrotischen Dünndarms resezieren.

Ich bin sicher, daß diese Operation, die viel schwieriger aussieht, als sie in der Tat ist, von jedem mit der vaginalen Technik vertrautem Gynäkologen ausgeführt werden kann und, wie ich hoffe, auch ausgeführt werden wird, da sie in gewissen Fällen die einzige Möglichkeit zur Rettung eines menschlichen Lebens darstellt.

11. Graviditas extrauterina

Die Behandlung der extrauterinen Schwangerschaft ist stets eine operative, worüber wohl kaum Meinungsverschiedenheiten bestehen dürften. Wir stehen auf dem Standpunkt, daß auch die Zeit der Schwangerschaft bei der Indikation zur Operation keine Rolle spielt, und daß bei vorgeschrittenen, bereits in der zweiten Hälfte befindlichen Schwangerschaften der Gedanke, vielleicht doch noch ein lebendes Kind zu erhalten, uns nicht dazu verleiten darf von diesem Grundsatze abzugehen. Je weiter die Gravidität fortgeschritten ist, um so größer ist die Gefährlichkeit der Operation durch immer massigere Entwicklung der Gefäße der Plazenta und Ausbildung vaskularisierter Adhäsionen. Ganz abgesehen davon weisen die extrauterin bis zum Schwangerschaftsende ausgetragenen Kinder so häufig Mißbildungen (über 30%) auf, daß es uns durchaus problematisch erscheint, ob wir ihretwegen eine gesunde Frau den ernstesten Gefahren aussetzen dürfen.

Im allgemeinen ist die Operation der Extrauteringravidität der ersten Monate leicht. Man kann gewisse Fälle vaginal angehen; wir bevorzugen aber die Laparatomie der größeren Übersichtlichkeit und der Blutersparnis halber. Sofort nach Eröffnung der Bauchhöhle gehen wir mit der ganzen Hand in die Tiefe und suchen die erkrankte Tube nach außen zu bringen, wobei wir uns bei blutgefüllter Bauchhöhle meist durch das Gefühl leiten lassen müssen. Die gegebenenfalls bestehende Blutung wird augenblicklich mittels zweier Klemmen, von denen die eine an der Uteruskante, die andere am Lig. infundibulopelvicum sitzt, provisorisch gestillt, worauf uns die genaue Besichtigung erkennen läßt, ob vielleicht ein Teil der Tube erhalten werden kann. Das Ovar suchen wir auf alle Fälle zurückzulassen. Die Exstirpation der Tube wird in gleicher Weise vorgenommen, wie es bei den entzündlichen Adnexerkrankungen geschildert wurde (Abb. 80). Sind bereits starke Verwachsungen vorhanden, so ziehen wir den mit einer Kugelzange gefaßten Uterus nach außen und erleichtern uns so die Orientierung. Die Ablösung einer in vorgeschrittenen Fällen vorhandenen bindegewebigen Kapsel von den umgebenden Darmschlingen und vom Netz kann außerordentlich schwierig, ja unmöglich sein, so daß wir notgedrungen Teile derselben zurücklassen müssen. Den Schluß der Operation bildet regelmäßig die Inspektion der Adnexe der anderen Seite, die selbst beim Vorhandensein entzündlicher Veränderungen möglichst schonend behandelt werden müssen im Interesse der Erhaltung der Fertilität. In veralteten Fällen mit ausgedehnter bindegewebiger Organisation der Blutmassen können wir gezwungen sein den Uterus mitzuentfernen, wobei wir auf die Erhaltung wenigstens eines Ovars bedacht sind. Infizierte oder auch nur infektionsverdächtige Fälle werden durch das hintere Scheidengewölbe drainiert; ganz ausnahmsweise, wenn besondere Umstände es erfordern, drainieren wir durch die Bauchdecken. Die infizierte retrouterine Hämatocele (Fieber, Leukozytose, Erhöhung der Blutkörperchensenkungsgeschwindigkeit) eröffnen wir nur durch die hintere Kolpotomie, entfernen die Blutkoagula und drainieren. Ist eine peritubare Hämatozele von unten nicht zu erreichen, so entfernen wir durch Laparatomie den Fruchtsack und legen einen Mikuliczstampon ein.

Befinden sich größere Blutmengen in der Bauchhöhle, so entfernen wir sie mit der Hand und mit Kompressen so gut wie möglich, wobei eine geringe Tieflagerung des Beckens von Nutzen ist. Zurückbleibende Reste werden ohne Schaden resorbiert. Über die Zweckmäßigkeit der Wiederinfusion des aus der Bauchhöhle entfernten Blutes (nach Thiese) sind die Meinungen sehr geteilt. In sehr ausgebluteten Fällen ist die Ausführung der Bluttransfusion von einem geeigneten Spender unbedingt ungefährlicher und erfolgreicher. In den meisten Fällen sind wir mit intravenösen Kochsalzinfusionen und analeptischen Mitteln gut ausgekommen. Es versteht sich von selbst, daß alle blutdrucksteigernde Maßnahmen erst nach der endgültigen Blutstillung vorgenommen werden dürfen.

Die Operation der extrauterinen Schwangerschaft der letzten Monate kann ganz außerordentliche Schwierigkeiten bereiten. Als das ideale Verfahren ist immer die völlige Entfernung des Fruchtsackes anzusehen. Aber wenn sich die Plazenta zwischen den Darmschlingen, am Netz oder gar noch weiter oben (z. B. an der Leber) eingenistet hat, kann auch dem wagemutigsten Operateur nur dringend geraten werden, seinem verständlichen Wunsch auf radikales Vorgehen nicht nachzugeben, sondern sich mit der Entfernung der Frucht unter Zurücklassung von Teilen des Fruchtsackes zu begnügen; die besonders von französischen Autoren empfohlene Methode der Einnähung des Fruchtsackes in die Bauchdecken, seine Eröffnung und Entfernung der Frucht mit Zurücklassen der Plazenta kann wegen der großen Gefahr einer Infektion und Nach-

blutung nicht gutgeheißen werden. In manchen Fällen kann die vorgehende Unterbindung der Aa. hypogastricae (Amann) von großem Wert sein, in anderen Fällen hat sich der blutstillende Tampon von Logothetopulos als lebensrettend erwiesen.

12. Die chirurgische Behandlung der Parametritis

Bei Vereiterung des extraperitoneal liegenden Bindegewebes des kleinen Beckens eröffnet man, sobald eine umschriebene Eiteransammlung nachweisbar ist, diese durch die hintere oder durch die vordere Kolpotomie je nach dem Sitz derselben. Um den Eiterabfluß zu erleichtern, erweitern wir mit einer Kornzange stumpf die Inzisionsöffnung, gehen mit 2 Fingern in die Abszeßhöhle ein und durchtrennen die meist vorhandenen bindegewebigen Septen, so daß sich eine einzige Eiterhöhle mit glatten Wänden bildet. Diese drainieren wir nach Abfluß des Eiters mit Jodoformgaze, vermeiden aber jede Spülung mit desinfizierenden Flüssigkeiten, um ein Einfließen von infektiösem Material in die vielleicht zufällig eröffnete freie Bauchhöhle mit Sicherheit zu verhüten. Nach 48 Stunden ersetzen wir die Gaze durch ein Drainrohr und können jetzt ohne Bedenken die Abszeßhöhle ausspülen.

Abszesse der seitlichen Beckenwand, die wir von unten nicht erreichen können, eröffnen wir von einem 5—6 cm langen Schnitte aus, den wir dicht oberhalb und parallel zum Poupartschen Band anlegen. Wir durchtrennen Haut, Unterhautzellgewebe und Faszie scharf, arbeiten uns stumpf mit Finger und geschlossener Schere durch die Muskulatur und setzen Spekula ein. Unter Lösung etwaiger Verwachsungen gehen wir stumpf mit dem Finger extraperitoneal der Beckenwand folgend in die Tiefe bis wir auf Eiter treffen. Wir erweitern den Zugang zur Abszeßhöhle, gehen mit 2 Fingern in dieselbe und verwandeln die zerklüftete Höhlung in einen glattwandigen Raum, indem wir genau wie beim vaginalen Vorgehen die bindegewebigen Septen durchtrennen. Blutungen stehen immer durch einfache Tamponade der Höhlung mit Jodoformgaze, die auch hier nach 48 Stunden durch ein Drain ersetzt wird. Die jetzt empfehlenswerten Spülungen machen wir mit einem Rückflußkatheter und verwenden hierzu 2%iges Wasserstoffsuperoxyd.

So leicht die Behandlung des parametritischen Abszesses ist, um so größere Anforderungen an unser therapeutisches Können stellt die chronische, fibröse Form der Parametritis.

Die Grundlage der bisherigen Therapie bildete in erster Linie die Anwendung von Wärme in ihren verschiedenen Formen, wie Sitzbäder, Scheiden- und Darmspülungen, Lichtbäder, Moorbäder und neuerdings auch die Kurzwellenbehandlung, die der Diathermie gegenüber wohl einen Fortschritt bedeutet, aber bei den hier uns interessierenden Fällen doch keine solchen Erfolge aufweist, wie sie es bei den entzündlichen Adnexerkrankungen in geradezu spezifischer Weise tut. Bei genügend langer Dauer der Behandlung erreicht man mit all diesen Mitteln in einer erheblichen Anzahl von Fällen eine wesentliche Besserung des subjektiven Befindens und auch der objektive Befund wird günstig beeinflußt, so daß ein solcher konservativer Versuch in jedem Falle gerechtfertigt ist. Nun gibt es leider eine nicht geringe Zahl von Parametritiden, die nur sehr wenig oder auch gar nicht von all diesen Maßnahmen beeinflußt werden, Fälle, bei denen das parametritische Gewebe in eine steinharte Masse umgewandelt ist, die jedem therapeutischem Angriff widersteht. Man versuchte in solchen verzweifelten Fällen chirurgisch vorzugehen, aber die vorgeschlagenen Operationsmethoden sind wieder verlassen worden, entweder weil sie gar zu heroisch waren und praktisch deshalb nicht verwendet werden konnten, oder weil sie nicht eingreifend genug zu keinem Erfolge führten. Hierher gehört die Exstirpation der Ligamenta lata, eventuell in Verbindung mit der Uterussuspension (Veit, Martin usw.), die trotz der günstigen Ergebnisse, wie sie Warnekross in 14 Fällen erzielte, bei der Mehrzahl der Operateure sich nicht hat durchsetzen können. Die von den Franzosen angewandte Totalexstirpation des Uterus samt der Adnexe, womöglich noch mit der Herausnahme eines Teiles des parametritischen Gewebes, ist in ihren Endresultaten sehr wenig ermutigend, und da bei sehr gründlichem Vorgehen Nebenverletzungen der Blase und des Harnleiters häufig vorkommen, so hat diese Methode nur spärliche Anhänger gefunden.

Der Vollständigkeit halber erwähne ich noch die Eingriffe am Beckensymphatikus (Latarjet, Rochet), die auf die Gewebsveränderungen nur geringe Einwirkungen zeigen, jedoch die Schmerzen günstig beeinflussen können.

Die Behandlung der chronischen Parametritis durch künstliche Abszeßbildung nach Logothetopulos

Da die exsudative Form der Parametritis, der parametritische Abszeß also, durch Eröffnung des Eiterherdes und Entleerung leicht zur Heilung zu bringen ist, ganz im Gegensatz zur plastischen, fibrösen Form der Parametritis, so lag der Gedanke nahe, diese letzte in die abszedierende Form umzuwandeln und dann in der vielfach bewährten Art weiterzubehandeln.

Als geeignetes Mittel hierzu wählten wir die Injektion von Terpentinöl, dessen abszeßbildende Eigenschaft ja bekannt ist, und mit der wir so glänzende Resultate erzielten, daß wir sie in allen solchen, allerdings nicht häufigen Fällen mit gleichbleibendem Erfolg anwandten.

Die einfache Technik erleichtert man sich sehr durch Verwendung einer speziellen Spritze aus Metall, bei der die Nadel mittels Bajonettverschluß festgehalten wird (Abb. 127). Der erforderliche Druck ist für die üblichen Rekordspritzen viel zu hoch, so daß die Flüssigkeit zwischen Konus und Nadel herausläuft oder der Glaszylinder platzt.

Technik der Operation: Nach Einführung der Scheidenspekula und Desinfektion der Scheidenschleimhaut injizieren wir möglichst zentral in das verhärtete parametritische Gewebe an zwei oder drei ein wenig auseinanderliegenden Punkten je 2—3 ccm Terpentinöl. Die zu injizierende Menge muß natürlich der Ausdehnung des infiltrierten Bezirkes entsprechen und wird je nachdem kleiner oder größer gewählt, soll aber nach Möglichkeit 6 ccm nicht überschreiten, obgleich wir ohne jeden Schaden auch schon größere Dosen verabreicht haben. Handelt es sich um eine vordere Parametritis, dann muß zuerst nach Durchtrennung der vorderen Scheidenwand die Blase stumpf abgeschoben werden, wonach man ohne Gefahr der Blasenverletzung die Injektion vornehmen kann. Bei mehr nach den Bauchdecken zu entwickelten Infiltraten durchtrennt man in oben beschriebener Weise Haut, Faszie und Muskulatur und spritzt das Terpentinöl direkt in das harte Exsudat ein.

In den folgenden Tagen kommt es zu mäßigen Temperatursteigerungen und Vermehrung der Leukozyten als Begleiterscheinung des sich bildenden Abszesses. Sofort nach der Injektion treten starke Schmerzen auf, so daß man vorteilhafterweise schon vor Beginn der Operation eine Morphiumspritze verabreicht, die unter Umständen wiederholt werden muß. Irgendwelche Komplikationen seitens der benachbarten Organe oder des Peritoneums wurden von uns in keinem Falle beobachtet. Der unter aseptischen Kautelen entnommene Abszeßeiter erweist sich bei bakteriologischer Untersuchung als steril.

[1]) Z. Geburtsh. Bd. 104, 1937.

Abb. 127. Die Behandlung der chronischen Parametritis durch künstliche Abszeßbildung nach Logothetopulos. Einspritzung von Terpentinöl in die fibrinösen Massen des Parametrium. Links Metallspritze mit Bajonettverschluß

Die Eröffnung des Abszesses nehmen wir 48 Stunden nach der Injektion vor, obwohl auch schon vor Ablauf dieser Zeit einmal eine genügende Einschmelzung eingetreten sein kann (Abb. 128—132). Nach der Inzision kommt es zur Absonderung einer mehr oder weniger großen Menge eines dickflüssigen, mit nekrotischen Gewebsfetzen untermengten Eiters. Bei Einführung des Fingers in die Abszeßhöhle fühlt man leicht zerdrückbare, bröckliche Massen, die wir entfernen, um eine große einheitliche Höhle zu schaffen, die mit Gazestreifen drainiert wird, genau so als wenn es sich

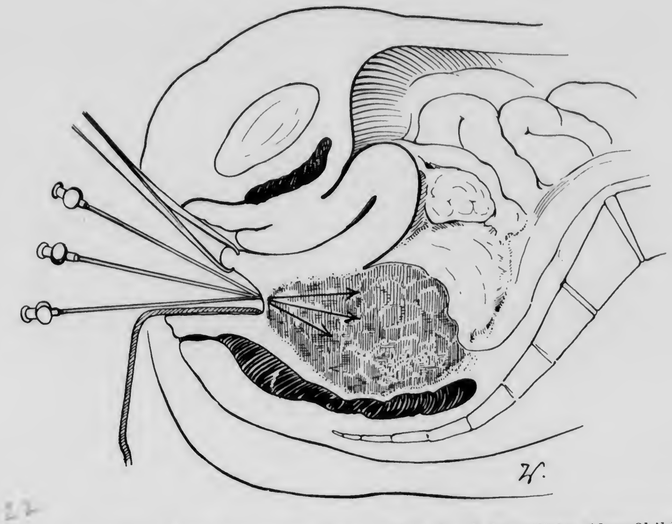


Abb. 128. Die Behandlung der chronischen Parametritis durch künstliche Abszeßbildung nach Logothetopulos. Schematische Darstellung. Die Pfeile geben die Richtung an, in der die Nadel bei der Injektion in die fibrösen, parametritischen Massen vorgeschoben wird

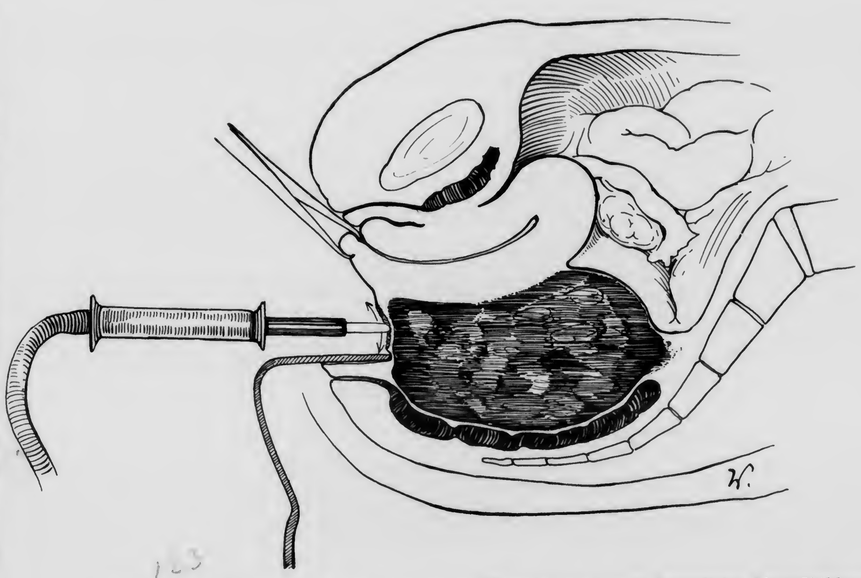
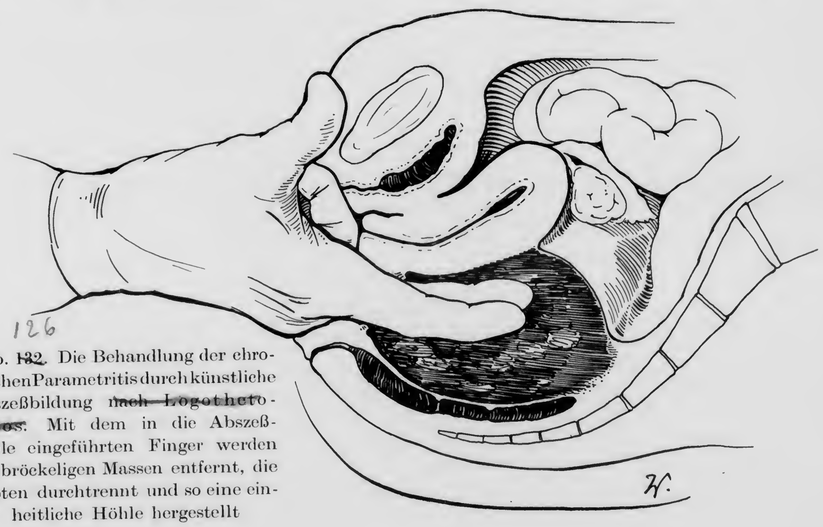


Abb. 129. Die Behandlung der chronischen Parametritis durch künstliche Abszeßbildung nach Logothetopulos. Schematische Darstellung der vereiterten fibrösen parametritischen Massen. Die Pfeile zeigen die Richtung der Kolpotomiewunde

124
Abb. ~~130.~~ Die Behandlung der chronischen Parametritis durch künstliche Abszeßbildung nach ~~Logothetopulos~~. Eröffnung des gebildeten Abszesses durch hintere Kolpotomie mit dem Thermokauter

125
Abb. ~~131.~~ Die Behandlung der chronischen Parametritis durch künstliche Abszeßbildung nach ~~Logothetopulos~~. Erweiterung der Kolpotomiewunde mit der Kornzange. Aus der Öffnung fließt dickflüssiger Eiter



126
Abb. ~~132.~~ Die Behandlung der chronischen Parametritis durch künstliche Abszeßbildung ~~nach Logothetopulos~~. Mit dem in die Abszeßhöhle eingeführten Finger werden die bröckeligen Massen entfernt, die Septen durchtrennt und so eine einheitliche Höhle hergestellt

um einen gewöhnlichen parametritischen Abszeß handeln würde. Man ist immer wieder erstaunt, wie die harten Massen, die nur mit Mühe von der Nadel durchbohrt werden konnten, jetzt nach der Einschmelzung mit Leichtigkeit mit dem Finger zerdrückt werden können. Die Nachbehandlung unterscheidet sich in keiner Weise von derjenigen anderer parametritischer Abszesse.

Das Endergebnis ist überraschend gut. Die monatelang von großen Schmerzen gequälten Kranken werden mit einem Schlage schmerzfrei, die derben fibrösen Massen verschwinden, und der Tastbefund wird meistens nach einigen Wochen nahezu normal. Bei einem Falle mit starker Stenose des Darmes wurde sofort nach der Abszeßeröffnung die Darmentleerung wieder beschwerdefrei, und die zuvor von Zeit zu Zeit auftretenden Ileuserscheinungen konnten nicht mehr beobachtet werden.

13. Die zirkumskripte Stenose der Scheide,

wie sie nicht allzu selten nach Geburts- oder Kohabitationsverletzungen beobachtet wird, ist häufig durch Dilatation allein nicht zu beheben, und wir gehen dann folgendermaßen vor:

Nach Einstellung der Stenose mittels Spekula faßt man die Scheidenwand unterhalb der Verengung mit Kugelzangen und spannt sie durch Zug nach unten und außen gut an. Nun spaltet man die narbig veränderte Stelle in der Medianlinie und näht diesen Längsschnitt in querer Richtung zusammen. Die Länge des Schnittes wird durch den Grad der Stenosierung bestimmt. Die gleiche Plastik führt man dann auf der Hinterwand aus, wonach die Scheide mit Gaze gut austamponiert wird.

14. Die totale Atresie der Scheide

infolge Verwachsung der Scheidenwände ist nicht leicht zu beseitigen, wenn man ein wirklich funktionstüchtiges Organ herstellen will. Von einem Querschnitt über den Damm aus arbeitet man sich stumpf mit dem Finger und der Schere zwischen Rektum und Blase in die Höhe, bis man intakte Vaginalschleimhaut oder die Portio erreicht. Man zieht die Schleimhauträndern nach unten bis es gelingt, sie mit erhaltenen Scheidenresten weiter unten zu vereinigen oder sie zirkulär in den Introitus einzunähen. Bei sehr unübersichtlichen Fällen kann es nötig werden, die Operation durch Laparatomie zu beginnen und dann vaginal fortzufahren, um mit Sicherheit Blasen- und Darmverletzungen zu vermeiden.

Bei

Hämatokolpos und Hämatometra

infolge angeborener oder erworbener Hymenal- oder Scheidenatresie genügt die einfache Eröffnung des Verschlusses mit nachfolgender Tamponade und nötigenfalls Bougiebehandlung, um eine erneute Stenose zu verhindern. Besteht neben der Hämatometra noch eine Hämatosalpinx, so ist diese Behandlung auf keinen Fall erlaubt, da es zu leicht zu einer Verjauchung des Tubeninhaltes mit nachfolgender Peritonitis kommen kann. Man exstirpiert am besten durch Laparatomie die erweiterten Tuben oder macht bei sterilem Inhalt eine Salpingostomie, wenn auf Konzeption Wert gelegt wird. Sind Veränderungen vorhanden, die eine normale Genitalfunktion ausschließen, so kann man den Uterus entfernen unter Zurücklassung der Ovarien.

15. Die Bildung einer künstlichen Scheide

Noch vor nicht allzulanger Zeit wurde diese Operation von namhaften Autoren abgelehnt, wenn sich durch sie nicht Schwangerschaft und Geburt ermöglichen ließe[1]).

[1]) Franz, Gynäk. Operat.

524

Das ist nur in ganz seltenen Fällen zu erwarten, weil sich neben der Mißbildung der Scheide fast immer auch Veränderungen der inneren Organe nachweisen lassen. Wir halten uns nicht für berechtigt, eine Frau zurückzuweisen, die sich durch einen operativen Eingriff einen Glückszuwachs verspricht und oft genug sich nur durch die Operation vom Suizid zurückhalten läßt. Diese Nachgiebigkeit fällt uns um so leichter, als die modernen Operationsmethoden der künstlichen Scheidenbildung nur mit einer ganz geringen Morbidität und fast gar keiner Mortalität belastet sind, ganz im Gegensatz zu den früheren Eingriffen mit Verwendung einer Dünndarmschlinge (Haeberlein, Mori, Baldwin) oder eines Teiles des Mastdarms (Schubert).

Die von Wagner-Kirschner angegebene Methode, bei der der zwischen Blase und Mastdarm angelegte scheidenförmige Kanal unter Zuhilfenahme einer Prothese mit einigen großen Epidermislappen ausgekleidet wird, hat den großen Vorzug der völligen Ungefährlichkeit und scheint in ihren Enderfolgen den früheren Methoden gleichwertig zu sein. Technisch nicht ganz einfach ist allerdings die Entnahme der Lappen aus der Oberschenkelhaut.

Andere benutzen als Schrittmacher für die Epithelisierung des gebildeten Kanals heteroplastische Materialien, so z. B. Eihaut oder Vernix caseosa, ebenfalls mit gutem Enderfolg (Burger).

Den Gipfel der Einfachheit erreichte aber Gambarow[1]), der von einem kleinen Querschnitt aus stumpf den Kanal zwischen Blase und Mastdarm anlegte und ihn tamponierte. Dieser mit Bougies und später durch natürlichen Gebrauch offengehaltene Kanal war nach wenigen Monaten mit einer festen Epithelschicht ausgekleidet und allen Anforderungen an eine Scheide gewachsen.

16. Die Blasenscheidenfistel

Wenn wir die nicht sehr häufigen Fälle von Fistelentstehung infolge Durchbruch maligner Tumoren außer acht lassen, so haben wir es mit 2 Arten von Fisteln zu tun, mit den postpartalen und den postoperativen, deren operative Beseitigung mit zu den dankbarsten Aufgaben des chirurgisch tätigen Arztes gehört. Allerdings sei hier betont, daß die Operation der Blasenscheidenfistel zu den schwierigsten Eingriffen zu zählen ist, die beste operative Technik und größte Erfahrung verlangt, da jede Fistel individuell behandelt sein will, entsprechend der fast unbegrenzten Mannigfaltigkeit, mit der sie in Erscheinung zu treten pflegen.

Auch heute noch gibt es in Griechenland zahlreiche Dörfer und Inseln, schwer erreichbar und fern von gut eingerichteten Kliniken gelegen, wo die Entbindungen ohne oder mit zu später ärztlicher Hilfe vor sich gehen müssen. Beweis hierfür sind die vielen Fisteln, die wir hier zu sehen bekommen, und die entweder durch Nekrose der allzulange zwischen Kopf und Becken gequetschten Weichteile entstanden sind, oder traumatisch durch geburtshilfliche Eingriffe unter unzureichenden äußeren Bedingungen.

Die gelegentlich gynäkologischer Operationen, besonders nach der totalen Uterusexstirpation auftretenden Fisteln sind hierzulande in kleinerer Zahl zu beobachten und, wenn sie durch direkte Verletzungen entstanden sind, meist ziemlich leicht zu beseitigen, ganz im Gegensatz zu den durch Nekrose sekundär in Erscheinung tretenden Fisteln, bei denen zuweilen große Teile der Blasenwand zu Verlust gegangen sind (s. den S. 3 beschriebenen Fall). Solche Defekte sehen wir besonders nach der Wertheimschen Totalexstirpation auftreten, bei der die zahlreichen Unterbindungen die Ernährung der Blase gefährden. Es sei hier daran erinnert, daß die Art. vesicalis,

[1]) Zbl. Gynäk. **1933**, Nr. 43.

die den Blasengrund versorgt, aus der Art. hypogastrica stammt, und daß der Ramus cervicovaginalis der Art. uterina Äste zum mittleren Harnröhrenabschnitt schickt. Nicht selten gehen auch kräftige Äste der Art. uterina direkt zur Blasenwand.

Eine während der Operation entstandene Blasenverletzung muß unter allen Umständen wieder durch sorgfältigste Naht geschlossen werden, bei Laparatomien am besten sofort, bei vaginalen Operationen erst nach Beendigung des Eingriffes, da nach der Entfernung der Instrumente und eventuell des Uterus die Zugängigkeit und Übersicht in der Scheide eine bessere ist. Man spannt die Blasenwunde mittels zweier Kugelzangen an und näht sie fortlaufend mit Katgut, ohne die Schleimhaut mitzufassen. Darüber kommt eine zweite fortlaufende Katgutnaht oder Einzelnähte, die das Blasengewebe möglichst breit fassen sollen. Bei vaginalen Operationen versuche man die Blasennähte mit Peritoneum zu decken, was bei der Laparatomie ja selbstverständlich ist. Man vermeide aber die Anwendung einer Tamponade, sei es zur Blutstillung oder zur Vorbeugung von Infektionen, da meiner Erfahrung nach hierdurch die Heilung der Blasenwunde in Frage gestellt wird. Wenn irgend möglich soll die Scheide vollkommen geschlossen werden, wie es auch Stoeckel ausdrücklich verlangt. Auch wenn die Naht gut gelungen ist, legen wir einen Dauerkatheter für 8—10 Tage ein, und auf diese Weise haben wir stets eine Fistelbildung verhüten können.

Wird die Blasenverletzung nicht während der Operation erkannt oder entsteht einige Tage nach dem Eingriff eine Fistel durch Nekrose, so legt man einen Dauerkatheter ein, und man sieht nicht allzuselten einen spontanen Verschluß eintreten. In anderen Fällen erreicht man nur eine Verkleinerung der Fistel, wodurch die spätere Operation sehr erleichtert wird. Die Fisteln, die sich nicht in kurzer Zeit nach der Operation, bei der sie entstanden sind, schließen, zeigen nur eine geringe Neigung zur Spontanheilung und müssen fast immer operativ beseitigt werden.

Über 100 Operationsmethoden sind seit den Zeiten Simons, Lambells und Sims', den hauptsächlichen Begründern der Fisteloperation, angegeben worden. Sie sind größtenteils nur noch von historischem Interesse; ich verweise auf die meisterhafte Darstellung Stoeckels im Veit-Stoeckelschem Handbuch X. Band, II. Teil und beschränke mich hier auf die Beschreibung der von mir geübten Art der Fisteloperation, wie ich sie auf Grund einer Erfahrung bei 89 meist äußerst schweren Fällen ausgearbeitet habe. Ich stehe auf dem Standpunkt, daß jede Blasenscheidenfistel vaginal operiert werden muß und geheilt werden kann, unter der Voraussetzung, daß der Operateur die Technik der vaginalen Operationen voll und ganz beherrscht. Ist das nicht der Fall, so tut er besser daran, die Kranke in seinem und in ihrem Interesse an einen erfahrenen Operateur zu überweisen, weil jede mißglückte Operation wertvolles Gewebe zerstört und die nachfolgenden Eingriffe nur schwieriger macht. Freilich gibt es kleine, gut zugängliche Fisteln, die ohne große Schwierigkeit durch jede beliebige Methode geschlossen werden können, die Erfolgsaussichten werden aber sofort schlechter, wenn wir uns jenen meist nach Nekrosen auftretenden Fällen gegenüber sehen, bei denen die Fistelränder unregelmäßig gezackt, hart und mit den darunter liegenden Geweben und dem Knochen verwachsen sind, wenn große Defekte der Blase und der Harnröhre bestehen oder schon bei der Untersuchung der Finger statt der Vagina einen narbigen Trichter vorfindet, der Portio und Fistel verbirgt.

Von Wichtigkeit ist die Wahl des Operationstermins. Fisteln, die sich nicht spontan schließen, dürfen nicht vor Ablauf von 2—3 Monaten nach ihrer Entstehung operiert werden. Besonders bei den durch Nekrose hervogerufenen Fisteln muß man das Abstoßen der toten Gewebsteile und die Erholung der geschädigten Partien geduldig abwarten, und man benutzt diese Zeit, um die Frauen für die Operation vorzubereiten.

So behandelt man eine etwa bestehende Zystitis oder Pyelitis durch Blasenspülungen mit leicht desinfizierenden Mitteln, wobei die in die Scheide abfließende Spülflüssigkeit gleichzeitig eine günstige Einwirkung auf die infizierte Scheidenschleimhaut hat, und gibt nötigenfalls intravenöse Zylotropininjektionen. Die durch die ständige Benetzung mit Urin entstehenden Ekzeme, Pyodermien und Furunkulosen bilden eine Gefahr für den aseptischen Operationsverlauf. Die Kranken müssen zu größter Sauberkeit angehalten werden. Tägliche Sitzbäder oder auch die von Latzko empfohlenen medikamentösen Dauerbäder helfen zur Beseitigung der Hautinfektionen. Nach dem Bade werden die äußeren Genitalien mit Zinkpasta vor der erneuten Benetzung mit Urin geschützt. In gewissen Abständen findet eine Behandlung der Scheidenschleimhaut statt. Man entfernt abgestoßene Gewebsteile oder in der Fistelumgebung befindliche Inkrustationen, granulierende Wunden werden geätzt oder mit Jodtinktur bestrichen, und man nimmt nicht resorbierte Fäden heraus, die vielleicht von einer vorhergegangenen Operation zurückgeblieben sind.

Die früher oft benutzten, schmerzhaften Methoden zur unblutigen Erweiterung der narbig verengten Vagina sind jetzt zugunsten des Schuchardtschen Schnittes vollkommen verlassen worden, der bei richtiger Anwendung auch ganz hoch sitzende Fisteln bei enger Vagina zugängig macht und die Verwendung besonders langer Spezialinstrumente, wie sie ehemals im Gebrauch waren, erübrigt. Wir kommen mit den gewöhnlichen, bei vaginalen Operationen gebräuchlichen Instrumenten aus. Wert legen wir auf die Verwendung kleiner, stark gekrümmter, kräftiger Nadeln, die sich im Nadelhalter in jeder Richtung festklemmen lassen und sich nicht verdrehen. Als Nahtmaterial verwende ich für die Blase dünnes und für die Scheidenschleimhaut dickeres Katgut. Lassen sich die Scheidenwundränder nicht ohne Spannung zusammenbringen, so nehme ich ausnahmsweise Seide. Für die Blase kommt unresorbierbares Nahtmaterial in keinem Fall in Frage, da es zuweilen ins Blaseninnere hineinwandert und dann Veranlassung zu Steinbildung geben kann. Ist die Blasenwand gut mobilisiert und lassen sich die Wundränder ohne Spannung aneinander bringen, so heilt die Fistel mit jedem Nahtmaterial. Wichtig und für den Erfolg ausschlaggebend ist es, möglichst breite Wundflächen miteinander in Berührung zu bringen, und es ist gleichgültig, ob man ein- oder mehrschichtig näht, weil es auf dasselbe herauskommt wenn man mit einer Naht oder mit zwei Nähten die gleiche Fläche der Blase zusammenbringt. Ich bevorzuge im allgemeinen die Zweietagennaht, bei der ich die Blase und die Scheide mit je einer Naht schließe. Nur wenn sehr große Blasenflächen zur Verfügung stehen, lege ich noch eine zweite Blasennaht an. Die Gewebe heilen, wie immer in der Chirurgie, am besten, wenn sie möglichst wenig geschädigt werden, und das ist der Fall bei Verwendung von möglichst wenig Nähten. Die Blasenschleimhaut fasse ich nicht mit, obwohl Stoeckel davon keine Nachteile gesehen hat. Da der 10—15 mm lange Blasenteil des Ureters nach dem Durchtritt durch die Muskulatur unter der Schleimhaut verläuft, so vermeidet man ihn am besten, wenn man die Nähte nur durch die Muskulatur legt.

Die Patientin wird wie zu einer Vaginaloperation gelagert, doch achten wir mit besonderer Sorgfalt darauf, daß der Steiß die Tischkante überragt, und daß die Beine gut gespreizt sind. Leichte Beckenhochlagerung erleichtert die Zugängigkeit.

Als Narkotikum verwende ich wie bei allen Vaginaloperationen Evipan und komme damit auch bei länger dauernden Eingriffen meistens aus ohne oder nur mit geringem Zusatz von Äther.

Den Fistelverschluß nur durch Anfrischung und Naht führe ich nicht aus, wenn man auch in einfach gelagerten Fällen damit zum Ziel kommen kann. Wir haben in

der Fistelplastik nach Aufteilung des Fistelkanals (Dédoublement) eine so sichere Methode, daß wir auf sie auch bei unkomplizierten Fällen nicht verzichten wollen. Sie ist für mich die Methode der Wahl, und ich führe sie folgendermaßen aus:

Nach Ausführung des Schuchardtschnittes und Einsetzen der Spekula orientiere ich mich zuerst über Lage, Größe und Beschaffenheit der Fistel, indem ich die umgebende Vaginalwand mit Kugelzangen fasse und auseinanderziehe. In anderen Fällen wieder gelingt die Freilegung einfach durch Nachabwärtsziehen der Portio mit einer Kugelzange. Ich suche nun die am leichtesten verschiebliche Stelle der Fistelumgebung auf und beginne mit einem spitzen, scharfen Messer am Fistelrand die Ablösung der Scheiden- von der Blasenwand. Sobald ich einen genügend großen Teil der die Fistel umgebenden Blasenwand freipräpariert habe, lege ich die erste Naht möglichst weit durchgreifend an und knüpfe sie (Abb. 133 und 134). Sie wird als Zügel benutzt und vom Assistenten gut nach abwärts gezogen, wonach die platzraubenden Kugelzangen entfernt werden können. Nun präpariere ich mit Messer oder Schere eine weiteres Stück der Blasenwand frei, lege sofort die zweite Naht an, die wieder nach unten gezogen wird. Nachdem der erste Faden abgeschnitten worden ist, lege ich wieder ein neues Stück der Blasenwand frei, lege den dritten Faden und fahre so fort, bis die ganze Fistel geschlossen ist. Diese Art zu operieren hat den großen Vorteil, daß man durch keine raumbeengenden Instrumente behindert wird, und daß durch das Ablösen und sofortige Vernähen nur kleiner Blasenteile die so störende Blutung auf ein Mindestmaß beschränkt bleibt. Die vielfach empfohlenen Adrenalininjektionen, die die Heilung ungünstig beeinflussen, sind hierdurch überflüssig geworden. In welcher Weise man anfrischt, horizontal, schräg oder sagittal hängt ausschließlich von der Art der Fistel und der Richtung der größten Gewebsspannung ab, nach der sich auch die Naht zu richten hat. So kann man gezwungen sein, die gleiche Fistel in mehreren Richtungen zu nähen (Abb. 138 und 139).

Nach Beendigung der Blasennaht wird die Blase mit verdünnter, sterilisierter Milch gefüllt, nachdem man zuvor die Scheide mit Gaze austamponiert hat zur Vermeidung von Täuschungen durch etwa von der Urethra in die Tiefe zurücklaufende Flüssigkeit. Nach Entfernung des Katheters und der Gaze kontrolliert man, ob Milch zwischen den Nähten heraussickert. Ist das der Fall, so schließt man die betreffende Stelle mit einer Naht. Die Operation wird beendet mit der Vereinigung der Scheidenwundränder durch Knopfnähte, wobei man zu erreichen sucht (obwohl ich es nicht für unbedingt notwendig halte), daß die beiden Nahtreihen nicht übereinander fallen.

Bei Fällen mit besonders starker Spannung der Gewebe kann man mit Nutzen von der Füthschen Modifikation der Gewebsspaltung Gebrauch machen. Man umschneidet die Fistel in etwa $^1/_2$ cm Entfernung von ihrem Rand, so daß ein ringförmiges Stück der Vaginalwand stehen bleibt, das nicht mit in die Naht genommen wird, so daß es sich beim Knüpfen der Fäden nach der Blase zu umkrempelt.

Wieder andere Fälle mit großen Blasendefekten und starker narbiger Fixation des Fistelrandes können uns zur Exstirpation des Uterus zwingen. Danach kann die Blase leicht in großer Ausdehnung freigelegt werden, und wir haben reichlich Peritoneum zur Nahtsicherung zur Verfügung, eventuell unter Benutzung der Rektumwand (Latzko) oder sogar der Ligg. lata.

Mit großem Vorteil kann man den Uterus zur Unterpolsterung der Fisteln verwenden (metroplastische Operation), am besten durch die Interposition des Corpus nach A. Freund. Bei in der Nähe der Zervix liegenden Fisteln kann man diese nach vorheriger Mobilisierung zur Deckung benützen (Küstner-Wolkowitsch), in schwierigen Fällen erst nach Unterbindung der Parametrien vom Douglas her (Küstner, Rübsamen, Latzko).

Abb. ~~133.~~ Große Blasen-Scheidenfistel. Sie ist zum Teil von der faltigen vorderen Vaginalwand bedeckt

Abb. ~~134.~~ Große Blasen-Scheidenfistel. Operation durch Dédoublement. Ein Teil der Blasenwand ist von der Scheidenwand freipräpariert. Die erste Naht ist angelegt

Abb. ~~135.~~ Große Blasen-Scheidenfistel. Operation durch Dédoublement. Die Blase ist in großer Ausdehnung rings um die Fistel freipräpariert und die eine Hälfte der Nähte in schräger Richtung angelegt. (Am Fistelrand ist ein Stück der Scheidenwand stehengeblieben)

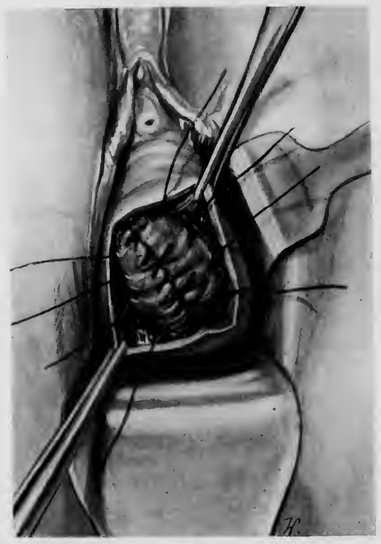


Abb. ~~136.~~ Operation einer großen Blasenscheidenfistel. Die Blase ist in großer Ausdehnung freipräpariert und in schräger Richtung mit Knopfnähten vernäht. Darüber wird die Blasenwand mit einer weiteren Nahtreihe vereinigt

Abb. ~~137.~~ Große Blasen-Scheidenfistel. Operation durch Dédoublement. Nachdem alle Blasennähte geknüpft sind, werden die Scheidenwundränder mit Knopfnähten vereinigt unter Mitfassen der Blasenwand

Abb. ~~138.~~ Operation einer großen Blasenscheidenfistel. Die Blase ist in großer Ausdehnung freipräpariert und die eine Hälfte der Nähte in sagittaler und die andere Hälfte in querer Richtung angelegt

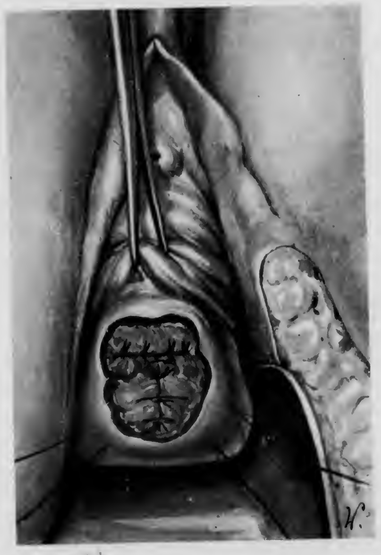


Abb. ~~139.~~ Operation einer großen Blasenscheidenfistel. Nach Anknüpfen der queren Nahtreihen wird die Vagina vernäht unter Mitfassen der Blasenwände

Blasenscheidenfistel mit Zerstörung des Sphincter vesicae und der Harnröhre

Man kann wohl sagen, daß heute jede Blasenscheidenfistel, bei der die Urethra nicht beschädigt ist, von wenigen Ausnahmen abgesehen, heilbar ist. Leider werden die Erfolge weniger sicher, wenn der Sphinkter und die Harnröhre beteiligt sind, da ja nun die Beseitigung der Fistel nicht genügt, sondern auch ein funktionsfähiger Schließmuskel hergestellt werden muß, um die willkürliche Zurückhaltung des Urins zu ermöglichen. Das ist keine leichte Aufgabe trotz der mannigfaltigen, geistreichen Operationsmethoden die besonders in den letzten Jahren angegeben worden sind. Ich habe 89 Blasenscheidenfisteln selbst operiert, darunter 62 Fälle ohne Urethralverletzung. Von diesen zum Teil sehr großen Fisteln wurden 90% geheilt, und zwar meistens bereits mit der ersten Operation. Bei einigen besonders umfangreichen Fisteln mußte eine Nachoperation vorgenommen werden, die dann zu vollkommener Heilung führte. Von den ungeheilten Fällen hätte bestimmt noch der größte Teil geschlossen werden können, wenn sich die Patientinnen nicht einer zweiten Operation entzogen hätten. Von den 27 Fällen mit vollständig oder teilweise fehlender Urethra konnten bei der Entlassung 24 den Urin über 2 Stunden willkürlich zurückhalten[1]).

Für die Herstellung des Sphinkter kann jedes in der Nähe des Trigonum vesicae liegende funktionstüchtige Muskelgewebe herangezogen werden, da nach Latzko sowohl die glatte als auch die quergestreifte Muskulatur sich schnell den Verhältnissen anpaßt und den willkürlichen Verschluß der Blase ermöglicht. Ist die Urethra erhalten, so genügt es meistens nach Verschluß der Fistel die erhaltenen seitlichen Teile des Sphinkters und des umliegenden Gewebes durch Quernähte zu vereinigen. Fehlt sie jedoch teilweise oder ganz, so muß der aus angrenzenden Gewebsteilen hergestellte, sie ersetzende Kanal eine Muskelunterpolsterung erhalten, die die Arbeit des Sphinkters zu übernehmen hat. Die zunächst mittels Katheter offengehaltene künstliche Harnröhre zeigt nach nicht allzulanger Zeit eine Auskleidung mit Blasenepithel (Latzko) und ist nun wirklich zu einer Urethra geworden. Zur muskulären Unterpolsterung kann man den Fundus oder die Zervix der Gebärmutter oder quergestreifte Muskulatur (Bulbo- oder Ischiokavernosus, die Levatoren oder auch die Pyramidales) benutzen, die freipräpariert und mit Nähten unterhalb der neugebildeten Urethra vereinigt werden. Meistens haben jedoch die vorderen Teile des Bulbo- und Ischiocavernosus und der Levatorschenkel durch narbige Veränderungen viel von ihrer Elastizität eingebüßt und ihr Abstand ist durch die nach schweren Geburten des öfteren zu beobachtende Diastase der Symphyse vergrößert, so daß eine Vereinigung in der Mittellinie nur unter starker Spannung möglich ist. Die Folge ist ein Mißlingen der Plastik infolge Durchschneiden der Nähte oder Nekrose des anämischen Gewebes. Die von A. Franz angegebene Methode der Verwendung der Levatoren, bei der zwei Muskelstreifen freipräpariert und mit ihrem hinteren Ende unter der Urethra vereinigt werden, zeigt bessere Resultate. Martius läßt die freigelegten Muskelbäuche im Zusammenhang und vernäht sie in der Mittellinie. Ebenfalls von Martius stammt die Verwendung eines gestielten Fettmuskellappens, der den Bulbocavernosus enthält, und dessen Basis der ernährenden Gefäße und Nerven halber hinten liegt. Dieser Lappen wird um den Blasenhals herumgeführt und an der entgegengesetzten Seite fixiert. Ich habe diese Methode bei einer sehr großen Fistel und ganz fehlender Urethra mit bestem Erfolg ausgeführt.

[1]) Über 50 der genannten Fälle hat mein Schüler Antonopulos ausführlich berichtet. (Congrès Français de Chirurgie, 1932; Cinquante cas de fistules vésico-vaginales traités par la voie vaginale.)

Die Goebel-Stoeckelsche Pyramidalisplastik, bei der zwei die Mm. pyramidales enthaltende Aponeurosenstreifen aus der Rektusscheide hinter der Symphyse hindurchgezogen und unter dem Blasenhals vereinigt werden, ist sehr oft mit Erfolg ausgeführt worden. Ein Nachteil dieser Methode ist die leicht auftretende Nekrose der Lappen, die nicht sehr gut ernährt sind.

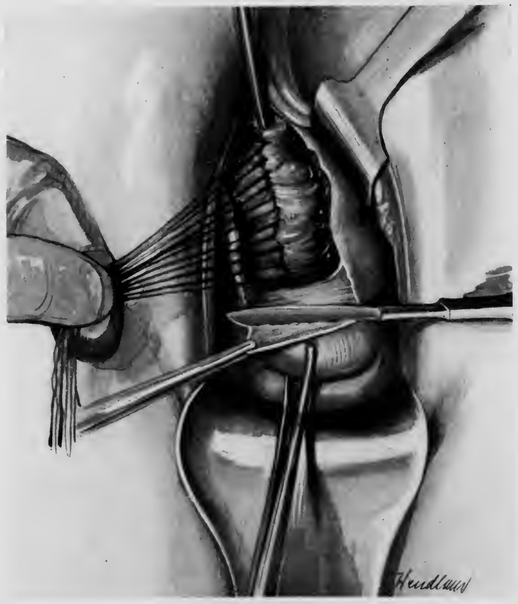
Abb. 134. Sehr große Blasenscheidenfistel mit Fehlen der ganzen Urethra und der vorderen Vaginalwand

Die Benutzung des interponierten Uterus bei Defekten der Urethra hat uns nicht befriedigt, ebensowenig die Heranziehung der Portio, die meistens viel zu schwer beweglich ist. Sie kann aber mit Erfolg unseren Zwecken auf die von mir angegebene und unten beschriebene Weise dienstbar gemacht werden, wenn große Defekte der Urethra und der vorderen Scheidenwand uns zwingen, nach plastischem Material Umschau zu halten. Antonopulos hat auf dem Pariser Chirurgenkongreß 1932 auch über diese Methode berichtet.

Nach Verschluß der Blasenfistel und Bildung einer künstlichen Harnröhre aus dem umgebenden Gewebe wird die Portio mit 2 Kugelzangen nach unten gezogen und in frontaler Richtung gespalten. Von der Vorderfläche der vorderen Lippe wird mit dem Messer die Schleimhaut entfernt, und die so angefrischte Fläche mit einigen durch die seitlichen Wundränder geführten Nähten auf der neugebildeten Urethra befestigt. Die Portioschnittflächen werden wie bei der Diszision wieder

Abb. ~~141~~ 135. Sehr große Blasenscheidenfistel mit Fehlen der ganzen Urethra und der vorderen Scheidenwand. Ein kleiner Teil der Blasenwand ist freipräpariert und die erste Naht angelegt

Abb. ~~142~~ 136. Sehr große Blasenscheidenfistel mit Fehlen der ganzen Urethra und der vorderen Scheidenwand. Die Fistel wird fortschreitend freipräpariert und der jeweils freigelegte Teil sofort mit Knopfnähten verschlossen. Die prolabierte Blasenschleimhaut wird mit einem Stieltupfer zurückgehalten



137

Abb. ~~143~~. Sehr große Blasenscheidenfistel mit Fehlen der ganzen Urethra und der vorderen Scheidenwand. Die ganze Fistel ist geschlossen mit Ausnahme einer kleinen Öffnung, die als Urethra dienen soll. Die Schleimhaut der vorderen Muttermundslippe wird mit dem Messer abgetragen

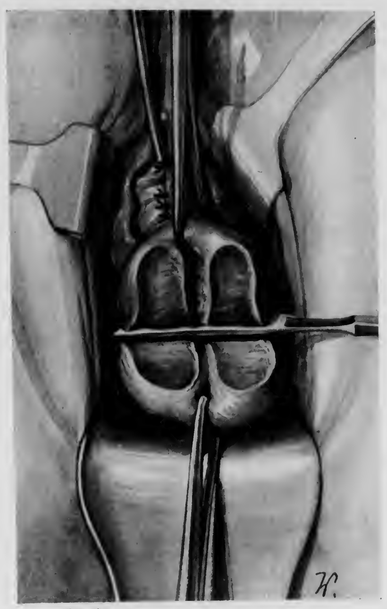


Abb. ~~144~~ 138. Sehr große Blasenscheidenfistel mit Fehlen der ganzen Urethra und der vorderen Scheidenwand. Die Muttermundslippen werden mit Kugelzangen auseinandergehalten und die ganze Zervix in querer Richtung gespalten

Abb. ~~145~~ 139. Sehr große Blasenscheidenfistel mit Fehlen der ganzen Urethra und der vorderen Vaginalwand. Die gespaltene vordere Muttermundslippe deckt die ganze Fistel bis zur Urethra und wird seitlich mit den Scheidenwundrändern vernäht. Die Wundränder der hinteren Muttermundslippe werden mit Knopfnähten vereinigt

mit einigen Katgutnähten geschlossen. Das Herabziehen der gespaltenen Portio gelingt überraschend leicht, während der Uterus fast in seiner alten Lage bleibt (Abb. ~~140—145~~ 135/139).

Ich habe nach dieser Methode sehr schwere Fälle mit vollem Erfolg operiert.

17. Die Rektovaginalfistel

Im Gegensatz zu den Blasenscheidenfisteln spielt bei den rektovaginalen Kommunikationen, die allermeist intra partum zustande kommen, die Drucknekrose keine Rolle, und zwar deshalb, weil der kindliche Schädel an dieser Stelle des Beckens keinen knöchernen Gegenpart findet, gegen den er Mastdarm und Scheide anpressen könnte. Die Entstehung dieser Verletzungen ist auf Überdehnung des rektovaginalen Diaphragma und schließlichem Einriß desselben beim Durchtritt des kindlichen Kopfes zurückzuführen, oder, weniger häufig, auf direkte Zerreißungen mit geburtshilflichen Instrumenten. Nicht selten sehen wir Mastdarmverletzungen nach vaginalen oder abdominalen Totalexstirpationen, nach hinterer Kolpotomie und Kolporrhaphie usw. mit späterer Kommunikation zwischen Rektum und Scheide. Weniger häufig, aber um so gefährlicher wegen der Infektion, entstehen Mastdarm-Scheidenrisse nach Pfählungs- und Kohabitationsverletzungen. Die geburtshilflich entstandenen Fisteln

befinden sich meistens im mittleren und unteren Drittel der Scheide, während die postoperativen vorwiegend im oberen Drittel auftreten.

Bei der großen Neigung der rekto-vaginalen Fisteln zur Selbstheilung sind wir verpflichtet stets eine Wartezeit von einigen Monaten vor der operativen Inangriffnahme verstreichen zu lassen, die wir mit unterstützenden Maßnahmen zur Heilung ausfüllen. Wir lassen vaginale Spülungen mit leicht antiseptischen Mitteln machen, sorgen für angehaltenen Stuhl durch geeignete Diät und geringe Opiumgaben und legen nötigenfalls ein Darmrohr ein, um den physiologischen Abgang der Darmgase zu erleichtern. Wir haben nach dieser Behandlung Selbstheilung von Fisteln beobachtet, die für 2 Finger durchgängig waren. Kommt es zu keinem vollkommenen Schluß, so ist die erreichte Verkleinerung für die nachfolgende Operation nur vorteilhaft.

Kleine Fisteln können wir in Art der Blasenfisteln operieren. Wir umschneiden die Öffnung zirkulär und lösen die Scheidenwand teils stumpf, teils scharf vom Mastdarm ab bis sich die Fistelränder ohne Spannung mit Knopfnähten oder fortlaufender feiner Seidennaht, die die Schleimhaut nicht mitfassen darf, vereinigen lassen. Darüber wird die Scheidenwunde mit kräftigen Katgutnähten geschlossen. Die Nachbehandlung besteht in der Verhinderung des Stuhlganges bis etwa zum 6. Tage durch entsprechende Kost und kleine Opiumgaben, dann Verabfolgung eines kräftigen Abführmittels und Erleichterung des ersten Stuhles durch ein Ölklysma.

Größere Fisteln werden stets durch Spaltung des ganzen Dammes und des zwischen ihm und der Fistel liegenden Gewebes in einen kompletten Dammriß verwandelt, dessen Operation in oben geschilderter Weise nach meiner Methode (s. S. 32) vorgenommen wird. Die Sicherung der Darmnaht mit der Mastdarmfalte hat uns in allen Fällen eine vollständige Heilung gebracht, so daß wir auf alle anderen Methoden verzichten zu können glauben. Theoretisch denkbar wäre es, daß die von uns früher oft benutzte Segondsche Methode bei ausgedehnter Mastdarmzerstörung ausnahmsweise in Anwendung kommen müßte. Nach Dilatation des Sphinkter wird das Rektum oberhalb der beschädigten Stelle zirkulär durchschnitten, mobilisiert und nach Entfernung des peripheren Teiles des Mastdarms durch den Sphinkter gezogen und zirkulär am Analring befestigt. Vorbedingung für den Erfolg ist, daß diese Naht ohne jede Spannung vor sich geht.

Sehr hochsitzende Fisteln müssen durch einen Schuchardtschnitt zugängig gemacht werden. Wir operieren sie in gleicher Weise wie die Blasenfisteln. Sobald ein Stück der Darmwand durch Umschneidung und Abpräparieren freigemacht worden ist, legen wir sofort die erste Naht, präparieren weiter, legen die zweite Naht und so fort (s. S. 98). Die lang gelassenen Fäden dienen als Zügel und machen raumbeengende Instrumente überflüssig. Eine in der Tiefe schwer zu stillende Blutung wird verhindert durch die blutstillende Wirkung der keine Darmteile fassenden Einzelnähte.

SACHVERZEICHNIS

Druck von Metzger & Wittig in Leipzig

Κ. ΛΟΓΟΘΕΤΟΠΟΥΛΟΥ ΓΥΝΑΙΚΟΛΟΘΓΙΚΗ ΧΕΙΡΟΥΡΓΙΚΗ

ΚΩΝΣΤΑΝΤΙΝΟΥ ΛΟΓΟΘΕΤΟΠΟΥΛΟΥ

ΓΥΝΑΙΚΟΛΟΓΙΚΗ ΧΕΙΡΟΥΡΓΙΚΗ

ΕΚΔΟΤΗΣ ΑΡΓΥΡΗΣ ΠΑΠΑΖΗΣΗΣ ΑΚΑΔΗΜΙΑΣ 76
ΑΘΗΝΑΙ 1950

ΓΥΝΑΙΚΟΛΟΓΙΚΗ ΧΕΙΡΟΥΡΓΙΚΗ

Ὑπὸ

Κωνσταντίνου Λογοθετοπούλου

Καθηγητοῦ τοῦ Πανεπιστημίου
Ἐπιτίμου Διδάκτορος τοῦ Πανεπιστημίου τοῦ Μονάχου
Μέλους τῆς Γερμανικῆς Ἀκαδημίας Φυσιοδιφῶν

ΜΕΤΑ 147 ΕΙΚΟΝΩΝ ΕΝ ΤΩι ΚΕΙΜΕΝΩι

1950

ΕΚΔΟΤΗΣ ΑΡΓΥΡΗΣ ΠΑΠΑΖΗΣΗΣ ΑΚΑΔΗΜΙΑΣ 76. — ΑΘΗΝΑΙ

ΠΡΟΛΟΓΟΣ ΔΕΥΤΕΡΑΣ ΕΚΔΟΣΕΩΣ

Τὸ ἀνὰ χεῖρας ἔργον εἶδε τὸ πρῶτον τὸ φῶς κατὰ τὸ 1939, ἐκδοθὲν γερμανιστὶ ὑπὸ τοῦ ἐν Λειψίᾳ ἐκδοτικοῦ οἴκου **«Ambrosius Barth»**. Ἡ ἐντὸς διετίας ἐξάντλησις ιῆς πρώτης ταύτης ἐκδόσεως μαρτυρεῖ τὴν εὐμενῆ ὑποδοχὴν ἧς ἔτυχε μεταξὺ τῶν εἰδικῶν τοῦ διεθνοῦς ἐπιστημονικοῦ κόσμου. Ἡ ἀπὸ πολλοῦ σχεδια, ζομένη δευτέρα ἔκδοσις ὑπὸ τοῦ εἰρημένου ἐκδοτικοῦ οἴκου δὲν ἐπραγματοποιήθηένεκα τῆς καταστροφῆς αὐτοῦ κατὰ τὴν διάρκειαν τοῦ πολέμου.

Ἡ εἰς ξένην γλῶσσαν δημοσίευσις τοῦ συγγράμματος τούτου ὀφείλεται εἰς τὸ ὅτι μόνον οὕτω ἦτο δυνατὸν νὰ λάβωσιν εὑρεῖαν διεθνῆ διάδοσιν αἱ ὑπ᾽ ἐμοῦ ἐπιτευχθεῖσαι τροποποιήσεις ὡρισμένων ἐγχειρήσεων, ὡς καὶ αἱ ἡμέτεραι νέαι καὶ πρωτότυποι χειρουργικαὶ μέθοδοι. Ὅτι ὁ σκοπὸς οὗτος ἐπετεύχθη ἀποδεικνύεται ἐκ τῶν πολλαπλῶν δημοσιευμάτων τῆς διεθνοῦς βιβλιογραφίας, ἔνθα γίνεται εὔφημος μνεία τῶν μεθόδων μου, ὡς εἰς τὰ εἰδικὰ κεφάλαια ἀναφέρεται.

Εἰς τὴν παροῦσαν ἔκδοσιν προσετέθησαν δύο ἔτι μέθοδοί μου. Ἡ μία ἐξ αὐτῶν ἀναφέρεται εἰς τὴν Μαιευτικὴν καὶ ἀφορᾷ εἰς τὸ μέχρι τοῦδε ἄλυτον ζήτημα τῆς ἐπισχέσεως αἱμορραγίας τῆς μήτρας, ὀφειλομένης εἰς ἀτονίαν τῆς μήτρας μετὰ τὴν ἐκβολὴν τοῦ πλακοῦντος. Ἡ δευτέρα εἶναι ἡ ὑπ᾽ ἐμοῦ κληθεῖσα «ὑποπυθμενικὸς ἀκρωτηριασμὸς τῆς μήτρας».

Ἀθῆναι, Ἰανουάριος 1950

Κ. ΛΟΓΟΘΕΤΟΠΟΥΛΟΣ

ΠΡΟΛΟΓΟΣ ΠΡΩΤΗΣ ΕΚΔΟΣΕΩΣ

Ἡ ἔκδοσις ἑνὸς νέου εἰς γερμανικὴν γλῶσσαν γυναικολογικοῦ ἐγχειρητικοῦ συγγράμματος θὰ ἐθεωρεῖτο ὅτι «φέρει γλαῦκα εἰς Ἀθήνας», καθ᾽ ὅσον ἤδη ὑπάρχει μέγας ἀριθμὸς τοιούτων γερμανικῶν συγγραμμάτων ἀνταποκρινομένων εἰς ὅλας τὰς ἀπαιτήσεις. Ἀλλ᾽ ἕκαστος χειρουργὸς γνωρίζει πόσον εἶναι διδακτικὸν καὶ ὠφέλιμον νὰ παρακολουθῇ ἄλλους ἐμπείρους χειρουργοὺς κατὰ τὸ ἔργον αὐτῶν, ἵνα οὕτω εὐρύνῃ τὰς γνώσεις αὐτοῦ, ἰδίᾳ ὅσον ἀφορᾷ εἰς τὴν τεχνικήν. Ἡ τοιαύτη ἄμεσος παρακολούθησις δὲν εἶναι πάντοτε δυνατὴ ἕνεκα διαφόρων λόγων καὶ οὕτω ἀναγκάζεταί τις πρὸς ἀναπλήρωσιν αὐτῆς νὰ καταφεύγῃ εἰς περιγραφὰς καὶ ἀπεικονίσεις, ἃς ἀνευρίσκομεν εἰς τὰ γνωστὰ τεχνικὰ συγγράμματα καὶ εἰς τὰ ἐπιστημονικὰ περιοδικά. Ἀκριβῶς ἡ δημοσίευσις τοιούτων τεχνικῶν λεπτομερειῶν διευκολύνει σημαντικῶς τὴν ἐκτέλεσιν τῶν γνωστῶν τυπικῶν ἐγχειρήσεων. Εἰς τὸ βιβλίον τοῦτο ἐπιθυμῶ νὰ περιγράψω διεξοδικῶς τὰς εἰς τὴν

Κλινικήν μου ἐφαρμοζομένας καὶ δοκιμασθείσας ἐγχειρητικὰς μεθόδους, τόσον τὰς τυπικὰς ὅσον καὶ τὰς ὑποδειχθείσας ὑπ' ἐμοῦ τροποποιήσεις, ὡς καὶ τὰς ἰδίας μεθόδους μου.

Δὲν λεπτολογῶ εἰς ἐγχειρήσεις, αἵτινες ἐκτελοῦνται εἰς ὅλας τὰς κλινικὰς κατὰ τὸν αὐτὸν τρόπον, ὡς καὶ εἰς ἐκείνας, αἵτινες ἐκτελοῦνται σπανίως εἰς τὴν ἡμετέραν κλινικήν, ὡς ἐπὶ παραδείγματι εἶναι ἡ εὐρεῖα κοιλιακὴ ὑστερεκτομή (1), καθ' ὅσον περὶ αὐτῆς πραγματεύονται λεπτομερῶς πάντα τὰ διδακτικὰ ἐγχειρητικὰ συγγράμματα. Ἰδιαιτέραν σημασίαν ἀπέδωσα εἰς τὴν περιγραφὴν τῶν κολπικῶν ἐγχειρήσεων, αἵτινες κατὰ τὴν γνώμην μου δὲν λαμβάνονται ἀρκετὰ ὑπ' ὄψιν, ὡς ἁρμόζει, κατὰ τὴν ἐκπαίδευσιν νεαρῶν γυναικολόγων. Εἶναι γνωστὸν ὅτι μόνον ὁ γυναικολόγος ὁ κατέχων τελείως τὴν κολπικὴν τεχνικὴν δύναται νὰ θέτῃ τὴν ὀρθὴν ἔνδειξιν, ἐὰν ἡ ἐγχείρησις δέον νὰ τελῆται κολπικῶς ἢ κοιλιακῶς. Μόνον οὗτος γνωρίζει νὰ ἐκτιμᾷ δεόντως πάντα τὰ πλεονεκτήματα τῆς κολπικῆς ὁδοῦ. Νομίζω ὅτι δὲν ἐπιτρέπεται νὰ ἐπιλαμβάνεταί τις γυναικολογικῆς ἐγχειρήσεως διὰ τῆς κοιλιακῆς ὁδοῦ καὶ μόνον ἐπειδὴ δὲν κατέχει τὴν τεχνικὴν τῶν κολπικῶν ἐγχειρήσεων, αἵτινες εἶναι ἀσυγκρίτως ἀκινδυνότεραι. Ὡσαύτως δέον νὰ μὴ λησμονῇ τις ὅτι οἱ ἠσκημένοι εἰς τὰς κολπικὰς ἐγχειρήσεις προσαρμόζουν καλύτερον τὴν λεπτὴν τεχνικὴν αὐτῶν εἰς τὰς διὰ τῆς κοιλιακῆς ὁδοῦ ἐγχειρήσεις.

Ἀπέφυγον ὡσαύτως νὰ εἰσέλθω εἰς τὸ θέμα τῶν ἐνδείξεων τῶν ἐγχειρήσεων, καθ' ὅσον τὸ τοιοῦτον δὲν θὰ ἀνταπεκρίνετο εἰς τὸν σκοπὸν τοῦ βιβλίου τούτου καὶ διότι σχεδὸν εἰς ὅλα τὰ διδακτικὰ συγγράμματα ὑπάρχουν ἀρκούντως ἀκριβεῖς ἐπεξηγήσεις. Διὰ τὸν αὐτὸν λόγον ἀπέφυγον καὶ τὴν περιγραφὴν τῆς προεγχειρητικῆς παρασκευῆς, τῆς ἀσηψίας, τῆς μετεγχειρητικῆς ἀγωγῆς καὶ τῆς ναρκώσεως. Ἀπέδωσα μεγίστην σημασίαν εἰς τὴν ἀκριβῆ καὶ ἐπιμελῆ ἐκτέλεσιν τῶν εἰκόνων, αἵτινες ἐξετελέσθησαν ὑπὸ τὸν ἔλεγχόν μου ὑπὸ τῆς ἐπὶ τούτῳ εἰς Ἀθήνας ἀφιχθείσης κυρίας Μαργαρίτας **Wendland**, τῇ βοηθείᾳ σχεδιαγραμμάτων καὶ φωτογραφιῶν, αἵτινες ἐλήφθησαν κατὰ τὴν διάρκειαν τῶν ἐγχειρήσεων. Πρὸς τὴν καλλιτέχνιδα, ἥτις ὑπεχρεώθη νὰ παραμείνῃ ἐπὶ πολλοὺς μῆνας εἰς τὰς Ἀθήνας, ἐκφράζω καὶ ἐνταῦθα τὰς εὐχαριστίας μου διὰ τὴν ἀκούραστον καὶ εὐσυνείδητον ἐργασίαν αὐτῆς.

Ἀθῆναι, Αὔγουστος 1939

Κ. ΛΟΓΟΘΕΤΟΠΟΥΛΟΣ

1. Τὴν ἐγχείρησιν ταύτην ἔχω ἐγκαταλείψει πρὸ πολλοῦ, ἕνεκα τῶν καλυτέρων ἀποτελεσμάτων ἅτινα παρέχει ἡ εὐρεῖα κολπικὴ ὑστερεκτομὴ κατὰ *Schanta—Wertheim*, καίτοι αὕτη τεχνικῶς εἶναι δυσχερεστέρα τῆς κοιλιακῆς.

Σύντομος περίληψις τῶν κρίσεων τῆς πρώτης ἐκδόσεως τοῦ ἀνὰ χεῖρας βιβλίου ὑπὸ διαπρεπῶν Καθηγητῶν τῆς Γυναικολογίας καὶ τῆς Χειρουργικῆς, δημοσιευθεισῶν εἰς τὰ ἀκόλουθα ἐπιστημονικὰ περιοδικὰ κατὰ τὸ 1940 :

Zentralblatt fuer Gynaekologie — 1940 N. 1. **W. Stoeckel,** Berlin.

Ὁ καθηγητὴς τοῦ Βερολίνου W. Stoeckel μεταξὺ ἄλλων γράφει : Εἰς ἐμὲ προσωπικῶς τὸ σύγγραμμα ἐπροξένησε μεγάλην χαράν, διότι *χειρουργὸς τῆς περιωπῆς καὶ τῆς φήμης* τοῦ συγγραφέως τάσσεται ὑπὲρ τῶν κολπικῶν ἐγχειρήσεων ὡς πράττω καὶ ἐγώ. Ἐκ τῆς ἀναγνώσεως τοῦ βιβλίου ἀντιλαμβάνεταί τις ὅτι ὁ συγγραφεὺς προέρχεται ἐκ τῆς γερμανικῆς σχολῆς· οὐχ ἧττον ὅμως ἐμφανίζει πολλὰς παραλλαγὰς καὶ πολλὰς πρωτοτυπίας, χαρακτηριζούσας τὸν Λογοθετόπουλον. Εἰς ταύτας καταλέγεται καὶ ἡ αἱμοστατικὴ αὐτοῦ μέθοδος, ἥτις δέον νὰ θεωρηθῇ ὡς πλουτισμὸς τῆς τεχνικῆς εἰς δυσκόλους περιπτώσεις.

Τὸ σύγγραμμα χαιρετῶμεν μετ' ἐξαιρετικῆς χαρᾶς καὶ συνιστῶμεν τοῦτο θερμότατα εἰς ὅλους τοὺς γυναικολόγους.

Schweizer medizinische Wochenschrift—Heft 12, 1940, ὑπὸ **Huessy,** Aazau.

Εἶναι λίαν ἐνδιαφέρον νὰ λαμβάνῃ τις γνῶσιν τῶν ἰδίων μεθόδων ἐπιδεξίων χειρουργῶν καὶ ὡς τοιοῦτος δέον νὰ θεωρηθῇ ἀναμφισβητήτως ὁ διευθυντὴς τῆς Πανεπιστημιακῆς Γυναικολογικῆς Κλινικῆς τῶν Ἀθηνῶν, ὡς τοῦτο προκύπτει ἀμέσως ἐκ τοῦ προκειμένου βιβλίου. Χαίρω διότι ὁ συγγραφεὺς ἐνσκήπτει ἰδιαιτέρως εἰς τὰς κολπικὰς ἐγχειρήσεις, δικαίως δὲ οὗτος τονίζει ὅτι ὁ γυναικολόγος ὁ μὴ δυνάμενος νὰ ἐκτελῇ ἐγχειρήσεις διὰ τῆς κολπικῆς ὁδοῦ οὐδέποτε θὰ ἀποτελέσῃ σοβαρὸν ἀντιπρόσωπον τῆς εἰδικότητος. Συμφωνῶ ὡσαύτως πρὸς τὰς ἀπόψεις τοῦ Λογοθετοπούλου, ὅτι δὲν ἐπιτρέπεται νὰ θεωρῆται ὡς ἔνδειξις λαπαροτομῆς ἡ ἄγνοια τῆς ἐκτελέσεως τῆς ἐγχειρήσεως διὰ τῆς κολπικῆς ὁδοῦ. Εἰς τὸ βιβλίον περιγράφονται διάφοροι χειρουργικαὶ ἐπεμβάσεις, ἐκτελεσθεῖσαι τὸ πρῶτον ὑπὸ τοῦ Λογοθετοπούλου. Ὁ συγγραφεὺς εἰσέρχεται καὶ εἰς τὰς μικροτέρας λεπτομερείας τῆς τεχνικῆς, ἀκριβῶς δὲ τοῦτο ἀποτελεῖ τὸ προσὸν τοῦ πραγματικῶς ὡραίου βιβλίου μετὰ τῶν λαμπρῶν εἰκόνων.

Εἰς τοὺς πεπειραμένους γυναικολόγους τοὺς ἐνδιαφερομένους διὰ τὴν χειρουργικὴν τεχνικὴν συνιστᾶται τὸ ἔργον τοῦτο ἰδιαιτέρως.

Geburtshilfe und Frauenheilkunde — 2 Jg. Heft 4, 1940, ὑπὸ τοῦ **L. Seitz,** καθηγητοῦ τοῦ Πανεπιστημίου τῆς Φρανκφούρτης.

Μεταξὺ ἄλλων ὁ Seitz γράφει : Παρατηρεῖ τις εἰς τὸ βιβλίον πόσον ὁ συγγραφεὺς προσπαθεῖ σοβαρῶς καὶ συνεχῶς νὰ τελειοποιήσῃ τὴν χειρουργικὴν τεχνικὴν καὶ πόσον αἰσθάνεται τὴν ἀνάγκην νὰ διαδώσῃ εἰς μέγαν κύκλον τὰ ἀποτελέσματά του. Ἰδιαιτέραν σημασίαν δίδει ὁ Λογοθετόπουλος, καὶ δικαίως, εἰς τὰς κολπικὰς ἐγχειρήσεις. Ἡ συχνὴ ἐφαρμογὴ τῶν κολπικῶν ἐγχειρήσεων ἀπαλλάσσει τὰς γυναῖκας τῶν ἀναποφεύκτων ἐνοχλημάτων τῆς λαπαροτομῆς καὶ τοῦ μεγαλυτέρου κινδύνου. Μετ' εὐγνωμοσύνης θὰ ἀποδεχθοῦν πολλοὶ τὴν λεπτομερῆ περιγραφὴν τῆς αἱμοστατικῆς αὐτοῦ μεθόδου.

Τὸ βιβλίον θὰ παράσχῃ εἰς πάντα χειρουργὸν μεγάλας ὑπηρεσίας, ὁ δὲ πεπειραμένος χειρουργὸς θὰ ὠφεληθῇ ἐκ τούτου μεγάλως.

Klinische Wochenschrift—Heft 12, 1940, ὑπὸ τοῦ **v. Jaschke,** καθηγητοῦ τοῦ Πανεπιστημίου τοῦ Giessen.

Τὸ βιβλίον τοῦ γνωστοῦ συγγραφέως, καίτοι περιλαμβάνει μόνον 104 σελίδας μετὰ τῶν ἐξαιρετικῶν εἰκόνων, ἔχει *καταπληκτικῶς πλούσιον περιεχόμενον*, καθόσον οὗτος κατορθώνει νὰ περιγράφῃ κατὰ τρόπον σύντομον καὶ εὐκρινῆ τὴν χειρουργικὴν τεχνικήν. *Πρὸ πάντων*

ὁ πεπειραμένος χειρουργὸς λαμβάνων γνῶσιν ιῶν ἐκτιθεμένων ἐν τῷ βιβλίῳ θέλει μεγάλως ὠφεληθῆ.

Deutsche medizinische Wochenschrift—ὑπὸ **Eymer**, καθηγητοῦ τοῦ Πανεπιστημίου τοῦ Μονάχου.

Ὁ συγγραφεὺς περιγράφει κατὰ τρόπον σύντομον καὶ συναρπαστικόν, εἰς δόκιμον γερμανικὴν γλῶσσαν, τὰς ἐν τῇ Κλινικῇ του συνήθως ἐκτελουμένας ἐγχειρήσεις. Ἡ περιγραφὴ συνοδεύεται ὑπὸ πολυπληθῶν ἀριστοτεχνικῶν εἰκόνων.

Μέγας ἀριθμὸς τῶν περιγραφομένων χειρουργικῶν μεθόδων εἶναι ὅλως πρωτότυπος ἢ ἀποτελεῖ σειρὰν μικροτέρων ἢ μεγαλυτέρων παραλλαγῶν προϋφισταμένων ἐγχειρήσεων. Λίαν ἐνδιαφέρουσαι εἶναι *αἱ μεγαλόπνοοι αἱμοστατικαὶ αὐτοῦ μέθοδοι.* Ὡς ἐπιδέξιος χειρουργὸς προτιμᾶ ὁ συγγραφεὺς τὰς ἐγχειρήσεις διὰ τῆς κολπικῆς ὁδοῦ.

Τὸ εἰς ἑκάστην σελίδα πρωτότυπον τοῦτο σύγγραμμα, τὸ ὁποῖον ἐγράφη ἀπὸ πραγματικὸν «maitre», συνιστᾶται θερμότατα εἰς τὸν εἰδικὸν γυναικολόγον.

Zentralorgan für die gesamte Chirurgie—ὑπὸ **Schenk,** καθηγητοῦ τοῦ Πανεπιστημίου τῆς Πράγας.

Ἓν ὅλως ἐξαιρετικὸν σύγγραμμα, ἐν τῷ ὁποίῳ περιγράφονται συντόμως καὶ καθαρῶς αἱ σπουδαιότεραι τῶν γυναικολογικῶν ἐγχειρήσεων ἐπὶ τῇ βάσει παραστατικῶν εἰκόνων, αἱ ὁποῖαι ἐκτελοῦνται εἰς τὴν κλινικὴν τοῦ συγγραφέως. Πλὴν τοῦ γενικοῦ μέρους, τὸ ὁποῖον περιέχει λίαν ἀξιολόγους ὁδηγίας, τὸ εἰδικὸν μέρος ἀφορᾶ εἰς μέγαν ἀριθμὸν τροποποιήσεων καὶ εἰς ἰδίας τοῦ συγγραφέως χειρουργικὰς μεθόδους, ἐφ' ὅλων τῶν γνωστῶν γυναικολογικῶν ἐγχειρήσεων, *καθ' ὃν τρόπον εἰς οὐδὲν ἄλλο σύγγραμμα συναντῶνται,* πάντοτε μετὰ λεπτομεροῦς περιγραφῆς τῆς χειρουργικῆς τεχνικῆς καὶ τῶν λεπτομερειῶν αὐτῆς, μὲ προσπάθειαν συντομεύσεως τοῦ χρόνου τῆς ἐκτελέσεως.

Τὸ σύγγραμμα τοῦτο παρουσιάζει *μεγάλην πρωτοτυπίαν* καὶ *προδίδει βαθείας ἐπιστημονικὰς γνώσεις τοῦ συγγραφέως,* διὸ εἶναι ἄξιον ἰδιαιτέρας προσοχῆς ἐκ μέρους τῶν χειρουργῶν καὶ τῶν γυναικολόγων.

Die medizinische Welt—Berlin, Nr. 21/40, ὑπὸ **Bokelmann,** καθηγητοῦ τοῦ Πανεπιστημίου τοῦ Βερολίνου.

Ἀπὸ τῆς ἀπόψεως τοῦ εἰδικοῦ γυναικολόγου ἡ ἐμφάνισις τοῦ βιβλίου δέον νὰ χαιρετισθῇ κυρίως λόγῳ τοῦ ὑποκειμενικοῦ χαρακτῆρος καὶ τῆς μεθοδικῆς ἰδιοτυπίας του. *Οἱ Γερμανοὶ γυναικολόγοι δύνανται ἐξ αὐτοῦ νὰ ἀντλήσουν διδάγματα συντελοῦντα εἰς τὴν τελειοποίησιν τῆς τεχνικῆς των.*

Zentralblatt für Chirurgie—Heft 15, 1940, ὑπὸ **Gohrbandt**, Berlin.

Ὁ Gohrbandt ἀναφέρων τὰς μεθόδους καὶ τὰς τροποποιήσεις ἐπὶ τῶν ἐγχειρήσεων καταλήγει χαρακτηριστικῶς εἰς τὰ ἑξῆς:

Οὐ μόνον εἰς τὸν διδασκόμενον ἀλλὰ καὶ εἰς τὸν διδάσκοντα γυναικολόγον τὸ βιβλίον τοῦτο εἶναι πλουσία πηγὴ τελειοποιήσεως καὶ συμπληρώσεως τῆς χειρουργικῆς αὐτοῦ τεχνικῆς.

Περιποιεῖ τιμὴν εἰς τὸν συγγραφέα ὡς καὶ εἰς τὴν γερμανικὴν γυναικολογικὴν χειρουργικήν, τὸ ὅτι ὁ συγγραφεὺς προερχόμενος ἐκ γερμανικῆς σχολῆς ἐτελειοποίησε τὰς ἐγχειρητικὰς μεθόδους τῶν διδασκάλων του.

Münchner medizinishe Wochenschrift—ὑπὸ **Walter Rech.**

Ὁ εἰς τοὺς εἰδικοὺς χειρουργικοὺς κύκλους τῆς Γερμανίας λίαν γνωστὸς συγγραφεὺς δίδει ἐξαιρετικὴν περιγραφὴν διὰ τοῦ συγγράμματός του τῶν ὑπ' αὐτοῦ ἐφαρμοζομένων γυναικολογικῶν μεθόδων. Ἡ ἰδιαιτέρα πρωτοτυπία τοῦ βιβλίου χαρακτηρίζεται διὰ τῆς ἀκριβεστάτης περιγραφῆς μικρῶν τεχνικῶν λεπτομερειῶν, πρὸ πάντων ὅμως διὰ τῶν πλείστων ὑπὸ τοῦ συγγραφέως ἀναφερομένων παραλλαγῶν καὶ βελτιώσεων γυναικολογικῶν ἐγχειρήσεων

Ἀναφέρω ἐνταῦθα μόνον τὴν ὑπὸ τοῦ συγγραφέως ἐπινοηθεῖσαν μέθοδον αἱμοστασίας, τὴν ὑπὸ τοῦ Sellheim «ἑλληνικὸς μύκης» κληθεῖσαν, ὡς καὶ τὴν θεραπείαν τῆς χρονίας παραμητρίτιδος διὰ τῆς τεχνητῆς ἀποστηματοποιήσεως. *Τὸ βιβλίον ἀποτελεῖ ἐξαιρετικὸν βοήθημα διὰ τὸν μὲ τὴν χειρουργικὴν ἀσχολούμενον γυναικολόγον.*

Der Chirurg—Heft 11, 1940, ὑπὸ **Herold,** καθηγητοῦ τοῦ Πανεπιστημίου τῆς Ἰένας.

Εἰς τὸ βιβλίον του «Γυναικολογικὴ Χειρουργικὴ» ὁ συγγραφεὺς περιγράφει συντόμως καὶ μετὰ πολυπληθῶν καλλιτεχνικῶν εἰκόνων τὰς σπουδαιοτέρας ἐγχειρητικὰς αὐτοῦ μεθόδους. Ἡ περιγραφὴ τῶν διαφόρων φάσεων τῆς ἐγχειρήσεως εἶναι σαφεστάτη οὕτως, ὥστε πᾶς τις δύναται εὐχερέστατα νὰ παρακολουθήσῃ ταύτας.

Τὸ βιβλίον παρέχει σειρὰν ἐνδιαφερουσῶν ὑποδείξεων, ὡς ἡ ὑπ' αὐτοῦ ἀπὸ μακροῦ χρόνου ἐφαρμοζομένη αἱμοστατικὴ μέθοδος. *Τὸ βιβλίον συνιστᾶται ἐνθέρμως εἰς πάντα χειρουργόν.*

ΓΕΝΙΚΟΝ ΜΕΡΟΣ

Πρὸ πάσης ἐγχειρήσεως ὁ χειρουργὸς δέον νὰ σταθμίσῃ ἐπακριβῶς, ἐὰν τὸ μέγεθος καὶ οἱ κίνδυνοι τῆς ἐγχειρήσεως ἀνταποκρίνωνται πρὸς τὸν ἐπιδιωκόμενον σκοπὸν καὶ κυρίως ἐὰν ἡ ἐγχείρησις μέλλῃ νὰ ὠφελήσῃ τὴν πάσχουσαν.

Διὰ τὴν εὐνοϊκὴν ἐξέλιξιν οἱασδήποτε ἐγχειρήσεως προαπαιτεῖται ἡ ἀκριβὴς τήρησις πάντων τῶν κανόνων τῆς ἀσηψίας. Διὰ νὰ ἐπιτευχθῇ ὅμως εὐνοϊκὸν ἀποτέλεσμα καὶ νὰ ἀποκλεισθοῦν κατὰ τὸ δυνατὸν οἱ κίνδυνοι, δέον ὁ χειρουργὸς νὰ ἔχῃ χειρουργικὸν τάλαντον, ἤτοι ἐπιδεξιότητα καὶ τεχνικὴν ἱκανότητα. Αἱ ἰδιότητες αὗται εἶναι ἀπαραίτητοι, ἵνα ὁ χειρουργὸς κέκτηται ἐπαρκῆ ταχύτητα κατὰ τὴν ἐγχείρησιν, καθ' ὅσον ὅσον βραχυτέρα εἶναι ἡ διάρκεια τῆς ἐγχειρήσεως τόσον καλύτερον εἶναι τὸ ἀποτέλεσμα, ὡς ἐκ τῆς μικροτέρας διαρκείας τῆς ναρκώσεως, τῆς μικροτέρας ἐγχειρητικῆς καταπληξίας καί, ὡς πειραματικῶς ἔχει ἀποδειχθῆ, τῆς μικροτέρας συσσωρεύσεως μικροβίων ἐπὶ τοῦ ἐγχειρητικοῦ πεδίου.

Εἶναι περιττὸν νὰ παρατηρήσωμεν ὅτι δέον νὰ μὴ ἐπιδιώκηται ταχύτης εἰς βάρος τῆς αἱμοστασίας καὶ τῆς ἀσηψίας.

Διὰ τῆς ἐκφράσεως «ἄσηπτος ἐγχείρησις» ἐννοοῦμεν βεβαίως οὐ μόνον τὴν χρησιμοποίησιν ἀποστειρωθέντων ἐργαλείων, ὀθονίων, χειροκτίων κλπ., ἀλλὰ κυρίως τὴν ἀποφυγὴν τῆς μεταφορᾶς κατὰ τὴν ἐγχείρησιν λοιμογόνων κόκκων, δι' ἀσκόπων καὶ ἀπροσέκτων χειρισμῶν, ἀπὸ μεμολυσμένου πεδίου πρὸς ἄσηπτον τοιοῦτον, ὡς ἐπὶ παραδείγματι κατὰ τὴν διάνοιξιν τοῦ κολεοῦ, τῆς μικροβιοφόρου κοιλότητος τῆς μήτρας ἢ πυώδους ὄγκου τῶν ἐξαρτημάτων.

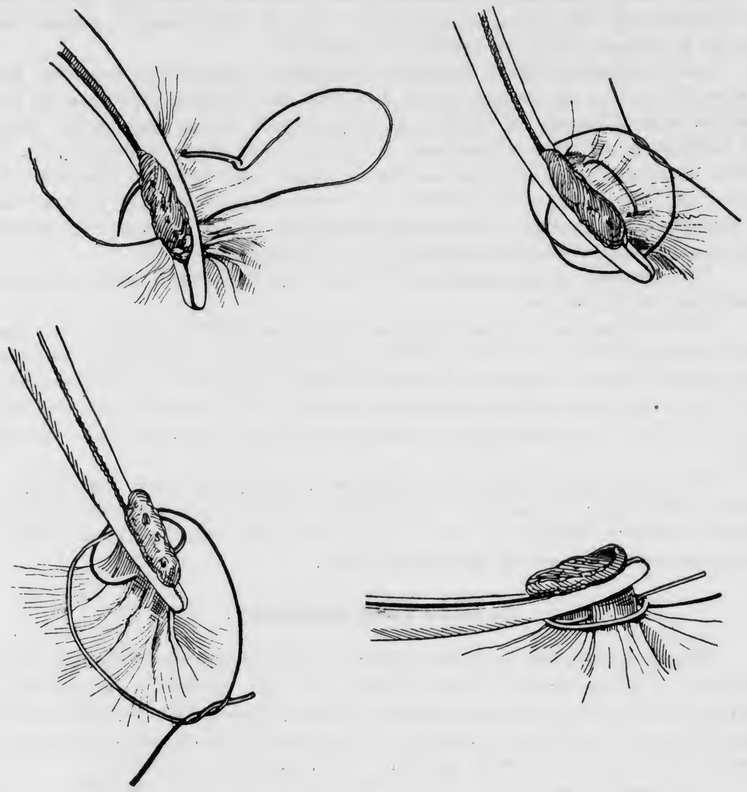
Τὸ νὰ χειρουργῇ τις ταχέως εἶναι πράγματι ἀποτέλεσμα οὐ μόνον δακτυλικῆς ἐπιδεξιότητος, ἀλλὰ κυρίως συστηματικῶν καὶ σκοπίμων κινήσεων, μετ' ἀποφυγῆς ἐπαναλήψεως ἀνωφελῶν τοιούτων, ὅπερ εἶναι δυνατὸν νὰ κατορθωθῇ μόνον διὰ τῆς ἀκριβοῦς γνώσεως τῆς ἐγχειρητικῆς ἀνατομικῆς καὶ τῆς προσωπικῆς πείρας.

1. Μέσα πρὸς αἱμόστασιν.

Μεγάλη σημασία δέον νὰ δίδηται πάντοτε εἰς τὴν ἀκριβεστάτην αἱμόστασιν κατὰ τὴν ἐγχείρησιν. Ἡ μεγάλη ἀπώλεια αἵματος βλάπτει τὸν ὅλον ὀργανισμὸν καὶ περιορίζει τὰς ἀμυντικὰς αὐτοῦ δυνάμεις κατὰ τῆς λοιμώξεως. Συλλογὴ αἵματος ἐντὸς τῆς περιτοναϊκῆς κοιλότητος δύναται νὰ καταλήξῃ εἰς διαπύησιν, τὸ αἱμάτωμα δὲ τῶν κοιλιακῶν τοιχωμάτων παρακωλύει τὴν κατὰ πρῶτον σκοπὸν ἐπούλωσιν τοῦ ἐγχειρητικοῦ τραύματος.

Ἡ τριχοειδὴς αἱμορραγία ἐπίσχεται συνήθως ἀφ' ἑαυτῆς καὶ δὲν ἀπαιτεῖ ἰδίαν τινὰ μέριμναν, τοιαύτη ὅμως μεγαλυτέρου βαθμοῦ ἐπίσχεται δι' ἐλαφρᾶς πιέσεως διὰ σπληνίου γάζης. Τὰ μικρότερα ἀγγεῖα συλλαμβάνονται δι' αἱμοστατικῶν λαβίδων, αἵτινες μετά τινα χρόνον, ἄνευ περιδέσεως, ἀφαιροῦνται. Χρησιμοποιοῦμεν πάντοτε λεπτότατον ζωϊκὸν ράμμα κατάλληλον δι' ἀπολίνωσιν, ἵνα καθίσταται εὐχερὴς ἡ ἀπορρόφησις αὐτοῦ. Εἰς τὰς πλείστας τῶν γυναικολογικῶν ἐγχειρήσεων συλλαμβάνονται διὰ μεγαλυτέρων ἰσχυρῶν λαβίδων πλείονα ἀγγεῖα ὁμοῦ μετὰ τοῦ περιβάλλοντος αὐτὰ συνεκτικοῦ ἱστοῦ *(εἰκ. 1—4)*. Πολλοὶ χειρουργοὶ ἀπορρίπτουν τὴν μέθοδον ταύτην τῆς ἀπολινώσεως, διότι νομίζουν ὅτι οὕτω προκαλεῖται νέκρωσις τῶν ἱστῶν, εἰνοοῦσα τὴν λοίμωξιν. Τὸ τοιοῦτον ὅμως οὐδόλως εἶναι ὀρθόν, καθ' ὅσον ἔχει ἀναντιρρήτως ἀποδειχθῆ, ὅτι παρὰ τὴν ἰσχυρὰν περίσφιγξιν τὰ κολοβώματα ἐξακολουθοῦν νὰ τρέφωνται ἐπαρκῶς. Ὁ πρῶτος κόμβος δέον νὰ γίνηται καθ' ὃν χρόνον ὁ βοηθὸς ἀνοίγει βραδέως καὶ προσεκτικῶς τὴν λαβίδα, ἐν ἀνάγκῃ δι' ἀμφοτέρων τῶν χειρῶν οὕτως, ὥστε τὸ ράμμα βραδέως νὰ ὀλισθαίνῃ ἐντὸς τῆς ὑπὸ τῆς λαβίδος σχηματισθείσης ἐντομῆς. Ἀκολούθως ἐκτελοῦμεν τὸν δεύτερον κόμβον καὶ ἐπὶ χρησιμοποιήσεως ζωϊκοῦ ράμματος ἐπὶ πλέον ἕνα

τρίτον κόμβον. Ἐπιθυμῶ ἐνταῦθα νὰ ἀναφέρω ἓν σφάλμα, τὸ ὁποῖον παρετήρησα ἐπανειλημμένως εἰς νέους βοηθούς. Καθ' ὃν χρόνον ἐκτελεῖται ἡ ἀπολίνωσις, εἰσάγουν τοὺς δακτύλους ἐντὸς τῶν κρίκων τῆς λαβίδος καὶ δυσχεραίνουν οὕτω τὸ ἔργον τοῦ χειρουργοῦ, διότι εἶναι ἀναγκαῖον κατὰ τὴν ἐκτέλεσιν τῶν διαφόρων χειρισμῶν πρὸς περίδεσιν ἵνα ἡ λαβὴ μετακινῆται εὐχερῶς πρὸς ὅλας τὰς διευθύνσεις. Ἐν ἐναντίᾳ περιπτώσει ἡ ἀπολίνωσις, ἰδίᾳ εἰς τὸ βάθος,

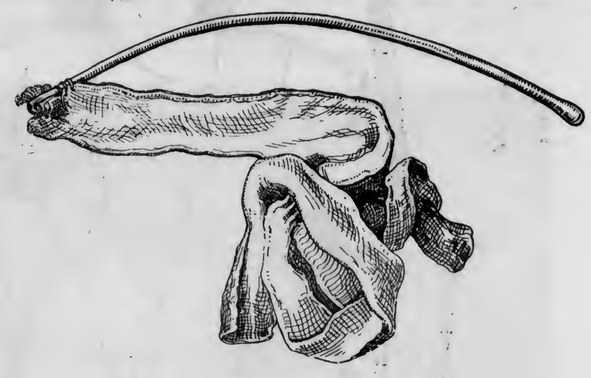


Εἰκ. 1 - 4.—Περίδεσις ἀγγείων.

καθίσταται δυσχερὴς ἐὰν μὴ ἀδύνατος. Μόνον καθ' ὃν χρόνον πρόκειται νὰ διανοιγῇ πρὸς ἀφαίρεσιν ἡ λαβή, εἰσάγει ὁ βοηθὸς τὸν ἀντίχειρα καὶ τὸν μέσον δάκτυλον ἐντὸς τῶν κρίκων τῆς λαβίδος.

Ἡ μέθοδος αἱμοστάσεως κατὰ Doyen καὶ Tuffier, καθ' ἣν ἀσκεῖται δι' ἰσχυρῶν βραχειῶν λαβίδων ἰσχυροτάτη πίεσις διαρκείας 2 λεπτῶν ἐπὶ τῶν ἀγγείων, ἅτινα οὕτω ἄνευ ἀπολινώσεως ἀποφράσσονται, ἔχει ἐγκαταλειφθῇ, ἕνεκα τοῦ κινδύνου τῆς μετεγχειρητικῆς αἱμορραγίας. Ἐὰν ἡ ἀπολίνωσις ἀγγείων εἰς μέγα βάθος κατὰ τὰς κολπικὰς ἐγχειρήσεις ἐμφανίζῃ δυσχερείας, εἶναι δυνατὸν ἐν ἀνάγκῃ νὰ ἐγκαταλειφθῇ ἐπὶ τόπου ἡ συλλαμβάνουσα τὸ ἀγγεῖον λαβὶς ἐπὶ 2—3 ἡμέρας. Γενικῶς κατὰ τὴν ἀφαίρεσιν τῆς λαβίδος δὲν ὑφίσταται πλέον αἱμορραγία. Ἐπειδὴ ὅμως τὸ τοιοῦτον οὐδόλως συμβαίνει πάντοτε, ἡ δὲ παραμονὴ τῆς λαβίδος

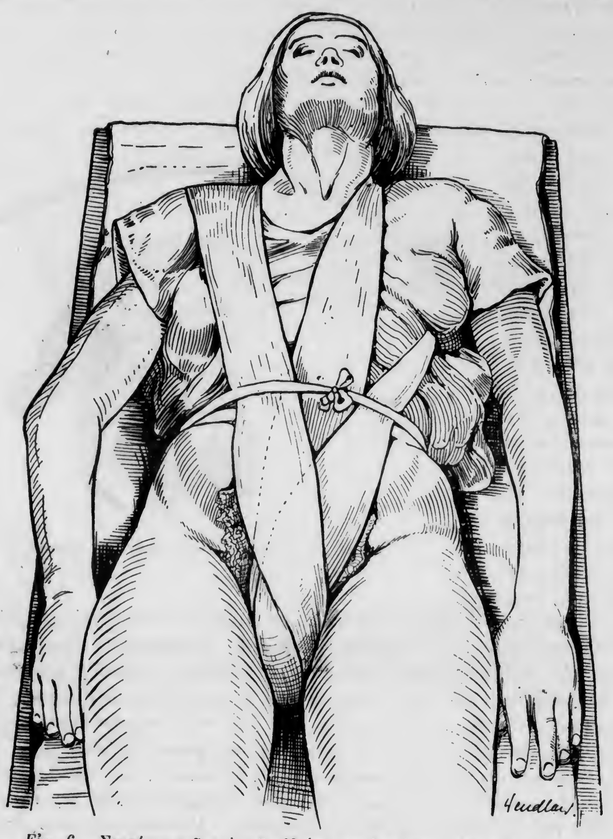
προκαλεῖ ἄλγος καὶ δυσάρεστα ἐνοχλήματα, ὡς καὶ νέκρωσιν τῶν κολοβωμάτων ἐπιφέρουσαν δυσχέρειαν κατὰ τὴν ἐπούλωσιν, ἐπιδιώκομεν κατὰ τὸ δυνατὸν πάντοτε τὴν ἀπολίνωσιν. Τὴν διάχυτον αἱμορραγίαν κατιπαύομεν διὰ ραμμάτων «περιπάρσεως» ἢ πωματίζομεν διὰ γάζης τὴν αἱμορροοῦσαν χώραν, συνεχίζομεν δὲ τὴν ἐγχείρησιν καὶ ἀφαιροῦμεν τὸν πωματισμὸν κατὰ τὸ πέρας τῆς ἐγχειρήσεως. Ἐὰν παρὰ ταῦτα ἐξακολουθῇ ἡ αἱμορραγία, δυνάμεθα νὰ πωματίσωμεν ἐκ νέου καὶ νὰ διαβιβάσωμεν τὴν λωρίδα γάζης πρὸς τὰ ἔξω, πρὸς τὸν σκοπὸν παροχετεύσεως τῶν ἐκκριμάτων τοῦ τραύματος. Τὸ τοιοῦτον ἐπιτυγχάνεται εὐχερῶς ἰδίᾳ κατὰ τὴν ὁλικὴν ὑστερεκτομήν, καθ' ἣν διαβιβάζομεν τὴν πωματίζουσαν λωρίδα γάζης τῇ βοηθείᾳ τῆς ἀγκιστροφόρου μήλης τοῦ Amann *(εἰκ. 5)* διὰ τῆς ὀπῆς τοῦ κολεοῦ πρὸς τὰ ἔξω. Ἐὰν ἡ μήτρα ἔχει διατηρηθῇ ἢ ἐγένετο ὑπερκολπικὴ ὑστερεκτομή, διαβιβάζεται ἡ λωρὶς δι' ὀπῆς διανοιγείσης πρὸς τοῦτο κατὰ τὸν ὀπίσθιον θόλον τοῦ κολεοῦ καὶ ἀκολούθως κλείεται ἡ περιτοναϊκὴ κοιλότης. Ἐνίοτε ὅμως δὲν ἐπιτυγχάνεται ἡ αἱμόστασις διὰ τοῦ ἁπλοῦ πωματισμοῦ, εἴτε διότι ἡ αἱμάσσουσα ἐπιφάνεια εἶναι πολὺ μεγάλη, εἴτε διότι ὑφίσταται προδιάθεσις τοῦ ὀργανισμοῦ πρὸς αἱμορραγίαν. Εἰς τοιαύτας περιπτώσεις, ὡς καὶ ὅταν ἡ σύλληψις καὶ ἀπολίνωσις τοῦ ἀγγείου ἀποτυγχάνει, συνιστᾶται ὁ πωματισμὸς κατὰ Mikulicz. Τὴν μέθοδον ταύτην κατὰ κανόνα ἀποφεύγομεν, καθ' ὅσον αὕτη ἐπὶ ἰσχυρᾶς ἀρτηριακῆς αἱμορραγίας ἀποτυγχάνει πλήρως. Μειονέκτημα τῆς μεθόδου ταύτης εἶναι καὶ ὁ κίνδυνος ἐπιγενοῦς μολύνσεως, ἥτις παρατείνει τὴν ἀνάρρωσιν, ὡς καὶ ἡ μετεγχειρητικὴ κοιλιοκήλη. Δὲν μεταχειριζόμεθα αἱμοστατικὰ φάρμακα, ὡσαύτως ἀποφεύγομεν τὴν διὰ τοῦ θερμοκαυτῆρος καυτηρίασιν τοῦ αἱμορροοῦντος ἀγγείου, καθ' ὅσον ἡ δι' αὐτοῦ δημιουργουμένη ἐσχάρα εὐχερῶς προκαλεῖ λοιμώξεις καὶ εὐνοεῖ τὸν σχηματισμὸν συμφύσεων. Ἡ ἀπολίνωσις τῶν ἔσω λαγονίων ἀρτηριῶν πρὸς καταπολέμησιν ἀφθόνου αἱμορραγίας δὲν εἶναι εἰς χρῆσιν πλέον εἰς τὴν κλινικήν μου, ἀπὸ τῆς ἐφαρμογῆς τῆς ἡμετέρας μεθόδου αἱμοστάσεως. Ἡ ἀπολίνωσις ἐνεργεῖται ὑπὸ διαφόρων χειρουργῶν προφυλακτικῶς πρὸ τῆς ἐκτελέσεως τοῦ κυρίου μέρους τῆς ἐγχειρήσεως, πρὸς ἀποφυγὴν μεγάλης ἀπωλείας αἵματος, οὐδόλως ὅμως αὕτη εἶναι ἀπολύτως ἀβλαβής, ὡς ἡ ἀκόλουθος περίπτωσις ἀποδεικνύει. Εἰς τὴν κλινικήν μου ἐξετελέσθη μετ' ἀρίστης τεχνικῆς κοιλιακὴ ὑστερεκτομὴ κατὰ Wercheim ὑπὸ γνωστοτάτου χειρουργοῦ ἀλλοδαποῦ. Μετὰ προηγηθεῖσαν ἀπολίνωσιν ἀμφοτέρων τῶν ἔσω λαγονίων ἀρτηριῶν, ἡ κοιλιακὴ κοιλότης παρέμεινεν ἀνοικτὴ καὶ ἡ τραυματικὴ ἐπιφάνεια ἐπωματίσθη διὰ σάκκου Mikulicz. Εἴκοσιν ἡμέρας μετὰ τὴν ἐγχείρησιν παρετηρήθη ἔξοδος οὔρων ἀπὸ τοῦ κολεοῦ. Ἡ ἐξέτασις ἀπέδειξε νέκρωσιν τοῦ τοιχώματος τῆς οὐροδόχου κύστεως, ὀφειλομένην εἰς τὴν ἀτελῆ αἱμάτωσιν τῆς οὐροδόχου κύστεως ἕνεκα τῆς ἀπολινώσεως τῶν ἔσω λαγονίων ἀρτηριῶν. Μετά τινα χρόνον ἐπῆλθεν ἀπόπτωσις τοῦ νεκρωθέντος τμήματος ἐκ τῶν ἄνω. 2 ½ μῆνας μετὰ ταῦτα τὸ ὑπερμέγεθες κυστιοκολπικὸν συρίγγιον (ἀπώλεια ὁλοκλήρου τοῦ πυθμένος καὶ τοῦ ὀπισθίου τοιχώματος τῆς κύστεως) συνεκλείσθη ὑπ' ἐμοῦ διὰ χρησιμοποιήσεως τοῦ προσθίου τοιχώματος τοῦ ἀπηυθυσμένου πρὸς



Εἰκ. 5.—Ἀγκιστροφόρος μήλη τοῦ Amann.

ἀναπλήρωσιν τοῦ ἐλλείποντος τοιχώματος τῆς κύστεως, ἐπιτευχθείσης οὕτω τελείας ἰάσεως (1).

Ἐπὶ ἰσχυρᾶς αἱμορραγίας πρὸς ἀνεύρεσιν καὶ ἀπολίνωσιν τοῦ αἱμορροοῦντος ἀγγείου πιέζομεν διὰ τοῦ δακτύλου τὴν ἀορτὴν ἰσχυρῶς ἐπὶ τῆς σπονδυλικῆς στήλης χρησιμοποιοῦν-



Εἰκ. 6.—Συμπίεσις τοῦ πρὸ τοῦ αἰδοίου τοποθετηθέντος ὄγκου βάμβακος δι' ἐπιδέσμου περιβάλλοντος τοὺς ὤμους.

τες σπληνίον γάζης, οὕτω δὲ ἐπέρχεται προσωρινῶς αἱμόστασις, ἥτις εὐχεραίνει τὴν σύλληψιν τοῦ ἀγγείου.

Ὁ ἐλαστικὸς σωλὴν τοῦ Momburg ὡς καὶ τὰ μηχανήματα τοῦ Riediger καὶ Sehrt δὲν εἶναι ἀκίνδυνα. Ἐπὶ αἱμορραγίας, ἥτις ἐνίοτε ἐπέρχεται μετ' ἐγχειρήσεις κατὰ τὸν κολεὸν ἢ κατὰ τὰ ἐξωτερικὰ γεννητικὰ ὄργανα καὶ ἥτις κατὰ τὸ πλεῖστον ὀφείλεται εἰς πρώϊμον ἀπορρόφησιν ζωϊκῶν ραμμάτων, πρὸς ἀποφυγὴν τοῦ κολπικοῦ πωματισμοῦ, ὅστις θὰ θέσῃ ἐν ἀμφιβόλῳ τὸ ὅλον ἀποτέλεσμα τῆς ἐγχειρήσεως, ὡς ἐπὶ παραδείγματι μιᾶς πλαστικῆς, ἐφαρμόζω τὴν ἀκόλουθον μέθοδον ἐπιτυχῶς :

1. Complications urinaires après l'opération de *Wertheim* par *Donay* et *Antonopoulos* Gynécologie et Obstetrique XXIII Nr. 3, Mars 1931.

Τοποθετῶ ὄγκον βάμβακος ἐπὶ τῶν ἐξωτερικῶν γεννητικῶν ὀργάνων καὶ πιέζω τοῦτον διὰ ταινίας ἐπιδέσμου, ἥτις κατὰ πρῶτον περιβάλλει τὴν ὀσφύν. Ἐκ τῶν ὄπισθεν φέρεται τότε αὕτη μεταξὺ τῶν μηρῶν πρὸς τὰ πρόσω καὶ ὑπεράνω τῶν ὤμων καὶ ἐπαναλαμβάνεται ἡ περιφορὰ αὐτῆς πολλάκις, ὥστε νὰ προκληθῇ οὕτω ἰσχυρὰ πίεσις ἐπὶ τῶν ἐξωτερικῶν γεννητικῶν ὀργάνων. Εἰς τὴν εἰκ. 6 γίνεται εὐχερέστερον καταληπτὸς ὁ ἐπίδεσμος οὗτος.

2. Αἱμοστατικὴ μέθοδος «εἰς περιπτώσεις ἀνάγκης» κατὰ Λογοθετόπουλον

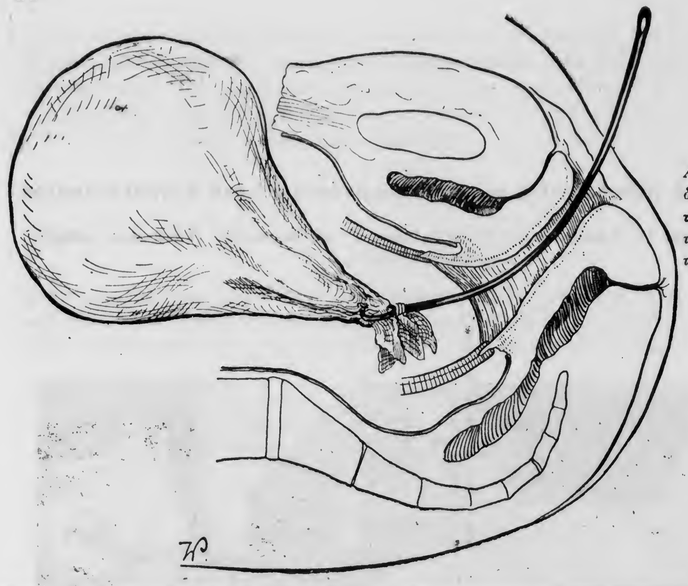
Κατὰ Nürnberger (1) «Logotampon». Κατὰ Seliheim (2) «Griechenpilz» (ἑλληνικὸς μύκης) ὀνομασθεῖσα.

Ἵνα ἀποφευχθῇ ὁ παροχετευτικὸς πωματισμὸς διὰ τῶν κοιλιακῶν τοιχωμάτων καὶ καταστῇ δυνατὴ ἡ ἐφαρμογὴ ἀποτελεσματικοῦ πωματισμοῦ διὰ τοῦ κολεοῦ, ἐπενόησα ἰδίαν μέθοδον, ἥτις εἶναι ἱκανὴ νὰ καταπαύσῃ οἱανδήποτε, καὶ τὴν ἰσχυροτάτην ἔτι, ἀρτηριακὴν αἱμορραγίαν. Ἡ μέ-

*Εἰκ. 7.—Αἱμοστατικὴ μέθοδος κατὰ **Λογοθετόπουλον**.*
Εἰσαγωγὴ τοῦ βύσματος πρὸς τὸν κολπικὸν αὐλόν, μετὰ τὴν ἐξαίρεσιν τῆς μήτρας.

θοδος αὕτη ἐπενοήθη διὰ τὴν περίπτωσιν μόνον ἀνάγκης καὶ ἀπεδείχθη ἤδη ἀπὸ πολλῶν ἐτῶν εἰς ὡρισμένας περιπτώσεις ἀρίστη. Ἐνεργῶ ὡς ἀκολούθως : Πληρῶ καλῶς σάκκον ἐκ τετραγωνικοῦ τεμαχίου γάζης διὰ μακρᾶς λωρίδος γάζης οὕτως, ὥστε νὰ σχηματισθῇ σφαιρικὸς ὄγκος περίπου κεφαλῆς παιδός. Τὸ μέγεθος τοῦ βύσματος ἐξαρτᾶται ἐκ τῆς θέσεως τοῦ αἱμορ

1. Zbl. Gynäk. 1926 Nr. 50, 3202
2. Zbl. Gynäk. 1930 Nr. 21, 1318.

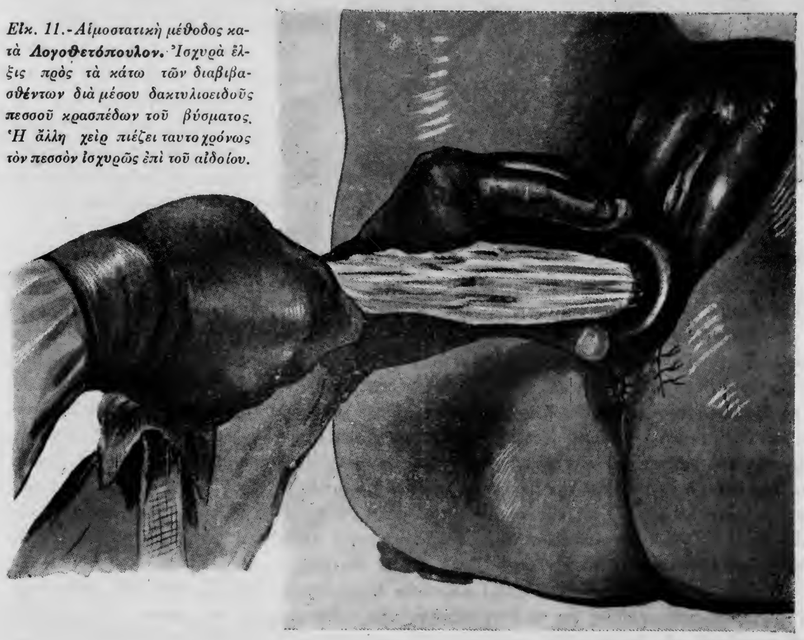


Εἰκ. 8.
Αἱμοστατικὴ μέθοδος κατὰ **Λογοθετόπουλον**. *Σχηματικὴ παράστασις τῶν τελουμένων εἰς τὴν εἰκ. 7.*

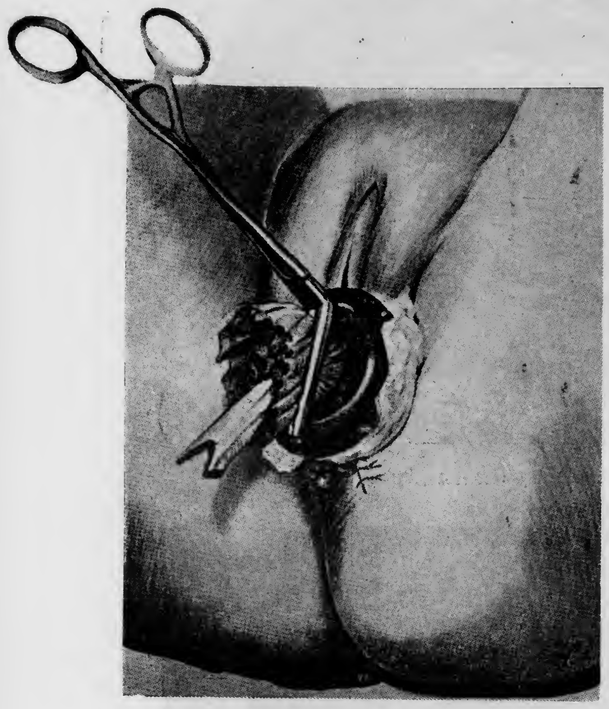
Εἰκ. 9.—Αἱμοστατικὴ μέθοδος κατὰ **Λογοθετόπουλον**.
Ἰσχυρὰ ἕλξις τῆς γάζης πρὸς τὰ κάτω μέχρι τῆς εἰσόδου τοῦ βύσματος ἐντὸς τῆς ἐλάσσονος πυέλου.

Εἰκ. 10.—Αἱμοστατικὴ μέθοδος κατὰ **Λογοθετόπουλον**. *Βύσμα ἐφαρμοσθέν.*

Εἰκ. 11.-Αἱμοστατικὴ μέθοδος κατὰ **Λογοθετόπουλον**. *Ἰσχυρὰ ἕλξις πρὸς τὰ κάτω τῶν διαβιβασθέντων διὰ μέσου δακτυλιοειδοῦς πεσσοῦ κρασπέδων τοῦ βύσματος. Ἡ ἄλλη χεὶρ πιέζει ταυτοχρόνως τὸν πεσσὸν ἰσχυρῶς ἐπὶ τοῦ αἰδοίου.*



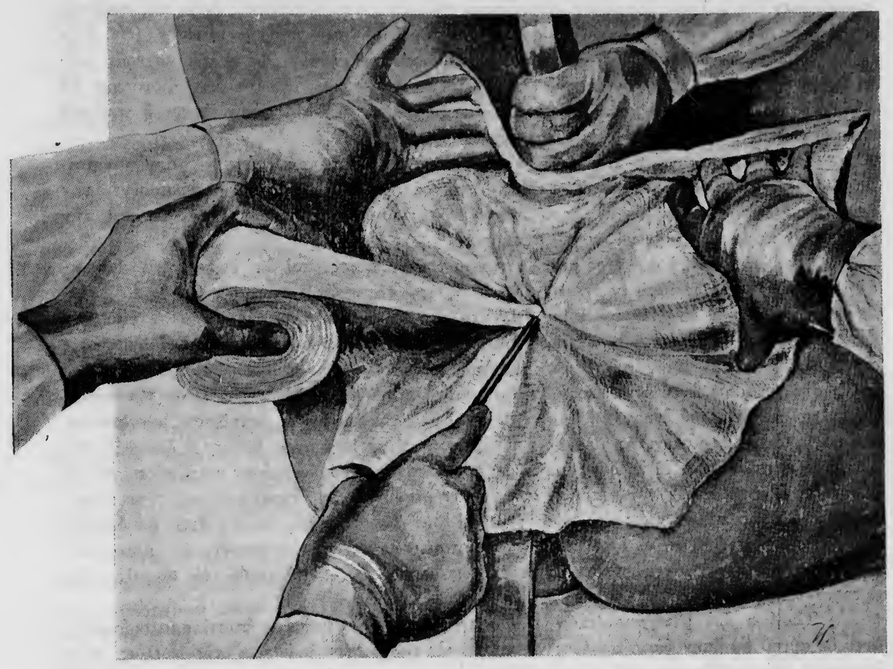
ροοῦντος ἀγγείου, τόσον μεγαλύτερον ὅσον περισσότερον ἀπέχει τὸ ἀγγεῖον ἀπὸ τοῦ πυελικοῦ ἐδάφους. Τὰ τέσσαρα κράσπεδα τῆς ἐξωτερικῆς γάζης ὡς καὶ τὸ μεταξὺ τούτων κρεμάμενον ἄκρον τῆς λωρίδος γάζης, ὅπερ πρὸς διάκρισιν δέον νὰ εἶναι κατά τι μακρότερον τῶν τεσσάρων κρασπέδων, συλλαμβάνω ὁμοῦ διὰ μιᾶς ἀγκιστροφόρου μήλης τοῦ Amann, ἣν ὁδηγῶ ἀπὸ τῆς κοιλιακῆς κοιλότητος διὰ μέσου τοῦ κολεοῦ πρὸς τὰ ἔξω γεννητικὰ ὄργανα *(εἰκ. 7 καὶ 8)*. Ὁ βοηθὸς συλλαμβάνει ταῦτα καὶ ἕλκει ἰσχυρῶς πρὸς τὰ κάτω μέχρι οὗ τὸ σφαιρικὸν βύσμα εἰσέλθῃ εἰς τὴν ἐλάσσονα πύελον καὶ δυνηθῇ νὰ ἀσκήσῃ πίεσιν ἐπὶ τῶν ἀγγείων *(εἰκ. 9)*. Τὸ τοιοῦτον ἐπιτυγχάνεται καὶ δι' εἰσαγωγῆς διὰ τοῦ κολεοῦ μακρᾶς αἱμοστατικῆς λαβίδος, ἥτις ἅμα ἀναφανῇ εἰς τὴν περιτοναϊκὴν κοιλότητα διανοίγεται καὶ συλλαμβάνει τὰ εἰς αὐτὴν εἰσαγόμενα ἄκρα τοῦ πώματος καὶ ἕλκει πρὸς τὰ ἔξω. Καθ' ὃν χρόνον ὁ βοηθὸς ἕλκει, ὁ χειρουργὸς ὑποβοηθεῖ πιέζων ἐκ τῶν ἄνω καὶ διακρατῶν τὸ βύσμα βαθέως ἐντὸς τῆς πυέλου μέχρι οὗ τοῦτο τελείως στερεωθῇ *(εἰκ. 10)*. Τὸ τοιοῦτον ἐπιτυγχάνεται ὡς ἀκολούθως: Ἕλκομεν τὰ ὅ ἔξω τοῦ κολεοῦ κρεμάμενα κράσπεδα γάζης διὰ μέσου ἑνὸς μεγάλου δακτυλιοειδοῦς πεσσοῦ, ὃν ὠθοῦμεν διὰ τῆς ἀριστερᾶς χειρὸς ἐπὶ τοῦ κάτω χείλους τῆς ἠβικῆς συμφύσεως, τῶν κατιόντων ἠβικῶν κλάδων καὶ τοῦ πυελικοῦ ἐδάφους, ἐνῷ ἡ δεξιὰ χεὶρ μεθ' ὅλης τῆς δυνάμεως ἕλκει τὰ κράσπεδα *(εἰκ. 11)*. Ἀκολούθως, ἄλλος βοηθὸς τοποθετεῖ ἰσχυρὰν λαβίδα ἀκριβῶς πρὸ τοῦ πεσσοῦ, ὅστις ἤδη εὑρίσκεται μεταξὺ αἰδοίου καὶ λαβίδος *(εἰκ. 12)*.



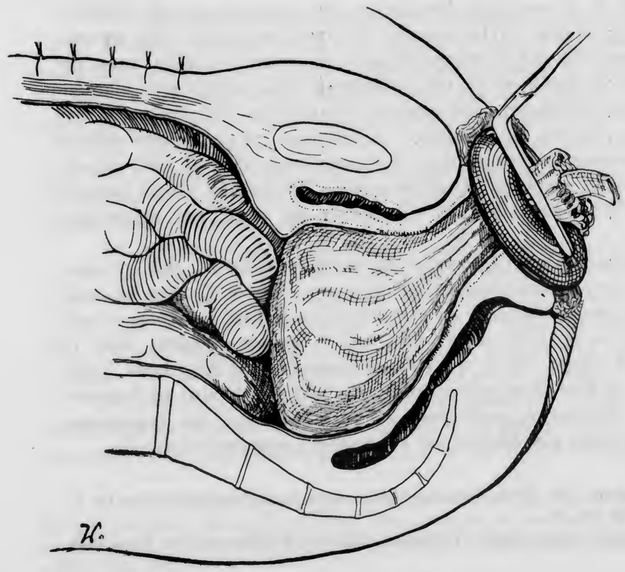
Εἰκ. 12.—Αἱμοστατικὴ μέθοδος κατὰ ***Δογοθετόπουλον.*** *Ὁ πεσσὸς διατηρεῖται εἰς τὴν θέσιν του δι' ἰσχυρᾶς λαβίδος. Προάσπισις τοῦ αἰδοίου διὰ γάζης τοποθετηθείσης κάτω τοῦ πεσσοῦ.*

Αὐτονόητον εἶναι ὅτι πρὸ τῆς ἐγχειρήσεως δέον νὰ ὑπάρχῃ πρόχειρον ἕτοιμον ἄσηπτον βύσμα. Συμβουλεύω ἐν τούτοις πάντοτε νὰ διατηρῆται ἐν ἐφεδρείᾳ καὶ ἓν δεύτερον ἕτοιμον πρὸς χρῆσιν βύσμα, ὥστε ἐπὶ μὴ ὀρθῆς τοποθετήσεως τοῦ πρώτου βύσματος νὰ δυνάμεθα νὰ τὸ ἀντικαταστήσωμεν ἀμέσως δι' ἑνὸς νέου. Ἵνα ὁ μίσχος τοῦ βύσματος καταστῇ λεπτότερος καὶ ἵνα δύναται νὰ διαβιβάζεται εὐχερέστερον, ἀποκόπτομεν τὰς σχηματιζομένας μετὰ τὴν πλήρωσιν τοῦ σάκκου ἐπὶ τῶν πλαγίων περιττὰς πτυχάς. Ἡ αἱμορραγία ἐπίσχεται πάραυτα μετὰ τὴν ἀκριβῆ ἐφαρμογὴν τοῦ βύσματος, ὁπόταν δυνάμεθα νὰ ἐξακολουθήσωμεν τὴν ἐγχείρησιν ἐν πάσῃ ἠρεμίᾳ. Ὁ σάκκος ἀπομονοῦται ἀπὸ τῆς ἀνωτέρας μοίρας τῆς περιτοναϊκῆς κοιλότητος, ἀφ' οὗ τὸ περιτόναιον τῆς κύστεως συρραφῇ πρὸς τὸ ἀπευθυσμένον ἢ καὶ πρὸς τὸ σιγμοειδές, ὅπερ κατὰ τὸ πλεῖστον ἐπιτυγχάνεται εὐχερῶς.

Πρὸς ἐπίσχεσιν αἱμορραγίας ἐπὶ κολπικῶν ἐγχειρήσεων ἐνεργῶ κατὰ τὸν αὐτὸν τρόπον, μὲ τὴν διαφορὰν ὅμως ὅτι πρῶτον εἰσάγω τὸν κενὸν σάκκον διὰ μέσου τοῦ κολπικοῦ τραύματος ἐντὸς τῆς περιτοναϊκῆς κοιλότητος διὰ στειλεοῦ *(εἰκ. 13)* ἢ διὰ μακρᾶς ἀνατομικῆς λα-



Εἰκ. 13.—Αἱμοστατικὴ μέθοδος κατὰ ***Δογοθετόπουλον,*** *ἐπὶ κολπικῶν ἐγχειρήσεων. Πλήρωσις τοῦ εἰσαχθέντος κενοῦ ἐκ γάζης σάκκου διὰ λωρίδος γάζης.*



Εἰκ. 14.— Αἱμοστατικὴ μέθοδος κατὰ ***Δογοθετόπουλον.*** *Ὀρθὴ τοποθέτησις τοῦ βύσματος. Σχηματικὴ ἀναπαράστασις.*

βίδος καὶ ἀκολούθως πληρῶ τὸν σάκκον διὰ μακρᾶς λωρίδος γάζης. Ἐκ παραλλήλου δέον νὰ προσέχωμεν ἵνα ἡ λωρὶς ἰσομερῶς κατανέμηται πρὸς ὅλας τὰς διευθύνσεις ἐντὸς τῆς πυελικῆς κοιλότητος οὕτως, ὥστε ὁ πληρωθεὶς σάκκος νὰ προσλάβῃ τὴν μορφὴν μύκητος (*εἰκ. 14*).

Πρὸς ἀποφυγὴν νεκρώσεων αἵτινες δυνατὸν νὰ προκληθοῦν ὡς ἐκ τῆς ἰσχυρᾶς πιέσεως τοῦ πεσσοῦ ἐπὶ τοῦ αἰδοίου, τοποθετῶ μεταξὺ πεσσοῦ καὶ αἰδοίου κατ' ἀμφότερα τὰ πλάγια τοῦ μίσχου τοῦ βύσματος μικρὸν στρῶμα βάμβακος. Διὰ τὸν αὐτὸν λόγον ἡ πρὸ τοῦ πεσσοῦ τοποθετουμένη λαβὶς ἀφαιρεῖται μετὰ 8 ὥρας.

Πᾶς ὅμως περαιτέρω χειρισμὸς ἐπὶ τῆς γάζης ἢ τοῦ πεσσοῦ δέον νὰ ἀποφεύγηται, ἀφαιρουμένου τοῦ τελευταίου μετὰ 24 ὥρας. Ἀπὸ τῆς τρίτης ἡμέρας ἀρχόμεθα ἀφαιροῦντες τὴν ἐσωτερικὴν λωρίδα γάζης μέχρι τῆς πέμπτης ἡμέρας, ὁπότε ἀφαιροῦμεν ὡσαύτως καὶ τὴν ἐξωτερικὴν περικαλυπτικὴν γάζαν τοῦ βύσματος.

Ἵνα διαπιστωθῇ ἀφ' ἑνὸς μὲν ἡ ἐνέργεια τοῦ βύσματος καὶ ἀφ' ἑτέρου ἵνα καθορισθῇ ἀκριβῶς ἡ θέσις αὐτοῦ ἐν σχέσει πρὸς τὰ ὄργανα τῆς πυέλου, τῇ ὑποδείξει τοῦ *Γ. Σκλαβούνου* καὶ ὑπὸ τὴν ὁδηγίαν τοῦ ἰδίου ἐγένοντο εἰς τὸ ἐν Ἀθήναις Ἀνατομεῖον ὑπὸ τοῦ *Ν. Χρηστοπούλου* (1) ἔρευναι ἐπὶ πέντε πτωμάτων. Ἐγένοντο 3 κολπικαὶ καὶ δύο κοιλιακαὶ ὑστερεκτομαί, καθ' ἃς ἐφηρμόσθη ὁ πωματισμὸς ἀκριβῶς κατὰ τὸν ἄνω περιγραφέντα τρόπον, τ.ἔ. ὡς ἐπὶ ζώσης γυναικός, ἄνευ ἐπιδέσεως τῶν μητριαίων ἀρτηριῶν. 2—3 ἡμέρας μετὰ τὴν ἐφαρμογὴν τοῦ πωματισμοῦ ἐνηργήθη ἔνεσις χρωστικῆς εἰς τὴν καρωτίδα, ἀσκηθείσης μεγαλυτέρας πιέσεως ἀπὸ τῆς φυσιολογικῆς πιέσεως τοῦ αἵματος. Μετὰ 15 ἡμέρας ἐγένετο ἡ διάνοιξις τῆς κοιλίας τῶν πτωμάτων, ἐξ ἧς διεπιστώθη ὅτι τόσον τὸ ἀπευθυσμένον, ὅσον καὶ ἡ κύστις καὶ οἱ οὐρητῆρες ἔκειντο ἔξωθι τοῦ ὑπὸ πίεσιν εὑρισκομένου πεδίου, ἀποκλειομένης οὕτω οἱασδήποτε βλάβης αὐτῶν, ὡς τὸ τοιοῦτον καὶ διὰ τῆς κλινικῆς πείρας ἔχει ἀποδειχθῆ. Ὡσαύτως διεπιστώθη ὅτι οἱ ἱστοὶ πέριξ τῶν διαταμεισῶν καὶ μὴ ἀπολινωθεισῶν μητριαίων ἀρτηριῶν παρέμειναν ἄνευ χρωστικῆς διαλύσεως, τοῦθ' ὅπερ ἀποδεικνύει τὸ ἀσφαλὲς τῆς ἀρτηριακῆς αἱμοστάσεως.

Ὁμοίως ἐπὶ μετεγχειρητικῶν αἱμορραγιῶν τὸ βύσμα ὑπῆρξεν ἀποτελεσματικώτατον, ἄνευ δὲ αὐτοῦ θὰ ἤμην ὑποχρεωμένος νὰ προβῶ εἰς τὴν ἐκ νέου διάνοιξιν τῆς κοιλίας πρὸς ἀνεύρεσιν καὶ ἀπολίνωσιν τοῦ αἱμορροοῦντος ἀγγείου, μετ' ἀμφιβόλου ἀποτελέσματος. Ὁ Weber εἰς τὸ βιβλίον του (2), ἐν ᾧ περιγράφει λεπτομερῶς τὴν αἱμοστατικήν μου μέθοδον, ἐπὶ τοῦ σημείου τούτου γράφει τὰ ἑξῆς: «Προσωπικῶς ἀφ' ὅτου γνωρίζομεν τὴν τεχνικὴν ταύτην, οὐδέποτε πλέον εἴχομεν ἀνάγκην νὰ ἐγκαταλείψωμεν αἱμοστατικὴν λαβίδα κατὰ τὴν ἐγχείρησιν, ἔτι δὲ ὀλιγώτερον νὰ προβῶμεν εἰς τὴν λαπαροτομὴν πρὸς ἀναζήτησιν αἱμορροοῦντος ἀγγείου». Ἡ ἐφαρμογὴ τοῦ βύσματος εἰς τοιαύτας περιπτώσεις, εἴτε κοιλιακῶς εἴτε κολπικῶς ἐγένετο ἡ ἐγχείρησις, τελεῖται ὡς ἀκολούθως: Διανοίγομεν τὰ συρραφέντα κολπικὰ τοιχώματα ὡς καὶ τὸ περιτόναιον καὶ ἐφαρμόζομεν τὸν πωματισμὸν ὡς καὶ κατὰ τὰς κολπικὰς ἐγχειρήσεις. Ἐὰν τὸ βύσμα προσλάβῃ τὸ πρέπον μέγεθος, ἐὰν δηλαδὴ πληροῖ ἐπαρκῶς τὴν ἐλάσσονα πύελον καὶ ἐφαρμοσθῇ καλῶς, ἡ αἱμορραγία εἰς πάσας τὰς περιπτώσεις ἐπίσχεται ἀσφαλῶς.

Ἐπὶ ἐξησθενημένων ἀρρώστων καὶ ἐπιπλόκων κοιλιακῶν ἐγχειρήσεων, ἰδίᾳ εἰς περιπτώσεις ἀναγκαίας παροχετεύσεως, παραιτοῦμαι τῆς ἀπολινώσεως τῶν ἐν τῷ βάθει κειμένων δυσπροσίτων ἀγγείων καὶ ἐφαρμόζω τὸ βύσμα. Αἱ τοποθετηθεῖσαι λαβίδες ἀποσύρονται πρὶν ἢ τὸ βύσμα τελείως στερεωθῇ εἰς τὴν θέσιν αὐτοῦ, ἤτοι καθ' ὃν χρόνον ὁ βοηθὸς ἔλκει τὸ βύσμα πρὸς τὰ κάτω. Διὰ τοῦ τρόπου τούτου ἡ ἐγχείρησις περατοῦται εἰς ὀλίγα λεπτά, τοῦθ' ὅπερ ἔχει μεγάλην σημασίαν εἰς λίαν ἐξηντλημένας ἀρρώστους. Δὲν ἐννοῶ διατὶ νὰ διακινδυνεύεται ἡ ζωὴ τῆς ἀρρώστου εἰς τοιαύτας περιπτώσεις διὰ τῆς παρατάσεως τῆς ἐγχειρήσεως ἕνεκα τῆς λεπτομεροῦς ἀπολινώσεως τῶν ἀγγείων καὶ τῆς ἀκριβοῦς περιτοναιοπλαστικῆς.

---

1. Anatomische Ergebnisse der Blutstillungsmethode nach Logothetopulos. Von Dr. C. Christopoulos. Zbl. Gynäk. 1933 Nr. 14.

2. Eric Weber. Techniques chirurgicales Vaginales. Editeurs Baillère et Fils. Paris 1948.

Ἐκεῖνος ὅστις ἅπαξ ἐφήρμοσε τὸ βύσμα θὰ ἐξετίμησε τὴν ἀξίαν αὐτοῦ. Θὰ παρετήρησε μετὰ πόσης ἠρεμίας καὶ ἀσφαλείας ἐπιλαμβάνεται καὶ τῆς δυσχερεστέρας ἔτι γυναικολογικῆς ἐγχειρήσεως, ὅταν ἐκ τῶν προτέρων εἶναι βέβαιος ὅτι δύναται εὐχερῶς νὰ γίνῃ κύριος οἱασδήποτε ἀπροόπτου αἱμορραγίας.

Ἐξετέλεσα μετ' ἐπιτυχίας κολπικὰς καὶ κοιλιακὰς ἐγχειρήσεις εἰς τὰς μεγαλυτέρας πανεπιστημιακὰς κλινικὰς τῆς Εὐρώπης, Παρισίων J. L. Faure, Λειψίας Sellheim, Βιέννης Halban, Βερολίνου Stoeckel, Χάλλε Nürnberger, ὡς καὶ εἰς τὴν Κωνσταντινούπολιν, κλινικὴ Σγουρδαίου, ἄνευ ἀπολινώσεως κατὰ τὰς λαπαροτομὰς τῶν μητριαίων ἀρτηριῶν, κατὰ δὲ τὰς κολπικὰς ἐγχειρήσεις οὐδενὸς ἀγγείου, ἵνα ἀποδείξω τὴν ἐνέργειαν τοῦ βύσματος. Ἐκ τοῦ γεγονότος τούτου συνάδελφοί τινες ἐνόμισαν ὅτι θεωρῶ τὴν μέθοδόν μου ταύτην ὡς τὸν γενικὸν τρόπον αἱμοστασίας. Ὅτι τὸ τοιοῦτον οὐδόλως εἶναι ἀληθὲς ἀνέπτυξα ἤδη ἐν τοῖς προηγουμένοις. Τονίζω καὶ πάλιν ὅτι τὸ βύσμα δέον νὰ χρησιμοποιῆται εἰς περιπτώσεις μόνον ἀνάγκης ἐπὶ αἱμορραγίας ἥτις κατ' ἄλλον τρόπον οὐδόλως ἢ δυσχερῶς ἐπίσχεται, ὁπότε τοῦτο παρέχει βεβαίαν βοήθειαν.

Αἱμόστασις μετὰ τὸν τοκετὸν εἰς περιπτώσεις ἀτονίας τῆς μήτρας μετὰ τὴν ἐκβολὴν τοῦ πλακοῦντος, κατὰ Λογοθετόπουλον (1).

Ἓν ἐκ τῶν μέχρι τοῦδε ἀλύτων προβλημάτων ἐν τῇ Μαιευτικῇ ἦτο ἡ ἐπίσχεσις τῆς αἱμορραγίας ἕνεκα ἀτονίας τῆς μήτρας μετὰ τὴν ἐκβολὴν τοῦ πλακοῦντος. Παρ' ὅλα τὰ μέχρι τοῦδε γνωστὰ μέσα, ἀρκετὸς ἀριθμὸς νεαρῶν γυναικῶν ἀποθνήσκει. Μόνον ἐκεῖνος ὅστις παρέστη εἰς τοιαύτας περιπτώσεις εἶναι εἰς θέσιν νὰ κρίνῃ τὴν τραγικότητα ἑνὸς τοιούτου θανάτου.

Πάντα τὰ μέχρι τοῦδε γνωστὰ μέσα αἱμοστάσεως μετὰ τὸν τοκετόν, τὰ περιγραφόμενα εἰς πάντα τὰ μαιευτικὰ συγγράμματα, εἶναι ἀβέβαια. Ἡ ἐν τοῖς προηγουμένοις περιγραφεῖσα αἱμοστατικὴ μέθοδος, τοῦ καθ' ἕλξιν πωματισμοῦ, ἐφαρμοσθεῖσα καὶ ἐπὶ αἱμορραγίας ἕνεκα ἀτονίας τῆς μήτρας μετὰ τὸν τοκετὸν ἐπέτυχεν ἀπολύτως. Τὸ τοιοῦτον ἀπεδείχθη ἐπὶ τῇ βάσει πολλῶν περιπτώσεων ἐν τῷ Δημοσίῳ Μαιευτηρίῳ κατὰ τὸν χρόνον τῆς ὑπ' ἐμοῦ διευθύνσεως τούτου.

Ἡ ἐφαρμογὴ τοῦ πωματισμοῦ τούτου ἐκτελεῖται ὡς ἀκολούθως:

Ἡ ἄρρωστος τοποθετεῖται ἐπὶ τῆς πλαγίας πλευρᾶς τῆς κλίνης οὕτως, ὥστε τὰ ἰσχία νὰ προέχουν, τὰ ἐξωτερικὰ γεννητικὰ ὄργανα καθαρίζονται, ὁ κολεὸς ἀποστειροῦται καὶ ἡ οὐροδόχος κύστις κενοῦται διὰ καθετῆρος. Μετὰ τὴν τοποθέτησιν εὐρέων διαστολέων ἐν τῷ κολεῷ συλλαμβάνομεν δι' ἀγκιστροειδῶν λαβίδων τὸ πρόσθιον καὶ ὀπίσθιον χεῖλος τῆς μήτρας καὶ ἕλκομεν ταύτην ἰσχυρῶς πρὸς τὰ κάτω. Εἶτα εἰσάγομεν τοὺς κολποδιαστολεῖς ἐντὸς τῆς κοιλότητος τῆς μήτρας οὕτως, ὥστε τὸ στόμιον αὐτῆς νὰ διανοιγῇ εὐρέως. Ἐν συνεχείᾳ προβαίνομεν εἰς τὸν πωματισμόν, ὡς τὸ τοιοῦτον πράττομεν κατὰ τὰς κολπικὰς ἐγχειρήσεις ἐν περιπτώσει αἱμορραγίας *(εἰκ. 13)*.

Τὸ κυριώτερον σημεῖον τῆς ἐφαρμογῆς τοῦ πωματισμοῦ εἶναι ἡ ὁμοιόμορφος καὶ καθ' ὅλας τὰς διευθύνσεις εἰσαγωγὴ τῆς λωρίδος γάζης οὕτως, ὥστε ὁ σχηματιζόμενος σφαιρικὸς ὄγκος ἐντὸς τῆς μήτρας νὰ μὴ ἐξέρχηται πρὸς τὰ ἔξω κατὰ τὴν ἰσχυρὰν ἕλξιν αὐτοῦ *(εἰκ. 11)*. Ἡ ἀφαίρεσις τοῦ πώματος γίνεται μετὰ πάροδον 3—4 ὡρῶν, ἀφοῦ ἀφαιρέσωμεν πρῶτον τὴν λωρίδα γάζης καὶ τελευταίως τὴν τετράγωνον γάζαν. Ἡ ἀφαίρεσις δύναται νὰ συντελεσθῇ καὶ ἐνωρίτερον, ἐφ' ὅσον ἡ μήτρα ἐν τῷ μεταξὺ ἔχει καλῶς συσταλῆ.

Ὁ πωματισμὸς οὗτος ἐνέχει καὶ τὰ πλεονεκτήματα τοῦ κοινοῦ πωματισμοῦ τῆς μήτρας, τουτέστι προκαλεῖ ἰσχυρὸν συστολικὸν ἐρεθισμὸν τῆς μήτρας καὶ κατὰ τὴν ἀφαίρεσιν συμπαρασύρονται τυχὸν ὑπολειφθέντα τμήματα ὑμένων καὶ θρόμβοι αἵματος. Τὰ μειονεκτήματα τοῦ

---

1. Ἡ μέθοδος αὕτη ἀνεκοινώθη ὑπ' ἐμοῦ κατόπιν προσκλήσεως εἰς τὰ Πανεπιστήμια Βιέννης, Μονάχου, Βερολίνου καὶ Κιέλου τῷ 1943. Ἐχαρακτηρίσθη δὲ ὑπὸ τῶν εἰδικῶν καθηγητῶν ὡς τὸ «αὐγὸ τοῦ Κολόμβου». Ὑπὸ τοῦ *Δ. Παμπούκη* ἀνεκοινώθη εἰς τὸ 12ο Congrès Français de Gynécologie Montpellier, Mai 1948.

κοινοῦ πωματισμοῦ κατὰ μέγα μέρος δὲν ὑφίστανται, διότι : 1) Ἡ ἐφαρμογὴ συντελεῖται εἰς μικρὸν χρονικὸν διάστημα, καθόσον ἡ εἰσαγομένη γάζα δὲν πληροῖ ἐξ ὁλοκλήρου τὴν μήτραν

Εἰκ. 15.—Αἱμοστατικὴ μέθοδος ἐν περιπτώσει ἀτονίας τῆς μήτρας μετὰ τὴν ἐκβολὴν τοῦ πλακοῦντος, κατὰ ***Δογοθετόπουλον.***

2) Βλάβαι τῆς μήτρας (διάτρησις) δὲν ἐπέρχονται, διότι ἡ εἰσαγομένη γάζα δὲν ἐξικνεῖται μέχρι τοῦ πυθμένος. 3) Ὁ κίνδυνος τῆς μολύνσεως, κατ' ἀντίθεσιν πρὸς τὸν συνήθη πωματισμόν,

εἶναι μηδαμινός, καθ' ὅσον μόνον ἡ πρώτη γάζα τοῦ ἐξωτερικοῦ σάκκου ἔρχεται εἰς ἐπαφὴν μετὰ τῶν τοιχωμάτων τῆς μήτρας. 4) Τὸ προκαλούμενον ἄλγος κατὰ τὴν ἀφαίρεσιν τῆς γάζης τοῦ κοινοῦ πωματισμοῦ ἐκλείπει τελείως.

Ἡ συστολὴ τῆς μήτρας ἡ ἐπερχομένη μετὰ τὴν εἰσαγωγὴν τοῦ πώματος ὀφείλεται οὐ μόνον εἰς τὸν ἐκ τούτου ἐρεθισμόν, ἀλλὰ καὶ εἰς τὴν ἐκ τῆς συμπιέσεως τῶν μητριαίων ἀρτηριῶν ἐπερχομένην ἀναιμίαν τοῦ ὀργάνου, ὡς τὸ τοιοῦτον συμβαίνει καὶ κατὰ τὴν συμπίεσιν τῆς ἀορτῆς. Ἴσως δὲ καὶ εἰς τὴν συμπίεσιν τοῦ γαγγλίου τοῦ **Frankenhäuser.**

Ὅσον ἀφορᾶ εἰς τὴν ἔνδειξιν τῆς ἐφαρμογῆς, δέον νὰ μὴ ἀναμένωμεν ἐπὶ πολὺν χρόνον. Δὲν δυνάμεθα νὰ γνωρίζωμεν ἐκ τῶν προτέρων μέχρι ποίου βαθμοῦ αἱμορραγίαν δύναται νὰ ἀνεχθῇ ἡ ἄρρωστος. Ἐὰν πεισθῶμεν ὅτι ὁ πλακοῦς ἐξῆλθεν ἐξ ὁλοκλήρου καὶ δὲν ἔχουσι παραμείνει ὑπολείμματα αὐτοῦ, ἡ δὲ αἱμορραγία, παρὰ τὰς ἰσχυρὰς μαλάξεις τῆς μήτρας καὶ τὴν χρῆσιν αἱμοστατικῶν φαρμάκων, ἐξακολουθεῖ, τότε προετοιμάζομεν τὴν ἄρρωστον διὰ τὴν ἐφαρμογὴν τοῦ πωματισμοῦ. Ἐν τῷ μεταξὺ δυνάμεθα νὰ ἐφαρμόσωμεν κολπικὸν ἢ καὶ μητριαῖον θερμὸν διακλυσμόν. Ἐὰν παρὰ ταῦτα δὲν ἐπέλθῃ τὸ ἀποτέλεσμα ἐφαρμόζομεν ἄνευ χρονοτριβῆς τὸν πωματισμόν.

Συνιστῶμεν ὅθεν ἵνα τὰ διὰ τὸν πωματισμὸν χρειώδη εἶναι εἰς πάντας τοὺς τοκετοὺς ἐκ τῶν προτέρων ἕτοιμα καὶ ἀπεστειρωμένα ἐντὸς μεταλλίνου κυτίου.

Ἡ ἐνέργεια εἶναι τόσον ἄμεσος καὶ ἀσφαλής, ἐκ τῆς μὴ εἰσχωρήσεως πλέον αἵματος εἰς τὴν μήτραν ὡς ἐκ τῆς συμπιέσεως τῶν μητριαίων ἀρτηριῶν ὑπὸ τοῦ πώματος ἐπὶ τῶν τοιχωμάτων τῆς πυέλου, *ὥστε πᾶς ἐπερχόμενος θάνατος ἐξ αἱμορραγίας, ἕνεκα ἀτονίας τῆς μήτρας, δέον νὰ θεωρῆται εἰς τὸ ἑξῆς ὡς ἀσυγχώρητον σφάλμα τοῦ ἰατροῦ.*

Ὁ ἐν Βιέννῃ Καθηγητὴς Antoine συνιστᾶ τὸν καθ' ἕλξιν πωματισμὸν καὶ εἰς περιπτώσεις ὁλικῆς ἢ καὶ μερικῆς ῥήξεως τῆς μήτρας κατὰ τὸν τοκετὸν μέχρι τῆς ἐκτελέσεως τῆς ἐγχειρήσεως, ὅπερ θεωροῦμεν λίαν ὀρθόν.

3. Λαπαροτομή.

α') Τοποθέτησις τῆς ἀρρώστου.

Ἡ τοποθέτησις τῆς ἀρρώστου δέον νὰ γίνηται οὕτως, ὥστε οὔτε ὁ χειρουργὸς οὔτε οἱ βοηθοὶ νὰ παρακωλύωνται κατὰ τὸ ἔργον αὐτῶν, δέον δ' ὡσαύτως νὰ μὴ προκαλῆται κάκωσις ἐπὶ τῆς ἀρρώστου, ὡς ἐπὶ παραδείγμανι παράλυσις τῶν ἄνω ἄκρων, ἕνεκα πιέσεως τοῦ ὠλενικοῦ νεύρου ἐπὶ τοῦ χείλους τῆς τραπέζης, ὡς τὸ τοιοῦτον παρετήρησα εἰς μίαν περίπτωσιν. Πρὸς ἀποφυγὴν τούτου, ἐπειδὴ κατὰ τὸ πλεῖστον ἀπὸ τῆς ἀπόψεως ταύτης τὰ στηρίγματα τῶν βραχιόνων ἐπὶ πλείστων χειρουργικῶν τραπεζῶν εἶναι ἐλαττωματικά, συνιστῶ τὴν στερέωσιν τῶν ἄνω ἄκρων δι' ἑνὸς ἐπιδέσμου φερομένου κάτωθεν τοῦ κορμοῦ οὕτως, ὥστε ταῦτα νὰ ἐφάπτωνται ἐν ἐκτάσει κατὰ μῆκος τῶν πλαγίων πλευρῶν τοῦ σώματος τῆς ἀρρώστου. Ἡ θέσις αὕτη πρὸς τούτοις ὡς ἐκ τῆς μὴ προεξοχῆς τῶν ἀγκώνων τῆς τραπέζης δὲν παρενοχλεῖ τὸν χειρουργὸν καὶ τοὺς βοηθοὺς εἰς τὸ ἔργον των. Κατὰ τὸ κεκλιμένον ἐπίπεδον Trendelenburg τὰ στηρίγματα τῶν ὤμων δέον νὰ εἶναι καλῶς τοποθετημένα, τὰ δὲ κάτω ἄκρα στερεοῦνται ἐπὶ τῆς τραπέζης ἐν ἀπαγωγῇ οὕτως, ὥστε ἐν περιπτώσει ἀνάγκης νὰ ἐκτελῶνται εὐχερῶς χειρισμοὶ κατὰ τὸν κολεὸν ἢ τὴν οὐροδόχον κύστιν.

Ὁ ναρκωτὴς δέον κατὰ τὴν γνώμην μου νὰ μὴ ἀπομονοῦται δι' εἰδικοῦ προπετάσματος ἀπὸ τοῦ ἐγχειρητικοῦ πεδίου κατὰ τὴν διάρκειαν τῆς ἐγχειρήσεως, ἵνα οὗτος δύναται νὰ παρακολουθῇ τὴν κοιλιακὴν ἀναπνοὴν καὶ νὰ ρυθμίζῃ τὸν βαθμὸν τῆς ναρκώσεως κατὰ τὴν ἐξέλιξιν τῆς ἐγχειρήσεως, οὕτω δὲ νὰ διευκολύνηται καὶ ὁ ἔλεγχος τῆς ναρκώσεως ὑπὸ τοῦ χειρουργοῦ.

Ὁ δεξιόχειρ χειρουργὸς ἵσταται παρὰ τὸ ἀριστερὸν πλάγιον τῆς ἀρρώστου, ἵνα δύναται εὐχερῶς νὰ ἐκτελῇ τοὺς χειρισμοὺς διὰ τῆς δεξιᾶς χειρὸς ἐντὸς τῆς περιτοναϊκῆς κοιλότητος.

Οἱ βοηθοὶ ἵστανται ἔναντι αὐτοῦ, δεξιὰ δὲ καὶ ὀλίγον ὄπισθεν αὐτοῦ ἡ ἀδελφὴ βοη-

θὸς ἡ ἐγχειρίζουσα τὰ ἐργαλεῖα. Ἡ τράπεζα τῶν ἐργαλείων νὰ εὑρίσκηται πλησίον τοῦ χειρουργοῦντος, ἵνα οὗτος δύναται καὶ ὁ ἴδιος ν' ἀναζητῇ καὶ λαμβάνῃ τὰ ἀναγκαῖα ἐργαλεῖα. Τὸ ὑπὸ πολλῶν ἐπὶ τοῦ θώρακος τοποθετούμενον τραπεζίδιον πρὸς ἐναπόθεσιν ἐργαλείων θεωρῶ οὐ μόνον περιττὸν ἀλλὰ καὶ ὡς παρακωλύον τὰς ἐλευθέρας κινήσεις τοῦ χειρουργοῦ. Ἀντ' αὐτοῦ τοποθετοῦμεν, ὄπισθεν τοῦ βοηθοῦ, ἓν ἐπὶ πλέον τραπεζίδιον ἐργαλείων, ἐπὶ τοῦ ὁποίου τοποθετοῦμεν λαβίδας τινὰς Kocher, ψαλίδια κλπ.

Εἰς τὴν Ἑλλάδα δυνάμεθα σχεδὸν ν' ἀποφύγωμεν τὸ τεχνητὸν φῶς, διότι τὸ φυσικὸν φῶς ὑπερέχει οἱουδήποτε τεχνητοῦ τοιούτου, εἰς ὃ μόνον κατὰ τὴν νύκτα ἀναγκαζόμεθα νὰ καταφεύγωμεν. Πρὸς ἀποφυγὴν ἐκθαμβωτικοῦ φωτὸς δέον τὰ παράθυρα τῆς αἰθούσης ἐγχειρήσεων νὰ κεῖνται πρὸς βορρᾶν. Τὰ κατὰ τὴν λαπαροτομὴν χρησιμοποιούμενα ἐργαλεῖα εἰς τὴν κλινικήν μου εἶναι γενικῶς τὰ συνήθη τῶν γυναικολογικῶν κλινικῶν τῆς Γερμανίας. Θὰ ἀναφέρω μόνον ἰδιαιτέρως εἰδικά τινα ἐργαλεῖα. Μεγάλως διευκολύνει κατὰ τὴν ραφὴν τῶν κοιλιακῶν τοιχωμάτων ἡ βελόνη Reverdin, χρησιμοποιοῦμεν δὲ μίαν κυρτὴν καὶ μίαν ὑπόκυρτον. Ἕνεκα τῆς λεπτῆς κατασκευῆς τῆς βελόνης ἀπαιτεῖται ἐπιμελὴς περιποίησις ἵνα εἶναι πάντοτε κατάλληλος πρὸς χρῆσιν. Ἐν Γαλλίᾳ χρησιμοποιεῖται αὕτη ἀποκλειστικῶς δι' ὅλας τὰς ραφάς. Ὑπὸ τοῦ οἴκου Stiefenhofer τοῦ Μονάχου κατεσκευάσθη κατὰ τὰς ὑποδείξεις μου αὐτόματος τετράφυλλος διαστολεὺς *(εἰκ. 16—17)*, ὅστις εὐχερῶς ἐφαρμόζεται καὶ ἔχει τὸ μέγα πλεονέκτημα νὰ καθιστᾷ προσιτώτατον τὸ ἐγχειρητικὸν πεδίον, διὰ τῆς εὐρείας διανοίξεως τῶν κοιλιακῶν τοιχωμάτων καὶ ἐπὶ μικρᾶς ἔτι τομῆς. Τὰ φύλλα αὐτοῦ κατασκευάζονται εἰς δύο διάφορα μεγέθη ἵνα ἐφαρμόζωνται ἀναλόγως τοῦ πάχους τῶν κοιλιακῶν τοιχωμάτων. Ταῦτα εὐκόλως δύνανται νὰ ἐναλλάσσωνται. Μετὰ τὴν διάνοιξιν τῆς κοιλίας ἀπάγομεν ἀπ' ἀλλήλων τὰ κοιλιακὰ τοιχώματα διὰ συνήθων διαστολέων, μεθ' ὃ εἶναι δυνατὸν εὐχερῶς νὰ τοποθετηθῇ ὁ αὐτόματος διαστολεύς.

6') Ἡ μέση τομή.

Αὕτη ἄρχεται ἄνω τῆς ἡβικῆς συμφύσεως καὶ φέρεται ἀκριβῶς ἐπὶ τῆς μέσης γραμμῆς εὐθέως πρὸς τὰ ἄνω, εἰς μῆκος ἀνάλογον τῆς ἐγχειρήσεως.

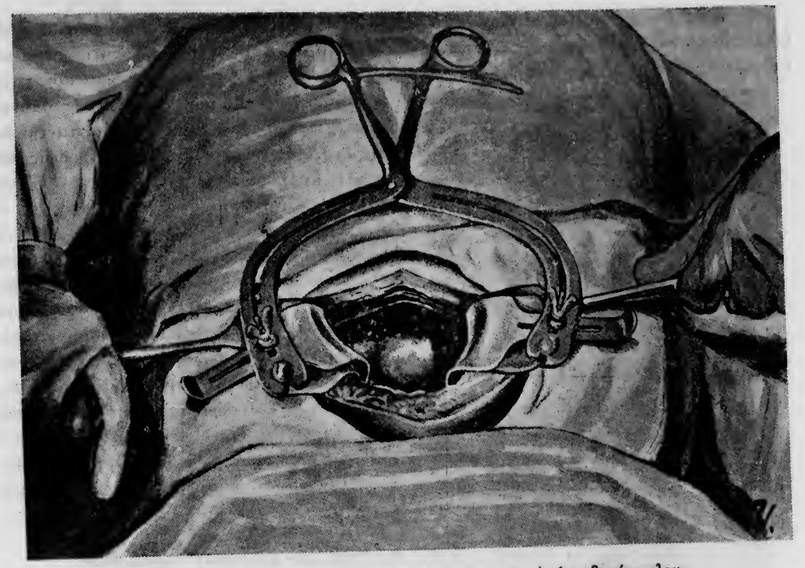
Γενικῶς ποιούμεθα ἔναρξιν τῆς ἐγχειρήσεως διὰ μικρᾶς τομῆς, ἥτις ἐν ἀνάγκῃ δύναται νὰ ἐπιμηκυνθῇ. Ἐπὶ παχυσάρκων γυναικῶν, δι' ἐπιμηκύνσεως πρὸς τὰ κάτω τῆς τομῆς τοῦ δέρματος, ἀκριβῶς ἄνω τῆς ἡβικῆς συμφύσεως, καθίσταται προσιτώτερον τὸ ἐγχειρητικὸν πεδίον (1).

Ἐξαιρετικῶς ἐπὶ λίαν εὐμεγέθων ὄγκων ἀπαιτεῖται ἐπιμήκυνσις τῆς τομῆς μέχρι ἄνω τοῦ ὀμφαλοῦ. Διατέμνομεν τὸ δέρμα καὶ τὸν ὑποδόριον συνεκτικὸν ἱστὸν διὰ τοῦ μαχαιρίου μέχρι τῆς ἀπονευρώσεως. Ἐπ' αὐτῆς ἐνεργεῖται μικρὰ τομὴ διὰ τοῦ μαχαιρίου, ἥτις ἐπιμηκύνεται διὰ τοῦ ψαλιδίου καὶ ἀκολούθως ἀποχωρίζονται ἀπ' ἀλλήλων οἱ ὀρθοὶ κοιλιακοὶ μύες διὰ τοῦ κλειστοῦ ψαλιδίου καὶ διὰ τῶν δακτύλων *(εἰκ. 18)*.

Εἰσάγομεν δύο ἀπαγωγὰ ἄγκιστρα, ἅτινα ἀναλαμβάνει νὰ κρατῇ ὁ βοηθός. Τὸ περιτόναιον συλλαμβάνεται διὰ δύο χειρουργικῶν λαβίδων, ἀνυψοῦται καὶ διανοίγεται δι' ἐμβυθίσεως τοῦ ἄκρου τοῦ κλειστοῦ ἀμβλέος ψαλιδίου *(εἰκ 19)*, ἤτοι ἄνευ τῆς χρησιμοποιήσεως τεμνόντων ἐργαλείων. Διὰ τῆς δημιουργηθείσης ὀπῆς εἰσέρχεται ἀτμοσφαιρικὸς ἀὴρ εἰς τὴν περιτοναϊκὴν κοιλότητα καὶ αἱ ἐντερικαὶ ἕλικες ὑποχωροῦν, μεθ' ὃ εὐχερῶς τὸ περιτόναιον διανοίγεται τελείως διὰ τοῦ ψαλιδίου *(εἰκ. 20)*. Κατὰ τὸν χειρισμὸν τοῦτον εἶναι ἀδύνατος ὁ τραυματισμὸς τοῦ ἐντέρου, διότι κατὰ τὴν διάτρησιν τοῦ περιτοναίου τὸ ἔντερον ὑποχωρεῖ καὶ δὲν εἶναι δυνατὸν νὰ τραυματισθῇ καὶ ἂν ἔτι ἐντερικὴ ἕλιξ ἐξ ἀπροσεξίας εἶχε συλληφθῇ διὰ τῆς λαβίδος. Προτερήματα τῆς μέσης τομῆς εἶναι ἡ ἄνευ αἱμορραγίας ἐκτέλεσις, ἡ μὴ ἐπακολούθησις λειτουργικῶν διαταραχῶν κατὰ τοὺς μῦς καὶ τὰ νεῦρα καὶ ἡ δυνατότης τῆς κατὰ βούλησιν ἐπιμηκύνσεως αὐτῆς πρὸς τὰ ἄνω.

---

1. Kuhlen Kampf Zbl. Chir. 1924, No 30.



Εἰκ. 16.—Τοποθέτησις τοῦ κοιλιακοῦ διαστολέως κατὰ **Δογοθετόπουλον.**

Εἰκ. 17.—Τοποθέτησις τοῦ κοιλιακοῦ διαστολέως κατὰ **Δογοθετόπουλον.** *Ἀπαγωγὴ τῶν φύλλων.*

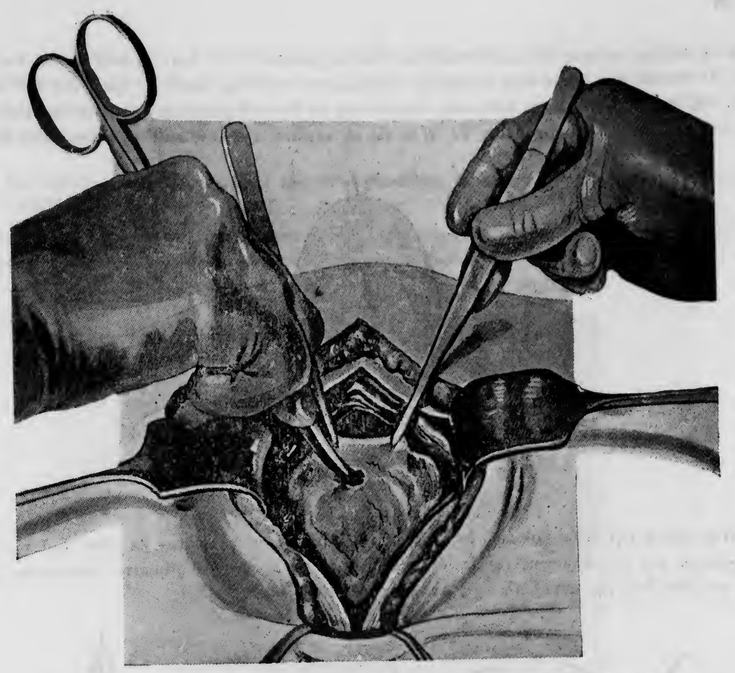
γ΄) Ὑπερηβικὴ ἐγκαρσία τομὴ κατὰ Pfannenstiel.

Διατέμνομεν διὰ τοῦ μαχαιρίου τὸ δέρμα καὶ τὸν συνεκτικὸν ἱστὸν 2—3 ἑκατ. ἄνω τῆς ἡβικῆς συμφύσεως εἰς μῆκος 5—20 ἑκατ. καὶ πλέον ἀναλόγως τοῦ εἴδους τῆς ἐγχειρήσεως καὶ τοῦ πάχους τῶν κοιλιακῶν τοιχωμάτων. Ὡς καὶ ἐπὶ μέσης τομῆς ἐνεργοῦμεν κατ' ἀρχὰς μικρὰν τομὴν διὰ τοῦ μαχαιρίου ἐπὶ τῆς ἀπονευρώσεως καὶ μεγεθύνομεν ἀκολούθως ταύτην διὰ τοῦ ψαλιδίου ἐγκαρσίως. Ἡ ἀπονεύρωσις καὶ οἱ μύες ἀποχωρίζονται ἀπ' ἀλλήλων διὰ τοῦ ψαλιδίου κατὰ τὸ μέσον ἔνθα εὑρίσκονται εἰς στενὴν συνάφειαν, ὅπερ εὐχεραίνεται δι' ἀνυψώσεως τῆς ἀπονευρώσεως ὑπὸ τῶν δακτύλων. Ὁ ἀποχωρισμὸς οὗτος δέον νὰ ἐκτελῆται διὰ τολυπίου γάζης εἰς ὅσον τὸ δυνατὸν μεγαλυτέραν ἔκτασιν, ἵνα τὸ ἐγχειρητικὸν πεδίον καταστῇ προσιτώτερον. Οἱ ὀρθοὶ μύες ἀποχωρίζονται ἀμβλέως ἀπ' ἀλλήλων διὰ τοῦ κλειστοῦ ψαλιδίου καὶ τῶν δακτύλων ὡς καὶ ἐπὶ μέσης τομῆς, τὸ περιτόναιον διανοίγεται καὶ εἰσάγεται ὁ ἡμέτερος αὐτόματος διαστολεύς, δι' οὗ ἡ κοιλιακὴ διάνοιξις δύναται μεγάλως νὰ διευρυνθῇ *(εἰκ. 16—17)*.

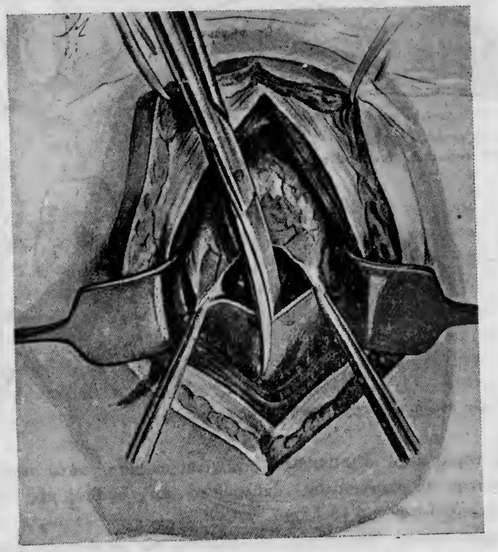
Εἰκ. 18.—Μέση τομὴ τῶν κοιλιακῶν τοιχωμάτων. Ἀποχωρισμὸς τῶν ὀρθῶν κοιλιακῶν μυῶν.

δ΄) Ραφὴ τῶν κοιλιακῶν τοιχωμάτων.

Αὕτη ἐκτελεῖται εἰς ὁριζοντίαν θέσιν, ἀφοῦ πρότερον βεβαιωθῶμεν ὅτι αἱ ἐντερικαὶ ἕλικες εὑρίσκονται εἰς τὴν φυσιολογικὴν αὐτῶν θέσιν καὶ ἀφοῦ ἔξωμεν διὰ τῆς χειρὸς τὸ ἐπίπλουν πρὸς τὴν κατεύθυνσιν τῆς ἡβικῆς συμφύσεως οὕτως, ὥστε αἱ ἐντερικαὶ ἕλικες καλῶς νὰ καλυφθοῦν ὑπὸ τούτου. Συρράπτομεν διαδοχικῶς πρῶτον τὸ περιτόναιον, ἀκολούθως τοὺς ὀρθοὺς μῦς, ὧν αἱ παρυφαὶ ἐπὶ μέσης τομῆς ἐλευθεροῦνται ἀπὸ τῆς ἀπονευρώσεως, ὑπεράνω δὲ τούτων τὴν ἀπονεύρωσιν καὶ τέλος τὸν ὑποδόριον συνεκτικὸν ἱστὸν καὶ τὸ δέρμα. Διὰ τὴν κατὰ στρώματα τοιαύτην ραφὴν χρησιμοποιοῦμεν ζωϊκὸν ράμμα, καθ' ὅσον ἐν περιπτώσει διαπυήσεως ἐπὶ μεταξίνων ραμμάτων δέον νὰ διανοιγῇ τὸ ὅλον τραῦμα, πρὸς ἀφαίρεσιν τῶν ἐκ μετάξης ραμμάτων, ἅτινα ἄλλως εἶναι δυνατὸν νὰ προκαλέσουν συρίγγια. Ἐπὶ ἐπιμήκους τομῆς διαπερῶμεν ράμματα ἐκ μετάξης, μετὰ τὴν πλήρη συρραφὴν τοῦ περιτοναίου, διὰ τοῦ δέρματος τῆς ἀπονευρώσεως καὶ τῶν μυῶν, ἀκολούθως συρράπτομεν τὴν ἀπονεύρωσιν διὰ συνεχοῦς ραφῆς ἐκ ζωϊκοῦ ράμματος, συγκλείομεν τὸ δέρμα δι' ἀγκτήρων Michel καὶ τέλος ἀμματίζομεν τὰ ἐκ μετάξης διαπερασθέντα ράμματα ὑπεράνω ἑνὸς κυλίνδρου ἐκ γάζης τοποθετουμένου κατὰ μῆκος τοῦ τραύματος *(εἰκ. 21)*. Ὁ Halban διαπερᾷ τὰ ράμματα μόνον διὰ μέσου τοῦ δέρματος καὶ τῆς ἀπονευρώσεως, ὁ J. L. Faure καὶ διὰ μέσου τοῦ περιτοναίου. Ἄριστα ἀποτελέσματα παρέχει ἡ ραφὴ Amann, καθ' ἣν τὰ διαπερώμενα ράμματα τοποθετοῦνται οὕτως, ὥστε αἱ ἀντίστοιχοι στιβάδες τοῦ κοιλιακοῦ τοιχώματος ἔρχονται εἰς ἐπαφήν. Μετὰ τὴν σύγκλεισιν τοῦ περιτοναίου, διὰ συνεχοῦς ραφῆς ζωϊκοῦ ράμματος, διαπερῶμεν ἰσχυ-

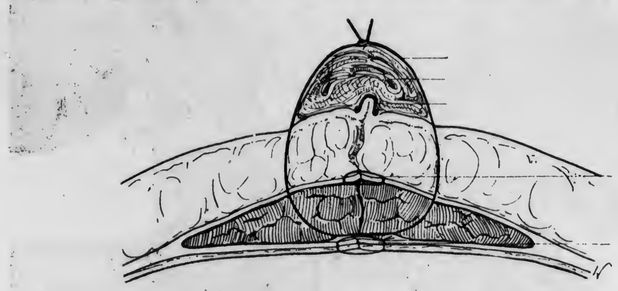


*Εἰκ. 19.—Διάνοιξις τοῦ περιτοναίου κατὰ **Λογοθετόπουλον**. Ἀνύψωσις τοῦ περιτοναίου διὰ δύο χειρουργικῶν λαβίδων καὶ διάτρησις διὰ τοῦ κλειστοῦ ψαλιδίου.*



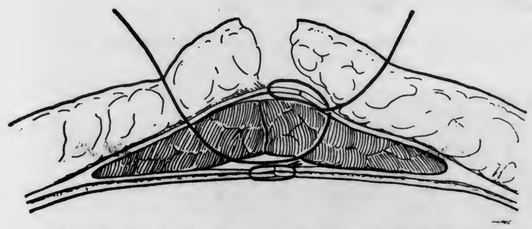
Εἰκ. 20.—Διεύρυνσις τοῦ περιτοναϊκοῦ ἀνοίγματος διὰ τοῦ ψαλιδίου.

ρὸν ἐκ μετάξης ράμμα διὰ μιᾶς ὑποκύρτου βελόνης μήκους 6—7 ἑκατ. ἢ καλλίτερον διὰ βελόνης Reverdin διὰ μέσου τῶν κοιλιακῶν τοιχωμάτων τοῦ ἑνὸς πλαγίου, ἤτοι διὰ τοῦ δέρματος, τῆς ἀπονευρώσεως καὶ τοῦ μυός, ἀκολούθως δὲ διὰ τοῦ μυὸς καὶ τῆς ἀπονευρώσεως τοῦ ἑτέρου πλαγίου. Ἐπανερχόμεθα ἐκ νέου εἰς τὸ ἀρχικὸν πλάγιον, καθ' ὃ διαπερῶμεν διὰ τῆς

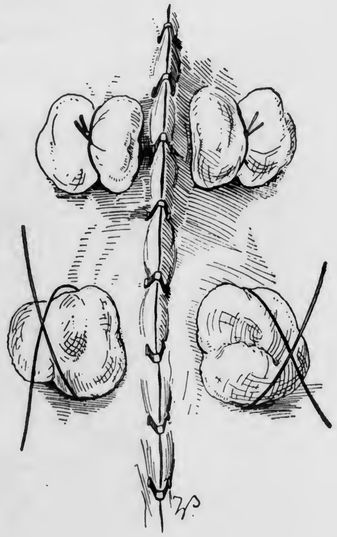


Εἰκ. 21.—Σχηματικὴ παράστασις τῆς ἡμετέρας ραφῆς τῶν κοιλιακῶν τοιχωμάτων.

βελόνης μόνον τὴν ἀπονεύρωσιν, ἐν συνεχείᾳ δὲ διαπερῶμεν τὸ ράμμα ἐκ νέου διὰ τῆς ἀπονευρώσεως καὶ τοῦ δέρματος τοῦ ἑτέρου πλαγίου. Τὰ προέχοντα ράμματα ἐπιδένομεν ἰσχυρῶς καὶ ἀνὰ δύο τῆς αὐτῆς πλευρᾶς ἐπὶ ἑνὸς τολυπίου *(εἰκ. 22—23)*.



Εἰκ. 22.—Ραφὴ τῶν κοιλιακῶν τοιχωμάτων κατὰ Amann.



Εἰκ. 23. →

Εἰκ. 23.—Ραφὴ τῶν κοιλιακῶν τοιχωμάτων κατὰ Amann.

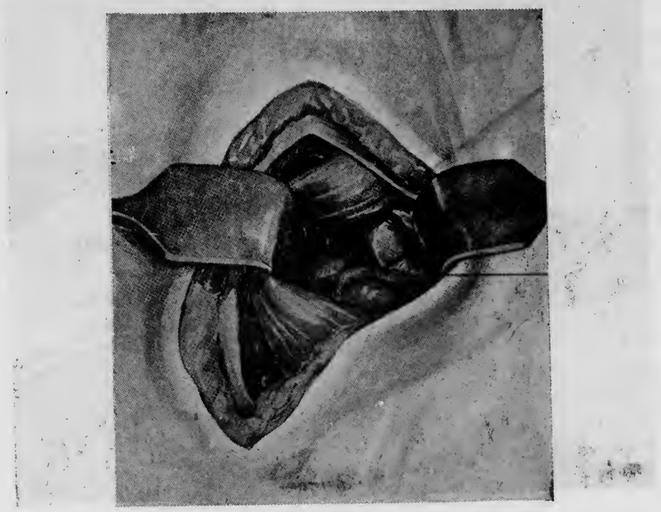
Ἡ ραφὴ τῆς τομῆς κατὰ Pfanenstiel ἐκτελεῖται ὡσαύτως κατὰ στρώματα. Κατὰ ταύτην συρράπτομεν πρῶτον τὸ περιτόναιον, ἀκολούθως τοὺς ὀρθοὺς μῦς, τὴν ἀπονεύρωσιν, τὸν ὑποδόριον συνεκτικὸν ἱστὸν καὶ τὸ δέρμα.

Κατὰ τὴν τομὴν ταύτην θεωροῦμεν ὡς περιττὰ τὰ μεγάλα διαπερώμενα ράμματα, ὀφείλομεν ὅμως, ἕνεκα τοῦ κινδύνου τῆς δημιουργίας αἱματωμάτων, νὰ ἀπολινοῦμεν ἐπιμελῶς

καὶ τὰ μικρότερα ἔτι ἀγγεῖα. Ἡ δημιουργία κοιλιοκήλης δύναται ν' ἀποφευχθῇ μόνον δι' ἀκριβοῦς κατὰ στρώματα ραφῆς, οὐχὶ δὲ διὰ τῆς ἐφαρμογῆς κοιλιοεπιδέσμου, οὗτινος, ἀντιθέτως πρὸς προγενεστέρας ἀντιλήψεις, ἡ μὴ ἐφαρμογὴ οὐδεμίαν οὐσιώδη ἐπίδρασιν ἔχει ὡς πρὸς τὴν δημιουργίαν κηλῶν.

ε') Διευκόλυνσις τῆς ἐξαιρέσεως τῆς σκωληκοειδοῦς ἀποφύσεως ἐπὶ μέσης καὶ ἐγκαρσίας τομῆς κατὰ Λογοθετόπουλον.

Ἀναζητοῦμεν ἐπὶ πάσης λαπαροτομῆς, ἐνεργουμένης διὰ πάθησιν τῶν γεννητικῶν ὀργάνων, τὴν σκωληκοειδῆ ἀπόφυσιν καὶ ἐξαιροῦμεν ταύτην ἐν ᾗ περιπτώσει ἐμφανίζει παθο-



Εἰκ. 24.—Μετατόπισις τοῦ ὀρθοῦ μυὸς πρὸς τὰ ἀριστερὰ πρὸς ἀποκάλυψιν τῆς εἰλεοτυφλικῆς χώρας, κατὰ ***Λογοθετόπουλον.***

λογικὰς ἀλλοιώσεις. Τὸ τοιοῦτον ἐνδέχεται κατὰ τὸ πλεῖστον νὰ εἶναι εὐχερὲς διὰ τῆς μέσης ἢ ἐγκαρσίας τομῆς. Ἐπὶ περιπτώσεων ὅμως, καθ' ἃς ὁ ἐξελκυσμὸς τοῦ τυφλοῦ μέχρι τοῦ κοιλιακοῦ τραύματος ἕνεκα συμφύσεων ἐμφανίζει σχετικὰς δυσχερείας, ὑποχρεούμεθα νὰ ἐπιμηκύνωμεν τὴν ἀρχικὴν τομὴν ἢ νὰ διαχωρίσωμεν ἐγκαρσίως τὸν δεξιὸν ὀρθὸν κοιλιακὸν μῦν, ἵνα οὕτω δυνηθῶμεν καὶ ἐξαγάγωμεν τὴν σκωληκοειδῆ ἀπόφυσιν. Πρὸς ἀποφυγὴν τούτου μετατοπίζω τὴν τομὴν παρορθικῶς ὡς ἀκολούθως : Μετὰ περάτωσιν τῆς γυναικολογικῆς ἐγχειρήσεως, ἀπομακρύνω τὸν κοιλιακὸν διαστολέα καὶ ἀπελευθερῶ τὸν δεξιὸν ὀρθὸν μῦν εἰς ὅσον τὸ δυνατὸν μεγαλυτέραν ἔκτασιν ἀπὸ τοῦ ὀπισθίου καὶ προσθίου πετάλου τῆς θήκης αὐτοῦ, ὡς τὸ τοιοῦτον γίνεται καὶ κατὰ τὴν τομὴν τοῦ Lennard. Εἰσάγω δύο ἀπαγωγὰ ἄγκιστρα καὶ ἕλκω τὸν ἀπελευθερωθέντα μῦν ἰσχυρῶς πρὸς τὰ ἀριστερά, τὰς δὲ ὑπολοίπους στιβάδας τοῦ δεξιοῦ ἡμίσεος τοῦ κοιλιακοῦ τοιχώματος, ἤτοι τὸ δέρμα, τὴν ἀπονεύρωσιν καὶ τὸ περιτόναιον, πρὸς τὸ ἀντίθετον πλάγιον, δηλαδὴ πρὸς τὰ δεξιὰ (*εἰκ. 24*).

Μετὰ τὸ πέρας τῆς σκωληκοειδεκτομῆς ἀφαιρῶ τὰ ἀπαγωγὰ ἄγκιστρα, ἐπαναφέρω εἰς τὴν θέσιν του τὸ περιτόναιον κάτω τοῦ δεξιοῦ ὀρθοῦ μυὸς καὶ συγκλείω τὸ κοιλιακὰ τοιχώματα κατὰ στρώματα.

στ') Ἀποκάλυψις τοῦ ἐγχειρητικοῦ πεδίου διὰ πωματισμοῦ τῶν ἐντερικῶν ἑλίκων κατὰ Λογοθετόπουλον.

Πρὸς ἐπιτυχίαν τῆς ἐγχειρήσεως ἀπαιτεῖται πρωτίστως ἵνα ἐπιμελῶς ἀπομονῶνται τὰ γεννητικὰ ὄργανα ἀπὸ τῆς ὑπολοίπου περιτοναϊκῆς κοιλότητος, ἰδίᾳ ἐφ' ὅσον πρόκειται περὶ ἐπεμβάσεως ἐπὶ μολυνθέντος πεδίου. Εἰς λίαν κεκλιμένον ἐπίπεδον Trendelenburg εἰσάγομεν πτυχωθεῖσαν ὀθόνην ἐκ γάζης πλάτους 20 ἑκατ. καὶ μήκους 80 ἑκατ., ἐξ ὧν συνήθως 1—2 τεμάχια ἐπαρκοῦν διὰ τὴν τελείαν ἐπικάλυψιν τῶν ἐντερικῶν ἑλίκων. Ἡ τεχνικὴ τῆς τοποθετήσεως

Εἰκ. 25.— Ἀποκάλυψις τοῦ ἐγχειρητικοῦ πεδίου δι' ἀπομονώσεως τῶν ἐντερικῶν ἑλίκων κατὰ ***Λογοθετόπουλον****. Ἡ ἀριστερὰ χεὶρ κρατεῖ ἰσχυρῶς τὸ μέσον τῆς εἰσαχθείσης ὀθόνης ἐκ γάζης, ἐνῶ ἡ δεξιὰ χεὶρ καλύπτει διὰ τῆς γάζης τὰς ἐντερικὰς ἕλικας.*

τῶν ὀθονῶν ὑφ' ἡμῶν εἶναι ἡ ἀκόλουθος: Συλλαμβάνομεν διὰ τῆς δεξιᾶς χειρὸς τὸ μέσον τῆς ὀθόνης καὶ ἀπωθοῦμεν διὰ ταύτης τὰς προβαλλούσας κατὰ τὴν μέσην γραμμὴν ἐντερικὰς ἕλικας πρὸς τὸ διάφραγμα. Ἀκολούθως κρατεῖται σταθερῶς ἡ ὀθόνη διὰ τῆς ἀριστερᾶς χειρὸς εἰς τὴν θέσιν αὐτῆς καὶ διὰ τῆς δεξιᾶς χειρὸς τοποθετοῦνται τὰ πλάγια μέρη τῆς ὀθόνης ἐπὶ τῶν ὑπολοίπων ἑλίκων *(εἰκ. 25)*.

Ὁμοίως εἰσάγεται καὶ ἡ δευτέρα καὶ ἐν ἀνάγκῃ ἡ τρίτη ὀθόνη ἐκ γάζης. Θεωρῶ τὴν τοιαύτην ἐπικάλυψιν ὡς λίαν οὐσιώδη, διότι ἀφ' ἑνὸς ἀπωθοῦνται αἱ ἐντερικαὶ ἕλικες κατὰ τὸν καλύτερον τρόπον καὶ ἀφ' ἑτέρου ἐν περιπτώσει ρήξεως πυώδους ὄγκου, αἱ μολυσματικαὶ οὐσίαι ἔρχονται εἰς ἐπαφὴν μόνον μετὰ τῆς τελευταίας εἰσαχθείσης ὀθόνης, ἥτις δύναται εὐχερῶς νὰ ἀντικατασταθῇ κατὰ τὴν διάρκειαν τῆς ἐγχειρήσεως. Ἡ ἀπώθησις τῶν ἐντερικῶν ἑλίκων ἐμφανίζει δυσχερείας, ἐφ' ὅσον ἕνεκα λίαν ἐπιπολαίας ναρκώσεως δὲν ἐπέρχεται τελεία χαλάρωσις τῶν κοιλιακῶν μυῶν, ὁπότε τὰ ἔντερα ὠθοῦνται ἐκ νέου πρὸς τὰ ἔξω. Ἐν τοιαύτῃ περιπτώσει ἀναμένομεν ἠρέμως μέχρι οὗ ἐπέλθῃ βαθεῖα νάρκωσις, καλύπτοντες κατὰ τὸν μεταξὺ χρόνον τὸ τραῦμα δι' ἀπεστειρωμένης ὀθόνης. Αἱ καλῶς τοποθετηθεῖσαι ὀθόναι εὐχεραίνουν

ἐξαιρετικῶς τὴν ἐγχείρησιν καὶ καθιστοῦν περιττὰ ἅπαντα τὰ πρὸς ἀπώθησιν τῶν ἐντέρων ὑποδειχθέντα ἐργαλεῖα. Αἱ ὀθόναι δέον νὰ μὴ προέχουν τοῦ τραύματος ἵνα μὴ παρακωλύουν τὸν χειρουργόν, ἀριθμοῦνται δ' αὗται ἐπακριβῶς, ἵνα μὴ κατὰ τύχην παραμείνῃ τις ἐντὸς τῆς περιτοναϊκῆς κοιλότητος. Ἐν πάσῃ περιπτώσει πρὸ τῆς συγκλείσεως τοῦ περιτοναίου ἐπαναλαμβάνομεν τὸν ἔλεγχον ἅπαξ ἔτι προσεκτικῶς δι' εἰσαγωγῆς τῆς χειρὸς εἰς τὴν περιτοναϊκὴν κοιλότητα, ἵνα ἀποκλεισθῇ πᾶσα ἀμφιβολία.

Μετὰ τὴν διάνοιξιν τῆς κοιλιακῆς κοιλότητος δέον νὰ ἀπομακρύνωνται ἀπὸ τοῦ ἐγχειρητικοῦ πεδίου πάντα τὰ μικρὰ τολύπια καὶ τὰ σπληνία, πρὸς ἀποσπόγγισιν δὲ χρησιμοποιοῦνται μόνον τολύπια συγκρατούμενα ὑπὸ λαβίδος καὶ οὐχὶ πλέον τοῦ ἑνὸς ἑκάστοτε.

ζ') Περιτοναιοπλαστικὴ καὶ παροχέτευσις τῆς κοιλιακῆς κοιλότητος.

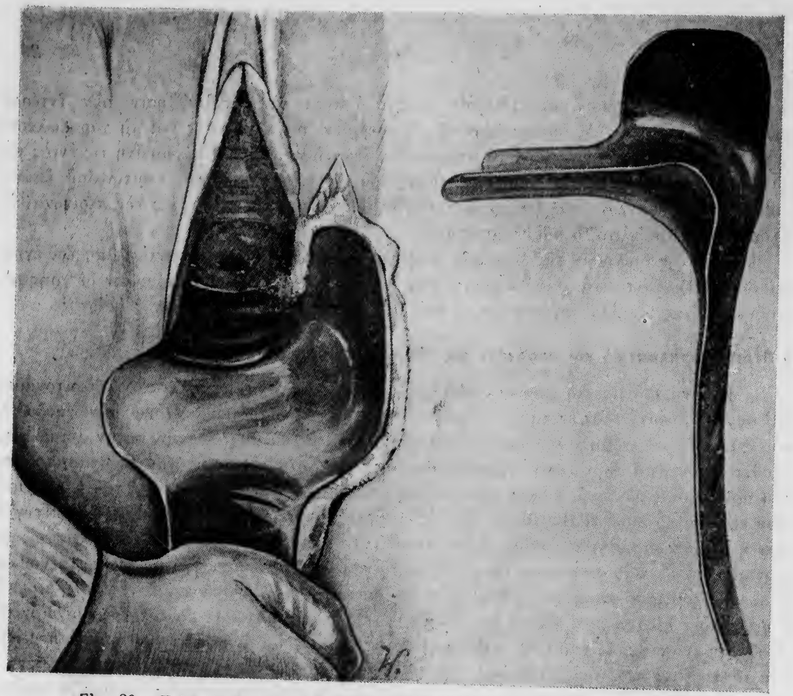
Ἑκάστη τραυματικὴ ἐπιφάνεια ἐντὸς τῆς κοιλίας δέον νὰ καλύπτηται διὰ περιτοναίου, καθ' ὅσον τὸ περιτόναιον ἕνεκα τῆς μικροβιοκτόνου ἰσχύος αὐτοῦ εἶναι ἔξοχον μέσον κατὰ τῆς λοιμώξεως. Τὰ εὐμεγέθη κολοβώματα, ἅτινα εἶναι δυνατὸν νὰ ἀποτελέσουν πηγὴν λοιμώξεως, τοποθετοῦνται κατὰ προτίμησιν ἐξωπεριτοναϊκῶς. Ἡ ἐπιμελὴς περιτοναιοπλαστικὴ προστατεύει ἄριστα ἀπὸ τῶν συμφύσεων πρὸς τὰ παρακείμενα ὄργανα, ὡς καὶ ἀπὸ τοῦ μετεγχειρητικοῦ εἰλεοῦ (Quénu καὶ Beutner). Εἰς τὰς πλείστας τυπικὰς ἐγχειρήσεις εὐχερῶς ἐπιτυγχάνεται ἡ περιτοναιοπλαστική, ἐνίοτε ὅμως ἐμφανίζονται μεγάλαι δυσχέρειαι ἐπὶ ἐλλείψεως περιτοναίου, ὅπερ ἐν τοιαύτῃ περιπτώσει δέον νὰ ἀναπληροῦται ὑπὸ ὀργόνου παρακειμένου ὀργάνου. Εἰς τοιαύτας περιπτώσεις ἐφαρμόζομεν ἐπωφελῶς τὴν μέθοδον τοῦ ***Amann***, καθ' ἣν τὸ σιγμοειδὲς ἢ τὸ ἀνώτερον τμῆμα τοῦ ὀρθοῦ ἐντέρου συρράπτεται πρὸς τὸ περιτόναιον τῆς οὐροδόχου κύστεως. Ἡ ἐπιμελὴς περιτοναιοπλαστικὴ καὶ ἡ αἱμόστασις καθιστοῦν περιττὴν κατὰ τὸ πλεῖστον τὴν παροχέτευσιν.

Ἐπὶ ἀμφιβόλων συνθηκῶν, ὅσον ἀφορᾷ εἰς τὴν ἀσηψίαν κατὰ τὴν κοιλιακὴν ἐγχείρησιν τοῦ καρκίνου, ὁ J. L. Faure συνιστᾷ εἰς πάσας τὰς περιπτώσεις τὴν μὴ σύγκλεισιν τῆς κοιλίας καὶ τὸν πωματισμὸν κατὰ Mikulicz. Συμφώνως πρὸς τὴν πεῖραν μου ὅμως δὲν ἐλαττοῦται διὰ τούτου τὸ ποσοστὸν τῆς θνητότητος. Ἕνεκα τούτου ἀποφεύγομεν κατὰ κανόνα τὴν παροχέτευσιν διὰ τῶν κοιλιακῶν τοιχωμάτων καὶ παροχετεύομεν πρὸς τὸν κολεὸν συγκλείοντες τελείως τὰ κοιλιακὰ τοιχώματα.

4. Κολπικαὶ ἐγχειρήσεις.

Τὰ ἐργαλεῖα, ἅτινα μεταχειριζόμεθα κατὰ τὰς κολπικὰς ἐγχειρήσεις, εἶναι ἐν γένει τὰ αὐτὰ πρὸς τὰ χρησιμοποιούμενα καὶ κατὰ τὴν λαπαροτομήν, ἐξαιρέσει τῶν ἀπαγωγῶν ἀγκίστρων, ἀντὶ τῶν ὁποίων μεταχειριζόμεθα κολπικοὺς διαστολεῖς. Ὁ οἶκος Stiefenhofer ἐν Μονάχῳ κατεσκεύασε κατὰ τὰς ὑποδείξεις μου εἰδικὸν διαστολέα *(εἰκ. 26)*, ὅστις διαφέρει τῶν μέχρι τοῦδε ἐν χρήσει, καθ' ὅτι τὸ ἓν πλάγιον πτερύγιον ἐπιμηκύνεται πρὸς τὰ ἄνω ὑπὸ μορφὴν ὠτίου, ὅπερ χρησιμεύει ἵνα ἀσκῇ πίεσιν ἐπὶ τοῦ πλαγίου κολπικοῦ τοιχώματος κατὰ τὴν τομὴν Schuchardt. Δι' αὐτοῦ ἐπιτυγχάνεται ἀρίστη αἱμόστασις οὕτως, ὥστε καθίστανται ἀναγκαῖαι ὀλίγισται ἀπολινώσεις κερδιζομένου, οὕτω ἀρκετοῦ χρόνου.

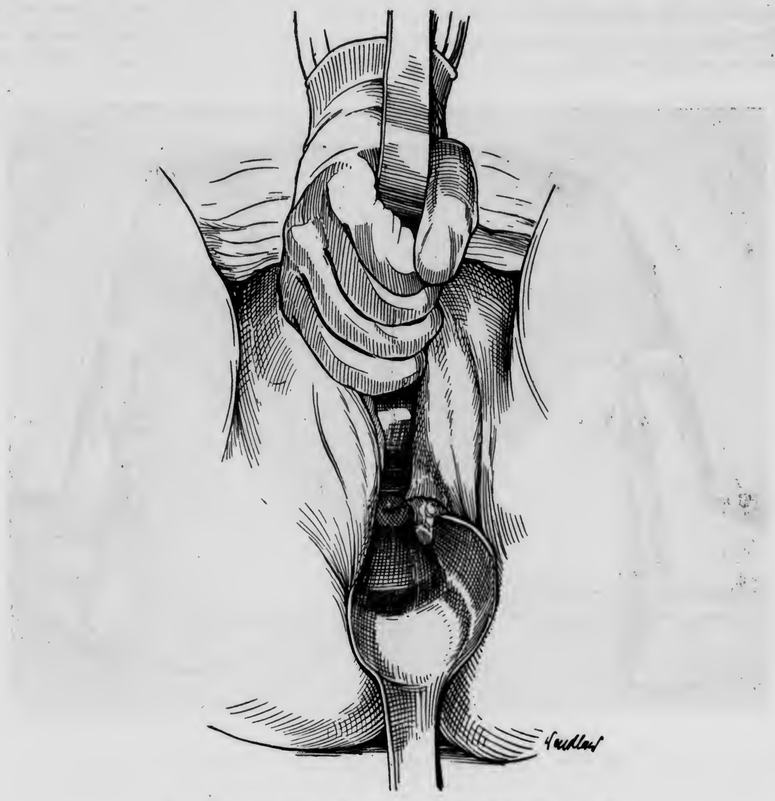
Ἡ τοποθέτησις τῆς ἀρρώστου ἐπὶ τῆς χειρουργικῆς τραπέζης εἶναι ἀξία πολλῆς προσοχῆς. Ἡ ἄρρωστος τοποθετεῖται ὑπτίως μὲ τὰ σκέλη εἰς ἀπαγωγὴν καὶ κάμψιν κατὰ τὴν κατ' ἰσχίον καὶ τὴν κατὰ γόνυ ἄρθρωσιν, ἐνῷ οἱ γλουτοὶ προέχουν τῆς χειρουργικῆς τραπέζης. Ἵνα ἡ ἄρρωστος κατὰ τὴν διάρκειαν τῆς ἐγχειρήσεως παραμείνῃ σταθερῶς ἀκίνητος χρησιμοποιοῦμεν στηρίγματα τῶν ὤμων, αἱ δὲ κνῆμαι κρατοῦνται πρὸς τὰ ὀπίσω μονίμως διὰ μεταλλίνων εἰδικῶν ράβδων τοποθετουμένων ὑπὸ τὰ γόνατα. Ἵνα ἀποφεύγηται οἱαδήποτε ἐνόχλησις τῶν βοηθῶν, αἱ ράβδοι δέον νὰ μὴ εἶναι κάθετοι ἀλλὰ ἰσχυρῶς κεκλιμέναι πρὸς τὴν χειρουργικὴν τράπεζαν καὶ πρὸς τὴν κατεύθυνσιν τῆς κεφαλῆς τῆς ἀρρώστου *(εἰκ. 27)*. Οὕτω αἱ κνῆμαι τῆς ἀρρώστου κεῖνται ἐπὶ τῶν νώτων τῶν βοηθῶν. Αἱ χεῖρες τῆς γυναικὸς στερεοῦνται ἐπὶ τοῦ θώρακος ἐσταυρωμέναι.



Εἰκ. 26.—Κολπικὸς διαστολεὺς διὰ τὴν τομὴν Schuchardt κατα **Λογοθετόπουλον.**

Εἰκ. 27. — Τοποθέτησις τῆς ἀρρώστου ἐπὶ κολπικῶν ἐγχειρήσεων.

Ἐν ἀντιθέσει πρὸς τὴν λαπαροτομὴν ἐπὶ μεγαλυτέρων κολπικῶν ἐγχειρήσεων ἔχομεν ἀνάγκην δύο βοηθῶν πάντοτε, καθ' ὅσον οὐδεὶς ἐκ τῶν μέχρι τοῦδε προταθέντων κολποδιαστολέων εἶναι δυνατὸν νὰ ἀντικαταστήσῃ ἕνα βοηθόν. Ὁ πρῶτος βοηθὸς τοποθετεῖται εἰς τὸ δεξιὸν πλάγιον τῆς ἀρρώστου, ἵνα δύναται νὰ χρησιμοποιῇ καλλίτερον τὴν δεξιὰν αὐτοῦ χεῖρα. Ὁ ἀριστερὰ ἱστάμενος διευκολύνεται κατὰ τὴν συγκράτησιν τοῦ προσθίου κολποδια-

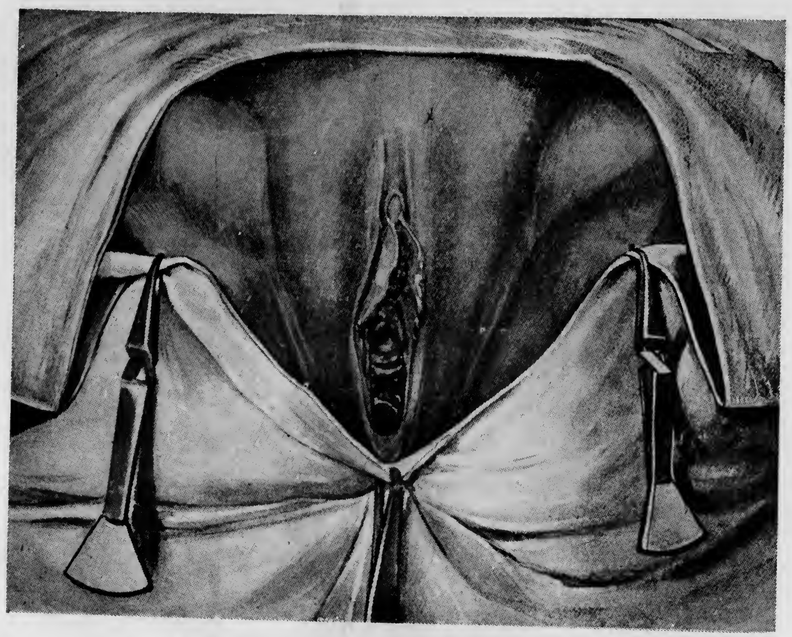


Εἰκ. 28.—Συγκράτησις τοῦ προσθίου κολποδιαστολέως. Ἡ χεὶρ τοῦ βοηθοῦ στηρίζεται ἐπὶ τῆς ἠβικῆς συμφύσεως.

στολέως ὅταν στηρίζῃ τὴν δεξιάν του χεῖρα ἐπὶ τῆς ἠβικῆς συμφύσεως *(εἰκ. 28)*. Οὗτος ὅμως δέον νὰ προσέχῃ ἵνα μὴ ἀσκῇ πίεσίν τινα διὰ τοῦ ἀγκῶνος αὐτοῦ ἐπὶ τῆς κοιλίας τῆς γυναικὸς καὶ παρακωλύῃ οὕτω τὴν ἐλευθέραν αὐτῆς ἀναπνοήν. Ἡ χειρουργικὴ τράπεζα δέον νὰ εἶναι ὅσον τὸ δυνατὸν ὑψηλότερον, ἵνα οἱ βοηθοὶ μὴ ὑποβάλλωνται εἰς κόπωσιν ἀσκόπως, ἕνεκα ἰσχυρᾶς κάμψεως τοῦ κορμοῦ αὐτῶν. Ὁ χειρουργὸς κάθηται πρὸ τοῦ αἰδοίου τῆς γυναικός, δεξιὰ δὲ καὶ ὅσον τὸ δυνατὸν πλησίον αὐτοῦ τοποθετεῖται ἡ τράπεζα τῶν ἐργαλείων, ὄπισθεν δὲ ταύτης ἵσταται ἡ ἀδελφὴ ἡ ἐγχειρίζουσα τὰ ἐργαλεῖα.

Ἵνα ἐπικαλυφθῇ καλῶς ὁ πρωκτὸς καὶ ἡ περὶ αὐτὸν χώρα στερεοῦται τὸ ἀπεστειρωμένον ὀθόνιον δι' ὀδοντωτῆς λαβίδος κατὰ τὸ δέρμα ἄνω τοῦ δακτυλίου καὶ διὰ δύο λαβίδων ἑκατέρωθεν κατὰ τὴν προέχουσαν ἐπιφάνειαν τῶν γλουτῶν *(εἰκ. 29)*.

Οἱ κολποδιαστολεῖς συνήθως δημιουργοῦν ἀρκετὸν χῶρον πρὸς εἰσαγωγὴν τῶν ἐργαλείων καὶ τῶν δακτύλων, προκειμένου ὅμως περὶ μεγαλυτέρων ὄγκων ἐπὶ στενοῦ κολεοῦ ὡς ἐπὶ ἀτόκων, δέον νὰ ἐκτελῶμεν τὴν τομὴν τῶν μυῶν τοῦ περινέου καὶ τοῦ κολεοῦ (κατὰ ***Schuchard***). Διὰ ταύτης δημιουργοῦμεν ἐπαρκῆ χῶρον, ὥστε νὰ δυνάμεθα νὰ εἰσαγάγωμεν οὗ μόνον τοὺς δακτύλους ἀλλ' ἐν περιπτώσει ἀνάγκης καὶ ὁλόκληρον τὴν χεῖρα. Ἀρκούμεθα πάντοτε εἰς τὴν μονόπλευρον ἐπὶ τοῦ ἀριστεροῦ πλαγίου τῆς ἀρρώστου ἐκτελουμένην τομήν, ἠδυνήθημεν δὲ νὰ ἀποφύγωμεν μέχρι τοῦδε τὴν συσταθεῖσαν ὑπὸ τοῦ Stöckel δευτέραν τομὴν ἐπὶ τοῦ δεξιοῦ πλαγίου καὶ ἐπὶ εὐρείας ἔτι ὑστερεκτομῆς ἕνεκα καρκινώματος. Μετ' ἀπο-



Εἰκ. 29.—Στερέωσις τῶν σπληνίων ἐπὶ κολπικῶν ἐγχειρήσεων

λίνωσιν τῶν μεγαλυτέρων, κυρίως τῶν πρὸς τὰ πρόσω κειμένων ἀγγείων, καλύπτομεν τὸ τραῦμα διὰ μικροῦ σπληνίου γάζης καὶ εἰσάγομεν τὸν ἡμέτερον διαστολέα, ὅστις προστατεύει τὴν τομὴν ἀπὸ τῆς ρυπάνσεως καὶ ταυτοχρόνως ἐνεργεῖ αἱμοστατικῶς *(εἰκ. 26)*.

Ἡ διάνοιξις τῆς περιτοναϊκῆς κοιλότητος ἀπὸ τοῦ κολεοῦ δύναται νὰ γίνῃ διὰ τῆς προσθίας ἢ διὰ τῆς ὀπισθίας κολποτομῆς. Ἐπὶ ἐγχειρήσεων κατὰ τὴν μήτραν ἢ τὰ ἐξαρτήματα ἐφαρμόζομεν τὴν προσθίαν κολποτομήν, διότι αὕτη εὐχεραίνει ἄριστα τὴν δι' αὐτῆς κατάσπασιν τοῦ πυθμένος τῆς μήτρας. Ἡ ὀπισθία κολποκοιλιοτομὴ ἐκτελεῖται πρὸς διάνοιξιν τῶν ἀποστημάτων τοῦ Δουγλασείου χώρου καὶ μόνον ὅλως ἐξαιρετικῶς εἰς ὡρισμένας περιπτώσεις δι' ἐγχειρήσεις ἐπὶ τῆς μήτρας ἢ τῶν ἐξαρτημάτων. Πρὸς ὀρθὴν ἐκτέλεσιν τῆς προσθίας ἢ τῆς ὀπισθίας κολποκοιλιοτομῆς δέον νὰ ἔχωμεν πάντοτε πρὸ ὀφθαλμῶν τὰς ἀνατομικὰς συνθήκας.

Ἡ οὐροδόχος κύστις συνδέεται μετὰ τῆς μήτρας κατὰ τὸ πρόσθιον τοίχωμα τοῦ τρα-

χήλου διὰ χαλαροῦ συνεκτικοῦ ἱστοῦ οὕτως, ὥστε ἐπὶ φυσιολογικῶν σχέσεων ἡ ἀποκόλλησις τῶν δύο ὀργάνων ἀπ' ἀλλήλων τελεῖται εὐχερῶς κατὰ τὸ μέσον διὰ τοῦ δακτύλου *(εἰκ. 78)*. Οὕτω γίνονται ἐμφανῆ τὰ πλάγια τμήματα, ἔνθα ἡ οὐροδόχος κύστις καὶ ὁ τράχηλος συνδέονται πολὺ στερεώτερον πρὸς ἄλληλα οὕτως, ὥστε ὑποχρεούμεθα νὰ χρησιμοποιήσωμεν τὸ ψαλίδιον. Κατὰ τὴν ἕλξιν πρὸς τὰ κάτω τῆς μήτρας ἡ οὐροδόχος κύστις συνακολουθεῖ παρεκτοπιζομένη, σχηματιζομένης οὕτω πτυχῆς. Ἀντιθέτως ἡ προσθία περιτοναϊκὴ πτυχὴ (κυστιομητρικὴ πτυχή), ἥτις ἐπὶ φυσιολογικῆς θέσεως τῶν γεννητικῶν ὀργάνων ἐξικνεῖται μέχρι τοῦ ἔσω μητρικοῦ στομίου καὶ ἀπέχει ἀπὸ τοῦ προσθίου κολπικοῦ θόλου 2 ἑκ., κατὰ τὴν πρὸς τὰ κάτω ἕλξιν τῆς μήτρας παραμένει εἰς τὴν αὐτὴν θέσιν οὕτως, ὥστε ἡ ἀπόστασις αὐτῆς ἀπὸ τοῦ κολπικοῦ θόλου εἶναι περίπου 4 ἑκ. Τὸ περιτόναιον τοῦ Δουγλασείου ἐξικνεῖται πλησιέστατα πρὸς τὸν κολεόν, μεθ' οὗ συνδέεται διὰ χαλαροῦ συνεκτικοῦ ἱστοῦ. Ἕνεκα τούτου κατὰ τὴν ἕλξιν τῆς μήτρας πρὸς τὰ κάτω τὸ περιτόναιον τοῦ Δουγλασείου ἀκολουθεῖ ἐν μέρει οὕτως, ὥστε κατὰ τὴν διάνοιξιν τοῦ ὀπισθίου θόλου τοῦ κολεοῦ ἀνευρίσκομεν τοῦτο μόλις εἰς βάθος 2 ἑκ. περίπου.

α') Προσθία κολποκοιλιοτομή.

Μετὰ τὴν ἀπαγωγὴν τῶν κολπικῶν τοιχωμάτων διὰ τῶν κολποδιαστολέων καὶ τὴν ἀποκάλυψιν τοῦ τραχήλου συλλαμβάνομεν τὸ πρόσθιον τραχηλικὸν χεῖλος δι' ἀγκιστρωτῆς λαβίδος καὶ ἕλκομεν τοῦτο πρὸ τοῦ αἰδοίου καὶ κατά τι πρὸς τὴν κατεύθυνσιν τοῦ περινέου. Διατέμνομεν τὸ πρόσθιον κολπικὸν τοίχωμα διὰ τοῦ μαχαιρίου κατὰ τὴν μέσην γραμμήν, τῆς τομῆς ἀρχομένης ἀκριβῶς 2 ἑκ. κάτω τῆς οὐρήθρας καὶ ἐξικνουμένης πρὸς τὰ κάτω μέχρι τῆς ἐνδοκολεϊκῆς μοίρας τοῦ τραχήλου. Ἀντὶ τῆς τομῆς ταύτης δυνάμεθα, ἀναλόγως τῆς περιπτώσεως, νὰ ἐφαρμόσωμεν τομὴν φερομένην ἐγκαρσίως ἢ τοιαύτην σχήματος Τ. Ἡ ἐγκαρσία ἢ τοξοειδὴς τομὴ δέον νὰ φέρηται κατὰ τὰ ὅρια κύστεως καὶ τραχήλου κατὰ γενικὸν κανόνα $1\frac{1}{2}$—2 ἑκ. ἄνω τοῦ τραχηλικοῦ στομίου. Ἑκάστη τῶν τομῶν τούτων ἐν πάσῃ περιπτώσει δέον νὰ ἐνεργῆται μέχρι τοῦ συνεκτικοῦ ἱστοῦ τοῦ κειμένου ὑπὸ τὸ κολπικὸν τοίχωμα, διότι τότε μόνον εἶναι δυνατὸν νὰ ἀποχωρισθῇ ἡ κύστις ἀπὸ τοῦ κολπικοῦ τοιχώματος εὐχερῶς. Μετὰ τὸν διχασμὸν τοῦ κολπικοῦ τοιχώματος κατὰ τὴν μέσην γραμμὴν συλλαμβάνομεν ἕκαστον τραυματικὸν χεῖλος διὰ λαβίδων Kocher καὶ ἀρχόμεθα τῆς ἀποκολλήσεως πρὸς ἀμφότερα τὰ πλάγια διὰ τοῦ ψαλιδίου μέχρι ἀποστάσεως 2 ἑκ. περίπου. Ἡ ἀποκόλλησις τῆς κύστεως καὶ ἡ περαιτέρω ἐξέλιξις τῆς ἐγχειρήσεως θὰ περιγραφῇ κατὰ τὴν κολπικὴν ὑστερεκτομήν.

β') Ὀπισθία κολποκοιλιοτομή.

Αὕτη ἕνεκα τῶν ἁπλουστέρων ἀνατομικῶν συνθηκῶν ἐκτελεῖται εὐχερέστερον ἢ ἡ προσθία, καθ' ὅσον τὸ περιτόναιον ἐξικνεῖται πρὸς τὰ κάτω μέχρι τοῦ κολπικοῦ θόλου, ἡ δὲ οὐροδόχος κύστις δὲν ἀποχωρίζεται. Ἀπάγομεν τὰ κολπικὰ τοιχώματα διὰ κολποδιαστολέων, ἀποκαλύπτομεν τὸν τράχηλον καὶ συλλαμβάνομεν τὸ ὀπίσθιον τραχηλικὸν χεῖλος δι' ἀγκιστρωτῆς λαβίδος, ἣν ἕλκομεν ἰσχυρῶς πρὸς τὴν ἔξοδον τοῦ κολεοῦ καὶ πρὸς τὴν κατεύθυνσιν τῆς ἠβικῆς συμφύσεως ἀφοῦ ἀπομακρύνομεν τὸν παρακωλύοντα τὴν κάθελξιν πρόσθιον κολποδιαστολέα. Ἀκολούθως διατέμνομεν τὸ ὀπίσθιον κολπικὸν τοίχωμα ἐγκαρσίως ἀκριβῶς κάτω τοῦ ἀνασπασθέντος τραχήλου, διανοιγομένου οὕτω ταὐτοχρόνως τοῦ περιτοναίου. Πρὸ οἱασδήποτε περαιτέρω ἐπεμβάσεως, προβαίνομεν πρὸς διαγνωστικὸν σκοπὸν εἰς λεπτομερῆ ψηλάφησιν τῆς ἐλάσσονος πυέλου ἀπὸ τοῦ ἐγχειρητικοῦ τραύματος. Ἐὰν ἡ διασωλήνωσις θεωρηθῇ περιττή, μετὰ τὸ πέρας τῆς ἐγχειρήσεως συγκλείομεν τὸ περιτόναιον καὶ τὸ κολπικὸν τοίχωμα διὰ ζωϊκῶν ραμμάτων.

ΕΙΔΙΚΟΝ ΜΕΡΟΣ

I. Χειρουργικὴ θεραπεία τῶν ἀνωμάλων θέσεων τῆς μήτρας.

Α'. ΟΠΙΣΘΙΑ ΚΑΜΨΙΣ ΚΑΙ ΚΑΜΨΙΣ ΤΗΣ ΜΗΤΡΑΣ

1. Στερέωσις τῶν στρογγύλων συνδέσμων

α') Ἐγχείρησις κατὰ Alexander—Adams.

Πρῶτος ὁ Alquier ἐσκέφθη νὰ ἀντικαταστήσῃ τὴν διὰ τοῦ πεσσοῦ θεραπείαν τῆς ὀπισθίας κάμψεως καὶ κλίσεως τῆς μήτρας δι' ἐγχειρήσεως.

Οὗτος κατὰ τὸ ἔτος 1840 ἐπρότεινεν εἰς τὴν Γαλλικὴν Ἀκαδημίαν τὴν ἐπίτευξιν ἀνατάξεως τῆς μήτρας διὰ βραχύνσεως τῶν στρογγύλων συνδέσμων. Ἡ ἐγχείρησις ὅμως αὕτη ἐξετελέσθη τὸ πρῶτον ὑπὸ δύο Ἄγγλων χειρουργῶν, τοῦ Alexander καὶ τοῦ Adams, κατὰ τὸ ἔτος 1881. Κατὰ τὴν ἐκτέλεσιν τῆς ἐγχειρήσεως ταύτης εἶναι ἀπαραίτητον ἵνα τηρῶμεν ὡρισμένους κανόνας, ἄνευ τῶν ὁποίων προσκρούομεν εἰς δυσχερείας. Ἵνα δυνηθῶμεν εὐκόλως νὰ ἀνεύρωμεν τοὺς στρογγύλους συνδέσμους ἐντὸς τοῦ βουβωνικοῦ πόρου, δέον ἡ τομὴ τοῦ δέρματος, μήκους 4—6 ἑκ., νὰ ἄρχηται ἀπὸ τοῦ ἡβικοῦ φύματος καὶ νὰ πορεύηται παραλλήλως καὶ ὀλίγον ἄνω τοῦ πουπαρτείου συνδέσμου, νὰ εἰσχωρῇ δὲ μέχρι τῆς ἐπιπολῆς ἀπονευρώσεως. Ταύτην ἀκολούθως καθαρίζομεν ἀπὸ τοῦ ἐπ' αὐτῆς κειμένου λίπους διὰ τολυπίου μέχρι σημείου, ὥστε νὰ φαίνηται λευκή, στίλβουσα. Οὕτω καθίσταται ἐμφανὲς κατὰ τὴν χώραν τοῦ ἔξω βουβωνικοῦ στομίου τὸ λιπῶδες ἔμβολον τοῦ Imlach, ὅπερ ἐπὶ παχυσάρκων ἰδίᾳ γυναικῶν καλύπτει τὸν στρογγύλον σύνδεσμον. Ἐνταῦθα ἀναζητεῖται ὁ σύνδεσμος, συλλαμβάνεται οὗτος δι' ἀμβλείας λαβίδος καὶ ἀκολούθως διανοίγεται ἡ ἀπονεύρωσις. Πρὸ τῆς ἀνευρέσεως τοῦ συνδέσμου δέον νὰ μὴ διαχωρίζηται ἡ ἀπονεύρωσις. Μετὰ τὴν διάνοιξιν τῆς ἀπονευρώσεως εὐχερῶς ἕλκεται ὁ σύνδεσμος πρὸς τὰ ἔξω καὶ ἀποψιλοῦται κατὰ μῆκος τῆς ὅλης αὐτοῦ διαδρομῆς ἀπὸ τοῦ βουβωνικοῦ πόρου. Οἱ χειρισμοὶ κατὰ τὸν σύνδεσμον δέον νὰ γίνωνται μετὰ μεγάλης προσοχῆς, διότι οὗτος ἰδίᾳ ἐπὶ ἀτόκων, κατὰ τὴν ἔξω αὐτοῦ μοῖραν εἶναι πολὺ λεπτὸς καὶ εὔθρυπτος.

Ἡ προβάλλουσα περιτοναϊκὴ πτυχὴ ἀπωθεῖται διὰ τολυπίου ἢ κάλλιον διανοίγεται διὰ τοῦ ψαλιδίου ἵνα δυνηθῶμεν νὰ προσανατολισθῶμεν διὰ τῆς εἰσαγωγῆς τοῦ δακτύλου ἐντὸς τῆς κοιλιακῆς κοιλότητος, ὡς πρὸς τὴν ἀκριβῆ κατάστασιν τῶν ἔσω γεννητικῶν ὀργάνων. Ἀκολούθως συγκλείεται ἐκ νέου τὸ περιτόναιον καὶ στερεοῦται διά τινων ραμμάτων ὁ σύνδεσμος ἐπὶ τοῦ Πουπαρτείου συνδέσμου. Δέον ὅμως νὰ δίδηται προσοχὴ ἵνα μὴ συμπεριλαμβάνηται ὁ στρογγύλος σύνδεσμος ἐξ ὁλοκλήρου εἰς τὴν ραφὴν πρὸς ἀποφυγὴν νεκρώσεως τούτου. Τὸ πλεονάζον τμῆμα τοῦ στρογγύλου συνδέσμου ἀπολινοῦται καὶ ἀποκόπτεται. Τὰ κοιλιακὰ τοιχώματα συγκλείονται ὡς καὶ κατὰ τὴν ἐγχείρησιν κήλης κατὰ Bassini. Ἐὰν ἡ ἀνεύρεσις τῶν στρογγύλων συνδέσμων δὲν καταστῇ δυνατή, τοῦθ' ὅπερ, καίτοι πολὺ σπανίως καὶ ἐπὶ τηρήσεως ἔτι τῶν ἄνω κανόνων δυνατὸν νὰ συμβῇ, διευρύνομεν τὴν τομὴν καὶ ἀναζητοῦμεν τούτους ἀπ' εὐθείας κατὰ τὴν ἔκφυσιν αὐτῶν παρὰ τὸ κέρας τῆς μήτρας.

β') Ἐγχείρησις κατὰ Olshausen.

Προσήλωσις πρὸς τὰ κοιλιακὰ τοιχώματα τῶν στρογγύλων συνδέσμων πλησίον τῆς ἐκφύσεώς των ἐκ τῆς μήτρας.

Βελόνη φέρουσα ζωϊκὸν ράμμα ἢ λεπτὴν μέταξαν διαπερᾷ ἐφ' ἑκάστου πλαγίου τὴν ἀπονεύρωσιν τῶν λοξῶν, τοῦ ὀρθοῦ κοιλιακοῦ μυὸς καὶ τὸ περιτόναιον, διατρυπᾷ ἀκολούθως

τὸν στρογγύλον σύνδεσμον καὶ διεκβάλλεται αὕτη ἐκ νέου διὰ τοῦ αὐτοῦ πλαγίου κοιλιακοῦ τοιχώματος πρὸς τὰ ἔξω.

Μετὰ τὴν σύγκλεισιν τῶν κοιλιακῶν τοιχωμάτων καὶ πρὸ τῆς ραφῆς τοῦ δέρματος ἀμματίζονται τὰ ράμματα ἐπὶ ἑκάστου πλαγίου.

γ') Ἐγχείρησις κατὰ Doleris.

Διάνοιξις τῆς κοιλίας δι' ἐγκαρσίας ἢ κατὰ μῆκος τομῆς. Βελόνη Dechamps μετὰ ράμματος μεταξίνου διαπερᾶται κάτω τοῦ στρογγύλου συνδέσμου, εἰς ἀπόστασιν 3 ἑκ. ἀπὸ τοῦ χείλους τῆς μήτρας, διὰ μέσου τοῦ πλατέος συνδέσμου. Κατὰ τὸν αὐτὸν τρόπον διαπερᾶται ράμμα διὰ τοῦ πλατέος συνδέσμου τοῦ ἑτέρου πλαγίου. Ἀκολούθως διατρυπᾶται δι' ἀμβλείας λαβίδος κατ' ἀμφότερα τὰ πλάγια, ὀλίγον ἄνω τῆς ἡβικῆς συμφύσεως καὶ περίπου 2 ἑκ. ἀπὸ τῆς μέσης γραμμῆς, ὁ ὀρθὸς μῦς καὶ τὸ περιτόναιον καὶ διὰ μέσου τῶν 2 ὀπῶν ἕλκονται πρὸς τὰ ἔξω αἱ ἀγκύλαι τῶν στρογγύλων συνδέσμων. Τὸ περιτόναιον καὶ οἱ μύες συνενοῦνται καὶ ὑπεράνω τούτων συρράπτονται οἱ δύο σύνδεσμοι πρὸς ἀλλήλους καὶ πρὸς τοὺς μῦς. Πρὸς μεγαλυτέραν ἀσφάλειαν δυνάμεθα κατὰ τὴν ραφὴν τῆς ἀπονευρώσεως νὰ συλλάβωμεν καὶ τοὺς συνδέσμους καὶ οὕτω νὰ προσηλώσωμεν τούτους ἐπὶ τῆς ὀπισθίας ἐπιφανείας τῆς ἀπονευρώσεως. Ἀμφότεραι αἱ τελευταῖαι αὗται μέθοδοι ἔχουν τὸ μειονέκτημα, ὅτι εἶναι δυνατὸν νὰ ὑπεισέλθουν ἐντερικαὶ ἕλικες μεταξὺ κοιλιακοῦ τοιχώματος καὶ μήτρας, οὕτω δὲ νὰ δημιουργηθῇ εἰλεὸς ἐξ ἀποφράξεως. Πλὴν τούτου ὅμως ἡ θέσις τῆς μήτρας εἶναι ἐξαιρετικῶς ὑψηλὴ καὶ περιορίζεται κατὰ πολὺ ἡ φυσιολογικὴ κινητικότης αὐτῆς.

Πρὸς ἀποφυγὴν τοῦ μειονεκτήματος τούτου, συνεστήθη ἵνα οἱ σύνδεσμοι συρράπτωνται ἐπὶ τοῦ προσθίου (Polk, Menge) κτλ. ἢ κάλλιον ἐπὶ τοῦ ὀπισθίου τοιχώματος τῆς μήτρας (Webster—Baldy).

δ') Ἐγχείρησις κατὰ Webster - Baldy.

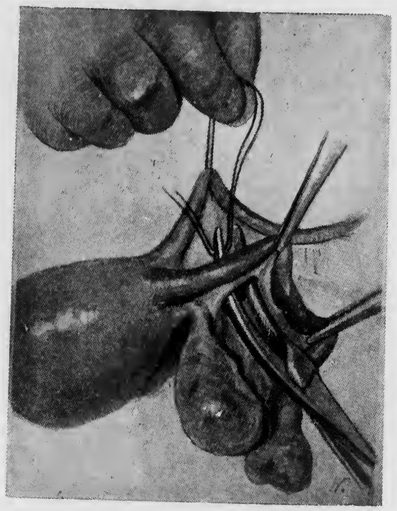
Μετὰ τὴν διάνοιξιν τῆς κοιλιακῆς κοιλότητος συλλαμβάνονται ἑκατέρωθεν οἱ στρογγύλοι σύνδεσμοι διὰ βελόνης Dechamps καὶ ράμματος εἰς ἀπόστασιν 3 ἑκ. ἀπὸ τοῦ χείλους τῆς μήτρας καὶ ἀνέλκονται. Ἀκολούθως διατρυπῶμεν ἑκατέρωθεν τὸ μεσοσαλπίγγιον διὰ λαβίδος (Péan) καὶ ἕλκομεν διὰ ταύτης τὰς ἀγκύλας τῶν στρογγύλων συνδέσμων διὰ μέσου τοῦ μεσοσαλπιγγίου καὶ προσηλώνομεν ταύτας διά τινων ζωϊκῶν ἢ μεταξίνων ραμμάτων ἐπὶ τῆς ὀπισθίας ἐπιφανείας τῆς μήτρας. Προσέχομεν ὅμως ἵνα μὴ ὑποστοῦν σύγκαμψιν αἱ σάλπιγγες, ὅτε δημιουργεῖται κώλυμα συλλήψεως.

2. Κοιλιακὴ κυστιοπηξία.

Ἡ ὑπὸ τοῦ Werth κατὰ τὸ 1884 ὑποδειχθεῖσα μέθοδος, ἥτις καὶ σήμερον ἔτι ἔχει εὐαρίθμους ὀπαδούς, στηρίζεται ἐπὶ τῆς ἐξαφανίσεως τοῦ προσθίου Δουγλασείου χώρου (κυστιομητρικοῦ κολπώματος) πρὸς τὸν σκοπὸν ἵνα ἐξουδετερωθῇ ἡ ἐκ τῶν πρόσω καὶ ἄνω ἰσχυρὰ ἐνδοκοιλιακὴ πίεσις. Ἡ ὑφισταμένη ὄπισθεν πίεσις ἐκ τῶν ὀπίσω καὶ ἄνω ἐπὶ τῆς ὀπισθίας ἐπιφανείας τῆς μήτρας ὠθεῖ τὴν μήτραν εἰς προσθίαν κλίσιν καὶ κάμψιν.

Κατὰ τὸν Halban προβαίνομεν ὡς ἀκολούθως: Βελόνη φέρουσα μακρὸν ζωϊκὸν ράμμα διατρυπᾷ τὸν πυθμένα τῆς μήτρας ἀκριβῶς ἄνω τῆς θέσεως τῆς ἐκφύσεως τῆς σάλπιγγος· αὕτη δι' ἐπαναλαμβανομένων νύξεων συλλαμβάνει τὸ περιτόναιον τῆς προσθίας ἐπιφανείας τῆς μήτρας καὶ ἐν συνεχείᾳ τοῦ ὀπισθίου τοιχώματος τῆς κύστεως καὶ διεκβάλλεται ἐκ νέου ἄνω τῆς κορυφῆς τῆς κύστεως (ραφὴ καπνοθύλακος). Τὸ αὐτὸ ἐνεργεῖται συμμετρικῶς διὰ δευτέρας ραφῆς ἐπὶ τοῦ ἑτέρου πλαγίου. Τὰ ἄκρα ἀμφοτέρων τῶν ραμμάτων ἀμματίζονται οὕτως, ὥστε ὁ πυθμὴν τῆς μήτρας ἐπικάθηται ἐπὶ τῆς κορυφῆς τῆς κύστεως, ὁπότε τὸ κυστιομητρικὸν κόλπωμα ἐξουδετεροῦται.

3. Βράχυνσις τῶν στρογγύλων συνδέσμων μετὰ ταὐτοχρόνου κυστιοπηξίας ἐπὶ τῆς μήτρας κατὰ Λογοθετόπουλον.



Εἰκ. 30.—Βράχυνσις τῶν στρογγύλων συνδέσμων μετὰ ταυτοχρόνου κυστιοπηξίας ἐπὶ τῆς μήτρας κατὰ ***Λογοθετόπουλον.***

Πρὸς ἐξουδετέρωσιν τοῦ κυστιομητρικοῦ κολπώματος καὶ ταὐτοχρόνως διακρατήσεως τῆς μήτρας εἰς προσθίαν κλίσιν καὶ κάμψιν, συρράπτω περίπου κατὰ τὴν μέθοδον Baldy - Webster τοὺς στρογγύλους συνδέσμους ἐπὶ τῆς ὀπισθίας ἐπιφανείας τῆς μήτρας διά τινων ραμμάτων καὶ ἀκολούθως συρράπτω τὴν κύστιν δι' ἁπλῶν ραφῶν ἐπὶ τοῦ τμήματος τῶν στρογγύλων συνδέσμων τῶν ἀναδιπλωθέντων ἐπὶ τοῦ ὀπισθίου τοιχώματος τοῦ πυθμένος τῆς μήτρας *(εἰκ. 30, 31, 32)*. Ἡ μέθοδος αὕτη εἶναι ἡ μόνη ὑφ' ἡμῶν ἐφαρμοζομένη ἀπὸ πολλοῦ χρόνου, καθ' ὅσον διὰ ταύτης ἡ μήτρα ἀποκτᾶ διπλῆν ἐξασφάλισιν τῆς θέσεως αὐτῆς, ἥτις εἶναι παρεμφερὴς πρὸς τὴν φυσιολογικήν. Ἐνδείκνυται ἵνα κατὰ τὴν συρραφὴν τῶν στρογγύλων συνδέσμων ἐπὶ τῆς ὀπισθίας ἐπιφανείας τῆς μήτρας συρράπτωνται μόνον τὰ ὀπίσθια σκέλη τῆς ἀγκύλης τῶν συνδέσμων τούτων, ἵνα τὰ πρόσθια σκέλη, μεθ' ὧν βραδύτερον συνάπτεται ἡ κύστις, παραμείνουν ἄνευ τάσεως.

Τὸ πλεονέκτημα τῆς ἐγχειρήσεως ἔγκειται εἰς τὸ ὅτι ἡ κύστις διατηρεῖ τὴν ὅλην αὐτῆς

Εἰκ. 31.—Βράχυνσις τῶν στρογγύλων συνδέσμων μετὰ ταυτοχρόνου κυστιοπηξίας ἐπὶ τῆς μήτρας κατὰ ***Λογοθετόπουλον****. Συρραφὴ τῆς κύστεως ἐπὶ τῶν συνδεθέντων ἐπὶ τοῦ ὀπισθίου τοιχώματος τῆς μήτρας στρογγύλων συνδέσμων.*

Εἰκ. 32.—Βράχυνσις τῶν στρογγύλων συνδέσμων μετὰ ταυτοχρόνου κυστιοπηξίας ἐπὶ τῆς μήτρας κατὰ ***Λογοθετόπουλον****. Ἡ κύστις ἔχει στερεωθῆ ἐπὶ τῶν στρογγύλων συνδέσμων διὰ τεσσάρων ἁπλῶν ραμμάτων.*

κινητικότητα, ἐξετάσεις δὲ μετεγχειρητικῶς ἀπέδειξαν ὅτι οὐδέποτε ἐνεφανίσθησαν διαταραχαὶ τῆς κύστεως, οὐδὲ ἐπὶ περιπτώσεων κυήσεως. Ὑποτροπαὶ δὲν παρετηρήθησαν ἐπὶ ἄνω τῶν ἑκατὸν περιπτώσεων ἐγχειρηθεισῶν οὕτω ὑπ' ἐμοῦ ἢ τῶν βοηθῶν μου.

4. Ἄμεσος στερέωσις τῆς μήτρας ἐπὶ τῶν κοιλιακῶν τοιχωμάτων.

Ἡ κοιλιοπηξία κατὰ Leopold - Czerny, καθ' ἣν διαπερῶμεν τὴν φέρουσαν τὸ ράμμα βελόνην διὰ τῆς ἀπονευρώσεως τῶν μυῶν καὶ τοῦ περιτοναίου τοῦ ἑνὸς πλαγίου, συλλαμβάνομεν τὴν μήτραν καὶ διεκβάλλομεν ἐκ νέου διὰ τῶν ἀντιστοίχων στιβάδων τοῦ ἑτέρου πλαγίου. Αὕτη ἐφαρμόζεται μόνον ἐπὶ γυναικῶν εὑρισκομένων εἰς τὴν κλιμακτήριον ἡλικίαν, ἢ ἐὰν αὗται ὑποβληθῶσιν εἰς τεχνικὴν στείρωσιν.

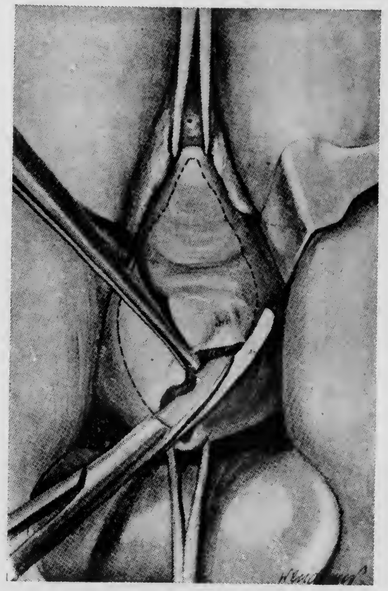
Ἐπὶ προπτώσεων τῆς μήτρας ἡ μέθοδος εἶναι πολύτιμος καὶ συχνὰ ἐφαρμόζεται. Ἐπὶ τοιούτων ὅμως περιπτώσεων ἐπιτυγχάνομεν ἀκόμη ἀσφαλεστέραν προσήλωσιν τῆς μήτρας ἐπὶ τῶν κοιλιακῶν τοιχωμάτων διὰ τῆς ἐξωϋστεροπηξίας κατὰ Kocher, ἥτις ἐκτελεῖται ὡς ἀκολούθως :

Μετὰ διάνοιξιν τῆς κοιλιακῆς κοιλότητος συλλαμβάνεται ἡ μήτρα δι' ἀγκιστρωτῆς λαβίδος καὶ ἕλκεται πρὸς τὰ ἔξω, ἀκολούθως συρράπτεται τὸ τοιχικὸν περιτόναιον ἐπὶ τῆς ὀπισθίας καὶ προσθίας ἐπιφανείας τῆς μήτρας οὕτως, ὥστε ἡ μήτρα τοποθετεῖται ἐξωπεριτοναϊκῶς. Κατὰ τὴν ραφὴν τῶν κοιλιακῶν τοιχωμάτων διαπερῶμεν δύο ἰσχυρότερα ράμματα διὰ τῆς μήτρας καὶ διὰ τῆς ἀπονευρώσεως τῶν λοξῶν ἑκατέρωθεν, ἅτινα ἁμματίζομεν μετὰ τὴν ραφὴν τῆς ἀπονευρώσεως.

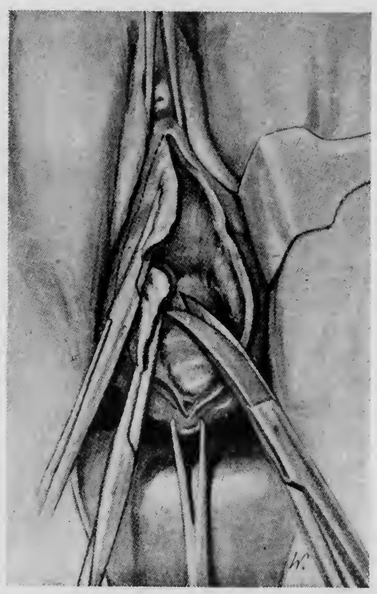
Β. ΧΑΛΑΡΩΣΙΣ ΚΑΙ ΠΡΟΠΤΩΣΙΣ ΤΟΥ ΚΟΛΕΟΥ.

1. Προσθία κολπορραφή.

Μετὰ τὴν εἰσαγωγὴν τοῦ ὀπισθίου κολποδιαστολέως συλλαμβάνομεν δι' ἀγκιστρωτῆς λαβίδος τὸ πρόσθιον κολπικὸν τοίχωμα ἀκριβῶς εἰς τὴν μέσην γραμμήν, 1 ἑκ. περίπου ἄνω

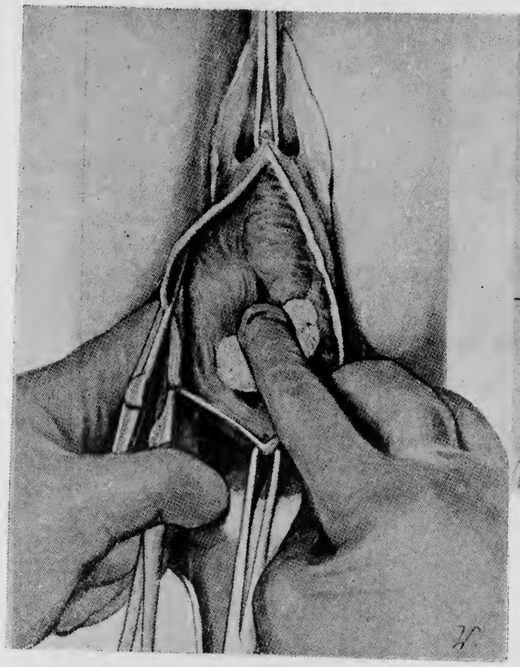


Εἰκ. 33.—Προσθία κολπορραφή. Ἔναρξις ἀποχωρισμοῦ τοῦ διὰ στικτῆς γραμμῆς καθορισθέντος ἐλλειψοειδοῦς κολπικοῦ κρημνοῦ.

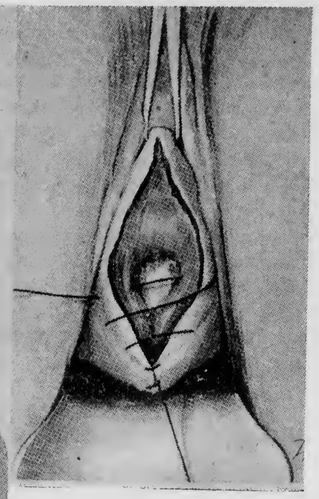


Εἰκ. 34.—Προσθία κολπορραφή. Σύλληψις τοῦ κολπικοῦ τραύματος διὰ λαβίδων ***Kocher*** *καὶ ἀποκόλλησις τοῦ κολπικοῦ τοιχώματος ἀπὸ τοῦ ὑποσιρώματος διὰ τοῦ ψαλιδίου.*

τοῦ στομίου τῆς μήτρας καὶ ἕλκομεν τοῦτο πρὸς τὰ κάτω. Διὰ δευτέρας ἀγκιστρωτῆς λαβίδος συλλαμβάνομεν τὸ κολπικὸν τοίχωμα ἀκριβῶς κάτω τοῦ στομίου τῆς οὐρήθρας καὶ ἕλκομεν τοῦτο πρὸς τὰ ἄνω. Ἐπὶ τοῦ τεινομένου οὕτω κολπικοῦ τοιχώματος φέρομεν ἀκριβῶς ἄνω τῆς κατωτέρας ἀγκιστρωτῆς λαβίδος μικρὰν διὰ τοῦ ψαλιδίου τομὴν καθ' ὅλον τὸ πάχος τοῦ



Εἰκ. 35.—Προσθία κολπορραφή. Ἡ ἀποκόλλησις τοῦ κολπικοῦ κρημνοῦ συμπληροῦται ἀμβλέως δι' ἑνὸς τολυπίου.



Εἰκ. 36.—Προσθία κολπορραφή. Ἡ ἀποκόλλησις τοῦ προσθίου κρημνοῦ ἔχει περατωθῆ. Ἡ συνεχὴς ραφὴ συλλαμβάνει τὸ τοίχωμα τῆς κύστεως.

κολπικοῦ τοιχώματος, συλλαμβάνομεν τὸ ἄνω κράσπεδον διὰ χειρουργικῆς λαβίδος καὶ φέρομεν διὰ τοῦ ψαλιδίου τοξοειδῆ τομὴν ἐπὶ τοῦ ἀριστεροῦ πλαγίου ἐκ τῶν κάτω πρὸς τὰ ἄνω μέχρι τῆς ἀνωτέρας ἀγκιστρωτῆς λαβίδος *(εἰκ. 33—36)*.

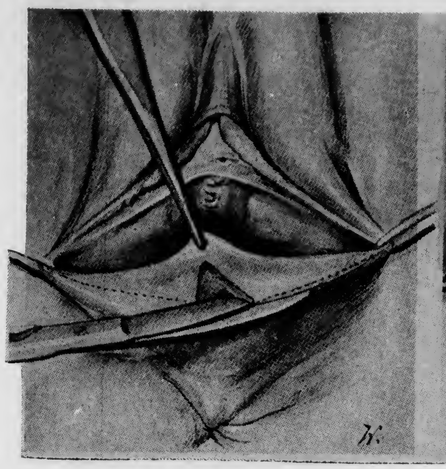
Ἐκ τῆς τομῆς ταύτης παρασκευάζεται πρὸς τὰ ἀριστερὰ (τοῦ χειρουργοῦ) τὸ κολπικὸν τοίχωμα καὶ ἐκτέμνεται ἐλλειψοειδὴς κρημνός, οὗτινος τὸ μέγεθος ἐξαρτᾶται ἐκ τῆς ἐκτάσεως τῆς προπτώσεως. Δέον ὅμως τὰ τραυματικὰ χείλη νὰ δύνανται νὰ πλησιάζουν πρὸς ἄλληλα ἄνευ τάσεως ὑπολογιζομένου πρὸς τοῦτο τοῦ μεγέθους τοῦ ἐκτεμνομένου κρημνοῦ. Ἐφ' ὅσον ἐργαζόμεθα εἰς τὴν ἁρμόζουσαν στιβάδα εἶναι εὐχερὲς νὰ ἀποκολλήσωμεν τὸν κρημνὸν διὰ τολυπίου, ὅτε συλλαμβάνομεν τὰ τραυματικὰ χείλη διὰ μιᾶς ἢ δύο λαβίδων Kocher, ἃς ἀφήνομεν νὰ ἐπολισθήσουν ἐπὶ τῶν δακτύλων τῆς ἀριστερᾶς χειρός. Ἡ συνένωσις τῶν τραυματικῶν χειλέων γίνεται διὰ συνεχοῦς ραφῆς, ἧς ἔναρξις γίνεται ἐκ τῶν κάτω, ἤτοι ἀπὸ τοῦ τραχήλου τῆς μήτρας. Ὅταν ἡ ραφὴ προσπλησιάζῃ εὐρεῖαν ἐπιφάνειαν τῶν ἑκατέρωθεν κρημνῶν καὶ ταὐτοχρόνως συλληφθῇ ἡ πτυχὴ τοῦ τοιχώματος τῆς κύστεως, περιττεύει ἡ ἰδιαιτέρα συρράφωσις τοῦ τοιχώματος αὐτῆς, ἐφ' ὅσον πρόκειται περὶ μικρᾶς προπτώσεως *(εἰκ. 36)*. Ἐπὶ μεγαλυτέρων κυστιοκηλῶν ἐκτελῶ ἰδιαιτέραν συρράφωσιν τοῦ τοιχώματος τῆς κύστεως. Μετὰ

τὴν τοποθέτησιν τῆς πρώτης ραφῆς κατὰ τὸν τράχηλον ἀφαιρεῖται ἡ κατωτέρα ἀγκιστρωτὴ λαβὶς καὶ ὁ βοηθὸς ἕλκει μόνον τὸ ράμμα οὕτως, ὥστε κατὰ τὴν περαιτέρω ραφὴν ὁ τράχηλος αὐτομάτως ἐπανέρχεται βαθμηδὸν εἰς τὴν φυσιολογικὴν αὐτοῦ θέσιν. Προκειμένου περὶ μεγάλης προπτώσεως, καθ' ἣν εἶναι δυσχερὲς νὰ καθορίσωμεν ἐκ τῶν προτέρων τὸ μέγεθος τοῦ κρημνοῦ, ἀρχόμεθα τῆς πλαστικῆς φέροντες μεγάλην μέσην ἐπιμήκη τομήν, ἀφ' ἧς ἀποκολλῶμεν τὸ κολπικὸν τοίχωμα πρὸς ἀμφότερα τὰ πλάγια ὡς ἄνω. Ἀκολούθως ἀπωθοῦμεν τὴν κύστιν πρὸς τὰ ἄνω καὶ συρρικνοῦμεν τὸ τοίχωμα αὐτῆς διὰ ραφῆς καπνοθύλακος. Τὰ ἑκατέρωθεν τεινόμενα σκέλη τῆς κύστεως διατέμνονται μόνον ἐφ' ὅσον εἶναι ἀναγκαῖος ὁ ἀκρωτηριασμὸς τοῦ τραχήλου ἕνεκα ἐπιμηκύνσεως αὐτοῦ. Ἡ αἱμόστασις περιττεύει κατὰ τὸ πλεῖστον ἐπὶ μικρῶν προπτώσεων, καθ' ὅσον ἡ αἱμορραγία ἐκ τῶν τραυματικῶν χειλέων ἐπίσχεται διὰ τῆς ραφῆς, ἐπὶ μεγαλυτέρων ὅμως προπτώσεων εἶναι ἀσφαλέστερον νὰ συλλαμβάνωνται τὰ αἱμορροοῦντα ἀγγεῖα καὶ νὰ ἀπολινῶνται.

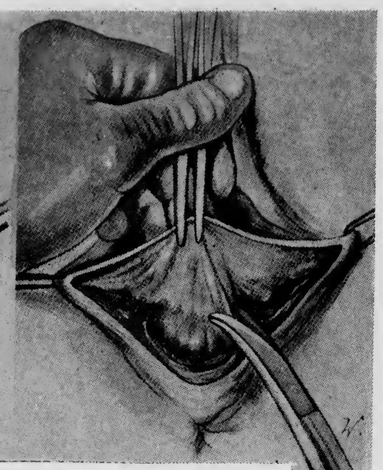
2. Ὀπισθία κολπορραφὴ καὶ περινεοπλαστική.

Ἡ συρρίκνωσις τοῦ ὀπισθίου κολπικοῦ τοιχώματος δέον πάντοτε νὰ συνδυάζηται μετὰ τῆς δημιουργίας ἑνὸς νέου ἰσχυροῦ περινέου. Τὸ ἀποτέλεσμα τῆς ἐγχειρήσεως ἐξαρτᾶται ἀπολύτως ἐκ τοῦ ὕψους τοῦ νέου τούτου περινέου, ὡς καὶ τῆς εὐρύτητος τοῦ σχηματιζομένου κολπικοῦ αὐλοῦ. Ἐν οὐδεμιᾷ ὅμως περιπτώσει νὰ δυσχεραίνηται ἡ συνουσία ἕνεκα ὑπερβολικῆς στενώσεως τοῦ κολεοῦ. Ἐὰν τὸ νεοδημιουργηθὲν περίνεον εἶναι χαμηλόν, τὸ ἀποτέλεσμα ὀλίγον διαφέρει ὡς πρὸς τὴν πρὸ τῆς ἐγχειρήσεως κατάστασιν, ἡ δ' ἄρρωστος ὑποφέρει περαιτέρω ἐκ τῶν αὐτῶν ἐνοχλημάτων. Ἕνεκα τούτου καθορίζομεν ἐκ τῶν προτέρων τὸ ὕψος τοῦ πρὸς δημιουργίαν περινέου διὰ καθορισμοῦ τῶν σημείων ἅτινα μετὰ τὴν συνένωσιν λαμβάνουν τὴν θέσιν τοῦ ὀπισθίου συνδέσμου τῶν μεγάλων χειλέων, τὰ ὁποῖα ἐν γένει ἀντιστοιχοῦν πρὸς τὰ ὀπίσθια ἄκρα τῶν μικρῶν χειλέων. Ἓν τρίτον σημεῖον ἐπὶ τῆς μέσης γραμμῆς τοῦ προπίπτοντος ὀπισθίου κολπικοῦ τοιχώματος ἀντιστοιχεῖ πρὸς τὸ ἄνω ἄκρον τοῦ πρὸς ἐκτομὴν κολπικοῦ κρημνοῦ. Τὸ ὕψος τοῦ σημείου τούτου ἐξαρτᾶται ἐκ τοῦ μεγέθους τῆς προπτώσεως καὶ καθορίζεται κατὰ προτίμησιν κατὰ τὴν ἀποκόλλησιν τοῦ κρημνοῦ. Ἡ ἐκλογὴ τῶν τριῶν τούτων σημείων δὲν εἶναι δυνατὸν νὰ ὁρισθῇ διὰ κανόνων, ἀλλ' ἐξαρτᾶται κυρίως ἐκ τῆς πείρας τοῦ χειρουργοῦ. Προβαίνομεν εἰς τὴν ἀποκόλλησιν ὡς ἀκολούθως :

Τὰ ἑκατέρωθεν δύο σημεῖα, τὰ κείμενα κάτω τῶν μικρῶν χειλέων, συλλαμβάνονται δι' ἀγκιστρωτῶν λαβίδων καὶ ἕλκονται ἐλαφρῶς ὑπὸ τῶν βοηθῶν πρὸς τὰ πλάγια καὶ ἄνω οὕτως, ὥστε τὸ δέρμα τοῦ περινέου διατείνεται σχηματίζον ἐγκαρσίαν πτυχήν. Ἀκριβῶς κατὰ τὰ ὅρια δέρματος καὶ βλενογόνου φέρεται τομὴ διὰ ψαλιδίου ἀπὸ τῆς μιᾶς λαβίδος πρὸς τὴν ἄλλην, ἥτις εἶναι ἐλαφρῶς τοξοειδὴς μὲ τὴν κυρτότητα πρὸς τὰ ὀπίσω *(εἰκ. 37)*. Συλλαμβάνομεν ἀκολούθως τὸ τραυματικὸν χεῖλος τοῦ κολπικοῦ τοιχώματος κατὰ τὸ μέσον διὰ δύο λαβίδων Kocher καὶ ἀρχόμεθα ἀπὸ τῆς θέσεως ταύτης τῆς ἀποκολλήσεως τοῦ ὀπισθίου κολπικοῦ τοιχώματος ἀπὸ τοῦ ἀπευθυσμένου, τοῦθ' ὅπερ εὐχερέστατα ἐπιτυγχάνεται διὰ ψαλιδίου καὶ τολυπίου ἐφ' ὅσον εὑρισκόμεθα εἰς τὴν ἁρμόζουσαν στιβάδα, ὡς καὶ ἐπὶ προσθίας κολπορραφῆς *(εἰκ. 38—39)*. Ἐλέγχομεν διὰ τοῦ εἰσαγομένου ἐντὸς τοῦ κολεοῦ δακτύλου μέχρι ποίου ὕψους δέον νὰ ἐπεκτείνωμεν τὴν ἀποκόλλησιν καὶ συλλαμβάνομεν τὸ ἀνώτατον κολπικὸν σημεῖον διὰ λαβίδος Kocher, ἐξ οὗ σημείου τέμνομεν τὸ κολπικὸν τοίχωμα κατ' ἀμφότερα τὰ πλάγια μὲ κατεύθυνσιν πρὸς τὰς ἑκατέρωθεν ἀγκιστρωτὰς λαβίδας. Ἡ λαβὶς Kocher τοποθετεῖται ἐπὶ τῆς ἔσω τραυματικῆς ἐπιφανείας τοῦ κρημνοῦ *(εἰκ. 40)*. Ἐὰν ἕλξωμεν ἰσχυρῶς τὴν λαβίδα ταύτην πρὸς τὰ κάτω, τότε σχηματίζονται ἑκατέρωθεν δύο ὑπ' ὀξεῖαν γωνίαν ἀφιστάμενα τραυματικὰ χείλη, ἅτινα συρράπτομεν πρὸς ἄλληλα διὰ συνεχοῦς ραφῆς *(εἰκ. 41—42)*. Ὁ νέος στενωθεὶς κολεὸς ἔχει πλέον σχηματισθῆ, προβαίνομεν δὲ ἤδη εἰς τὸ οὐσιῶδες διὰ τὴν ἐπιτυχίαν τῆς ἐγχειρήσεως μέρος, δηλαδὴ τὴν ραφὴν τῶν ἀνελκτήρων μυῶν. Διὰ μεγάλης ἰσχυρᾶς βελόνης καὶ ἰσχυροῦ ζωϊκοῦ ράμματος διαπερῶμεν τὸν παραορθικὸν ἱστὸν τοῦ ἀριστεροῦ πλαγίου τῆς γυναικὸς ἐκ τῶν ἔξω πρὸς τὰ ἔσω καὶ ἀκολούθως τὸν σα-

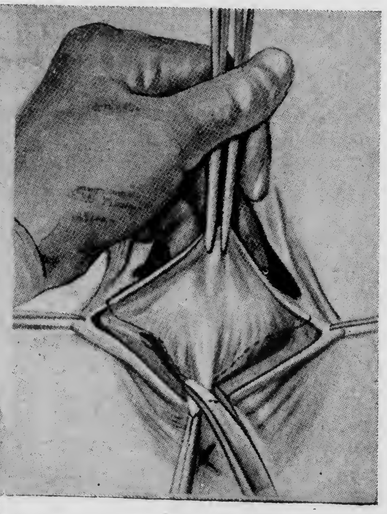


Εἰκ. 37.—Ὀπισθία κολπορραφή. Σύλληψις τῶν ἄκρων τῶν χειλέων διὰ ἀγκιστρωτῶν λαβίδων καὶ τοξοειδὴς τομὴ κατὰ τὰ ὅρια δέρματος καὶ βλενογόνου.

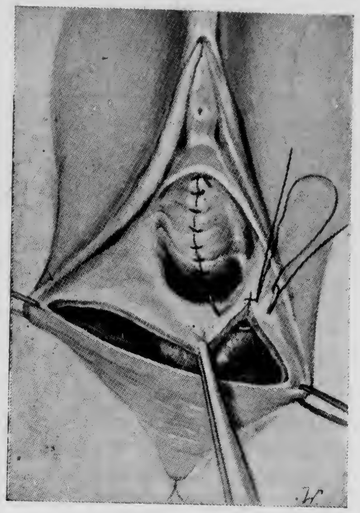


Εἰκ. 38.—Ὀπισθία κολπορραφή. Παρασκευὴ διὰ ψαλιδίου τοῦ διὰ τοῦ δακτύλου ἀναστραφέντος κολπικοῦ τοιχώματος. Τὸ ἀπευθυσμένον προβάλλει κάτω τοῦ ψαλιδίου.

Εἰκ. 39.—Ὀπισθία κολπορραφή. Περαιτέρω διὰ τολυπίου παρασκευὴ τοῦ ἀνασταφέντος διὰ τῶν δακτύλων τῆς ἀριστερᾶς χειρὸς κολπικοῦ τοιχώματος.

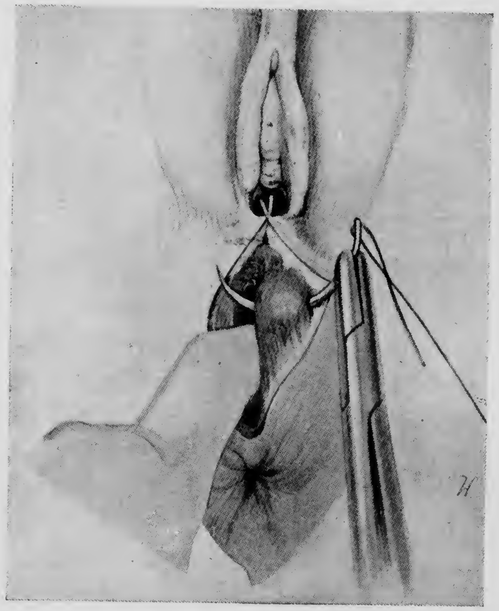


Εἰκ. 40.—Ὀπισθία κολπορραφή. Σύλληψις τοῦ ἀνωτάτου σημείου τοῦ κολπικοῦ κρημνοῦ ἀπὸ τῆς τραυματικῆς αὐτοῦ ἐπιφανείας διὰ λαβίδος **Kocher**, ἕλξις πρὸς τὰ κάτω καὶ ἀποκοπὴ αὐτοῦ διὰ ψαλιδίου κατὰ **τὴν σημειουμένην γραμμήν**.



Εἰκ. 41.—Ὀπισθία κολπορραφή. Ἐκτομὴ τοῦ κολπικοῦ τοιχώματος καὶ ἔνταξις τῆς συνεχοῦς ραφῆς κατὰ τὸ ἀριστερὸν πλάγιον.

Εἰκ. 42.—Ὀπισθία κολπορραφή. Ἡ ραφὴ τοῦ ἀριστεροῦ πλαγίου ἐπερατώθη. Ἔναρξις τῆς συνεχοῦς ραφῆς δεξιά.



Εἰκ. 43.—Ὀπισθία κολπορραφή. Ἡ ραφὴ τοῦ κολεοῦ ἐπερατώθη. Συρραφὴ τῶν ἀνελκτήρων μυῶν μετὰ προστασίας τοῦ ἐντέρου ὑπὸ τοῦ δακτύλου.

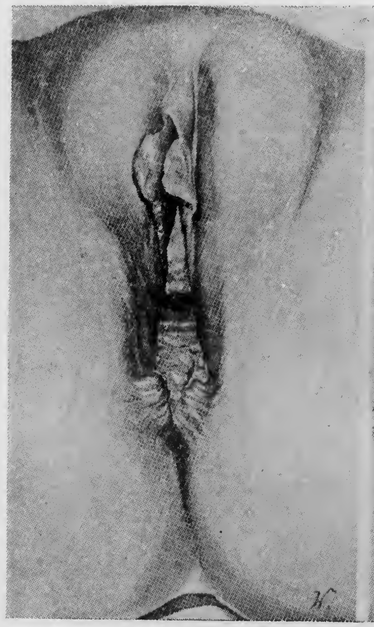
φῶς ψηλαφούμενον ἀνελκτῆρα μῦν. Ὁ αὐτὸς χειρισμὸς ἐκτελεῖται διὰ τῆς αὐτῆς βελόνης καὶ ράμματος κατ' ἀντίθετον διεύθυνσιν ἐπὶ τοῦ δεξιοῦ πλαγίου τῆς γυναικὸς καὶ ἀφοῦ τοποθετήσωμεν 3—4 τοιαῦτα ράμματα ἁμματίζομεν ταῦτα. Προστατεύομεν τὸ ἀπευθυσμένον κατὰ τὴν τοποθέτησιν τῶν ραμμάτων τούτων ἀπωθοῦντες διὰ τοῦ ἀριστεροῦ δείκτου πρὸς τὰ ἄνω καὶ ὀπίσω *(εἰκ. 43)*.

Εἰς πάσας τὰς πλαστικὰς ἐγχειρήσεις πρὸς ἐπίτευξιν καλοῦ τελικοῦ ἀποτελέσματος δέον τὰ ράμματα νὰ συλλαμβάνουν εὐρεῖαν μοῖραν ἱστοῦ, νὰ διαπεροῦν δὲ τὸν βλενογόνον τοὐλάχιστον $^1/_2$ ἑκ. ἀπὸ τῶν χειλέων τοῦ τραύματος οὕτως, ὥστε αἱ τραυματικαὶ ἐπιφάνειαι νὰ ἔρχωνται εἰς εὐρεῖαν ἐπαφὴν πρὸς ἀλλήλας Ἵνα ἀποφεύγηται νέκρωσις δέον ἡ ἀπόστασις τῶν μεμονωμένων ραμμάτων ἀπ' ἀλλήλων νὰ εἶναι τοὐλάχιστον 1 ἑκατοστόμετρον.

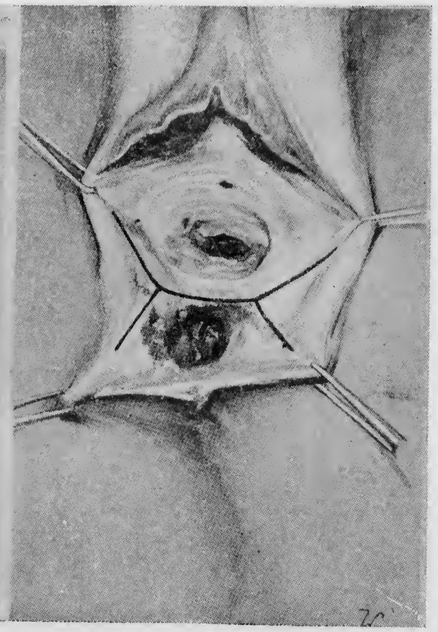
Κατὰ τὰς πρώτας ἡμέρας μετὰ τὴν ἐγχείρησιν προσεγγίζομεν πρὸς ἀλλήλας δι' ἐπιδέσμου τὰς κνήμας τῆς ἀρρώστου. Οὐδέποτε τοποθετεῖται ὑφ' ἡμῶν μόνιμος καθετὴρ καὶ μόνον εἰς περιπτώσεις ἰσχουρίας καθετηριάζομεν τὴν κύστιν μετὰ τὴν ἐγχείρησιν.

3. Ἐγχειρήσεις τῆς παλαιᾶς ὁλικῆς ῥήξεως τοῦ περινέου.

Μετ' ἐκτομὴν τοῦ οὐλώδους ἱστοῦ ἀποκολλᾶται ἀρκούντως τὸ ἀπευθυσμένον ἀπὸ τοῦ κολπικοῦ τοιχώματος, συρράπτεται δὲ τὸ ῥῆγμα διὰ λεπτῆς διακοπτομένης ἢ συνεχοῦς ἐκ μετάξης ραφῆς, ἄνευ συλλήψεως τοῦ ἐντερικοῦ βλενογόνου ὑπὸ τοῦ ράμματος, μετ' ἐπιμελῆ δὲ ἀποψίλωσιν συνενοῦνται καὶ τὰ πέρατα τοῦ σφιγκτῆρος ἐκ νέου πρὸς ἄλληλα διὰ λεπτῶν ἐκ μετάξης ραμμάτων. Ἐπακολουθεῖ ραφὴ τῶν κρασπέδων τοῦ κολπικοῦ τραύματος πρὸς ἄλληλα διὰ ζωϊκῶν ραμμάτων, ἡ ραφὴ τῶν ἀνελκτήρων μυῶν καὶ ἡ ραφὴ τοῦ δέρματος, ὡς ταῦτα

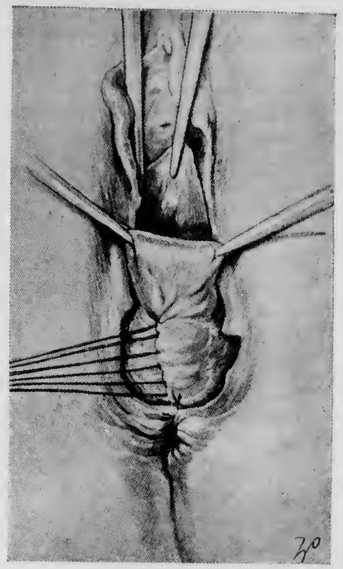


Εἰκ. 44.



Εἰκ. 45.

Εἰκ. 44. Ὁλικὴ ῥῆξις τοῦ περινέου.—Εἰκ. 45.—Ἐγχείρησις τῆς ὁλικῆς ῥήξεως τοῦ περιτονέου κατὰ **Λογοθετόπουλον**. *Τὸ ἐγχειρητικὸν πεδίον ἔχει ἐκπυχθῆ δι' ἀγκιστρωτῶν λαβίδων. Ἡ διεύθυνσις τῆς τομῆς σημειοῦται διὰ παχείας γραμμῆς.*



Εἰκ. 46.

Εἰκ. 46.—Ἐγχείρησις τῆς ὁλικῆς ῥήξεως τοῦ περινέου κατὰ **Λογοθετόπουλον**. *Ἡ ραφὴ τοῦ ἐντέρου καὶ τοῦ σφιγκτῆρος ἔχει περατωθῆ. Τὸ παρασκευασθὲν πρὸς τὰ ἄνω τοίχωμα τοῦ ἐντέρου ἔχει συλληφθῆ διὰ λαβίδων* **Kocher** *καὶ ἔχει ὑπεγερθῆ εἰς πτυχήν. Ἡ ἀνωτάτη λαβὶς κρατεῖ τὸ κολπικὸν τοίχωμα πρὸς τὰ ἄνω.*

Εἰκ. 47.—Ἐγχείρησις τῆς ὁλικῆς ῥήξεως τοῦ περινέου κατὰ **Λογοθετόπουλον**. *Ἡ καθελκυσθεῖσα ἐντερικὴ πτυχὴ καλύπτει τὴν ἐντερικὴν ραφὴν καὶ προσκολλᾶται διά τινων ραμμάτων ἐπὶ τοῦ σφιγκτῆρος.*

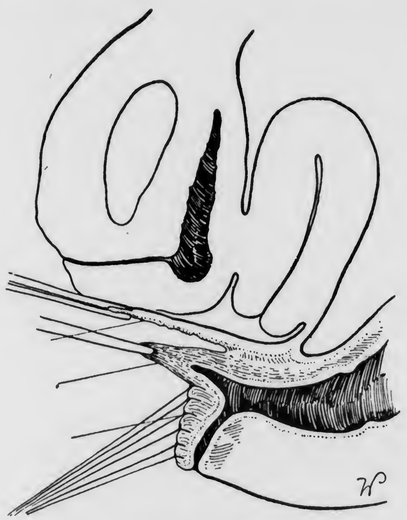
Εἰκ. 47.

Εἰκ. 48.—Ἐγχείρησις τῆς ὁλικῆς ῥήξεως τοῦ περινέου, κατὰ **Λογοθετόπουλον**. *Ἡ καθελκυσθεῖσα ἐπὶ τοῦ σφιγκτῆρος ἐντερικὴ πτυχὴ ἐπικαλύπτει τελείως τὴν ἐντερικὴν ραφήν.*

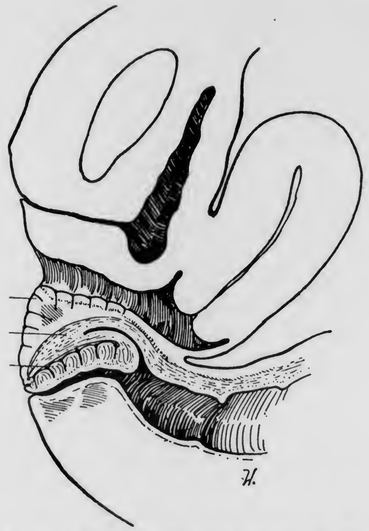
Εἰκ. 48.

περιεγράψαμεν λεπτομερῶς κατὰ τὴν περινεοπλαστικήν. Παρὰ τὴν ἐπιμελῆ τεχνικὴν ἡ ἐγχείρησις αὕτη ἀποτυγχάνει πολλάκις οὕτως, ὥστε ὁ χειρουργὸς ἀναγκάζεται νὰ ἐπαναλάβῃ τὴν ἐπέμβασιν.

Ἀπὸ μακροῦ χρόνου χρησιμοποιῶ ἰδίαν μέθοδον, ἥτις μέχρι τοῦδε εἰς πάσας τὰς περιπτώσεις μοὶ παρέσχεν ἄριστα ἀποτελέσματα καὶ ἕνεκα τούτου ἐγένετο μέθοδος ἐκλογῆς ἡμῶν. Ἄρχομαι τῆς ἐγχειρήσεως ὡς συνήθως δι' ἀποχωρισμοῦ τοῦ οὐλώδους ἱστοῦ, ἀπο-



Εἰκ. 49.— Ἐγχείρησις τῆς ὁλικῆς ῥήξεως τοῦ περινέου κατὰ ***Λογοθετόπουλον****. Σχηματικὴ παράστασις τῆς ἐγχειρήσεως.*



Εἰκ. 50.— Ἐγχείρησις τῆς ὁλικῆς ῥήξεως τοῦ περινέου κατὰ ***Λογοθετόπουλον****. Σχηματικὴ παράστασις τῆς ἐγχειρήσεως.*

κολλῶ δὲ ἀκολούθως τὸ ἀπευθυσμένον ἀπὸ τοῦ κολπικοῦ τοιχώματος ἀρκούντως πρὸς τὰ ἄνω οὕτως, ὥστε μετὰ τὴν ραφὴν τοῦ ἐντέρου καὶ τοῦ σφιγκτῆρος νὰ εἶναι δυνατὸν ἄνευ δυσχερείας νὰ καθελκύσωμεν πτυχὴν τοῦ τοιχώματος τοῦ ἀπευθυσμένου ἐκ τῆς ἀνωτέρας μοίρας αὐτοῦ πρὸς ἐπικάλυψιν τῆς ἐντερικῆς ραφῆς. Ἡ πτυχὴ αὕτη στερεοῦται ἐπὶ τοῦ σφιγκτῆρος ἄνευ τάσεως διά τινων μεμονωμένων ραφῶν, μεθ' ὃ ἡ ἐγχείρησις ἀποπερατοῦται κατὰ τὸν συνήθη τρόπον *(εἰκ. 44—50)*.

Ὁ ἀπὸ τοῦ ὀρθοῦ σαφῶς ψηλαφώμενος θύλαξ δὲν προκαλεῖ εἰς τὰς ἀρρώστους ἐνοχλήματα, ὡς πιθανῶς θὰ ἠδύνατό τις νὰ νομίσῃ, καὶ ἡ μετεγχειρητικὴ ἐξέλιξις κατ' οὐδὲν διαφέρει τῆς κατὰ τὰς ἐν χρήσει μεθόδους. Μετὰ βραχὺν χρόνον ὁ θύλαξ ἐξαφανίζεται, ὁπότε ἡ πτυχὴ ὑποχωρεῖ πρὸς τὰ ἄνω εἰς τὴν φυσιολογικὴν αὐτῆς θέσιν.

Ἡ προπαρασκευὴ διὰ τὴν ἐγχείρησιν δέον νὰ εἶναι ἐπιμελής. Δίδομεν ἐπί τινας ἡμέρας πρὸ τῆς ἐγχειρήσεως ὑπακτικὸν φάρμακον, ἐνεργοῦμεν κατὰ τὴν προηγουμένην ἑσπέραν τῆς ἐγχειρήσεως καθαρτικὸν κλύσμα καὶ χορηγοῦμεν σταγόνας ὀπίου, ἐπιτρέπομεν δὲ ἐλαφρὰν τροφὴν δημιουργοῦσαν ὀλίγα κόπρανα. Διὰ τῆς δεούσης διαίτης προσέχομεν ἵνα ἐπακολουθήσῃ τὸ πρῶτον κένωσις κατὰ τὴν 6ην ἡμέραν μετὰ τὴν ἐγχείρησιν. Χορηγοῦμεν κατὰ τὴν ἡμέραν ταύτην κίκινον ἔλαιον καὶ ταὐτοχρόνως ἐνεργοῦμεν ὑποκλυσμὸν ἐλαιοῦχον. Πρὸς διευκόλυνσιν τῆς ἐξόδου τῶν ἀερίων τοποθετοῦμεν εὐθὺς μετὰ τὸ πέρας τῆς ἐγχειρήσεως σωλῆνα ἐντέρου κατὰ τὸ ἀπευθυσμένον,

Ἔχομεν χειρουργήσει μέγαν ἀριθμὸν ὁλικῶν ῥήξεων τοῦ περινέου κστὰ τὴν μέθοδον ταύτην καὶ ἔχομεν ἐπιτύχει πάντοτε μετὰ τὴν πρώτην ἐγχείρησιν τελείαν ἐγκράτε αν τοῦ σφιγκτῆρος.

Γ'. ΠΤΩΣΙΣ ΚΑΙ ΠΡΟΠΤΩΣΙΣ ΤΗΣ ΜΗΤΡΑΣ

Ἔχοντες ὑπ' ὄψει τὴν αἰτιολογίαν τῆς παθήσεως, πρὸς ἐπίτευξιν ἐγχειρητικοῦ ἀποτελέσματος δέον νὰ καταπολεμήσωμεν δύο ὅλως διαφόρους παθολογικὰς καταστάσεις. Ἡ ἐγχείρησις διαιρεῖται οὕτω εἰς τὰς ἀκολούθους κατὰ χώραν ἐπεμβάσεις :

1) Ἀποκατάστασιν τοῦ πυελικοῦ ἐδάφους μετ' ἀφαιρέσεως τοῦ πλεονάζοντος προσθίου καὶ ὀπισθίου κολπικοῦ τοιχώματος.

2) Μόνιμον προσήλωσιν τῆς πρὸς τὰ ὀπίσω κεκαμμένης μήτρας εἰς φυσιολογικὴν θέσιν.

Προκειμένου περὶ μικρᾶς πτώσεως τῆς μήτρας μετὰ προπτώσεως τοῦ κολπικοῦ τοιχώματος ἐπιτυγχάνομεν ἱκανοποιητικὸν ἀποτέλεσμα διὰ τῆς προσθίας καὶ ὀπισθίας κολπορραφῆς, πλαστικῆς τοῦ περινέου καὶ ἀνατάξεως τῆς μήτρας διὰ βραχύνσεως τῶν στρογγύλων συνδέσμων. Ἡ ἐγχείρησις καθίσταται μεγαλυτέρα καὶ ἐπιπλοκωτέρα ἐπὶ μερικῆς ἢ ὁλικῆς προπτώσεως τῆς μήτρας μετὰ ἐπιμηκύνσεως τοῦ κάτω ἡμίσεος αὐτῆς. Ἀλλὰ καὶ εἰς τὴν περίπτωσιν ταύτην δέον πάντως νὰ ἀποκατασταθῇ τὸ πυελικὸν ἔδαφος καὶ νὰ στερεωθῇ ἡ μήτρα εἰς προσθίαν κλίσιν καὶ κάμψιν. Αἱ πρὸς τοῦτο ἐπινοηθεῖσαι μέθοδοι καὶ τροποποιήσεις εἶναι πολυάριθμοι, δὲν εἶναι ὅμως πᾶσαι ἱκανοποιητικαὶ ὡς πρὸς τὸ τελικὸν ἀποτέλεσμα, ἄλλαι δὲ πάλιν διακινδυνεύουν τὴν ζωὴν τῆς ἀρρώστου. Ἐπὶ τοιούτων βαρειῶν περιπτώσεων δὲν ἐπαρκεῖ ἡ ἁπλῆ βράχυνσις τῶν στρογγύλων συνδέσμων, ἀλλ' ἀντ' αὐτῆς ὀφείλομεν νὰ ἐφαρμόσωμεν ἐγχειρητικὰς μεθόδους, αἵτινες προσηλώνουν καλῶς τὴν μήτραν εἰς θέσιν προσθίας κλίσεως καὶ κάμψεως. Ἡ ὑστεροπηξία κατὰ Kocher φέρει τὴν μήτραν εἰς πολὺ ὑψηλὴν θέσιν καὶ δίδει καλὰ ἀποτελέσματα διὰ τῆς ἐξαιρετικῶς σταθερᾶς τοποθετήσεως ταύτης ἐντὸς τῶν κοιλιακῶν τοιχωμάτων. Ἀλλὰ καὶ διὰ τῆς μεθόδου ταύτης παρατηροῦνται ὑποτροπαί, καθ' ἃς αἱ συμφύσεις μεταξὺ μήτρας καὶ κοιλιακοῦ τοιχώματος διατείνονται ὑπὸ μορφὴν δεσμίδων, αἵτινες δημιουργοῦν κίνδυνον εἰσχωρήσεως ἐντερικῶν ἑλίκων.

α') Παρένθεσις τῆς μήτρας μεταξὺ κύστεως καὶ κολεοῦ.

Ἡ ὑποδειχθεῖσα ὑπὸ τοῦ Wertheim καὶ τροποποιηθεῖσα ὑπὸ τοῦ Schauta ἐγχείρησις στηρίζεται ἐπὶ τῆς κολποϋστεροπηξίας κατὰ Freund, ἥτις νῦν δὲν εἶναι πλέον ἐν χρήσει. Κατὰ τὴν παρένθεσιν κατὰ Schauta - Wertheim χρησιμοποιεῖται ὡς «ζῶν πεσσὸς» ἡ μήτρα, ἥτις ἀνελκύει πρὸς τὰ ἄνω καὶ ὀπίσω τὴν προπίπτουσαν κύστιν, στηριζομένην ἐπὶ τῆς ὀπισθίας αὐτῆς ἐπιφανείας.

Ἡ ἐγχείρησις ἐκτελεῖται ὡς ἀκολούθως : Ὁ τράχηλος συλλαμβάνεται δι' ἀγκιστρωτῶν λαβίδων καὶ ἕλκεται ἰσχυρῶς πρὸς τὰ κάτω. Ἀκολούθως ἀκριβῶς, ὡς κατὰ τὴν προσθίαν κολπορραφήν, ἐκτέμνεται ἐλλειψοειδὲς τεμάχιον ἐκ τοῦ προσθίου κολπικοῦ τοιχώματος, οὗτινος τὸ μέγεθος ἐξαρτᾶται ἐκ τοῦ βαθμοῦ τῆς προπτώσεως καὶ ἐκ τοῦ μεγέθους τοῦ παρεντιθεμένου σώματος τῆς μήτρας. Ἡ οὐροδόχος κύστις ἀποχωρίζεται ἀπὸ τοῦ τραχήλου τῆς μήτρας διὰ τοῦ ψαλιδίου καὶ εἶτα ἀπωθεῖται πρὸς τὰ ἄνω ἀμβλέως διὰ τοῦ δακτύλου, καθ' ὃν χρόνον αἱ τεινόμεναι κατὰ τὰ πλάγια τῆς οὐροδόχου κύστεως πρὸς τὸν τράχηλον ἰσχυρότεραι δεσμίδες συνεκτικοῦ ἱστοῦ (σκέλη τῆς κύστεως) προφυλάσσονται κατὰ τὸ δυνατόν. Ἡ κύστις διακρατεῖται πρὸς τὰ ὀπίσω ὑπὸ τοῦ βοηθοῦ καλῶς διὰ τοῦ προσθίου διαστολέως καὶ προστατεύεται οὕτω ἀπὸ τοῦ τραυματισμοῦ. Μετὰ τὴν διάνοιξιν τοῦ περιτοναίου τὸ σῶμα τῆς μήτρας ἀναστρέφεται πρὸς τὰ πρόσω, ὡς τὸ τοιοῦτον ἀκριβῶς γίνεται κατὰ τὴν κολπικὴν ὑστερεκτομήν, πάντως ὅμως μετὰ προσοχῆς, ἵνα ἀποφευχθοῦν περιτταὶ συνθλάσεις τῶν ἱστῶν, αἵτινες δυνατὸν νὰ προκαλέσουν διαταραχὰς κατὰ τὴν ἐπούλωσιν. Ἐὰν ἡ γυνὴ εὑρίσκεται εἰς ἡλικίαν ἱκανὴν πρὸς τεκνοποίησιν δέον ἀπαραιτήτως νὰ προβῶμεν εἰς τὴν στείρωσιν, ἣν κατὰ

τὸ πλεῖστον ἐκτελοῦμεν κατὰ τὴν μέθοδον τοῦ Madlener. Ἀκολούθως συγκλείομεν τὴν περιτοναϊκὴν κοιλότητα, συρράπτοντες διὰ δύο μέχρι τριῶν ζωϊκῶν ραμμάτων τὸ περιτόναιον τῆς κύστεως πρὸς τὴν ὀπισθίαν ἐπιφάνειαν τῆς μήτρας, κατὰ τὸ ὕψος τοῦ ἐσωμητρικοῦ στομίου. Ἡ μήτρα ἀκολούθως ἀπωθεῖται πρὸς τὰ ὀπίσω, ἔμπροσθεν δ' αὐτῆς συρράπτονται παράλληλα τὰ τραυματικὰ χείλη τοῦ κολεοῦ διὰ συνεχοῦς ἐκ ζωϊκῶν ραμμάτων ραφῆς, ἄνευ τάσεως. Ἵνα τὸ τοιοῦτον καταστῇ δυνατόν, δέον κατὰ τὴν ἐκτομὴν τοῦ κολπικοῦ κρημνοῦ νὰ ληφθῇ ἐκ τῶν προτέρων ὑπ' ὄψιν τὸ μέγεθος τῆς παρεντιθεμένης μήτρας ὡς ἀνωτέρω ἤδη ἀναφέρομεν. Ἐὰν ἡ ραφὴ τῶν κολπικῶν κρασπέδων δὲν εἶναι δυνατὸν νὰ γίνῃ ἄνευ τάσεως, εἶναι προτιμότερον ὅπως τὰ τραυματικὰ χείλη συρραφοῦν ἐπὶ τῆς προσθίας ἐπιφανείας τῆς μήτρας καὶ παραλειφθῇ ἡ προσέγγισις αὐτῶν πρὸς ἄλληλα. Λίαν εὐμεγέθης, ἕνεκα μητρίτιδος ἀλλοιωθεῖσα μήτρα δύναται ὡσαύτως πρὸ τῆς ραφῆς δεόντως νὰ σμικρυνθῇ δι' ὀβελιαίας σφηνοειδοῦς ἐκτομῆς *(εἰκ. 70—72)*. Τὴν προταθεῖσαν ὑπὸ τοῦ Wertheim βράχυνσιν τῶν ἱερομητρικῶν συνδέσμων, ἥτις ὡς ὑποστηρίζεται βελτιώνει τὰ ἐγχειρητικὰ ἀποτελέσματα, δὲν ἐφαρμόζομεν καθ' ὅσον διὰ ταύτης ἡ πρόγνωσις τῆς ἐγχειρήσεως ἐπιβαρύνεται ἐξαιρετικῶς, ὡς τὸ τοιοῦτον προκύπτει ἐκ τινων στατιστικῶν αὐτοῦ τούτου τοῦ Wertheim (ἐπὶ 262 περιπτώσεων 16 περιπτώσεις θανάτου). Πρὸ τῆς ἐνάρξεως τῆς ἐγχειρήσεως καθορίζεται τὸ μέγεθος τῆς μήτρας διὰ τῆς μητρομήλης καὶ ἐν περιπτώσει ἐνδείξεως ἐκτελεῖται ἀκρωτηριασμὸς τοῦ ἐπιμηκυνθέντος τμήματος τοῦ τραχήλου.

Ἡ ἐγχείρησις Schauta - Wertheim εἶναι ἀναμφιβόλως ἀσφαλὴς ὡς πρὸς τὸ ἀποτέλεσμα, ἀπαιτεῖ ὅμως μεγάλην πεῖραν καὶ εἰδικὴν τεχνικὴν τῶν κολπικῶν ἐπεμβάσεων. Ἡ θνησιμότης παραμένει μεγάλη καὶ δι' ἀρίστους ἔτι χειρουργούς, κατὰ τὸν Reifferscheid 3,4 μέχρι 7,5 %, ποσοστὸν ὅπερ εἶναι μέγα ἐν σχέσει πρὸς τὴν σοβαρότητα τῆς πρὸς θεραπείαν παθήσεως. Ἀντὶ τῆς πρωτοτύπου ταύτης μεθόδου προτιμητέα εἶναι ἡ ὑπὸ τοῦ Kielland γενομένη τροποποίησις. Διὰ τῆς ἐγχειρήσεως ταύτης αἴρεται ἡ μεταξὺ σώματος καὶ τραχήλου σχηματιζομένη γωνία τῆς μήτρας καὶ οὕτω ὁ τράχηλος μετατοπίζεται πρὸς τὸ ὀπίσθιον κολπικὸν τοίχωμα.

Πλὴν τῶν μεθόδων τούτων ἐπὶ ἡλικιωμένων γυναικῶν συνιστᾶται ἡ κολπικὴ ὁλικὴ ὑστερεκτομὴ μετὰ προσθίας καὶ ὀπισθίας κολπορραφῆς καὶ πλαστικῆς τοῦ περινέου, καθ' ὅσον τὰ μόνιμα ἀποτελέσματα εἶναι ἐξ ἴσου καλὰ ὅσον καὶ ἐπὶ οἱασδήποτε ἄλλης μεθόδου, ἡ πρόγνωσις ὅμως ὅσον ἀφορᾶ εἰς τοὺς κινδύνους τῆς ζωῆς εἶναι ὡσαύτως βαρεῖα.

β') Ὑποπυθμενικὴ ὑστερεκτομὴ κατὰ Λογοθετόπουλον (1)

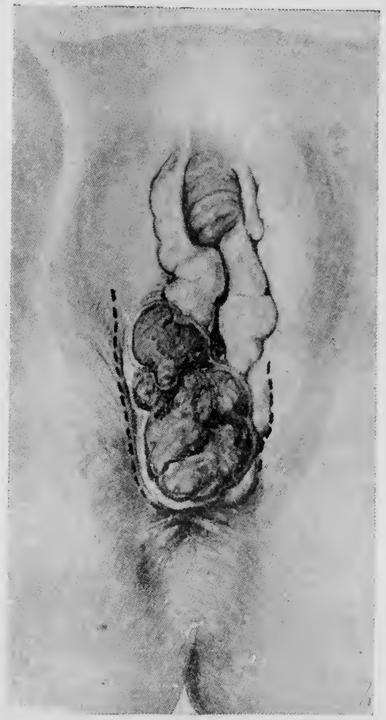
Τὴν Vaginifikation κατὰ Schauta - Wertheim μετὰ ἢ ἄνευ τροποποιήσεως κατὰ Kielland ἔχω ἐγκαταλείψει ἕνεκα τῆς σχετικῶς μεγάλης θνητότητος ὡς ἀνωτέρω ἐρρήθη καὶ τῶν οὐχὶ σπανίων ὑποτροπῶν. Ἕνεκα τῶν αὐτῶν λόγων δὲν ἐκτελῶ πλέον καὶ τὴν κολπικὴν ὑστερεκτομήν, ἥτις καίτοι παρέχει καλὰ στατικὰ ἀποτελέσματα, ἀποτελεῖ βαρεῖαν χειρουργικὴν ἐπέμβασιν. Εἰς τοιαύτας περιπτώσεις περιορίζομαι εἰς τὴν ἐκτομὴν ὁλοκλήρου τοῦ κατωτέρου τμήματος τῆς μήτρας ἐν συνδυασμῷ μετὰ τῆς κολπορραφῆς καὶ τοῦ σχηματισμοῦ ἰσχυροῦ περινέου. Ἡ ἐκτέλεσις τῆς ἐγχειρήσεως ταύτης εἶναι λίαν εὐχερὴς καὶ μοὶ παρέσχεν ἄριστα ἀποτελέσματα. Ἡ ἐγχείρησις αὕτη εἶναι παρεμφερὴς πρὸς τὴν ὑψηλὴν τραχηλοτομήν, μὲ τὴν διαφορὰν ὅτι δὲν περιορίζομαι εἰς τὴν ἐκτομὴν μόνον τοῦ τραχήλου, ἀλλὰ ἐκτέμνω καὶ τὸ σῶμα τῆς μήτρας μέχρι τοῦ πυθμένος αὐτῆς. Ὡς ἐκ τούτου ὠνόμασα τὴν ἐγχείρησιν ταύτην *ὑποπυθμενικὴν ὑστερεκτομήν*.

Ἡ ἐγχείρησις ἐκτελεῖται ὡς ἀκολούθως: Συλλαμβάνομεν δι' ἀγκιστροειδῶν λαβίδων τὸν τράχηλον τῆς μήτρας καὶ ἕλκομεν τοῦτον ἰσχυρῶς πρὸς τὰ κάτω. Ἀκολούθως δι' ἰσχυρᾶς κυρτῆς ψαλίδος τέμνομεν τὸ τοίχωμα τοῦ κολεοῦ κυκλοτερῶς καὶ καθ' ὅλον τὸ πάχος αὐτοῦ 1/2 ἑκ. ἄνωθεν τῆς μεταβάσεως τοῦ κολπικοῦ βλενογόνου εἰς τὸν τραχηλικὸν τοιοῦτον, ὡς ἐνεργοῦμεν καὶ κατὰ τὴν κολπικὴν ὑστερεκτομήν. Εἶτα ὠθοῦμεν τὴν οὐροδόχον

1. Τὴν μέθοδον ταύτην ἐξετέλεσα ἐπιτυχῶς κατόπιν προσκλήσεως εἰς τὰς Πανεπιστημιακὰς Κλινικὰς Βιέννης, Βερολίνου, Μονάχου καὶ Κιέλου τῷ 1943.

κύστιν πρὸς τὰ ἄνω διὰ τολυπίου ὑποβοηθοῦντες τὸν ἀποχωρισμὸν ταύτης ἀπὸ τοῦ μυϊκοῦ ἱστοῦ τῆς μήτρας διὰ μικρῶν τομῶν διὰ τῆς ψαλίδος. Μετὰ τὸν ἀποχωρισμὸν καὶ τὴν πρὸς τὰ ἄνω ἀπώθησιν καὶ τῶν πλαγίων τμημάτων τῆς κύστεως, εἰσάγομεν τὸν πρόσθιον κολποδιαστολέα κάτωθεν τῆς κύστεως καὶ φέρομεν οὕτω ταύτην ὡς καὶ τοὺς οὐρητῆρας ἐκτὸς τοῦ χειρουργικοῦ πεδίου. Τὸ ἤδη καταστὰν ἐμφανὲς περιτόναιον συλλαμβάνομεν διὰ χειρουργικῆς λαβίδος, διανοίγομεν διὰ τῆς ψαλίδος καὶ εὐρύνομεν τὸ ἄνοιγμα πρὸς ἀμφότερα τὰ πλάγια *(εἰκ. 73, 77, 78, 79)*. Τὸ οὕτω διανοιγὲν περιτόναιον μετατοπίζεται αὐτομάτως ἢ τῇ βοηθείᾳ τοῦ δακτύλου πρὸς τὰ ἄνω, ὡς ἐκ τῆς ἕλξεως τῆς μήτρας πρὸς τὰ κάτω. Εἶτα δι' ἐνίων ραφῶν συρράπτομεν τὸ περιτόναιον ἐπὶ τοῦ προσθίου τοιχώματος τῆς μήτρας 2 1/2 ἑκ. κάτωθι τῆς ἐπιφανείας τοῦ πυθμένος τῆς μήτρας. Μετὰ ταῦτα ἀμφότερα τὰ πλάγια ὡς καὶ τὸ ὀπίσθιον τοίχωμα τοῦ κολεοῦ ὠθοῦνται πρὸς τὰ ἄνω, μεθ' ὃ συλλαμβάνομεν τὰς μητριαίας ἀρτηρίας διὰ λαβίδων καὶ ἀπολινοῦμεν ταύτας· ἕλκομεν εἶτα τὸν τράχηλον πρὸς τὰ κάτω καὶ πρόσω, διανοίγομεν καὶ συρράπτομεν τὸ περιτόναιον τοῦ Δουγλασείου χώρου πρὸς τὸ ὀπίσθιον τοίχωμα τῆς μήτρας ἀντιστοίχως πρὸς τὸ ὕψος τῆς προσθίας ραφῆς τοῦ περιτοναίου. Ἡ οὕτω ἀπελευθερουμένη μήτρα ἐκτέμνεται διὰ τοῦ μαχαιρίου 2 χιλ. κάτωθι τῆς περιτοναϊκῆς ραφῆς. Ἡ τραυματικὴ ἐπιφάνεια τοῦ ὑπολειπομένου τμήματος τῆς μήτρας καλύπτεται διὰ τῶν κολπικῶν τοιχωμάτων κατὰ τὴν μέθοδον τοῦ Sturmdorf *(εἰκ. 65—66)*.

Εἰς περιπτώσεις ἀροφικῆς μήτρας περιοριζόμεθα εἰς τὴν πρὸς τὰ ἄνω ἀπώθησιν τοῦ



Εἰκ. 54.—Ριζικὴ ἐγχείρησις τοῦ καρκίνου τοῦ αἰδοίου. Ἡ σκιὰ γραμμὴ διαγράφει τὴν τομὴν τοῦ δέρματος πρὸς ἐξαίρεσιν τοῦ ὄγκου.

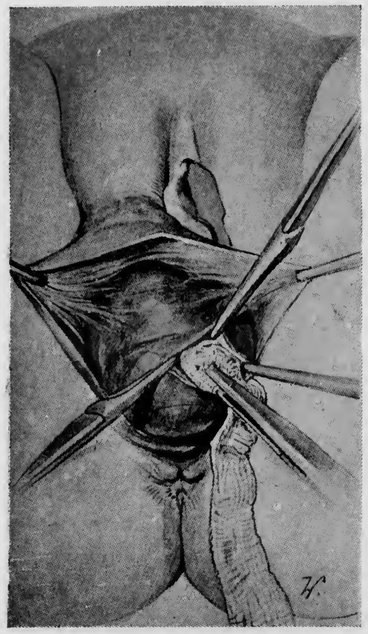
Εἰκ. 55.—Ριζικὴ ἐγχείρησις τοῦ καρκίνου τοῦ αἰδοίου. Ὁ πρωτοπαθὴς ὄγκος ἔχει ἐξαιρεθῇ.

Εἰκ. 51.—Βαρθολίνειος κύστις.

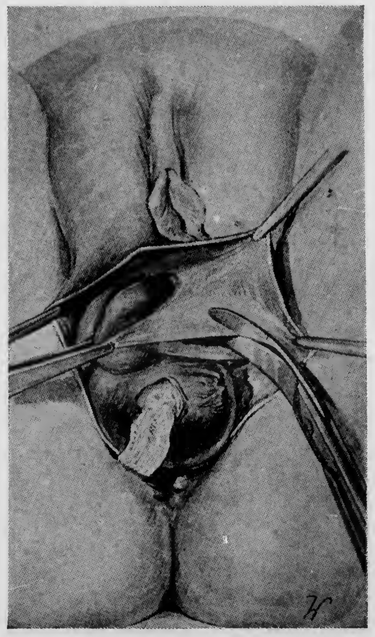
Εἰκ. 52.—Ἐγχείρησις τῆς Βαρθολινείου κύστεως κατὰ **Λογοθετόπουλον.** *Ἡ διαρρηχθεῖσα κύστις πληροῦται διὰ γάζης.*

Εἰκ. 53.—Ἐγχείρησις τῆς Βαρθολινείου κύστεως. Ἐκτομὴ τῆς πλήρους γάζης κύστεως

Εἰκ. 51.



Εἰκ. 52.

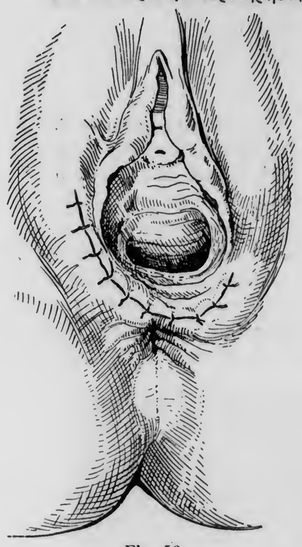


Εἰκ. 53.

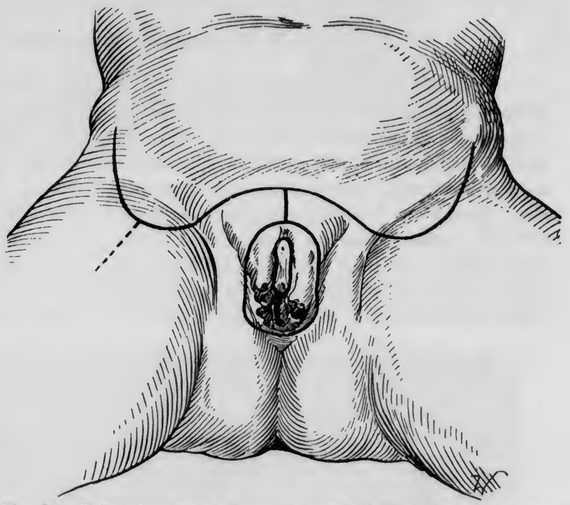
περιτοναίου ἄνευ διανοίξεως τούτου καὶ ἐκτέμνομεν τὸ κάτωθι τοῦ περιτοναίου τμῆμα τῆς μήτρας.

Ἡ ἐγχείρησις τερματίζεται διὰ τῆς ἐκτελέσεως τῆς προσθίας καὶ ὀπισθίας κολπορραφῆς καὶ τοῦ σχηματισμοῦ ἰσχυροῦ περινέου *(εἰκ. 39—43)*.

Τὰ ἀποτελέσματα τῆς ἐγχειρήσεως ταύτης ὑπῆρξαν τόσον εὐάρεστα, καθ' ὅσον οὐδεμίαν ὑποτροπὴν παρετήρησα, ὥστε νῦν ἐφαρμόζεται αὕτη ὑφ' ἡμῶν εἰς πάσας τὰς περιπτώσεις προπτώσεων μεγάλου βαθμοῦ. Ἐξετέλεσα ὁ ἴδιος 81 τοιαύτας ἐγχειρήσεις, κατὰ τὸ πλεῖστον εἰς γυναῖκας μεγάλης ἡλικίας καὶ λίαν καταβεβλημένας. Οἱ ἐπελθόντες δύο θάνατοι οὐδεμίαν σχέσιν εἶχον πρὸς τὸ εἶδος τῆς ἐγχειρήσεως, καθόσον ὁ εἷς ὠφείλετο εἰς ἐμβολὴν καὶ ὁ ἕτερος εἰς σηπτικὴν οὐραιμίαν. Τὸ προσὸν τῆς ἐγχειρήσεως συνίσταται εἰς τὸ ὅτι ἡ ἐκτέλεσις εἶναι εὐχερὴς καὶ ὁ κίνδυνος ἐλάχιστος, καθόσον οὐδόλως ἐρχόμεθα εἰς ἐπαφὴν μετὰ τῆς περιτοναϊκῆς κοιλότητος. Ἐπὶ πλέον δὲ εἰς νεαρὰς γυναῖκας διατηρεῖται ἡ ἔμμηνος ρύσις.



Εἰκ. 56.



Εἰκ. 57.—Ριζικὴ ἐγχείρησις τοῦ καρκίνου τοῦ αἰδοίου. Ἡ φορὰ τῆς τομῆς.

Εἰκ. 56.—Ριζικὴ ἐγχείρησις τοῦ καρκίνου τοῦ αἰδοίου. Σχηματικὴ παράστασις τῆς ραφῆς μετὰ τὴν ἐξαίρεσιν τοῦ πρωτοπαθοῦς ὄγκου.

II. Ἐγχειρήσεις κατὰ τὸ αἰδοῖον.

1. Ἐκτομὴ τοῦ Βαρθολινείου ἀδένος κατὰ Λογοθετόπουλον.

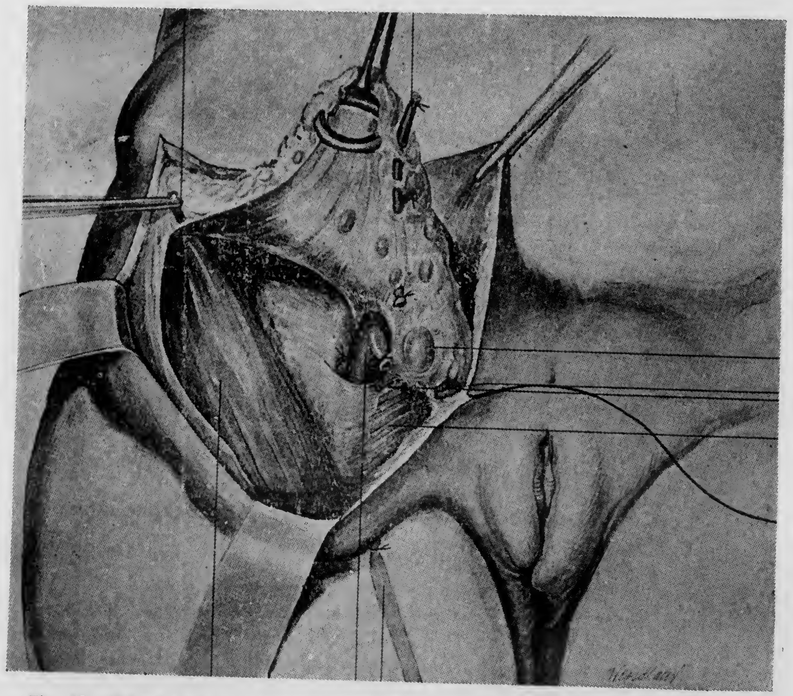
Εἰς εἰδικὰς περιπτώσεις χρονίας φλεγμονῆς ἐνεργοῦμεν τὴν ριζικὴν ἐγχείρησιν, τοὐτέστιν ἐξαιροῦμεν τὸν ὅλον ἀδένα ὁμοῦ μετὰ τοῦ ἐκφορητικοῦ πόρου, ὡς ἀκολούθως:

Τομὴ τοῦ δέρματος κατὰ μῆκος τῆς ἐπιφανείας τῆς Βαρθολινείου κύστεως κατὰ τὰ ὅρια τοῦ μεγάλου καὶ μικροῦ χείλους. Ἡ Βαρθολίνειος κύστις ἀποχωρίζεται ἀμβλέως ἢ διὰ τοῦ ψαλιδίου καὶ ἐξαιρεῖται, τὰ ἰσχυρῶς αἱμορροοῦντα ἀγγεῖα συλλαμβάνονται καὶ ἀπολινοῦνται, τὸ δὲ τραῦμα συρράπτεται κατὰ στιβάδας. Εἰς τὰς πλείστας περιπτώσεις δέον νὰ τοποθετῆται μικρὰ παροχετευτικὴ λωρὶς γάζης Κατὰ τὴν παρασκευὴν τῆς Βαρθολινείου κύστεως ἀπαιτεῖται μεγάλη προσοχὴ πρὸς ἀποφυγὴν τῆς ρήξεως αὐτῆς. Τὸ τοιοῦτον δυσχεραίνει

πολὺ τὴν περαιτέρω ριζικὴν ἐκτομὴν τῆς κάψης, καθ' ὅσον τὰ ὅρια πρὸς τὸν γειτνιάζοντα ἱστὸν δὲν εἶναι πλέον δυνατὸν νὰ διακρίνωνται. Πρὸς διευκόλυνσιν τῆς ἐγχειρήσεως ταύτης ἐσκέφθημεν τὴν ἀκόλουθον μέθοδον. Διανοίγομεν τὴν κύστιν, πλύνομεν ἐπιμελῶς διὰ φυσιολογικοῦ ἁλατούχου διαλύματος τὴν κοιλότητα αὐτῆς καὶ ἀκολούθως πληροῦμεν ταύτην διὰ λωρίδος γάζης μέχρι σχεδὸν τοῦ ἀρχικοῦ μεγέθους αὐτῆς. Διὰ τῆς οὕτω μετατροπῆς τοῦ κυστικοῦ ὄγκου εἰς συμπαγῆ δυνάμεθα ἀνέτως νὰ ἀποπερατώσωμεν τὴν ἐγχείρησιν καὶ μετ' ἀσφαλείας νὰ ἐξαιρέσωμεν τὸ ὅλον τοίχωμα τῆς κύστεως (*εἰκ. 51—53*).

2. Καρκίνωμα τοῦ αἰδοίου.

Γενικῶς ἐπὶ ἐγχειρησίμου καρκινώματος τοῦ αἰδοίου προτιμῶ τὴν ἐγχείρησιν τῆς ἀκτινοθεραπείας, καθ' ὅσον διὰ ταύτης ἐπηρεάζεται μὲν καλῶς ὁ πρωτοπαθὴς ὄγκος, ἡ ἐπίδρασις ὅμως τῆς ἀκτινοβολίας ἐπὶ τῶν καρκινωματωδῶν γαγγλίων παραμένει εἰσέτι τοὐλάχιστον ἀμφισβητήσιμος. Ἕνεκα τούτου ἡ συνδεδυασμένη θεραπεία δύναται νὰ δώσῃ καλὰ ἀποτελέσματα, δηλαδὴ ἀκτινοβολοῦμεν τὸν πρωτοπαθῆ ὄγκον καὶ ἐξαιροῦμεν ἀκολούθως τὰ γάγλια. Ἐκτελῶ τὴν ἐγχείρησιν εἰς δύο (2) χρόνους, ἵνα ἀποφύγω κατὰ τὸ δυνατὸν τὴν λοίμωξιν. Κατὰ πρῶτον ἐξαιρεῖται ὁ πρωτοπαθὴς ὄγκος καὶ μετὰ τὴν θεραπείαν τοῦ τραύματος ἐπιχειρεῖται εἰς δευτέραν ἐπέμβασιν ἡ αἰδοιεκτομὴ καὶ ἡ ἐξαίρεσις τῶν γαγγλίων, τοὐτέστιν ἡ ριζικὴ ἐγχείρησις. Τὰ λεμφικὰ ἀγγεῖα ἄτινα ἐξορμῶνται ἐκ τῆς βαλάνου τῆς κλειτορίδος ἀκολουθοῦν δύο διαφόρους ὁδούς : ἡ μία καταλήγει εἰς τὰ κατὰ βάθος βουβωνικὰ γάγγλια καὶ



Εἰκ. 58.—Ριζικὴ ἐγχείρησις τοῦ καρκίνου τοῦ αἰδοίου. Ἐκκαθάρισις τῆς δεξιᾶς βουβωνικῆς χώρας. Ὁ ὑποδόριος συνεκτικὸς ἱστὸς μετὰ τῆς περιτονίας τοῦ ραπτικοῦ καὶ κτενίτου μυὸς ἔχει ἐν μέρει ἀποκολληθῇ καὶ ἀνυψωθῇ.

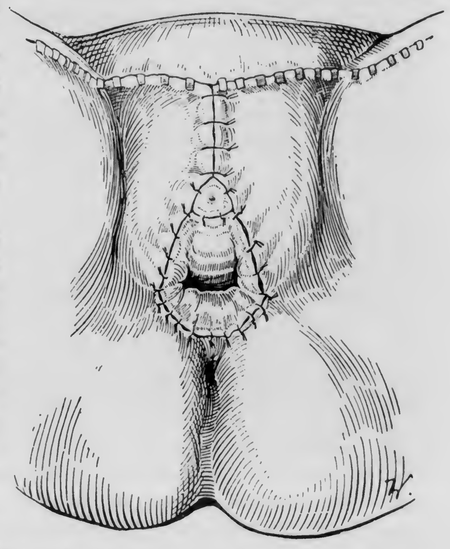
εἰς τὰ γάγγλια κάτω τοῦ πουπαρτείου συνδέσμου καὶ τὰ μηριαῖα γάγγλια, ἡ δὲ ἄλλη πορεύεται κατὰ μῆκος τῶν στρογγύλων συνδέσμων καὶ καταλήγει συνήθως εἰς τὰ ἄνω τοῦ πουπαρτείου συνδέσμου ἐπιπολῆς βουβωνικὰ γάγγλια. Ἕνεκα τούτου ἐπὶ καρκίνου ἐδραζομένου κατὰ τὴν χώραν τοῦ προδόμου ἀρκεῖ ἵνα μετὰ τὴν αἰδοιεκτομήν, ἐν συνεχείᾳ ἐκταμοῦν κατ'

Εἰκ. 59.—Ριζικὴ ἐγχείρησις τοῦ καρκίνου τοῦ αἰδοίου. Φωτογραφία τῶν ἐξαιρεθέντων ἱστῶν κατὰ τὴν ριζικὴν ἐγχείρησιν.

ἀμφότερα τὰ πλάγια τὰ βουβωνικὰ γάγγλια ὁμοῦ μετὰ τοῦ ὑποδορίου λιπώδους ἱστοῦ, ἐπὶ καρκινώματος δὲ τῆς κλειτορίδος δέον ἀπαραιτήτως νὰ ἐξαιρεθοῦν καὶ τὰ εἰλεακὰ γάγγλια. Ἡ ἐγχείρησις ἐκτελεῖται ὡς ἀκολούθως :

Κατὰ τὴν πρώτην συνεδρίαν ἐξαιροῦμεν, ἐὰν δὲν προηγήθη ἀκτινοθεραπεία, τὸν ὄγκον διὰ περιτομῆς ὑγιοῦς ἱστοῦ (*εἰκ. 54—55*) καὶ διὰ συρραφῆς τοῦ τραύματος διὰ μεμονωμένων ραφῶν (*εἰκ. 56*). Μετὰ τὴν τελείαν θεραπείαν τοῦ τραύματος ἐπακολουθεῖ εἰς δευτέραν συνεδρίαν ἡ ριζικὴ ἐγχείρησις.

Ἡ τομὴ τοῦ δέρματος φέρεται ἐκ τῆς δεξιᾶς προσθίου ἄνω λαγονίου ἀκάνθης τοξοειδῶς πρὸς τὴν δεξιὰν μηριαίαν χώραν, ἐκεῖθεν δὲ εἰς εὐρὺ τόξον διὰ μέσου τοῦ ἐφηβαίου ὑπεράνω τῆς κλειτορίδος πρὸς τὴν ἀριστερὰν μηριαίαν χώραν, ἵνα καταλήξῃ εἰς τὴν ἀριστερὰν προσθίαν ἄνω λαγόνιον ἄκανθαν (*εἰκ. 57*). Ἐκ τοῦ μέσου τῆς ἀχθείσης ἄνω τῆς κλειτορίδος τοξοειδοῦς τομῆς φέρεται ὀβελιαίως εὐθεῖα τομὴ πρὸς τὰ κάτω μέχρι τοῦ αἰδοίου ὅπερ περιτέμνεται κυκλικῶς (*εἰκ. 57*). Προτιμῶμεν τὴν τοξοειδῆ ταύτην τομήν, διότι ἡ ὑπὸ τοῦ Rupprecht ὑποδειχθεῖσα, ἡ φερομένη παραπλεύρως τοῦ ἐφηβαίου καὶ παραλλήλως πρὸς τὴν σαφηνῆ φλέβα, εἶναι δυνατὸν νὰ προκαλέσῃ νέκρωσιν. Ἀρχόμεθα διὰ τῆς ἐξαιρέσεως τῶν εἰλεακῶν γαγγλίων, τὴν ὁποίαν δυνάμεθα νὰ ἐνεργήσωμεν ἐνδο- ἢ ἐξωπεριτοναϊκῶς καὶ ἥτις δὲν ἐμφανίζει ἀξιολόγους δυσχερείας. Ἡ ἐκκαθάρισις τῆς μάζης τῶν βουβωνικῶν γαγγλίων δέον νὰ ἐνεργηθῇ ἐν συνόλῳ, διότι μόνον οὕτω εἶναι δυνατὸν πραγματικῶς νὰ ἐξαιρεθοῦν πάντα τὰ γάγγλια. Πρὸς τοῦτο ὀφείλομεν νὰ παρασκευάσωμεν ἐκ τῶν κάτω πρὸς τὰ ἄνω



Εἰκ. 60.—Ριζικὴ ἐγχείρησις τοῦ καρκίνου τοῦ αἰδοίου. Σχηματικὴ ἀναπαράστασις τῆς ραφῆς μετὰ τὴν ἀποπεράτωσιν τῆς ἐγχειρήσεως.

βαθμηδὸν τὴν περιτονίαν τῶν μυῶν τοῦ τριγώνου τοῦ Scarpa, ὄπισθεν τῆς ὁποίας εὑρίσκεται ἡ μείζων σαφηνὴς φλέψ, ἣν μετὰ ἐπαρκῆ ἀποκόλλησιν τοῦ δέρματος, ὅσον τὸ δυνατὸν περιφερικώτερον, διατέμνομεν μεταξὺ δύο ἀπολινώσεων. Ἀπὸ τοῦ σημείου τούτου προχωροῦντες πρὸς τὰ ἄνω συναντῶμεν τὰ ἀκόλουθα πρὸς ἀπολίνωσιν ἀγγεῖα: Ἔξω αἰδοιϊκὴν ἀρτηρίαν καὶ φλέβα, ἐπιπολῆς περισπωμένην λαγόνιον ἀρτηρίαν καὶ φλέβα, καὶ τέλος ὅλως πρὸς τὰ ἄνω ἐπιπολῆς ἐπιγάστριον ἀρτηρίαν καὶ φλέβα.

Ἡ μείζων σαφηνὴς φλὲψ δέον ἐκ νέου νὰ ἀπολινωθῇ καὶ νὰ ἀποκοπῇ πλησίον τοῦ σημείου τῆς εἰσβολῆς αὐτῆς εἰς τὴν μηριαίαν φλέβα. Ὡς ἀνωτέρω ἐλέχθη, δέον νὰ συναφαιρέσωμεν τὴν περιτονίαν τοῦ ραπτικοῦ καὶ κτενίτου μυός, καθ' ὅσον μόνον διὰ τῆς ἐξαιρέσεως τῆς στιβάδος ταύτης τελεῖται ἡ ἐκκαθάρισις ριζικῶς καὶ εὐχερῶς.

Τὸ κείμενον ὑπὸ τὸν πουπάρτειον σύνδεσμον γάγγλιον τοῦ Rosenmüller δέον νὰ μὴ παραλειφθῇ Ἀφοῦ περατωθῇ ἡ ἐκκαθάρισις κατ' ἀμφότερα τὰ πλάγια ἐξαιρεῖται τὸ αἰδοῖον ἐν συνεχείᾳ μετὰ τοῦ εὑρισκομένου ὑπεράνω αὐτοῦ ὑποδορίου συνεκτικοῦ ἱστοῦ τοῦ συνδέοντος τὰς ἑκατέρωθεν ἀδενικὰς μάζας *(εἰκ. 58 καὶ 60)*.

Τὰ πρώην πολὺ δυσάρεστα μόνιμα ἀποτελέσματα ἐβελτιώθησαν οἰσιωδῶς διὰ τῆς ριζικῆς ταύτης ἐγχειρήσεως οὕτως, ὥστε ὁ Rupprecht ἐπὶ 25 ἐγχειρηθεισῶν περιπτώσεων παρουσιάζει 40 % μονίμους ἰάσεις. Ἀκτινοβολοῦμεν πάσας τὰς ἐγχειρηθείσας περιπτώσεις μετεγχειρητικῶς. Τὰ μὴ ἐγχειρήσιμα καρκινώματα τοῦ αἰδοίου ὑποβάλλονται ἀμέσως εἰς ἀκτινοβολίαν.

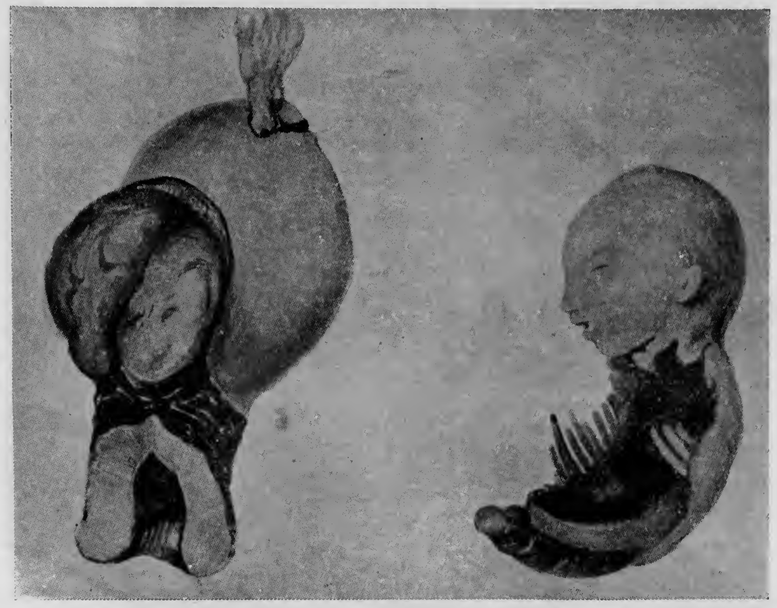
III. Κολπικαὶ ἐγχειρήσεις ἐπὶ τῆς μήτρας.

1. Ἀπόξεσις τῆς μήτρας.

Κατὰ τὴν γυναικολογικὴν ἀπόξεσιν συλλαμβάνομεν τὸν τράχηλον διὰ μιᾶς ἢ μᾶλλον δύο ἀγκιστρωτῶν λαβίδων ἀπὸ τοῦ προσθίου χείλους καὶ ἕλκομεν τοῦτον πρὸς τὰ κάτω καὶ ἔξω. Ἀκολούθως εἰσάγομεν εἰς τὴν κοιλότητα τῆς μήτρας εὔκαμπτον μητρομήλην, εἰς ἣν προσδίδομεν ἀναλόγως τῆς θέσεως τῆς μήτρας τὴν ἁρμόζουσαν μορφήν. Ἡ προηγηθεῖσα ἀμφίχειρος ἐξέτασις ἔχει ἤδη κατατοπίσει ἡμᾶς περὶ τοῦ μεγέθους καὶ τῆς θέσεως τῆς μήτρας. Ὁ χειρισμὸς τῆς μητρομήλης δέον νὰ γίνῃ μετὰ μεγάλης προσοχῆς, ἀφοῦ ληφθοῦν ὑπ' ὄψιν αἱ σχέσεις αὗται ἵνα μετὰ βεβαιότητος ἀποφευχθοῦν τραυματισμοί. Δὲν ἀποπειρώμεθα νὰ εἰσαγάγωμεν βιαίως τὴν μήλην, ὅταν ἐμφανίζεται οἱαδήποτε δυσχέρεια, ἀλλ' ἀναβάλλομεν τὴν ἐπέμβασιν διὰ τὴν ἑπομένην ἡμέραν, ὁπότε ἐπιτυγχάνομεν κατὰ τὸ πλεῖστον τὸ ποθούμενον. Ἡ ἐξέτασις διὰ τῆς μήλης πληροφορεῖ ἡμᾶς ἀκριβῶς περὶ τοῦ μεγέθους καὶ τῆς πορείας τῆς μητρικῆς κοιλότητος καὶ οὐδέποτε δέον αὕτη νὰ παραμελῆται. Μετὰ διαστολὴν τοῦ τραχηλικοῦ αὐλοῦ διὰ κηρίων τοῦ Hegar ἢ ἄλλων διαστολέων ἀποξέομεν τὴν μητρικὴν κοιλότητα δι' ὀξέος ξέστρου ἄνευ ἀσκήσεως ἰσχυρᾶς δυνάμεως. Ἐὰν πρόκειται περὶ ἐκβολῆς, διαστέλλομεν τὸν τράχηλον εἰς μεγαλύτερον βαθμὸν ἀναλόγως τοῦ μηνὸς τῆς κυήσεως καὶ τοῦ μεγέθους τῶν ὑπολειμμάτων τῆς ἐκβολῆς. Κατὰ τοὺς 3—4 πρώτους μῆνας τῆς κυήσεως μεταχειρίζομαι ἀμβλέα ξέστρα διὰ τὴν ἐκκένωσιν Ἐὰν πρόκειται νὰ ἀφαιρεθοῦν ἀκόμη μεγαλύτερα τμήματα πλακοῦντος ἢ ἐμβρύου τότε χρησιμοποιῶ τὴν λαβίδα τοῦ Winter ἢ τὸ μέγα ξέστρον τοῦ Bumm. Τὴν ἀπόξεσιν διὰ τοῦ δακτύλου θεωρῶ πολὺ δυσχερεστέραν καὶ οὐχὶ σκοπιμωτέραν, οἱ δὲ ἐκ τῆς ἐπεμβάσεως ταύτης κίνδυνοι οὐδόλως ἐλαττοῦνται, ὡς πολλαὶ στατιστικαὶ ἀποδεικνύουν. Ὅταν ἡ μήτρα ἔχει καλῶς συσταλῆ, δυνάμεθα νὰ μεταχειρισθῶμεν μετὰ τῆς προσηκούσης πάντοτε προσοχῆς καὶ ἄνευ βίας μεγαλύτερον ὀξὺ ξέστρον, ἵνα ἀπομακρύνωμεν τὰ τελευταῖα τεμάχια πλακοῦντος. Ἐπὶ τούτου ἀποδίδω μεγάλην σημασίαν, διότι αἱ πάσχουσαι ἀπαλλάσσονται τῶν πόνων καὶ τῶν αἱμορραγιῶν μετὰ τὴν ἐπέμβασιν. Μετὰ τὴν τελείαν ἐκκένωσιν τῆς μήτρας ἐπαλείφω τὴν κοιλότητα αὐτῆς διὰ βάμματος ἰωδίου καὶ ἀποφεύγω τὴν πλύσιν καὶ τὸν πωματισμόν. Ἡ αἱμορραγία καταπαύει εἰς πᾶσαν περίπτωσιν, ἐφ' ὅσον ἡ μήτρα πράγματι δὲν περιέχει πλέον ὑπολείμματα φοῦ. Ἡ ὅλη ἐπέμβασις εὐχεραίνεται διὰ τῆς ἐκ τῶν προτέρων ἐνέσεως ἐργοτίνης ἢ ὑποφυσίνης, δι' ὧν ἡ κοιλότης τῆς μήτρας σμικρύνεται καὶ τὸ τοίχωμα αὐτῆς καθίσταται σκληρότερον. Ὁ χαλαρὸς κολπικὸς πωματισμός, ὅστις μετὰ τὴν ἐγχείρησιν ἐνεργεῖται, ἀφαιρεῖται τὴν ἑπομένην ἡμέραν.

Ἐπιπλοκαὶ κατὰ τὴν ἀπόξεσιν.

Ἡ πρόφυλαξις ἀπὸ τῆς *λοιμώξεως* δὲν ἐξαρτᾶται κατὰ τὸ πλεῖστον ἐκ τῶν χειρισμῶν τοῦ χειρουργοῦ ἀλλ' ἐκ τῆς κατὰ τὸ μᾶλλον ἢ ἧττον ἀσήπτου καταστάσεως τοῦ περιεχομένου τῆς μήτρας. Τὴν καλυτέραν ἀσφάλειαν πρὸς ἀποφυγὴν ταύτης παρέχει ἡ ἐπιμελής, ἄνευ ὑπολειμμάτων, κένωσις τῆς μήτρας μετὰ τηρήσεως ὅλων τῶν κανόνων τῆς ἀσηψίας. Ὅλως ἀντιθέτως ἡ *διάτρησις* τῆς μήτρας δημιουργεῖ ἐπιπλοκήν, ἥτις κατὰ τὸ πλεῖστον ἐπιβαρύνει τὸν χειρουργὸν ἰατρόν, ἂν καὶ ὁμολογουμένως εἷς τινας ἰδιαιτέρως ἀτυχεῖς περιπτώσεις, τὸ μαλ-



Εἰκ. 61. — Ἁπλῆ διάτρησις ἐγκύμονος μήτρας (5ου μηνός). Τὸ κατατεμαχισθὲν ἔμβρυον ἐξῆλθεν ἀπὸ τῆς μήτρας εἰς τὴν κοιλίαν διὰ τῆς μεγάλης ὀπῆς διατρήσεως. Κατὰ τὴν μικρὰν ὀπὴν τὴν εὑρισκομένην κατὰ τὸν πυθμένα τῆς μήτρας παρατηρεῖ τις τὸ ἐντὸς τῆς μήτρας ἐλκυσθὲν ἐπίπλουν.

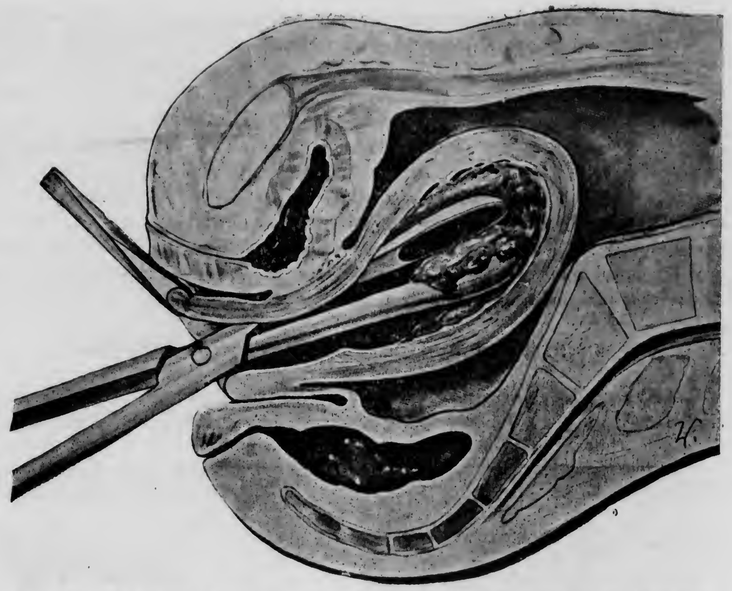
θακὸν σχεδὸν μὴ αἰσθητὸν τοίχωμα τῆς ἐγκύμονος μήτρας εἶναι δυνατὸν νὰ διατρηθῇ, ἄνευ τινὸς ὑπαιτιότητος αὐτοῦ καὶ ἐπὶ ὅλως ἀψόγου τεχνικῆς. Οὕτω ἅμα τῇ ἐνάρξει τῆς ἐπεμβάσεως εἶναι δυνατὸν νὰ διατρηθῇ ἡ μήτρα διὰ τῆς μητρομήλης. Συχνότεροι εἶναι οἱ τραυματισμοὶ τοῦ τραχήλου ἕνεκα βιαίας διαστολῆς διὰ τῶν κηρίων τσῦ Hegar, ὁπότε δίδεται εἰς τὸ ξέστρον ἐσφαλμένη κατεύθυνσις. Τοὺς βαρυτέρους τραυματισμοὺς παρατηρεῖ τις μετ' ἐσφαλμένην χρησιμοποίησιν τῆς λαβίδος Winter, ἰδίᾳ ὅταν ἡ ἀρχικῶς προκληθεῖσα διάτρησις δὲν γίνῃ ἀμέσως ἀντιληπτὴ καὶ διὰ τῆς προκληθείσης ὀπῆς ἑλκυσθοῦν πρὸς τὸν κολεὸν καὶ ἔξω αὐτοῦ ἐντερικαὶ ἕλικες ἢ ἐπίπλουν. Εἰς μίαν μεταφερθεῖσαν εἰς τὴν κλινικήν μου καὶ ὑπ' ἐμοῦ ἐγχειρηθεῖσαν περίπτωσιν τὸ ἡμιτεμαχισθὲν ἔμβρυον 5ου μηνὸς ὠλίσθησε διὰ μέσου τῆς μεγάλης ὀπῆς τῆς διατρήσεως πρὸς τὴν κοιλιακὴν κοιλότητα καὶ διὰ μέσου μιᾶς δευτέ

ρας ὀπῆς ἐκρέματο μέγα τεμάχιον ἐπιπλόου ἐντὸς τοῦ κολεοῦ. Κοιλιακὴ ὑστερεκτομὴ μετ' ἀπολήξεως εἰς ἴασιν *(εἰκ. 61)*.

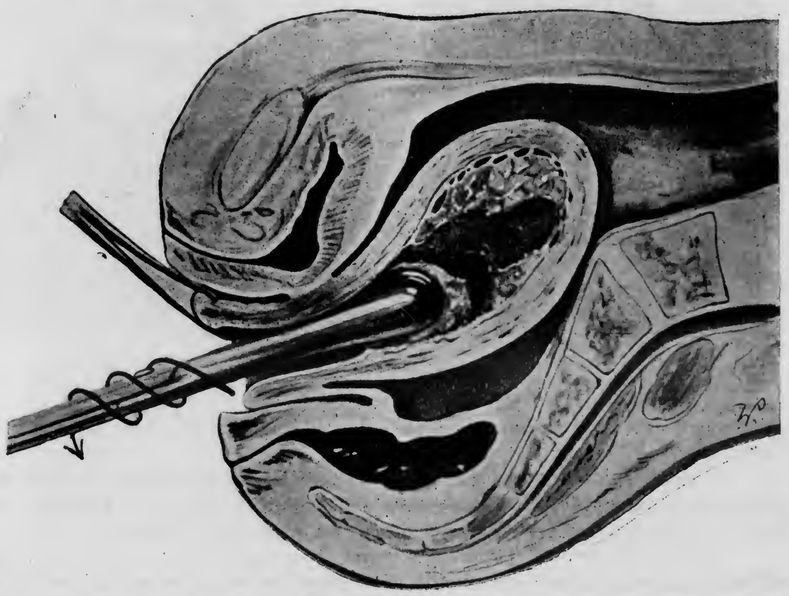
Πρὸς ἀποφυγὴν ἀτυχήματος δέον νὰ χρησιμοποιῆται τὸ ἀξιόλογον τῷ ὄντι ἐργαλεῖον τοῦ Winter ὡς ἀκολούθως : Ἡ ἀριστερὰ χεὶρ περιβάλλει τὸν πυθμένα τῆς μήτρας, ὁπότε αὕτη αἰσθάνεται σαφῶς τὴν λαβίδα εἰσαγομένην κλειστὴν ἄνευ πιέσεως μέχρι τοῦ πυθμένος *(εἰκ. 62)*. Ἡ λαβὶς ἀκολούθως ἀπὸ τοῦ πυθμένος ὀλίγον ἀποσύρεται καὶ τότε τὸ πρῶτον ἀνοίγεται

*Εἰκ. 62.—Ἐγχειρητικὴ θεραπεία τῆς ἐκβολῆς. Ἡ λαβὶς **Winter** ὑπὸ τὸν ἔλεγχον τῆς ἐξωτερικῆς χειρὸς εἰσάγεται μέχρι τοῦ πυθμένος.*

(εἰκ. 63). Τὰ εὑρισκόμενα ἐν τῇ μήτρᾳ τεμάχια τοῦ πλακοῦντος ἢ τοῦ ἐμβρύου εἰσέρχονται αὐτομάτως ἐντὸς τῆς λαβίδος, ἥτις δέον νὰ κλείηται ἄνευ μετακινήσεως ἐκ τῆς ἀρχικῆς αὐτῆς θέσεως. Οὕτω ἀποφεύγει τις μετ' ἀσφαλείας τὴν ἐπικίνδυνον σύλληψιν τοῦ μαλθακοῦ τοιχώματος τῆς μήτρας. Ἐὰν κατὰ τὴν ἐξαγωγὴν τοῦ πλακοῦντος διὰ τῆς λαβίδος προσδώσωμεν εἰς αὐτὴν περιστροφικὴν κίνησιν πρὸς τὸ ἓν πλάγιον *(εἰκ. 64)* ἐπιτυγχάνεται συνηθέστατα ἡ ἐξαγωγὴ τοῦ πλακοῦντος ἐν τῷ συνόλῳ. Οἱ χειρισμοὶ οὗτοι ἐπαναλαμβάνονται μέχρι ἀφαιρέσεως



Εἰκ. 63.—Ἐγχειρητικὴ θεραπεία τῆς ἐκβολῆς. Ἡ λαβὶς ἀποσύρεται κατά τι καὶ διανοίγεται.

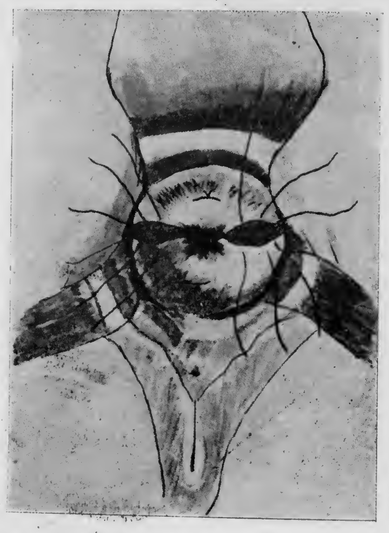


*Εἰκ. 64.—Ἐγχειρητικὴ θεραπεία τῆς ἐκβολῆς. Τὸ ἀποκολληθὲν τμῆμα πλακοῦντος ἕλκεται πρὸς τὰ ἔξω ἐνῷ συστρέφεται ἡ λαβὶς **Winter**.*

τοῦ ὅλου πλακοῦντος, ὁπότε ἐφαρμόζομεν τὴν ἀπόξεσιν τῆς μήτρας. Ἡ συστολὴ τῶν μητριαίων τοιχωμάτων ἀποτελεῖ ἀπόδειξιν τῆς τελείας ἐκκενώσεως τῆς μήτρας. Ἐάν τις ἔχῃ τὴν βεβαιότητα ἢ καὶ μόνον τὴν ὑποψίαν ὅτι διέτρησε τὸ τοίχωμα, τότε διακόπτει πάραυτα οἱονδήποτε περαιτέρω ἐνδομήτριον χειρισμόν. Εἰς γυναικολογικὰς ἀποξέσεις, τὸ τοιοῦτον ἀτύχημα συνήθως δὲν ἔχει σοβαρὰς συνεπείας, δυνάμεθα δὲ νὰ ἀρκεσθῶμεν εἰς τὴν σύστασιν ἀναπαύσεως εἰς τὴν κλίνην καὶ τὴν τοποθέτησιν κύστεως πάγου ἐπὶ τῆς κοιλίας. Ἐὰν ἐμφανισθοῦν περιτοναϊκὰ φαινόμενα ἡ ἄμεσος λαπαροτομὴ ἀποβαίνει ἀναπόφευκτος. Ἐὰν ἡ διάτρησις ἐγένετο κατὰ τὴν ἀφαίρεσιν ὑπολειμμάτων ἐκβολῆς ἐκτελοῦμεν ἀμέσως λαπαροτομήν. Πρὸς μεγαλυτέραν ἀσφάλειαν ἐνεργοῦμεν τὴν ἐξαίρεσιν τῆς τραυματισθείσης μήτρας, δυνάμεθα ὅμως κατ' ἐξαίρεσιν νὰ ἀρκεσθῶμεν εἰς τὴν ραφὴν τῆς χώρας τῆς διατρήσεως, ἐὰν εὕρεθα βέβαιοι περὶ τῆς ἀσηψίας τοῦ χειρουργοῦ, ὅστις ἐξετέλεσε τὴν ἀπόξεσιν τῆς μήτρας καὶ ἐὰν πρόκειται περὶ μήτρας μετ' ἀσήπτου περιεχομένου (διακοπὴ κυήσεως).

2. Ἐγχείρησις παλαιῶν ῥήξεων τοῦ τραχήλου.

Αἱ προκαλούμεναι κατὰ τὸν τοκετὸν ῥήξεις τοῦ τραχήλου μετὰ τῶν ἐπακολουθούντων ἐκτροπίων δημιουργοῦν ἐνίοτε ἐντόνους ἐνοχλήσεις οὕτως, ὥστε ἐνδείκνυται ἡ ἐγχειρητικὴ ἀπο-

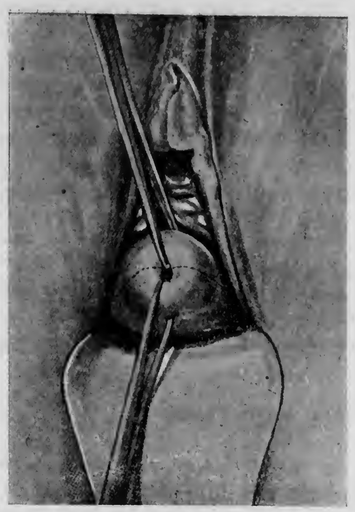


*Εἰκ. 65 καὶ 66.—Ἐγχείρησις παλαιᾶς ῥήξεως τοῦ τραχήλου τῆς μήτρας κατὰ **Sturmdorf**.*

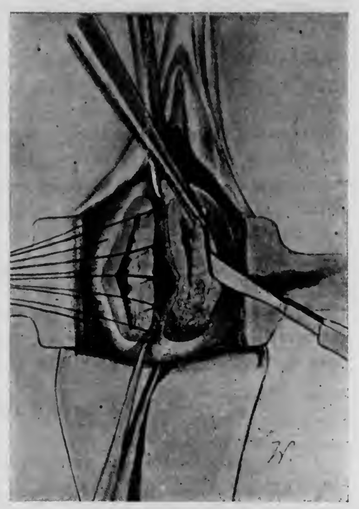
κατάστασις φυσιολογικοῦ τραχήλου. Ἐφαρμόζομεν ἀναλόγως τοῦ βαθμοῦ τῆς ῥήξεως τὰς ἀκολούθους μεθόδους :

α) Κατὰ Rozer—Emmet : Ἐκτομὴ τῶν οὐλῶν, τελεία νεαροποίησις τῶν χειλέων. Κατὰ τὴν ραφὴν τῆς ῥήξεως δέον νὰ συλλαμβάνωμεν καλῶς τὴν ἄνω γωνίαν τοῦ τραύματος καθ' ὅσον δὲν εἶναι σπάνιαι αἱ μετεγχειρητικαὶ αἱμορραγίαι ἐκ τῆς χώρας ταύτης.

β) Κατὰ Sturmdorf: Τὴν μέθοδον ταύτην, δίδουσαν ἐξαιρετικὰ ἀποτελέσματα, ἐφαρμόζομεν οὐ μόνον ἐπὶ ῥήξεων τοῦ τραχήλου μεγαλυτέρας ἐκτάσεως, ἀλλὰ καὶ ἐπὶ λίαν ἐπιμόνου κατάρρου μετὰ δημιουργίας ψευδοδιαβρώσεως, ὁπότε ὅλος ὁ τραχηλικὸς βλενογόνος ἀντικαθίσταται ὑπὸ κολπικοῦ τοιούτου. Τέμνομεν δι' ὀξέος λεπτοῦ μαχαιρίου ἐκ τοῦ τραχήλου κωνικὸν

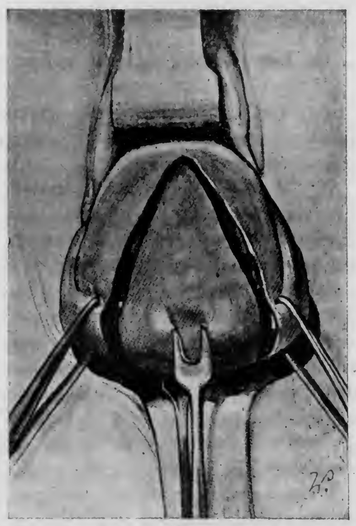


Εἰκ. 67.—Διατομὴ τοῦ τραχήλου κατὰ Pozzi. Διὰ στικτῆς γραμμῆς ἀπεικόνισις τῆς φορᾶς τῆς τομῆς.



Εἰκ. 68.—Διατομὴ τοῦ τραχήλου κατὰ Pozzi. Ἐκ τῆς τραυματικῆς ἐπιφανείας τοῦ ἀριστεροῦ πλαγίου ἐκτέμνεται σφηνοειδὲς τεμάχιον. Δεξιὰ τὰ τραυματικὰ χείλη μετὰ τὴν ἐξαίρεσιν τῆς σφηνὸς συρράπτονται ἐκ νέου.

Εἰκ. 69.—Διατομὴ τοῦ τραχήλου κατὰ Pozzi. Ἡ ἐγχείρησις ἔχει περατωθῆ.



*Εἰκ. 70.—Κολπικὴ ὀβελιαία ἐκτομὴ τμήματος τῆς μήτρας κατὰ **Λογοθετόπουλον**. Ἐκ τῆς ἀναστραφείσης πρὸς τὰ πρόσω μήτρας ἐξαιρεῖται σφηνοειδὲς τεμάχιον.*

τεμάχιον, οὗτινος ἡ βάσις καταλαμβάνει τὴν ὅλην κολεϊκὴν μοῖραν, ἡ δὲ κορυφὴ ἀντιστοιχεῖ εἰς τὸ ὕψος τοῦ ἔσω μητρικοῦ στομίου. Οὕτω εἰς τὸν κῶνον τοῦτον περιλαμβάνεται ἡ ὅλη κάτω ἐπιφάνεια τῆς ἐνδοκολεϊκῆς μοίρας τοῦ τραχήλου καὶ ὁ ἐνδοτραχηλικὸς βλενογόνος. Δι' ἰσχυρᾶς ὀξείας λίαν κυρτῆς βελόνης διαπερῶμεν ἀπὸ τοῦ κολπικοῦ βλενογόνου διὰ μέσου τοῦ πάχους τοῦ τραχηλικοῦ τοιχώματος πρὸς τὸν αὐλόν, εἰς τὸ ὕψος τοῦ ἔσω μητρικοῦ στομίου παχὺ ζωϊκὸν ῥάμμα καὶ ὁδηγοῦμεν τοῦτο πρὸς τὰ ἔξω τοῦ μητρικοῦ στομίου. Ἀκολούθως ἀφ' οὗ συλλάβωμεν διὰ τῆς αὐτῆς βελόνης τὸν κολπικὸν βλενογόνον κατὰ τὴν μέσην γραμμὴν ὑπεράνω τοῦ τραχηλικοῦ τραύματος, ἐπιστρέφομεν διαπερῶντες κατ' ἀντίθετον κατεύθυνσιν, ἤτοι ἀπὸ τοῦ ἐνδοτραχηλικοῦ αὐλοῦ (παρὰ τὴν πρώτην ἔξοδον τῆς βελόνης) διὰ μέσου τοῦ πάχους τοῦ τραχηλικοῦ τοιχώματος πρὸς τὸν ὑπερύεν κολπικὸν βλενογόνον· ἡ βελόνη ἐξέρχεται εἰς ἀπόστασιν 1 ἑκατ. πλαγίως τῆς ὀπῆς τῆς πρώτης ραφῆς. Κατὰ τὸν ἁμματισμὸν τῶν δύο ἄκρων τοῦ ῥάμματος ἕλκεται ὁ κολπικὸς βλενογόνος ἰσχυρῶς πρὸς τὸν τραχηλικὸν αὐλὸν καὶ ἀντικαθιστᾷ τὴν ἐκτμηθεῖσαν ἐσωτερικὴν αὐτοῦ ἐπιφάνειαν. Τὸ αὐτὸ ἐπαναλαμβάνομεν ἐν ἀναλογίᾳ ἐπὶ τῆς ὀπισθίας μοίρας τοῦ διαταμέντος τραχήλου. Κατ' ἀμφότερα τὰ πλάγια τὰ σχισμοειδῆ τραύματα συγκλείονται διά τινων κοινῶν ραφῶν *(εἰκ 65 – 66)*.

3. Διατομὴ τοῦ τραχήλου κατὰ Pozzi.

Ἡ στένωσις τοῦ ἔξω μητρικοῦ στομίου ἡ προκαλοῦσα εἰς τινας περιπτώσεις στείρωσιν δὲν δύναται μονίμως νὰ θεραπευθῇ δι' εἰσαγωγῆς λαμιναρίας ἢ διὰ διαστολῆς διὰ τῶν κηρίων τοῦ Hegar, τοὐναντίον διὰ τῶν προκαλουμένων μικρῶν τραυματισμῶν ἐνίοτε ἐπιπροστίθενται εἰς τὴν πρωτοπαθῆ στένωσιν οὐλώδεις στενώσεις. Εἰς τοιαύτας περιπτώσεις ἐκτελοῦμεν ἐπιτυχῶς τὴν στοματοπλαστικήν, κατὰ Pozzi, καθ' ἣν ὁ τράχηλος τέμνεται ἐγκαρσίως οὕτως, ὥστε δημιουργοῦνται δύο τραυματικαὶ ἐπιφάνειαι συνεχόμεναι κατὰ τὸ μέσον. Ἀναλόγως τοῦ βαθμοῦ τῆζ στενώσεως ἐκτέμνομεν ἐξ ἑκάστης τραυματικῆς ἐπιφανείας ἀνὰ ἓν μικρὸν κωνοειδὲς τεμάχιον καὶ συρράπτομεν τὰ τραυματικὰ χείλη τῆς ἐκτομῆς πρὸς ἄλληλα διὰ ζωϊκοῦ ῥάμματος *(εἰκ. 67—69)*.

4. Σφηνοειδὴς ἐκτομὴ τμήματος τῆς μήτρας κατὰ Λογοθετόπουλον.

Ἐπὶ αἱμορραγιῶν νεαρῶν γυναικῶν, καθ' ἃς δὲν εἶναι δυνατὸν νὰ ἐφαρμοσθῇ ἀκτινοβολία ἢ ὑστερεκτομή, ἕνεκα τῆς ἀνάγκης διατηρήσεως τῆς ἐμμήνου ῥύσεως, ἐφαρμόζομεν τὴν ἀκόλουθον μέθοδον :

Ἐκτελοῦμεν προσθίαν κολποκοιλιοτομήν. Ἀφ' οὗ ὁ πυθμὴν τῆς μήτρας διὰ τῆς σχισμῆς τῆς κοιλιοτομῆς ἀναστραφῇ καὶ ἑλκυσθῇ πρὸς τὰ ἔξω, συλλαμβάνομεν τοῦτον κατ' ἀμφότερα τὰ πλάγια πλησίον τῆς ἐκφύσεως τῶν στρογγύλων συνδέσμων δι' ἀγκιστρωτῶν λαβίδων καὶ φέρομεν παραλλήλως πρὸς τὰ πλάγια χείλη τῆς μήτρας καὶ εἰς ἀπόστασιν 2 ἑκ. περίπου ἀπ' αὐτῶν ἀριστερὰ καὶ δεξιὰ ἐπιμήκεις τομὰς μέχρι τοῦ ἔσω μητρικοῦ στομίου οὕτως, ὥστε ἐκτέμνεται ἐκ τοῦ σώματος κωνοειδὲς τεμάχιον, οὗτινος ἡ βάσις ἀντιστοιχεῖ εἰς τὸν πυθμένα καὶ ἡ κορυφὴ εἰς τὸν ἰσθμὸν *(εἰκ. 70)*. Ἡ αἱμορραγία κατ' αὐτὴν εἶναι ἐλαχίστη, καθ' ὅσον ἡ μέση μοῖρα τῆς μήτρας εἶναι πτωχὴ εἰς ἀγγεῖα. Μεμονωμέναι ἀπολινώσεις δὲν εἶναι ἀπαραίτητοι, προβαίνομεν δὲ ἀμέσως εἰς τὴν ραφὴν ἀρχόμενοι ἀπὸ τοῦ πυθμένος πρὸς καλλιτέραν προσαρμογὴν τῶν δύο ἡμίσεων *(εἰκ. 71—72)*. Μετὰ τὴν τοποθέτησιν ὅλων τῶν ραφῶν μεμονωμένως κατὰ τὴν ὀπισθίαν καὶ προσθίαν ἐπιφάνειαν προσηλώνομεν διά τινων ρραφῶν τὸ περιτόναιον τῆς κύστεως, ὡς καὶ κατὰ τὴν κυστιοκολπικὴν παρένθεσιν τῆς μήτρας, εἰς ὅσον τὸ δυνατὸν κατώτερον σημεῖον τοῦ ὀπισθίου τοιχώματος τῆς μήτρας καὶ συγκλείομεν ἀκολούθως τὸ κολπικὸν τραῦμα. Ἐπειδὴ σκοπὸς τῆς ἐγχειρήσεως ταύτης εἶναι ἡ διατήρησις φυσιολογικῆς ἐμμηνορρυσίας, δέον αὕτη νὰ ἐκτελῆται μόνον ἐπὶ φυσιολογικῶς λειτουργουσῶν ὠοθηκῶν.

5. Ὑποπυθμενικὴ ἐκτομὴ τῆς μήτρας κατὰ Λογοθετόπουλον.

Ἀντὶ τῆς μεθόδου τῆς σφηνοειδοῦς ἐκτομῆς ἐξετέλεσα εἴς τινας περιπτώσεις τὴν ὑποπυθμενικὴν ἐκτομὴν τῆς μήτρας μετὰ ἐξαιρετικοῦ ἀποτελέσματος. Καθ' ὅσον εἰς πάσας τὰς περιπτώσεις ταύτας κατωρθώθη ἡ διατήρησις τῆς ἐμμήνου ῥύσεως μετ' ὀλίγης ἀπωλείας αἵματος. Ὡς ἐκ τούτου προτιμῶ τὴν μέθοδον ταύτην εἰς περιπτώσεις αἱμορραγιῶν, καθ' ἃς παρὰ τὰς ἐπανειλημμένας ἀποξέσεις δὲν ἐπέρχεται τὸ ἀποτέλεσμα, ἡ δὲ ἀκτινοβολία καὶ ἡ ἀφαίρεσις τῆς μήτρας ἀντενδείκνυται ἕνεκα τοῦ νεαροῦ τῆς ἡλικίας τῶν γυναικῶν.

Ἡ ἐγχείρησις ἐκτελεῖται ὡς περιεγράφη αὕτη εἰς τὰς προπτώσεις τῆς μήτρας.

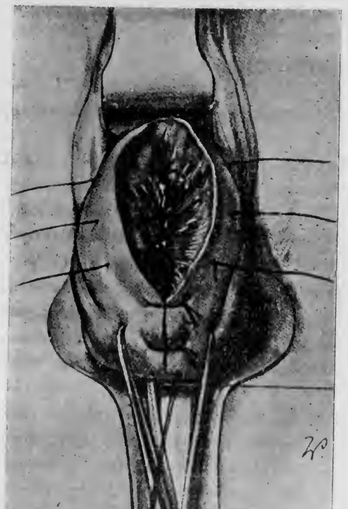
6. Κολπικὴ ὁλικὴ ὑστερεκτομή.

Ἐκτελοῦμεν ταύτην εἰς ἁπλᾶς περιπτώσεις ἐπὶ κινητῆς καὶ οὐχὶ ἐξαιρετικῶς μεγάλης μήτρας ὡς ἀκολούθως :

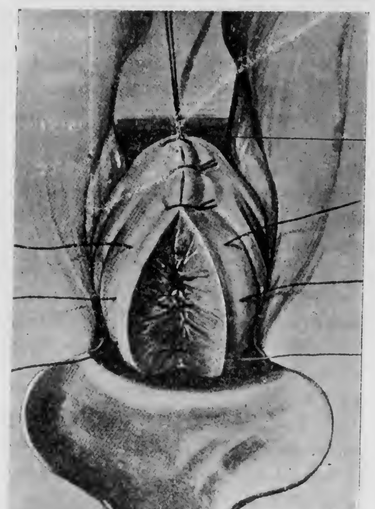
Μετὰ ἔκπτυξιν τοῦ κολεοῦ διὰ κολποδιαστολέων συλλαμβάνομεν τὸν τράχηλον διὰ δύο ἢ τεσσάρων μονοδοντικῶν λαβίδων καὶ ἕλκομεν τοῦτον πρὸς τὰ κάτω. Ἀκολούθως τέμνομεν περιφερικῶς τὸ κολπικὸν τοίχωμα καθ' ὅλον αὐτοῦ τὸ πάχος δι' ἰσχυροῦ κυρτοῦ ψαλιδίου, $^1/_2$ ἑκ. περίπου ἄνω τῆς μεταβατικῆς ζώνης τοῦ κολπικοῦ πρὸς τὸν τραχηλικὸν βλενογόνον *(εἰκ. 73)*, εἶτα ἀποκολλῶμεν τὸ κολπικὸν τοίχωμα ὀλίγον πρὸς τὰ ἄνω, ἓν μέρει διὰ τοῦ ψαλιδίου. Ἐὰν τὸ περιεχόμενον τῆς μήτρας δὲν εἶναι ἀπολύτως ἄσηπτον, συλλαμβάνομεν ἀμφότερα τὰ χείλη τοῦ τραχήλου δι' ἀγκιστρωτῶν λαβίδων καὶ μετὰ περιφερικῶν ὡς ἄνω περὶ τὸν τράχηλον τομῶν, συρράπτομεν τὸ πρόσθιον πρὸς τὸ ὀπίσθιον κολπικὸν τοίχωμα διὰ μεμονωμένων ραφῶν οὕτως, ὥστε τὸ μητρικὸν στόμιον συγκαλύπτεται τελείως *(εἰκ. 74—76)*.

Ἐπὶ στενοῦ κολεοῦ διευρύνομεν αὐτὸν εὐχερῶς διὰ δύο τομῶν κατὰ τὰ δύο αὐτοῦ πλάγια μήκους 1—2 ἑκ. Τὸ τοίχωμα τῆς κύστεως ἀνέλκεται ἀκολούθως διὰ χειρουργικῆς λαβίδος καὶ διὰ μικρῶν τομῶν διατέμνονται αἱ κυστιοτραχηλικαὶ δεσμίδες, σαφῶς διακρινόμεναι, οὕτω δὲ ἡ κύστις ἀπελευθεροῦται ἀπὸ τῶν στερρῶν προσφύσεων αὐτῆς μετὰ τοῦ τραχήλου *(εἰκ. 77)*. Πρὸς περαιτέρω ἀπώθησιν τῆς κύστεως χρησιμοποιοῦμεν μόνον τὸν δάκτυλον, καθ' ὅσον ἐπὶ χρησιμοποιήσεως τολυπίου ἢ τεμαχίου γάζης ἡ περιτοναϊκὴ πτυχὴ εὐκόλως συμπαρασύρεται πρὸς τὰ ἄνω *(εἰκ. 78)*. Ἀποφεύγομεν οὕτω τὴν ῥῆξιν τοῦ τοιχώματος τῆς κύστεως, ἐν περιπτώσει ὅμως ὑπάρξεως διηθήσεων ἢ συμφύσεων, ὡς τὸ τοιοῦτον συνήθως συμβαίνει ἐπὶ καρκινωματώδους μήτρας, ἡ κύστις δέον πάντοτε ν' ἀποχωρίζεται διὰ τῆς λαβίδος καὶ τοῦ ψαλιδίου. Ἀφ' οὗ ἀπωθήσωμεν καλῶς πρὸς τὰ ἄνω καὶ πρὸς τὰ πλάγια δι' ἀμφοτέρων τῶν δεικτῶν καὶ τὴν πλαγίαν μοῖραν τῆς κύστεως *(εἰκ. 101)* εἰσάγομεν τὸν πρόσθιον κολποδιαστολέα κάτω τῆς κύστεως καὶ φέρομεν οὕτω τὴν κύστιν καὶ τοὺς οὐρητῆρας ἐκτὸς τοῦ ἐγχειρητικοῦ πεδίου. Τὸ περιτόναιον ἀναγνωριζόμενον διὰ τοῦ λευκοῦ καὶ στιλπνοῦ χρώματος, ὅπερ ἤδη σαφῶς διαφαίνεται, ἀνυψοῦται διὰ χειρουργικῆς λαβίδος, διανοίγεται διὰ τομῆς τοῦ ψαλιδίου, διευρυνομένης εἶτα τῆς ὀπῆς πρὸς ἀμφότερα τὰ πλάγια *(εἰκ. 79)*. Ἀπομακρύνομεν τὸν πρόσθιον κολποδιαστολέα καὶ εἰσάγομεν εὐρύτερον τοιοῦτον ἐντὸς τοῦ περιτοναϊκοῦ ἀνοίγματος. Ὁ βοηθὸς ἕλκει τὸν κολποδιαστολέα ἰσχυρῶς πρὸς τὴν ἡβικὴν σύμφυσιν, ἀποκαλυπτομένου οὕτω τοῦ προσθίου τοιχώματος τῆς μήτρας, ὅπερ συλλαμβάνεται διὰ δυοδοντικῆς ἢ πολυοδοντικῆς λαβίδος καὶ ἕλκεται πρὸς τὰ κάτω, ἐνῷ διὰ τῆς ἄλλης χειρὸς ἀπωθεῖται ὁ τράχηλος πρὸς τὸν ὀπίσθιον θόλον τοῦ κολεοῦ *(εἰκ. 80)*. Τὸ ἄνω τῆς ἀγκιστρωτῆς λαβίδος καθιστάμενον ὁρατὸν τμῆμα τῆς μήτρας συλλαμβάνεται διὰ δευτέρας ἀγκιστρωτῆς λαβίδος, ἕλκεται πρὸς τὰ κάτω καὶ ἀπομακρύνεται ἡ πρώτη λαβίς. Οὕτω διὰ τοποθετήσεως ἀλλεπαλλήλων λαβίδων ἀναρριχώμεθα ὀλίγον κατ' ὀλίγον ἐπὶ τοῦ προσθίου τοιχώματος τῆς μήτρας μέχρι τοῦ ὕψους τοῦ πυθμένος, ὅστις τέλος ἐμφανίζεται πρὸ τοῦ αἰδοίου *(εἰκ. 81)*. Ἐπὶ εὐμεγέθους μήτρας διευκολύνομεν τὴν κατάσπασιν τοῦ πυθμένος, συλλαμβάνοντες διὰ τῶν λαβίδων οὐχὶ τὸ μέσον ἀλλὰ τὰ πλάγια τμήματα αὐτοῦ. Οὕτω προβάλλει

πρῶτον τὸ ἀριστερόν, ἀκολούθως δὲ τὸ δεξιὸν κέρας. Ἐὰν ἤδη ἕλξωμεν τὸν τράχηλον διὰ τῶν ἀγκιστρωτῶν λαβίδων ἐκ νέου πρὸς τὰ ἔξω, ἡ ὅλη μήτρα φέρεται πρὸ τοῦ αἰδοίου *(εἰκ. 82)*. Δι' εἰσαγωγῆς ἐντὸς τῆς περιτοναϊκῆς κοιλότητος μεγάλης ὀθόνης γάζης συγκρατουμένης διὰ ράμματος, παρεμποδίζεται ἡ πρόπτωσις τῶν ἐντερικῶν ἑλίκων, καθ' ὃν χρόνον ἡ μήτρα ἕλκεται ἰσχυρῶς πρὸς τὰ δεξιά, συλλαμβάνομεν δι' ἰσχυρᾶς λαβίδος εἰς ἀπόστασιν 1 ἑκ. περίπου ἀπὸ τῆς μήτρας τὸν ἀριστερὸν στρογγύλον σύνδεσμον, τὴν σάλπιγγα καὶ τὸν ἴδιον σύνδεσμον τῆς ᾠοθήκης, ὑπὸ τὸν ἀκριβῆ ἔλεγχον τῆς ἁφῆς καὶ τῆς ὁράσεως, ἵνα ἀποφύγωμεν τὴν σύλ-



Εἰκ. 71.—Κολπικὴ ὀβελιαία ἐκτομὴ τμήματος τῆς μήτρας κατὰ **Δογοθετόπουλον**. *Συρραφὴ τῶν τραυματικῶν ἐπιφανειῶν τοῦ ὀπισθίου τοιχώματος διὰ μεμονωμένων ραφῶν.*

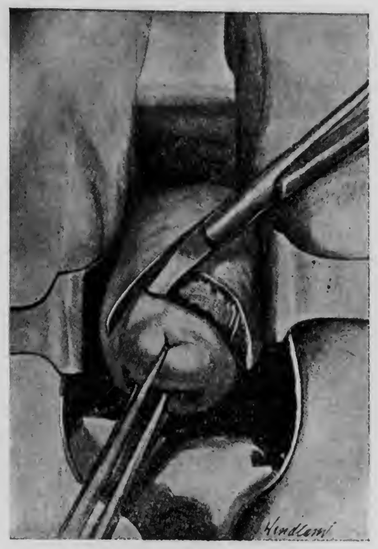


Εἰκ. 72.—Κολπικὴ ὀβελιαία ἐκτομὴ τμήματος τῆς μήτρας κατὰ **Δογοθετόπουλον**. *Συρραφὴ τῶν τραυματικῶν ἐπιφανειῶν τοῦ προσθίου τοιχώματος τῆς μήτρας. Τὸ πρῶτον κατὰ τὸν πυθμένα τοποθετηθὲν ράμμα χρησιμεύει πρὸς ἕλξιν.*

ληψιν ἄλλου τινὸς ὀργάνου. Τὰ συλληφθέντα ἐξαρτήματα ταῦτα διατέμνονται διὰ τοῦ ψαλιδίου ἀκριβῶς παρὰ τὴν μήτραν. Διὰ συνεχοῦς ἕλξεως τῆς μήτρας πρὸς τὰ δεξιὰ συλλαμβάνομεν ἐκ τῶν κάτω διὰ δευτέρας ἰσχυρᾶς λαβίδος τὴν ἀριστερὰν μητριαίαν ἀρτηρίαν καὶ τὸν ἱερομητρικὸν σύνδεσμον καὶ διατέμνομεν ταῦτα διὰ τοῦ ψαλιδίου ἀκριβῶς παρὰ τὴν μήτραν.

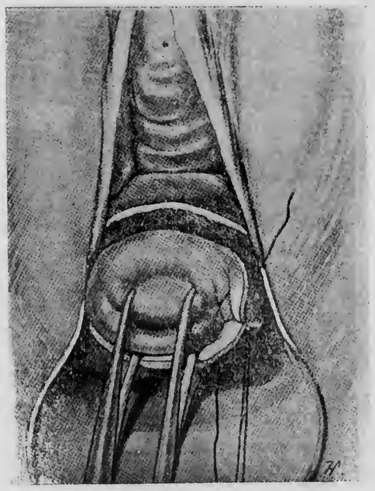
Οἱ αὐτοὶ χειρισμοὶ ἐκτελοῦνται δι' ἕλξεως τῆς μήτρας πρὸς τὰ ἀριστερὰ ἐπὶ τοῦ δεξιοῦ πλαγίου *(εἰκ. 83)*.

Ὁ πλάγιος κολποδιαστολεὺς εὑρίσκεται πάντοτε ἐπὶ τοῦ πλαγίου, καθ' ὃ ἀκριβῶς ὁ χειρουργὸς ἐργάζεται. Εἶναι ἀπαραίτητον ἵνα μὴ ἀπομακρύνηται τις ἀπὸ τῆς μήτρας πρὸς ἀσφαλῆ ἀποφυγὴν τραυματισμοῦ τοῦ οὐρητῆρος. Ἐπὶ ἁπλῶν περιπτώσεων εἶναι δυνατὸν ἡ ὅλη ἐξαίρεσις τῆς μήτρας μέχρι τῆς φάσεως ταύτης νὰ διαρκέσῃ 1 ½—2 λεπτά. Ἀκολουθεῖ ἡ διὰ βελόνης ἀπολίνωσις τῶν συλληφθέντων διὰ τῶν λαβίδων κολοβωμάτων. Ἀρχόμεθα ἀπὸ τῆς εὐχερέστερον προσιτῆς λαβίδος, ὄπισθεν τῆς ὁποίας διατρυπῶμεν διὰ τῆς βελόνης τὸ συλληφθὲν κολόβωμα καὶ ἀμματίζομεν τὸ ἰσχυρὸν ζωϊκὸν ῥάμμα πρῶτον πρὸς τὸ ἄνω καὶ ἀκολούθως πρὸς τὸ κάτω τῆς λαβίδος, δέον δὲ νὰ προσέχωμεν ἰδιαιτέρως ἵνα τὸ ῥάμμα πραγματικῶς περιβάλλῃ τὸ ἄκρον τῆς λαβίδος *(εἰκ. 84)*. Ὁ βοηθὸς διανοίγει τὴν λαβίδα καθ' ὃν χρόνον ἐκτελεῖται, πολὺ βραδέως, ὁ κόμβος, χωρὶς νὰ μεταβάλῃ τὴν θέσιν αὐτῆς. Ἀφήνει

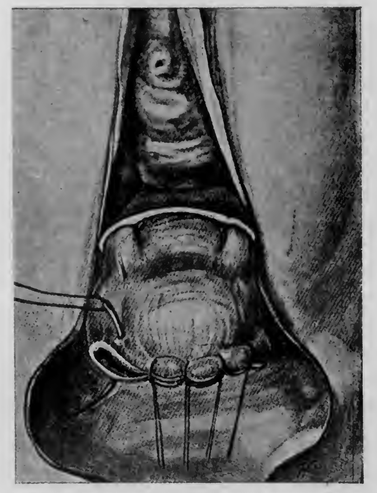


Εἰκ. 73.—Κολπικὴ ὑστερεκτομή. Τὸ κολπικὸν τοίχωμα τέμνεται περιφερικῶς διὰ τοῦ κυρτοῦ ψαλιδίου.

Εἰκ. 74.—Κολπικὴ ὑστερεκτομὴ ἐπὶ σηπτικοῦ περιεχομένου τῆς μήτρας. Μετὰ τὴν σύλληψιν τοῦ προσθίου καὶ ὀπισθίου τραχηλικοῦ χείλους δι' ἀγκιστρωτῶν λαβίδων, τέμνεται περιφερικῶς τὸ κολπικὸν τοίχωμα.

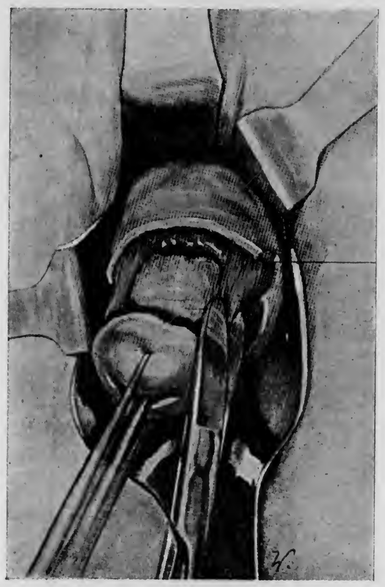


Εἰκ. 75.—Κολπικὴ ὑστερεκτομὴ ἐπὶ σηπτικοῦ περιεχομένου τῆς μήτρας. Συρραφὴ τοῦ προσθίου καὶ ὀπισθίου κρημνοῦ τοῦ κολπικοῦ τοιχώματος.



Εἰκ. 76.—Κολπικὴ ὑστερεκτομὴ ἐπὶ σηπτικοῦ περιεχομένου τῆς μήτρας. Τοποθέτησις τῆς τελευταίας μεμονωμένης ραφῆς.

οὕτως εἰπεῖν τὸ ῥάμμα νὰ ὀλισθήσῃ ἐντὸς τῆς προκληθείσης ἐκ τῆς συνθλίψεως αὔλακος. Ἀφ' οὗ ἀντικατασταθοῦν ὅλαι αἱ λαβίδες δι' ἀπολινώσεων, ἀποσύρομεν ἐπὶ μετρίως κεκλιμένου ἐπιπέδου τῆς τραπέζης τὴν εἰσαχθεῖσαν ἐντὸς τῆς κοιλίας ὀθόνην γάζης, ἀπωθοῦντες διὰ τολυπίου κρατουμένου ὑπὸ λαβίδος τὰς τυχὸν προβαλλούσας ἐντερικὰς ἕλικας. Διὰ βραδείας ἀφαιρέσεως τοῦ προσθίου κολποδιαστολέως, ἐν ἀνάγκῃ δέ, ἐπὶ μετρίως κεκλιμένου ἐπιπέδου, ἵνα αἱ ἐντερικαὶ ἕλικες μὴ ὦσι πλέον ὁραταί, προβάλλει τὸ περιτόναιον, ὅπερ συλλαμβάνομεν ὁμοῦ μετὰ τοῦ κολπικοῦ τοιχώματος διὰ μιᾶς λαβίδος. Τὸ αὐτὸ πράττομεν καὶ κατὰ τὸ περιτόναιον τοῦ Δουγλασείου, ὅπερ κατὰ τὴν ἀφαίρεσιν τοῦ ὀπισθίου κολποδιαστολέως



Εἰκ. 77.—Κολπικὴ ὑστερεκτομή. Ἐπέκτασις τῆς περιφερικῆς τομῆς διὰ μικρῶν τομῶν κατὰ τὰ δύο πλάγια. Ἡ κύστις ἐλευθεροῦται ἀπὸ τῶν στερρῶν προσφύσεων μετὰ τοῦ τραχήλου. Ἡ ἐπὶ τῆς εἰκόνος ἐγκαρσία γραμμὴ σημειοῖ τὴν πλαγίαν τομὴν ἐπὶ τοῦ κολεοῦ.

Εἰκ. 78.—Κολπικὴ ὑστερεκτομή. Ἡ κύστις ἀπωθεῖται πρὸς τα ἄνω διὰ τοῦ δακτύλου.

καθίσταται ὁρατόν. Διὰ μεμονωμένων ῥαφῶν ἢ διὰ ῥαφῆς καπνοθύλακος, ἥτις διέρχεται διὰ τοῦ κολπικοῦ τοιχώματος, τοῦ περιτοναίου καὶ τῶν κολοβωμάτων, συγκλείεται ὁ κολεὸς οὕτως, ὥστε τὰ κολοβώματα παραμένουν ἐκτὸς τῆς περιτοναϊκῆς κοιλότητος *(εἰκ. 85)*. Προσέχομεν ὅμως ἵνα καλύπτωμεν ταῦτα κατὰ τὸ δυνατὸν διὰ τοῦ κολπικοῦ τοιχώματος, καθ' ὅσον ἄλλως δημιουργοῦνται κοκκιώματα τῶν σαλπίγγων, ἅτινα συνήθως προκαλοῦν ἐνοχλήσεις εἰς τὴν ἄρρωστον (αἱμορραγίαι, ἔκκρισις) *(εἰκ. 86)*. Ἕνεκα τούτου πρὸ τῆς ἐγκαταλείψεως τῆς κλινικῆς ὑπὸ τῆς ἀρρώστου ἐλέγχομεν πάντοτε τὸ κολπικὸν τραῦμα καὶ καταστρέφομεν τὰ τυχὸν ἀναπτυχθέντα κοκκιώματα διὰ τοῦ γαλβανοκαυτῆρος.

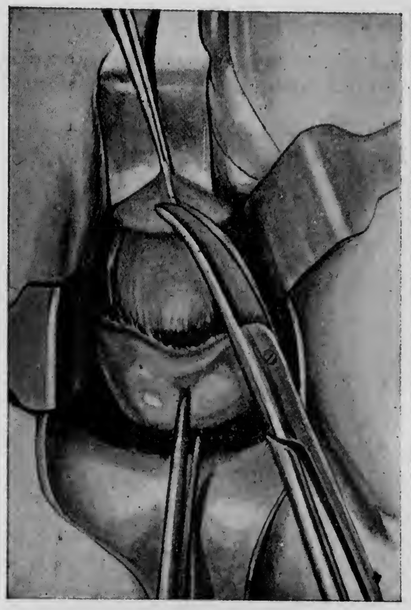
α') Κολπικὴ ὑστερεκτομὴ μετὰ διατομῆς τοῦ προσθίου τοιχώματος τῆς μήτρας.

Ἐὰν ἡ πρὸς ἐξαίρεσιν μήτρα εἶναι μεγαλυτέρα τοῦ φυσιολογικοῦ ἢ ὑφίστανται συμφύσεις καὶ διηθήσεις, ἡ πρὸς τὰ πρόσω ἀναστροφὴ τῆς μήτρας δυνατὸν νὰ προκαλέσῃ δυσχερείας, τὰς ὁποίας παρακάμπτομεν ὡς ἀκολούθως:

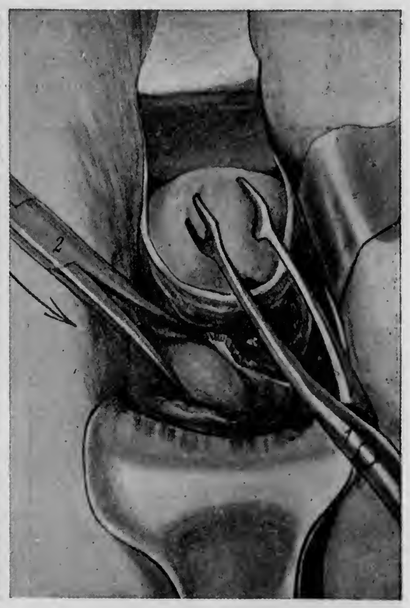
Ἡ ἔναρξις τῆς ἐγχειρήσεως διεξάγεται ὡς καὶ κατὰ τὴν συνήθη ὁλικὴν ὑστερεκτομήν,

ἤτοι καθέλκυσις τοῦ τραχήλου, περιφερικὴ τομὴ τοῦ κολπικοῦ τοιχώματος, ἀποκόλλησις τῆς κύστεως καὶ εἰσαγωγὴ τοῦ προσθίου κολποδιαστολέως κάτωθι αὐτῆς. Μετὰ μετατόπισιν τῶν ἀγκιστρωτῶν λαβίδων τοῦ προσθίου χείλους τοῦ τραχήλου πρὸς τὰ πλάγια διατέμνομεν τὸ πρόσθιον τοίχωμα τῆς μήτρας ἀκριβῶς κατὰ τὴν μέσην γραμμὴν δι' εὐθέος ψαλιδίου, οὗτινος τὸ ἓν σκέλος εἰσάγομεν ἐντὸς τῆς κοιλότητος τῆς μήτρας *(εἰκ. 87—88)*.

Πρὸς ἀπόκτησιν ἐπαρκοῦς χώρου εἰς μᾶλλον ἐπιπλόκους περιπτώσεις ἀντικαθιστῶμεν τὰς ἀγκιστρωτὰς λαβίδας τοῦ τραχήλου δι' ἰσχυρῶν μεταξίνων ῥαμμάτων. Κατὰ τὴν διατομὴν τοῦ τραχήλου διανοίγεται καὶ τὸ περιτόναιον, μεθ' ὃ εἰσάγομεν τὸν πρόσθιον κολποδιαστο-



Εἰκ. 79.—Κολπικὴ ὑστερεκτομή. Ἡ κύστις συγκρατεῖται πρὸς τὰ ἄνω διὰ τοῦ προσθίου κολποδιαστολέως καὶ ἡ περιτοναϊκὴ πτυχὴ διανοίγεται.



Εἰκ. 80.—Κολπικὴ ὑστερεκτομή. Ὁ συλληφθεὶς διὰ μιᾶς πολυοδοντικῆς λαβίδος πυθμὴν τῆς μήτρας ἕλκεται δια μέσου τοῦ περιτοναϊκοῦ ἀνοίγματος πρὸς τὰ ἔξω διὰ συγχρόνου ἀπωθήσεως τοῦ τραχήλου πρὸς τὰ ὀπίσω.

λέα ἐντὸς τῆς περιτοναϊκῆς κοιλότητος, δι' οὗ συγκρατεῖται πρὸς τὰ ἄνω ἡ κύστις. Ἀκολούθως συλλαμβάνονται τὰ τραυματικὰ χείλη τῆς μήτρας κατὰ τὰ δύο πλάγια διὰ πολυοδοντικῶν λαβίδων καὶ ἕλκονται πρὸς τὰ κάτω *(εἰκ. 89)*, καθ' ὃν χρόνον ὁ διαταμεὶς τράχηλος ἀπωθεῖται πρὸς τὸ βάθος τοῦ κολεοῦ. Διὰ διαδοχικῶν συλλήψεων ὑπὸ ἀγκιστρωτῶν λαβίδων διατέμνεται τὸ τοίχωμα τῆς μήτρας μέχρι τοῦ πυθμένος, ὅστις τέλος προβάλλει πρὸ τοῦ αἰδοίου *(εἰκ. 90)*. Ἤδη ἕλκεται ἐκ νέου ὁ τράχηλος πρὸς τὰ ἔξω καὶ ἡ ἐγχείρησις ἀποπερατοῦται ἀκριβῶς κατὰ τὸν ἄνω περιγραφόμενον τρόπον.

β') Κολπικὴ ὁλικὴ ὑστερεκτομὴ διὰ τομῆς τοῦ προσθίου καὶ ὀπισθίου τοιχώματος τῆς μήτρας.

Ἐφαρμόζομεν τὴν μέθοδον ταύτην ὑποδειχθεῖσαν ὑπὸ τοῦ Müller κυρίως, ὅταν πρόκειται περὶ μήτρας ἥτις, ἕνεκα φλεγμονωδῶν ἀλλοιώσεων τῶν ἐξαρτημάτων καὶ τοῦ παραμητρίου ἐμφανίζεται ὡς ἐντειχισθεῖσα ἐντὸς αὐτῶν. Διατέμνομεν τὴν μήτραν τελείως εἰς δύο

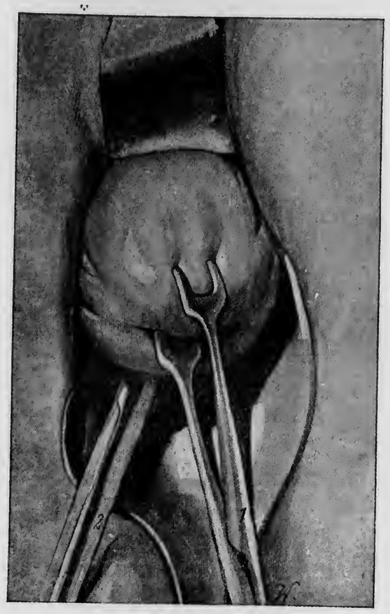
ἡμίση, ἅτινα τὸ ἓν μετὰ τὸ ἄλλο ἀφαιροῦνται. Πρὸς ἐξοικονόμησιν κατὰ τὸ δυνατὸν εὐρυτέρου χώρου ἀπωθεῖται τὸ ἓν ἥμισυ πρὸς τὴν περιτοναϊκὴν κοιλότητα καθ' ὃν χρόνον ἐξαιρεῖται τὸ ἕτερον ἥμισυ.

Ἡ κυριωτέρα μέριμνα κατὰ τὴν ἐγχείρησιν ταύτην εἶναι νὰ ἀποφύγωμεν τραυματισμοὺς τῶν οὐρητήρων καὶ τῆς κύστεως, ἥτις ἕνεκα τῶν συμφύσεων μετὰ δυσχερείας ἀπωθεῖται πρὸς τὰ ἄνω.

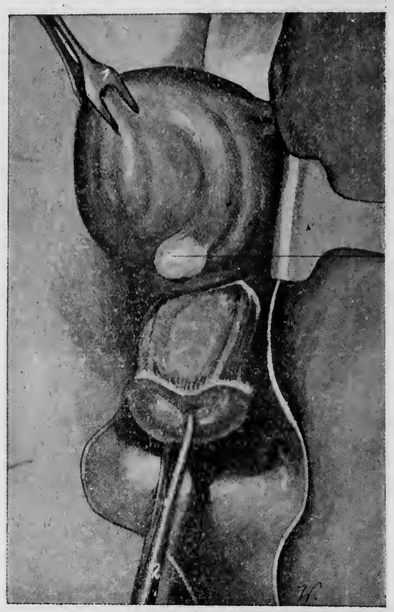
7. Κολπικαὶ ἐγχειρήσεις ἐπὶ μυωματώδους μήτρας.

α') Μισχωτὰ ὑποβλενογόνια μυώματα (πολύποδες).

Τὰ προβάλλοντα ἐντὸς τοῦ κόλπου ἢ καὶ ἐμφανιζόμενα πρὸ τοῦ αἰδοίου ὑποβλενογόνια μισχωτὰ μυώματα *(εἰκ. 91)* συλλαμβάνομεν διὰ πολυοδοντικῆς λαβίδος καὶ συστρέφο-



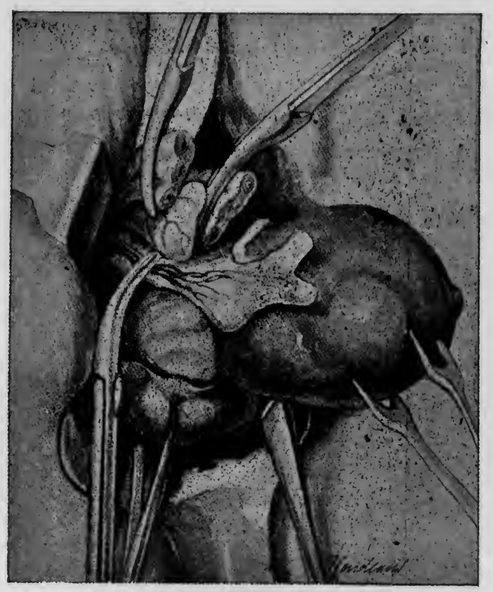
Εἰκ. 81.—Κολπικὴ ὑστερεκτομή. Ὁ πυθμὴν τῆς μήτρας ἔχει ἀναστραφῆ πρὸς τὰ πρόσω.



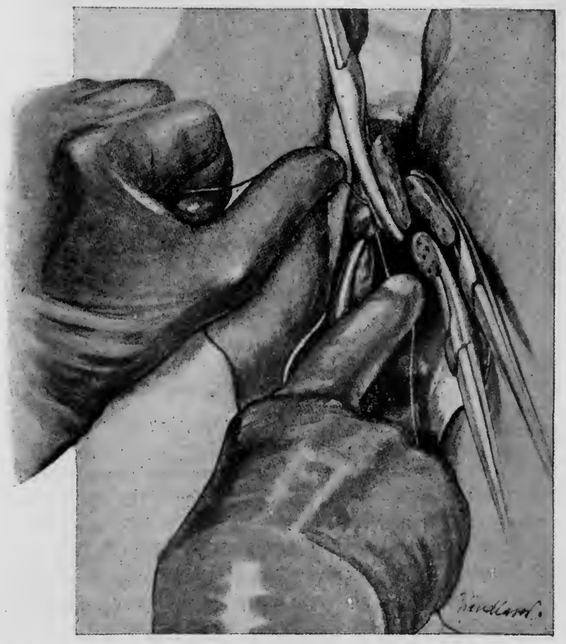
Εἰκ. 82.—Κολπικὴ ὑστερεκτομή. Ὁ τράχηλος ἔχει ἤδη ὁμοίως ἑλκυσθῆ πρὸς τα ἔξω αὐτη, ὥστε ἡ ὅλη μήτρα κεῖται πρὸ τοῦ αἰδοίου.

μεν αὐτὰ ἢ ἂν τὸ τοιοῦτον δὲν ἐπιτυγχάνεται διατέμνομεν διὰ τοῦψαλιδίου τὸν μίσχον κατὰ τὴν ἔκφυσιν αὐτοῦ. Ἐὰν τὸ σημεῖον τῆς ἐκφύσεως τοῦ μίσχου εὑρίσκεται πολὺ πρὸς τὸ βάθος τῆς μητρικῆς κοιλότητος, διανοίγομεν τὸ πρόσθιον τραχηλικὸν τοίχωμα καὶ ἀποκόπτομεν τὸν μίσχον, ἀκολούθως δὲ συρράπτομεν ἐκ νέου τὸν τράχηλον *(εἰκ. 92)*. Ἐξαιρετικὴ αἱμορραγία δὲν ἐπισυμβαίνει, ἡ μικρὰ δὲ τοιαύτη ἐπίσχεται σχεδὸν πάντοτε δι' ἐλαφροῦ πωματισμοῦ τῆς μήτρας.

Δὲν ἐκτελοῦμεν εὐχαρίστως τὴν ἁπλῆν ταύτην ἐξαίρεσιν τοῦ μυωματώδους πολύποδος, διότι τὸ τελικὸν ἀποτέλεσμα δὲν εἶναι συνήθως ἱκανοποιητικόν. Δὲν ἀσφαλιζόμεθα ἀπὸ τῆς ὑποτροπῆς, ἐὰν δὲ ὁ ὄγκος, ὡς συνήθως ἔχῃ μολυνθῆ, προκαλεῖται φλεγμονώδης ἐξεργασία



Εἰκ. 83.—Κολπικὴ ὑστερεκτομή. Ὁ πυθμὴν τῆς μήτρας καὶ ὁ τράχηλος ἑλκονται ἰσχυρῶς πρὸς τὰ ἀριστερά. Ὁ πλατὺς σύνδεσμος, αἱ σάλπιγγες καὶ οἱ ἴδιοι σύνδεσμοι τῆς ὠοθήκης ἔχουν διαταμῆ μεταξὺ δύο αἱμοστατικῶν λαβίδων. Τὸ δεξιὸν παραμήτριον μετὰ τῶν μητριαίων ἀγγείων ἔχει συλληφθῆ ἐκ τῶν κάτω.

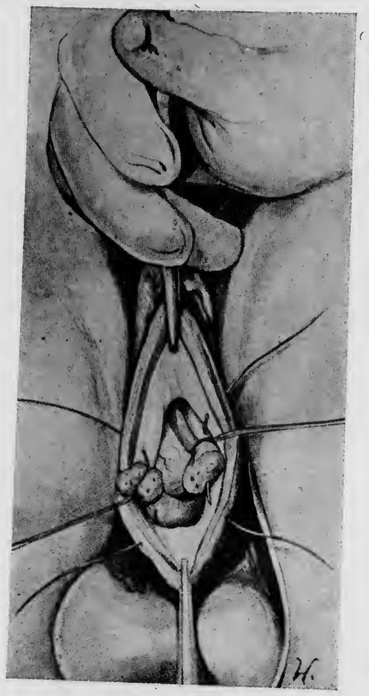


Εἰκ. 84.—Κολπικὴ ὑστερεκτομή. Αἱ λαβίδες ἀντικαθίστανται δι' ἀπολινώσεων.

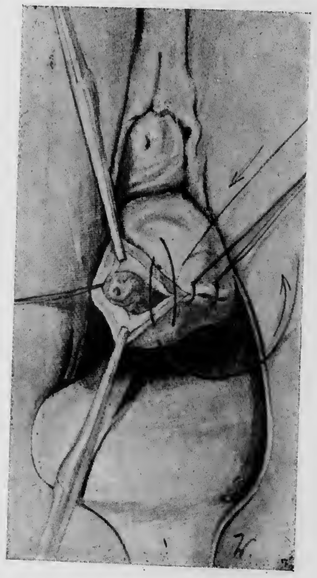
εἰς τὰ πέριξ καὶ ὁ πυρετὸς ἐξακολουθεῖ ἐπὶ μακρὸν μετὰ τὴν ἐγχείρησιν. Ἕνεκα τούτου εἰς πλείστας περιπτώσεις μετ' ἀφαίρεσιν τοῦ πολύποδος ἐνεργοῦμεν ἐπιπροσθέτως τὴν ὑστερεκτομήν.

δ') Κολπικὴ ἐκπυρήνισις μυωματώδους ὄγκου.

Ἐφαρμόζομεν τὴν μέθοδον ταύτην μόνον ἐπὶ μικρῶν ὄγκων, ἀλλὰ καὶ τότε ἔτι κατ' ἐξαίρεσιν, καθ' ὅσον διὰ τὰς συντηρητικὰς ἐγχειρήσεις τῶν μυωμάτων προτιμῶμεν τὴν κοι-



Εἰκ. 85.—Κολπικὴ ὑστερεκτομή. Σύγκλεισις τοῦ περιτοναίου καὶ τοῦ κολεοῦ. Αἱ ραφαὶ συλλαμβάνουν καὶ τὰ ἀπολινωθέντα κολοβώματα.

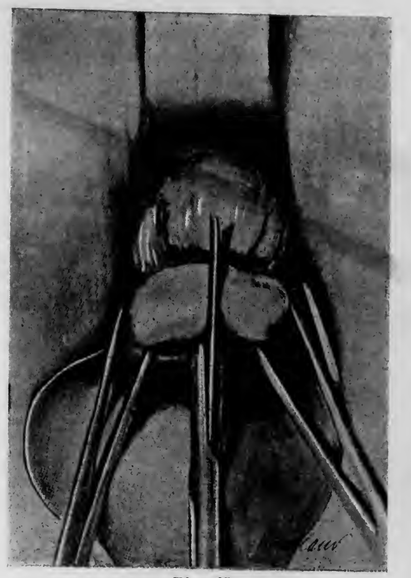


Εἰκ. 86.—Κολπικὴ ὑστερεκτομή. Διὰ τῶν γενομένων ραφῶν ἐπιτυγχάνεται ἵνα τὰ κολοβώματα τοποθετηθοῦν μὲν ἐξωπεριτοναϊκῶς, καλυφθοῦν δὲ διὰ τοῦ κολπικοῦ τοιχώματος.

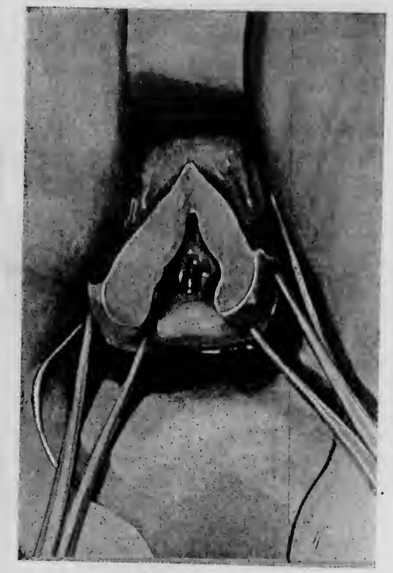
λιακὴν ὁδόν. Ἡ μήτρα ἀναστρέφεται πρὸς τὰ πρόσω ὡς καὶ κατὰ τὴν κολπικὴν ὑστερεκτομήν, ἀκολούθως ἐκτελεῖται ἡ ἐκπυρήνισις τοῦ ὄγκου ὡς ἐπὶ κοιλιακῶν ἐγχειρήσεων (βλ. σελ. 73).

γ') Κολπικὴ ὑστερεκτομὴ ἐπὶ μυωματώδους μήτρας.

Δυνάμεθα νὰ ἀφαιρέσωμεν κολπικῶς λίαν εὐμεγέθη μυώματα, ἐὰν διευρύνωμεν τὸ ἐγχειρητικὸν πεδίον διὰ τομῆς Schuchardt καὶ ἐνεργήσωμεν τὸν διχασμὸν τῆς μήτρας κατὰ Doyen. Προτιμῶμεν ὅμως κατὰ κανόνα τὴν κοιλιακὴν ὁδόν, διότι εἰς πολλὰς περιπτώσεις δυνάμεθα νὰ διατηρήσωμεν τὴν μήτραν, τοῦθ' ὅπερ δὲν δυνάμεθα νὰ καθορίσωμεν μετὰ βεβαιότητος πρὸ τῆς ἐγχειρήσεως. Ὡσαύτως ἐπὶ λίαν εὐμεγέθων ὄγκων, οἵτινες ὑπερβαίνουν τὴν ἐλάσσονα πύελον ἢ ἐπὶ ὑφισταμένων ἰσχυρῶν συμφύσεων ἀποφεύγομεν τὴν κολπικὴν ὁδόν,



Εἰκ. 87.

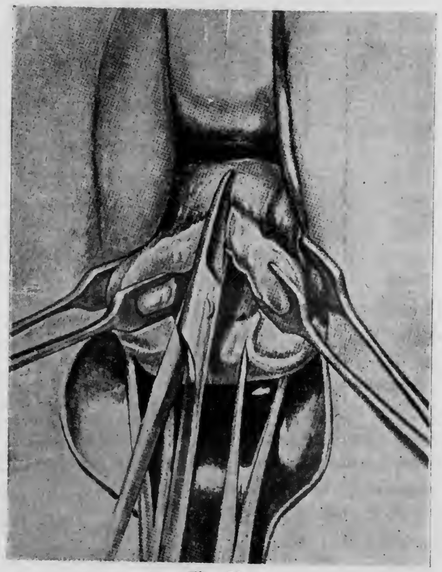


Εἰκ. 88.

Εἰκ. 87.—Κολπικὴ ὑστερεκτομὴ διὰ τομῆς τοῦ προσθίου τοιχώματος τῆς μήτρας. Ἡ κύστις ἀπεκολλήθη καὶ συγκρατεῖται πρὸς τὰ ἄνω ὑπὸ τοῦ προσθίου κολποδιαστολέως.

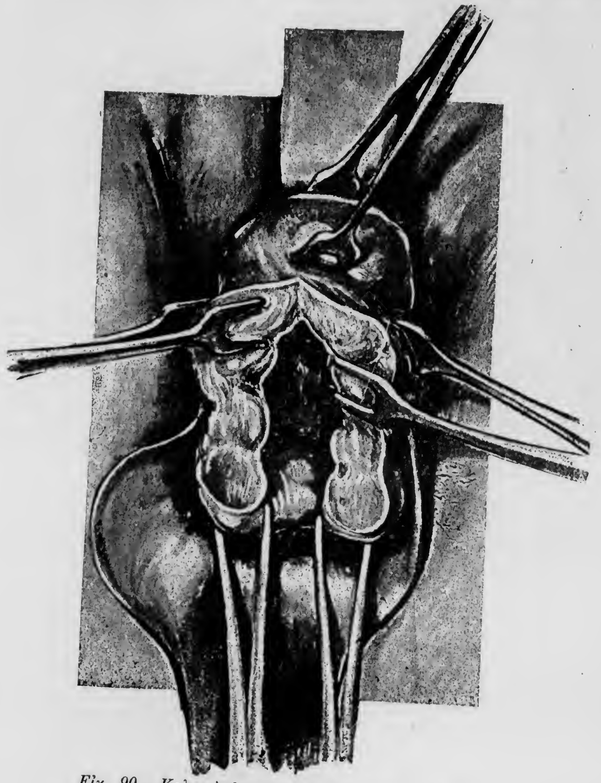
Εἰκ. 88.—Κολπικὴ ὑστερεκτομὴ διὰ τομῆς τοῦ προσθίου τοιχώματος. Ὁ πρόσθιος κολποδιαστολεὺς ἔχει τοποθετηθῆ ἐντὸς τοῦ ἀνοίγματος τοῦ περιτοναίου καὶ συγκρατεῖ τὴν κύστιν πρὸς τὰ ἄνω.

Εἰκ. 89.—Κολπικὴ ὑστερεκτομὴ διὰ τομῆς τοῦ προσθίου τοιχώματος. Ὁ πρόσθιος κολποδιαστολεὺς ἔχει τοποθετηθῆ ἐντὸς τοῦ ἀνοίγματος τοῦ περιτοναίου καὶ συγκρατεῖ τὴν κύστιν πρὸς τὰ ἄνω. Τὸ πρόσθιον τοίχωμ. τοῦ τραχήλου ἔχει διαταμῆ.



Εἰκ. 89.

Ἐὰν ἀκολουθήσωμεν τὴν κολπικὴν ὁδὸν ἐπιχειροῦμεν πρῶτον τὴν πρὸς τὰ πρόσω ἀναστροφὴν τῆς διχασθείσης μήτρας. Ἐὰν τὸ τοιοῦτον ἐπὶ μεγάλων ὄγκων δὲν εἶναι κατορθωτὸν τεμαχίζομεν τὸν ὄγκον (τεμαχισμὸς κατὰ Péan), ἐγχείρησις οὐχὶ δυσχερής, ἐφ' ὅσον τεχνικῶς ἐκτελεῖται καλῶς. Ἀρχόμεθα διὰ διχασμοῦ τοῦ προσθίου τοιχώματος τῆς μήτρας, ἐφ' ὅσον τὸ τοιοῦτον εἶναι δυνατόν, καὶ ἕλκομεν τὰ τραυματικὰ χείλη διὰ πολυοδοντικῶν



Εἰκ. 90.—Κολπικὴ ὑστερεκτομὴ διὰ τομῆς τοῦ προσθίου τοιχώματος τῆς μήτρας. Μετ' ἐπεκταθεῖσαν διατομὴν προβάλλει ὁ πυθμὴν τῆς μήτρας καὶ συλλαμβάνεται διὰ πολυοδοντικῆς ἀγκιστρωτῆς λαβίδος.

λαβίδων ἰσχυρῶς πρὸς τὰ ἔξω. Ὁ ὄγκος συλλαμβάνεται διὰ πολυοδοντικῆς λαβίδος ἢ διὰ τοῦ ἐκπωματιστῆρος καὶ ἐκτέμνεται ἐξ αὐτοῦ διὰ τοῦ μαχαιρίου τοῦ Segond σφηνοειδὲς τεμάχιον (*εἰκ. 93*).

Πρὶν ἢ ἐξαιρέσωμεν ὅμως τὸ τεμάχιον τοῦτο ἐξ ὁλοκλήρου, συλλαμβάνομεν τὸν ὑπολειπόμενον ὄγκον ἐκ νέου, ἵνα παρεμποδίσωμεν τὴν ὀλίσθησιν αὐτοῦ πρὸς τὸ βάθος (*εἰκ. 94—95*). Ἐνίοτε ἐπιτυγχάνεται δι' ἀποφλοιώσεως ἡ ἐν συνόλῳ ἐξαίρεσις καὶ μεγάλου ὄγκου (πυρῆνος) ἀπὸ τῆς κοίτης αὐτοῦ, (*εἰκ. 96*) συνεχίζομεν δὲ τὴν ἐγχείρησιν οὕτω ἢ ὡς ἄνω βραδέως μέχρι τοῦ πυθμένος (*εἰκ. 97*), ἕλκοντες πάντοτε νέα τμήματα τοῦ μητρικοῦ τοιχώματος πρὸς τὰ κάτω, μέχρι οὗ ἡ συνόλη μήτρα ἐμφανισθῇ πρὸ τοῦ αἰδοίου ὡς μεγάλη ἐπιμήκης μᾶζα (*εἰκ. 98*).

Ἀκολούθως ἡ ὑστερεκτομὴ δύναται νὰ ἀποπερατωθῇ ὡς ἤδη αὕτη ἀνωτέρω περιεγράφη. Δέον ἵνα κατὰ τὸν τεμαχισμὸν μὴ παρεκκλίνωμεν τῆς μέσης γραμμῆς τοῦ ὄγκου, ἵνα οὕτω ἀποφύγωμεν τὰ εἰς τὰ πλάγια εὑρισκόμενα μεγάλα ἀγγεῖα. Ἀποφεύγομεν τὴν συχνὴν ἀπαγκίστρωσιν τῶν πολυοδοντικῶν λαβίδων καὶ τὴν δυσάρεστον παράτασιν τῆς ἐγχειρήσεως, ἐὰν συστήσωμεν νὰ πιέζῃ τις τὸν ὄγκον ἐκ τῶν ἄνω πρὸς τὰ ἐντὸς τῆς πυέλου. Τὸ τοιοῦτον παρέχει συγχρόνως τὴν καλλιτέραν ἀσφάλειαν διὰ τυχὸν ἀνεπιθύμητον ἀπόσπασιν ὄγκου καὶ παραμονὴν μισχωτῶν ὑπορρογονίων μυωμάτων ἐντὸς τῆς περιτοναϊκῆς κοιλότητος. Τὸν συσταθέντα ὑπὸ τοῦ Döderlein διχασμὸν τοῦ ὀπισθίου μητρικοῦ τοιχώματος ἐφαρμόζομεν μόνον ἐπὶ μυωμάτων, ἅτινα ἐπικάθηνται τοῦ ὀπισθίου τοιχώματος καὶ κεῖνται βαθέως ἐντὸς τῆς ἐλάσσονος πυέλου.

8. Εὐρεῖα κολπικὴ ἐγχείρησις τοῦ καρκινώματος τοῦ τραχήλου τῆς μήτρας

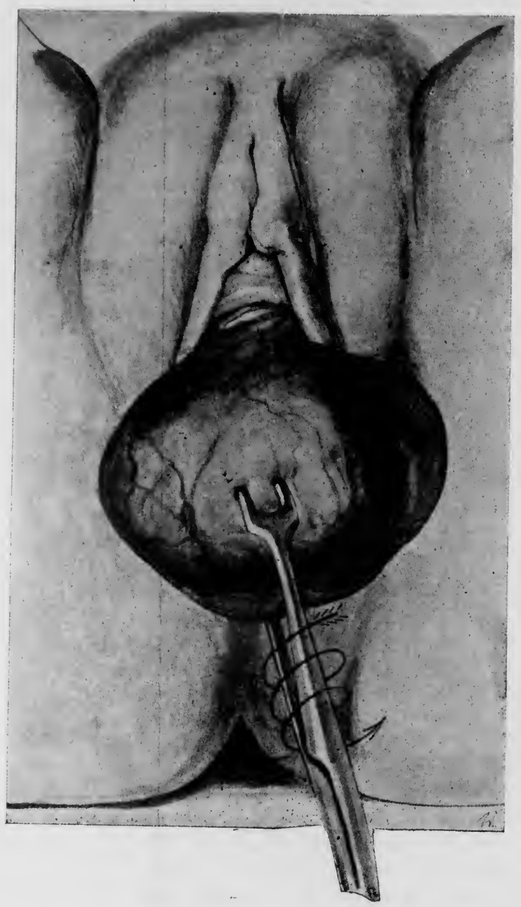
Σκοπὸς τῆς ἐγχειρήσεως ταύτης εἶναι ἡ ἀφαίρεσις ὅσον τὸ δυνατὸν μεγαλυτέρου τμήματος τῶν παραμητρίων ὁμοῦ μετὰ τῆς μήτρας, μετ' ἀπομόνωσιν τῶν οὐρητήρων. Τὴν ἐγχείρησιν ταύτην ἐπεξειργάσθη συστηματικῶς ὁ Schauta, ἀλλὰ διὰ τῆς εἰσαχθείσης ὑπὸ τοῦ Schuchardt παρακολπικῆς τομῆς κατωρθώθη τὸ πρῶτον ἡ ἀρτία τεχνικὴ τῆς ἐκτελέσεως. Περιοριζόμεθα εἰς τὸ νὰ ἀναφέρωμεν τὴν τεχνικήν, ἥτις ἀκολουθεῖται εἰς τὴν κλινικήν μου καὶ ἥτις διαφέρει εἴς τινα σημεῖα ἀπὸ τὰς μεθόδους τὰς ἀναφερομένας εἰς τὰ διάφορα χειρουργικὰ συγγράμματα.

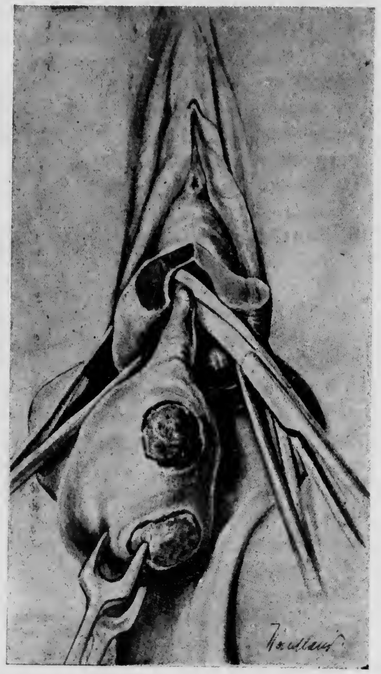
Τὸ συλληφθὲν δι' ἀγκιστρωτῶν λαβίδων κολπικὸν τοίχωμα τέμνεται περιφερικῶς (*εἰκ. 99*) καὶ ἀποκολλᾶται διὰ τοῦ κυρτοῦ ψαλιδίου κυκλικῶς ἀπὸ τοῦ ὑποκειμένου συνεκτικοῦ ἱστοῦ. Ἡ ἀπόστασις τῆς τομῆς ταύτης ἀπὸ τοῦ τραχήλου κανονίζεται ἀναλόγως τῆς προκειμένης περιπτώσεως, δέον ὅμως ἐν πάσῃ περιπτώσει αὕτη νὰ ὑπολογίζεται οὕτως, ὥστε αἱ καρκινωματώδεις μᾶζαι νὰ εἶναι δυνατὸν νὰ καλυφθοῦν τελείως ὑπὸ τῆς δημιουργουμένης κολπικῆς περιχειρίδος.

Τοποθετοῦμεν ἐπὶ τοῦ τραχήλου τεμάχιον γάζης διαβραχὲν διὰ βάμματος ἰωδίου καὶ συρράπτομεν ὑπεράνω τούτου τὸ πρόσθιον πρὸς τὸ ὀπίσθιον κολπικὸν τοίχωμα δι' ἰσχυρῶν ἐκ μετάξης μεμονωμένων ῥαφῶν, τοποθετουμένων πλησίων ἀλλήλων (*εἰκ. 100*) οὕτως, ὥστε νὰ παρεμποδίζηται ἀσφαλῶς ἡ ἔξοδος καρκινωματωδῶν οὐσιῶν ἢ λοιμογόνων μικροβίων. Ἀλλαγὴ χειροκτίων καὶ ἐργαλείων. Μετ' ἐκτέλεσιν εὐρείας τομῆς Schuchardt τοποθετεῖται ὁ ἐπινοηθεὶς ὑπ' ἐμοῦ ὀπίσθιος κολποδιαστολεὺς (*εἰκ. 26*), ὡς καὶ ὁ πρόσθιος καὶ πλάγιος τοιοῦτος, τὰ δὲ μετάξινα ῥάμματα συλληφθέντα διὰ λαβίδος Kocher ἕλκονται ἰσχυρῶς πρὸς τὰ κάτω. Ἀκολούθως ἡ ἀποκόλλησις τῆς κύστεως δέον νὰ γίνῃ μετὰ μεγάλης προσοχῆς, καθ' ὅσον ἐπὶ ὑπάρξεως διηθήσεων εὐκόλως ἐπέρχεται ῥῆξις αὐτῆς. Χρησιμοποιοῦμεν τὸ ψαλίδιον (*εἰκ. 102*), δὲν ἀποκολλῶμεν ὅμως τὴν κύστιν τόσον εὐρέως, ὅσον ἐπὶ τῆς ἁπλῆς ὑστερεκτομῆς, ἀλλὰ μόνον μέχρι τῶν οὐρητήρων, οἵτινες ἐπὶ παραμητρικῆς διηθήσεως δέον νὰ ἀποκαλυφθοῦν δι' ἀνατομικῆς παρασκευῆς. Μόνον ἐπὶ τοῦ πρωΐμου σταδίου, δυστυχῶς οὐχὶ τόσον συχνοῦ, καθ' ὃ τὰ παραμήτρια εἶναι ἀκόμη τελείως ἐλεύθερα, δυνάμεθα νὰ παραιτηθῶμεν ἀπὸ τῆς ἀναζητήσεως τῶν οὐρητήρων καὶ νὰ ἀπωθήσωμεν αὐτοὺς πρὸς τὰ ἄνω μετὰ τῆς κύστεως (*εἰκ. 101*). Μετὰ τὴν παρασκευὴν καὶ πρὸς τὰ ἄνω ἀπώθησιν τῶν οὐρητήρων, συγκρατοῦνται οὗτοι ἐν τῇ θέσει ταύτῃ ὁμοῦ μετὰ τῆς κύστεως διὰ τοῦ προσθίου κολποδιαστολέως καὶ παρασκευάζονται περαιτέρω ἐπιμελῶς τὰ παραμήτρια ἀμβλέως διὰ τοῦ δακτύλου (*εἰκ. 103*).

Τὰ μητριαῖα ἀγγεῖα διατέμνονται μεταξὺ δύο λαβίδων (*εἰκ 104*). Ἀφ' οὗ τὸ παραμήτριον κατὰ τὸ ἕτερον πλάγιον ἀπελευθερωθῇ κατὰ τὸν αὐτὸν τρόπον, διατέμνομεν τὴν κυστιομητρικὴν πτυχὴν καὶ τὸ περιτόναιον τοῦ Δουγλασείου χώρου. Οὕτω, ἀπελευθεροῦμεν ὅσον τὸ δυνατὸν εὐρυτέραν μοῖραν συνεκτικοῦ ἱστοῦ διὰ τοῦ δακτύλου, ὅπερ συντελεῖται ἄνευ σημαντικῆς αἱμορραγίας, ἕνεκα τῆς προηγηθείσης ἀπολινώσεως τῶν μητριαίων ἀγγείων. Μετὰ τὴν σύλληψιν τῆς μήτρας δι' ἀγκιστρωτῶν λαβίδων, ὡς ἐπὶ τῆς ἁπλῆς ὑστερεκτομῆς, καὶ ἕλξεως αὐτῆς πρὸς τὰ ἔξω (*εἰκ. 105*) ἀσφαλίζεται ἡ αἱμόστασις τῶν ὑπολοίπων ἀγγείων διὰ

τοποθετήσεως μεγάλων λαβίδων κατ' ἀμφότερα τὰ πλάγια τοῦ πλατέος συνδέσμου καὶ τῶν ἐξαρτημάτων καὶ ἐξαιρεῖται ἡ μήτρα μετὰ τῶν ἐξαρτημάτων. Ἡ ἐγχείρησις περατοῦται διὰ





Εἰκ. 92 — Μισχωτὸν ὑποβλενογόνιον μύωμα. Διατομὴ τοῦ πυοσθίου τοιχώματος τοῦ τραχήλου πρὸς ἀποκάλυψιν τῆς ἐκφύσεως τοῦ μίσχου.

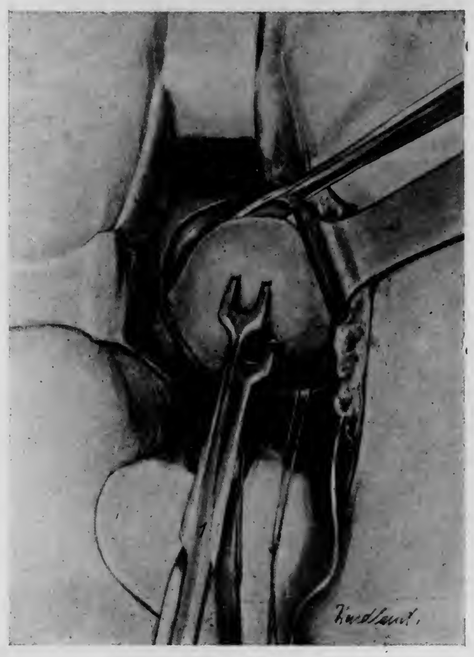
Εἰκ. 91.— Μέγας πολύπους ἐξωθηθεὶς ἐκτὸς τοῦ κολεοῦ (ὑποβλενογόνιον μύωμα). Οὗτος ἔχει συλληφθῆ διὰ πολυοδοντικῆς λαβίδος καὶ ἐξαιρεῖται διὰ συστροφῆς.

τῆς ῥαφῆς τοῦ περιτοναίου καὶ τοῦ κολεοῦ ἀκριβῶς ὡς καὶ κατὰ τὴν ἁπλῆν κολπικὴν ὑστερεκτομήν. Ἐφαρμόζομεν παροχέτευσιν ἢ τὸν ἡμέτερον καθ' ἕλξιν πωματισμόν, ἐν περιπτώσει μὴ ἐπιτευχθείσης ἐπαρκοῦς αἱμοστάσεως, ὡς τὸ τοιοῦτον συμβαίνει πολλάκις ἐπὶ προκεχωρημένων περιπτώσεων.

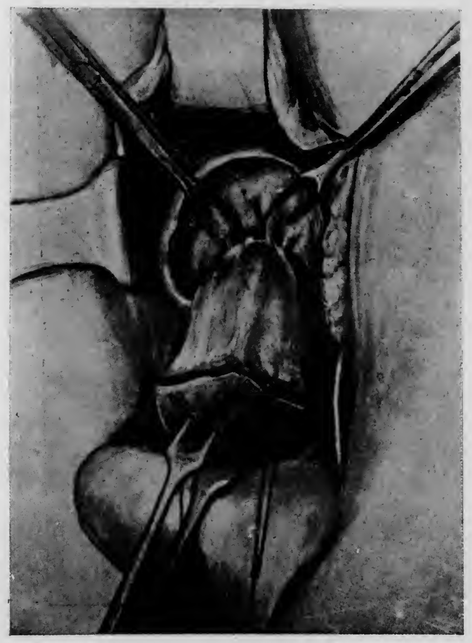
9. Κοιλιακαὶ ἐγχειρήσεις ἐπὶ τῆς μήτρας.

α') Τὸ μισχωτὸν ὑπορρογόνιον μύωμα.

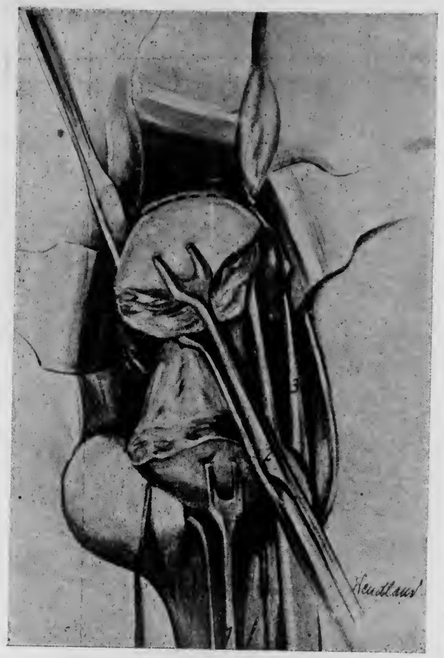
Μετὰ τὴν διάνοιξιν τῆς περιτοναϊκῆς κοιλότητος περιδένεται ἁπλῶς ὁ μίσχος τοῦ ὄγκου καὶ διατέμνεται. Προκειμένου περὶ μίσχου ἔχοντος εὐρεῖαν βάσιν, ἐκτέμνομεν τοῦτον σφηνοειδῶς ἐκ τοῦ μητρικοῦ τοιχώματος καὶ συρράπτομεν τὸ τραῦμα διά τινων μεμονωμένων ραφῶν.



Εἰκ. 93.—Κολπικὴ ἐξαίρεσις τῆς μυωματώδους μήτρας διὰ κατατεμαχισμοῦ. Τὰ διακρινόμενα εἰς τὴν εἰκόνα ῥάμματα ἔχουν τοποθετηθῆ ἐπὶ τοῦ διχασύντος τραχήλου ὅστις ἔχει ἀπωθηθῆ πρὸς τὸ βάθος τοῦ κολεοῦ. Ἐκ τοῦ ὀπισθίου τοιχώματος τῆς μήτρας, συλλαμβανομένου διὰ πολυοδοντικῆς λαβίδος, ἐκτέμνεται διὰ μαχαιρίου σφηνοειδὲς τεμάχιον.



Εἰκ. 94.—Κολπικὴ ἐξαίρεσις τῆς μυωματώδους μήτρας διὰ κατατεμαχισμοῦ. Πρὸ τῆς ἐκτομῆς τοῦ σφηνοειδοῦς τμήματος συλλαμβάνονται τὰ τραυματικὰ χείλη τῆς μήτρας ἐκ νέου διὰ πυλυοδοντικῶν λαβίδων.



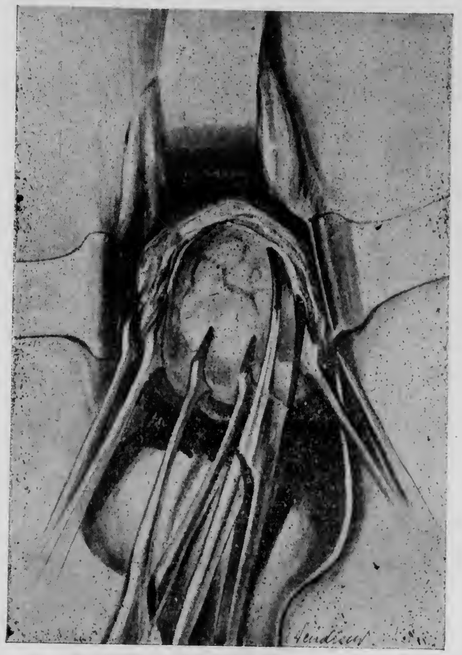
Εἰκ. 95.—Κολπικὴ ἐξαίρεσις τῆς μυωματώδους μήτρας διὰ τεμαχισμοῦ. Ἐκ τοῦ μητρικοῦ τοιχώματος, τὸ ὁποῖον συνελήφθη καὶ ἕλκεται ἰσχυρῶς πρὸς τὰ κάτω, ἐκτέμνεται διὰ τοῦ μαχαιρίου μέγα τεμάχιον.

Εἰκ. 96.—Κολπικὴ ἐξαίρεσις τῆς μυωματώδους μήτρας διὰ κατατεμαχισμοῦ. Μετὰ τὴν ἐκτομὴν τῶν δύο πρώτων τεμαχίων ἕλκεται τὸ μητρικὸν τοίχωμα τοῦ ἀριστεροῦ πλαγίου ἰσχυρῶς πρὸς τὰ κάτω καὶ ἐκτέμνεται ὁμοίως τεμάχιον ἐξ αὐτοῦ. Πρὸ τῆς ἐξ ὁλοκλήρου ἀποκοπῆς τοποθετεῖται πολυοδοντικὴ λαβὶς κατὰ τὸ ἀριστερὸν ἡμιμόριον τῆς μήτρας.

Εἰς ἑκάστην περίπτωσιν ἐπακολουθεῖ λεπτομερὴς ἐξέτασις τῆς μήτρας πρὸς ἀνεύρεσιν ἄλλων μυωματωδῶν ὄγκων, οὓς ἀφαιροῦμεν, καὶ ἂν ἔτι πρόκειται περὶ λίαν μικρῶν τοιούτων.

β') Ἡ ἐκπυρήνισις μυωμάτων.

Διὰ ταύτης ἐννοοῦμεν τὴν ἀποφλοίωσιν τῶν ὑπορρογονίων καὶ διαμέσων μυωμάτων ἀπὸ τῆς ἰνώδους αὐτῶν κάψης μετὰ διατηρήσεως τῆς μήτρας. Ἐκτελοῦμεν τὴν μέθοδον ταύτην μόνον κατ' ἐξαίρεσιν, καθ' ὅσον ἐπὶ τοιαύτης μήτρας ἥτις ἔχει προδιάθεσιν εἰς γένεσιν μυωμάτων συνήθως ἐξελίσσονται ἐκ νέου μυωματώδεις ὄγκοι καὶ διότι ἡ πρόγνωσις τῆς ἴσως



Εἰκ. 97.—Κολπικὴ ἐξαίρεσις τῆς μυωματώδους μήτρας διὰ κατατεμαχισμοῦ. Ἐν ἀρκετοῦ μεγέθους μύωμα ἐκπυρηνίζεται ἐκ τοῦ τοιχώματος τῆς μήτρας.

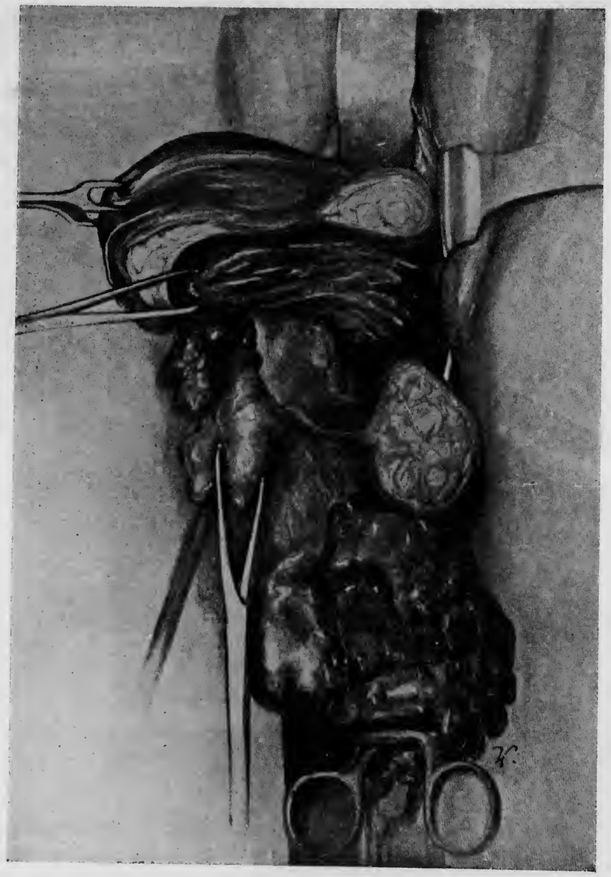
ἁπλῆς καθ' ἑαυτὴν ἐγχειρήσεως, δὲν εἶναι καλλιτέρα τῆς ὁλικῆς ἢ ὑφολικῆς ὑστερεκτομῆς ὅσον ἀφορᾷ εἰς τὴν θνησιμότητα καὶ τὴν νοσηρότητα. Φέρομεν ἐπὶ τοῦ ὄγκου τομήν, ἥτις διανοίγει τὴν κάψαν, καὶ ἀποφλοιοῦμεν τὸν ὄγκον ἀμβλέως ἢ διὰ τοῦ ψαλιδίου ἀπὸ τῆς κοίτης αὐτοῦ. Ἀφ' οὗ ἀφαιρεθῇ ἅπας ὁ πλεονάζων ἱστός, συρράπτομεν τὸ τραῦμα κατὰ στρώματα ἐκ τῶν ἔσω πρὸς τὰ ἔξω, προσέχοντες ἐπακριβῶς ἵνα μὴ δημιουργῆται χῶρος, ὅστις θὰ ἠδύνατο νὰ συντελέσῃ εἰς κατακράτησιν ἐκκριμάτων μετὰ τῶν ἐπακολούθων αὐτῶν.

γ') Ἡ ἀπὸ τῆς κοιλίας σφηνοειδὴς ἐκτομὴ τῆς μήτρας κατὰ Λογοθετόπουλον.

Πρόκειται κατ' ἀρχὴν περὶ τῆς αὐτῆς ἐγχειρήσεως ἣν ἤδη περιεγράψαμεν κατὰ τὰς κολπικὰς ἐγχειρήσεις. Μετὰ τὴν ἐκτομὴν σφηνοειδοῦς τεμαχίου ἐκ τῆς μήτρας, ἥτις ἔχει συλληφθῇ κατὰ τὰ δύο πλάγια διὰ δύο ἀγκιστρωτῶν λαβίδων *(εἰκ 106)*, συρρά-

πτονται τὰ τραυματικὰ χείλη πρὸς ἄλληλα. Διὰ τὴν περιτοναϊκὴν ἐπικάλυψιν χρησιμοποιοῦνται οἱ πλατεῖς σύνδεσμοι, οἵτινες φέρονται πλησίον ἀλλήλων.

Συρράπτομεν τὸ μεσοσαλπίγγιον, τὸ μεσοωθήκιον καὶ ἐν ἀνάγκῃ καὶ τὴν σάλπιγγα τοῦ ἑνὸς πλαγίου πρὸς τὸ ἕτερον ἐπὶ τῆς ὀπισθίας ἐπιφανείας τῆς μήτρας *(εἰκ. 107)*. Πρὸς ἐπικάλυψιν τῆς προσθίας ἐπιφανείας ἔχομεν εἰς τὴν διάθεσίν μας ἐπαρκῆ ἔκτασιν περιτοναίου

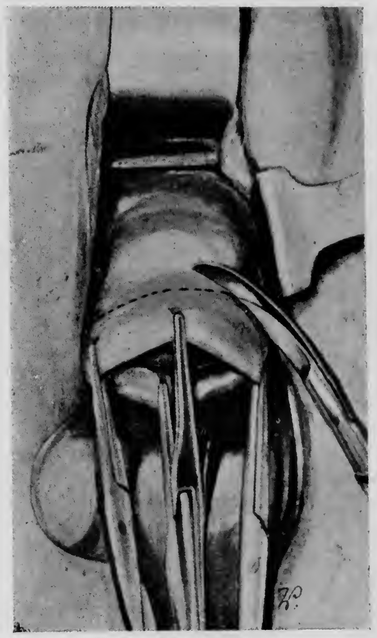


Εἰκ. 98.—Κολπικὴ ἐξαίρεσις τῆς μυωματώδους μήτρας διὰ κατατεμαχισμοῦ. Μέγα τεμάχιον ἀποσυντεθειμένου μυώματος ἐξαιρεῖται διὰ κατατεμαχισμοῦ. Τὸ μεγαλύτερον μέρος τοῦ ὄγκου ἔχει ἤδη ἐξαιρεθῆ καὶ ἡ μήτρα μετὰ τοῦ ὑπολοίπου τοῦ μυώματος ἔχει ἑλκυσθῆ πρὸ τοῦ αἰδοίου.

καὶ κύστεως. Τὸ περιτόναιον τῆς εὐρέως ἀποκολληθείσης ἀπὸ τῆς μήτρας οὐροδόχου κύστεως συρράπτεται πρὸς τὸ ἐλεύθερον ἄνω χεῖλος τῶν συνενωθέντων πλατέων συνδέσμων καὶ ἐν ἀνάγκῃ πρὸς τὰς σάλπιγγας *(εἰκ. 108)*. Εἰς τὰς ἐγχειρηθείσας οὕτω ἡμετέρας περιπτώσεις τὸ ἀποτέλεσμα ὑπῆρξεν ἐξαίρετον, ὥστε διὰ τῆς διατηρήσεως τμήματος τοῦ βλενογόνου τῆς μήτρας ἡ ἔμμηνος ρύσις παρέμεινε φυσιολογική.

δ') Ἡ ὑπερκολπικὴ ὑστερεκτομή.

Ἡ κοιλιακὴ κοιλότης διανοίγεται διὰ μέσης τομῆς ἢ δι' ἐγκαρσίας τομῆς κατὰ Pfannenstiel, ἣν ὅμως ἐκτελοῦμεν μόνον ἐφ' ὅσον ὁ ὄγκος δὲν ὑπερβαίνει τὸν ὀμφαλόν. Θὰ ἠδυνάμεθα βεβαίως νὰ ἐξαιρέσωμεν καὶ μυώματα μεγάλου μεγέθους διὰ τῆς ἐγκαρσίας τομῆς διὰ τεμαχισμοῦ (morcelement), ἐπειδὴ ὅμως κατὰ τὴν διάνοιξιν τῆς κοιλότητος τῆς μήτρας



Εἰκ. 99.—Εὐρεῖα κολπικὴ ὑστερεκτομὴ ἐπὶ καρκινώματος τοῦ τραχήλου τῆς μήτρας. Τὸ κολπικὸν τοίχωμα συλλαμβάνεται διὰ 4 ἀγκιστρωτῶν λαβίδων καὶ τύμνεται περιφερικῶς.

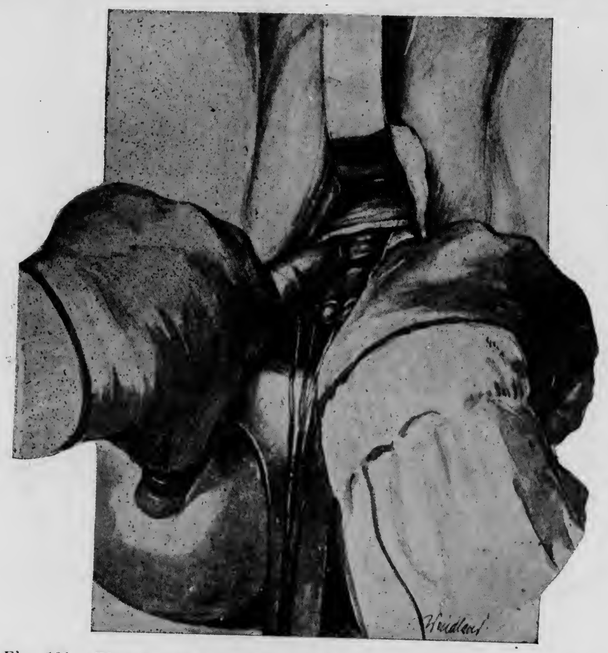
Εἰκ. 100.—Εὐρεῖα κολπικὴ ὑστερεκτομὴ ἐπὶ καρκινώματος τοῦ τραχήλου τῆς μήτρας. Τὸ πρόσθιον καὶ ὀπίσθιον κολπικὸν τοίχωμα συρράπτονται πρὸς ἄλληλα ἀφ' οὗ προηγουμένως τοποθετηθῆ πρὸ τοῦ τραχήλου τεμάχιον γάζης ἐμβραχὲν διὰ βάμβακος ἰωδίου.

δὲν εἶναι δυνατὸν νὰ τηρηθῆ ἡ ἀπόλυτος ἀσηψία, προτιμῶμεν τὴν μέσην τομήν, ἥτις ἐν ἀνάγκῃ δύναται ἀρκούντως νὰ ἐπεκταθῆ. Ἀφ' οὗ συλληφθῆ ὁ πυθμὴν τῆς μήτρας διὰ πολυοδοντικῆς λαβίδος ἢ διὰ τοῦ ἐκπωματιστῆρος (Doyen) καὶ ἑλκυσθῆ πρὸς τὰ ἔξω, ἀρχόμεθα τοῦ ἀποχωρισμοῦ τῶν δεξιῶν ἐξαρτημάτων ὡς ἀκολούθως :

Διατρυπῶμεν διὰ τοῦ δεξιοῦ μέσου δακτύλου τὸν πλατὺν σύνδεσμον κάτω τῆς ἐκφύσεως τοῦ στρογγύλου συνδέσμου παρὰ τὴν μήτραν καὶ ἔλκομεν τὰ ἐπὶ τοῦ δακτύλου κείμενα ἐξαρτήματα (στρογγύλος σύνδεσμος, ἴδιος σύνδεσμος τῆς ὠοθήκης καὶ σάλπιγξ) πρὸς τὸ πλάγιον πυελικὸν τοίχωμα. Εἰσερχόμεθα ἀκολούθως διὰ τοῦ δείκτου τῆς ἄλλης χειρὸς μεταξὺ τῶν πετάλλων τοῦ ὁμωνύμου πλατέος συνδέσμου καὶ ἀποχωρίζομεν τὰ πέταλα αὐτοῦ ἀπ' ἀλλήλων πρὸς τὰ κάτω μέχρι τῆς οὐροδόχου κύστεως, ἐνῷ ταυτοχρόνως ἡ κυστιομητρικὴ πτυχὴ τοῦ περιτοναίου ἀποκολλᾶται κατὰ τὸ πλάγιον αὐτῆς ἀπὸ τῆς μήτρας *(εἰκ. 109)*.

Διατέμνομεν ἀκολούθως τὰ ἐπικαθήμενα ἐπὶ τοῦ δακτύλου ἐξαρτήματα μεταξὺ δύο λαβίδων *(εἰκ. 110)*. Ἐὰν ὅμως ὁ στρογγύλος σύνδεσμος ἔχει ὀλίγον ἀπομακρυνθῆ ἀπὸ τῆς σάλ-

πιγγος, ὡς τὸ τοιοῦτον συναντᾶ τις συχνάκις ἐπὶ μυωμάτων, ἀπολινοῦμεν τοῦτον ἰδιαιτέρως. Τὸ ἀποκολληθὲν ἤδη τμῆμα τοῦ περιτοναίου τῆς κύστεως συλλαμβάνεται διὰ χειρουργικῆς λαβίδος καὶ διατέμνεται ἐγκαρσίως μέχρι τοῦ ἀριστεροῦ χείλους τῆς μήτρας. Ἐν ἀντιθέσει πρὸς τὴν ὁλικὴν ἐξαίρεσιν κατὰ τὴν ὑπερκολπικὴν ὑστερεκτομὴν ἡ οὐροδόχος κύστις δέον νὰ ἀπωθῆται μόνον ὀλίγον πρὸς τὰ κάτω. Ἡ μήτρα μετὰ ταῦτα ἕλκεται ἰσχυρῶς πρὸς τὰ ἔξω καὶ ἀριστερά, τὸ δεξιὸν παραμήτριον μετὰ τῶν μητριαίων ἀγγείων συλλαμβάνεται δι' ἰσχυρᾶς αἱμοστατικῆς κυρτῆς λαβίδος καὶ διατέμνεται πλησίον τοῦ χείλους τῆς μήτρας, ἵνα μετ' ἀσφα-



Εἰκ. 101.—Εὐρεῖα κολπικὴ ὑστερεκτομὴ ἐπὶ καρκινώματος τοῦ τραχήλου. Ἡ κύστις ἀπωθεῖται πρὸς τὰ ἄνω διὰ τῶν δακτύλων οὕτω δὲ οἱ οὐρητῆρες ἀπομακρύνονται ἀπὸ τοῦ ἐγχειρητικοῦ πεδίου.

λείας προστατεύσωμεν τὸν οὐρητῆρα *(εἰκ. 111)*. Ἐνῷ συνεχῶς ἕλκεται ὁ ἐκπωματιστὴρ διατέμνεται ἡ μήτρα δι' ἰσχυροῦ ψαλιδίου ἐγκαρσίως κατὰ τὸν ἰσθμὸν τοῦ τραχήλου *(εἰκ. 112)*, ὁπότε ἀποκαλύπτονται τὰ μητριαῖα ἀγγεῖα τὰ πορευόμενα ἐντὸς τοῦ ἀντιθέτου παραμητρίου. Συλλαμβάνομεν αὐτὰ δι' ἰσχυρᾶς λαβίδος καὶ διατέμνομεν *(εἰκ. 112)*. Τέλος συλλαμβάνεται ἐκ τῶν ἄνω ὁ ἀριστερὸς πλατὺς σύνδεσμος διὰ μιᾶς ἢ δύο λαβίδων καὶ ἐκτέμνεται ἡ μήτρα μὴ συμπεριλαμβανομένων τῶν ἐξαρτημάτων. Οὕτω ἡ ὅλη ἐγχείρησις μετά τινα ἐξάσκησιν εἶναι δυνατὸν νὰ ἐκτελεσθῇ μέχρι τοῦ σημείου τούτου ἐντὸς 2—3 λεπτῶν. Διὰ συρραφῆς τοῦ προσθίου πρὸς τὸ ὀπίσθιον τοίχωμα τοῦ τραχήλου διά τινων μεμονωμένων ραφῶν ἐπίσχεται ἡ ἐλαφρὰ αἱμορραγία ἐκ τοῦ τραύματος τῆς μήτρας. Ἀντικαθιστῶντες εἶτα τὰς λαβίδας δι' ἀπολινώσεων περαίνομεν τὴν ἐγχείρησιν δι' ἐπιμελοῦς περιτοναιοπλαστικῆς *(εἰκ. 114 καὶ 115)*.

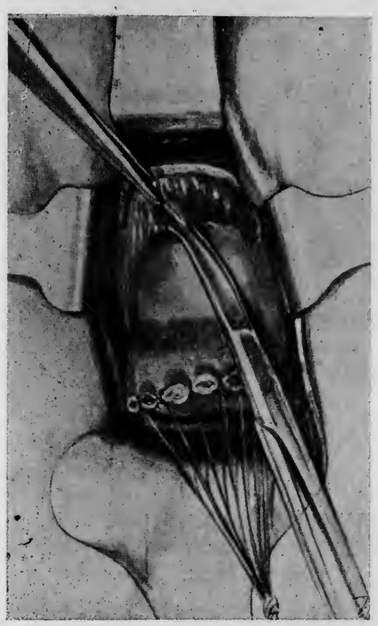
Ἡ ὑπερκολπικὴ ὑστερεκτομὴ θεωρεῖται ὑπ' ἐμοῦ ὡς καὶ ὑπὸ τῶν πλείστων ἄλλων χειρουργῶν εἰς ἁπλᾶς περιπτώσεις ὡς μέθοδος ἐκλογῆς, διότι ἐκτελεῖται ταχύτερον καὶ κατὰ τὴν στατιστικὴν τοῦ Albrecht ἔχει μικροτέραν θνησιμότητα τῆς ὁλικῆς ὑστερεκτομῆς. Τὰ τυχὸν ἐξιδρώματα τῶν κολοβωμάτων ἅτινα ἐπιβαρύνουν τὴν νοσηρότητα τῆς ὑπερκολπικῆς ὑστερεκτομῆς

ὑποχωροῦν διὰ συντηρητικῆς θεραπείας σχεδὸν πάντοτε. Ἡ ἀνάπτυξις καρκινωμάτων ἐπὶ τοῦ ἐναπομείναντος τραχήλου εἶναι σπανία (0,32—0,38 %). Οὕτως, ὥστε αὕτη δὲν αὐξάνει αἰσθητῶς τὴν γενικὴν θνησιμότητα τῆς ὑπερκολπικῆς ἐγχειρήσεως.

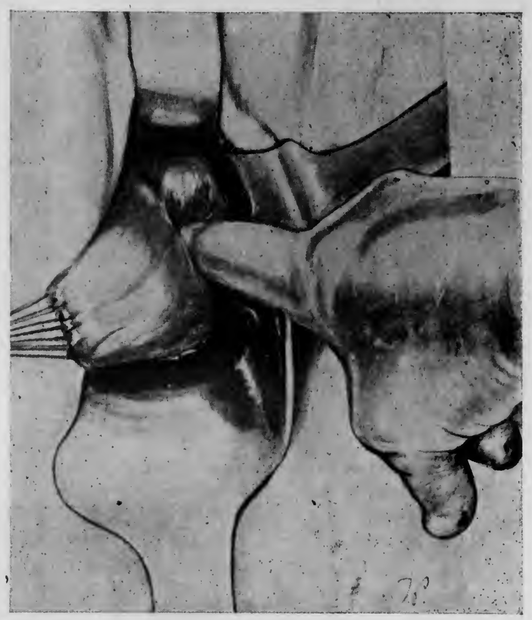
ε') Κοιλιακὴ ὁλικὴ ὑστερεκτομή.

Μετὰ ἐπιμελῆ ἀπολύμανσιν τοῦ κολεοῦ πωματίζομεν τοῦτον διὰ λωρίδος γάζης, ἥτις χρησιμεύει πρὸς ἀπορρόφησιν τῶν ἐκκριμάτων, τῶν ἐξερχομένων ἐκ τοῦ τραχήλου κατὰ τὴν ἐγχείρησιν. Τὸ ἄκρον αὐτῆς δέον νὰ προβάλῃ ἀρκετὰ ἔξω τοῦ κολεοῦ, ἵνα αὕτη δύναται νὰ ἀφαιρεθῇ εὐχερῶς εἷς οἱανδήποτε στιγμὴν ὑφ' ἑνὸς βοηθοῦ.

Ἡ ἔναρξις τῆς ἐγχειρήσεως τελεῖται ὡς καὶ κατὰ τὴν ὑπερκολπικὴν ὑστερεκτομήν. Σύλληψις τῆς μήτρας διὰ πολυοδοντικῆς λαβίδος ἢ διὰ τοῦ ἐκπωματιστῆρος, ἕλξις τῆς μήτρας πρὸς



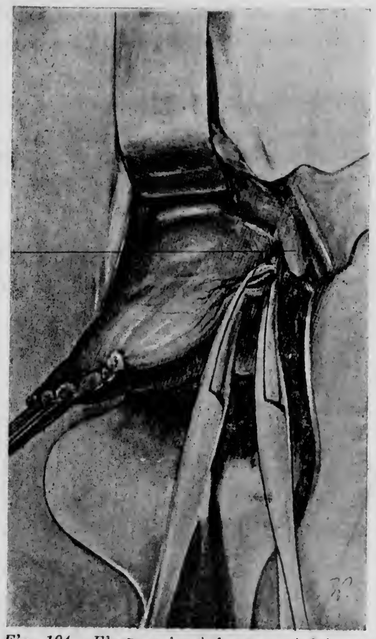
Εἰκ. 102. - Εὐρεῖα κολπικὴ ὑστερεκτομὴ ἐπὶ καρκινώματος τοῦ τραχήλου τῆς μήτρας. Ἀποκόλλησις τῆς κύστεως διὰ ψαλιδίου καὶ ἀνατομικῆς λαβίδος.



Εἰκ. 103.—Εὐρεῖα κολπικὴ ὑστερεκτομὴ ἐπὶ καρκινώματος τοῦ τραχήλου τῆς μήτρας. Τὸ ἀριστερὸν παραμήτριον παρασκευάζεται διὰ τοῦ δακτύλου.

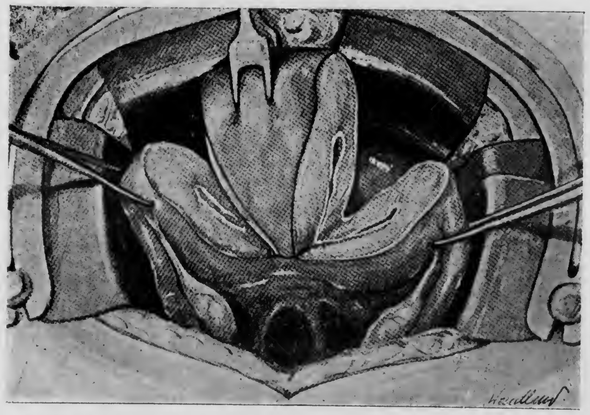
τὸ κοιλιακὸν τραῦμα καὶ ἀποχωρισμὸς αὐτῆς ἀπὸ τῶν δεξιῶν ἐξαρτημάτων ὡς ἄνω *(εἰκ. 109)*. Εἶναι ὅμως ἀπαραίτητον ἵνα ἡ κύστις ἀπωθηθῇ καλῶς, πρὸς τὰ κάτω, ἰδίᾳ κατὰ τὰ πλάγια αὐτῆς οὕτως, ὥστε νὰ ἀποκαλυφθῇ ἡ κάτω μοῖρα τοῦ κολεοῦ *(εἰκ. 116)*.

Τὸ παραμήτριον μετὰ τῶν ἐν αὐτῷ εὑρισκομένων ἀγγείων συλλαμβάνεται ὅσον τὸ δυνατὸν πλησίον τῆς μήτρας καὶ διατέμνεται. Ὁ οὐρητὴρ δὲν διατρέχει κίνδυνον ἐφ' ὅσον προηγουμένως ἡ οὐροδόχος κύστις ἔχει καλῶς ἀπωθηθῇ καὶ ἐφ' ὅσον δὲν ἀπομακρυνόμεθα ἀπὸ τοῦ χείλους τῆς μήτρας. Κατὰ τὸν αὐτὸν τρόπον συλλαμβάνονται τὰ ἀριστερὰ ἐξαρτήματα καὶ τὰ μητριαῖα ἀγγεῖα. Ἐνῷ ἡ μήτρα ἕλκεται τότε ἰσχυρῶς πρὸς τὴν διεύθυνσιν τῆς ἠβικῆς συμφύσεως διατέμνομεν ἐγκαρσίως διὰ τοῦ ψαλιδίου τὸ περιτόναιον τοῦ Λουγλασείου καὶ ἀπωθοῦμεν διὰ τολυπίου τὸ ἀπευθυσμένον ὀλίγον πρὸς τὰ κάτω. Ἡ μήτρα ἕλκεται ἐκ νέου



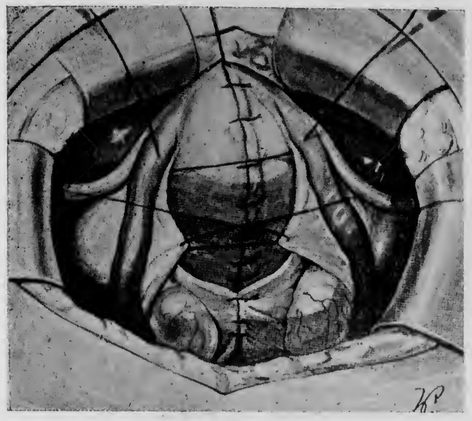
Εἰκ. 104.—Εὐρεῖα κολπικὴ ὑστερεκτομὴ ἐπὶ καρκινώματος τοῦ τραχήλου τῆς μήτρας. Ὁ ἀριστερὸς οὐρητὴρ ἔχει ἐλευθερωθῆ. Τὰ ἀριστερὰ μητριαῖα ἀγγεῖα ἔχουν συλληφθῆ διὰ λαβίδων.

Εἰκ. 105.—Εὐρεῖα κολπικὴ ὑστερεκτομὴ ἐπὶ καρκινώματος τοῦ τραχήλου τῆς μήτρας. Ἡ μήτρα ἔχει ἐλκυσθῆ πρὸ τοῦ αἰδοίου καὶ εἰς τὰ ἀριστερὰ ἐξαρτήματα ἔχει τοποθετηθῆ λαβίς.



Εἰκ. 106.—Ἡ ἀπὸ τῆς κοιλίας ὀβελιαία ἐκτομὴ μητρικοῦ τοιχώματος κατὰ **Λογοθετόπουλον.** *Τὰ χείλη τῆς μήτρας ἔχουν συλληφθῆ δι' ἀγκιστρωτῶν λαβίδων. Ἐκ τοῦ σώματος τῆς μήτρας ἐξαιρεῖται σφηνοειδὲς τμῆμα.*

πρὸς τὸν ὀμφαλὸν καὶ ἐνῷ ὁ βοηθὸς κρατεῖ καλῶς πρὸς τὰ κάτω τὴν οὐροδόχον κύστιν διὰ τολυπίου διακρατουμένου ὑπὸ λαβίδος, διατέμνομεν διὰ τοῦ μαχαιρίου τὸ πρόσθιον τοίχωμα τοῦ τραχήλου κατὰ τὴν μέσην γραμμὴν καὶ ἐπιμηκύνομεν τὴν τομὴν πρὸς τὰ κάτω μέχρι οὗ διανοιγῆ ἐπαρκῶς ὁ κολεὸς *(εἰκ. 116)*. Ἐν ἀμφιβολίᾳ ὡς πρὸς τὴν θέσιν τοῦ τραχήλου καθοδηγούμεθα ψηλαφοῦντες διὰ τοῦ δακτύλου. Ἀφοῦ ἀφαιρεθῆ ἐκ τῶν κάτω ὑπό τινος βοηθοῦ ἡ γάζα, ἡ τοποθετηθεῖσα κατὰ τὴν προπαρασκευήν, συλλαμβάνομεν τὰ τραυματικὰ χείλη τοῦ κολεοῦ κάτω τοῦ τραχηλικοῦ στομίου διὰ δύο ἀγκιστρωτῶν λαβίδων, ἕλκομεν ταῦτα, ἀπομακρύνομεν ἀπ' ἀλλήλων καὶ εἰσάγομεν ἐντὸς τοῦ αὐλοῦ τοῦ κολεοῦ τολύπιον διακρατούμενον ὑπὸ



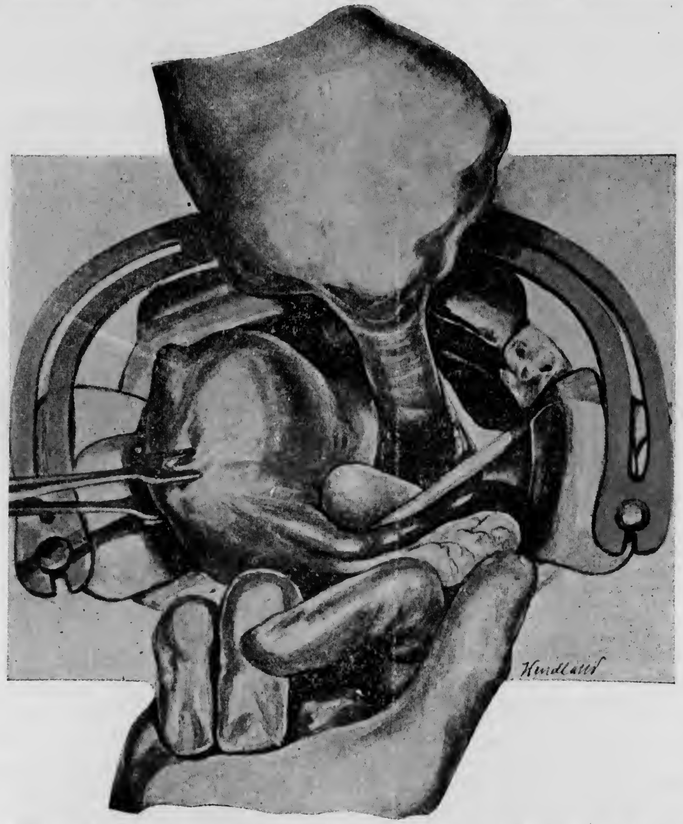
Εἰκ. 107.—Ἡ ἀπὸ τῆς κοιλίας ὀβελιαία ἐκτομὴ μητρικοῦ τοιχώματος κατὰ **Λογοθετόπουλον.** *Περιτοναιοπλαστικὴ τοῦ συρραφέντος ὀπισθίου τοιχώματος διὰ χρησιμοποιήσεως τῶν πλατέων συνδέσμων καὶ τῶν σαλπίγγων.*

Εἰκ. 108 – Ἡ ἀπὸ τῆς κοιλίας ὀβελιαία ἐκτομὴ μητρικοῦ τοιχώματος κατὰ **Λογοθετόπουλον.** *Τὰ ράμματα τοῦ προσθίου μητρικοῦ τοιχώματος καλύπτονται διὰ τοῦ μητρικοῦ κρασπέδου τοῦ περιτοναίου.*

λαβίδος, ὅπερ παρεμποδίζει τὴν ἔξοδον κολπικῶν ἐκκριμάτων πρὸς τὴν κοιλίαν. Ὁ τράχηλος συλλαμβανόμενος ἀκολούθως κατὰ τὸ ὀπίσθιον χεῖλος αὐτοῦ διὰ δυοδοντικῆς λαβίδος ἕλκεται διὰ μέσου τῆς ὀπῆς τοῦ κολεοῦ πρὸς τὴν περιτοναϊκὴν κοιλότητα καὶ ἰσχυρῶς πρὸς τὰ ἄνω, ἀκολούθως δὲ διατέμνεται διὰ τοῦ ψαλιδίου ὁ κολεὸς περιφερικῶς *(εἰκ. 117—118)*. Τὸ ἐντὸς τοῦ κολεοῦ εὑρισκόμενον τολύπιον ἀπομακρύνεται μετὰ προσοχῆς ἀφοῦ συλληφθῆ τὸ πρόσθιον καὶ ὀπίσθιον τραυματικὸν χεῖλος τοῦ κολεοῦ διὰ λαβίδων Kocher καὶ ἀντικαθίσταται διὰ λωρίδος γάζης *(εἰκ. 119)* ἣν διαβιβάζομεν πρὸς τὸν κολεὸν διὰ τῆς ἀγκιστροφόρου μήλης *(βλ. εἰκ. 5)* εὐθὺς δὲ μόλις ἀναφανῆ πρὸ τοῦ αἰδοίου τὸ κάτω αὐτῆς ἄκρον, ἀποκόπτομεν ταύτην ἀκριβῶς ἄνω τοῦ κοιλιακοῦ πέρατος τοῦ κολεοῦ. Ἡ λωρὶς αὕτη χρησιμεύει πρὸς παροχέτευσιν. Ἡ αἱμορραγία ἐκ τῶν τραυματικῶν χειλέων τοῦ κολεοῦ ἐπίσχεται δι' ἀπολινώσεων διὰ βελόνης. Αἱ λαβίδες ἀντικαθίστανται ὑπὸ ἀπολινώσεων καὶ τὸ ὅλον ἐγχειρητικὸν πεδίον ἐλέγχεται ὡς πρὸς τὴν αἱμόστασιν. Ὁ κολεὸς συγκλείεται διὰ συνεχοῦς ραφῆς, καθ' ἣν δέον εἰ δυνατὸν νὰ μὴ συλλαμβάνηται ὁ βλενογόνος αὐτοῦ. Μετὰ τὴν τελείαν αἱμόστασίν ἐνεργοῦμεν τὴν περιτοναιοπλαστικὴν μετ' ἐνταφιασμοῦ τῶν κολοβωμάτων διὰ συρραφῆς τοῦ περιτοναίου τῆς κύστεως πρὸς τὸ περιτόναιον τοῦ ἀπευθυσμένου. Ἡ περιγραφεῖσα ἐνχείρησις ἐκτελεῖται μόνον ἐπὶ οὐχὶ ἐπιπλόκων περιπτώσεων κατὰ τὸν τυπικὸν τοῦτον τρόπον. Ἐν περιπτώσει συμφύσεων δέον νὰ λυθοῦν αὗται προηγουμένως διὰ παρασκευῆς, τῇ βοηθείᾳ χειρουργικῆς λαβίδος καὶ ψαλιδίου πρὶν ἢ προβῶμεν εἰς τὴν ἐξαίρεσιν τοῦ ὄγκου.

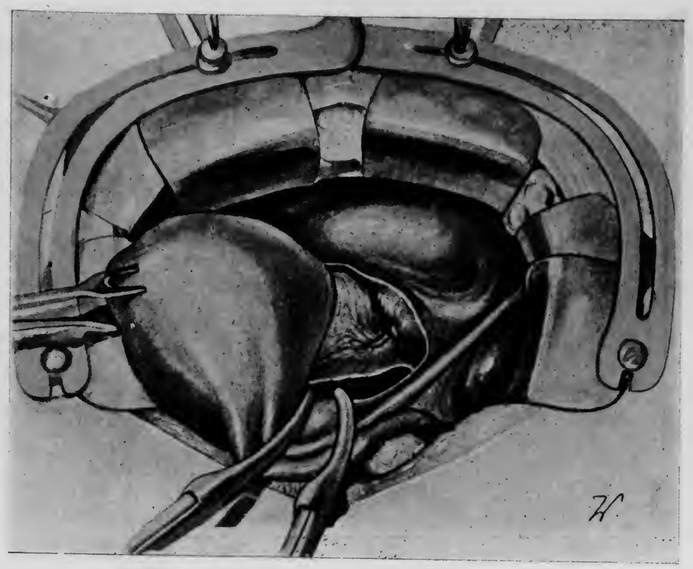
Ἐπὶ ἐνδοσυνδεσμικῆς ἀναπτύξεως μυώματος τέμνομεν τὸν πλατὺν σύνδεσμον μεταξὺ τοῦ στρογγύλου συνδέσμου καὶ τῆς σάλπιγγος καὶ ἀποκολλῶμεν προσεκτικῶς τὸν ὄγκον ἀπὸ

τοῦ περιβάλλοντος αὐτὸν πλατέος συνδέσμου. Ἰδιαιτέρα προσοχὴ ἀπαιτεῖται ἵνα μὴ τρωθῇ ὁ οὐρητήρ, ὅστις συνήθως ἔχει μετατοπισθῆ ὑπὸ τοῦ ὄγκου. Εἶναι προτιμότερον πρὶν ἢ προχωρήσωμεν εἰς τὴν ἐγχείρησιν νὰ ἀπομονώσωμεν αὐτὸν καθ' ὅλην τὴν πυελικὴν αὐτοῦ διαδρομήν. Δυνάμεθα νὰ εὐχεράνωμεν τὴν ἐνίοτε λίαν δυσχερῆ ἐξαίρεσιν μυωματωδῶν ὄγκων

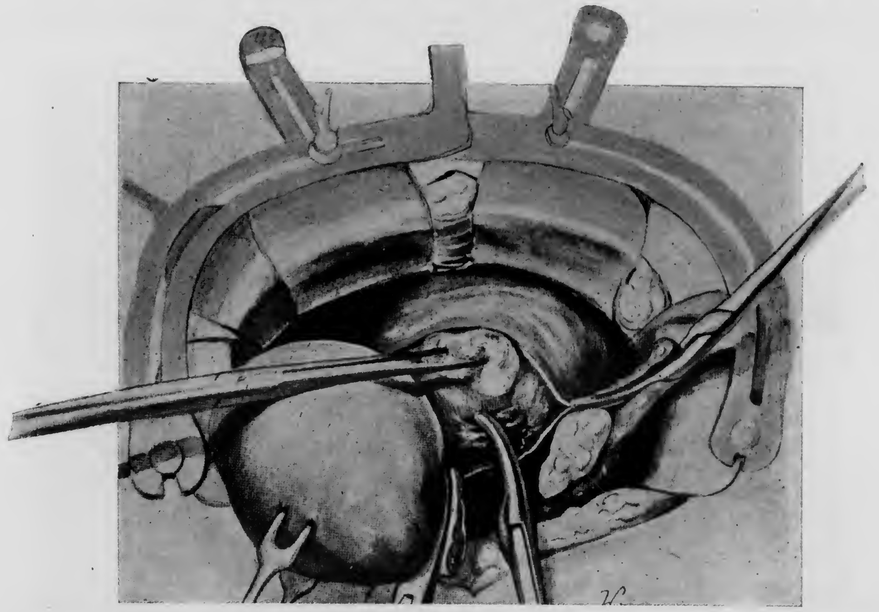


Εἰκ. 109.—Ὑπερκοίπικὴ ὑστερεκτομή. Ἡ μήτρα ἔχει συλληφθῆ διὰ πυλνοδοντικῆς λαβίδος καὶ ἕλκεται ἰσχυρῶς πρὸς τὰ ἔξω καὶ ἀριστερά. Ὁ δεξιὸς πλατὺς σύνδεσμος διατρυπᾶται διὰ τοῦ μέσου δακτύλου καὶ τὰ ἐπικαθήμενα ἐπ' αὐτοῦ ἐξαρτήματα (στρογγύλος σύνδεσμος, ἴδιος σύνδεσμος τῆς ὠοθήκης καὶ σάλπιγξ) ἕλκονται ἰσχυρῶς πρὸς τὰ πλάγια. Ὁ ἀριστερὸς δείκτης ἀποχωρίζει τὰ πέταλα τοῦ ἀριστεροῦ πλατέος συνδέσμου μέχρι τῆς κύστεως πρὸς τὰ κάτω καὶ ἀποκολλᾶ τὰς πλαγίας μοίρας τῆς κύστεως ἀπὸ τῆς μήτρας.

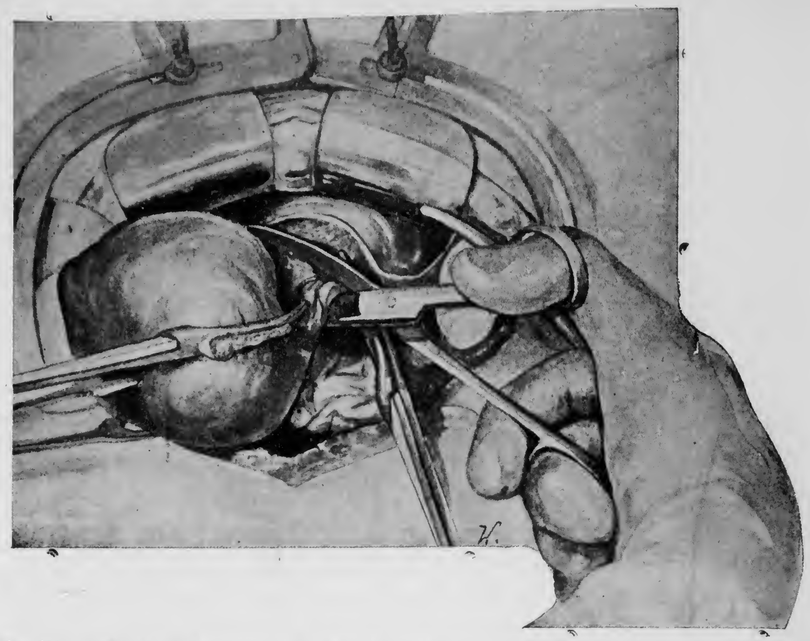
τοῦ τραχήλου, οἵτινες συνήθως ἀπωθοῦν τὴν κύστιν πρὸς τὰ ἄνω, ἐὰν εἰσαγάγωμεν ἕνα δεύτερον ἐκπωματιστῆρα ἐντὸς τοῦ ὄγκου, ὅστις εἶναι ἐσφηνωμένος εἰς τὸ βάθος τῆς πυέλου, καὶ ἕλξωμεν τοῦτον πρὸς τὰ ἄνω. Ἐὰν τὸ τοιοῦτον δὲν ἐπιτύχῃ, ἐπειδὴ ἴσως ὁ ὄγκος εἶναι καθηλωμένος ἐντὸς τῆς πυέλου, κατορθώνομεν τὸ τοιοῦτον, ἐὰν διανοίξωμεν τὴν κάψαν τοῦ μυώματος καὶ ἐκπυρηνίσωμεν τὸν ὄγκον. Ἐπὶ ὑπάρξεως ἐκ παραλλήλου φλεγμονωδῶν ἐξαρτηματικῶν ὄγκων, παρασκευάζομεν τούτους πρότερον κατὰ τὸν ἤδη περιγραφέντα τρόπον καὶ ἐν ἀνάγκῃ ἐξαιροῦμεν, ἀκολούθως δὲ προχωροῦμεν εἰς τὴν ἐξαίρεσιν τῆς μήτρας. Εἰς τοιαύτας οὐχὶ ἀσφαλῶς ἀσήπτους περιπτώσεις ἀφήνομεν τὸν κολεὸν ἀνοικτὸν καὶ παροχετεύομεν διὰ λωρίδος γάζης διὰ μέσου τούτου, συγκλείοντες πάντοτε τὰ κοιλιακὰ τοιχώματα.



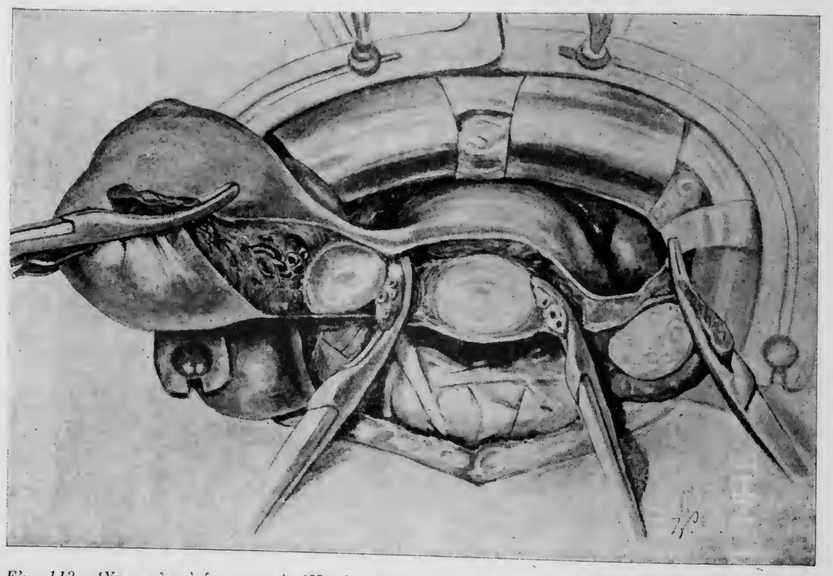
Εἰκ. 110 — Ὑπερκοίπικὴ ὑστερεκτομή. Ἡ σάλπιγξ, ὁ στρογγύλος σύνδεσμος καὶ ὁ ἴδιος σύνδεσμος τῆς ὠοθήκης ἔχουν συλληφθῆ διὰ λαβίδων.



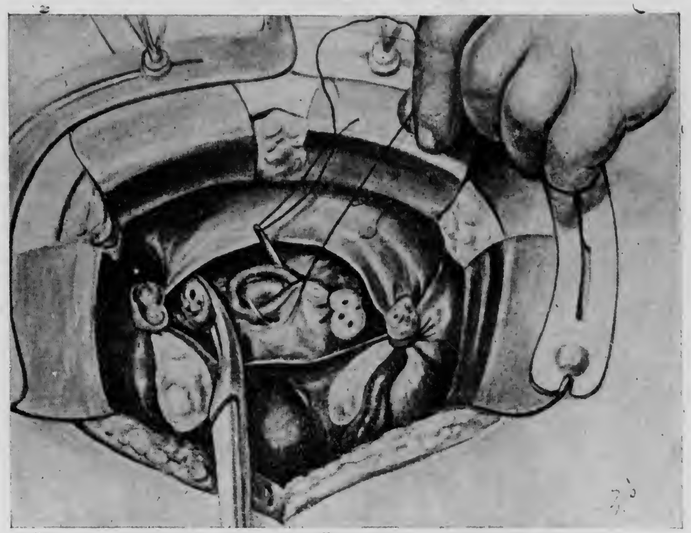
Εἰκ. 111.—Ὑπερκοίπικὴ ὑστερεκτομή. Ἡ κύστις ἔχει ἀποκολληθῆ μέχρι τοῦ ἀριστεροῦ χείλους τῆς μήτρας καὶ κρατεῖται πρὸς τὰ κάτω δι' ἑνὸς τολυπίου συλληφθέντος ὑπὸ ἀγκιστρωτῆς λαβίδος. Τὸ δεξιὸν παραμήτριον μετὰ τῶν εὑρισκομένων ἐντὸς αὐτοῦ μητριαίων ἀγγείων ἔχει συλληφθῆ διὰ μιᾶς κυρτῆς λαβίδος.



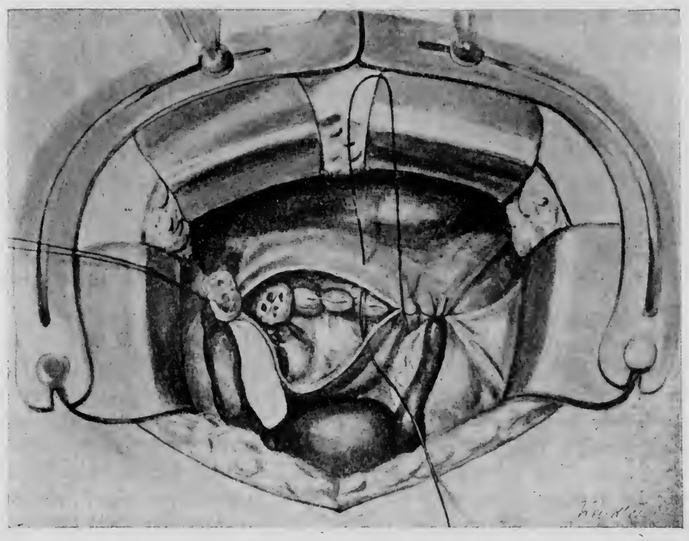
Εἰκ. 112.—Ὑπερκολπικὴ ὑστερεκτομή. Ἡ μήτρα ἕλκεται ἰσχυρῶς πρὸς τὰ ἄνωκαὶ ἀριστερὰ καὶ ταυτοχρόνως τέμνεται μετὰ τῶν συλληφθέντων ἀγγείων ἄνω τοῦ τραχήλου.



Εἰκ. 113.—Ὑπερκολπικὴ ὑστερεκτομή. Ἡ μήτρα ἔχει διαταμῆ ἐγκαρσίως. Τα ἐμφανισθέντα ἀριστερὰ μητριαῖα ἀγγεῖα συνελήφθησαν διὰ μιᾶς λαβίδος καὶ διετάμησαν.



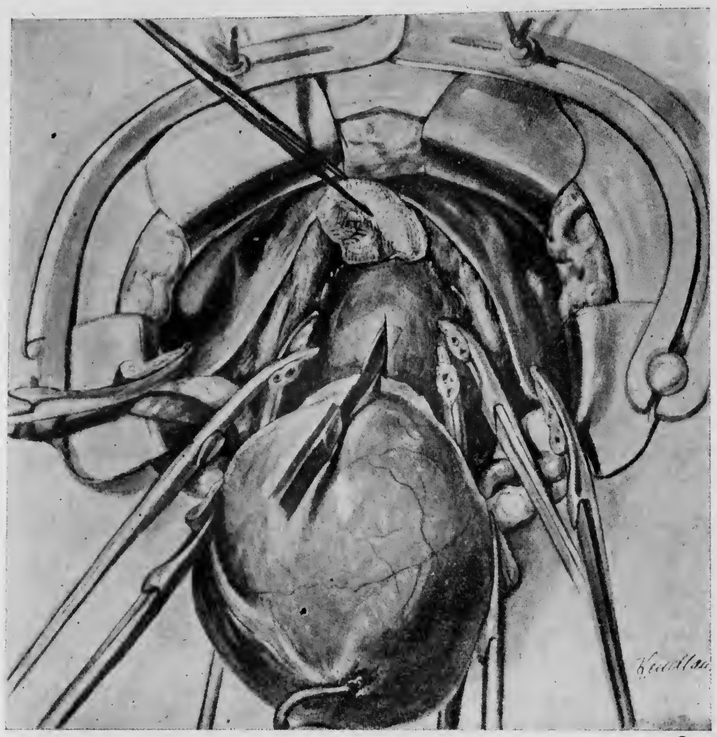
Εἰκ. 114.—Ὑπερκολπικὴ ὑστερεκτομή. Τὸ πρόσθιον καὶ ὀπίσθιον τοίχωμα τοῦ τραχήλου συρράπτονται πρὸς ἄλληλα.



Εἰκ. 115.—Ὑπερκολπικὴ ὑστερεκτομή. Περιτοναιοπλαστικὴ διὰ συρραφῆς τοῦ περιτοναίου τῆς κύστεως μετὰ τοῦ Δουγλασείου περιτοναίου μετὰ ταυτοχρόνου ἐνταφιασμοῦ τῶν ἐξαρτηματικῶν κολοβωμάτων.

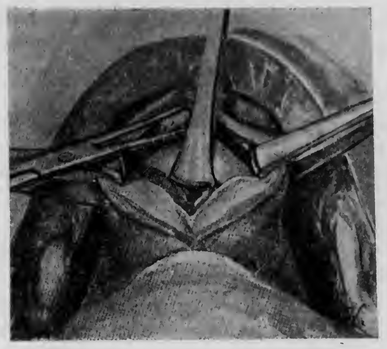
10. Ἡ ὠοθηκεκτομή.

Ἡ ἐγχείρησις (αὕτη ἥτις ἀστόχως ἀποκαλεῖται ὠοθηκοτομία) ἐξετελέσθη τὸ πρῶτον κατὰ τὸ ἔτος 1809 ὑπὸ τοῦ Ephraim Mac Dowell (U. S. A.) ἄνευ ναρκώσεως ἐπὶ μιᾶς αἰθιοπίδος καὶ μάλιστα μετὰ καλοῦ ἀποτελέσματος, οὕτω δὲ ἤρχισεν ἡ λαμπρὰ περίοδος τῆς χειρουργικῆς τῆς κοιλίας, ἀρχικῶς ἐπιβαρυνθεῖσα ὑπὸ μεγάλης θνησιμότητος. Ἡ ἐξαίρεσις

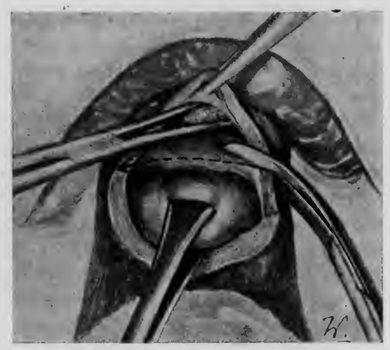


Εἰκ. 116.—Κοιλιακὴ ὁλικὴ ἐξαίρεσις τῆς μήτρας. Ὁ πλατὺς σύνδεσμος καὶ τὰ μητριαῖα ἀγγεῖα ἔχουν διαχωρισθῆ μεταξὺ δύο λαβίδων. Ἐνῶ ἡ κύστις ἀπωθηθεῖσα πολὺ πρὸς τὰ κάτω κρατεῖται καλῶς δι' ἑνὸς τολυπίου, ἐμβυθίζεται τὸ μαχαίριον ἔχον τὸ ὀξὺ μέρος αὐτοῦ ἐστραμμένον πρὸς τὰ πρόσω ἐντὸς τοῦ ἀνωτέρου τμήματος τοῦ κολπικοῦ τοιχώματος.

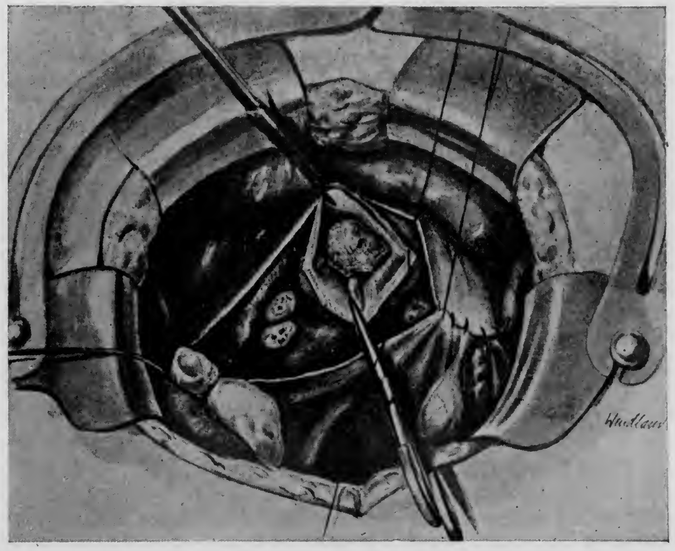
ἑνὸς ἁπλοῦ ὄγκου τῆς ὠοθήκης εἶναι τόσον εὐχερὴς ἐπέμβασις, ὥστε δικαίως νὰ θεωρῆται ὡς ἐγχείρησις τῶν ἀρχαρίων, ἐνίοτε ὅμως ἀνευρίσκοντσι συμφύσεις καὶ ἄλλαι ἐπιπλοκαί, αἵτινες ἀπαιτοῦν τὴν ἱκανότητα ἑνὸς πεπειραμένου χειρουργοῦ. Γενικῶς προτιμῶμεν τὴν λαπαροτομὴν διὰ τὴν ἐξαίρεσιν τῶν ὄγκων τῆς ὠοθήκης, καθ' ὅσον συνήθως δὲν δυνάμεθα νὰ ἔχωμεν σαφῆ εἰκόνα πρὸ τῆς ἐγχειρήσεως περὶ τῆς κινητικότητος τοῦ ὄγκου ἢ τῆς ἐνδοσυνδεσμικῆς αὐτοῦ ἀναπτύξεως. Οὕτω δυνάμεθα νὰ διατηρήσωμεν τὴν μήτραν, ἐνῷ ἐπὶ κολπικῆς ἐπεμβάσεως ἀναγκαζόμεθα νὰ ἀφαιρέσωμεν καὶ ταύτην, ἰδίᾳ ἐπὶ ἐπιπλόκων τινῶν περιπτώσεων. Ἐφ' ὅσον δὲν πρόκειται περὶ μικροῦ ὄγκου εἴμεθα ὑποχρεωμένοι νὰ διανοίξωμεν τοῦτον κατὰ τὴν κολπικὴν ἐπέμβασιν, τοῦθ' ὅπερ ἐπὶ μεμολυσμένου περιεχομένου ἢ ἐπὶ κακοήθους ὄγκου ἐπιβαρύνει ἐξαιρετικῶς τὴν πρόγνωσιν. Μόνον ἐπὶ λίαν παχυσάρκων γυναικῶν ἢ



Εἰκ. 117.—Κοιλιακὴ ὁλικὴ ἐξαίρεσις τῆς μήτρας. Τὸ πρόσθιον τοίχωμα τοῦ τραχήλου καὶ τὸ ἀνώτερον τμῆμα τοῦ κολεοῦ ἔχουν διανοιγῆ διὰ τοῦ μαχαιρίου. Τὸ ὀπίσθιον χεῖλος τοῦ τραχήλου ἔχει συλληφθῆ δι' ἀγκιστρωτῆς λαβίδος. Ἐντὸς τοῦ κολεοῦ ἔχει εἰσαχθῆ τολύπιον διακρατούμενον ὑπὸ λαβίδος.



Εἰκ. 118.—Κοιλιακὴ ὁλικὴ ἐξαίρεσις τῆς μήτρας. Τὸ πρόσθιον κολπικὸν τοίχωμα ἕλκεται διὰ μιᾶς λαβίδος. Ὑπὸ ἰσχυρὰν ἕλξιν τοῦ τραχήλου διατέμνεται τὸ ὀπίσθιον κολπικὸν τοίχωμα ἀκριβῶς κάτω τοῦ τραχήλου.



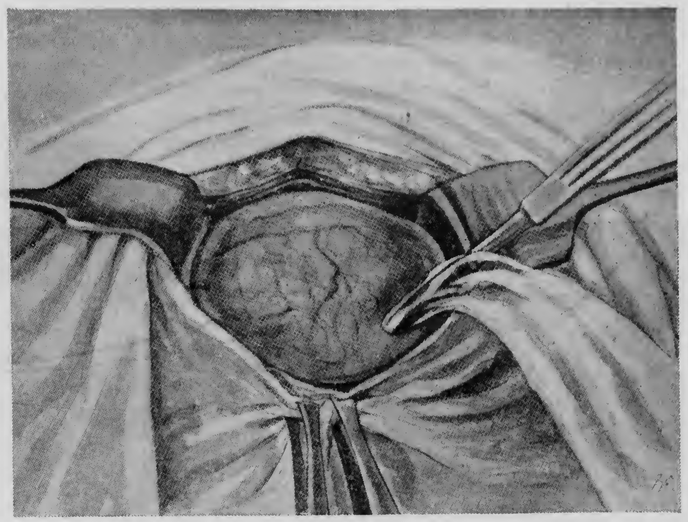
Εἰκ. 119.—Κοιλιακὴ ὁλικὴ ἐξαίρεσις τῆς μήτρας. Ἡ μήτρα ἔχει ἀφαιρεθῆ. Τὰ κολπικὰ τραύματικα χείλη ἔχουν συλληφθῆ διὰ λαβίδων καὶ ἐντὸς τοῦ αὐλοῦ τοῦ κολεοῦ ἔχει εἰσαχθῆ λωρὶς γάζης. Ὁ κολεὸς συγκλείεται διὰ ραφῶν αἵτινες δὲν συλλαμβάνουν τὸν βλενογόνον. Ἐνταφιασμὸς τῶν κολοβωμάτων κατὰ τὴν περιτοναιοπλαστικήν.

ἐὰν ἕνεκα ἄλλης αἰτίας ἐνδείκνυται ἡ ἐκτέλεσις κολπικῆς ἐπεμβάσεως (πρόπτωσις κτλ.) χειρουργοῦμεν ὄγκους τῶν ὠοθηκῶν κολπικῶς, ἀλλὰ καὶ τότε μόνον ἐὰν πρόκειται περὶ καλοήθων ὄγκων ἢ περὶ ὁπωσδήποτε μὴ ἐπιπλόκων περιπτώσεως.

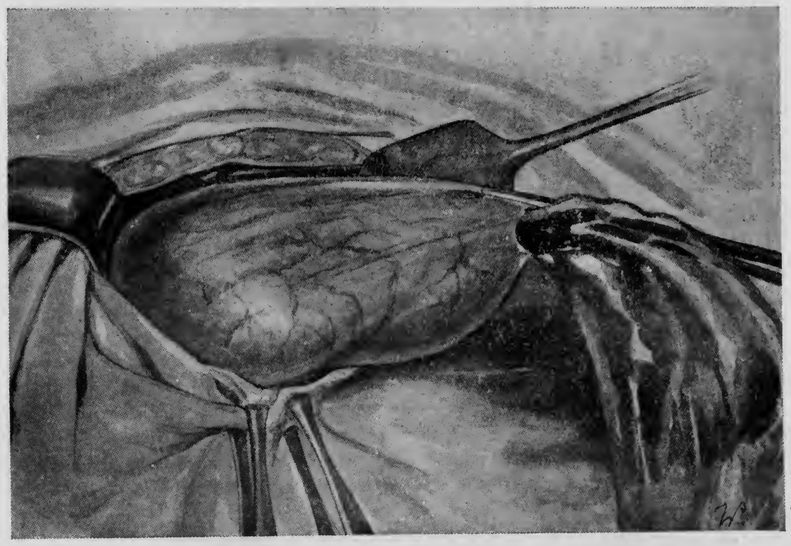
α') Κοιλιακὴ ὠοθηκεκτομή.

Ἐφαρμόζομεν γενικῶς τὴν μέσην τομήν, ἥτις ἐπὶ ἐλευθέρων κυστικῶν ὄγκων ἐκτελεῖται ἀρχικῶς μικρά, ἐπεκτεινομένη ἐν ἀνάγκῃ πρὸς τὰ ἄνω. Ἡ ἐγκαρσία τομὴ Pfannenstiel ἔχει μόνον τὸ πλεονέκτημα καλλιτέρας αἰσθητικῆς ἐμφανίσεως, ἐκτελεῖται δὲ ἐπὶ μικρῶν ὄγκων, χωρὶς νὰ ἐπιφέρῃ δυσχερείας.

Μετὰ τὴν διάνοιξιν τοῦ περιτοναίου προσανατολιζόμεθα περὶ τῆς θέσεως, τοῦ μεγέθους καὶ τῆς κινητικότητος τοῦ ὄγκου, προσέχομεν ὅμως ὅλως ἰδιαιτέρως, ὅταν πρόκειται περὶ ὄγκων κακοήθων, ἢ περὶ τοιούτων μετὰ ὑπόπτου περιεχομένου, οἵτινες δέον νὰ ἐξαιρῶνται ἄνευ διανοίξεως, ἐν ἀνάγκῃ δι' ἐπεκτάσεως τῆς ἀρχικῆς κοιλιακῆς τομῆς. Εἰσάγομεν τὴν χεῖρα ἐντὸς τῆς περιτοναϊκῆς κοιλότητος, συλλαμβάνομεν τὸν ὄγκον καὶ φέρομεν αὐτὸν πρὸ τῶν κοιλιακῶν τοιχωμάτων, ἀφοῦ προηγουμένως λύσωμεν ὑφισταμένας τυχὸν συμφύσεις ἀμβλέως ἢ διὰ τοῦ ψαλιδίου. Ὁ μίσχος, μετὰ προηγουμένην σύλληψιν διὰ λαβίδων, ἀποχωρίζεται ἀπὸ τῆς μήτρας, ἀπολινοῦται καὶ καλύπτεται διὰ περιτοναίου. Δυνάμεθα μεγάλως νὰ διευκολύνωμεν τὴν ἐξαίρεσιν ἑνὸς ὄγκου διὰ μέσου μικρᾶς τομῆς τῆς κοιλίας διὰ τοῦ ἑξῆς χειρισμοῦ: Μετὰ διάνοιξιν τῆς περιτοναϊκῆς κοιλότητος ἐλευθεροῦμεν τὸν μίσχον τοῦ ὄγκου καὶ διατέμνομεν τοῦτον μεταξὺ δύο λαβίδων οὕτως, ὥστε ὁ ὄγκος παραμένει ἐλεύθερος ἐντὸς τῆς κοιλιακῆς κοιλότητος. Ἀκολούθως ὁ βοηθὸς ἕλκει τοὺς διαστολεῖς ἰσχυρῶς ἀπ' ἀλλήλων καὶ ὀλίγον πρὸς τὰ ἄνω, οὕτω δὲ ἐπιτυγχάνεται εὐχερέστατα ἡ ἐξαγωγὴ τοῦ ὄγκου καὶ διὰ μικρᾶς κοιλιακῆς τομῆς, διὰ τῆς διὰ τοῦ μίσχου πρὸς τὰ ἔξω ἕλξεως αὐτοῦ. Ἐὰν ὁ κυστικὸς ὄγκος μετὰ βεβαιότητος θεωρεῖται ὡς καλοήθης καὶ τὸ περιεχόμενον αὐτοῦ ἀναμφιβόλως ἄσηπτον, τοῦθ' ὅπερ δυνάμεθα κατὰ τὸ πλεῖστον εὐκόλως νὰ διαπιστώσωμεν ἐκ τῆς διαφανείας τοῦ τοιχώματος, εἶναι σκόπιμος ἡ διάνοιξις καὶ ἡ κένωσις τῆς κύστεως πρὸ τῆς ἐξαιρέσεως αὐτῆς. Μετὰ τὴν διάνοιξιν τοῦ περιτοναίου ἡ κύστις αὐτομάτως προβάλλει κατὰ τὸ πλεῖστον εἰς τὸ ἐγχειρητικὸν πεδίον, ἐν ἀνάγκῃ δὲ ὑποβοηθοῦμεν τοῦτο δι' ἐλαφρᾶς πιέσεως τῶν κοιλιακῶν τοιχωμάτων, ἄνωθεν τῆς τομῆς. Ἀκολούθως μεταβάλλομεν τὸ ἐπίπεδον τῆς ἀρρώστου ἀπὸ ἐπικλινὲς Trendelenburg εἰς προκλινές, καὶ διατρυπῶμεν τὴν κύστιν διὰ μαχαιρίου *(εἰκ. 120)*. Ἡ χρῆσις τῆς βελόνης παρακεντήσεως εἶναι περιττή, διότι τὸ ὑπὸ πίεσιν εὑρισκόμενον ὑγρὸν ἐκρέει ὡς ἀπὸ πίδακος. Διὰ λαβίδων συλλαμβάνομεν ἀμέσως τὸ τοίχωμα τῆς κύστεως κατὰ τὴν χώραν τῆς τομῆς καὶ ἕλκομεν ταύτην βραδέως πρὸς τὰ ἔξω, ἐνῷ συγχρόνως τελεῖται ἡ βαθμιαία κένωσις ταύτης *(εἰκ. 121)*. Ἀκολούθως συλλαμβάνομεν τὴν κύστιν δι' ἄλλων λαβίδων, μέχρι οὗ φθάσωμεν τὸν μίσχον καὶ δυνηθῶμεν, μετὰ σύλληψιν αὐτοῦ διὰ λαβίδος, νὰ ἀποκόψωμεν *(εἰκ. 122)*. Χρησιμοποιοῦμεν πρὸς ἀπολίνωσιν ἰσχυρὸν ζωϊκὸν ράμμα καὶ διαπερῶμεν διὰ τῆς βελόνης τὸν μίσχον, διότι ἡ ὀλίσθησις τοῦ ράμματος τῆς ἀπολινώσεως δύναται νὰ ἔχῃ ὀλέθρια ἀποτελέσματα. Ἐπὶ συστροφῆς τοῦ μίσχου ἐξαλείφομεν ταύτην δι' ἀντιθέτου στροφῆς τοῦ ὄγκου πρὸ τῆς τοποθετήσεως τῶν λαβίδων. Ἐπικαλύπτομεν τὸ κολόβωμα πάντοτε ἐπιμελῶς διὰ περιτοναίου, καίτοι δὲν ἔχομεν παρατηρήσει μειονεκτικὸν ἀποτέλεσμα ἐκ τῆς παραλείψεως εἴς τινας περιπτώσεις δι' οἰκονομίαν χρόνου τῆς περιτοναιοπλαστικῆς. Ἐνδοσυνδεσμικῶς ἀναπτυσσόμενοι ὄγκοι δύνανται νὰ προκαλέσουν δυσχερείας εἰς τὸν χειρουργὸν ἕνεκα παρεκτοπίσεως κατὰ τὸ πλεῖστον τῶν γειτονικῶν ὀργάνων, μόνον δὲ διὰ προσεκτικοῦ προσανατολισμοῦ ἐπιτυγχάνομεν νὰ ἀποφύγωμεν τραυματισμὸν τῆς κύστεως, τοῦ ἐντέρου καὶ ἰδίᾳ τοῦ οὐρητῆρος. Εἴς τινας τῶν περιπτώσεών μου εὗρον τὸν οὐρητῆρα πορευόμενον κατὰ τὸ μέσον τῆς προσθίας ἐπιφανείας μιᾶς μεγάλης ἐνδοσυνδεσμικῆς κύστεως. Κανὼν κατὰ τὴν ἐγχείρησιν τῶν ἐνδοσυνδεσμικῶν ὄγκων εἶναι πάντοτε νὰ ἔχωμεν ὑπ' ὄψει τὸν οὐρητῆρα, ἐπὶ οἱασδήποτε δὲ ἀμφιβολίας νὰ ἀποκαλύπτωμεν τοῦτον καθ' ὅλον τὸ ἐπικίνδυνον ἐγχειρητικὸν πεδίον. Δέον νὰ μὴ συλλαμβάνηται διὰ λαβίδος οὐδὲ νὰ διατέμνηται οἱαδήποτε δεσμὶς ἱστοῦ, χωρὶς νὰ εἶναί τις ἀπολύτως βέβαιος περὶ τῆς φύσεως αὐτῆς καὶ νὰ μὴ κλείηται ἡ κοιλία, πρὶν ἢ πεισθῇ περὶ τῆς ἀκεραιότητος τῶν οὐρητήρων. Αἱ συνήθως ἐκτεταμέναι συμφύσεις τῶν κυστικῶν ὄγκων πρὸς τὸν ὀρογόνον τῶν γειτονικῶν ὀργάνων ἀπαιτοῦν μεγάλην προσοχήν. Κατὰ τὴν διάνοιξιν ἔτι τῆς περιτοναϊκῆς κοιλότητος εἶναι δυνατὸν νὰ διατρηθῇ τὸ τοίχωμα τῆς κύστεως ἐὰν τοῦτο προσκολληθῇ ἐπὶ τοῦ τοιχικοῦ περιτοναίου, τοῦθ' ὅπερ λίαν δυσάρεστον, ἐφ' ὅσον

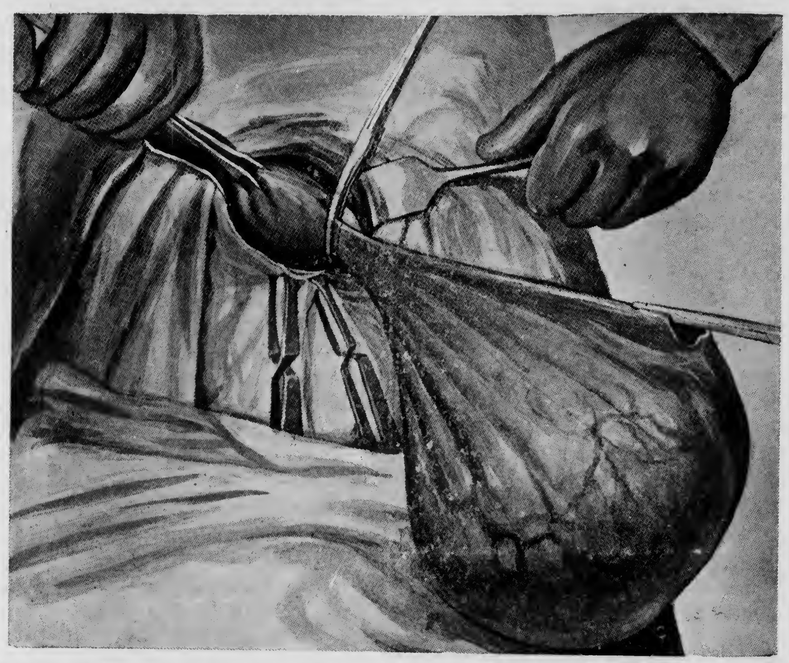


Εἰκ. 120.—Ὠοθηκεκτομή. Διάνοιξις τῆς κύστεως διὰ τοῦ μαχαιρίου. Τὸ περιεχόμενον τῆς κύστεως ἐκρέει



Εἰκ. 121.—Ὠοθηκεκτομή. Τὸ τοίχωμα τῆς κύστεως ἔχει συλληφθῇ κατὰ τὸ διανοιγὲν σημεῖον διὰ λαβίδος καὶ ἕλκεται πρὸς τὰ ἄνω.

πρόκειται περὶ μεμολυσμένων ἢ κακοήθων ὄγκων. Αἱ συμφύσεις τοῦ ἐπιπλόου καὶ τοῦ πυελικοῦ τοιχώματος μετὰ τῶν ἐντερικῶν ἑλίκων λύονται συνήθως ἀμβλέως διὰ τῆς χειρός. Ἐνίοτε ὅμως εἶναι ἀνάγκη νὰ παρασκευασθοῦν ἐπιμελῶς διὰ τῆς χειρουργικῆς λαβίδος καὶ τοῦ ψαλιδίου, ὁπότε ἐκ τῶν προτέρων δέον νὰ συλλαμβάνηται ἑκάστη δεσμὶς περιέχουσα ἀγγεῖα. Τὰ τυχὸν τραύματα τοῦ ἐντέρου δέον νὰ συρράπτωνται ἐπιμελῶς καὶ ἂν ἔτι πρόκειται περὶ τραυμάτων τοῦ ὀρογόνου, μὲ πᾶσαν προσοχὴν πρὸς ἀποφυγὴν στενώσεως τοῦ αὐλοῦ. Παρ ὅλην τὴν προσοχὴν κατὰ τὴν ἀποκόλλησιν τῶν συμφύσεων πολλάκις διαρρήγνυται τὸ τοίχωμα τῆς κύστεως, ὁπόταν ἡ περαιτέρω παρασκευὴ τοῦ χαλαροῦ πλέον σάκκου οὐσιωδῶς δυσχεραίνεται. Εἰς τοιαύτας περιπτώσεις χρησιμοποιῶ μέθοδον ἣν ἔχω ἤδη περιγράψει διὰ τὴν ἐξαίρε-



Εἰκ. 122.—Ὡοθηκεκτομή. Τὸ τοίχωμα τῆς κύστεως ἔχει συλληφθῆ κατὰ τὸ διανοιγέν σημεῖον δια λαβίδος καὶ ἕλκεται πρὸς τὰ ἔξω.

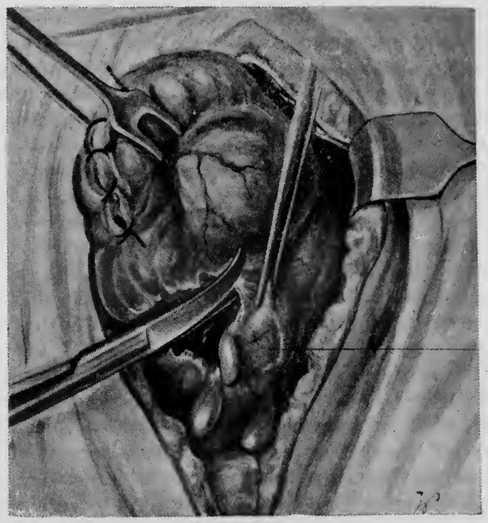
σιν τῶν κύστεων τῶν βαρθολινείων ἀδένων. Ἀποσπογγίζομεν διὰ σπληνίων κατὰ τὸ δυνατὸν τὴν κοιλότητα τῆς κύστεως καὶ πληροῦμεν ταύτην ἀκολούθως καλῶς διὰ λωρίδος γάζης *(εἰκ. 123)*· συρράπτομεν ἐκ νέου τὴν τομὴν τοῦ τοιχώματος διὰ ραμμάτων καὶ οὕτω μεταβάλλομεν τὸν πληρωθέντα διὰ γάζης σάκκον εἰς συμπαγῆ ὄγκον, ὃν συλλαμβάνομεν διὰ πολυοδοντικῶν λαβίδων, ἀπελευθεροῦμεν καὶ ἕλκομεν πρὸς τὰ ἔξω *(εἰκ 124)*.

Οἱ κακοήθεις ὄγκοι τῆς ὠοθήκης εἶναι κατὰ τὸ πλεῖστον ἀμφοτερόπλευροι, ἀναπτύσσονται δὲ συνήθως δευτεροπαθῶς. Ἕνεκα τούτου καὶ ἐπὶ ἀπουσίας ἔτι καταφανῶν ἀλλοιώσεων δέον νὰ ἐξαιρῶμεν καὶ τὴν ὠοθήκην τοῦ φαινομενικῶς ὑγιοῦς πλαγίου καὶ νὰ ἐξετάζωμεν μεθοδικῶς ὅλα τὰ ὄργανα τῆς κοιλίας πρὸς ἀνεύρεσιν τοῦ πρωτοπαθοῦς ὄγκου.

6') Κολπικὴ ὠοθηκεκτομή.

Ὁ Atlée (Ἀμερικῆς) ἐξετέλεσε τὸ πρῶτον κατὰ τὸ 1854 ὅλως τυχαίως τὴν ἐγχείρησιν ταύτην, ὁ Caillard - Thomas ὅμως μεθοδικῶς ἐργασθεὶς ἀνεσκεύασε ταύτην τὸ πρῶτον κατὰ

Εἰκ. 123.—Ὡοθηκεκτομὴ κατὰ **Λογοθετόπουλον.** *Τὰ λεπτὰ τοιχώματα ρηχθείσης κύστεως διατείνονται διὰ λαβίδων καὶ μετὰ τελείαν κένωσιν τοῦ περιεχομένου πληροῦται ἡ κοιλότης αὐτῆς διὰ γάζης.*



Εἰκ. 124.—Ὡοθηκεκτομὴ κατὰ **Λογοθετόπουλον**. *Τὸ ἄνοιγμα τῆς κύστεως ἔχει συγκαλυφθῆ διὰ συνεχοῦς ραφῆς, ἡ πληρωθεῖσα διὰ γάζης κύστις δύναται νὰ θεωρηθῆ πλέον ὡς συμπαγὴς ὄγκος, δηλαδὴ νὰ συλληφθῆ διὰ πολυοδοντικῆς λαβίδος καὶ νὰ ἑλκυσθῆ πρὸς τὰ ἔξω. Δι' ἀτομικῆς λαβίδος καὶ ψαλιδίου ἀποχωρίζονται αἱ συμφύσεις τοῦ τοιχώματος τῆς κύστεως ἀπὸ τοῦ ἐντέρου καὶ τοῦ ἐπιπλόου.*

τὸ ἔτος 1870, ὁ δὲ πρωτοπόρος τῶν κολπικῶν ἐγχειρητικῶν μεθόδων Dührsen μετὰ ριζικὴν ἐπεξεργασίαν, διέδωσεν αὐτὴν εὐρύτερον. Μετὰ τὴν διάνοιξιν τῆς περιτοναϊκῆς κοιλότητος διὰ προσθίας ἢ ὀπισθίας κολποτομῆς, ἀναλόγως τῆς θέσεως τοῦ ὄγκου, συλλαμβάνομεν τὸν ὄγκον δι' ἀγκιστρωτῶν λαβίδων, διανοίγομεν τοῦτον διὰ τοῦ μαχαιρίου ἢ τῆς βελόνης παρακεντήσεως καὶ ἀφήνομεν νὰ ἐκρεύσῃ τὸ περιεχόμενον. Ἀκολούθως ἕλκομεν τὴν κύστιν πρὸς τὰ κάτω μὲ ἀλλεπάλληλον σύλληψιν διὰ λαβίδων μέχρι οὗ ἀναφανῇ ὁ μίσχος, ὃν μετὰ προηγηθεῖσαν σύνθλιψιν διὰ λαβίδος ἀποκόπτομεν καὶ ἀπολινοῦμεν. Ἡ ἀφαίρεσις ἀπὸ τοῦ κολεοῦ πολυχώρων κύστεων δὲν εἶναι τόσον εὐχερής, διότι πρέπει νὰ διανοιγοῦν ἡ μία κοιλότης μετὰ τὴν ἄλλην, ὁπότε δυνατὸν νὰ τρωθοῦν ἐντερικαὶ ἕλικες. Ἕλκομεν πρὸς τοῦτο τὸ σῶμα τῆς μήτρας ὡς ἐπὶ κολπικῆς ὑστερεκτομῆς πρὸς τὰ ἔξω, διατέμνομεν τὸν μίσχον τοῦ ὄγκου μεταξὺ δύο λαβίδων καὶ ἕλκομεν ἀκολούθως ἐκ τοῦ μίσχου τὸν ὄγκον πρὸς τὰ κάτω, διανοίγομεν εἶτα τὴν ἐμφανιζομένην κατὰ τὸ ἄνοιγμα τῆς κολποτομῆς κύστιν, κενοῦμεν ταύτην, συλλαμβάνομεν διὰ λαβίδων καὶ ἕλκομεν πρὸς τὰ ἔξω τὴν ἐπομένην τοιαύτην, ἐπαναλαμβάνοντες τὸ αὐτὸ μέχρι οὗ ἀφαιρεθῇ ἐξ ὁλοκλήρου ὁ ὄγκος.

11. Φλεγμονώδεις παθήσεις τῶν ἐξαρτημάτων

Αἱ φλεγμονώδεις παθήσεις τῶν ἐξαρτημάτων ὡς ἐκ τῆς συχνότητος τῆς μακρᾶς διαρκείας τῆς παθήσεως καὶ τῆς συνοδευούσης ταύτας καχεξίας, παρ' ὅλας τὰς προόδους εἰς τὴν θεραπευτικήν, φέρουν εἰς δυσχερῆ θέσιν τὸν ἰατρόν. Εὐτυχῶς ἡ ζωὴ τῶν γυναικῶν εἰς τὰς πλείστας τῶν περιπτώσεων δὲν ἀπειλεῖται καὶ δυνάμεθα δι' ἐγκαίρου ἐφαρμογῆς ὅλων τῶν νεωτέρων συντηρητικῶν μέσων νὰ ἀποφύγωμεν κατὰ τὸ πλεῖστον σοβαρὰς ἐπιπλοκάς. Δι' αὐστηρᾶς κατακλίσεως καὶ ἐφαρμογῆς κύστεως πάγου ἢ χορηγήσεως πενικιλλίνης κλπ. εἶναι δυνατὸν νὰ ὑποχωρήσουν τὰ ὀξέα φαινόμενα καὶ παρατηρεῖ τις πολλάκις μετ' ἐκπλήξεως πῶς ἐξαφανίζονται καὶ λίαν εὐμεγέθεις ἔτι ὄγκοι Τὰ παραμένοντα ὑπολείμματα τῆς φλεγμονῆς ἀπορροφῶνται δι' ἐφαρμογῆς μέσων ἅτινα προκαλοῦν τοπικὴν ὑπεραιμίαν, ἀρχόμενοι δὲ ἀπὸ τὰ παλαιόθεν ἐκτιμώμενα θερμὰ ἑδρόλουτρα καταλήγομεν εἰς τὴν διὰ βραχέων κυμάτων θεραπείαν καὶ ἀπὸ τὰς ἐνέσεις τῆς τερεβινθίνης εἰς τὴν ὁρμονοθεραπείαν. Ἄλλοτε μὲν ἐξαντλεῖται ἡ σειρὰ τῶν θεραπευτικῶν μεθόδων ἄνευ ἀποτελέσματος, ὅτε ἐκλείπει ἡ ὑπομονὴ τοῦ ἰατροῦ, συνηθέστατα ὅμως καὶ κυρίως ἡ ὑπομονὴ τῆς ἀρρώστου. Προκύπτει οὕτω τὸ πρόβλημα τῆς ἐγχειρήσεως καὶ ὀφείλομεν νὰ παραδεχθῶμεν ὅτι εἰς ἕνα ἀρκετὸν ἀριθμὸν περιπτώσεων μόνον διὰ ταύτης δυνάμεθα νὰ ἐπιτύχωμεν τὴν ριζικὴν θεραπείαν. Ἡ μᾶλλον σκόπιμος ἐγχειρητικὴ μέθοδος, ἤτοι ἡ ἐξαίρεσις τῆς μήτρας μετὰ τῶν ἐξαρτημάτων, ἥτις ἀσφαλῶς ἄγει εἰς ἀποτέλεσμα δὲν ἱκανοποιεῖ ἐν τέλει τὸν χειρουργόν, διότι αἱ κατὰ τὸ πλεῖστον εἰς τὴν γενετήσιον περίοδον εὑρισκόμεναι γυναῖκες ὑποφέρουν βραδύτερον πολὺ ἐκ κλιμακτηρικῶν διαταραχῶν. Ἕνεκα τούτου εἴμεθα ὅσον τὸ δυνατὸν συντηρητικοὶ εἰς τὴν κλινικήν μας καὶ ἐν περιπτώσει ἐγχειρήσεως διατηροῦμεν τοὐλάχιστον τὰς ὠοθήκας τῶν γυναικῶν. Μόνον κατὰ τὴν κοιλιακὴν ἐπέμβασιν δύναταί τις ἐπακριβῶς νὰ κρίνῃ, τί εἶναι δυνατὸν νὰ διατηρηθῇ καὶ τί δέον νὰ ἐξαιρεθῇ, ἵνα τὸ τελικὸν ἀποτέλεσμα εἶναι καλόν. Ὁμοίως ἡ αἱμόστασις, ἥτις εἶναι τόσον ἀπαραίτητος διὰ τὸ ἀποτέλεσμα καὶ ἡ λεπτομερὴς περιτοναιοπλαστική, εἶναι δυνατὸν νὰ ἐκτελεσθοῦν μόνον ἐκ τῶν ἄνω, δι' ὃ μόνον κατ' ἐξαίρεσιν ἐφαρμόζομεν τὴν θεωρουμένην ὡς ἀκίνδυνον κολπικὴν ὁδὸν κατὰ τὰ τελευταῖα ἔτη.

Ὅλως ἀντιθέτως χειρουργῶ ἀποκλειστικῶς κολπικῶς τὰς βαρείας περιπτώσεις, καθ' ἃς ἐκ τῶν προτέρων τίθεται ζήτημα ἀφαιρέσεως τῆς μήτρας καὶ τῶν πασχόντων ἐξαρτημάτων. Παρ' ὅλας τὰς νεωτέρας ἐργαστηριακὰς ἐξετάσεις (ἀρίθμησις λευκῶν αἱμοσφαιρίων, αἱματολογικὴ εἰκών, ταχύτης καθιζήσεως κλπ.) δὲν εἴμεθα καὶ νῦν ἔτι εἰς θέσιν νὰ γνωρίζωμεν μετὰ βεβαιότητος πρὸ τῆς ἐγχειρήσεως τὸν βαθμὸν τῆς τοξικότητος τοῦ πύου καὶ ὡς ἐκ τούτου τὰ ἀποτελέσματα ἡμῶν κατὰ τὴν κολπικὴν μέθοδον εἶναι ἀσφαλέστερα ὅσον ἀφορᾷ εἰς τὴν ζωὴν τῆς ἀρρώστου. Ἀπόλυτον ἔνδειξιν διὰ τὴν κολπικὴν ἐπέμβασιν παρέχουν δι' ἐμὲ ἐκεῖναι αἱ περιπτώσεις καθ' ἃς ἡ πάσχουσα, ἐξησθενημένη ὑπὸ πυρετοῦ ἐπὶ μῆνας, δὲν δύναται νὰ

ἀνεχθῇ τὴν λαπαρατομὴν καὶ ἥτις θὰ ἦτο δυνατὸν νὰ ἀποθάνῃ κατὰ τὴν ἐπέμβασιν ἢ ἕνεκα μετεγχειρητικῆς περιτονίτιδος. Ὡσαύτως μετὰ ἐγχειρήσεις, καθ' ἃς διηνοίγη ἀπόστημα κολπικῶς ἢ κοιλιακῶς καὶ παρέμεινε συρίγγιον, ἀναγκαζόμεθα νὰ ἀκολουθήσωμεν τὴν κολπικὴν ὁδόν. Ἡ τομὴ Schuchard καὶ ἡ προηγηθεῖσα ἀφαίρεσις τῆς μήτρας ἐπιτρέπει εἰς ἡμᾶς πάντοτε ἐξαιρετικὴν ἐπισκόπησιν τοῦ ἐγχειρητικοῦ πεδίου οὕτως, ὥστε ἡ ἐγχείρησις ἐκτελεῖται ἀκριβῶς καὶ μεθοδικῶς ὡς κατὰ τὴν λαπαροτομήν. Ὁ ὑπάρχων φαινομενικῶς κίνδυνος τραυματισμοῦ τοῦ ἐντέρου δὲν εἶναι τόσον σοβαρός, καθ' ὅσον αἱ συμφύσεις τῶν ἐξαρτημάτων μετὰ τοῦ πυελικοῦ τοιχώματος λύονται ἀμβλέως καὶ εὐχερῶς διὰ τῆς χειρός, ὁπότε οἱ ὄγκοι ὁμοῦ μετὰ τῶν ἐντερικῶν ἑλίκων ἕλκονται πρὸς τὰ κάτω καὶ ἀποχωρίζονται διὰ τοῦ ψαλιδίου ἀπ' ἀλλήλων προσεκτικῶς ὑπὸ τὴν καθοδήγησιν τοῦ ὀφθαλμοῦ. Καθ' ὅλους τοὺς χειρισμοὺς τούτους ἐργαζόμεθα ἔξω τῆς ἐλευθέρας περιτοναϊκῆς κοιλότητος, καθ' ὅσον τὸ σχηματιζόμενον ὑπεράνω τῶν πυωδῶν σάκκων προστατευτικὸν ἐπικάλυμμα ὑπὸ τῶν συμφυομένων πρὸς ἀλλήλας ἐντερικῶν ἑλίκων, εἰς τὰς πλείστος περιπτώσεις δὲν εἶναι ἀνάγκη νὰ διαρραγῇ, ὅπερ βεβαίως ἀποτελεῖ ἀνεκτίμητον προτέρημα τῆς κολπικῆς ὁδοῦ.

α) Κοιλιακὴ ἐγχείρησις τῶν φλεγμονωδῶν ὄγκων τῶν ἐξαρτημάτων.

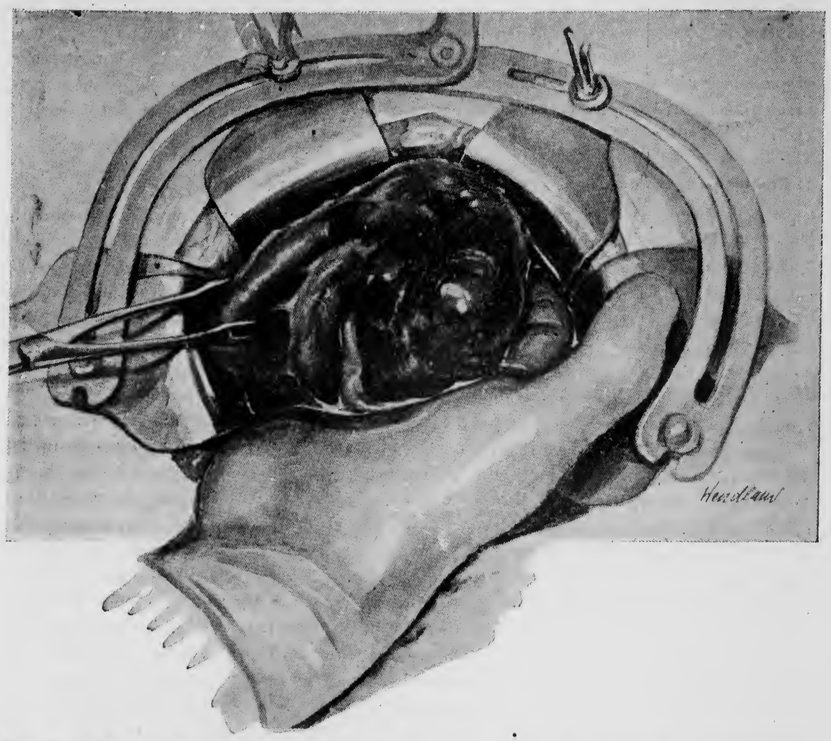
Ἡ δυσχέρεια τῆς ἐξαιρέσεως φλεγμονωδῶν ὄγκων τῶν ἐξαρτημάτων διὰ λαπαροτομῆς εἶναι ἀνάλογος πρὸς τὰς ὑφισταμένας συμφύσεις. Διανοίγομεν προσεκτικῶς τὴν περιτοναϊκὴν κοιλότητα κατὰ τὸ δυνατὸν εἰς σημεῖον ὅπερ εἶναι ἐλεύθερον συμφύσεως, ἕλκομεν τὴν συλληφθεῖσαν μήτραν διὰ πολυοδοντικῆς λαβίδος ἐλαφρῶς διὰ τῆς ἀριστερᾶς χειρὸς πρὸς τὰ ἔξω καὶ προσπαθοῦμεν νὰ λύσωμεν διὰ τῆς ἑτέρας χειρὸς προσεκτικῶς τὰς συμφύσεις. Δέον νὰ ἀποφεύγωμεν τὴν ἄσκησιν βίας, ἐπὶ ἐλαχίστης δὲ δυσχερείας συνεχίζομεν τὴν ἀποκόλλησιν διὰ τοῦ ψαλιδίου ὑπὸ τὴν καθοδήγησιν τοῦ ὀφθαλμοῦ, ὁπότε ἡ αἱμορραγία εἶναι μικρὰ καὶ κατὰ τὸ πλεῖστον ἐπίσχεται δι' ἐλαφρᾶς πιέσεως διὰ σπληνίων εἰσαγομένων προσωρινῶς. Ἐὰν τὰ ἐξαρτήματα εἶναι τελείως ἐλεύθερα, τότε ὁ κρεμαστὴρ σύνδεσμος καὶ ὁ ἴδιος σύνδεσμος τῆς ὠοθήκης μετὰ σύλληψιν διὰ λαβίδων διατέμνονται καὶ ἀπολινοῦνται, ἐνῷ τὸ μητροφαγωγικὸν στόμιον τῆς σάλπιγγος κατὰ προτίμησιν ἐκτέμνεται σφηνοειδῶς ἀπὸ τῆς μήτρας. Ὁ πλατὺς σύνδεσμος ἁπλῶς διατέμνεται, ἡ δὲ μικρὰ ἐξ αὐτοῦ αἱμόρροια ἐπίσχεται διὰ τῆς περιτοναιοπλαστικῆς. Τὰ κολοβώματα τῶν ἀγγείων ἐνταφιάζονται ἐπιμελῶς.

Ἐπὶ ἰσχυρῶν συμφύσεων ἐκλέγομεν τὴν ἀντίθετον ὁδόν. Διατέμνομεν τὸ μητρικὸν τμῆμα τῆς σάλπιγγος μεταξὺ δύο λαβίδων καὶ ἀποκολλῶμεν διὰ τῆς χειρὸς τὰς συμφύσεις καθ' ὃν χρόνον ἕλκομεν σταθερῶς τὴν σάλπιγγα ἐκ τῆς μέσης γραμμῆς πρὸς τὰ πλάγια. Ὁμοίως διατέμνομεν διὰ τοῦ ψαλιδίου τὰς ἰσχυροτέρας συμφύσεις. Ἐὰν ἐπὶ τῆς ἐπιφανείας τῆς μήτρας προεκλήθη μεγάλη τις ἀπώλεια ὀρρογόνου ἐπικαλύπτεται αὕτη καταλλήλως διὰ τοῦ περιτοναίου τῆς κύστεως. Πρὸς τοῦτο διατέμνομεν τὸ περιτόναιον κατὰ τὸ σημεῖον τῆς ἀνακάμψεως αὐτοῦ ἐπὶ τῆς μήτρας, ἀπωθοῦμεν τὴν κύστιν ὀλίγον διὰ τολυπίου καὶ οὕτω δυνάμεθα νὰ συρράψωμεν εὐχερῶς τὸ περιτοναϊκὸν κράσπεδον ἐπὶ τῆς ὀπισθίας ἐπιφανείας τῆς μήτρας (Liepmann).

Ἐπὶ ἀλλοιώσεων μᾶλλον ἐκτεινομένων δέον νὰ ἀφαιρῆται πλὴν τῶν ἐξαρτημάτων καὶ ἡ μήτρα μερικῶς ἢ ὁλικῶς (ὁλικὴ ἀφαίρεσις, ὑπερκολπικὴ ὑστερεκτομή, ἢ πυθμενικὴ ὑστερεκτομὴ κατὰ Beuttner).

Προτιμοτέρα εἶναι ἡ ὁλικὴ ἐξαίρεσις, διότι ἀφ' ἑνὸς ἐπιτρέπει ἐξαιρετικὴν παροχέτευσιν πρὸς τὸν κολεὸν καὶ ἀφ' ἑτέρου ἀποφεύγονται τὰ δυσάρεστα καὶ δυσχερῶς θεραπευόμενα ἐξιδρώματα τῶν κολοβωμάτων τῆς ὑπερκολπικῆς ὑστερεκτομῆς Μετὰ τὴν διάνοιξιν εἰς βαρείας περιπτώσεις εὑρίσκομεν τὴν ἐλάσσονα πύελον πεπληρωμένην ὑπὸ ἀμόρφου μάζης καὶ ἥτις ἀρχικῶς καθιστᾶ ἀδύνατον τὸν προσανατολισμόν. Τὰ γεννητικὰ ὄργανα καλύπτονται ὑπὸ ἐπιπλόου καὶ ἐντερικῶν ἑλίκων, μόνον δὲ δι' ὑπομονητικῶς καὶ βραδέως ἐκτελουμένης εἰς τὸ βάθος παρασκευῆς κατορθοῦμεν νὰ ἀποχωρίσωμεν τὰς συμφύσεις ἐν μέρει διὰ ψαλιδίου, ἐν μέρει ἀμβλέως, καὶ τέλος νὰ συλλάβωμεν τὴν μήτραν διὰ πολυοδοντικῆς λαβίδος. Ἕλκομεν ταύτην ἰσχυρῶς πρὸς τὰ ἔξω καὶ ἀπομονοῦμεν τὴν περιτοναϊκὴν κοιλότητα δι' ὀθονῶν λίαν πρό-

σεκτικῶς, ἕνεκα τοῦ ὑφισταμένου πάντοτε κινδύνου τῆς ρήξεως πυωδῶν ὄγκων. Νῦν ἐνῷ ἡ ἀριστερὰ χεὶρ ἕλκει τὴν μήνραν σταθερῶς πρὸς τὰ ἔξω, εἰσάγομεν τὴν δεξιὰν χεῖρα μεταξὺ ὄγκου καὶ πυελικοῦ τοιχώματος εἰς τὸν Δουγλάσειον χῶρον καὶ προσπαθοῦμεν, ὡς συνήθως τὸ τοιοῦτον πράττομεν ἐπὶ δακτυλικῆς ἀποκολλήσεως τοῦ πλακοῦντος διὰ βραδείας προωθήσεως τοῦ χείλους τῆς ἄκρας χειρὸς νὰ συλλάβωμεν ἐντὸς τοῦ κοίλου τῆς παλάμης τὸν ἀκέραιον ὄγκον *(εἰκ. 125—126)*. Αἱ ἰσχυραὶ συμφύσεις δέον καὶ ἐνταῦθα νὰ διατέμνωνται διὰ ψαλιδίου. Ἐὰν ὁ ὄγκος ἔχει ἀναπτυχθῆ ἐνδοδεσμικῶς, ἀναζητοῦμεν ὅσον τὸ δυνατὸν ὑψηλὰ τὸν οὐρητῆρα ὅστις διατρέχει κίνδυνον καὶ παρακολουθοῦμεν τοῦτον πρὸς τὰ κάτω μέχρι τῆς κύ-

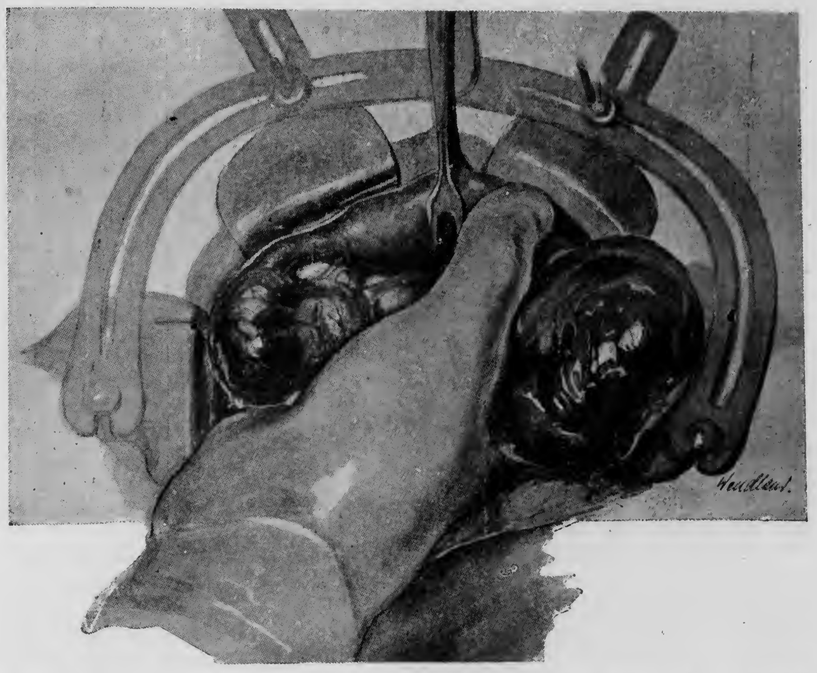


Εἰκ. 125.—Κοιλιακὴ ἐγχείρησις τῶν ὄγκων τῶν ἐξαρτημάτων. Ἡ μήτρα ἔχει συλληφθῆ δι' ἀγκιστροειδοῦς λαβίδος καὶ ἕλκυσθῆ πρὸς τὰ ἀριστερὰ καὶ ἔξω. Ἐπὶ τῆς χειρὸς εὑρίσκεται ὁ ἀποκολληθεὶς δεξιὸς ἐξαρτηματικὸς ὄγκος.

στεως κατὰ τὴν ἀποψίλωσιν τοῦ ὄγκου. Δὲν συμφωνοῦμεν πρὸς τὴν ἐφαρμοζομένην ὑπὸ ἄλλων χειρουργῶν κένωσιν τῶν πυωδῶν σάκκων διὰ παρακεντήσεως, διότι δι' αὐτῆς ὁ κίνδυνος τῆς λοιμώξεως ἀσημάντως ἐλαττοῦται, ἐνῷ τοὐναντίον ἡ ἀποψίλωσις τοῦ ὄγκου ἐμφανίζει σημαντικὰς δυσχερείας. Ἐπειδὴ ἐκ τῶν προτέρων ἔχομεν ἀπομονώσει καλῶς τὴν ἐλευθέραν περιτοναϊκὴν κοιλότητα, ἡ ρῆξις τῶν πυωδῶν σάκκων, ἥτις δὲν εἶναι δυνατὸν πάντοτε νὰ ἀποφευχθῆ κατὰ τὴν ἐγχείρησιν, δὲν ἔχει μεγάλην σημασίαν, ἰδίᾳ ὅταν πρόκειται περὶ γονοκοκκικοῦ πύου στείρου κατὰ τὸ πλεῖστον μικροβίων. Ἐπειδὴ ὅμως οὐδέποτε εἶναι δυνατὸν νὰ ἀποκλείσωμεν μετὰ βεβαιότητος δευτεροπαθῆ λοίμωξιν διὰ κολοβακτηριδίων σταφυλοκόκκων ἢ στρεπτοκόκκων, δέον νὰ ἀποσπογγίζωμεν ἐπιμελῶς διὰ τολυπίων καὶ σπληνίων γάζης τὸ

ἐκρέον πύον, νὰ ἀντικαθιστῶμεν τὰς ὀθόνας ἀπομονώσεως διὰ νέων καὶ ἀφοῦ ἀλλάξομεν χειρόκτια νὰ συνεχίσωμεν τὴν ἐγχείρησιν. Εἶναι δυνατὸν νὰ ἐπισυμβῇ τραυματισμὸς τοῦ ἐντέρου καὶ ἄνευ ὑπαιτιότητος τοῦ χειρουργοῦ, εἰς περιπτώσεις καθ' ἃς ἔχει νεκρωθῇ ἡ συμφυομένη μετὰ τοῦ ὄγκου ἕλιξ καὶ κατὰ τὸ σημεῖον τῆς συμφύσεως αὐτῆς.

Συρράπτομεν τὴν ὀπὴν τοῦ ἐντέρου διὰ διπλῆς ραφῆς κατὰ Lembert εἰ δυνατὸν κατὰ τὸν ἐγκάρσιον ἄξονα αὐτοῦ πρὸς ἀποφυγὴν στενώσεως. Συνήθως προβαίνομεν εἰς τὴν ἐξαίρεσιν τῆς μήτρας, μετὰ τὴν ἀποκόλλησιν τῶν ὄγκων. Ἐὰν ὅμως πρόκειται περὶ λίαν δυσχερῶν περιπτώσεων μετὰ στερρῶν συμφύσεων, ἀφαιροῦμεν τὴν μήτραν μετὰ προηγούμενον διχασμὸν αὐτῆς κατὰ τὴν μέσην γραμμὴν καὶ ἀποκολλῶμεν ἀκολούθως τὰ ἐξαρτήματα ἀπὸ τὰς συμφύσεις αὐτῶν (μέθοδος J. L. Faure) Ἡ τεχνικὴ εἶναι ἡ ἀκόλουθος :



Εἰκ. 126.—Κοιλιακὴ ἐγχείρησις τῶν ὄγκων τῶν ἐξαρτημάτων. Τὰ ἀριστερὰ ἐξαρτήματα ἔχουν ἀποκολληθῆ ὁμοίως διὰ τῆς χειρός.

Συλλαμβάνομεν τὴν μήτραν κατ' ἀμφότερα τὰ πλάγια τοῦ πυθμένος διὰ δύο ἰσχυρῶν πολυοδοντικῶν λαβίδων καὶ τέμνομεν ταύτην κατὰ τὴν μέσην γραμμὴν δι' εὐθέος ψαλιδίου μέχρι τοῦ τραχήλου. Ἀκολούθως συλλαμβάνομεν δι' ἄλλης πολυοδοντικῆς λαβίδος τὸ κατώτατον σημεῖον τοῦ ἑνὸς ἡμίσεος τῆς μήτρας καὶ ἀποσπῶμεν διὰ μικρῶν τομῶν τοῦ ψαλιδίου τὸν τράχηλον ἀπὸ τοῦ θόλου τοῦ κολεοῦ, ὁπότε γίνεται καταφανὴς ἡ μητριαία ἀρτηρία. Μετὰ τὴν ἀπολίνωσιν ταύτης δυνάμεθα νὰ ἀποκολλήσωμεν τὰ ἐξαρτήματα λίαν εὐχερῶς ἕλκοντες συνεχῶς τὰς λαβίδας τῆς μήτρας, προχωροῦντες ἄλλοτε διὰ τοῦ ψαλιδίου, ἄλλοτε δὲ ἀμβλέως, ἀπὸ τῆς μέσης γραμμῆς πρὸς τὰ πλάγια. Κατὰ τὸν αὐτὸν τρόπον ἐξαιρεῖται ἀκολούθως τὸ ἕτερον ἥμισυ τῆς μήτρας μετὰ τῶν ἐξαρτημάτων. Προτιμῶμεν τὴν μέθοδον ταύτην τῆς ὑπερκολπικῆς ὑστερεκτομῆς ὁμοίως ἐκτελουμένην, καθ' ἣν μετὰ τὸν διχασμὸν τῆς μήτρας μέχρι τοῦ ἰσθμοῦ

διατέμνεται ἐγκαρσίως ὁ τράχηλος διὰ κυρτοῦ ψαλιδίου, μεθ' ὃ ἐπακολουθεῖ ἡ ἐξαίρεσις τῶν ἐξαρτημάτων ὡς ἄνω.

Εὐνόητον εἶναι ὅτι μετὰ προηγηθεῖσαν ἐγκαρσίαν διατομὴν τοῦ περιτοναίου τῆς κύστεως καὶ πρὸ τοῦ διχασμοῦ τῆς μήτρας δέον νὰ ἀπωθηθῇ ἡ κύστις πρὸς τὰ κάτω καὶ δὴ ὅσον τὸ δυνατὸν περισσότερον ἐπὶ τῆς ὁλικῆς, ὀλιγώτερον δὲ ἐπὶ τῆς ὑπερκολπικῆς ὑστερεκτομῆς.

Εἰς δυσκόλους περιπτώσεις συνιστᾶται ὡσαύτως ἡ μέθοδος τοῦ Kelly. Κατὰ ταύτην ἀρχόμεθα διὰ τῆς ἀποκολλήσεως τῶν ἐξαρτημάτων καὶ τῆς διατομῆς τοῦ πλατέος συνδέσμου κατὰ τὸ πλάγιον, οὗτινος τὴν ἀποκόλλησιν θεωροῦμεν εὐχερεστέραν. Διατέμνομεν ἐγκαρσίως τὸ περιτόναιον τῆς κύστεως καὶ ἀπωθοῦμεν τὴν κύστιν διὰ τολυπίου, ὅσον τὸ δυνατὸν πρὸς τὴν ἠβικὴν σύμφυσιν. Συλλαμβάνομεν ἀκολούθως τὴν ἀποκαλυφθεῖσαν μητριαίαν ἀρτηρίαν διὰ μακρᾶς λαβίδος καὶ διατέμνομεν διὰ τοῦ μαχαιρίου ἢ ψαλιδίου τὴν μήτραν ὑπερκολπικῶς κατὰ τὴν χώραν τοῦ ἰσθμοῦ. Ἕλκομεν εἶτα ταύτην ἰσχυρῶς πρὸς τὸ ἄλλο πλάγιον, ἀπολινοῦμεν καὶ τὴν ἑτέραν μητριαίαν ἀρτηρίαν καὶ ἀποκολλῶμεν τὰ ἐξαρτήματα πάλιν ἐκ τῆς μέσης γραμμῆς πρὸς τὰ πλάγια. Συρράπτομεν ἐν τέλει, ἀνεξαρτήτως τῆς μεθόδου ἣν ἠκολουθήσαμεν. πρὸς ἄλληλα τὸ πρόσθιον καὶ ὀπίσθιον κολπικὸν τοίχωμα, ἐπὶ δὲ ὑπερκολπικῆς ὑστερεκτομῆς τὸ πρόσθιον καὶ ὀπίσθιον τμῆμα τοῦ τραχηλικοῦ κολοβώματος. Ἀκολουθεῖ ἐπιμελὴς περιτοναιοπλαστικὴ διὰ συρραφῆς τοῦ περιτοναίου τῆς κύστεως πρὸς τὸ τοῦ ἀπευθυσμένου καὶ ἐνταφιασμὸς τῶν κολοβωμάτων τῶν ἀπολινώσεων. Ἐὰν καθίσταται ἡ παροχέτευσις ἀπαραίτητος, διενεργεῖται αὕτη ἢ διὰ τοῦ ἀνοίγματος τοῦ κολεοῦ ἢ κατὰ τὴν ὑπερκολπικὴν ὑστερεκτομήν, δι' ὀπῆς διανοιγομένης πρὸς τοῦτο κατὰ τὸν ὀπίσθιον κολπικὸν θόλον.

Ἐὰν ἡ ἐπίσχεσις τῆς αἱμορραγίας ἐμφανίζει δυσχερείας, ἰδίᾳ ἐν περιπτώσει παροχετεύσεως πρὸς τὸν κολεόν, ἐφαρμόζομεν τὴν μέθοδόν μου αἱμοστάσεως μὲ ἄμεσον ἀποτέλεσμα.

6') Κολπικὴ ἐγχείρησις τῶν φλεγμονωδῶν παθήσεων τῶν ἐξαρτημάτων

Ἡ κολπικὴ ἐξαίρεσις τῆς μήτρας εἰς φλεγμονώδεις παθήσεις τῶν ἐξαρτημάτων, μετ' ἐπακολουθοῦσαν διάνοιξιν τῶν πυωδῶν σάκκων, ἐξετελέσθη τὸ πρῶτον ὑπὸ τοῦ Péan, ἐπὶ σκοπῷ καλῆς παροχετεύσεως πρὸς τὸν κολεόν. Ἐπειδὴ τὰ ἀποτελέσματα δὲν ἦσαν ἐνθαρρυντικὰ ἐγκατελείφθη καὶ πάλιν ἡ μέθοδος αὕτη καὶ ἐπανῆλθεν ἡ κολπικὴ ὁλικὴ ἀφαίρεσις τῆς μήτρας μετὰ τῶν ἐξαρτημάτων.

Προβαίνομεν ὡς ἀκολούθως :

Τομὴ Schuchard, ἥτις εὐχεραίνει λίαν τὴν ἐγχείρησιν καὶ ἐξαίρεσις τῆς μήτρας κατὰ τὸν ἤδη περιγραφέντα τρόπον.

Ἀμέσως μετὰ τὴν ἀναστροφὴν τῆς μήτρας πρὸς τὰ πρόσω εἰσάγομεν μεγάλην ὀθόνην φέρουσαν ῥάμμα ἐντὸς τῆς κοιλιακῆς κοιλότητος. Ἐν περιπτώσει ἰσχυρῶν συμφύσεων καὶ διηθήσεων ἡ ἀναστροφὴ τῆς μήτρας ἐμφανίζει ἐνίοτε δυσχερείας, ἃς ὑπερνικῶμεν διὰ τοῦ διχασμοῦ τοῦ προσθίου τοιχώματος (Doyen) ἢ τοῦ προσθίου καὶ ὀπισθίου τοιχώματος αὐτῆς (Müller). Ὁ Döderlein συνιστᾷ τὸν διχασμὸν τοῦ ὀπισθίου τοιχώματος τῆς μήτρας καὶ τὴν ἀναστροφὴν τοῦ σώματος τῆς μήτρας διὰ τοῦ ὀπισθίου κολπικοῦ θόλου, μέθοδος ἥτις ἐνδείκνυται ἰδίᾳ ἐπὶ ὀπισθίας κάμψεως τῆς μήτρας. Προκειμένου περὶ ἁπλῶν περιπτώσεων εἶναι δυνατὸν νὰ γίνῃ ἡ ἐξαίρεσις τῶν ἐξαρτημάτων ὁμοῦ μετὰ τῆς διχασθείσης ἢ μὴ μήτρας εὐχερῶς. Ἐπὶ ἰσχυρῶν συμφύσεων ὅμως προτιμῶμεν τὴν προηγουμένην ἐξαίρεσιν τῆς μήτρας, καθ' ἣν πρὸς ἀποφυγὴν τραυματισμοῦ τοῦ οὐρητῆρος, δέον αἱ λαβίδες νὰ τοποθετῶνται ἀκριβῶς παρὰ τὰ χείλη τῆς μήτρας. Ἀκολούθως δυνάμεθα νὰ ἀφαιρέσωμεν τὰ ἐξαρτήματα. Ἐπακολουθεῖ ἡ ἀπολίνωσις τῶν ἀγγείων καὶ μετὰ τὴν ἀφαίρεσιν τῆς μεγάλης ὀθόνης σύγκλεισις τῆς περιτοναϊκῆς κοιλότητος, ἐφ' ὅσον δὲν ὑφίσταται ἀνάγκη παροχετεύσεως. Ἡ ἐγχείρησις αὕτη ἐξετελεῖτο ἀπὸ πολλοῦ χρόνου εἰς τὰς περιπτώσεις καθ' ἃς οἱ ὄγκοι εὑρίσκοντο εἰς τὴν κατωτέραν μόνον μοῖραν τῆς ἐλάσσονος πυέλου, ἐνῷ ἀντιθέτως ἐπὶ ὄγκων οἵτινες ἐξετείνοντο λίαν πρὸς τὰ ἄνω δὲν εἶχε τολμηθῇ ἡ ἐπέμβασις, ἕνεκα τοῦ ἀδυνάτου τῆς ἀκριβοῦς αἱμοστάσεως καὶ τοῦ ὑπάρχοντος κινδύνου τραυματισμοῦ τῶν παρακειμένων ὀργάνων.

Πρὸ ἐτῶν ἠναγκάσθην νὰ χειρουργήσω ἄρρωστον μὲ ἐξαιρετικῶς βαρεῖαν ἐξαρτηματίτιδα.

Οἱ φλεγμονώδεις ὄγκοι ὑπερέβαινον τὴν εἴσοδον τῆς πυέλου, ἡ δὲ κατάστασις τῆς ἐξαιρετικῶς ἐξηντλημένης ἀρρώστου, ἕνεκα τοῦ συνεχοῦς πυρετοῦ, διαρκέσαντος ἐπὶ πολλοὺς μῆνας, ἐπεδεινοῦτο ἀπὸ ἡμέρας εἰς ἡμέραν. Πιεζόμενος ὑπὸ τῆς ἀνάγκης ἐπεχείρησα νὰ σώσω τὴν ἄρρωστον διὰ λαπαροτομῆς, ἀλλ' ἀμέσως μετὰ τὴν διάνοιξιν τῆς περιτοναϊκῆς κοιλότητος καὶ τὴν ἀποκόλλησιν τῶν ἐντερικῶν ἑλίκων ἐξεκενώθη εἰς ποσότητα πύον δύσοσμον οὕτως, ὥστε ὑπεχρεώθην νὰ ἐγκαταλείψω τὴν σκέψιν τῆς ριζικῆς ἐγχειρήσεως καὶ κατόπιν εὐρείας παροχετεύσεως ἐπανέκλεισα τὴν περιτοναϊκὴν κοιλότητα. Ἡ ἀξιοθρήνητος κατάστασις τῆς ἀρρώστου δὲν ἐβελτιώθη καὶ οὕτω ἀπεφάσισα 50 ἡμέρας μετὰ τὴν πρώτην ἐπέμβασιν νὰ ἀφαιρέσω τὴν μήτραν καὶ τὰ ἐξαρτήματα κολπικῶς μὲ τὸ ἀποτέλεσμα ὅτι ἡ γυνὴ ἠδυνήθη νὰ ἐγκαταλείψῃ τὴν κλινικὴν ὑγιής (1).

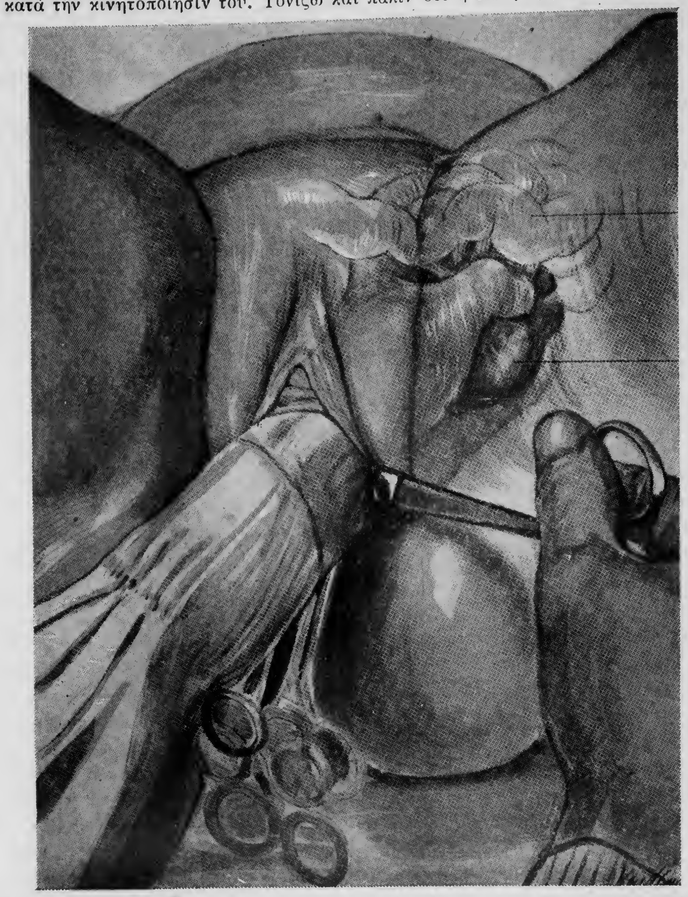
Ἀκολούθως ἐχειρούργησα 23 ἔτι ὁμοίας περιπτώσεις, ἐξ ὧν 2 ἀπεβίωσαν, ἡ μία ἕνεκα περιτονίτιδος, ἡ ἄλλη ἕνεκα γαγγραίνης τῆς τομῆς Schuchardt, ἥτις ἐμολύνθη κατὰ τὴν διάρκειαν τῆς ἐγχειρήσεως ὑπὸ τοῦ λίαν λοιμογόνου πύου. Ἐπρόκειτο κατὰ κανόνα περὶ ἐξαιρετικῶς βαρειῶν σηπτικῶν περιπτώσεων, ἐπὶ τῶν ὁποίων ἡ λαπαροτομὴ δὲν θὰ εἶχεν ἀποτέλεσμα. Αἱ πλεῖσται τῶν ἀρρώστων τούτων εὑρίσκοντο ἤδη ἐπὶ μῆνας εἰς διαφόρους τῶν ἐνταῦθα χειρουργικῶν-γυναικολογικῶν κλινικῶν ὑπὸ θεραπείαν, οἱανδήποτε δύναταί τις νὰ φαντασθῇ (σουλφαμίδαι καὶ πενικιλλίνη δὲν ὑπῆρχον τὴν ἐποχὴν ἐκείνην), ἀπεστάλησαν δὲ εἰδικῶς πρὸς ἐμὲ διὰ τὴν ἐγχείρησιν ταύτην. Ἡ ἐγχειρητικὴ αὕτη μέθοδος διαφέρει οὐσιωδῶς τῶν ἄλλοτε ἐφαρμοζομένων, καθ' ὅσον δὲν ἀρκοῦμαι εἰς τὴν ἀποκόλλησιν τῶν ἐξαρτηματικῶν ὄγκων δι' ἑνὸς ἢ δύο δακτύλων, τοῦθ' ὅπερ εἶναι δυνατὸν μόνον ἐπὶ ὄγκων οἵτινες κεῖνται εἰς τὴν κατωτάτην μοῖραν τῆς πυέλου, ἀλλ' ὅτι εἰσάγω ἐντὸς τῆς πυελικῆς κοιλότητος τοὺς 4 δακτύλους ἢ καὶ ὁλόκληρον τὴν χεῖρα, δι' ἧς οὕτω δύναμαι νὰ ἀποφλοιώσω καὶ ἐξαιρέσω ὄγκους κειμένους εἰς τὴν ἀνωτάτην μοῖραν τῆς πυέλου. Τὸ τοιοῦτον δὲν ἦτο δυνατὸν νὰ ἐκτελεσθῇ πρότερον, μὴ οὔσης γνωστῆς τῆς ἡμετέρας αἱμοστατικῆς μεθόδου. Ἡ ἰδία μέθοδος συνεστήθη μετὰ ταῦτα καὶ ὑπὸ τοῦ Bucura (2).

Ἡ ἐγχείρησις ἐκτελεῖται ὡς ἀκολούθως :

Μονόπλευρος μεγάλη τομὴ Schuchart διὰ γαλβανο-θερμοκαυτῆρος πρὸς προφύλαξιν κατὰ τὸ δυνατὸν τῶν τραυματικῶν ἐπιφανειῶν ἀπὸ τῆς λοιμώξεως. Μετὰ τὴν ὑστερεκτομήν, ἐνεργουμένην κατὰ τὸν ἄνω περιγραφέντα τρόπον, ἀπομακρύνω τοὺς κολποδιαστολεῖς καὶ εἰσάγω ὁλόκληρον τὴν χεῖρα ἐντὸς τῆς κολπικῆς κοιλότητος καὶ ἀρχομαι τῆς ἀποκολλήσεως τῶν ὄγκων. Προβαίνω ὡς καὶ κατὰ τὴν ἀποκόλλησιν τοῦ πλακοῦντος διὰ τῆς χειρός, δηλαδὴ ἀναζητῶ ἔν σημεῖον ἐξ οὗ εὐχερέστερον δύναμαι νὰ εἰσδύσω μεταξὺ τοῦ ὄγκου καὶ τοῦ τοιχώματος τῆς πυέλου καὶ ἐκ τοῦ σημείου τούτου ἀποκολλῶ βαθμηδόν, ψηλαφῶν τὰς συμφύσεις καὶ καθελκύων τὸν ὄγκον κατὰ τὸ δυνατὸν ἀτεμάχιστον, ὅπερ βεβαίως δὲν ἐπιτυγχάνεται πάντοτε (*εἰκ. 127—128*). Κατὰ τὸ πλεῖστον ἐπέρχεται ῥῆξις τοῦ πυώδους σάκκου, ὁπότε συλλαμβάνω δι' ἰσχυρῶν λαβίδων τὰ πλαδαρὰ τοιχώματα αὐτοῦ καὶ δι' ἕλξεως αὐτῶν πρὸς τὰ κάτω εὐχεραίνω τὴν περαιτέρω ἀποκόλλησιν. Πρὸς ἀποφυγὴν τῆς διασπάσεως τῆς ἀφοριστικῆς ζώνης, ἥτις ἔχει δημιουργηθῇ ὑπὸ τῶν συγκολληθεισῶν ἐντερικῶν ἑλίκων ὑπεράνω τῶν φλεγμονωδῶν ὄγκων καὶ ἥτις ἔχει ἀποκλείσει τὴν μεγάλην περιτοναϊκὴν κοιλότητα, προσπαίω πάντοτε ὅπως εὑρίσκεται ἡ χείρ μου εἰς ἐπαφὴν πρὸς τὴν ἀνωτάτην μοῖραν τοῦ ὄγκου. Ἐὰν παρὰ ταῦτα ἡ χεὶρ ἔλθῃ εἰς ἐπαφὴν πρὸς τὴν ἐλευθέραν περιτοναϊκὴν κοιλότητα, τὸ τοιοῦτον δὲν ἔχει δυσάρεστα ἀποτελέσματα, ὡς ἐκ πείρας γνωρίζω. Ἵνα διευκολυνθῇ ἡ ἐκροὴ τοῦ πύου πρὸς τὰ ἐκτὸς κατὰ τὴν διάρκειαν τῆς ἐγχειρήσεως πάντες οἱ χειρισμοὶ ἐκτελοῦνται εἰς ἐλαφρὸν προκλινὲς ἐπίπεδον. Αἱ συμφύσεις λύονται μετ' ἐκπληκτικῆς εὐκολίας καὶ δὴ εὐκολώτερον ἢ κατὰ τὴν λαπαροτομήν. Ἡ αἱμόστασις γίνεται ὡς συνήθως διὰ συλλήψεως τῶν ἀγγείων καὶ ἀκολούθου ἀπολινώσεως αὐτῶν, ἀλλὰ παραδόξως ἡ αἱμορραγία γενικῶς εἶναι μικρά, ὥστε εἰς μίαν περίπτωσιν δὲν ἐχρησιμοποίησα οὔτε ἀπολινώσεις οὔτε τὸν αἱμοστατικὸν πωματισμόν

1. Zbl. Gynäk. 1933 No 14.
2. Bucura Veit—Stöckel Handb. F. Gyn. III Aufl. Bd, VIII S. 278.

μου, ἐφήρμοσα δ' ἁπλοῦν πωματισμὸν κατὰ Mikulicz. Βεβαίως χρησιμοποιῶ κατὰ προτίμησιν τὸν αἱμοστατικὸν πωματισμόν μου ἐν περιπτώσει αἱμορραγίας, καθ' ὅσον εἰς πάσας τὰς περιπτώσεις εἶναι ἀναγκαία καὶ ἡ παροχέτευσις. Παραδόξως δὲν συναντῶμεν μεγάλας δυσχερείας κατὰ τὴν ἀποκόλλησιν τῶν ἐξαρτημάτων, ἀλλὰ μᾶλλον κατὰ τὴν ἀφαίρεσιν τῆς μήτρας, καθ' ὅσον τὸ σῶμα ταύτης ἔχει ἐνίοτε ἐντοιχισθῆ ἐντὸς συμφύσεων καὶ ἐμφανίζει ἰσχυρὰν ἀντίστασιν κατὰ τὴν κινητοποίησίν του. Τονίζω καὶ πάλιν ὅτι ἡ εἰσαγωγὴ ὁλοκλήρου τῆς χειρὸς



Εἰκ. 127.—Κολπικὴ ἐξαίρεσις ἐξαρτηματικῶν ὄγκων κατὰ **Λογοθετόπουλον**. *Μετὰ κολπικὴν ἐξαίρεσιν τῆς μήτρας, ὁλόκληρος ἡ ἀριστερὰ χεὶρ εἰσαχθεῖσα εἰς τὴν περιτοναϊκὴν κοιλότητα ἀποκολλᾷ τὰ ἀριστερὰ ἐξαρτήματα ἀπὸ τῶν ἐπικαθημένων ἐντερικῶν ἑλίκων καὶ τοῦ ἐπιπλόου, καθ' ὃν χρόνον ἡ δεξιὰ χεὶρ ἕλκει ἐλαφρῶς πρὸς τὰ ἔξω τοὺς συλληφθέντας διὰ λαβίδων ἐξαρτηματικοὺς μίσχους.*

ἀποτελεῖ οὐσιῶδες μέρος τῆς τεχνικῆς μου, καθ' ὅσον μόνον οὕτω εἶναι δυνατὴ ἡ ἀκριβὴς καὶ σαφὴς ψηλάφησις ὅλων τῶν ὀργάνων, τοῦθ' ὅπερ δὲν ἐπιτυγχάνεται δι' ὀλίγων δακτύλων. Εὔχερῶς δυνάμεθα νὰ ἐκτιμήσωμεν ποίας συμφύσεις δυνάμεθα νὰ λύσωμεν ἀμβλέως καὶ ποίας νὰ διαχωρίσωμεν διὰ τοῦ ψαλιδίου ὑπὸ τὴν καθοδήγησιν τοῦ ὀφθαλμοῦ. Ἐπὶ ὑφιστάμενων συμφύσεων μεταξὺ ἐντέρων καὶ ἐξαρτημάτων, ἕλκομεν ἁπλῶς τὴν συμφυομένην ἕλικα ὁμοῦ μετὰ τοῦ ὄγκου πρὸς τὰ ἔξω, ὁπότε εἶναι δυνατὸν αὗται νὰ ἀποχωρισθῶσι διὰ τοῦ ψαλι-

δίου. Εἰς μίαν περίπτωσιν ἠδυνήθην μάλιστα κατ' αὐτὸν τὸν τρόπον νὰ ἐξαιρέσω μέγα τμῆμα νεκρωθέντος λεπτοῦ ἐντέρου. Εἶμαι βέβαιος ὅτι ἡ ἐγχείρησις αὕτη, ἥτις φαίνεται πολὺ δυσχερεστέρα ἢ ὅσον εἶναι εἰς τὴν πραγματικότητα, εἶναι δυνατὸν νὰ ἐκτελῆται ὑπὸ παντὸς γυναικολόγου κατέχοντος τὴν κολπικὴν τεχνικὴν καὶ ὡς ἐλπίζω θὰ ἐκτελῆται, διότι ἀποτελεῖ αὕτη εἰς ὡρισμένας περιπτώσεις τὴν μόνην δυνατότητα διασώσεως μιᾶς ἀνθρωπίνης ὑπάρξεως.

12. Ἐξωμήτριος κύησις

Ἡ θεραπεία τῆς ἐξωμητρίου κυήσεως εἶναι πάντοτε χειρουργική, ὅσον ἀφορᾶ δὲ εἰς τοῦτο δέον νὰ μὴ ὑφίσταται διχογνωμία. Φρονοῦμεν ὅτι καὶ ὁ χρόνος οὐδεμίαν ἐπίδρασιν ἔχει ἐπὶ τῆς ἐνδείξεως τῆς ἐγχειρήσεως καὶ ὅτι εἰς προκεχωρημένην κύησιν καὶ ἂν αὕτη ἔτι

Εἰκ. 128.—Κολπικὴ ἐξαίρεσις τῶν ἐξαρτηματικῶν ὄγκων κατὰ **Λογοθετόπουλον**. *Τὰ ἀποκολληθέντα καὶ πρὸς τὰ ἔξω ἑλκυσθέντα ἀριστερὰ ἐξαρτήματα ἐπικάθηνται ἐπὶ τῆς χειρός.*

διατρέχῃ καὶ τὸ δεύτερον ἥμισυ, ἡ σκέψις ὅτι πιθανῶς δυνάμεθα νὰ ἔχωμεν ζῶν ἔμβρυον δέον ἵνα μὴ ἀπομακρύνῃ ἡμᾶς ἀπὸ τὸν βασικὸν τοῦτον κανόνα. Ὅσον περισσότερον ἔχει προχωρήσει ἡ κύησις, τόσον μεγαλύτερος εἶναι ὁ κίνδυνος τῆς ἐγχειρήσεως, ἕνεκα ἀθρόας ἀναπτύξεως τῶν ἀγγείων τοῦ πλακοῦντος καὶ δημιουργίας ὠργανωμένων συμφύσεων. Πλὴν τούτου τὰ κατὰ τὸ τέρμα τῆς κυήσεως ἐξαιρούμενα ἔμβρυα ἐμφανίζουν συχνάκις διαμαρτίαν (ἄνω τῶν

30 %), ὥστε γενικῶς εἶναι λίαν προβληματικόν, ἐὰν πρέπει ἕνεκα τοῦ λόγου τούτου νὰ ἐκθέτωμεν ὑγιᾶ γυναῖκα εἰς τοὺς σοβαρωτάτους τούτους κινδύνους.

Γενικῶς ἡ ἐγχείρησις τῆς ἐξωμητρίου κυήσεως κατὰ τοὺς πρώτους μῆνας εἶναι εὐχερής. Περιπτώσεις τινὲς δύνανται νὰ χειρουργηθοῦν καὶ διὰ τῆς κολπικῆς ὁδοῦ. Προτιμῶμεν τὴν λαπαροτομὴν ἕνεκα τῆς καλλιτέρας ἐπισκοπήσεως καὶ μικροτέρας ἀπωλείας αἵματος. Ἅμα τῇ διανοίξει τῆς κοιλίας εἰσάγομεν ὁλόκληρον τὴν χεῖρα κατὰ βάθος καὶ προσπαθοῦμεν νὰ φέρωμεν πρὸς τὰ ἔξω τὴν πάσχουσαν σάλπιγγα, ἐν περιπτώσει δὲ καθ' ἣν ἡ περιτοναϊκὴ κοιλότης εἶναι πεπληρωμένη αἵματος, ὁδηγούμεθα κατὰ τὸ πλεῖστον διὰ τῆς ἀφῆς. Ὑφισταμένη τυχὸν αἱμορραγία ἐπίσχεται προσωρινῶς διὰ δύο λαβίδων, τοποθετουμένης τῆς μιᾶς παρὰ τὸ χεῖλος τῆς μήτρας, τῆς ἄλλης δὲ κάτω τοῦ κρεμαστῆρος συνδέσμου, μέχρι οὗ διὰ τῆς ἐπισκοπήσεως ἀντιληφθῶμεν ὅτι δυνάμεθα νὰ διατηρήσωμεν μέρος τῆς σάλπιγγος. Ἐν πάσῃ περιπτώσει προσπαθοῦμεν νὰ διατηρήσωμεν τὴν ὠοθήκην. Ἡ ἐξαίρεσις τῆς σάλπιγγος ἐκτελεῖται ὡς καὶ ἐπὶ τῶν φλεγμονωδῶν παθήσεων (εἰκ. 82). Ὑφισταμένων ἰσχυρῶν συμφύσεων ἐξάγομεν τὴν συλληφθεῖσαν δι' ἀγκιστρωτῆς λαβίδος μήτραν πρὸς τὰ ἔξω καὶ προσανατολιζόμεθα οὕτω εὐχερέστερον. Ἡ ἀποκόλλησις τῆς ἰνώδους κάψης παλαιᾶς ἐξωμητρίου κυήσεως, σχηματιζομένης ὑπὸ τῶν γειτνιαζόντων ἐντερικῶν ἑλίκων καὶ τοῦ ἐπιπλόου, δύναται νὰ προκαλέσῃ μεγάλας δυσχερείας, πολλάκις δὲ καθίσταται ἀδύνατος οὕτως, ὥστε ἀναγκαζόμεθα νὰ ἐγκαταλείψωμεν τμήματα αὐτῆς. Τὸ πέρας τῆς ἐγχειρήσεως ἀποτελεῖ κατὰ κανόνα ἡ ἐπισκόπησις τῶν ἐξαρτημάτων τοῦ ἑτέρου πλαγίου, ἅτινα καὶ ἐπὶ ὑπάρξεως ἔτι μὴ οὐσιωδῶν φλεγμονωδῶν ἀλλοιώσεων δέον εἰ δυνατὸν νὰ διαφυλάξωμεν πρὸς τὸν σκοπὸν διατηρήσεως τῆς γονιμότητος. Εἰς παλαιὰς περιπτώσεις μετ' ἐκτεταμένων ὀργανώσεων τοῦ πεπηγότος αἵματος ἀναγκαζόμεθα πολλάκις νὰ ἀφαιρέσωμεν καὶ αὐτὴν τὴν μήτραν φροντίζοντες ἵνα διατηρηθῇ τοὐλάχιστον ἡ μία ὠοθήκη. Μεμολυσμέναι ἢ ὕποπτοι μολύνσεως περιπτώσεις παροχετεύονται διὰ τοῦ θόλου τοῦ κολεοῦ, εἰς ὅλως δὲ ἐξαιρετικὰς περιπτώσεις παροχετεύομεν διὰ τῶν κοιλιακῶν τοιχωμάτων. Τὸ μολυνθὲν ὀπισθομήτριον αἱμάτωμα (πυρετός, ὑπερλευκοκύτωσις, αὔξησις τῆς ταχύτητος καθιζήσεως τῶν ἐρυθρῶν αἱμοσφαιρίων) διανοίγομεν μόνον δι' ὀπισθίας κολποτομῆς, ἀφαιροῦμεν τὰ πήγματα αἵματος καὶ παροχετεύομεν. Ἐὰν διὰ τῆς κολπικῆς ὁδοῦ δὲν δυνάμεθα νὰ φθάσωμεν τὸ περιαγωγικὸν αἱμάτωμα, ἀφαιροῦμεν διὰ λαπαροτομῆς τὸν ἐμβρυϊκὸν σάκκον καὶ ἐφαρμόζομεν ἐπιπωματισμὸν κατὰ Mikulicz.

Ἐπὶ ὑπάρξεως μεγάλης ποσότητος αἵματος ἐν τῇ περιτοναϊκῇ κοιλότητι ἀφαιροῦμεν τοῦτο διὰ τῆς παλάμης καὶ σπληνίων, ὅσον τὸ δυνατὸν ἐπιμελῶς, τὸ τοιοῦτον δ' εὐχεραίνεται δι' ἐλαφρῶς προκλινοῦς ἐπιπέδου τῆς ἀρρώστου. Ἐγκαταλειφθέντα ὑπολείμματα ἀπορροφῶνται ἄνευ βλάβης τινός. Ὡς πρὸς τὴν σκοπιμότητα τῆς ἐπανεγχύσεως τοῦ αἵματος τοῦ συλλεγέντος ἐκ τῆς περιτοναϊκῆς κοιλότητος (κατὰ Thiese) αἱ γνῶμαι διίστανται. Εἰς λίαν ἐξαιρέτους περιπτώσεις ἡ μετάγγισις αἵματος παρά τινος καταλλήλου δότου εἶναι ἀκινδυνοτέρα καὶ ἀποτελεσματικωτέρα. Εἰς τὰς πλείστας περιπτώσεις ἔσχομεν καλὰ ἀποτελέσματα δι' ἐνδοφλεβίου ἐγχύσεως ἁλατούχου ὀρροῦ καὶ ἀναληπτικῶν σκευασμάτων. Αὐτονόητον εἶναι ὅτι ἅπαντα τὰ πρὸς αὔξησιν τῆς πιέσεως τοῦ αἵματος μέσα δέον τὸ πρῶτον νὰ ἐφαρμόζωνται μετὰ τὴν τελείαν αἱμόστασιν.

Ἡ ἐγχείρησις τῆς ἐξωμητρίου κυήσεως τῶν τελευταίων μηνῶν εἶναι δυνατὸν νὰ ἐμφανίσῃ ὅλως ἐξαιρετικὰς δυσχερείας. Ὡς ἰδεώδη μέθοδον δέον πάντοτε νὰ θεωρῶμεν τὴν τελείαν ἀφαίρεσιν τοῦ ἐμβρυϊκοῦ σάκκου. Ἐὰν ὅμως ὁ πλακοῦς ἔχει ἐγκατασταθῇ μεταξὺ τῶν ἐντερικῶν ἑλίκων, τοῦ ἐπιπλόου ἢ πρὸς τὰ ἄνω (ὡς ἐπὶ παραδείγματι κατὰ τὸ ἧπαρ) συμβουλεύομεν καὶ τὸν μᾶλλον τολμηρὸν χειρουργὸν νὰ μὴ ἐπιδιώκῃ ριζικὴν ἐγχείρησιν, ἀλλὰ νὰ περιορίζηται εἰς τὴν ἀφαίρεσιν τοῦ κυήματος καὶ τὴν ἐγκατάλειψιν τμημάτων τοῦ ἐμβρυϊκοῦ σάκκου. Δὲν ἐπιδοκιμάζομεν τὴν ἰδίᾳ ὑπὸ Γάλλων συγγραφέων συνιστωμένην μέθοδον τῆς ραφῆς τοῦ ἐμβρυϊκοῦ σάκκου πρὸς τὰ κοιλιακὰ τοιχώματα, τὴν διάνοιξιν καὶ ἐξαίρεσιν τοῦ κυήματος καὶ ἐγκατάλειψιν τοῦ πλακοῦντος, ἕνεκα τῶν μεγάλων κινδύνων τῆς λοιμώξεως καὶ τῆς μετεγχειρητικῆς αἱμορραγίας. Εἴς τινας περιπτώσεις ἐνδείκνυται ἡ ἐκ τῶν προτέρων

ἀπολίνωσις τῆς ἔσω λαγονίου ἀρτηρίας (Amann). Εἰς ἄλλας περιπτώσεις ἀπεδείχθη ὁ ἡμέτερος αἱμοστατικὸς πωματισμὸς ὡς σωτήριος.

13. Ἡ χειρουργικὴ θεραπεία τῆς παραμητρίτιδος.

Ἐπὶ διαπυήσεως τοῦ συνεκτικοῦ ἱστοῦ τῆς ἐλάσσονος πυέλου τοῦ κειμένου ἐξωπεριτοναϊκῶς, ἀμέσως ὡς γίνει ἔκδηλος περίγραπτος συλλογὴ πύου, διανοίγομεν ταύτην δι' ὀπισθίας ἢ προσθίας κολποτομῆς, ἀναλόγως τῆς ἕδρας ταύτης. Πρὸς διευκόλυνσιν τῆς ἐκροῆς τοῦ πύου διευρύνομεν ἀμβλέως τὴν τομὴν εἰσάγοντες αἱμοστατικὴν λαβίδα καὶ διανοίγοντες ταύτην. Μετὰ τὴν διεύρυνσιν εἰσάγομεν δύο δακτύλους ἐντὸς τῆς κοιλότητος τοῦ ἀποστήματος καὶ διαχωρίζομεν τὰ ὑπάρχοντα κατὰ τὸ πλεῖστον διαφράγματα συνεκτικοῦ ἱστοῦ, σχηματιζομένης οὕτω ἐνιαίας κοιλότητος μετὰ λείων τοιχωμάτων. Μετὰ τὴν ἐκροὴν τοῦ πύου παροχετεύομεν ταύτην διὰ γάζης ἰωδοφορμίου, ἀποφεύγομεν ὅμως πλύσιν δι' ἀντισηπτικοῦ ὑγροῦ ἵνα μετ' ἀσφαλείας ἀποκλείσωμεν εἰσροὴν ἰογόνων οὐσιῶν ἐντὸς τῆς τυχὸν διανοιγείσης ἐλευθέρας περιτοναϊκῆς κοιλότητος. Μετὰ 48 ὥρας ἀντικαθιστῶμεν τὴν γάζαν διὰ παροχετευτικοῦ σωλῆνος, ὁπότε δυνάμεθα πλέον ἄνευ ἐνδοιασμοῦ νὰ ἀποπλύνωμεν τὴν πυώδη κοιλότητα. Ἀποστήματα τοῦ πλαγίου κοιλιακοῦ τοιχώματος ἅτινα δὲν δυνάμεθα νὰ φθάσωμεν ἐκ τοῦ κόλπου διανοίγομεν διὰ τομῆς μήκους 5—6 ἑκ., ἣν φέρομεν ἀκριβῶς ὑπεράνω καὶ παραλλήλως πρὸς τὸν πουπάρτειον σύνδεσμον. Διατέμνομεν τὸ δέρμα, τὸν ὑποδόριον συνεκτικὸν ἱστὸν καὶ τὴν ἀπονεύρωσιν, προχωροῦμεν ἀμβλέως διὰ τοῦ δακτύλου καὶ τοῦ κλειστοῦ ψαλιδίου διὰ μέσου τῶν μυῶν καὶ τοποθετοῦμεν τοὺς διαστολεῖς. Διαλύοντες τὰς τυχὸν ὑφισταμένας συμφύσεις προχωροῦμεν ἀμβλέως διὰ τοῦ δακτύλου ἀκολουθοῦντες ἐξωπεριτοναϊκῶς τὸ τοίχωμα τῆς πυέλου πρὸς τὸ βάθος μέχρι οὗ συναντήσωμεν πύον. Διευρύνομεν τὴν εἴσοδον πρὸς τὴν πυώδη κοιλότητα εἰσάγοντες 2 δακτύλους ἐντὸς αὐτῆς καὶ μεταβάλλομεν τὴν ἀνώμαλον κοιλότητα εἰς ὁμαλήν, διαχωρίζοντες ἀκριβῶς ὡς καὶ κατὰ τὴν κολπικὴν ἐπέμβασιν τὰ ἐκ συνεκτικοῦ ἱστοῦ διαφράγματα. Ἡ αἱμορραγία ἐπίσχεται πάντοτε δι' ἁπλοῦ πωματισμοῦ τῆς κοιλότητος διὰ γάζης ἰωδοφορμίου, ἣν ἀντικαθιστῶμεν ὁμοίως διὰ σωλῆνος μετὰ 48 ὥρας καὶ ἐκτελοῦμεν πλύσεις διὰ καθετῆρος διπλοῦ ρεύματος χρησιμοποιοῦντες πρὸς τοῦτο 2% ὑπεροξείδιον τοῦ ὑδρογόνου.

Ὅσον εὐχερὴς εἶναι ἡ θεραπεία τοῦ παραμητρικοῦ ἀποστήματος τόσον δυσχερεστέρα εἶναι ἡ θεραπεία τῆς *χρονίας ἰνώδους μορφῆς τῆς παραμητρίτιδος*.

Βάσις τῆς μέχρι τοῦδε θεραπείας ἦτο κατὰ πρῶτον λόγον ἡ ἐφαρμογὴ θερμότητος εἰς τὰς διαφόρους αὐτῆς μορφάς, ἤτοι ἑδρολούτρων, πλύσεων κολεοῦ καὶ ἀπευθυσμένου, φωτολούτρων, ἰλυολούτρων καὶ τελευταίως τῆς διὰ βραχέων κυμάτων θεραπείας, ἥτις ἀποτελεῖ πρόοδον ἔναντι τῆς διαθερμίας.

Τὰ ἀποτελέσματα διὰ ταύτης εἰς τὰς ἐνδιαφερούσας ἡμᾶς ἐνταῦθα περιπτώσεις δὲν εἶναι τόσον εὐνοϊκά, ὡς τὸ τοιοῦτον συμβαίνει κατὰ τὰς φλεγμονώδεις παθήσεις τῶν ἐξαρτημάτων ὅλως ἰδιαιτέρως. Ἐπὶ ἀρκούντως μακρᾶς διαρκείας θεραπείας κατορθοῦμεν δι' ὅλων τῶν μέσων τούτων εἰς μέγαν ἀριθμὸν περιπτώσεων αἰσθητὴν ὑποχώρησιν τῶν ὑποκειμενικῶν ἐνοχλημάτων καὶ τῶν ἀντικειμενικῶν εὑρημάτων οὕτως, ὥστε ἡ τοιαύτη συντηρητικὴ θεραπεία ἐπιβάλλεται εἰς ἑκάστην περίπτωσιν. Δυστυχῶς ὑπάρχει οὐχὶ μικρὸς ἀριθμὸς παραμητριτίδων, αἵτινες ἐλάχιστα ἢ οὐδόλως ἐπηρεάζονται ὑπὸ τῶν μέσων τούτων, περιπτώσεις καθ' ἃς ὁ παραμητρικὸς ἱστὸς ἔχει μεταβληθῇ εἰς σκληρὰν μάζαν, ἥτις δὲν ὑποχωρεῖ εἰς οἱανδήποτε θεραπευτικὴν ἀγωγήν.

Εἰς τὰς ἀπελπιστικὰς ταύτας περιπτώσεις ἐπεχείρησάν τινες νὰ ἐπέμβουν χειρουργικῶς, ἀλλὰ αἱ ὑπ' αὐτῶν προταθεῖσαι ἐγχειρητικαὶ μέθοδοι ἐγκατελείφθησαν ἐκ νέου εἴτε διότι αὗται ἦσαν λίαν τολμηραὶ καὶ πρακτικῶς ἕνεκα τούτου ἀνεφάρμοστοι, εἴτε διότι ὡς ἀνεπαρκεῖς εἰς οὐδὲν ἀποτέλεσμα ἤγαγον. Ἐνταῦθα ἀνήκει ἡ ἐξαίρεσις τῶν πλατέων συνδέσμων, ἐν συναφείᾳ μετὰ τῶν συνδέσμων ἐξαρτήσεως τῆς μήτρας (Veit, Martin κτλ.), ἥτις παρὰ τὰ εὐνοϊκὰ ἀποτελέσματα. ὡς ὁ Warnekros διὰ 14 περιπτώσεις ἀνέφερεν, δὲν κατωρ-

θώθη νὰ ἐπικρατήσῃ ὡς μέθοδος διὰ τοὺς πλείστους χειρουργούς. Ἡ ὑπὸ τῶν Γάλλων ἐφαρμοζομένη ὁλικὴ ἐξαίρεσις τῆς μήτρας μετὰ τῶν ἐξαρτημάτων, εἰ δυνατὸν μετ' ἀφαιρέσεως τμήματος ἐκ τοῦ παραμητρικοῦ ἱστοῦ, εἶναι ἐλάχιστα ἐνθαρρυντικὴ ὡς πρὸς τὸ τελικὸν αὐτῆς ἀποτέλεσμα, καθ' ὅσον ἐπὶ ριζικῆς ἐπεμβάσεως συνήθως συμβαίνουν τραύματα ἐπὶ τῆς κύστεως καὶ τοῦ οὐρητῆρος. Οὕτως ἡ μέθοδος αὕτη εὗρεν ἐλαχίστους μόνον ὀπαδούς.

Πρὸς συμπλήρωσιν τοῦ θέματος ἀναφέρω ἀκόμη καὶ τὰς ἐπεμβάσεις ἐπὶ τοῦ συμπαθητικοῦ νευρικοῦ συστήματος τῆς πυέλου (Latarjet, Rochet), αἵτινες ἐλαχίστην μόνον ἐπίδρασιν ἔχουν ἐπ' αὐτῶν τῶν ἀλλοιώσεως, αἵτινες ὅμως δύνανται νὰ ἐπηρεάσουν εὐνοϊκῶς τὸ ἄλγος.

Θεραπεία τῆς χρονίας παραμητρίτιδος διὰ τεχνητοῦ ἀποστήματος κατὰ Λογοθετόπουλον.

Ἐπειδὴ ἡ ἐξιδρωματικὴ μορφὴ τῆς παραμητρίτιδος, ἤτοι τὸ παραμητρικὸν ἀπόστημα, εὐχερῶς θεραπεύεται διὰ τῆς διανοίξεως καὶ κενώσεως τῆς πυώδους ἑστίας κατ' ἀντίθεσιν πρὸς τὴν πλαστικὴν ἰνώδη μορφὴν τῆς παραμητρίτιδος, ἐσκέφθημεν νὰ μεταβάλλωμεν τὴν τελευταίαν εἰς πυώδη μορφὴν καὶ ἀκολούθως νὰ θεραπεύσωμεν ταύτην διὰ τῆς συνήθους μεθόδου. Ὡς κατάλληλον μέσον ἐξελέξαμεν τὴν ἔνεσιν τερενβινθελαίου, οὗτινος ἡ ἰδιότης πρὸς προσήλωσιν ἀποστήματος εἶναι ἤδη γνωστὴ καὶ δι' ἧς ἔσχομεν τόσον λαμπρὰ ἀποτελέσματα ὥστε ἐχρησιμοποιήσαμεν ταύτην εἰς πάσας τὰς τοιαύτας, οὐχὶ συχνάς, περιπτώσεις πάντοτε μετὰ τοῦ αὐτοῦ ἀποτελέσματος.

Ἡ ἁπλῆ τεχνικὴ διευκολύνεται λίαν διὰ τῆς χρησιμοποιήσεως εἰδικῆς μεταλλίνης σύριγγος εἰς ἣν τοποθετεῖται ἡ βελόνη σταθερῶς *(εἰκ. 129)*. Ἡ ἀπαιτουμένη πίεσις διὰ τὰς συνήθεις σύριγγας εἶναι πολὺ ὑψηλὴ οὕτως, ὥστε τὸ ὑγρὸν ἐκχέεται πρὸς τὰ ἔξω μεταξὺ τῆς σύριγγος καὶ τῆς βελόνης ἢ ὁ ὑάλινος κύλινδρος διαρρήγνυται.

Τεχνικὴ τῆς ἐγχειρήσεως : Μετὰ τὴν εἰσαγωγὴν τῶν κολποδιαστολέων καὶ τὴν ἀπολύμανσιν τοῦ τοιχώματος τοῦ κολεοῦ ἐνίεμεν εἰ δυνατὸν εἰς τὸ κέντρον τοῦ σκληροῦ ἱστοῦ τοῦ παραμητρίου εἰς 2 ἢ 3 ὀλίγον ἀπ' ἀλλήλων ἀπέχοντα σημεῖα 2—3 κ.ἑκ. τερεβινθελαίου. Ἡ πρὸς ἔνεσιν ποσότης πρέπει βεβαίως νὰ ἀνταποκρίνηται πρὸς τὴν ἔκτασιν τῆς διηθημένης χώρας καὶ ἀναλόγως χρησιμοποιεῖται μικρὰ ἢ μεγάλη ποσότης, δέον ὅμως νὰ μὴ ὑπερβαίνωμεν κατὰ τὸ δυνατὸν τὰ 6 κ.ἑκ., καίτοι ἐχρησιμοποιήσαμεν καὶ μεγαλυτέρας ἔτι δόσεις ἄνευ βλάβης τινός. Ἐπὶ προσθίας παραμητρίτιδος δέον προηγουμένως μετὰ διατομὴν τοῦ προσθίου κολπικοῦ τοιχώματος νὰ ἀπωθηθῇ ἀμβλέως ἡ κύστις, ὁπότε δυνάμεθα νὰ ἐνεργήσωμεν τὴν ἔνεσιν ἄνευ κινδύνου τραυματισμοῦ τῆς κύστεως. Ἐπὶ παθήσεως ἐξελιχθείσης πρὸς τὰ κοιλιακὰ τοιχώματα διατέμνομεν κατὰ τὸν ἄνω περιγραφέντα τρόπον τὸ δέρμα, τὴν ἀπονεύρωσιν καὶ τοὺς μῦς καὶ ἐνίεμεν ἀπ' εὐθείας τὸ τερεβινθέλαιον ἐντὸς τοῦ σκληροῦ ἐξιδρώματος. Κατὰ τὰς ἀκολούθους ἡμέρας παρατηρεῖται μετρία ὕψωσις τῆς θερμοκρασίας καὶ αὔξησις τοῦ ἀριθμοῦ τῶν λευκῶν αἱμοσφαιρίων, εἰς ἐκδήλωσιν τοῦ σχηματιζομένου ἀποστήματος. Ἀμέσως μετὰ τὴν ἔνεσιν ἐμφανίζονται ἰσχυροὶ πόνοι οὕτως, ὥστε εἶναι σκόπιμον ἤδη πρὸ τῆς ἐνάρξεως τῆς ἐπεμβάσεως νὰ ἐνεργῶμεν ἔνεσιν μορφίνης, ἣν ἐν ἀνάγκῃ ἐπαναλαμβάνομεν βραδύτερον.

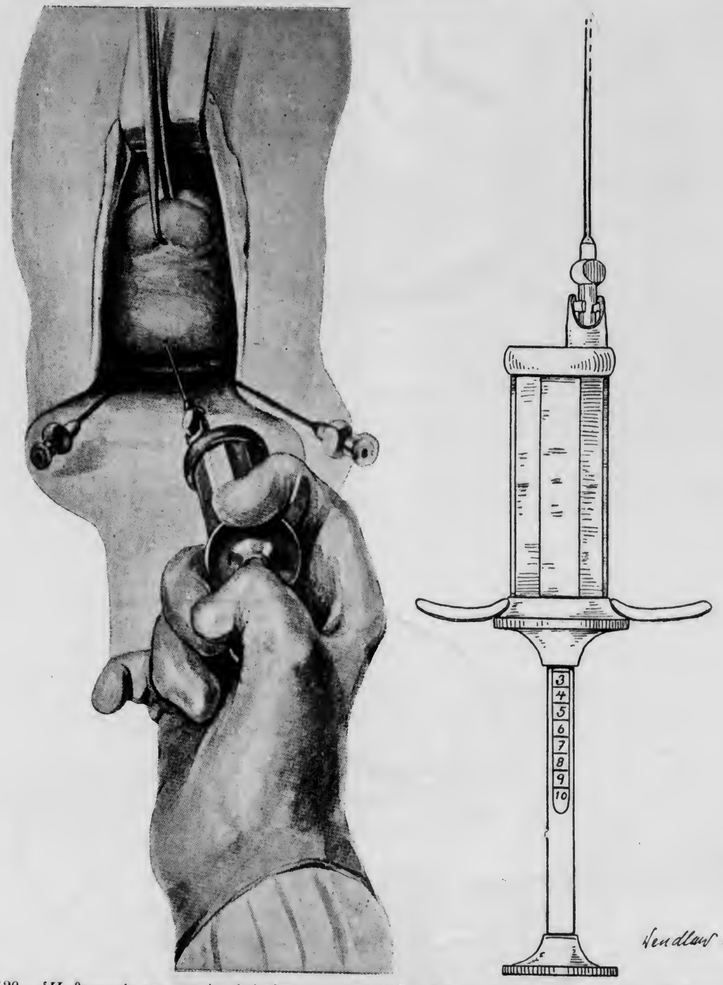
Εἰς οὐδεμίαν περίπτωσιν παρετηρήθησαν ἐπιπλοκαὶ ὑφ' ἡμῶν ἐκ μέρους τῶν γειτονικῶν ὀργάνων ἢ τοῦ περιτοναίου.

Θεωρῶ περιττὸν νὰ τονίσω ἐνταῦθα ὅτι πρὸ τῆς ἐνέσεως ὁ χειρουργὸς δέον νὰ εἶναι ἀπολύτως βέβαιος ὅτι πρόκειται περὶ παραμητρίτιδος, ἤτοι περὶ διηθήσεως τοῦ ἐξωπεριτοναϊκῶς κειμένου συνεκτικοῦ ἱστοῦ καὶ οὐχὶ περὶ ἐξαρτηματικοῦ ὄγκου. Ἐν τῇ τελευταίᾳ περιπτώσει ἡ ἔνεσις τοῦ τερεβινθελαίου οὐ μόνον εἰς οὐδὲν θέλει συντελέσει ἀλλ' ἀσφαλῶς θὰ ἐπιδεινώσῃ τὴν κατάστασιν.

Τὸ ἀσήπτως ἐκ τοῦ ἀποστήματος ληφθὲν πύον ἀποδεικνύεται κατὰ τὴν μικροβιολογικὴν ἐξέτασιν ὡς στεῖρον. Τὴν διάνοιξιν τοῦ ἀποστήματος ἐνεργοῦμεν 48 ὥρας μετὰ τὴν ἔνεσιν, καίτοι ἤδη πρὸ τῆς παρόδου τοῦ χρόνου τούτου εἶναι δυνατὸν νὰ ἔχῃ ἐπέλθῃ ἐπαρκὴς τῆξις αὐτοῦ *(εἰκ. 130—134)*.

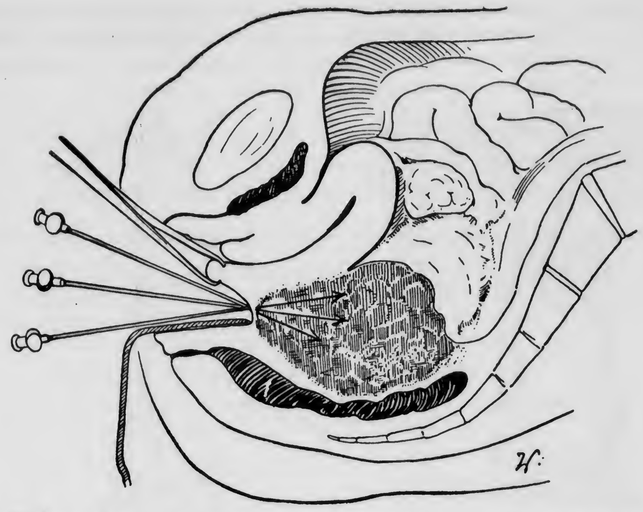
Κατὰ τὴν διάνοιξιν ἐπακολουθεῖ ἐκροὴ μεγάλης ἢ μικρᾶς ποσότητος παχυρρεύστου

πύου ἀναμεμιγμένου μετὰ τεμαχίων νεκρωμένου ἱστοῦ. Κατὰ τὴν εἰσαγωγὴν τοῦ δακτύλου εἰς τὴν κοιλότητα τοῦ ἀποστήματος αἰσθανόμεθα μαλθακὰς καὶ εὐθρύπτους μάζας, ἃς ἀπομακρύνομεν καὶ οὕτω δημιουργοῦμεν ἐνιαίαν κοιλότητα, ἣν παροχετεύομεν διὰ τεμαχίου γάζης ὡς ἂν ἐπρόκειτο περὶ συνήθους παραμητρικοῦ ἀποστήματος.

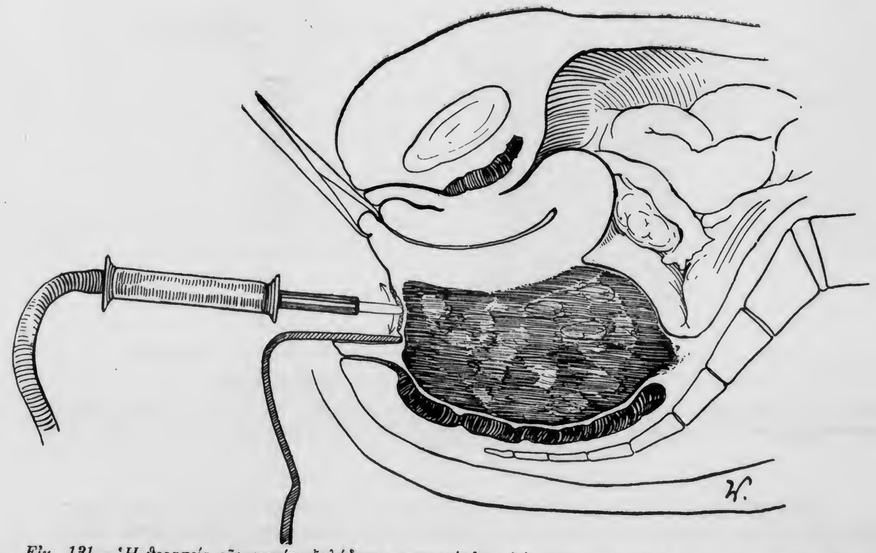


*Εἰκ. 129.—Ἡ θεραπεία τῆς χρονίας ξυλώδους παραμητρίτιδος διὰ μετατροπῆς εἰς τεχνητὸν ἀπόστημα κατὰ **Λογοθετόπουλον**. Ἔνεσις τερεβινθελαίου ἐντὸς τῆς ἰνώδους μάζης τοῦ παραμητρίου. Δεξιὰ ἡ εἰδικὴ μεταλλικὴ σύριγξ.*

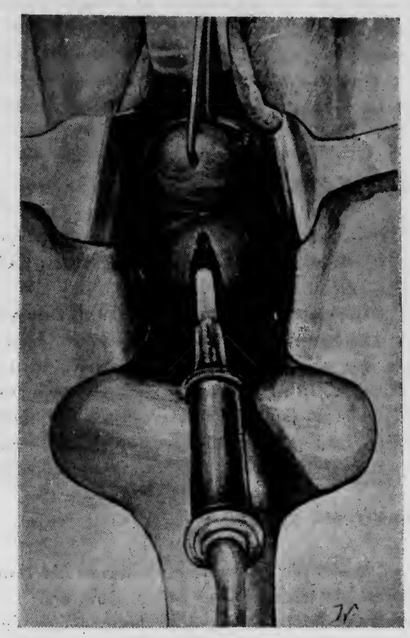
Μετ' ἐκπλήξεως βλέπομεν πάντοτε ὅτι αἱ σκληραὶ αὗται μᾶζαι ἃς μετὰ τόσης δυσχερείας ἠδυνάμεθα νὰ διαπεράσωμεν διὰ τῆς βελόνης, νῦν μετὰ τὴν τῆξιν εὐχερῶς δύνανται διὰ τῶν δακτύλων νὰ συνθλιβοῦν. Ἡ μετεγχειρητικὴ ἀγωγὴ οὐδόλως διαφέρει τῆς τῶν ἄλλων παραμητρικῶν ἀποστημάτων. Τὸ τελικὸν ἀποτέλεσμα εἶναι ἐκπληκτικόν. Αἱ τυραννούμεναι



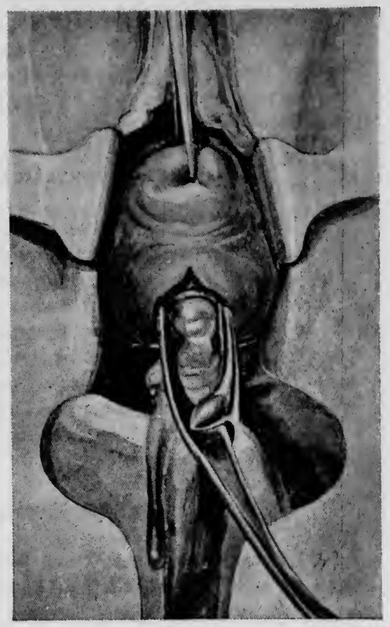
Εἰκ. 130.—'Η θεραπεία τῆς χρονίας ξυλώδους παραμητρίτιδος διὰ τεχνητῆς μετατροπῆς εἰς ἀπόστημα κατὰ ***Λογοθετόπουλον.*** *Σχηματικὴ παράστασις. Τὰ βέλη δεικνύουν τὴν κατεύθυνσιν πρὸς τὴν ὁποίαν προωθεῖται ἡ βελόνη κατὰ τὴν ἔγχυσιν ἐντὸς τῆς ἰνώδους παραμητρικῆς μάζης.*



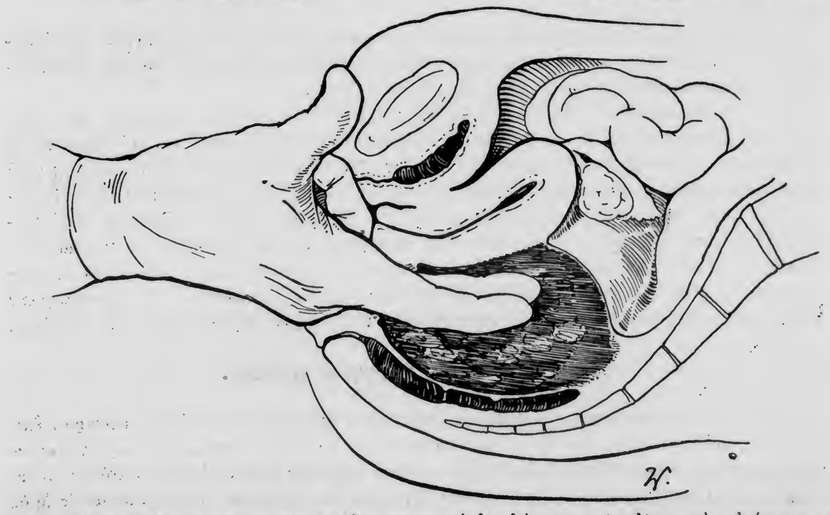
Εἰκ. 131.—'Η θεραπεία τῆς χρονίας ξυλώδους παραμητρίτιδος διὰ μετατροπῆς εἰς τεχνητὸν ἀπόστημα κατὰ ***Λογοθετόπουλον.*** *Σχηματικὴ παράστασις τῆς διαπυηθείσης ἰνώδους παραμητρικῆς μάζης. Τὰ βέλη δεικνύουν τὴν κατεύθυνσιν τῆς κολποτομῆς.*



Εἰκ. 132. — 'Η θεραπεία τῆς χρονίας ξυλώδους παραμητρίτιδος διὰ μετατροπῆς εἰς τεχνητὸν ἀπόστημα κατὰ ***Λογοθετόπουλον.*** *Διάνοιξις τοῦ σχηματισθέντος ἀποστήματος δι' ὀπισθίας κολποτομῆς καὶ θερμοκαυτῆρος.*



Εἰκ. 133.—'Η θεραπεία τῆς χρονίας ξυλώδους παραμητρίτιδος διὰ μετατροπῆς εἰς τεχνητὸν ἀπόστημα κατὰ ***Λογοθετόπουλον.*** *Διεύρυνσις τοῦ τραύματος τῆς κολποτομῆς διὰ μιᾶς λαβίδος. 'Εκ τῆς ὀπῆς ῥέει παχύῤῥευστον πῦον.*



Εἰκ. 134.—'Η θεραπεία τῆς χρονίας ξυλώδους παραμητρίτιδος διὰ μετατροπῆς εἰς τεχνητὸν ἀπόστημα κατὰ ***Λογοθετόπουλον.*** *Διὰ τῶν ἐντὸς τῆς πυώδους κοιλότητος εἰσαχθέντων δακτύλων ἀπομακρύνονται αἱ εὔθρυπτοι μᾶζαι, καταστρέφονται τὰ δισφράγματα καὶ οὕτω δημιουργεῖται μία ἐνιαία κοιλότης.*

ἐπὶ μῆνας ὑπὸ ἰσχυρῶν πόνων ἀσθενεῖς ἀπαλλάσσονται ἀμέσως τούτων, αἱ σκληραὶ ἰνώδεις μᾶζαι ἐξαφανίζονται καὶ τὰ ἐξεταστικὰ εὑρήματα μετά τινας ἑβδομάδας κατὰ τὸ πλεῖστον εἶναι σχεδὸν φυσιολογικά. Ἐπὶ μιᾶς περιπτώσεως μετὰ μεγάλης στενώσεως τοῦ ἐντέρου, ἀμέσως μετὰ τὴν διάνοιξιν τοῦ ἀποστήματος κατέστη ἡ κένωσις τοῦ ἐντέρου ἐκ νέου ἀνώδυνος, δὲν παρετηρήθησαν δὲ τὰ ἀπὸ καιροῦ εἰς καιρὸν πρότερον ἐμφανιζόμενα συμπτώματα εἰλεοῦ.

14. Ἡ δακτυλιοειδὴς στένωσις τοῦ κολεοῦ.

Ἡ δακτυλιοειδὴς στένωσις τοῦ κολεοῦ, ἥτις παρατηρεῖται οὐχὶ σπανίως μετὰ τραυματισμοὺς ἕνεκα τοκετῶν ἢ συνουσίας, δυνατὸν συνήθως νὰ θεραπευθῇ μόνον διὰ χειρουργικῆς ἐπεμβάσεως, δι' ὃ προβαίνομεν ὡς ἀκολούθως :

Μετὰ ἀποκάλυψιν τοῦ στενώματος διὰ κολποδιαστολέων, συλλαμβάνομεν τὸ κολπικὸν τοίχωμα κάτω τῆς στενώσεως δι' ἀγκιστρωτῶν λαβίδων καὶ τείνομεν τοῦτο καλῶς δι' ἕλξεως πρὸς τὰ κάτω καὶ ἔξω. Ἀκολούθως διατέμνομεν τὴν οὐλώδη μοῖραν αὐτοῦ κατὰ τὴν μέσην γραμμὴν τῆς προσθίας περιφερείας καὶ συρράπτομεν τὸ ἐπίμηκες τραῦμα κατὰ τὸν ἐγκάρσιον ἄξονα τοῦ κολεοῦ. Τὸ μῆκος τῆς τομῆς καθορίζεται ἐκ τοῦ βαθμοῦ τῆς στενώσεως. Τὴν αὐτὴν πλαστικὴν ἐκτελοῦμεν ἀκολούθως ἐπὶ τῆς προσθίας περιφερείας τοῦ στενώματος, μεθ' ὃ πωματίζεται καλῶς ὁ κολεὸς διὰ γάζης.

15. Ἡ ὁλικὴ ἀτρησία τοῦ κολεοῦ.

Ἡ ὁλικὴ ἀτρησία τοῦ κολεοῦ ἕνεκα συμφύσεων τῶν κολπικῶν τοιχωμάτων δὲν εἶναι εὐχερὲς νὰ θεραπευθῇ ἐὰν πραγματικῶς θέλομεν νὰ ἀποκαταστήσωμεν κατάλληλον πρὸς λειτουργίαν ὄργανον. Μετὰ ἐγκαρσίαν τομὴν κατὰ τὸ ἄνω ὅριον τοῦ περινέου προχωροῦμεν ἀμβλέως διὰ τοῦ δακτύλου καὶ ψαλιδίου μεταξὺ ὀρθοῦ καὶ κύστεως πρὸς τὰ ἄνω μέχρι οὗ φθάσωμεν εἰς ὑγιὲς κολπικὸν τοίχωμα καὶ εἰς τὸν τράχηλον. Ἕλκομεν τὰ κράσπεδα τοῦ κολπικοῦ τοιχώματος πρὸς τὰ κάτω μέχρι οὗ κατορθώσωμεν νὰ ἑνώσωμεν ταῦτα μετὰ τῶν ὑπολειπομένων κατωτέρων τοιούτων ἢ νὰ συρράψωμεν ταῦτα περιφερικῶς πρὸς τὴν εἴσοδον τοῦ κολεοῦ.

Ἐπὶ δυσχερῶν περιπτώσεων δυνατὸν νὰ παραστῇ ἀνάγκη ἵνα ἀρχίσωμεν τὴν ἐγχείρησιν διὰ λαπαροτομῆς καὶ νὰ συνεχίσωμεν ταύτην ἀκολούθως κολπικῶς, ἵνα μετὰ βεβαιότητος ἀποφύγωμεν τραυματισμοὺς τῆς κύστεως καὶ τοῦ ἐντέρου.

Ἐπὶ αἱματοκόλπου ἢ αἱματομήτρας ἕνεκα συγγενοῦς ἢ ἐπικτήτου ἀτρησίας τοῦ ὑμένος ἢ τοῦ κολεοῦ, ἀρκούμεθα εἰς τὴν ἁπλῆν διατομὴν τοῦ διαφράγματος καὶ τοῦ πωματισμοῦ καὶ ἐνεργοῦμεν διαστολὴν διὰ κηρίων ἵνα ἀποφύγωμεν νέαν στένωσιν. Ἐὰν συνυπάρχῃ μετὰ τῆς αἱματομήτρας καὶ αἱματοσάλπιγξ, τότε ἡ θεραπεία αὕτη οὐδόλως ἐπιτρέπεται, διότι ἡ διατομὴ εὐκόλως δύναται νὰ ἐπιφέρῃ ἀποσύνθεσιν τοῦ περιεχομένου τῆς σάλπιγγος μετ' ἐπακολουθούσης περιτονίτιδος. Ἐξαιροῦμεν κατὰ προτίμησιν διὰ λαπαροτομῆς τὰς διωγκωμένας σάλπιγγας ἢ ἐκτελοῦμεν σαλπιγγοστομίαν ἐπὶ στείρου περιεχομένου αὐτῶν, ἐὰν βεβαίως ἀποβλέπωμεν εἰς σύλληψιν. Ἐν περιπτώσει ἀλλοιώσεων αἵτινες ἀποκλείουν τὴν φυσιολογικὴν γεννητικὴν λειτουργίαν δυνάμεθα νὰ ἀφαιρέσωμεν τὴν μήτραν περισώζοντες τὰς ὠοθήκας.

16. Ἡ δημιουργία τεχνητοῦ κολεοῦ.

Πρὸ οὐχὶ μακροῦ χρόνου ἡ ἐγχείρησις αὕτη εἶχεν ἀπορριφθῆ ὑπὸ τῶν γνωστοτέρων ἐπιστημόνων, διότι δι' αὐτῆς δὲν ἦτο δυνατὴ κύησις καὶ τοκετός. Αὕτη μόνον εἰς ὅλως σπανίας περιπτώσεις εἶναι δυνατή, διότι σχεδὸν πάντοτε πλὴν τῆς διαμαρτίας τοῦ κολεοῦ συνυπάρχουν καὶ ἀλλοιώσεις τῶν ἐσω γεννητικῶν ὀργάνων. Δὲν νομίζομεν ὅτι ἐπιτρέπεται εἰς ἡμᾶς

νὰ ἀποπέμπωμεν γυναῖκα ἥτις διὰ τῆς ἐγχειρήσεως δυνατὸν νὰ καταστῇ εὐτυχής, συχνότατα δὲ διὰ τῆς ἐγχειρήσεως νὰ ἀποτραπῇ ἀπὸ τὴν αὐτοκτονίαν. Ἡ ὑποχώρησις ἡμῶν αὕτη γίνεται εὐχερέστερον καθόσον αἱ νεώτεραι χειρουργικαὶ μέθοδοι δημιουργίας κολεοῦ ἐπιβαρύνονται μὲ μικρὰν μόνον νοσηρότητα καὶ μετ' οὐδεμιᾶς σχεδὸν θνησιμότητος, ἐν ἀντιθέσει πρὸς τὰς προγενεστέρας ἐγχειρητικὰς μεθόδους χρησμοποιήσεως ἕλικος τοῦ λεπτοῦ ἐντέρου (Haeberlein, Mori, Baldwin) ἢ τμήματος τοῦ ἀπευθυσμένου (Schubert).

Ἡ προταθεῖσα ὑπὸ τοῦ Wagner-Kirschner μέθοδος, καθ' ἣν ὁ δημιουργούμενος μεταξὺ κύστεως καὶ ἀπευθυσμένου ὑπὸ μορφὴν κολεοῦ αὐλὸς ἐπενδύεται διὰ χρησιμοποιήσεως προθετικοῦ μηχανήματος ὑπὸ μεγάλων ἐπιδερμικῶν λωρίδων, ἔχει τὸ μέγα προτέρημα τοῦ ὅλως ἀκινδύνου καὶ φαίνεται νὰ εἶναι ἰσότιμος ὡς πρὸς τὰ τελικὰ ἀποτελέσματα πρὸς τὰς προγενεστέρας μεθόδους. Τεχνικῶς δὲν εἶναι τῷ ὄντι τόσον εὐχερὴς ἡ λῆψις ἐπιδερμικῶν λωρίδων ἐκ τοῦ δέρματος τοῦ μηροῦ. Ἄλλοι χρησιμοποιοῦν ὡς πρόδρομον διὰ τὴν ἀνάπλασιν τοῦ ἐπιθηλίου τοῦ δημιουργηθέντος αὐλοῦ ἑτεροπλαστικὰ μοσχεύματα, π.χ. ἀμνίον, σμῆγμα ἐμβρυϊκόν, ὡσαύτως μὲ καλὰ τελικὰ ἀποτελέσματα (Burger).

Ἁπλουστάτην μέθοδον ἐχρησιμοποίησεν ὁ Gambarow (1), ὅστις μετὰ μικρὰν ἐγκαρσίαν διατομὴν ἐδημιούργησε δι' ἀμβλείας ἀποκολλήσεως μεταξὺ κύστεως καὶ ἀπευθυσμένου αὐλὸν καὶ ἐπωμάτισεν αὐτόν. Ὁ αὐλὸς οὗτος, ὅστις διετηρήθη ἀνοικτὸς διὰ κηρίων καὶ ἀκολούθως διὰ τῆς συνουσίας, ἐπεκαλύφθη μετ' ὀλίγους μῆνας διὰ στιβάδος στερεοῦ ἐπιθηλίου καὶ διεπλάσθη εἰς κατάλληλον κολεόν.

17. Τὰ κυστιοκολπικὰ συρίγγια.

Ἐὰν ἐξαιρέσωμεν τὰς μὴ συχνὰς περιπτώσεις δημιουργίας συριγγίου ἕνεκα ρήξεως κακοήθων ὄγκων ἔχομεν δύο εἴδῶν συρίγγια, τὰ μετὰ τοκετὸν καὶ τὰ μετεγχειρητικά, ἡ χειρουργικὴ θεραπεία τῶν ὁποίων εἶναι ἔργον ἱκανοῦ χειρουργοῦ. Δέον ὅμως νὰ τονισθῇ ὅτι ἡ ἐγχείρησις τῶν κυστιοκολπικῶν συριγγίων συγκαταλέγεται μεταξὺ τῶν δυσχερεστάτων ἐπεμβάσεων καὶ ἥτις ἀπαιτεῖ ἀρίστην ἐγχειρητικὴν τεχνικὴν καὶ μεγίστην πεῖραν, καθ' ὅσον ἕκαστον συρίγγιον δέον νὰ θεραπεύηται κατ' ἴδιον τρόπον ἀναλόγως τῆς ποικιλλούσης μορφῆς ὑπὸ τὴν ὁποίαν ἕκαστον ἐμφανίζεται.

Δυστυχῶς καὶ σήμερον ἔτι ὑπάρχουν εἰς τὴν Ἑλλάδα πολλὰ χωρία καὶ νῆσοι μετὰ δυσχερείας ἐπικοινωνοῦντα καὶ κείμενα μακρὰν ὠργανωμένων κλινικῶν, ἔνθα οἱ τοκετοὶ γίνονται ἄνευ ἰατρικῆς τινος βοηθείας ἢ πολὺ καθυστερηθείσης τοιαύτης.

Ἀπόδειξις τούτου εἶναι τὰ πολλὰ συρίγγια ἅτινα συνήθως βλέπομεν καὶ τὰ ὁποῖα προκαλοῦνται εἴτε ἐκ νεκρώσεως τῶν συνθλιβομένων ἐπὶ μακρὸν χρόνον μαλακῶν μορίων, μεταξὺ κεφαλῆς καὶ πυέλου, εἴτε ἐκ τραύματος ἕνεκα μαιευτικῆς ἐπεμβάσεως γενομένης ὑπὸ δυσμενεῖς συνθήκας. Τὰ ἐμφανιζόμενα ἐπ' εὐκαιρίᾳ γυναικολογικῶν ἐπεμβάσεων συρίγγια, ἰδίᾳ μεθ' ὁλικὴν ὑστερεκτομήν, παρατηροῦνται εἰς τὴν Ἑλλάδα εἰς μικρότερον ἀριθμόν, ὅταν δὲ ταῦτα προκαλοῦνται δι' ἀμέσων τραυματισμῶν, θεραπεύονται κατὰ τὸ πλεῖστον εὐχερῶς, ὅλως ἀντιθέτως πρὸς τὰ δευτερογενῆ συρίγγια, ἕνεκα νεκρώσεως, εἰς ἃ ἐνίοτε ἐλλείπει μέγα μέρος τοῦ τοιχώματος τῆς κύστεως (βλέπε τὴν εἰς τὴν σελ. 110 περιγραφομένην περίπτωσιν). Τοιαύτην καταστροφὴν τοῦ τοιχώματος παρατηροῦμεν ἰδίᾳ μετὰ τὴν ὁλικὴν ὑστερεκτομὴν κατὰ Wertheim, καθ' ἣν αἱ πολλαὶ ἀπολινώσεις παραβλάπτουν τὴν κανονικὴν παροχὴν αἵματος εἰς τὴν κύστιν. Ἂς ὑπομνήσωμεν ἐπὶ τῇ εὐκαιρίᾳ ὅτι ἡ κυστικὴ ἀρτηρία, ἥτις χορηγεῖ αἷμα εἰς τὸν πυθμένα τῆς κύστεως, προέρχεται ἐκ τῆς ἔσω λαγονίου ἀρτηρίας καὶ ὅτι ὁ τραχηλοκολπικὸς κλάδος τῆς μητριαίας ἀρτηρίας χορηγεῖ κλαδίσκους εἰς τὴν μέσην μοῖραν τῆς οὐρήθρας. Οὐχὶ σπανίως μεγαλύτεροι κλάδοι τῆς μητριαίας ἀρτηρίας πορεύονται ἀπ' εὐθείας εἰς τὸ τοίχωμα τῆς κύστεως.

Τὸ προκαλούμενον τυχὸν κατὰ τὴν διάρκειαν τῆς ἐγχειρήσεως τραῦμα τῆς κύστεως δέον ἀπαραιτήτως νὰ συρράπτεται δι' ἐπιμελοῦς ραφῆς ἐπὶ λαπαροτομιῶν κατὰ προτίμησιν εὐθὺς ἀμέσως, ἐπὶ κολπικῶν δ' ἐπεμβάσεων μετὰ τὸ πέρας τῆς ἐγχειρήσεως, καθ' ὅσον μετὰ τὴν ἀφαί-

1. Zbl. Gynaek. No 43

ρεσιν τῶν ἐργαλείων καὶ ἐνδεχομένως τῆς μήτρας εἶναι εὐχερέστεροι οἱ ἐνδοκολπικοὶ χειρισμοί. Τείνομεν τὸ τραῦμα τῆς κύστεως διὰ 2 ἀγκιστρωτῶν λαβίδων καὶ συρράπτομεν τοῦτο διὰ συνεχοῦς ραφῆς ἐκ ζωϊκοῦ ράμματος, χωρὶς νὰ συλλαμβάνωμεν τὸν βλενογόνον αὐτῆς. Ὑπερθεν τῆς πρώτης ἐκτελοῦμεν δευτέραν συνεχῆ ἐκ ζωϊκοῦ ράμματος ραφήν, ἢ τοποθετοῦμεν ἁπλᾶς ραφάς, αἵτινες δέον νὰ συλλαμβάνουν ὅσον τὸ δυνατὸν περισσότερον τοίχωμα τῆς κύστεως. Ἐπὶ κολπικῶν ἐγχειρήσεων προσπαθοῦμεν νὰ καλύπτωμεν τὰς ραφὰς τῆς κύστεως διὰ περιτοναίου, τοῦθ' ὅπερ κατὰ τὰς λαπαροτομὰς εἶναι αὐτονόητον. Ἀποφεύγομεν εἰ δυνατὸν τὴν ἐφαρμογὴν πωματισμοῦ εἴτε πρὸς αἱμόστασιν εἴτε πρὸς ἀποφυγὴν λοιμώξεως, καθ' ὅσον, ὡς μοὶ ἀπέδειξεν ἡ πεῖρα μου, διακυβεύεται δι' αὐτοῦ ἡ ἐπούλωσις τοῦ τραύματος τῆς κύστεως. Εἰ δυνατὸν δέον νὰ συγκλείηται ὁ κολεὸς τελείως, ὡς τὸ τοιοῦτον ὁ Stoeckel τονίζει. Καὶ ἐπὶ ἐπιτυχοῦς ἔτι ραφῆς τοποθετοῦμεν μόνιμον καθετῆρα ἐπὶ 8—10 ἡμέρας καὶ οὕτω ἠδυνήθημεν νὰ ἀποφύγωμεν πάντοτε τὴν ἐκ νέου δημιουργίαν συριγγίου. Ἐὰν ὁ τραυματισμὸς τῆς κύστεως δὲν γίνῃ ἀντιληπτὸς κατὰ τὴν διάρκειαν τῆς ἐγχειρήσεως ἢ ἐδημιουργήθη συρίγγιον ἕνεκα νεκρώσεως ὀλίγας ἡμέρας μετὰ τὴν ἐπέμβασιν, τοποθετοῦμεν μόνιμον καθετῆρα, οὕτω δὲ παρατηροῦμεν νὰ ἐπέρχεται οὐχὶ τόσον σπανίως αὐτόματος σύγκλεισις τοῦ συριγγίου. Εἰς ἄλλας περιπτώσεις ἐπιτυγχάνομεν μόνον σμίκρυνσιν αὐτοῦ, δι' ἧς διευκολύνεται πολὺ ἡ μελλοντικὴ ἐγχείρησις.

Συρίγγια ἅτινα δὲν ἐπουλοῦνται ἐντὸς βραχέος χρόνου ἀπὸ τῆς ἐγχειρήσεως καθ' ἣν προεκλήθησαν δεικνύουν ἐλαχίστην μόνον τάσιν πρὸς αὐτόματον ἴασιν καὶ πρέπει, σχεδὸν πάντοτε, νὰ θεραπεύωνται χειρουργικῶς.

Πλέον τῶν 100 ἐγχειρητικῶν μεθόδων ἔχουν προταθῆ ἀπὸ τῆς ἐποχῆς τοῦ Simons, Lambells καὶ Sims, τῶν κυρίων ἱδρυτῶν τῆς πλαστικῆς τῶν συριγγίων. Αὗται εἶναι κατὰ τὸ πλεῖστον ἱστορικῶς μόνον ἐνδιαφέρουσαι. Παραπέμπω εἰς τὴν ἐμπεριστατωμένην περιγραφὴν τοῦ Stöckel εἰς τὸ σύγγραμμα Veit Stöckel X τόμος, μέρος II καὶ περιορίζομαι ἐνταῦθα εἰς τὴν περιγραφὴν τῆς ὑπ' ἐμοῦ ἐφαρμοζομένης τεχνικῆς κατὰ τὴν πλαστικὴν τῶν συριγγίων ὡς ἔχω ταύτην ἐπεξεργασθῆ ἐπὶ τῇ βάσει πείρας 89 περιπτώσεων, κατὰ τὸ πλεῖστον ἐξαιρετικῶς σοβαρῶν.

Ἐμμένω εἰς τὴν ἀρχὴν ὅτι πᾶν κυστιοκολπικὸν συρίγγιον δύναται νὰ θεραπευθῆ κατὰ κανόνα καὶ δέον νὰ χειρουργῆται διὰ τῆς κολπικῆς ὁδοῦ, ὑπὸ τὴν προϋπόθεσιν ὅτι ὁ χειρουργὸς κατέχει τελείως τὴν τεχνικὴν τῶν κολπικῶν ἐγχειρήσεων. Ἐὰν τὸ τοιοῦτον δὲν συμβαίνει προτιμότερον εἶναι νὰ παραπέμψῃ τὴν ἀσθενῆ, πρὸς τὸ συμφέρον του καὶ τὸ συμφέρον αὐτῆς, εἰς ἄλλον πεπειραμένον χειρουργόν, καθ' ὅσον πᾶσα ἀποτυχοῦσα ἐγχείρησις καταστρέφει πολύτιμον ἱστὸν καὶ καθιστᾶ τὰς ἐπακολουθούσας ἐπεμβάσεις ἔτι δυσχερεστέρας. Ἀσφαλῶς ὑπάρχουν μικρὰ εὐκόλως προσιτὰ συρίγγια, ἅτινα ἄνευ μεγάλης δυσχερείας δύνανται νὰ συρραφοῦν δι' οἱασδήποτε προτιμωμένης μεθόδου, ἀλλὰ τὰ τελικὰ ἀποτελέσματα εἶναι λίαν δυσμενῆ ὁσάκις εὑρισκόμεθα πρὸ συριγγίων προκληθέντων μετὰ νέκρωσιν. Εἰς ταῦτα τὰ χείλη εἶναι ἀνώμαλα, σκληρὰ καὶ συμφύονται πρὸς τὸν ὑποκείμενον ἱστὸν καὶ τὸ ὀστοῦν, ὡς καὶ ἐπὶ μεγάλης ἀπωλείας ἱστοῦ τῆς κύστεως καὶ τῆς οὐρήθρας ἢ ἐὰν ὁ δάκτυλος κατὰ τὴν ἐξέτασιν ἀντὶ τοῦ κολεοῦ συναντᾶ οὐλώδη χοανοειδῆ κοιλότητα, ἥτις ἀποκρύπτει τὸν τράχηλον καὶ τὸ συρίγγιον.

Μεγάλην σπουδαιότητα ἔχει ἡ ἐκλογὴ τοῦ χρόνου τῆς ἐγχειρήσεως. Συρίγγια ἅτινα δὲν ἐπουλοῦνται αὐτομάτως δέον νὰ μὴ χειρουργῶνται πρὸ τῆς παρόδου 2—3 μηνῶν ἀπὸ τῆς ἐμφανίσεως αὐτῶν. Ἰδίᾳ ἐπὶ συριγγίων προκληθέντων ἕνεκα νεκρώσεως δέον νὰ ἀναμένωμεν μεθ' ὑπομονῆς τὴν ἀπόπτωσιν τῶν νεκρωθέντων τμημάτων ἱστῶν καὶ τὴν ἀναζωογόνησιν τῆς βλαβείσης χώρας. Χρησιμοποιοῦμεν τὸν χρόνον τοῦτον, ἵνα προπαρασκευάσωμεν τὴν ἀσθενῆ διὰ τὴν ἐγχείρησιν. Οὕτω θεραπεύομεν τὴν τυχὸν ὑπάρχουσαν κυστίτιδα ἢ πυελίτιδα διὰ πλύσεως τῆς κύστεως δι' ἐλαφρῶς ἀντισηπτικῶν διαλυμάτων, ὁπότε τὸ ρέον εἰς τὸν κόλπον διάλυμα ἐπιδρᾷ ταὐτοχρόνως εὐνοϊκῶς ἐπὶ τοῦ φλεγμαίνοντος βλενογόνου τοῦ κολεοῦ. Ἐπὶ πυρετοῦ ἐκτελοῦμεν ἐνδοφλεβίους ἐνέσεις συλοτροπίνης. Τὰ προκαλούμενα ἕνεκα διαβροχῆς ὑπὸ τῶν οὔρων ἐκζέματα, πυοδερμίτιδες καὶ δοθιηνώσεις ἀποτελοῦν κίνδυνον διὰ τὴν ἄσηπτον ἐξέλιξιν τῆς ἐγχειρήσεως. Αἱ ἀσθενεῖς δέον νὰ τηροῦν μεγίστην καθαριότητα. Τὰ ἡμερήσια

ἐδρόλουτρα ἢ τὰ συνιστώμενα ὁμοίως ὑπὸ τοῦ Latzko ἰαματικὰ λουτρὰ διαρκείας συντελοῦν εἰς τὴν θεραπείαν τῶν δερματικῶν λοιμώξεων. Μετὰ τὸ λουτρὸν τὰ ἔξω γεννητικὰ ὄργανα προφυλάσσονται δι' ἀλοιφῆς ψευδαργύρου ἀπὸ τῆς ἐκ νέου διαβροχῆς τῶν οὔρων.

Καθ' ὡρισμένα χρονικὰ διαστήματα ἐκτελοῦμεν θεραπείαν τοῦ κολπικοῦ βλενογόνου· ἀπομακρύνομεν ἀποπεσόντα τμήματα ἱστῶν ἢ συγκρίματα εὑρισκόμενα περὶ τὴν περιφέρειαν τοῦ συριγγίου. Ἡ σαρκοφυοῦσα τραυματικὴ ἐπιφάνεια καυτηριάζεται ἢ ἐπαλείφεται διὰ βάμματος ἰωδίου. Ἀφαιροῦμεν τὰ μὴ ἀπορροφηθέντα ράμματα, ἅτινα πιθανῶς ἔχουν παραμείνει ἐκ μιᾶς προηγηθείσης ἐγχειρήσεως.

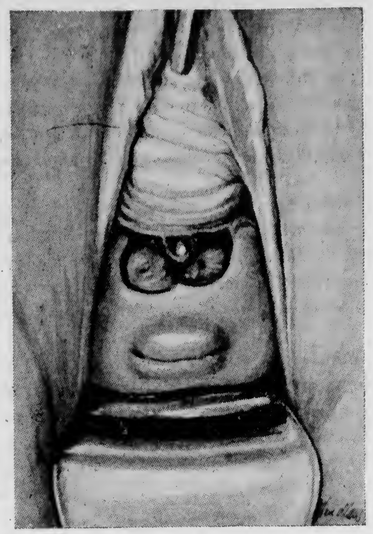
Αἱ χρησιμοποιούμεναι πρότερον ὀδυνηραὶ μέθοδοι πρὸς ἀναίμακτον διεύρυνσιν τοῦ οὐλωδῶς ἐστενωμένου κολεοῦ ἔχουν ἤδη τελείως ἀντικατασταθῆ ὑπὸ τῆς τομῆς Schuchardt, ἥτις ὀρθῶς ἐκτελουμένη καθιστᾶ εὐχερῆ τὴν προσέγγισιν καὶ εἰς ὅλως ὑψηλὰ κείμενα συρίγγια ἐπὶ στενοῦ κολεοῦ καὶ καθιστοῦν περιττὴν τὴν χρῆσιν μακρῶν εἰδικῶν ἐργαλείων ὡς τὰ τοιαῦτα ἐχρησιμοποιοῦντο ἄλλοτε. Ἀρκούμεθα εἰς τὰ συνήθη ἐργαλεῖα τὰ χρησιμοποιούμενα κατὰ τὰς κολπικὰς ἐγχειρήσεις.

Ἀποδίδομεν ἀξίαν εἰς τὴν χρησιμοποίησιν μικρῶν πολὺ κυρτῶν ἰσχυρῶν βελονῶν, αἵτινες συλλαμβάνονται σταθερῶς ὑπὸ τοῦ βελονοκατόχου πρὸς οἱανδήποτε κατεύθυνσιν καὶ δὲν περιστρέφονται. Χρησιμοποιῶ διὰ τὴν κύστιν λεπτὸν ζωϊκὸν ράμμα, διὰ δὲ τὸ κολπικὸν τοίχωμα παχὺ τοιοῦτον. Ἐὰν τὰ τραυματικὰ χείλη τοῦ κολεοῦ συμπλησιάζουν μόνον κατόπιν τάσεως μεταχειρίζομαι ἐξαιρετικῶς τὴν μέταξαν. Διὰ τὴν κύστιν εἰς οὐδεμίαν περίπτωσιν ἐπιτρέπεται ράμμα μὴ ἀπορροφώμενον, καθ' ὅσον τοῦτο ἐνίοτε διεισδύει ἐντὸς τῆς κύστεως καὶ δύναται νὰ δημιουργήσῃ λίθον. Ἐὰν τὸ τοίχωμα τῆς κύστεως ἔχῃ καλῶς κινητοποιηθῆ καὶ τὰ τραυματικὰ χείλη προσπλησιάζουν ἄνευ τάσεως πρὸς ἄλληλα, τὸ συρίγγιον θεραπεύεται δι' οἱουδήποτε εἴδους ραφῆς. Εἶναι οὐσιῶδες καὶ σημαντικὸν διὰ τὸ ἀποτέλεσμα νὰ φέρωμεν εἰς ἐπαφὴν ὅσον τὸ δυνατὸν εὐρείας τραυματικὰς ἐπιφανείας, εἶναι δὲ ἀδιάφορον ἐὰν συρράπτωμεν εἰς μίαν ἢ ἀλλεπαλλήλους στιβάδας, διότι καταλήγομεν εἰς τὸ αὐτό, ἐὰν προσεγγίσωμεν δι' ἑνὸς ἢ διὰ δύο ραμμάτων τὰς αὐτὰς ἐπιφανείας τῆς κύστεως.

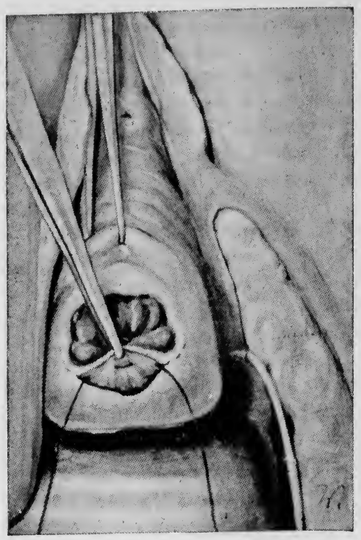
Προτιμῶ γενικῶς τὴν ραφὴν εἰς δύο στρώματα, καθ' ἣν συγκλίνω τὸ τοίχωμα τῆς κύστεως καὶ τοῦ κολεοῦ διὰ μεμονωμένων ραμμάτων. Μόνον ὅταν ἔχωμεν εἰς τὴν διάθεσίν μας μεγάλας ἐπιφανείας τῆς κύστεως, τοποθετῶ μίαν ἔτι δευτέραν ραφὴν αὐτῆς. Οἱ ἱστοὶ ἐπουλοῦνται, ὡς πάντοτε εἰς τὴν χειρουργικήν, καλλίτερον ὅταν τραυματίζωνται ὅσον τὸ δυνατὸν ὀλιγώτερον, τὸ τοιοῦτον δὲ συμβαίνει ὅταν μεταχειριζώμεθα ὅσον τὸ δυνατὸν ὀλιγώτερα ράμματα. Δὲν συλλαμβάνω τὸν βλενογόνον τῆς κύστεως, ἂν καὶ ὁ Stöckel δὲν θεωρεῖ τὸ τοιοῦτον ὡς μειονεκτικόν. Ἐπειδὴ ἡ ἐνδοκυστικὴ μοῖρα τοῦ οὐρητῆρος, μήκους 10—15 χιλιοστ., μετὰ τὴν εἴσδυσιν εἰς τὸν μυϊκὸν χιτῶνα τῆς κύστεως, πορεύεται ὑπὸ τὸν βλενογόνον, ἀποφεύγομεν ταύτην καλλίτερον ἐὰν διαπερῶμεν τὰ ράμματα μόνον διὰ τοῦ μυϊκοῦ χιτῶνος τῆς κύστεως.

Ἡ ἄρρωστος τοποθετεῖται ὡς καὶ κατὰ τὰς κολπικὰς ἐγχειρήσεις, προσέχομεν ὅμως ἰδιαιτέρως ἵνα ἡ ἕδρα προέχῃ τοῦ χείλους τῆς τραπέζης καὶ ἵνα οἱ μηροὶ εἶναι εἰς τελείαν ἀπαγωγήν. Τὸ ἐλαφρὸν κεκλιμένον ἐπίπεδον εὐχεραίνει τοὺς χειρισμούς. Ὡς ναρκωτικὸν μεταχειριζόμεθα, ὡς εἰς πάσας τὰς κολπικὰς ἐγχειρήσεις, τὸ Evipan καὶ ἀρκοῦμαι εἰς τοῦτο καὶ εἰς τὰς μεγαλυτέρας ἔτι διαρκείας ἐγχειρήσεις κατὰ τὸ πλεῖστον, ἄνευ ἢ μόνον μὲ μικρὰν προσθήκην αἰθέρος.

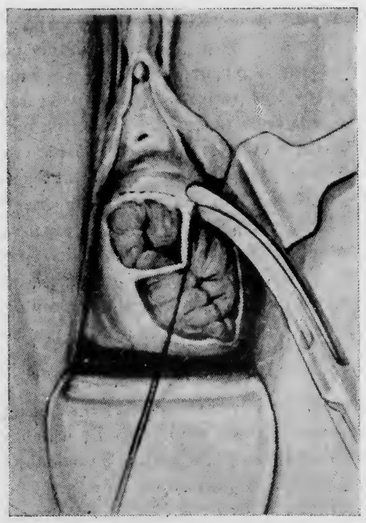
Δὲν ἐκτελῶ τὴν σύγκλεισιν συριγγίου διὰ νεαροποιήσεως μόνον καὶ ραφῆς καὶ εἰς ἁπλᾶς ἔτι περιπτώσεις καθ' ἃς εἶναι δυνατὸν νὰ ἐπιτύχω τοιοῦτον. Ἔχομεν τόσον ἀσφαλῆ μέθοδον εἰς τὴν πλαστικὴν τῶν συριγγίων διὰ διχασμοῦ τοῦ κυστιοκολπικοῦ διαφράγματος (dédoublement), ὥστε δὲν παραιτούμεθα αὐτῆς καὶ ἐπὶ μὴ ἐπιπλόκων ἔτι περιπτώσεων. Αὕτη εἶναι δι' ἐμὲ ἡ μέθοδος ἐκλογῆς καὶ ἐφαρμόζω ταύτην ὡς ἀκολούθως: Μετὰ τὴν ἐκτέλεσιν τῆς τομῆς Schuchardt καὶ τὴν τοποθέτησιν τῶν κολποδιαστολέων, προσανατολίζομαι κατὰ πρῶτον ὡς πρὸς τὴν θέσιν, τὸ μέγεθος καὶ τὴν σύστασιν τοῦ συριγγίου, ἀκολούθως δὲ συλλαμβάνω δι' ἀγκιστρωτῶν λαβίδων τὸ πέριξ κολπικὸν τοίχωμα καὶ ἀπάγω τοῦτο. Εἴς τινας περιπτώσεις τὸ συρίγγιον γίνεται προσιτὸν ἁπλῶς διὰ τῆς πρὸς τὰ κάτω ἕλξεως τοῦ τραχήλου δι' ἀγκι-



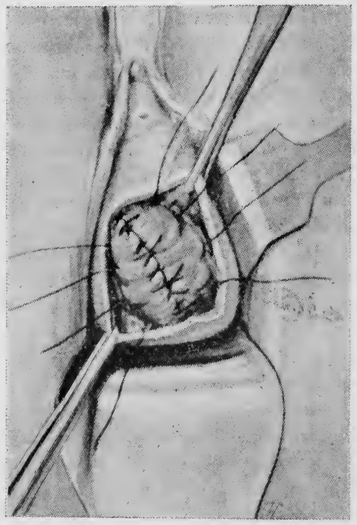
Εἰκ. 135.—Μέγα κολποκυτικὸν συρίγγιον. Ἐπικαλύπτεται ἐν μέρει ὑπὸ τῆς πυγχῆς τοῦ προσθίου κολπικοῦ τοιχώματος.



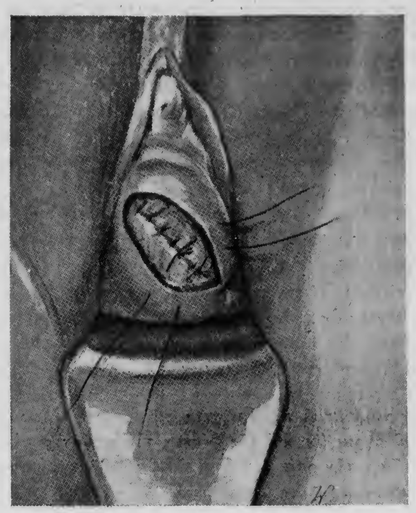
Εἰκ. 136.—Μέγα κυστιοκολπικὸν συρίγγιον. Ἐγχείρησις διὰ τῆς μεθόδου τοῦ διχασμοῦ. Τμῆμα τοῦ τοιχώματος τῆς κύστεως ἔχει ἀποκοληθῆ ἀπὸ τοῦ κολπικοῦ τοιχώματος. Τὸ πρῶτον ῥάμμα ἔχει τοποθετηθῆ.



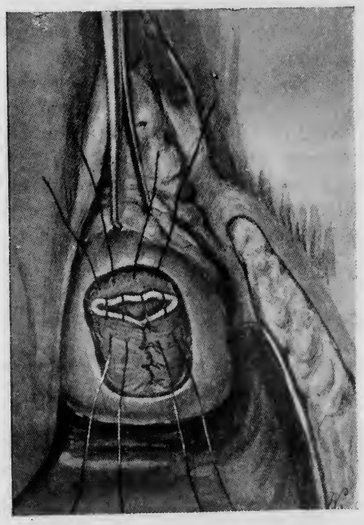
Εἰκ. 137.—Μέγα κυστιοκολπικὸν συρίγγιον. Ἡ κύστις ἔχει παρασκευασθῆ εἰς μεγάλην ἔκτασιν πέριξ τοῦ συριγγίου καὶ τὸ ἥμισυ τῶν ῥαφῶν ἔχει τοποθετηθῆ κατὰ τὸν λοξὸν ἄξονα αὐτοῦ. (Ἐπὶ τοῦ χείλους τοῦ συριγγίου ἔχει παραμείνει λωρὶς κολπικοῦ τοιχώματος).



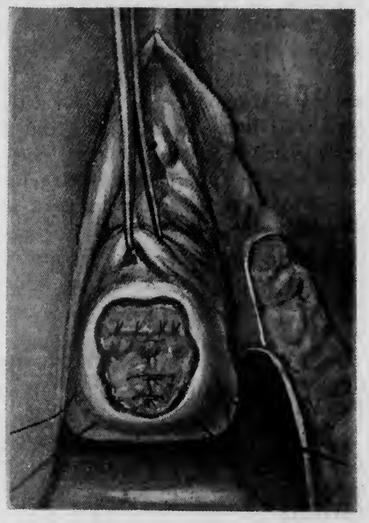
Εἰκ. 138.—Μέγα κυστιοκολπικὸν συρίγγιον. Ἡ κύστις ἔχει παρασκευασθῆ εἰς μεγάλην ἔκτασιν καὶ ἔχει συρραφῆ διά μεμονωμένων ῥαμμάτων κατὰ τὸν λοξὸν ἄξονα. Ὑπεράνω αὐτῶν συρράπτεται τὸ κυστικὸν τοίχωμα διὰ προσθέτου σειρᾶς ῥαμμάτων.



Εἰκ. 139.—Μέγα κυστιοκολπικὸν συρίγγιον. Μετὰ ἀμματισμὸν ὅλων τῶν ῥαμμάτων τῆς κίσεως συρράπτονται τὰ τραυματικὰ χείλη τοῦ κολεοῦ διὰ μεμονωμένων ῥαμμάτων τὰ ὁποῖα συλλαμβάνουν καὶ τὸ τοίχωμα τῆς κύστεως.



Εἰκ. 140.—Μέγα κυστιοκολπικὸν συρίγγιον. Ἡ κύστις ἔχει παρασκευασθῆ εἰς μεγάλην ἔκτασιν καὶ τὸ ἥμισυ τῶν ῥαμμάτων ἔχει τοποθετηθῆ κατὰ τὸν ὀβελιαῖον ἄξονα, τὸ δὲ ἄλλο ἥμισυ κατὰ τὸν ἐγκάρσιον.



Εἰκ. 141.—Μέγα κυστιοκολπικὸν συρίγγιον. Μετὰ τὸν ἀμματισμὸν τῶν ῥαμμάτων κατὰ τὸν ἐγκάρσιον ἄξονα συρράπτομεν τὸν κολεὸν συλλαμβάνοντες καὶ τὸ τοίχωμα τῆς κύστεως.

στρωτῆς λαβίδος. Ἀναζητῶ ἀκολούθως τὴν εὐχερέστερον μετακινουμένην θέσιν τῆς περιφερείας τοῦ συριγγίου καὶ ἄρχομαι παρὰ τὸ χεῖλος τοῦ συριγγίου τῆς ἀποκολλήσεως τοῦ κολπικοῦ ἀπὸ τοῦ κυστικοῦ τοιχώματος δι' αἰχμηροῦ καὶ τέμνοντος μαχαιρίου. Ἀφοῦ παρασκευάσω ἀρκούντως μέγα μέρος τοῦ περὶ τὸ συρίγγιον κυστικοῦ τοιχώματος, τοποθετῶ τὸ πρῶτον ράμμα συλλαμβάνων ὅσον τὸ δυνατὸν μεγαλύτερον μέρος τοῦ τοιχώματος καὶ ἀμματίζω τοῦτο *(εἰκ. 135-136)*. Χρησιμοποιῶ τὸ ράμμα τοῦτο πρὸς ἕλξιν, ἕλκεται δὲ ὑπὸ τοῦ βοηθοῦ ἰσχυρῶς, πρὸς τὰ κάτω, ὁπότε δύνανται νὰ ἀφαιρεθοῦν αἱ καταλαμβάνουσαι χῶρον ἀγκιστρωταὶ λαβίδες. Εἶτα παρασκευάζω διὰ τοῦ μαχαιρίου ἢ ψαλιδίου εὐρὺ τμῆμα τοῦ κυστικοῦ τοιχώματος, τοποθετῶ ἀμέσως τὸ δεύτερον ράμμα, ὅπερ καὶ πάλιν ἕλκεται πρὸς τὰ κάτω, ἀφοῦ ἀποκοπῇ τὸ πρῶτον ράμμα, παρασκευάζω ἐκ νέου ἄλλο τμῆμα τοῦ κυστικοῦ τοιχώματος, τοποθετῶ τὸ τρίτον ράμμα καὶ ἐξακολουθῶ περαιτέρω, μέχρι οὗ συγκλεισθῇ τὸ ὅλον συρίγγιον. Ὁ τρόπος οὗτος τῆς ἐγχειρήσεως ἔχει τὸ μέγα προτέρημα ὅτι δὲν παρεμποδίζεταί τις ὑπὸ τῶν ἐργαλείων ἅτινα περιορίζουν τὸν χῶρον καὶ ὅτι διὰ τῆς ἀποκολλήσεως καὶ τῆς ἀμέσου συρραφῆς μικρῶν μόνον τμημάτων τῆς κύστεως περιορίζεται καὶ ἡ παρενοχλοῦσα αἱμορραγία εἰς τὸ ἐλάχιστον.

Αἱ πολλάκις συσταθεῖσαι ἐνέσεις ἀδρεναλίνης, αἵτινες ἐπηρεάζουν δυσμενῶς τὴν ἐπούλωσιν, κατέστησαν οὕτω περιτταί.

Κατὰ τίνα τρόπον νεαροποιεῖ τις, ὁριζοντίως, λοξῶς ἢ ὀβελιαίως, ἐξαρτᾶται ἀποκλειστικῶς ἐκ τῆς μορφῆς τοῦ συριγγίου καὶ τῆς θέσεως τῆς μεγίστης τάσεως τῶν ἱστῶν, ἀναλόγως τῆς ὁποίας τοποθετοῦμεν τὴν ραφήν. Οὕτω εἴμεθα πολλάκις ὑποχρεωμένοι νὰ συρράπτωμεν τὸ αὐτὸ συρίγγιον κατὰ διαφόρους ἄξονας *(εἰκ. 137 - 141)*.

Μετὰ τὴν ἀποπεράτωσιν τῆς ραφῆς τῆς κύστεως πληροῦμεν ταύτην δι' ἀραιωθέντος ἀπεστειρωμένου γάλακτος, ἀφοῦ προηγουμένως πωματίσωμεν τὸν κολεὸν διὰ γάζης ἵνα ἀποφύγωμεν παραπλάνησιν, ἕνεκα τυχὸν ἀπὸ τῆς οὐρήθρας ἐκρέοντος πρὸς τὸ βάθος τοῦ κολεοῦ γάλακτος. Μετὰ τὴν ἀφαίρεσιν τοῦ καθετῆρος καὶ τῆς γάζης, ἐλέγχομεν ἐὰν ἀναβλύζει γάλα διὰ μέσου τῶν ραμμάτων. Ἐὰν τὸ τοιοῦτον συμβαίνει συγκλείομεν τὸ νεκρωθὲν σημεῖον δι' ἑνὸς ράμματος. Ἡ ἐγχείρησις περατοῦται διὰ τῆς συρραφῆς τῶν τραυματικῶν χειλέων τοῦ κολεοῦ διὰ μεμονωμένων ραμμάτων, ἐπιδιώκομεν δ' ἵνα μὴ συμπίπτουν πρὸς ἀλλήλας αἱ δύο σειραὶ ραμμάτων (ἂν καὶ δὲν θεωρῶ τὸ τοιοῦτον ὡς ἀπολύτως ἀναγκαῖον).

Ἐπὶ περιπτώσεων μετ' ἐξαιρετικῆς ἰσχυρᾶς τάσεως τῶν ἱστῶν δυνάμεθα νὰ ἐφαρμόσωμεν τὴν τροποποίησιν τοῦ διχασμοῦ κατὰ Füth. Τέμνομεν τὸ κολπικὸν τοίχωμα περὶ τὸ συρίγγιον εἰς ἀπόστασιν 1/2 ἑ.μ. ἀπὸ τοῦ χείλους του οὕτως, ὥστε νὰ παραμείνῃ δακτυλιοειδὲς τεμάχιον τοῦ κολπικοῦ τοιχώματος, ὅπερ δὲν συλλαμβάνεται κατὰ τὴν ραφὴν οὕτως, ὥστε τοῦτο κατὰ τὸν ἀμματισμὸν τῶν ραμμάτων ἀναστρέφεται πρὸς τὸ ἐσωτερικὸν τῆς κύστεως.

Ἄλλαι πάλιν περιπτώσεις μετὰ μεγάλης ἀπωλείας κυστικοῦ τοιχώματος καὶ μετ' ἰσχυρᾶς οὐλώδους προσηλώσεως τῶν χειλέων τοῦ συριγγίου δυνατὸν νὰ μᾶς ἀναγκάσουν νὰ ἀφαιρέσωμεν τὴν μήτραν. Ἐν τοιαύτῃ περιπτώσει δυνάμεθα νὰ παρασκευάσωμεν τὴν κύστιν εὐχερῶς εἰς μεγάλην ἔκτασιν, ἔχοντες οὕτω εἰς τὴν διάθεσίν μας ἀρκετὸν περιτόναιον πρὸς ἐξασφάλισιν τῆς ραφῆς, ἐν ἀνάγκῃ διὰ χρησιμοποιήσεως τοῦ τοιχώματος τοῦ ὀρθοῦ (Latzko) ἢ καὶ τῶν πλατέων συνδέσμων.

Δυνάμεθα ἐπιτυχῶς νὰ χρησιμοποιήσωμεν τὴν μήτραν ὡς ὑποστήριγμα τῶν συριγγίων (μητροπλαστικὴ ἐγχείρησις), κατὰ προτίμησιν διὰ τῆς παρενθέσεως τοῦ σώματος κατὰ A. Freund.

Ἐπὶ συριγγίων κειμένων πλησίον τοῦ τραχήλου δυνάμεθα νὰ χρησιμοποιήσωμεν τοῦτον πρὸς ἐπικάλυψιν μετὰ προηγηθεῖσαν κινητοποίησιν (Küstner - Wolkowitsch), εἰς βαρείας δὲ περιπτώσεις μετὰ προηγουμένην ἀπολίνωσιν τῶν παραμητρίων (Küstner, Rübsamen, Latzko).

Κυστιοκολπικὸν συρίγγιον μετὰ καταστροφῆς τοῦ σφιγκτῆρος τῆς κύστεως καὶ τῆς οὐρήθρας.

Δυνάμεθα νὰ εἴπωμεν ὅτι οἱονδήποτε συρίγγιον ἐφ' ὅσον ἡ οὐρήθρα ὑφίσταται εἶναι δυνατὸν σήμερον νὰ θεραπευθῇ, πλὴν ἐλαχίστων ἐξαιρέσεων. Δυστυχῶς τὰ ἀποτελέσματα

εἶναι ὀλιγώτερον ἀσφαλῆ ἐὰν ὁ σφιγκτὴρ καὶ ἡ οὐρήθρα ἔχουν ὡσαύτως καταστραφῆ, καθ-ὅσον ἐν τοιαύτῃ περιπτώσει ἡ θεραπεία τοῦ συριγγίου δὲν ἀρκεῖ, ἀλλ' ὀφείλομεν νὰ ἀποκαταστήσωμεν καὶ σφιγκτῆρα ἱκανὸν πρὸς λειτουργίαν, ἵνα οὕτω ἐπαναφέρωμεν τὴν ἐκουσίαν ἐγκράτειαν τῶν οὔρων. Τὸ τοιοῦτον δὲν εἶναι ἔργον εὐχερὲς παρὰ τὰς ποικίλας εὐφυεῖς ἐγ-

Εἰκ. 142.—Κυστιοκολπικὸν συρίγγιον ἐξαιρετικοῦ μεγέθους μετ' ἐλλείψεως ὁλοκλήρου τῆς οὐρήθρας καὶ τοῦ προσθίου κολπικοῦ τοιχώματος.

χειρητικὰς μεθόδους αἵτινες ἔχουν προταθῇ ἰδίᾳ κατὰ τὰ τελευταῖα ἔτη. Ἔχω ὁ ἴδιος χειρουργήσει 89 συρίγγια κυστιοκολπικά, ἐκ τούτων 62 περιπτώσεις ἄνευ τραυματισμοῦ τῆς οὐρήθρας. Ἐκ τῶν κατὰ τὸ πλεῖστον πολὺ μεγάλων τούτων συριγγίων ἐθεραπεύθησαν τὰ 90 % καὶ δὴ ἀμέσως μετὰ τὴν πρώτην ἐγχείρησιν. Εἴς τινα πολὺ εὐμεγέθη συρίγγια ἠναγκάσθημεν νὰ ἐπαναλάβωμεν τὴν ἐγχείρησιν, ἥτις καὶ ἐπέφερε τὸ τελικὸν ἀποτέλεσμα.

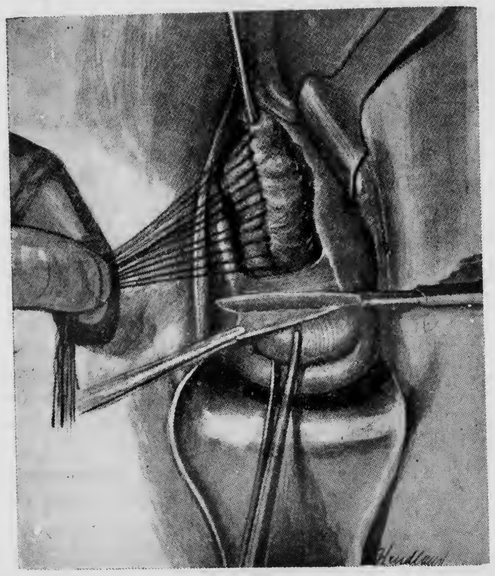
Ἐκ τῶν μὴ θεραπευθεισῶν περιπτώσεων μέγας ἀριθμὸς θὰ ἠδύνατο νὰ θεραπευθῇ, ἐὰν αἱ πάσχουσαι δὲν ἠρνοῦντο δευτέραν ἐγχείρησιν. Ἐκ τῶν 27 περιπτώσεων μετὰ ὁλικῆς ἢ μερικῆς καταστροφῆς τῆς οὐρήθρας, κατέστη δυνατὸν αἱ 24 κατὰ τὴν ἔξοδον ἐκ τοῦ Νοσοκομείου νὰ συγκρατοῦν ἑκουσίως τὰ οὖρα ἐπὶ 2 καὶ πλέον ὥρας(1).

Διὰ τὴν ἀποκατάστασιν τοῦ σφιγκτῆρος δυνάμεθα νὰ χρησιμοποιήσωμεν οἱονδήποτε μυϊκὸν ἱστὸν ἱκανὸν πρὸς λειτουργίαν, κείμενον πλησίον τοῦ τριγώνου τῆς κύστεως, ἐπειδὴ

1. Ἐπὶ 50 τῶν ἀναφερομένων περιπτώσεων ἀνεκοίνωσε διεξοδικῶς ὁ μαθητής μου Ἀντωνόπουλος (Congrès Française chirurgie 1932 Cinquante cas des fistules vesico - vaginales traités par la voie vaginale).

Εἰκ. 143.—Κυστιοκολπικὸν συρίγγιον ἐξαιρετικοῦ μεγέθους μετ' ἐλλείψεως ὁλοκλήρου τῆς οὐρήθρας καὶ τοῦ προσθίου κολπικοῦ τοιχώματος. Ἐγχείρησις κατὰ ***Λογοθετόπουλον****. Μικρὸν τμῆμα τοῦ τοιχώματος τῆς κύστεως ἔχει παρασκευασθῆ καὶ ἔχει τοποθετηθῆ ἡ πρώτη ραφή.*

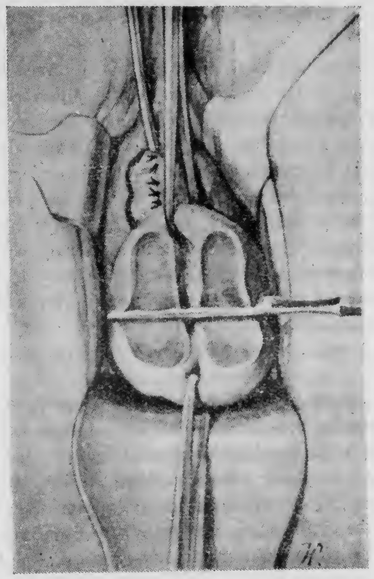
Εἰκ. 144.—Κυστιοκολπικὸν συρίγγιον ἐξαιρετικοῦ μεγέθους μετ' ἐλλείψεως ὁλοκλήρου τῆς οὐρήθρας καὶ τοῦ προσθίου τοιχώματος. Ἐγχείρησις κατὰ ***Λογοθετόπουλον****. Τὸ τοίχωμα τῆς κύστεως περὶ τὸ συρίγγιον ἔχει παρασκευασθῆ βαθμηδὸν καὶ τὸ ἐλευθερωθὲν ἤδη τμῆμα ἔχει συγκλεισθῆ ἀμέσως διὰ μεμονωμένων ραφῶν. Ὁ προπίπτων βλεννογόνος τῆς κύστεως συγκρατεῖται πρὸς τὰ ὀπίσω διὰ τολυπίου γάζης.*



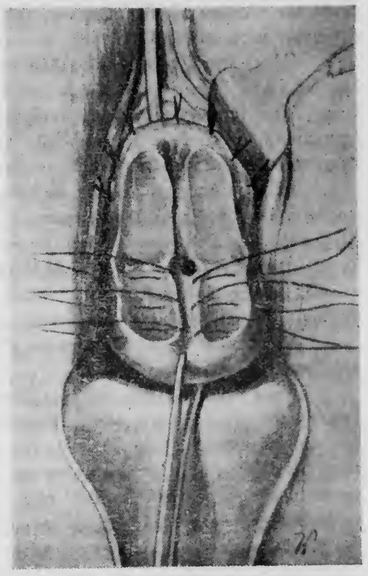
Εἰκ. 145.—Κυστιοκολπικὸν συρίγγιον ἐξαιρετικοῦ μεγέθους μετ' ἐλλείψεως ὁλοκλήρου τῆς οὐρήθρας καὶ τοῦ προσθίου κολπικοῦ τοιχώματος. Ἐγχείρησις κατὰ Λογοθετόπουλον. Τὸ συρίγγιον ἐν συνόλῳ ἔχει συγκλεισθῆ ἐξαιρέσει μιᾶς μικρᾶς ὀπῆς, ἥτις μέλλει νὰ χρησιμεύσῃ ὡς οὐρήθρα. Ὁ βλεννογόνος τοῦ προσθίου χείλους τοῦ τραχήλου ἐκτέμνεται διὰ τοῦ μαχαιρίου.

κατὰ τὸν Latzko τόσον αἱ λεῖαι ὅσον καὶ αἱ γραμμωταὶ μυϊκαὶ ἶνες ταχέως προσαρμόζονται πρὸς τὰς συνθήκας καὶ εὐχεραίνουν τὴν ἐκουσίαν ἐγκράτειαν τῆς κύστεως.

Ἐὰν ἡ οὐρήθρα διατηρεῖται ἀρκεῖ κατὰ τὸ πλεῖστον μετὰ τὴν συρραφὴν τοῦ συριγγίου νὰ συνενώσωμεν τὰ ὑπολειπόμενα πλάγια τμήματα τοῦ σφιγκτῆρος καὶ τοῦ περιβάλλοντος ἱστοῦ δι' ἐγκαρσίων ραφῶν. Ἐὰν ὅμως ἐλλείπῃ αὕτη ἐν μέρει ἢ ἐξ ὁλοκλήρου, τότε δέον ὁ νεοδημιουργηθεὶς ἐκ τῶν παρακειμένων ἱστῶν πρὸς ἀντικατάστασιν τῆς οὐρήθρας σωλὴν νὰ ἔχῃ μυϊκὸν ὑπόθεμα, ὅπερ θὰ δύναται νὰ ἀντικαταστήσῃ τὸ ἔργον τοῦ σφιγκτῆρος.



Εἰκ. 144.—Κυστιοκολπικὸν συρίγγιον ἐξαιρετικοῦ μεγέθους μετ' ἐλλείψεως ὁλοκλήρου τῆς οὐρήθρας καὶ τοῦ προσθίου κολπικοῦ τοιχώματος. Ἐγχείρησις κατὰ ***Λογοθετόπουλον****. Τὰ χείλη τοῦ τραχήλου ἀπάγονται ἀπ' ἀλλήλων διὰ μονοδοντικῶν λαβίδων καὶ διατέμνεται ὁ τράχηλος ἐγκαρσίως καθ' ὅλον τὸ μῆκος τοῦ αὐλοῦ αὐτοῦ.*



Εἰκ. 145.—Κυστιοκολπικὸν συρίγγιον ἐξαιρετικοῦ μεγέθους μετ' ἐλλείψεως ὁλοκλήρου τῆς οὐρήθρας καὶ τοῦ προσθίου κολπικοῦ τοιχώματος. Ἐγχείρησις κατὰ ***Λογοθετόπουλον****. Τὸ ἀποσχισθὲν πρόσθιον χεῖλος τοῦ τραχήλου καλύπτει ὁλόκληρον τὸ συρραφὲν συρίγγιον μέχρι τῆς οὐρήθρας καὶ συρράπτεται ἑκατέρωθεν πρὸς τὰ τραυματικὰ χείλη τοῦ κολεοῦ. Τὰ τραυματικὰ χείλη τοῦ ὀπισθίου τραχηλικοῦ χείλους συρράπτονται διὰ μεμονωμένων ραφῶν.*

Ἡ ἀρχικῶς διὰ καθετῆρος διατηρουμένη διαβατὴ τεχνητὴ οὐρήθρα ἀποκτᾷ μετὰ οὐχὶ μακρὸν χρόνον ἐπένδυσιν ἐξ ἐπιθηλίου τῆς κύστεως (Latzko) καὶ μετασχηματίζεται οὕτω πραγματικῶς εἰς οὐρήθραν. Ὡς μυϊκὸν ὑπόθεμα δυνάμεθα νὰ χρησιμοποιήσωμεν τὸν πυθμένα ἢ τὸν τράχηλον τῆς μήτρας ἢ γραμμωτὸν μῦν (βολβο - ἢ ἰσχιο - σηραγγώδη, τοὺς ἀνελκτῆρας ἢ τοὺς πυραμοειδεῖς μῦς) οἵτινες παρασκευάζονται καὶ συρράπτονται διὰ ραμμάτων κάτω τῆς νεοδημιουργηθείσης οὐρήθρας. Κατὰ τὸ πλεῖστον τὰ πρόσθια τμήματα τοῦ βολβοῦ καὶ ἰσχιο - σηραγγώδους καὶ τῶν σκελῶν τῶν ἀνελκτήρων ὑφίστανται ἐλάττωσιν τῆς ἐλαστικότητος αὐτῶν ἕνεκα οὐλωδῶν ἀλλοιώσεων, ἡ δὲ ἀπόστασις αὐτῶν αὐξάνει ἕνεκα διαστάσεως τῆς ἡβικῆς συμφύσεως, ἥτις παρατηρεῖται συνηθέστερον ἐπὶ δυσχερῶν τοκετῶν οὕτως, ὥστε συνένωσις αὐτῶν κατὰ τὴν μέσην γραμμὴν εἶναι δυνατὴ μόνον μετὰ ἰσχυρὰν τάσιν. Τὸ ἀποτέλεσμα εἶναι ἀποτυχία τῆς πλαστικῆς ἕνεκα διατομῆς τῶν ἱστῶν ὑπὸ τῶν ραμμάτων ἢ νεκρώσεις τῶν ἀναιμικῶν τοιούτων.

Ἡ προταθεῖσα ὑπὸ τοῦ A. Franz μέθοδος τῆς χρησιμοποιήσεως τῶν ἀνελκτήρων, καθ' ἣν παρασκενάζονται δύο δεσμίδες μυός, ὧν τὰ ὀπίσθια πέρατα συνενοῦνται ὑπὸ τὴν οὐρήθραν, παρέχει καλλίτερα ἀποτελέσματα. Ὁ Martius καταλείπει τοὺς παρασκευασθέντας μῦς συνηνωμένους μεταξύ των καὶ συρράπτει τούτους κατὰ τὴν μέσην γραμμὴν (ὑπὸ τὴν οὐρήθραν). Ὡσαύτως ὁ Martius χρησιμοποιεῖ ἔμμισχον κρημνὸν ἐκ λίπους καὶ μυὸς ὅστις περιλαμβάνει τὸν βολβοσηραγγώδη, οὗτινος ἡ βάσις ἕνεκα τῶν τροφοφόρων ἀγγείων καὶ νεύρων δέον νὰ διατηρῆται.

Ὁ κρημνὸς οὗτος τοποθετεῖται περὶ τὸν αὐχένα τῆς κύστεως καὶ στερεοῦται κατὰ τὸ ἀντίθετον πλάγιον αὐτοῦ. Ἐξετέλεσα τὴν μέθοδον ταύτην μετ' ἀρίστου ἀποτελέσματος εἰς εὐρὺ συρίγγιον μετὰ τελείας ἐλλείψεως τῆς οὐρήθρας.

Ἡ πλαστικὴ τῶν πυραμοειδῶν κατὰ Goebel · Stöckel, καθ' ἣν δύο ἀπονευρωτικαὶ λωρίδες ἐκ τῆς θήκης τῶν ὀρθῶν κοιλιακῶν μυῶν περιλαμβάνουσαι τοὺς πυραμοειδεῖς μῦς διαπερῶνται ὄπισθεν τῆς ἡβικῆς συμφύσεως καὶ συρράπτονται ὑπὸ τὸν αὐχένα τῆς κύστεως, ἐφημόσθη ὑπ' ἐμοῦ ἀποτελεσματικῶς πολλάκις. Μειονέκτημα τῆς μεθόδου ταύτης εἶναι ἡ ἐπερχομένη ἐνίοτε νέκρωσις τῶν κρημνῶν, οἵτινες δὲν τρέφονται πάντοτε ἀρκούντως.

Ἡ χρησιμοποίησις τῆς παρεμβολῆς τῆς μήτρας ἐπὶ καταστροφῆς τῆς οὐρήθρας δὲν μοὶ παρέσχεν ἱκανοποιητικὰ ἀποτελέσματα, ὡσαύτως ὁ καθελκυσμὸς τοῦ τραχήλου τῆς μήτρας, ἥτις κατὰ τὸ πλεῖστον πολὺ δυσκόλως μετακινεῖται. Οὗτος ὅμως καθίσταται εὔχρηστος μετ' ἀποτελέσματος κατὰ τὸν ὑπ' ἐμοῦ ὑποδειχθέντα κατωτέρω περιγραφόμενον τρόπον εἰς περιπτώσεις μεγάλης καταστροφῆς τῆς οὐρήθρας καὶ τοῦ προσθίου κολπικοῦ τοιχώματος, καθ' ἃς ἀναγκαζόμεθα νὰ ἀναζητήσωμεν ἱστοὺς πρὸς πλαστικήν.

Ὁ Ἀντωνόπουλος ἀνεκοίνωσεν εἰς τὸ Συνέδριον τῶν Χειρουργῶν τῶν Παρισίων τοῦ 1932 καὶ τὴν μέθοδον ταύτην.

Μετὰ τὴν συρραφὴν τοῦ συριγγίου τῆς κύστεως καὶ τὴν δημιουργίαν τεχνητῆς οὐρήθρας ἐκ τοῦ περιβάλλοντος ἱστοῦ, ἕλκεται ὁ τράχηλος πρὸς τὰ κάτω διὰ 2 ἀγκιστρωτῶν λαβίδων καὶ διατέμνεται ἐγκαρσίως. Ἐκ τῆς προσθίας ἐπιφανείας τοῦ προσθίου χείλους ἀφαιρεῖται ὁ βλενογόνος διὰ τοῦ μαχαιρίου καὶ ἡ νεαροποιηθεῖσα οὕτω ἐπιφάνεια προσηλοῦται διά τινων ραφῶν διαπερωμένων διὰ τῶν πλαγίων χειλέων τῆς τραυματικῆς ἐπιφανείας ἐπὶ τῆς νεοδημιουργηθείσης οὐρήθρας. Αἱ ἐπιφάνειαι ἐκ τῆς διατομῆς τοῦ τραχήλου συρρικνοῦνται διὰ τῆς διαπεραιώσεως ζωϊκῶν ραμμάτων ὡς ἐπὶ τῆς πλαστικῆς κατὰ Pozzi (εἰκ. 67—69). Ὁ καθελκυσμὸς τοῦ διχασθέντος τραχήλου ἐπιτυγχάνεται εὐχερῶς, ἐνῷ ἡ μήτρα παραμένει εἰς τὴν ἀρχικὴν αὐτῆς θέσιν *(εἰκ. 142—147)*.

Ἐχειρούργησα κατὰ τὴν μέθοδον ταύτην μετὰ πλήρους ἀποτελέσματος λίαν δυσχερεῖς περιπτώσεις.

18. Τὰ ὀρθοκολπικὰ συρίγγια.

Κατ' ἀντίθεσιν πρὸς τὰ κυστιοκολπικὰ συρίγγια, τὰ ὀρθοκολπικὰ τοιαῦτα δὲν ὀφείλονται εἰς νέκρωσιν ἐκ πιέσεως τῆς κεφαλῆς τοῦ ἐμβρύου κατὰ τὸν τοκετόν. Τὸ τοιοῦτον ὀφείλεται εἰς τὸ ὅτι τὸ κρανίον τοῦ ἐμβρύου κατὰ τὸ σημεῖον τοῦτο τῆς πυέλου δὲν συναντᾷ ὀστεΐνην μοῖραν, ἐφ' ἧς θὰ ἦτο δυνατὸν νὰ πιεσθῇ τὸ τοίχωμα τοῦ κολεοῦ καὶ τοῦ τελικοῦ ἐντέρου. Ἡ δημιουργία τοῦ τραυματισμοῦ τούτου ὀφείλεται εἰς τὴν ὑπερδιάτασιν τοῦ ὀρθοκολπικοῦ διαφράγματος καὶ ἐν τέλει εἰς τὴν ρῆξιν αὐτοῦ κατὰ τὴν δίοδον τῆς κεφαλῆς τοῦ ἐμβρύου, σπανιώτερον δὲ εἰς τὴν ἀπ' εὐθείας ρῆξιν διὰ τῶν μαιευτικῶν ἐργαλείων. Οὐχὶ σπανίως παρατηροῦμεν τραυματισμοὺς τοῦ τελικοῦ ἐντέρου μετὰ κολπικὴν ἢ κοιλιακὴν ὁλικὴν ὑστερεκτομήν, μετ' ὀπισθίαν κολποτομὴν καὶ κολπορραφὴν κ.ο.κ Σπανιώτερον ἀλλ' ἔτι ἐπιλισμοῦ ἢ τραυματισμοῦ ἐκ συνουσίας. Τὰ συρίγγια τὰ δημιουργηθέντα ἐκ τοκετοῦ ἑδράζονται

κατὰ τὸ πλεῖστον εἰς τὸ μέσον ἢ κατώτερον τρίτον τοῦ κολεοῦ, ἐνῷ τὰ μετεγχειρητικὰ ἐμφανίζονται κυρίως εἰς τὸ ἀνώτερον τριτημόριον.

Ἕνεκα τῆς μεγίστης τάσεως τῶν ὀρθοκολπικῶν συριγγίων πρὸς αὐτόματον ἴασιν, δέον νὰ μὴ προβαίνωμεν εἰς τὴν ἐγχείρησιν ἀμέσως, ἀλλὰ νὰ ἀφήνωμεν νὰ παρέλθῃ διάστημα ἀρκετῶν μηνῶν, καθ' ὃ διάστημα ἐφαρμόζομεν συντηρητικὰ μέσα θεραπείας. Ἐκτελοῦμεν κολπικοὺς διακλυσμοὺς μετὰ ἐλαφρῶν ἀντισηπτικῶν διαλυμάτων, μεριμνῶντες διὰ τὰς κανονικὰς κενώσεις τῆς ἀρρώστου δι' εἰδικῆς διαίτης καὶ χορηγήσεως ἐλαφρῶν ὀπιούχων, καὶ τοποθετοῦντες ἐν ἀνάγκῃ σωλῆνα τοῦ ἐντέρου πρὸς διευκόλυνσιν τῆς φυσιολογικῆς ἐξόδου τῶν ἀερίων. Παρετηρήσαμεν μετὰ τὴν θεραπείαν ταύτην αὐτόματον ἴασιν συριγγίων, ἅτινα ἦσαν διαβατὰ εἰς δύο δακτύλους. Ἐὰν οὕτω δὲν καταλήξῃ τὸ συρίγγιον εἰς τελικὴν σύγκλεισιν, ἡ ἐπιτευχθεῖσα σμίκρυνσις αὐτοῦ εἶναι εὐνοϊκὴ διὰ τὴν ἐπακολουθοῦσαν ἐγχείρησιν. Δυνάμεθα νὰ χειρουργῶμεν μικρὰ ὀρθοκολπικὰ συρίγγια ὡς καὶ τὰ κυστιοκολπικὰ τοιαῦτα.

Περιτέμνομεν τὸ στόμιον περιφερικῶς καὶ ἀποκολλῶμεν τὸ κολπικὸν τοίχωμα ἐν μέρει ἀμβλέως ἐν μέρει δὲ διὰ τέμνοντος ὀργάνου ἀπὸ τοῦ τοιχώματος τοῦ ἐντέρου μέχρι σημείου, ὥστε νὰ εἶναι δυνατὸν νὰ συνενωθῶσι τὰ χείλη τοῦ συριγγίου ἄνευ τάσεως διὰ μεμονωμένων ραμμάτων ἢ συνεχοῦς λεπτῆς ραφῆς, ἥτις δέον νὰ μὴ θίγῃ τὸν βλενογόνον τοῦ ἐντέρου. Ἄνωθι αὐτῆς συγκλείεται τὸ κολπικὸν τοίχωμα δι' ἰσχυρῶν μεμονωμένων ζωϊκῶν ραμμάτων. Ἡ μετεγχειρητικὴ θεραπεία συνίσταται εἰς τὴν παρακώλυσιν τῆς κενώσεως μέχρι περίπου τῆς 6ης ἡμέρας δι' ἀναλόγου διαίτης καὶ χορηγήσεως μικρῶν δόσεων ὀπίου, ἀκολούθως διὰ διευκολύνσεως τῆς πρώτης κενώσεως διὰ χορηγήσεως ἰσχυροῦ καθαρτικοῦ καὶ διὰ κλύσματος ἐλαιούχου.

Μεγαλύτερα συρίγγια δέον νὰ μετατρέπωνται εἰς τελείαν ρῆξιν τοῦ περινέου διὰ τομῆς τοῦ ὅλου ἐντέρου καὶ τοῦ ὑπάρχοντος ἱστοῦ μεταξὺ ἐντέρου καὶ συριγγίου· ἡ ἐγχείρησις ἐνεργεῖται κατὰ τὸν περιγραφέντα ἀνωτέρω τρόπον, συμφώνως πρὸς τὴν μέθοδόν μου (βλ. εἰκ. 44—48) Ἡ ἐξασφάλισις τῆς ἐντερικῆς ραφῆς διὰ πτυχῆς τοῦ ἀπευθυσμένου ἔδωκεν εἰς ἡμᾶς εἰς ὅλας τὰς περιπτώσεις τελείαν ἴασιν, ὥστε πιστεύομεν ὅτι δυνάμεθα νὰ παραιτηθῶμεν ἀπὸ πάσας τὰς ἄλλας μεθόδους. Θὰ ἠδύνατό τις νὰ σκεφθῇ τὴν κατ' ἐξαίρεσιν ἐφαρμογὴν τῆς μεθόδου τοῦ Segond, ἣν ἡμεῖς πρότερον συχνὰ ἐξετελοῦμεν εἰς ἐκτεταμένας καταστροφὰς τοῦ ἀπευθυσμένου. Μετὰ τὴν διατομὴν τοῦ σφιγκτῆρος διατέμνομεν τὸ ἀπευθυσμένον περιφερικῶς ἄνω τῆς κατεστραμμένης χώρας, κινητοποιεῖται καὶ μετὰ τὴν ἀφαίρεσιν τοῦ περιφερικοῦ τμήματος τοῦ ἀπευθυσμένου, ἐξέλκεται διὰ μέσου τοῦ σφιγκτῆρος καὶ στερεοποιεῖται διὰ ραφῶν περιφερικῶς κατὰ τὸν δακτύλιον. Πρὸς ἐπίτευξιν καλοῦ ἀποτελέσματος προϋπόθεσις εἶναι ἵνα ἡ ραφὴ αὕτη γίνεται ἄνευ τινὸς τάσεως τῶν ἱστῶν. Συρίγγια κείμενα πολὺ πρὸς τὰ ἄνω δύνανται νὰ καταστοῦν προσιτὰ διὰ τῆς τομῆς Schuchardt. Χειρουργοῦμεν ταῦτα ὡς καὶ τὰ κυστιοκολπικὰ συρίγγια. Ἅμα ὡς τμῆμα τοῦ τοιχώματος τοῦ ἐντέρου διὰ περιφερικῆς τομῆς καὶ ἀποκολλήσεως παρασκευασθῇ, τοποθετοῦμεν ἀμέσως τὴν πρώτην ραφήν, κ.ο.κ. Τὰ ράμματα διατηρούμενα μακρὰ χρησιμεύουν ὡς μέσα ἕλξεως καὶ καθιστοῦν περιττὰ τὰ ἐργαλεῖα, ἅτινα περιορίζουν τὸν χῶρον. Αἱμορραγία κατὰ βάθος, ἥτις δυσχερῶς ἐπίσχεται, παρακωλύεται διὰ τῆς αἱμοστατικῆς δράσεως τῶν μεμονωμένων ραφῶν, αἵτινες δὲν συλλαμβάνουν τοίχωμα τοῦ ἐντέρου.

ΠΕΡΙΕΧΟΜΕΝΑ

ΓΕΝΙΚΟΝ ΜΕΡΟΣ

ΕΙΔΙΚΟΝ ΜΕΡΟΣ

Case S. K., 48 years old, gravida v, para iv; craniotomy; and an angioma of the skull removed six months ago. Became pregnant, last period occurring on Dec. 20, 1937; an x-ray abortion was performed. Entered hospital bleeding profusely. Uterus the size of a three and one-half months' gestation and contained a number of subserous fibroids; cervix patulous; adnexa not palpable. Bleeding continued despite oxytocics, and a dilatation and curettage were performed. This revealed a submucous fibroid on the right posterolateral wall of the uterus, confirmed by a clinical hysterogram, hippuran and CO_2, Fig. 5, *B*.

Case P. B., 25 years old, single, gravida 0, para 0; menorrhagia for the past eight to nine months, flow increased from five to six to twelve to thirteen days. Uterus the size of a three months' gestation, smooth in contour, mobile; cervix firm, closed; adnexa negative. Clinical hysterogram (hippuran and CO_2) showed the presence of a submucous myoma (Fig. 6, *B*). Myomectomy was performed; one large fibroid removed from the left uterine wall. The postoperative injection of hippuran and CO_2 showed a return to the triangular form of the uterine cavity (Fig. 6, *D*).

Case C. S., 43 years old, married 9 years, gravida 0, para 0; menses normal until one year ago; since then has had menorrhagia and dysmenorrhea; flow eight to ten days with many clots. Uterus enlarged to size of a seven to eight weeks' gestation and slightly irregular; cervix softened and external os slightly dilated; adnexa negative. The lower pole of the intrauterine tumor was just palpable to finger tip. Clinical hysterogram not necessary but done for purposes of demonstration and contrast (Fig. 8, *B*). Vaginal hysterotomy and removal of a submucous fibroid the size of a large plum (Fig. 7, *C*).

Case M. E., 44 years old, gravida vi, para v; menorrhagia of one year's duration. Uterus enlarged to the size of an eight weeks' gestation due to a number of small myomas in the right uterine wall. Curettage: uterine cavity symmetrical showing no submucous tumors. Clinical hysterogram, hippuran and CO_2, showed moderately dilated triangular uterine cavity, no submucous myoma.

Case T. B., 49 years old, gravida ii, para ii; menorrhagia for past year. Blood pressure 200/100. Pelvic examination: cervix hypertrophied; uterus enlarged to the size of a two to two and one-half months' gestation; adnexa not palpable. Clinical hysterogram, hippuran and CO_2, showed the uterine cavity dilated but not encroached upon by any tumor (Figs. 10, *A* and *B*). Curettage and radium, 1,500 mc. hours.

Case F. W., 29 years old, single, nulligravida; profuse regular periods; increasing size of abdomen and metrorrhagia of three weeks' duration on two occasions. Uterus found enlarged to the size of five months' gestation, firm and tender. Clinical hysterogram, hippuran and CO_2, showed a markedly dilated, irregular uterine cavity on one side suggestive of a submucous myoma (Fig. 10, *B*) which was definitely proved after the injection of CO_2 (Fig. 10, *C*). A single large fibroid was removed without entering the endometrial cavity although the fibroid encroached upon the entire left side of the cavity. A hysterogram with hippuran and CO_2 after the operation showed the endometrial cavity of triangular configuration (Fig. 10, *D*) and after CO_2 injection (Fig. 10, *E*).

SUMMARY

The presence of submucous myomas can be diagnosticated roentgenologically by the intrauterine injection of hippuran followed by CO_2. Neither by itself is adequate for this purpose. The hippuran is used in concentrations of 80 to 100 per cent which, when expelled from the uterine cavity, leaves a crystalline deposit on the uterine mucosa and the mucosa covering the submucous tumor. The injection of CO_2 serves as a transparent contrast to the densely opaque hippuran outline. Both media are innocuous, each being well tolerated by the organism. There are no irritation and no residue or foreign body reaction. In selected cases where recognition of submucous myoma is important from the viewpoint of the choice of therapy, this method appears to be serviceable.

X-RAY DEMONSTRATION OF SUBMUCOUS MYOMAS BY COMBINED USE OF HIPPURAN AND CO_2 INJECTION

I. C. RUBIN, M.D., F.A.C.S.
New York, N. Y.

From the Gynecological Service and the X-Ray Department of Mount Sinai Hospital

Reprinted from
AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY
St. Louis

Vol. 37, No. 1, Pages 75-85, January, 1939

(Printed in the U. S. A.)

X-RAY DEMONSTRATION OF SUBMUCOUS MYOMAS BY COMBINED USE OF HIPPURAN AND CO_2 INJECTION*

I. C. Rubin, M.D., F.A.C.S., New York, N. Y.
(From the Gynecological Service and the X-ray Department of Mount Sinai Hospital)

INTRAUTERINE injection of radio-opaque solutions for the specific purpose of demonstrating submucous myomas began with collargol in 1914.† Since then other forms of colloidal silver and halogen salts have been employed. These have eventually been supplanted by iodized oils and at present lipiodol is most commonly preferred.

Two techniques are in vogue. One is the fractional and the other the evacuation method. The first consists of introducing 2 c.c. of lipiodol and making the x-ray exposure. This is followed by 4 or 5 successive films each after 4, 6, 8, and 10 c.c. have been introduced into the uterine cavity. The second method consists of filming the filled uterus at its maximum capacity and again as soon as the lipiodol has been evacuated.

Each of these methods gives telltale pictures in a certain percentage of cases, visualizing submucous myomas and other growths which protrude into the uterine cavity. Both have the disadvantage of allowing the oil to pass through the Fallopian tubes and of entering the peritoneal cavity. This drawback may to a certain extent be avoided by controlling the injection with the fluoroscope. The injection is discontinued the moment the uterine cavity is seen to be filled or the oil is seen entering the tubes. The fractional method necessitates multiple exposures which must be considered in relation to the examiner and the patient.

I have sought to avoid the escape into the peritoneal cavity by introducing into the uterus a thin rubber balloon (condom or Penrose tubing), coated with lipiodol on its outer and inner surfaces. Air injected into the balloon served as contrast. Unfortunately the inflated balloon does not adapt itself to the configuration of the uterine cavity, being limited largely by its molded form. Another device which I tried was to introduce a gelatin capsule containing ether after the lipiodol was evacuated, the expanding ether vapor liberated from the dissolved capsule serving to distend the uterine cavity. Neither of these methods has been found satisfactory. The introduction of a foreign body in addition to the lipiodol is not practical, occasioning, as it does, added trauma. Although the diagnosis of submucous myomas is important in selected cases, the method employed must be considered in relation to its safety, feasibility and simplicity.

*These illustrations were demonstrated at the scientific exhibit at the meeting of the American Gynecological Society, at Asheville, N. C., May 30, 1938.

In this work I had the valuable assistance of my Resident, Dr. Arthur H. Davids, who made the routine injections.

†Röntgendiagnostik der Uterustumoren mit Hilfe von intrauterinen Collargolinjektionen, Zentralbl. f. Gynäk., No. 18, 1914.

These conditions appear to be met by adopting the group of organic iodides such as uroselectan, skiodan, diodrast and hippuran, which have been utilized in excretory urography. They have the virtue of rapid absorption. They are nonirritant and are well tolerated by the blood stream. Their elimination by the kidneys is rapid and unaccompanied or followed by harmful lesions.

For intrauterine use the amount of the organic iodide employed is not enough as a rule to visualize the urinary tract. The solution may, however, when the Fallopian tubes are freely patent enter the peritoneal cavity from which it is rapidly resorbed and soon appears in the kidney pelves, ureters, and bladder. As this occurs well after the uterographs have been obtained, they offer no confusion.

Of the substances mentioned, hippuran has so far been used for our present purposes although it is quite possible that the others may yield equally good results. It is available in crystalline powder and can be made up into 100 per cent solution, in which state it can be kept at a moderately warm temperature. When cooled it crystallizes, requiring heating before the injection. In this saturation it remains a clear solution for a half hour or somewhat longer. Weaker solutions were first used and although shadowgraphs were obtained they were not as satisfactory as the 100 per cent solution (1 gm. of hippuran to 1 c.c. of distilled water).

The hippuran is introduced into the uterine cavity by means of a 20 c.c. syringe and uterine cannula, both of which are kept warm. An x-ray exposure is made at the point when the uterine cavity is filled. As a rule, from 5 to 10 or 15 c.c. are needed in fibromyomatous uteri under pressures varying between 40 mm. Hg and 150 mm. Hg.

After the x-ray exposure is made the hippuran is withdrawn into the syringe and the cannula is removed. It is well to allow two or three minutes for the uterus to empty itself. The solution is aspirated and whatever amount remains is expelled. Another syringe filled with 20 c.c. CO_2 is now attached to a clean cannula, 1 or 2 c.c. being discharged into sterile fluid in order to displace the air contained in the uterine cannula. The cannula is introduced into the uterine cavity and the CO_2 is injected until a sense of resistance is reached which is similar to that experienced during the injection of hippuran. At this point an x-ray exposure is made. (A bullet forceps grasps the anterior cervix lip and the cannula is introduced so that its tip is just above the internal os, the rubber or metal acorn engaging the external os to prevent regurgitation.)

A manometer, indispensable when lipiodol is used, is not required with hippuran. I have first insufflated the uterus with CO_2 in order to determine the initial pressure rise necessary to force the CO_2 through the uterotubal junction, using this pressure as a guide in injecting the solution. The latter was also injected by the graduated force of the CO_2 delivered from an insufflation apparatus both for the practical control of the pressure as well as to observe differences in pressure between

the fluid and CO_2. In this maneuver it is only necessary to hold the graduated glass tube containing the radio-opaque fluid above the level of the body.

It was found that the pressures reached by the aqueous solutions exceeded to some extent those reached by the CO_2. These were not as great as when lipiodol was used. Hence the manometer was found dispensable and in the last injections we have resorted to manual injection of hippuran depending upon the filling sensation imparted to the hand.

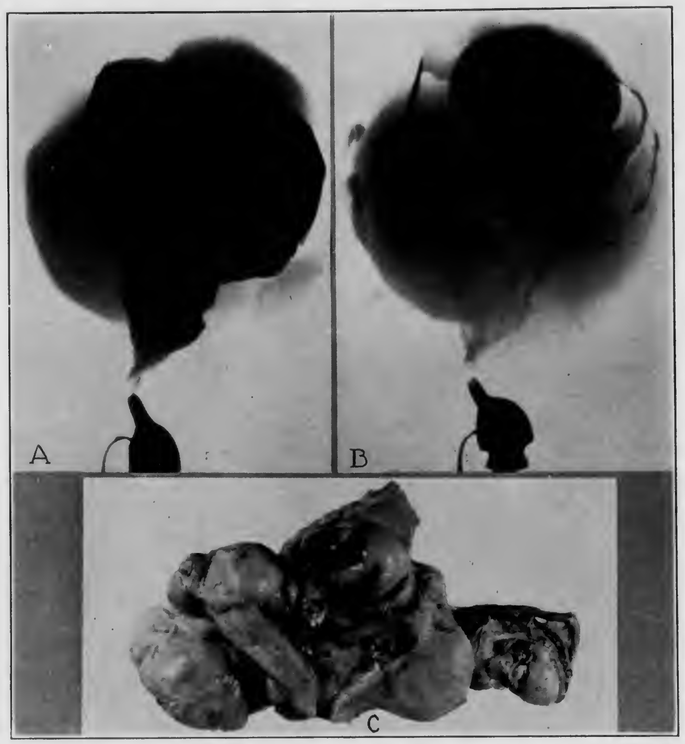


Fig. 1.—Case E. C. *A*, Hippuran hysterogram of specimen showing an irregular dilated cavity. No definite diagnosis of submucous fibroid can be made from this hysterogram. *B*, Hysteroaerogram with CO_2 injected after hippuran shows multiple submucous tumors as seen in the specimen, Fig. 1, *C*. *C*, Uterus cut open showing multiple submucous myomas visualized in Fig. 1, *B*.

RESULTS

The hippuran shadow by itself may not present the slightest indication of an intrauterine tumor. This may be seen in Fig. 1, *A*, Case E. C., where the hippuran hysterogram of the specimen showed an irregular cavity, the outline of submucous myomas definitely appearing in the hysterogram following the intrauterine injection of CO_2 (Fig. 1, *B*).

In Fig. 2, *A*, Case B. H., a single submucous myoma was not diagnosable by the hippuran hysterogram. It was beautifully outlined in the CO_2 contrast film (Fig. 2, *B*).

The same negative finding was seen in Fig. 3, *A*, Case M. M., where neither in the clinical hysterogram, by using hippuran 100 per cent nor in the specimen was a diagnosis possible of a submucous myoma (Fig. 3, *B*). The outline of the submucous tumor showed up definitely in the clinical hysterogram after CO_2 (Fig. 3, *B*), and it was also demonstrable in the specimen by the aid of CO_2 (Fig. 3, *D*).

Fig. 4, *A*, Case I. G., presents an irregular shadow with the hippuran, whereas the contrast afforded by CO_2 shows definite protrusion into the uterine cavity (Fig. 4, *B*). Uterus opened up showing the submucous myoma, *C*.

Fig. 5, *A*, Case S. K., shows no special deviation from the normal triangular shape of the uterine cavity by hippuran, whereas the submucous nature of the tumor is shown in the hysterogram with CO_2 (Fig. 5, *B*).

When a crescentic shadow is obtained by the hippuran alone, it is strongly presumptive evidence of a submucous myoma (Fig. 6, *A*). In such cases the contrast

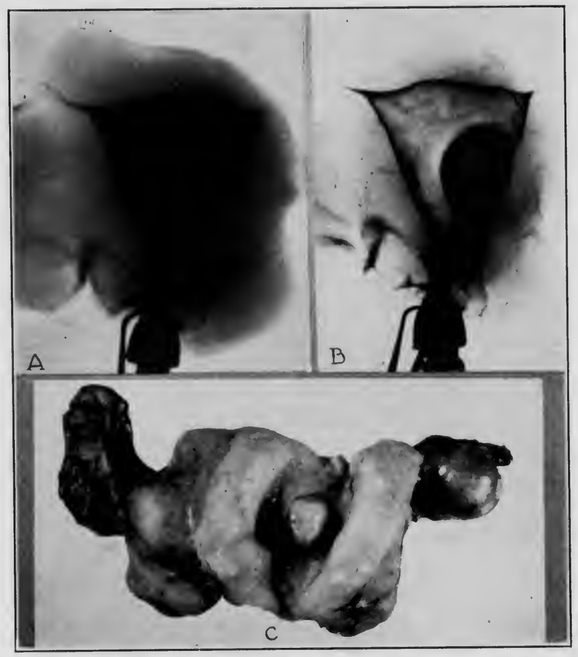


Fig. 2.—Case B. H. *A*, Hysterogram with hippuran 100 per cent solution shows a dilated uterine cavity but no marked suggestion of the presence of a submucous myoma. *B*, Hysteroaerogram with CO_2 injected after hippuran shows a solitary submucous fibroid which may be seen in Fig. 2, *C*. *C*, Uterus cut open showing a solitary submucous fibroid visualized in Fig. 2, *B*.

given by the CO_2 hysterogram is particularly striking, as can be seen in Fig. 6, *B*, Case P. B. In this case the submucous myoma was removed by abdominal myomectomy after which the hysterogram, Fig. 6, *C*, showed the return to the more or less triangular configuration of the uterine cavity (Fig. 6, *E*) and is prettily demonstrated in the CO_2 hysterogram, Fig. 6, *E*. Another illustration of the return to the triangular shape of the uterine cavity after a myomectomy is seen in Figs. 10, *A*, 10, *B*, 10, *C*, and 10, *D* (Case F. W.).

Fig. 7, *A*, Case C. S., illustrates a submucous myoma in the process of being extruded. The hysterogram with hippuran is not characteristic whereas the CO_2 hysterogram shows the lower pole of the tumor protruding into the cavity of the uterus near the internal os.

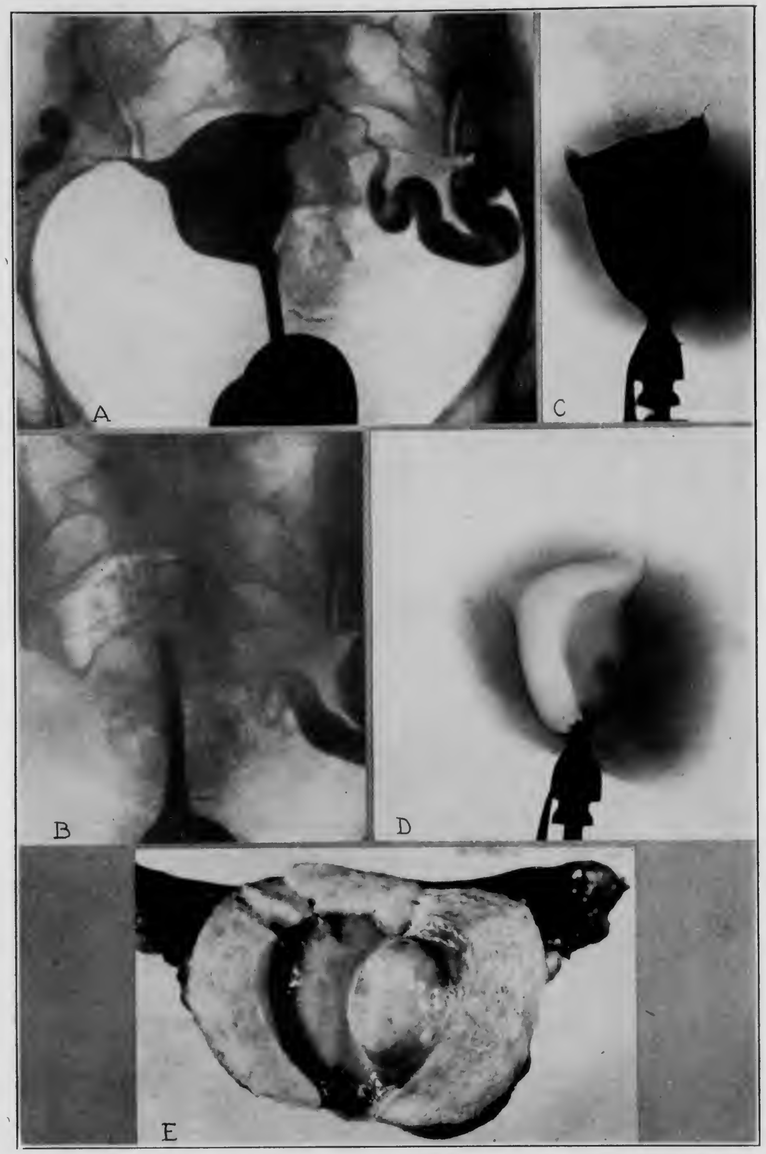
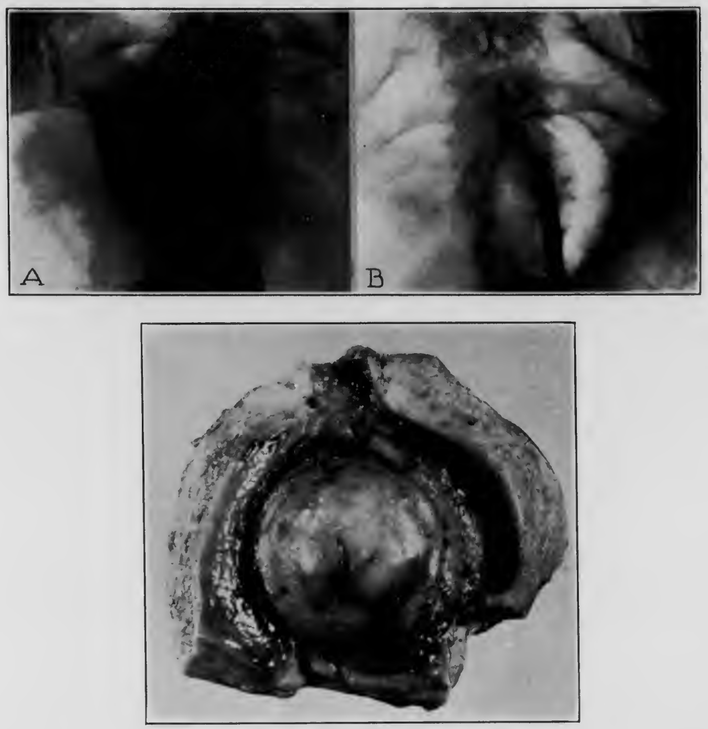


Fig. 3.—Case M. M. *A*, Clinical hyterogram with hippuran 100 per cent solution shows a dilated cavity without any definite indication of a submucous fibroid. *B*, Clinical hysteroaerogram with CO_2 injected after hippuran shows the uterine cavity to be definitely encroached upon by a submucous myoma. *C*, Hysterogram of extirpated uterus with hippuran 100 per cent solution; no indication of a submucous fibroid. *D*, Hysteroaerogram of extirpated uterus with CO_2 after hippuran shows the solitary submucous fibroid practically as it appears in Fig. 3, *E*. *E*, Uterus cut open shows the submucous fibroid visualized in hysteroaerogram, Fig. 3, *D*.



C.

Fig. 4.—Case I. G. *A*, Clinical hysterogram with hippuran 100 per cent solution shows an irregular shadow not particularly diagnostic of a submucous fibroid. *B*, Clinical hysteroaerogram with CO_2 injected after hippuran shows the submucous fibroid projecting into the uterine cavity as seen in the specimen (Fig. 4, *C*). *C*, Uterus cut open showing the solitary submucous fibroid.

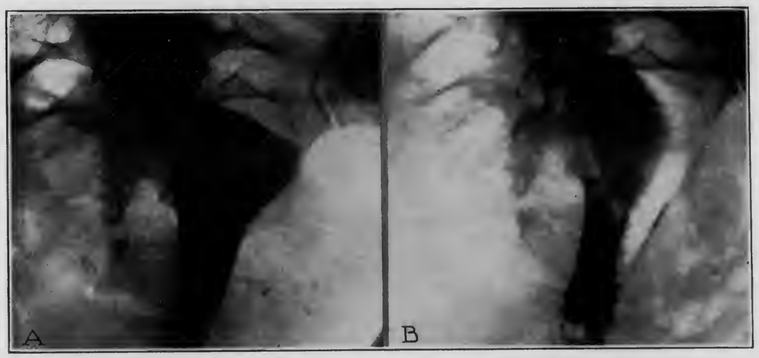


Fig. 5.—Case S. K. *A*, Clinical hysterogram with hippuran 100 per cent solution shows a dilated triangular uterine cavity; no suggestion of a submucous fibroid. *B*, Clinical hysteroaerogram with CO_2 injection after hippuran shows the submucous fibroid.

When no submucous myoma is present despite the multiplicity of the tumors, the uterine cavity may be typically triangular as in Fig. 8, *A* and *B*, Case M. E., where the cavity is only moderately dilated; or Fig. 9, *A* and *B*, Case T. B., where the cavity is very markedly dilated without any protrusion into it of any of the fibroids. The CO_2 x-ray contrast film, however, demonstrates this characteristically as may be seen in Figs. 9, *B* and 10, *B*. Solutions in the strengths employed for intravenous or retrograde urography are not quite strong enough to leave a deposit

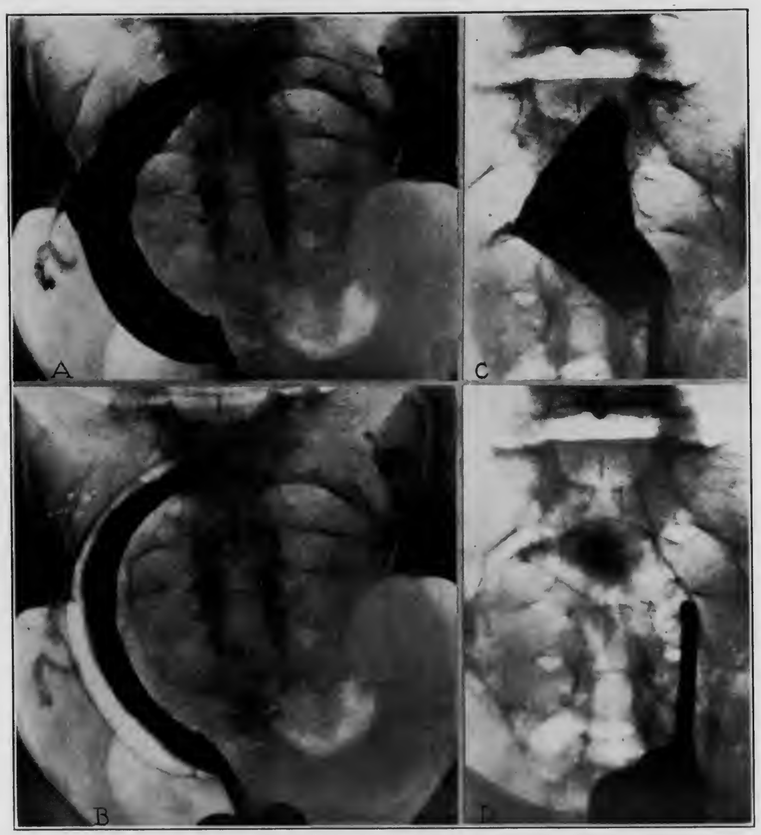


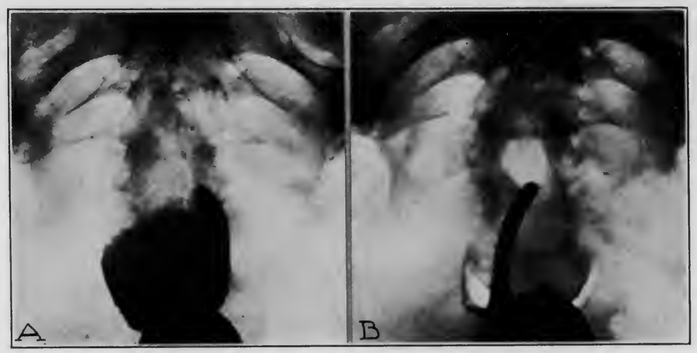
Fig. 6.—Case P. B. *A*, Clinical hysterogram with hippuran 100 per cent solution shows a dilated crescentic uterine cavity suggestive of submucous myoma. The tubes have been entered by the hippuran. *B*, Clinical hysteroaerogram with CO_2 injection after hippuran shows the submucous nature of the tumor. The tubes are still seen to be filled. *C, After myomectomy.* Clinical hysterogram using hippuran 100 per cent solution showing a triangular uterine cavity. *D, After myomectomy.* Clinical hysteroaerogram after CO_2 injection shows a triangular uterine cavity; no protrusion into it.

upon the uterine mucosa to serve as contrast with CO_2. We found that strengths of 80 per cent and upward gave better results. CO_2 is preferable to air because it avoids all possibility of embolism, being absorbed by an equal quantity of blood, while air and its other components, oxygen and nitrogen, are relatively insoluble.

The indications for the use of x-ray and radio-opaque media and CO_2 for the demonstration of submucous myoma may be briefly given:

1. When it is important to avoid a laparotomy for fibroids as in the case of obese individuals and in systemic disease, in which circumstances x-ray and radium therapy are usually preferred. If a submucous myoma is positively known to be present, surgical removal is indicated despite the increased risk to the otherwise handicapped patient.

2. When considering myomectomy in younger individuals who are sterile and desire children, or when menstruation is to be conserved,



C.

Fig. 7.—Case C. S. *A*, Clinical hysterogram with hippuran 100 per cent solution showing an irregular cavity without characteristic signs. *B*, Clinical hysteroaerogram with CO_2 injected after hippuran showing the submucous character of the tumor. *C*, Extirpated uterus cut open showing the submucous myoma.

the knowledge of the presence of a submucous myoma will enable the surgeon to deal adequately with the condition, adopting suitable vaginal or laparotomy technique, or a combination of the two.

The cases in which hippuran and CO_2 were employed are the following:

Case E. C., 52 years old, gravida ii, para ii; menorrhagia for two years, flow increasing from three- to an eight-day flow with clots. Uterus enlarged to the size of a four months' gestation. Hysterectomy and bilateral salpingo-oophorectomy. Specimen injected with hippuran and CO_2 showed multiple submucous fibroids (Figs. 1, *A* and 1, *B*).

Case B. H., 42 years old, gravida ii, para ii; complained of menorrhagia of one year's duration and severe dysmenorrhea, periods lasting six to seven days instead of three to four. Uterus enlarged to size of a two and one-half months' gestation; cervix normal; adnexa not palpable. Hysterectomy. Specimen revealed by hippuran and CO_2 a single plum-sized submucous fibroid on a sessile pedicle (Fig. 2, *C*).

Case M. M., 47 years old, gravida iii, para iii; menorrhagia and dysmenorrhea for the past four to five months, periods increased from four to eight days, the flow being

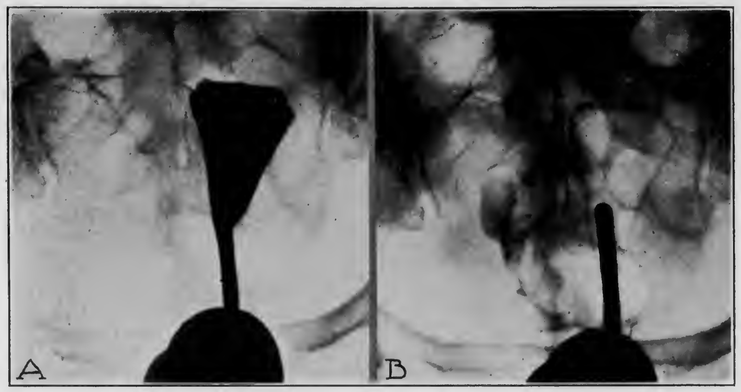


Fig. 8.—Case M. E. *A*, Clinical hysterogram with hippuran 100 per cent solution showing a somewhat dilated cavity with no suggestion of submucous myoma. *B*, Clinical hysteroaerogram after CO_2 injection shows a triangular cavity with no encroachment.

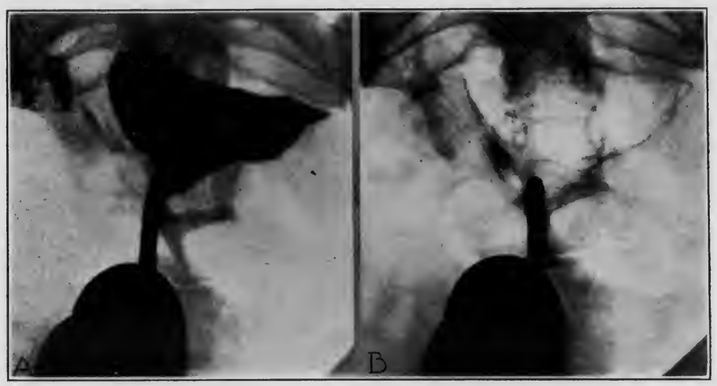


Fig. 9.—Case T. B. *A*, Clinical hysterogram with hippuran 100 per cent solution showing a widely dilated irregular uterine cavity. *B*, Clinical hysteroaerogram with CO_2 injected after hippuran showing no encroachment upon the uterine cavity.

profuse. Uterus enlarged to the size of a ten to eleven weeks' gestation; adnexa not palpable; cervix normal. Clinical hysterogram, hippuran and CO_2, showed a submucous myoma. Hysterectomy and bilateral salpingo-oophorectomy. Specimen showed a uterus enlarged to a three months' pregnancy, containing one large submucous fibroid and a few intramural fibroids (Fig. 3, *D*).

Case I. G., 43 years old, gravida ii, para ii; for past six months severe menstrual bleeding with passage of clots. Uterus uniformly enlarged to the size of a three

months' gestation. Clinical hysterogram, hippuran and CO_2, showed the presence of a large submucous myoma, Fig. 4, *B* (specimen), which was confirmed by the opened specimen.

Fig. 10.—Case F. W. *A*, Flat plate showing faint outline of enlarged uterus in relation to pelvis. *B*, Clinical hysterogram with hippuran 100 per cent solution showing a widely dilated irregular uterine cavity without any definite sign of submucous encroachment. *C*, Clinical hysteroaerogram with CO_2 injected after hippuran showing the submucous character of the fibroid. *D, After myomectomy.* Clinical hysterogram with hippuran 100 per cent solution showing widely dilated uterine cavity of triangular shape. *E, After myomectomy.* Clinical hysteroaerogram with CO_2 injected after hippuran showing a widely dilated uterine cavity; no submucous encroachment.

(Fortsetzung auf Seite IO.)

Anwendung des Tampons bei atonischer Blutung nach der Geburt der Plazenta.

Eine der bis jetzt noch nicht ganz gelösten Fragen in der Geburtshilfe ist die Bekämpfung der atonischen Blutung nach der Geburt der Plazenta. Trotz allen bis jetzt bekannten Mitteln geht immer noch eine Anzahl von jungen blühenden Frauen zu Grunde. Nur derjenige der solche Fälle miterlebt hat, ist im Stande, die Tragik eines solchen Todes zu beurteilen. Mit Recht sagt Labhardt "er habe das Gefühl, man könnte sich in einen Todesfall durch Eklampsie oder Plazenta praevia viel eher fügen als in einen durch Atonie veranlassten."

Alle die bis jetzt angegebenen Blutstillungsmittel sind unsicher und die direkt durch Druck oder Zug auf die Blutgefässe wirkende Methoden schliessen grosse Gefahren in sich. Es wäre zu weitgehend, wenn ich alle diese Methoden und die Wirkung derselben kritisiere; es steht ausführlich in allen Lehrbüchern der Geburtshilfe.

Mann rechnet jetzt auf eine Sterblichkeit an atonischer Blutung nach der Geburt von 0,05%. Grosse Blutverluste aber schädigen den Gesamtorganismus und schränken seine Abwehrkräfte gegen Infektion ein. Wenn mann also auch die Fälle mit dazurechnet, die infolge des Blutverlustes an Infektion sterben, wird die Mortalitätsziffer sicher grösser sein.

Seit ich meine Blutstillungsmethode für Notfälle bei gynäkologischen Operationen angewandt habe, dachte ich diese Methode auch in der Geburtshilfe bei atonischen Blutungen anzuwenden. Trotzdem aber so viele Jahre vergangen sind, ist mir keine Gelegenheit geboten worden, bis ich vor vier Jahren in meiner Klinik eine Patientin vorfand, die fortwährend blutete, trotzdem bei ihr Blutstillungsmittel und eine starke Uterustamponade angewandt worden waren. Ich habe sofort aus dem Uterus die Gaze entfernt und meinen Tampon eigeführt. Seit diesem Fall wurde in meiner Klinik die Methode öffters mit promptem Erfolg angewandt.

Sie wird auf folgende Weise ausgeführt: Die Patientin wird auf Querbett gelagert, die äusseren Genitalien werden gesäubert, die Scheide desinfiziert und die Blase durch den Katheter entleert. Nach Einlegung des vorderen und hinteren Vaginalspekulums werden die Muttermundlippen mit Kugelzangen hoch gefasst und die Portio fest nach unten gezogen. Dann werden die Vaginalspekula in den Uterus eingeführt, so dass der Muttermund weit offen gehalten wird. Darauf nimmt man ein quadratisches Gazestück, dessen Mitten mit einer langen anatomischen Pinzette oder mit einem Stopfer in den Uterus eingeführt wird. Nachdem die heraushängenden Zipfel der Gaze von dem Assistenten auseinandergehalten werden, wird ein langer Gazestreifen in den Uterus eingeführt und

gleichmässig nach allen Richtungen verteilt,so dass ein Kindskopf grosses kugelförmiges Gebilde darin entsteht (Abb.I3-I5).Der Zug und die Befestigung des Tampons wird wie bei den gynäkologischen Operationen angeführt(Abb.9-I2).

Nach 5 Stunden wird der Tampon entfernt,um die Gefahr der Infektion infolge langen Liegens der Gaze im Uterus zu vermeiden. Man kann dieselbe noch früher herausnehmen,wenn der Uterus sich inzwischen gut kontrahiert hat.

Ausser der prompten Wirkung des Tampons infolge des ausgeübten Druckes auf die Uteringefäße,besitzt er auch die Vorteile der gewönlichen Tamponade,d.h. er ruft einen starken Kontraktiosreiz auf den Uterus hervor und Entfernen der Gaze werden Eihautfetzen und Blutkoagula mit entfernt. Die Nachteile der gewönlichen Tamponade fallen hier zum großen Teil weg:

1.) Die Durchführung dauert nicht lange,da nicht die ganze Uterushöle mit Gaze gefüllt wird. Selbstverständlich muß der Tampon sterilisiert in einer Büchse immer bereit stehen.
2.) Schädigungsmöglichkeit kommt nicht vor,da der Zipfel der Quadratgaze nicht bis zum Fundus Uteri eingeführt zu werden braucht.
3.) Die Infektionsgefahr ist äußerst gering,da nur die erste Gaze direkt mit den Uteruswandungen in Berührung kommt.
4.) Die Schmerzhaftigkeit bei Entfernung der Gaze fällt hier weg.

Die nach Einführung des Tampons bemerkbare Zusammenziehung des Uterus ist nicht nur auf den ausgeübten Reiz, sondern auch auf die durch die Absperrung bidingte Anämie des Organs wie es auch bei der Drosselung der Blutzufuhr durch die Aortakompression der Fall ist. Vielleicht auch durch den ausgeübten Druck auf das Ganglion von Frankenhäuser.

Was die Indikationsstellung betrifft,bin ich der Ansicht,daß man mit der Anwendung des Tampons nicht zu lange wartet. Man kann ja im voraus nicht wissen,bis zu welchem Grade die Patientin eine Blutung vertragen kann. Wenn man sich über die Intaktheit der Plazenta überzeugt hat und die Blutung nach kräftiger Massage des Uterus und Einspritzung von Blutstillungsmitteln fortdauert,bereitet man die Patientin zur Einlegung des Tampons vor. Inzwischen kann man eine heiße vaginale oder Uterusspüllung vornehmen. Bleibt der Erfolg aus, wendet man den Tampon an, indem man auf alle anderen bekannten Blutstillungsmethoden verzichtet.

Die Wirkung ist so promt und sicher,daß ich es nunmehr als einen K u n s t fehler betrachte,wenn eine Patientin an atonischer Blutung stirbt.

Control of Postpartum Hemorrhage.

Ernest Myller, M.D.

Hemorrhage is the most frequent cause of post-partum death. Statistics being reliable only from larger hospitals, we must assume that many post-natal deaths remain either unreported or are otherwise diagnosed. In a report from the Mayo Clinic (1), the incident of death from hemorrhage is as high as 0.491 per thousand births, an average of one case per two thousand deliveries. Postpartum hemorrhage in a large Brooklyn Hospital caused death in 34 out of 37 cases. We can only conjecture as to how much higher fatalities occur in institutions with lower standards.

There are standard methods of treating post-partum hemorrhages. We must assume from the poor results reported that they are not very successful. We routinely endeavor to find whether the uterus is empty or establish other causes for the bleeding. By the time the examination is completed, the hemorrhage has become alarming. Pituitrin is given intravenously, the uterus is massaged and , in most cases, valuable time is lost. One resorts to intrauterine packing, which stops the bleeding for the moment. Blood transfusions are started. After a short while the bleeding starts again, seeping through the packing. The removal and reapplication of it does not stop the bleeding and, in spit eof concomitent transfusions, the patient goes downhill rapidly. It is the belief of Douglas (6) that when the first uterine packing is not successful, we are probably dealing with a ruptured uterus. If such is the case, a second packing is definitely contraindicated. Greenhill (2) also advised against packing the uterus a second time, recommending immediate hysterectomy as the safer procedure.

Postpartum hemorrhage can be controlled, nomatter what its cause, by a method described many years ago by Dr. K. Logothetopoulos in Athens (3). His method involves a certain packing which he originally used after clamp-hysterectomies. It was inserted into the pelvis after the uterus was taken out allowing the immediate removal of the clamps without any loss of blood. Dr. Logothetopoulos applied the same principle of hemostasis for the control of bleeding from the postpartum uterus after considerable experience in his surgical cases had proved it efficient. Dr. Logothetopoulos called the procedure "Traction packing".

A doubly folded quadrangular piece of gauze 36"by 36" and a gauge roll 4" wide and 16 yards long are required.

The operator grasps the cervix with one or several tenaculum forceps and brings it down well to the level of the vulva. The blades of a vaginal speculum are helpful in spreading the cervical opening apart. The center of the quadrangular piece of gauze is inserted into the uterus by means of a sponge forceps. In contrast to the conventional method, it is not necessary to reach the fundus with this packing.(Fig.1).

The four corners of the quadrangular piece of gauze protuding from the uterus are spread apart. The operator then packs into the gauze sac situated in the uterus, the long strip of gauze previously mentioned. Carefully done this produces a large round ball inside of the uterus. The size of this ball is always the same, being determined by the uniform amount of gauze strip used. Thus the whole procedure becomes automatic and not subject to individual alterations, an important point in an operation, where timr means everything.(Fig.2).

The four corners of the quadrangular piece of gauze are grasped in one hand and pulled downward. The blood supply of the uterus is cut off and bleeding ceases at once.(Fig.3).

In order to maintain the downward traction, the gauze stem is run through a thick ring pessary, the latter pushed upward against the vulva, which is protected by a piece of gauze.(Fig.4).

The ring is fixed in its position with a clamp.(Fig.5).

The conventional packing attempts to compress the open sinuses and blood vessels in the wall of the bleeding uterus. To be sure, the packing itself may produce a contraction, and only in such cases will it be effective. On the other hand, traction packing compresses the uterine vessels against the pelvic wall, interrupting the blood flow to the uterus completely.(Fig.6). In the case of an atonic uterus, we have in addition to this hemostatic effect, the oxytocic effect of anemia, which is produced by the compression of the arteries. Furthermore, it is possible that pressure upon Frankenhauser's ganglion stimulates the uterine muscle to contract by way of the autonomic nerves. It is obvious that the cause of the bleeding does not influence the effectiveness of this packing. Wherever the bleeding comes from, it will be stopped. Inserted with relative ease, far more readily than a conventional packing, with no need to completely fill the uterine cavity, the procedure is rapid and precise.

Needless to say, this packing is indicated only in severe cases of hemorrhage, after simpler procedures have been attempted and the vagina and cervix examined as possible sources of bleeding. Its purpose is the immediate control of bleeding and the elimination of anxiety and haste. Once accomplished the additional measures such as transfusion and consultation can be obtained in leisure.

As the patient's condition improves with or without transfusion, the subsequent procedure depends upon our diagnosis. If we are dealing with

an atonic uterus and the bleeding has stopped entirely the pressure is released by opening the clamp. After a short while the internal strip of gauze can be gradually removed, follbwed by the quadrangular piece of gauze, which will take out with it small pieces of membranes left behind. The removal of the packing is practically painless.

If the hemorrhage has occured after a difficult forceps, a version or in a case, previously sectioned, we must consider the possibility of a ruptured uterus. In such a case the packing may enter the abdominal cavity through the tear in the uterus, intentionally or by chance. No harm can be done by the possible additional trauma to the uterine wall, since the uterus will probably have to be removed.

Once in place, traction packing allows time for careful pre-operative preparation. There is no urgency for any operative intervention while the patient is in shock. Her chances for recovery after hysterectomy or a more conservative procedure are much improved.

According to Greenhill the mortality rate of uterine rupture is 58%. A very recent report from the Harlem Hospital (4) gives the mortality rate of 57.1%. Considering the excellent facilities and expert attention in this hospital, we can assume that in lesser institutions the mortality rate may be much higher. With successful hemostasis and eliminated urgency, with time to recover from shock, mortality rates should be considerably reduced.

Posner and his co-workers (4) say:"Immediate transfusion and laparatomy, regardless of the degree of shock, is the surgical treatment of rupture of the uterus." Speaking of mortality, they add,"that with adequate blood and present-day anti-biotics all cases may have survived." All these desiderata can be realized with our traction packing. There is

no need of immediate operation "regardless of the degree of shock."

It is advisable that gauze and strip are kept ready for use, with specific instructions, understood by at least one member of the staff.

Actual experience with this packing is limited. Dr. Logothetopoulos has used it in about 10 cases of postpartum hemorrhage and had excellent results in all.

Study of this packing in cadavers was done at the University of Athens (5). The packing was inserted with manner above described and followed by traction. A dye was injected into the carotic artery under pressure and thereafter th pelvic organs were explored. All blood vessels except the uterine arteries were filled with the dye. It was interesting to note that the ureters were not compressed; they could be flushed through from above even with very slight pressure.

Conclusion:

There are no methods available to reduce the mortality rate of postpartum hemorrhage. Bloodtransfusion is often unsuccessful because hemostasis is difficult. Operations are done under condition of shock. Traction packing controls all postpartum bleeding immediately and therefore should reduce the mortality rate immeasurably.

-Literature.

1. Hunt (Mayo Clinic) Am.J.Obst.&Gyn. 49:246-252 Feb.1945

2. Greenhill, Comments page 241. Yearbook 1950

3. K.Logothetopoulos, Gyn. chirurgie, 1939.

4. Posner, Smith, Tambert. New York State J. of Med. Vol.51,No5,March 51

5. Ch. Christopoulos, Zentralblatt fur Gyn. 1933, No. 14.

6. Beacham and Beacham (Discussion) Am. J.Obst.&Gyn.Vol61,No4,Apr.1951.

Therapie der atonischen Blutung nach der Geburt der Plazenta.

von
Prof. Dr. Konstantin Logothetopulos, Vorstand der I. Universitätsfrauenklinik in Athen.

Eine der bis jetzt noch nicht ganz gelösten Fragen in der Geburtshilfe ist die Bekämpfung der atonischen Blutung nach der Geburt der Plazenta. Trotz allen bis jetzt bekannten Mitteln geht immer noch eine Anzahl von jungen, blühenden Frauen zu Grunde. Nur derjenige der solche Fälle miterlebt hat, ist im Stande, die Tragik eines solchen Todes zu beurteilen. Mit Recht sagt Labhardt "er habe das Gefühl, man könnte sich in einen Todesfall durch Eklampsie oder Plazenta praevia viel eher fügen als in einen durch Atonie veranlassten."

Alle die bis jetzt angegebenen Blutstillungsmittel sind unsicher und die direkt durch Druck oder Zug auf die Blutgefässe wirkenden Methoden schliessen grosse Gefahren in sich. Es wäre zu weitgehend, wenn ich alle diese Methoden und die Wirkung derselben kritisiere, es steht ausführlich in allen Lehrbüchern der Geburtshilfe.

Man rechnet jetzt auf eine Sterblichkeit an atonischer Blutung nach der Geburt von 0,05%. Grosse Blutverluste aber schädigen den Gesamtorganismus und schränken seine Abwehrkräfte gegen Infektion ein. Wenn man also auch die Fälle mit dazurechnet, die infolge des Blutverlustes an Infektion sterben, wird die Mortalitätsziffer sicher grösser sein.

Seit ich meine Blutstillungsmethode für Notfälle bei gynäkologischen Operationen angewandt habe[1], dachte ich diese Methode auch in der Geburtshilfe bei atonischen Blutungen anzuwenden. Trotzdem aber so viele Jahre vergangen sind, ist mir keine Gelegenheit geboten worden, bis ich vor zwei Jahren in meiner Klinik eine Patientin vorfand, die fortwährend blutete, trotzdem bei ihr Blutstillungsmittel und eine starke Uterustamponade angewandt worden waren. Ich habe sofort aus dem Uterus die Gaze entfernt und meinen Tampon eingeführt. Die Blutung sistierte sofort. Seit diesem Fall wurde in meiner Klinik die Methode noch sechsmal angewandt mit promptem Erfolg.

Sie wird auf folgende Weise ausgeführt: Die Pa-

(1) S. Konstantin Logothetopulos
Gynaekologische Chirurgie Leipzig 1939

tientin wird auf Querbett gelagert, die äusseren Genitalien werden gesäubert, die Scheide desinfiziert und die Blase durch den Katheter entleert. Nach Einlegung des vorderen und hinteren Vaginalspekulums werden die Muttermundlippen mit Kugelzangen hoch gefasst und die Portio fest nach unten gezogen. Dann werden die Vaginalspekula in den Uterus eingeführt, so dass der Muttermund weit offen gehalten wird. Darauf nimmt man ein quadratisches Gazestück, dessen Mitte mit einer langen anatomischen Pinzette oder mit einem Stopfer in den Uterus eingeführt wird. Nachdem die heraushangenden Zipfel der Gaze von dem Assistenten auseinandergehalten werden, wird ein langer Gazestreifen in den Uterus eingeführt und gleichmässig nach allen Richtungen verteilt, so dass ein Kindskopf grosses kugelförmiges Gebilde darin entsteht. Die vier Zipfel der äusseren quadratischen Gaze, sowie das heraushängende Ende des Streifens, welches zu unterscheiden etwas länger sein muss als die vier Zipfel, werden mit der rechten Hand gefasst und fest nach unten gezogen, bis der kugelige Tampon in das kleine Becken eintritt und auf die Uteringefässe einen Druck ausüben kann. Man zieht dann die 5 heraushängenden Zipfel durch ein grosses Ringpessar, das man mit der linken Hand fest gegen den unteren Teil der Symphyse, die absteigende Schambeinäste und den Beckenboden anpresst, während die rechte Hand mit aller Kraft an den Zipfeln zieht. Zur Vermeidung von Nekrosen, die durch zu starken Druck auf die Vulva entstehen könnten, lege ich zwischen Pessar und Vulva auf beide Seiten des Tamponstieles einen kleinen Wattebausch. Nun legt ein Assistent eine starke Klemme vor dem Pessar, das sich nun zwischen Vulva und dieser Klemme befindet. Die Blutung nach Einlegen des Tampons hört mit aller Sicherheit sofort auf, wie aus den Fällen über die ich gleich berichten werde zu ersehen ist. Bei allen Fällen wurde der Tampon nach 5 Stunden entfernt, um die Gefahr der Infektion infolge langen Liegens der Gaze im Uterus zu vermeiden. Man kann ev. dieselbe noch früher herausnehmen, wenn der Uterus sich inzwischen gut kontrahiert hat. Ausser der prompten Wirkung des Tampons infolge des ausgeübten Druckes auf die Uteringefässe, besitzt er auch die Vorteile der gewöhnlichen Tamponade, d.h. er ruft einen starken Kontraktionsreiz auf den Uterus hervor und beim Entfernen der Gaze werden Eihautfetzen und Blutkoagula mit entfernt. Die Nachteile der gewöhnlichen Tamponade fallen hier zum grossen Teil weg:

1. Die Durchführung dauert nicht lange, da nicht die ganze Uterushöhle mit Gaze gefüllt wird. Selbstverständlich muss der Tampon sterilisiert in einer Büchse immer bereit stehen.

2. Schädigungsmöglichkeit kommt nicht vor, da der Zipfel der Quadratgaze nicht bis zum Fundus Uteri eingeführt zu werden braucht.

3. Die Infektionsgefahr ist äusserst gering, da nur die

erste Gaze direkt mit den Uteruswandungen in Berührung kommt.

4. Die Schmerzhaftigkeit bei entfernung der Gaze fällt hi weg.

Die nach Einführung des Tampons bemerkbare Zusammenziehung des Uterus ist nicht nur auf den ausgeübten Reiz, sondern auch auf die durch die Absperrung bedingte Anaemie des Organs wie es auch bei der Drosselung der Blutzufuhr durch die Aortenkompression der Fall ist. Vielleicht auch durch den ausgeübten Druck auf das Ganglion von Frankenhäuser.

Was die Indikationsstellung betrifft, bin ich der Ansicht, dass man mit der Anwendung des Tampons nicht zu lange wartet. Man kann ja im voraus nicht wissen, bis zu welchem Grade die Patientin eine Blutung vertragen kann. Wenn man sich über die Intaktheit der Plazenta überzeugt hat und die Blutung nach kräftiger Massage des Uterus und Einspritzung von Blutstillungsmitteln fortdauert, bereitet man die Patientin zur Einlegung des Tampons vor. Inzwischen kann man eine heisse vaginale oder Uterusspühlung vornehmen. Bleibt der Erfolg aus, wendet man gleich den Tampon an, indem man auf alle anderen bekannten Blutstillungsmethoden verzichtet.

Die Wirkung ist so prompt und sicher, dass ich es nunmehr als einen Kunstfehler betrachte, wenn eine Patientin an atonischer Blutung nach der Geburt stirbt.

Die in meiner Klinik beobachteten Fälle sind folgende:

Fall 1) Protokoll Nr. 557/1941. Frau K.K., 27jährige Ipara. Letzte Menses am 10.5.1940. Aufnahme in unserer Klinik 12.2.1941, 6h. Geburtshilflicher Befund: Fundus uteri 2 1/2 Finger breit unterhalb des Pros. xiph. I Schädellage, Schädel im Beckeneingang beweglich. Herztöne (-). Beckendurchmesser: 23, 25, 29, 18. Vaginal: Muttermund handtellergross von Plazentagewebe überdeckt, ziemlich starke Blutung. Allgemeiner Zustand schlecht, Puls 130, Temperatur 36,8. Mit Rücksicht auf das Fehlen der kindlichen Herztöne und des allgemeinen Zustandes der Graviden entschliess man sich zur Uterusentleerung per vias naturalis. 7h. Nach vorheriger Durchbohrung der Plazenta wurde der vordere Fuss gefasst und gewendet. 7h.15. Spontan-Entwicklung des Kindes. Die Plazenta wurde unmittelbar nach der Entwicklung der Frucht manual gelöst. Die Blutung dauert fort trotz der Verabreichung der

gewöhnlichen Blutstillungsmittel. Auch die Uterusscheidentamponade nach Dumm brachte nicht den gewünschten Erfolg. Deshalb wurde sie entfernt und statt ihrer mein Tampon eingeführt, worauf die Blutung prompt aufhörte und der Uterus sich stark kontrahierte. Obwohl der Erfolg der Blutstillung durch den Tampon in diesem Fall auffallend war, ist die Patientin 1/2 Stunde später wegen vorangegangenem grossen Blutverlustes ad exitum gekommen.

Fall 2) Protok. Nr. 608/1941. Frau K.D., 30jährige Ipara. Letzte Menses am 27.4.1940. 22h. 15.2.1941, Wehenbeginn. 9h.10, 16.2.1941, Aufnahme in unserer Klinik. Geburtshilflicher Befund bei der Aufnahme: Fundus uteri 3 Finger breit unterhalb des Proc. xiph., I Schädellage, Schädel im Becken eingetreten, Herztöne (+). 4h. 16.2.1941 Blasensprung. 9h.30 Spontangeburt einer männlichen 3200 g. schweren und 50 cm. langen Frucht aus R.h.h. 9h.45' Spontane Placentaausstossung. Unmittelbar nach der Placentaausstossung trat eine ziemlich starke Blutung auf, die auf die gewöhnlichen Blutstillungsmittel (Pituinal, Cynergen, Uterusmassage) nicht aufhört. Puls 130. 12h. Anhalten der Blutung. Puls 150. Allgemeiner Zustand schlecht. Mit Rücksicht darauf entschliesst man sich zu meiner Uterustamponade. Prompte Blutstillung. 17h. Entfernung des Tampons. Keine Nachblutung. Uterus stark kontrahiert. 26,2.1941 Nach normalem Wochenbettverlauf wurde die Wöchnerin gesund entlassen.

Fall 3) Protok. Nr. 624/1941. Frau Z.A., 23jährig, II Gravidität, I Partus. Letzte Menses am 5.5.1940. 16.2.1941, 20h. Wehenbeginn. 17.2.1941, 5h.10, Aufnahme in unserer Klinik. Geburtshilflicher Befund: Fundus uteri 4 Finger breit unterhalb des Proc. xiph. I Schädellage, Schädel im Becken eingetreten, Herztöne (+), Normale Beckenverhältnisse. 5h30' Blasensprung. 6h.5' Muttermund verstrichen, Blase gesprungen, Schädel eingetreten, Pfeilnaht schräg, kleine Fontanelle links vorne. Herztöne verlangsamt, 80 in der Minute. Mit Rücksicht darauf entschliesst man sich zur sofortigen Geburtsbeendigung. 6h.10' Anlegen der Zange und Extraktion einer 2200 g. schweren und 49 cm. langen weiblichen lebenden Frucht. 6h.25' Spontane Placentaausstossung. Unmittelbar nachher trat eine starke Blutung auf, die durch die gewöhnlichen Blutstillungsmittel nicht zu beeinflussen ist. Puls 140, allgemeiner Zustand schlecht. 7h. Tamponeinführung, worauf die Blutung prompt steht und der Uterus sich stark kontrahiert. 12h. Tamponentfernung. Keine Nachblutung. Puls 110, allgemeiner Zustand gut. 26.2.1941, Entlassung nach

normalem Wochenbettverlauf.

Fall 4) Protok. Nr. 332/1941. Frau E.T., 20jährige Ipara. Letzte Menses am 15.5.1940. 2.3.1941, 15h. Wehenbeginn. 3.3.1941, 19h. Aufnahme in unserer Klinik. Geburtshilflicher Befund: Fundus uteri 2 Finger breit unterhalb des Proc. xiph., I Schädellage, Schädel mit mittlerem Segment ins Becken tretend. Herztöne (-). 2.3.1941, 20h. Blasensprung. 3.3.1941, 21h.5' Muttermund verstrichen, Blase gesprungen, Schädel in Beckenmitte, Pfeilnaht quer, kleine Fontanelle links, Beckendurchmesser: 23,26,30,17. Temperatur 39°. Puls 95. Mit Rücksicht auf das Fehlen der kindlichen Herztöne und der Temperatursteigerung entschliesst man sich zur Laparotomie. 21h.30' Anlegen des Braun'schen Kranioklasten sowie eine männliche 2500 g. schwere tote Frucht entwickelt wurde. 21h.40' spontane Placentaausstossung. Unmittelbar nachher trat eine mässig starke Blutung auf die die gewöhnlichen Blutstillungsmittel keine Wirkung haben. Puls 130, allgemeiner Zustand nicht gut. 22h. Tamponeinführung. Aufhören der Blutung, Uterus stark kontrahiert. 24h. Keine Blutung, allgemeiner Zustand wesentlich gebessert, Puls 110. 2h., 4.3.1941 Tamponentfernung. Keine Nachblutung. Uterus stark kontrahiert. 10.3.1941 Entlassung nach normalem Wochenbettverlauf.

Fall 5) Protok. Nr. 1364/1941. Frau E.A., 30jährige Ipara. Letzte Menses nicht erinnerlich. 10.4.191, 22h.30' Wehenbeginn. 11.4.41, 11h. Aufnahme in unserer Klinik. Geburtshilflicher Befund: Grav, Mens. IX, Fundus uteri 3 Finger breit unterhalb des Proc. xiph. I Schädellage, Schädel im Becken fast eingetreten, Herztöne (+), frühzeitiger Blasensprung. 14h.15' Muttermund verstrichen, Blase gesprungen. Schädel eingetreten, Pfeilnaht schräg, kleine Fontanelle links vorne. Herztöne stark beschleunigt. Mit Rücksicht darauf entschliesst man sich zur Geburtsbeendigung. 14h.25' Anlegen der Zange. Entwicklung einer männlichen 3500 g. schweren und 50 cm. langen lebenden Frucht. 14h.30' Spontane Placentaausstossung. Unmittelbar nachher trat eine mässig starke Blutung auf, auf die die gewöhnlichen Blutstillungsmittel keine Wirkung haben. Puls 130. Ohnmachtsanfälle. 15h. Tamponeinführung. Aufhören der Blutung, Uterus stark kontrahiert. Puls 100. Allgemeiner Zustand wesentlich gebessert. 17.4.41, Entlassung nach fieberfreiem Wochenbettverlauf.

Fall 6) Protok. Nr. 1780/1943. Frau A.T., 22jährige Ipara. Letzte Menses am 18.1.1942. Die Wöchnerin wurde zu Hause entbunden (Forceps), sie suchte aber unsere Klinik auf Wegen der bestehenden Blutung die unmittelbar nach der Placentaausstossung auftrat. Puls 120. Temperatur 37,3°. Allgemeiner Zustand relativ gut. Die vorgenommene Uterusabtastung ergab dass der Uterus leer war. Die Revision des Genitalschlauches wies einen doppelseitigen Cutterrund und Scheidenriss auf, die durch einige Catgutnähte versorgt wurden. Trotzdem hielt die Blutung noch an. Puls 150, Ohnmachtsanfälle. Da die gewöhnlichen Blutstillungsmittel die bestehende Blutung nicht beeinflussen konnten, entschloss man sich zur Tamponeinführung. Sofort nach der Tamponeinführung hörte die Blutung auf, der Uterus kontrahierte sich gut und der allgemeine Zustand der Patientin besserte sich zusehend. Fünf Stunden später wurde der Tampon entfernt, und 10 Tage nach der Tamponeinführung verliess die Wöchnerin gesund unsere Klinik.

Fall 7) Protok. Nr. 1064/1943. Frau A.T., 24jährige Ipara. Letzte Menses am 11.11.1942. 21.8.1943, 5h.30' Wehenbeginn. 9h.30' Aufnahme in unserer Klinik. Geburtshilflicher Befund: Fundus Uteri 2 Finger breit unterhalb des Proc. xiph., I Schädellage, Schädel fast eingetreten, Herztöne (+). 15h. Blasensprung. 16h. Spontangeburt einer lebenden, weiblichen 3250 g. schweren und 50 cm. langen Frucht aus H.E.A. 16h15' Spontane Placentaausstossung. Unmittelbar nachher trat eine ziemlich starke Blutung auf, auf die die gewöhnlichen Blutstillungsmittel keine Wirkung hatten. Puls 160, Ohnmachtsanfälle. 17h. Tamponeinführung, worauf die Blutung prompt stand und der Uterus sich stark kontrahierte. 22h. Tamponentfernung. Keine Nachblutung. Uterus stark kontrahiert, Puls 120, allgemeiner Zustand bedeutend gebessert. 2.9.43, Entlassung nach fieberfreiem Wochenbettverlauf.

Nachdiesen glänzenden Resultaten kann ich jetzt mit Freuden hier das gleiche sagen, was ich für die Blutstillung bei gynäkologischen Operationen gesagt habe, dass nämlich mein Tampon bei richtiger Anwendung auch bei schwer zu stillenden atonischen Blutungen nach der Geburt der Placenta eine sichere und nie versagende Hilfe bietet.

N° 23,701 A.D. 1907

[illegible] 31st Dec., 1907—Accepted, 19th Nov., 1908

COMPLETE SPECIFICATION.

Improvements in and relating to Uterine Curettes.

I, [illegible], Gentleman, residing at Salt Lake City, [illegible] Lake, State of Utah, of the United States of America, do [illegible] the nature of this invention and in what manner the same is [illegible] described and ascertained in and by the [illegible]

This invention [illegible] an obstetrical instrument of novel and [illegible] as set forth hereinafter and shown in the [illegible] drawings, in which:—

[illegible] a uterine curette embodying the invention, showing [illegible] and having the handle in section [illegible] parts;

[illegible] Fig. 1, having the uterotome contracted; and,

[illegible] of the handle on the line x—x of Fig. 2.

[illegible] a tube or sheath 1, a handle 2, at one end of said [illegible] at the opposite end thereof. The uterotome 3 is [illegible] of loop form and flexible, one edge being [illegible] matter from the membrane or lining [illegible] state. The uterotome or scraper 3 may be [illegible] to slide within the tube or sheath 1 or may [illegible] thereto in any manner.

[illegible] 1 may be of any length and the handle 2 at one end [illegible] thereto, and said handle may be [illegible] as may be preferred, according to the make [illegible] The rod 4 operates through a guide 5 near the [illegible] at the end opposite to that provided [illegible] in its reciprocating movements [illegible] may consist of parallel ways in which case [illegible] opposite sides of the guide, thereby [illegible] of the rod 4.

[illegible] levers 8 are provided, one of said levers [illegible] guide 5 or adjacent portion of the handle [illegible] connection with the slide 6. A [illegible] between the toggle levers and is adapted [illegible] of the hand, so as to [illegible] withdrawal of a portion of [illegible] sheath 1, whereby the same [illegible] The toggle levers normally [illegible] the parts are so arranged as [illegible] is pressed inward to [illegible]

[illegible]

limit, which is when the slide 6 is at the upper end of the guide 7, stop shoulders being provided at each end of the guide to limit the movements of the slide and the cooperating parts.

When it is necessary to apply the instrument, pressure is exerted upon the button 9, thereby moving the rod 4 within the tube or sheath and contracting the uterotome or scraper, as indicated in Fig. 2, thereby permitting of the ready introduction of the same into the uterus and through the cervix, after which the pressure may be released from the button 9 more or less to permit the uterotome to expand to the required size, after which the instrument is manipulated in the well-known manner to remove the morbid matter producing endometritis. Preliminary to the removal of the instrument, the button 9 is again pressed upon to contract the uterotome to its smallest size so that the instrument may be withdrawn with ease and without producing any unnecessary pain or inconvenience to the patient.

Having now particularly described and ascertained the nature of my invention and in what manner the same is to be performed, I declare that what I claim is:

—1— An uterine curette comprising a hollow tube in which slides a rod fitted with a blade which can be advanced or retired by means of toggle-levers arranged within the handle of said hollow tube and actuated to any desired extent by pressing upon a button projecting from the handle.

—2— An uterine curette according to Claim 1, characterized by the fact that a slide is fitted to the inner end of the rod and is guided in the handle to prevent lateral movement of the blade and also by the fact that the blade is expansible, so that by withdrawing it into the hollow tube, it can be made smaller and *vice versa*.

Dated this 31st day of Dec. 1907.

D. MADDISON & Co.,
Civil Engineers,
Agents for Applicant.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1908.

b 13

NOV -1 1949

A.D. 1907. Dec. 31. N°. 28,101.

MOORMEISTER'S Complete Specification. *(1 SHEET)*

[This Drawing is a reproduction of the Original on a reduced scale.]

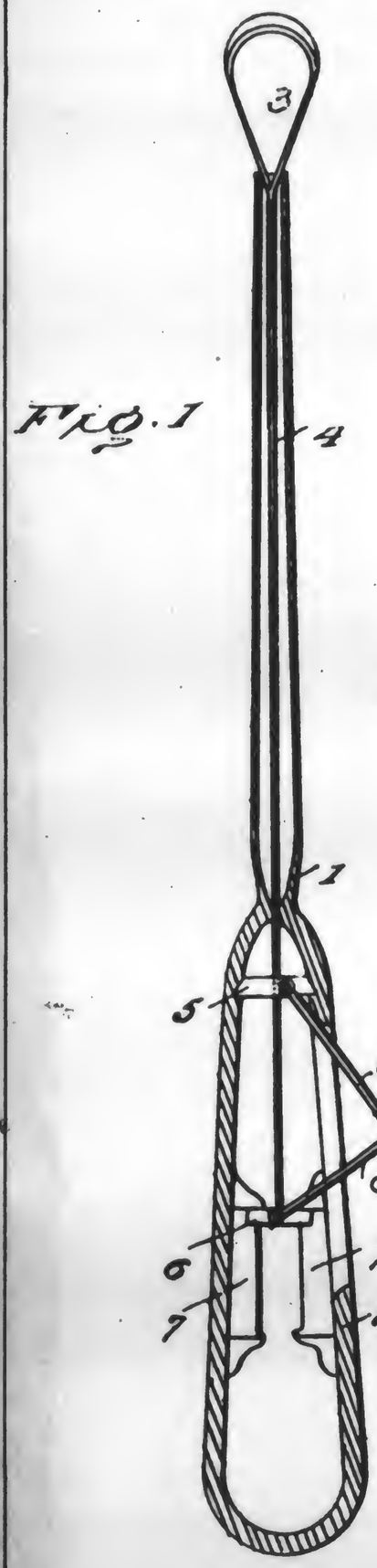


FIG. 1

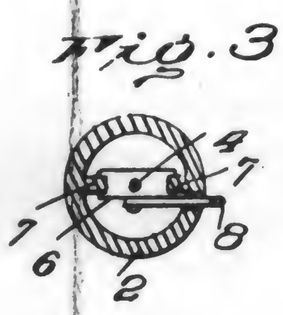


FIG. 3

FIG. 2.

Malby & Sons. Photo-Litho.

b 15

ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ

ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ

Ἐν Ἀθήναις τῇ 29 Ἰανουαρίου **1935** | ΤΕΥΧΟΣ ΤΡΙΤΟΝ | *Ἀριθμὸς φύλλου* **8**

ΥΠΟΥΡΓΕΙΟΝ ΕΞΩΤΕΡΙΚΩΝ

Διὰ Διατάγματος ἀπὸ 15 Ἰανουαρίου 1935 ἐκδοθέντος ἐν Ἀθήναις, προτάσει τοῦ ἐπὶ τῶν Ἐξωτερικῶν Ὑπουργοῦ, ἀνεγνωρίσθη ὁ κ. Sentino Mauro, ὡς Πρόξενος τῆς Ἰταλίας ἐν Πάτραις, μετὰ δικαιοδοσίας ἐπὶ τῶν Νομῶν Ἀχαΐας καὶ Ἤλιδος, Ἀρκαδίας, Αἰτωλίας καὶ Ἀκαρνανίας, Λακωνίας καὶ Μεσσηνίας.

Διὰ Διατάγματος ἀπὸ 15 Ἰανουαρίου 1935 ἐκδοθέντος ἐν Ἀθήναις, προτάσει τοῦ ἐπὶ τῶν Ἐξωτερικῶν Ὑπουργοῦ, ἀνεγνωρίσθη ὁ κ. Mario Carli, ὡς Γενικὸς Πρόξενος τῆς Ἰταλίας ἐν Θεσσαλονίκῃ.

Ὁ Ὑπουργὸς
Π. ΤΣΑΛΔΑΡΗΣ

ΥΠΟΥΡΓΕΙΟΝ ΔΙΚΑΙΟΣΥΝΗΣ

Διὰ Διατάγματος ἀπὸ 18 Ἰανουαρίου 1935, ἐκδοθέντος ἐν Ἀθήναις, προτάσει τοῦ ἐπὶ τῆς Δικαιοσύνης Ὑπουργοῦ ἀπηλλάγη, τῇ αἰτήσει του, ἐκ τῶν ἀνακριτικῶν καθηκόντων ὁ ἀνακριτὴς τοῦ 13ου τμήματος τοῦ Πλημμελειοδικείου Ἀθηνῶν Ἡλίας Χ. Ρεμποῦ.

Δι' ὁμοίου τῆς αὐτῆς χρονολογίας, ἐκδοθέντος ἐν Ἀθήναις, προτάσει τοῦ αὐτοῦ Ὑπουργοῦ καὶ μετὰ γνωμοδότησιν τοῦ Διοικητικοῦ Συμβουλίου τοῦ Ὑπουργείου Δικαιοσύνης, διορίσθη εἰδικὸς ἄμισθος Ὑποθηκοφύλαξ παρὰ τῷ εἰδικῷ ἀμίσθῳ Ὑποθηκοφυλακείῳ Κρωπίας ὁ Χρῆστος Δημητρίου Γκίκας, δικηγόρος, κεκτημένος καὶ τὰ λοιπὰ νόμιμα προσόντα.

Δι' ἀποφάσεων τοῦ ἐπὶ τῆς Δικαιοσύνης Ὑπουργοῦ ἀπὸ 22 Ἰανουαρίου 1935 καὶ ὑπ' ἀριθμούς :

5854, ἀπηλλάγη ἐκ τῶν καθηκόντων του ὁ Ἰωάννης Κοκκινάκης, ὑπογραμματεὺς α' τάξεως, ἐπὶ μισθῷ Γραμματέως Εἰρηνοδικείου β' τάξεως παρὰ τῷ Εἰρηνοδικείῳ Καστελλίου Κισσάμου καὶ Ἰωάννης Γούναρης, ὑπογραμματεὺς α' τάξεως παρὰ τῷ Πταισματοδικείῳ Πατρῶν ὡς συμπληρώσαντες τὸ 65ον ἔτος τῆς ἡλικίας των.

3718, διορίσθη δικολάβος παρὰ τῷ Εἰρηνοδικείῳ Δύμης ὁ Παναγιώτης Σπυρίδωνος Μπροῦζος, ἔχων ἀπολυτήριον Σχολαρχείου καὶ τὰ λοιπὰ νόμιμα προσόντα.

2573, ἐγένετο ἀποδεκτὴ ἡ ἐκ τοῦ ἐπαγγέλματος τοῦ δικολάβου παραίτησις τοῦ παρὰ τῷ Εἰρηνοδικείῳ Τζουμέρκων τοιούτου Ἀθανασίου Κ. Κοκκινέλη.

Ἀπηλλάγησαν ἐκ τῆς ὑπηρεσίας λόγῳ ὁρίου ἡλικίας οἱ :

I. Ποινικοὶ κλητῆρες·

1) Ἀνακρίσεως Ἀρείου Πάγου Γεώργιος Ταντινάκης, 2) Ἀνακρίσεως Πλημμελειοδικείου Τριπόλεως Γεώργ. Ν. Πανόπουλος, 3) Εἰσαγγελίας Πρωτοδικῶν Τριπόλεως Γεώργιος Π. Χαραλαμπόπουλος καὶ 4) Εἰσαγγελίας Πλημμελειοδικῶν Θεσσαλονίκης Κων. Λάγκας.

II. Ἔμμισθοι δικαστικοὶ κλητῆρες·

1) Ἀνακρίσεως Ἐφετείου Ναυπλίου ὁ Νικ. Χῖνος, 2) Ἀνακρίσεως Πρωτοδικείου Καλαμῶν Χρ. Κυβέλος καὶ Ἀνδρέας Στασινάκης, 3) Ἀνακρίσεως Πλημμελειοδικείου Χανίων Νικ. Τσόντος, 4) Ἀνακρίσεως Πλημμελειοδικείου Βόλου, Κων. Μόζαρης, 5) Ἀνακρίσεως Πλημμελειοδικείου Καρδίτσης Παν. Ἀκριβός, 6) Ἀνακρίσεως Πλημμελειοδικείου Κεφαλληνίας Εὐάγγελος Μπεκατῶρος, 7) Εἰσαγγελίας Ἐφετῶν Κρήτης Μᾶρκος Παπαδάκης, 8) Εἰσαγγελίας Πλημμελειοδικῶν Κυπαρισσίας Σπυρ. Νικολόπουλος, 9) Εἰσαγγελίας Πλημμελειοδικῶν Ναυπλίου Ἐμμ. Θεοδωρόπουλος, 10) Εἰσαγγελίας Πλημμελειοδικῶν Καλαμῶν Ζαφ. Ζαφειρόπουλος, 11) Εἰσαγγελίας Πλημμελειοδικῶν Κεφαλληνίας Νικ. Ραφτόπουλος, 12) Εἰσαγγελίας Πλημμελειοδικῶν Τρικκάλων Γεώργ. Δημητρόπουλος, 13) Εἰσαγγελίας Πλημμελειοδικῶν Βόλου Ἀντ. Χατζηγεωργίου καὶ Νικ. Παπαδημητρίου, 14) Εἰσαγγελίας Πλημμελειοδικῶν Ρεθύμνης Ἠλίας Ἀποστόλου, 15) Εἰσαγγελίας Πλημμελειοδικῶν Ἡρακλείου Ἰω. Συλιβός, 16) Εἰσαγγελίας Πλημμελειοδικῶν Ροδόπης Γεώργ. Χρυσοχοΐδης.

Πταισματοδικείων·

17) Καρδίτσης Ἰω. Παπακώστας, 18 Ἀργοστολίου Κων. Δετορᾶτος, 19) Ἤλιδος Γεώργ. Ἀνδριόπουλος, 20) Τρικκάλων Γεώργ. Στουρνάρας, 21) Βόλου Νικ. Πάγκαλος, 22) Λαρίσης Κων. Βακαλογιάννης, 23) Σικυῶνος Παν. Κελλάρης.

Εἰρηνοδικείων·

24) Μάσσητος Ἀντ. Ματθαίου, 25) Πεταλιδίου Βασίλ. Μωκᾶκος, 26) Καρδαμύλης Ἀνδρ. Κομπέας, 27) Καρυταίνης Γεώργ. Λαμπρόπουλος, 28) Κύμης Ἀλέξ. Ἀλεξανδρίδης, 29) Λύμνης Νικ. Γεωργίου, 30) Νάξου Ἰω. Λαγαρᾶς, 31) Φολεγάνδρου Γεώργ. Ζεπᾶτος, 32) Ἱεραπέτρας Γεώργ. Μαθιουδάκης, 33) Μοιρῶν Ἀρ. Τσονδῆς, 34) Βάλτης Ἰω. Ρήγας, 35) Ἄρτης Κων. Μπούντας, 36) Βουλγαρελίου Γεώργ. Παπακώστος, 37) Λευκάδος Κων. Κονιδάρης, 38) Ἀπολλωνίων Ἀνδρ. Σολδᾶτος, 39) Πρόννων Καμπίτσης Σεριᾶτος, 40) Σαμαίων Σεβαστιανὸς Βιολᾶτος, 41) Μυθύμνης Κλεάνθης Χατζηχρήστου, 42) Οἰτύλου Δημ. Στραβόλαιμος, 43) Ζαγορᾶς Εὐρυσ. Παπαχειμώνος, 44) Δωριέων Γεώργ. Ραφτόπουλος, 45) Ἀλικιανοῦ Δ. Χριστοδουλάκης, 46) Χώρας Σφακίων Ἰωσὴφ Δαμανάκης.

III. Κλητῆρες ἀκροατηρίων.

1) Ἐφετείου Ναυπλίου Βασίλ. Σαρρῆς.

Πρωτοδικείων·

2) Τριπόλεως Νικ. Διγενῆς καὶ Εὐάγγ. Ἀθανασόπουλος, 3) Μιτυλήνης Ἀνδρέας Βακαλαντώνης, 4) Χανίων Πέτρος Νικολουδάκης, 5) Λαρίσης Εὐστ. Πατριαρχέας, 6) Θεσσαλονίκης Γρηγ. Μιαούλης, 7) Γρεβενῶν Βασίλ. Μολύβας, 8) Πατρῶν Ἀλέξ. Τσιμπίδης καὶ Γεώργ. Κέντρος, πάντες συμπληρώσαντες τὸ 65ον ἔτος τῆς ἡλικίας των.

2540, ἀπηλλάγη, λόγῳ ὁρίου ἡλικίας, ἔκ τε τῆς ἐμμίσθου ὑπηρεσίας παρὰ τῷ Πταισματοδικείῳ Ἀνδριτσαίνης καὶ τῆς ἀμίσθου παρὰ τῷ Πρωτοδικείῳ Κυπαρισσίας ὁ δικαστικὸς κλητὴρ Θεόδωρος Γ. Κολοτοῦρος, ὡς ὑπερβὰς τὸ 70ὸν ἔτος τῆς ἡλικίας του.

1255, ἐγένετο ἀποδεκτὴ ἡ ἐκ τῆς ὑπηρεσίας παραίτησις τοῦ ἐν τῇ περιφερείᾳ τοῦ Πρωτοδικείου Ἠλείας ἀμίσθου δικαστικοῦ κλητῆρος Ἀθανασίου Στεφανοπούλου.

Ὁ Ὑπουργὸς
ΣΠ. ΤΡΙΑΔΟΥΡΟΣ

Διόρθωσις ἡμαρτημένων.

α΄) Διορθοῦται ἡ ἐξ ἐσφαλμένου χειρογράφου περίληψις τῆς ὑπ' ἀριθ. 39712 ἀπὸ 8 Αὐγούστου 1934 Ὑπουργικῆς ἀποφάσεως δημοσιευθείσης εἰς τὸ ὑπ' ἀριθ. 85)1934 φύλλον Ἐφημ. Κυβερνήσεως (Τεῦχος Γ΄) περὶ ἀπονομῆς μηνιαίου ἐπιδόματος εἰς τὸν Εἰσαγγελέα Πρωτοδικῶν Σύρου Ἰωάννην Κωνσταντίνου, ὅσον ἀφορᾷ τὸ ποσὸν εἰς ὃ ἀνέρχεται τοῦτο μηνιαίως ἐκ τοῦ ἐσφαλμένου 250 εἰς τὸ ὀρθὸν 350.

β΄) Διορθοῦται ἡ ἐξ ἐσφαλμένου χειρογράφου περίληψις τῆς ὑπ' ἀριθ. 95665)34 ἀπὸ 11 Ἰανουαρίου 1935 Ὑπουργικῆς ἀποφάσεως δημοσιευθείσης εἰς τὸ ὑπ' ἀριθ. 4)1935 φύλλον Ἐφημ. Κυβερνήσεως (Τεῦχος Γ΄) περὶ διορισμοῦ δικαστικῶν γραφέων β΄ τάξεως ἔσον ἀφορᾷ τὴν Γραμματείαν παρ' ἣ ἐτοποθετήθη ὁ ἐπιτυχὼν Ἀναστάσιος Κεφαλληνὸς ἐκ τοῦ ἐσφαλμένου παρὰ τῇ Γραμματείᾳ τοῦ Πταισματοδικείου Ἀθηνῶν εἰς τὸ ὀρθὸν «παρὰ τῇ Γραμματείᾳ τοῦ Πρωτοδικείου Ἀθηνῶν».

(Ἐκ τοῦ Ὑπουργείου Δικαιοσύνης)

ΝΟΜΑΡΧΙΑ ΑΤΤΙΚΟΒΟΙΩΤΙΑΣ

Διὰ τῆς ὑπ' ἀριθ. 580 τῆς 16 Ἰανουαρίου 1935 ἀποφάσεως τοῦ Νομάρχου Ἀττικοβοιωτίας ἀνετέθησαν τὰ καθήκοντα ληξιάρχου ἐν τῇ Κοινότητι Κουκουβαούνων εἰς τὸν Γραμματέα τῆς Κοινότητος Κων. Ἀφεντούλην.

Ὁ Νομάρχης
Κ. ΚΑΛΑΜΑΡΑΣ

ΝΟΜΑΡΧΙΑ ΕΒΡΟΥ

Διὰ τῆς ὑπ' ἀριθ. 13994 π. ἔ. ἀποφάσεως τοῦ Νομάρχου Ἔβρου ἀνετέθησαν τὰ καθήκοντα τοῦ ληξιάρχου τῆς Κοινότητος Στέρνας εἰς τὸν κοινοτικὸν Γραμματέα Βασίλειον Παπαθανασίου ἐπὶ μηνιαίᾳ ἀμοιβῇ 20 ο)ο ἐπὶ τοῦ μηνιαίου ὀργανικοῦ μισθοῦ αὐτοῦ.

Ὁ Νομάρχης
ΗΡ. ΠΑΠΑΘΑΝΑΣΙΑΔΗΣ

ΝΟΜΑΡΧΙΑ ΤΡΙΚΚΑΛΩΝ

Δια τῆς ὑπ' ἀριθ. 16775 ἀπὸ 11 Ἰανουαρίου 1935 ἀποφάσεως τοῦ Νομάρχου Τρικκάλων, ἀνετέθησαν τὰ καθήκοντα τοῦ Ληξιάρχου τῆς Κοινότητος Λιοπράσσου εἰς τὸν Γραμματέα αὐτῆς Θωμᾶν Μπίτον ἐπὶ ἀμοιβῇ ἴσῃ πρὸς τὰ 20 ο)ο ἐπὶ τοῦ ὀργανικοῦ μισθοῦ αὐτοῦ.

Ὁ Νομάρχης
Χ. ΠΙΠΙΛΙΑΓΚΑΣ

ΝΟΜΑΡΧΙΑ ΑΙΤΩΛΟΑΚΑΡΝΑΝΙΑΣ

Διὰ τῆς ὑπ' ἀριθ. 31572 ἀπὸ 15-1-1935 ἀποφάσεως τοῦ Νομάρχου Αἰτωλοακαρνανίας ἀνετέθησαν τὰ καθήκοντα ληξιάρχου τῆς Κοινότητος Πλατάνου - Ναυπακτίας εἰς τὸν Γεώργιον Ν. Οἰκονόμου ἐπὶ μηνιαίᾳ ἀμοιβῇ δρχ. 80 πληρωτέα ἐκ τοῦ Κοινοτικοῦ Ταμείου Πλατάνου ἀντὶ τοῦ Προέδρου τῆς ἰδίας Κοινότητος ταύτης, μὴ δυναμένου νὰ ἐκτελέσῃ τὰ ἀνωτέρω καθήκοντα.

Ὁ Νομαρχῶν Διευθυντὴς
Α. ΔΗΜΗΤΡΑΚΟΠΟΥΛΟΣ

ΝΟΜΑΡΧΙΑ ΚΟΖΑΝΗΣ

Διὰ τῆς ὑπ' ἀριθ. 14214 π. ἔ. ἀποφάσεως τοῦ Νομάρχου Κοζάνης ἀνετέθησαν τὰ καθήκοντα ληξιάρχου ἐν τῇ Κοινότητι Λουτροῦ εἰς τὸν Εὐάγ. Νταρῆν ἐπὶ ἀποζημιώσει δραχ. 100 μηνιαίως.

Διὰ τῆς ὑπ' ἀριθ. 22126 π. ἔ. ἀποφάσεως τοῦ Νομάρχου Κοζάνης ἀνετέθησαν τὰ καθήκοντα ληξιάρχου ἐν τῇ κοινότητι Κοντοβουνίου εἰς τὸν Νικ. Παπακώσταν ἐπὶ ἀποζημιώσει δρ. 20 ο)ο ἐπὶ τοῦ μισθοῦ του ὡς κοινοτ. γραμματέως.

Διὰ τῆς ὑπ' ἀριθ. 22472 π. ἔ. ἀποφάσεως τοῦ Νομάρχου Κοζάνης ἀνετέθησαν τὰ καθήκοντα ληξιάρχου ἐν τῇ κοινότητι Σπάρτου εἰς τὸν Ν. Παπακώσταν ἐπὶ ἀποζημιώσει δραχμῶν 20 ο)ο ἐπὶ τοῦ μισθοῦ του ὡς κοινοτ. γραμματέως.

Διὰ τῆς ὑπ' ἀριθ. 22286 π. ἔ. ἀποφάσεως τοῦ Νομάρχου Κοζάνης ἀνετέθησαν τὰ καθήκοντα ληξιάρχου ἐν τῇ κοινότητι Σπήλιου εἰς τὸν Ἀθ. Σιδεράδη ἐπὶ ἀποζημιώσει δραχμῶν 20 ο)ο ἐπὶ τοῦ μισθοῦ του ὡς κοινοτ. γραμματέως.

Διὰ τῆς ὑπ' ἀριθ. 18980 π. ἔ. ἀποφάσεως τοῦ Νομάρχου Κοζάνης ἀνετέθησαν τὰ καθήκοντα ληξιάρχου ἐν τῇ κοινότητι Λυγερῆς εἰς τὸν Γ. Δημητριάδην ἐπὶ ἀποζημιώσει δραχμῶν 20 ο)ο ἐπὶ τοῦ μισθοῦ του ὡς κοινοτ. γραμματέως.

Ὁ Νομάρχης
Α. ΣΧΙΝΑΣ

ΝΟΜΑΡΧΙΑ ΦΘΙΩΤΙΔΟΦΩΚΙΔΟΣ

Διὰ τῆς ὑπ' ἀριθ. 16784 π. ἔ. ἀποφάσεως τοῦ Νομάρχου Φθιωτιδοφωκίδος ἀνετέθησαν τὰ καθήκοντα τοῦ ληξιάρχου τῆς Κοινότητος Ἀχλαδίου εἰς τὸν Νικόλαον Κουμπάραν ἐπὶ τῇ νενομισμένῃ ἀμοιβῇ.

Διὰ τῆς ὑπ' ἀριθ. 698 ἐ. ἔ. ἀποφάσεως τοῦ Νομάρχου Φθιωτιδοφωκίδος ἀνετέθησαν τὰ καθήκοντα τοῦ ληξιάρχου τῆς Κοινότητος Τολοφῶνος εἰς τὸν Ἀθανάσιον Κουλαντζῆν ἐπὶ τῇ νενομισμένῃ ἀμοιβῇ.

Διὰ τῆς ὑπ' ἀριθ. 93 ἐ. ἔ. ἀποφάσεως τοῦ αὐτοῦ Νομάρχου ἀνετέθησαν τὰ καθήκοντα τοῦ ληξιάρχου τῆς Κοινότητος Καστελείου εἰς τὸν Παναγιώτην Παπανικολάου ἐπὶ τῇ νενομισμένῃ ἀμοιβῇ.

Ὁ Νομάρχης
Ν. ΓΙΓΑΝΤΕΣ

ΝΟΜΑΡΧΙΑ ΚΑΒΑΛΛΑΣ

Διὰ τῆς ὑπ' ἀριθ. 270 τῆς 12ης Ἰανουαρίου 1935 ἀποφάσεως τοῦ Νομάρχου Καβάλλας ἀνετέθησαν τὰ καθήκοντα ληξιάρχου παρὰ τῷ ληξιαρχείῳ τῆς Κοινότητος Καρυανῆς εἰς τὸν Γραμματέα ταύτης Νικόλαον Παπανικολάου ἐπὶ μηνιαίᾳ ἀμοιβῇ ὁρισθησομένῃ ὑπὸ τοῦ Κοινοτικοῦ ταύτης Συμβουλίου καὶ μὴ δυναμένη νὰ ὑπερβῇ τὰ 20ο)ο τοῦ μηνιαίου μισθοῦ του.

Διὰ τῆς ὑπ' ἀριθ. 305 τῆς 14 Ἰανουαρίου 1935 ἀποφάσεως τοῦ Νομάρχου Καβάλλας ἀνετέθησαν τὰ καθήκοντα ληξιάρχου παρὰ τῷ ληξιαρχείου τῆς Κοινότητος Ἐλαιοχωρίου εἰς τὸν Γραμματέα ταύτης Εὐάγγελον Δρόσον ἐπὶ μηνιαίᾳ ἀμοιβῇ ὁρισθησομένῃ ὑπὸ τοῦ Κοινοτικοῦ ταύτης Συμβουλίου καὶ μὴ δυναμένη νὰ ὑπερβῇ τὰ 20ο)ο τοῦ μηνιαίου μισθοῦ του.

Διὰ τῆς ὑπ' ἀριθ. 442 τῆς 17 Ἰανουαρίου 1935 ἀποφάσεως τοῦ Νομάρχου Καβάλλας ἀνετέθησαν τὰ καθήκοντα ληξιάρχου παρὰ τῷ ληξιαρχείῳ τῆς Κοινότητος Αὐλῆς εἰς τὴν Γραμματέα ταύτης Ἄνναν Σ. Γιαννέλη ἐπὶ μηνιαίᾳ ἀμοιβῇ ὁρισθησομένῃ ὑπὸ τοῦ Κοινοτικοῦ ταύτης Συμβουλίου καὶ μὴ δυναμένη νὰ ὑπερβῇ τὰ 20ο)ο τοῦ μηνιαίου μισθοῦ του.

Ὁ Νομάρχης
Γ. ΡΕΝΤΗΣ

ΥΠΟΥΡΓΕΙΟΝ ΕΣΩΤΕΡΙΚΩΝ

Διὰ τοῦ ἀπὸ 26 Ἰανουαρίου 1935 Π. Διατάγματος, ἐκδοθέντος ἐν Ἀθήναις, προτάσει τοῦ ἐπὶ τῶν Ἐσωτερικῶν Ὑπουργοῦ, ἐνεκρίθη ἡ ἀπόκτησις τῆς Ἑλληνικῆς ἰθαγενείας παρὰ τοῦ ἐνηλίκου ἀλλοδαποῦ Γετβάρτ Θωμᾶ Τερζιάν, δη-

λώσαντος τὴν περὶ τούτου θέλησίν του τῷ Δημάρχῳ Κερκυραίων.

Διὰ τοῦ ἀπὸ 22 Ἰανουαρίου 1935 Διατάγματος, ἐκδοθέντος ἐν Ἀθήναις, προτάσει τοῦ ἐπὶ τῶν Ἐσωτερικῶν Ὑπουργοῦ, ἐνεκρίθη ἡ ἀπόκτησις τῆς Ἑλληνικῆς ἰθαγενείας παρὰ τοῦ ἐνηλίκου ἀλλοδαποῦ Ἐρνέστου Ἰωσὴφ Μύλλερ, δηλώσαντος τὴν περὶ τούτου θέλησίν του τῷ Δημάρχῳ Ἀθηναίων.

Διὰ τῆς ὑπ' ἀριθ. 75031)144 τῆς 23 Ἰανουαρίου 1935 ἀποφάσεως τοῦ Ὑπουργοῦ τῶν Ἐσωτερικῶν, ἐκδοθείσης δυνάμει τοῦ ἄρθρου 37 παρ. 3 τοῦ κωδικοποιηθέντος ὑπ' ἀριθ. 4952 νόμου καὶ στηριζομένης εἰς γνωμοδότησιν τοῦ παρὰ τῷ αὐτῷ Ὑπουργείῳ Συμβουλίου Ἰθαγενείας πρὸς ἣν συμφωνεῖ καὶ τὸ Ὑπουργεῖον τῶν Ἐξωτερικῶν, ἀπεφήνατο ὅτι ὁ Ἰάκωβος ἢ Ζὰκ Ἀμὰρ τοῦ Χαΐμ ἀπέβαλε τὴν Ἑλληνικὴν ἰθαγένειαν συμφώνως τῷ ἄρθρῳ 23 τοῦ Ἀστικοῦ Νόμου, ὡς ἐτροποποιήθη διὰ τοῦ μόνου ἄρθρου τοῦ Νόμου 120 τῆς 31 Δεκεμβρίου 1913)2 Ἰανουαρίου 1914.

Δι' ὁμοίας ὑπ' ἀριθ. 75012)144 τῆς αὐτῆς ἡμερομηνίας, ἐκδοθείσης δυνάμει τοῦ ἄρθρου 37 παρ. 3 τοῦ κωδικοποιηθέντος ὑπ' ἀριθ. 4952 νόμου καὶ στηριζομένης εἰς γνωμοδότησιν τοῦ παρὰ τῷ αὐτῷ Ὑπουργείῳ Συμβουλίου Ἰθαγενείας πρὸς ἣν συμφωνεῖ καὶ τὸ Ὑπουργεῖον τῶν Ἐξωτερικῶν, ἀπεφήνατο ὅτι ὁ Ἀριστείδης Νικολάου Σατραβέλας κατέστη Ἕλλην τὴν 1)14 Νοεμβρίου 1913 κατὰ τὸ ἄρθρον 4 τῆς Συνθήκης τῶν Ἀθηνῶν.

Δι' ὁμοίας ὑπ' ἀριθ. 1772)150 τῆς αὐτῆς ἡμερομηνίας, ἐκδοθείσης δυνάμει τοῦ ἄρθρου 37 παρ. 3 τοῦ κωδικοποιηθέντος ὑπ' ἀριθ. 4952 νόμου καὶ στηριζομένης εἰς γνωμοδότησιν τοῦ παρὰ τῷ αὐτῷ Ὑπουργείῳ Συμβουλίου Ἰθαγενείας πρὸς ἣν συμφωνεῖ καὶ τὸ Ὑπουργεῖον τῶν Ἐξωτερικῶν, ἀπεφήνατο ὅτι ὁ Ἰωάννης Μιχαὴλ Βογιατζόγλου κατέστη Ἕλλην τὴν 23)7)1930 συμφώνως τῷ ἄρθρῳ 28 ἐδάφ. 2 τῆς Συμβάσεως τῆς Ἀγκύρας τοῦ 1930.

Ὁ Ὑπουργὸς
Γ. ΧΑΛΩΡΟΣ

Διόρθωσις ἡμαρτημένων.

Ἐν τῇ ὑπ' ἀριθ. 704)419 ἀπὸ 19 Δεκεμβρίου 1934 ἀποφάσει τοῦ Ὑπουργοῦ τῶν Ἐσωτερικῶν δι' ἧς ἐχορηγήθη ἐπίδομα 5ο)ο ἐπὶ τοῦ ἀρχικοῦ μισθοῦ 12 γραφέων α' τάξεως τῆς Χωροφυλακῆς καὶ τῆς ὁποίας περίληψις ἐδημοσιεύθη εἰς τὸ ὑπ' ἀριθ. 1 (τεῦχος Γ') τῆς 4ης Ἰανουαρίου 1935, φύλλον τῆς Ἐφημερίδος τῆς Κυβερνήσεως ἐπιφέρονται αἱ ἑξῆς διορθώσεις.

1) Διορθοῦται τὸ ἐπώνυμον τοῦ γραφέως Ἰωάννου Βλαχωρίτη τοῦ Σπυρίδωνος εἰς τὸ πραγματικὸν Ἰωάννην Βραχωρίτην τοῦ Σπυρίδωνος.

2) Διορθοῦται τὸ ἐπώνυμον τοῦ γραφέως Παναγιώτου Μουρέκα εἰς τὸ πραγματικὸν Παναγιώτου Μπουρέκα.

3) Διορθοῦται τὸ ἐπώνυμον τοῦ γραφέως Κωνσταντίνου Δουμανάκου εἰς τὸ πραγματικὸν Κωνσταντίνου Δουμπανάκου.

4) Ἐπίσης διορθοῦται τὸ ὀνοματεπώνυμον τοῦ γραφέως Ἀθανασίου Μελιδώνη τοῦ Παύλου εἰς τὸ πραγματικὸν Ἀθανασίαν Μελιδώνη τοῦ Παύλου.

(Ἐκ τοῦ Ὑπουργείου Ἐσωτερικῶν)

ΔΗΜΑΡΧΙΑ ΑΘΗΝΩΝ

Διὰ τῆς ἀπὸ 19 Δεκεμβρίου 1934 ἀποφάσεως τῆς Δημαρχιακῆς Ἐπιτροπῆς ἀπελύθησαν λόγῳ καταργήσεως θέσεως αἱ καθαρίστριαι τοῦ Δήμου Ἑλένη Ρετετάγκου καὶ Σοφία Γιαννοπούλου, λόγῳ δ' ἐγκαταλείψεως θέσεως οἱ νεκροθάπται Ν. Σταμπόπουλος καὶ Κ. Τυρούκης, διὰ τῆς ἀπὸ 24 Νοεμβρίου π. ἔ. ἀποφάσεως αὐτῆς.

Ὁ Δήμαρχος
(Ὑπογραφὴ)

ΑΡΧΗΓΕΙΟΝ ΑΣΤΥΝΟΜΙΑΣ ΠΟΛΕΩΝ

Διὰ τῆς ὑπ' ἀριθ. 973 Φ 5501)3 ἀπὸ 23 Ἰανουαρίου ἐ. ἔ. ἀποφάσεως τοῦ Ἀρχηγοῦ τῆς Ἀστυνομίας Πόλεων κατὰ τὸ ἄρθρον 28 § 7 τοῦ νόμου 4971 περὶ ὀργανισμοῦ τοῦ Σώματος τῆς Ἀστυνομίας Πόλεων τροποποιεῖται ἡ ὑπ' ἀριθ. 13252 ἀπὸ 12)12)34 ἀπόφασις ἡμῶν περὶ ἀπολύσεως τοῦ μαθητ. ἀστ)κος 5501 Πολάκη Κωνστ., εἰς τὴν ποινὴν μηνιαίας ἀργίας.

Διὰ τῆς ὑπ' ἀριθ. 112 φ. 1769)6 ἀπὸ 18)1)35 ἀποφάσεως τοῦ αὐτοῦ Ἀρχηγοῦ, στηριζομένης εἰς τὸ ἄρθρον 33 τοῦ νόμου 4971 καὶ μετὰ σύμφωνον γνώμην τῆς Ἀνωτάτης Ὑγειονομικῆς Ἀστυνομικῆς Ἐπιτροπῆς ἀπολύεται τοῦ Ἀστυνομικοῦ Σώματος διὰ λόγους ὑγείας ὁ ἀστ)λαξ 1769 Ἐπαμεινωνδόπουλος Σπυρ. τοῦ Γεωργίου.

Διὰ τῆς ὑπ' ἀριθ. 783 φ. 1750)5 ἀπὸ 18-1-35 ἀποφάσεως τοῦ αὐτοῦ Ἀρχηγοῦ στηριζομένης εἰς τὸ ἄρθρον 33 τοῦ νόμου 4971 καὶ μετὰ σύμφωνον γνώμην τῆς Ἀνωτάτης Ὑγειονομικῆς Ἀστυνομικῆς Ἐπιτροπῆς ἀπολύεται τοῦ Ἀστυνομικοῦ Σώματος διὰ λόγους ὑγείας ὁ ἀστυφ. 1750 Κατιρτζῆς Δημήτριος τοῦ Παν.

Ὁ Ἀρχηγὸς
Ι. ΚΩΝΣΤΑΝΤΙΝΟΥ

ΥΠΟΥΡΓΕΙΟΝ ΠΑΙΔΕΙΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ

Διὰ Διατάγματος ἐκδοθέντος ἐν Ἀθήναις τῇ 31 Δεκεμβρίου π. ἔ. κατὰ τοὺς κειμένους νόμους καὶ τῇ προτάσει τοῦ Ὑπουργοῦ τῶν Θρησκευμάτων καὶ Παιδείας στηριζομένῃ εἰς ἀπόφασιν τῆς Ἰατρικῆς Σχολῆς τοῦ Ἐθνικοῦ καὶ Καποδιστριακοῦ Πανεπιστημίου Ἀθηνῶν, διορίζεται ἐπιμελητὴς τοῦ ἐργαστηρίου τῆς Θεραπευτικῆς ἐν τῇ Ἰατρικῇ Σχολῇ τοῦ Ἐθνικοῦ καὶ Καποδιστριακοῦ Πανεπιστημίου Ἀθηνῶν ὁ Γεώργιος Τριανταφυλλίδης διδάκτωρ τῆς Ἰατρικῆς ἐπὶ θητείᾳ τεσσάρων ἐτῶν καὶ ἐπὶ βαθμῷ καὶ μισθῷ Τμηματάρχου δ' τάξεως.

Δι' ὑπουργικῆς πράξεως ὑπ' ἀριθ. 77093 τῆς 4 Ἰανουαρίου ἐ. ἔ., κατὰ τὸ ἄρθρον 19 τοῦ ἀπὸ 12 Ἰανουαρίου 1934 Διατάγματος «περὶ τῶν ἀποδοχῶν πολιτικῶν δημοσίων ὑπαλλήλων», τὸ ἄρθρ. 2 τοῦ νόμου 4596 «περὶ ἱεροκηρύκων, τὴν ὑπ' ἀριθ. 259 ἐ. ἔ., πρότασιν τῆς Ι. Συνόδου τῆς Ἐκκλησίας τῆς Ἑλλάδος, χορηγεῖται εἰς τὸν ἐπὶ βαθμῷ εἰσηγητοῦ ἱεροκήρυκα τῆς Ἱερᾶς Μητροπόλεως Ζακύνθου, Νικόλαον Ἀβούρην, ἐπίδομα ἴσον πρὸς τὸ ἥμισυ τῆς διαφορᾶς τοῦ ἀρχικοῦ μισθοῦ τοῦ βαθμοῦ του καὶ τοῦ ἀρχικοῦ μισθοῦ τοῦ ἀμέσως ἀνωτέρου βαθμοῦ τοῦ τμηματάρχου β' τάξεως, ἤτοι ἑκατοντριακοσίων (300) μηνιαίως, ὡς συμπληρώσαντα ὑπερπενταετῆ εὐδόκιμον ὑπηρεσίαν ἐν τῷ αὐτῷ βαθμῷ καὶ τὸν πρὸς προαγωγὴν ἀπαιτούμενον χρόνον.

Διὰ πράξεως τοῦ Ὑπουργοῦ Παιδείας καὶ Θρησκευμάτων ὑπ' ἀριθ. 3686 τῆς 17 Ἰανουαρίου ἐ. ἔ. κατὰ τὰς κειμένας διατάξεις, ἀνακαλεῖται ἡ ὑπ' ἀριθ. 3686 ἡμετέρα πρᾶξις ἐκδοθεῖσα τὴν 20 Ἰανουαρίου 1933 καὶ δημοσιευθεῖσα τὴν 27 τοῦ αὐτοῦ μηνὸς εἰς τὸ ὑπ' ἀριθ. 8 φύλλον τῆς Ἐφημερίδος τῆς Κυβερνήσεως περὶ ἀνακλήσεως τῆς ὑπ' ἀριθ. 19674 τοῦ 1906 ἡμετέρας πράξεως περὶ ἀπολύσεως λόγῳ στρατεύσεως τοῦ δημοδιδασκάλου Σταύρου Κούβελα, ἐκ τοῦ δημοτικοῦ σχολείου Μεγάλης Μαντινείας-Λακωνικῆς, ἐπανερχομένης ταύτης ἐν ἰσχύϊ.

Δι' ὑπουργικῆς πράξεως ὑπ' ἀριθ. 72600 τῆς 8 Ἰανουαρίου ἐ. ἔ. κατὰ τὸ ἄρθρον 7 τοῦ νόμου 4153 καὶ τὴν περιλαμβανομένην εἰς τὸ ὑπ' ἀριθ. 101 ἐ. ἔ. πρακτικὸν τοῦ Ἐκπαιδευτικοῦ Συμβουλίου πρότασίν του, μετατίθεται λόγῳ ποινῆς καὶ ἰδίαις δαπάναις ὁ Παναγ. Καραμούζης δημοδιδά-

Hemorrhage is now the leading cause of maternal death in the United States, having displaced infection and toxemia in that category. The hemorrhages of pregnancy have come to occupy first place simply by failing to decrease as much as have the other two principal causes of maternal death.

This failure is serious, because the prevention of hemorrhage death is the responsibility of the doctor, and of the hospital, and because bleeding is a preventable cause of death, or, better, it should be. Outside factors, such as the development of more effective antibiotics and improved living standards, may have contributed to the better statistics for sepsis and toxemia.

Before 1935, maternal mortality from blood loss had not decreased for twenty years, despite the use of transfusions. Only during the past fifteen years, with the advent of blood banks and more available laboratory facilities, as well as broader understanding of the causes of hemorrhage and its treatment, has death from bleeding partially curbed, decreasing by 59% from 1939 to 1948. Although there were probably some fortunate, well staffed institutions with large services that did not have a hemorrhagic death for this period, such was not the case for the country at large.

In 1948 hemorrhage accounted for 33% of all maternal deaths, in actual figures about 4 hemorrhagic deaths per 10.000 live births. A further analysis indicates that of these 1,400 women dying from hemorrhage, about one third were nonwhite. A nonwhite mother's death was more than 3 times higher as that for a white mother. Obstetric hemorrhage, an inclusive term for postpartum hemorrhage, placenta previa, and abruptio placentae, and including trauma and shock, should have been

more effectivly curbed.

Shock, the usual cause of death from blood loss, is accentuated by such maternal complications as anemia, trauma, prolonged labor, and toxemia of pregnancy. Death from hemorrhagic shock , however, is preventable. In obstretrics, the usual story is not that of fierce and uncontrolled hemorhhage for a few minutes and then sudden death. Rather, the course of events is one of steady moderate bleeding over a period of several hours ending in shock and death, because no one became alarmed early enough. According to one study, the average time between delivery and death was as long as five hours and twenty minutes. . Too often obstetric bleeding is allowed to continue until shock is irreversible and blood-transfusions are useless.

Mothers die in several other ways as a result of blood loss. They may become so weakened that they succumb to infections, which otherwise they would easily overcome. Accidents occur in best staffed hospitals in spite of all precautions in typing and cross matching, and occasionally patients die from incompatible blood. The so- called kush syndrom in obstetric patients is now fully recognized. It is a cause of death which may follow hemorrhagic shock. In this syndrom the pathologic lesion allegedly occurs in the renal cortex, and during the ensuingchanges in the parenchym of the kidney,death occurs in a few weeks post partum from anuria and nitrogen retention.

Even if a patient survives a severe hemorrhage, she may die from its effects years afterwards. Sheehan, who has performed an unusual number of autopsies of fatal obstetric shock, has found, that the patient who survived a severe episod of shock for a day or so , would develop an infarction of the pituitary gland. "ith reference to this last finding this author correlated hemorrhagic shock with acute necrosis of the

anterior pituitary gland and subsequent chronic pituitary ddisease. In Sheehan's syndrom the patient progressively develops weakness, loss of libido, amenorrhea , depilation of pubic and axillary hair, general atrophy, asthenia , hypothyroidism, and debility, with ultimate coma and death ~~666~~ ensuing years after the initial obstetric shock. Examination of the pituitary gland in such cases discloses fibrotic replacement of over three quaters of the anterior portion. Although a number of patients have been reported with Sheehan,s syndrom, probably many go unrecognized.

Uterine bleeding after delivery is controlled in 3 ways: by periodic uterine contractions, retractions of muscel fibres, and the clotting mechanisme. The uterine contractions can be maintained for a few minutes by the use of oxytocics, but certainly not permanently. T he second mechanisme, retraction, especially of the innermost muscular layers just beneath the decidua , causes a gradual muscular closure of the large sinuses of the uterine wall so that, when the the normal puerperal uterus is not contracting, bleeding is controlled. Seemingly , both precipitous and prolongued labours interfere with retraction, and atonic hemmorrhage may follow.

In the final analysis , the control of bleeding rests in the formation, maintenance, and organization of thromby at the placental side. Any disturbance in this mechanism can produce an abnormal loss of blood. In rare cases delayed hemorrhage twelve to twentfour hours after delivery may indicate abnormalities in the clotting mechanism. If other causes of bleeding are surely eliminated correction of the clotting mechanism should be tried by administering intermusculary protamin sulfate 50 to loo mg. and toluidine blue 25o mg intravenously . Whether the bleeding factor in the blood is heparin or heparinlike, specific or nonspecific

is largely of academic interest, for the proper use of this method will safe lives in these not too frequent cases.

Cases of afibrinogenemia have occured following obstetric hemorrhage. The blood of these patients does not clott and they are usually lost unless purified fibrinogen or several hundred cc of not citrated blood can be obtained and administered intravenously. It has been suggested that the term "the third stage of labor" be replaced by the placental stage " or that we employ in addition the term the "fourth stage" since most difficulties with hemorrhages occur after the delivery of the placenta that means after the third stage of labor. The physiology of the placental stage is in short the following: the placenta separates in a few minutes in most cases and does so irrespective of oxydosics, ergotrate or pituitrine. Bloodloss however, is most effectively reduced by the combined use of slow delivery and intravenous oxidosics administered during the very last moments of the second stage of labor. This method favors natural expulsion of the infant by the uterus, often atonic and depressed by the analgesic and anesthetic agents aboundantly employed in modern obstetrics.

It is agreed upon to speak of postpartum hemorrhage if the blood loss exceeds 500 cc, but it is rather unpredictable with what amount of blood loss a real danger begins. Generally speaking, a woman in labor can bear with comparative impunity a blood loss which would seriously endanger the life of a strong man. This is probably due to the fact that that a considerable increase of the amount of blood occurs during pregnancy. In any event, the effect of hemorrhage will also depend on the general constitution of the patient, the status of her blood, as revealed by the erythrocyte count, cell volume and hemoglobin content at the time

of admission to the labor room, as well as to the actual amount lost. Thus, a woman already exhausted by a long labor or weakened by an antecédent disease may die after a relatively small loss of blood, which would not effct considerably another woman. As a rule, the loss of a moderate amount of blood is not attended by serious symptoms; but when the hemorrhage becoms profuse other symptoms appear and make the picture quite different. The pulse becomes rapid, compressible, the face becomes pallid and assums a drawn appearance, while at the same time she may complain of disturbed vision , chilliness and shortness of breath. This already is a very serious sympton and with the appearance of air hunger the patient usually passes into unconsciousness before the fatal termination.

The diagnosis of postpartum hemorrhage is not difficult, ~~if~~ but must we have in mind the possibility of a concealed bleeding. In these not to frequent cases the bleeding occurs into the uterine lumen or, in the case of traume, in the para uterine tissues. We must state, however, that such a concealed hemorrhage should not remain unnoticed by a watchful attending. Even if routine precautions are neglected, the first indication of the condition may be afforded by the pale and haggard appearance of the patiant. The change in blood pressure and the increased size of the uterus, which has a doughy consistency, should lead very quickly to a right diagnosis.

The decision concerning the proper treatment of a postpartum hemorrhage depends upon the recognition of the source of bleeding. This differential diagnosisis is of the utmost importance, and it should be attemted to to come to a decision as qick as possible. If the bleeding commences immediatly after the birth of the child, it is due either to tears of the genital tract, or to partial separation of the placenta. If the latter is the case, the bleeding stops temporarely after massage or kneading of the uterus, but it recurs as soon the uterus is allowed to relax.

If we have no success with these manipulations the bleeding usually comes from a tear . A definite diagnosis, however is possible only after the placenta is completely expelled or removed. On the other hand, if a hemorrhage persits after the removal of the placenta and the abdominal palpation shows that the uterus is firmly contracted, we probably have to deal with a tear in the birth canal, and all our endeavor must be directed to find the place of this traumea. The first place to look for is the episiotomy incision. It is surprising in how many cases a episiotomy wound can give rise to extensive bleeding. Very often the episiotomy was done to early and was allowed to bleed in the erronnous assumption that this tiny trickle of blood would not amount to a real blood loss. ... something about episiotomy.....

The inspection of the vaginal walls is of importance especially after forceps deliveries when there was a rotating movement done with the instrument. This tends to shear off the lateral walls of the vagina and very severe bleeding may occur. It is always essential to grasp the uppermost angel of the tear and begin sewing downward, using a large needle and goinf through the entire thickness af the wall. The cervix can be brought into view by pressing down the fundus of the uterus towards the vulva, and if this fails, the cervix has to be exposed by means of a speculum and grasped with a tenaculum forceps. Again it is essential to start at the highest end of the tear. Once the bleeding point is found, we can usually proceed without too great a haste. Blood replacement has to be started as soon as possible.

If , however, the uterus does not contract after the expulsion of the placenta, or if remains so only so long as massage is kept up, ,the cause of the bleeding must be sought for either in atony or in the retention of a placental cotyledo. By careful inspection of the placenta

which absolutely has to be done as a matter of routine, we can find with certainty whether there is a piece of the afterbirth missing, or whether we have left behind a succenturiate lobe. A pure, primary atony is not too frequent, and consequently this diagnosis should be done only after the exclusion of every other possibi ity. There is a definite trend towards more active treatment in the case of retained placenta. We don't wait any more for many hours, anxiously watching whether there will be bleeding, and we don't resort to saline injections into the cord, but we think that active management is the best. As I have mentioned before, the separation of the placenta is a matter of minutes. In some hospitals pituitrin is injected intravenously as soon as the shoulders of the baby are delivered. The placenta will be separated at once and promptly expulsed. If this injection is done after complete delivery of the baby, there is a great possibility that the cervix contracts before the placenta has time to pass the external os. This increases the blood loss considerably. Therefor the pituitrin injection should be done just before the baby is delivered or after the placenta is expelled. Generally, our limit in waiting for the placenta is about twenty minutes. After this time limit the placenta will be removed manually if active bleeding is present. We insert the freshly desinfected and gloved hand high up into the uteru s and try to get hold of the codyledo or the entire placenta as the case may be. It is very essential to have a good anesthesia and an assistent, who pushes the uterus against the hand inside the uterus, if you cannot accomplish this yourself. The hand in the uterus acts as irritator, causing contractions. After separating ~~of~~ the retained portion of the placenta , the hand should be withdrawn gradually, allowing the uterus to contract. It seems that this active procedure does not materially increase morbidity by bacterial invasion. We resort in all those cases to

liberal medication with antibiotics and we rarely see any rise of temperature during the puerperium.

As to the causes of postpartum hemorrhage, predisposing factors may initiate a sequents of events which can be avoided. We can say that the treatment of postpartum hemorrhage already starts during pregnancy. An adequate prenatal history, including a history of previous puerperal hemorrhage, is sufficient to place the physician on guard. The early recognition and treatment of of anemia is good insurance against bleeding accidents. Likewise, dietary instruction and other aspects of inteeligent prenatal care will strengthen maternal defenses against blood loss. Precipitous labour or inertia will warn the physician of the danger of hemorrhage , as well as will multiple pregnancy, hydrammios, large babies, inother words everything which expands the uterus in an anusual manner. Difficult operative deliveries should always be regarded with suspicion concerning the postpartum period. Let us remember the frequency of injuries to the soft parts, which are only obvious, if bleeding occurs which force us to examine the birth canal in order to find the source of it. The influence of a deep anesthesia upon bleeding after delivery of the baby can not be oversmphasized. Those who employ local anesthesia such as pudendal block or similar procedures, will agree that even in the case of a bleeding incident post partum, the blood loss usually is not so excessive as after use of a general anesthesia.

Prophylaxis against hemorrhage might include the routine typing of all obstetric patients. It gives you a real piece of mind to know that you are able to perform a bloodtransfusion without dangerous delay. In most institutions typing for the Rh factor is also done routinely. Supportive measures include intravenous saline, plasma, 20% glucose etc, but only as stopgaps. Such agents will raise the bloodpressure and com-

bat shock only while running into the vein. All patients in hemorrhagic shock should receive whole blood , usually at least 1000 cc, ~~usually~~ because the amount of bloodlass is always underestimated. Don't forget to assure quite from the beginning sufficient help, because we never know what will happen in the next moment. With massive hemorrhage, large transfusions under pressure may be necessary. In fact, intraarterial bloodtransfusions have been used on hypotensive patients after massive hemorrhage with encouraging results. Morphine should be administered for restlessnes, and oxygen may be useful in combatting cerebral hypoxia. The headdown position is advantagous in such cases.

I did not tell you very much about the uterine packing, but I will do it now, describing a new method, which even is not yet published hre in this country. I thing you may interested in it and give me a few more minutes to explain this procedure.

I start with a very short description of what is practically always done as soon as the doctor recognizes that he is dealing with a hemorrhage, in other words a short resumee of what we have already heard.

Reprinted, with additions, from The Journal of the American Medical Association, June 21, 1952, Vol. 149, pp. 757 and 758

CONTROL OF POSTPARTUM HEMORRHAGE

Ernest Myller, M.D., New York

Hemorrhage is one of the most frequent causes of postpartum death. Statistics being reliable only from larger hospitals, we may assume that many postpartum deaths are either unreported or designated otherwise. In a report from the Mayo Clinic,[1] the incidence of death from hemorrhage is 0.491 per 1,000 births, an average of 1 case per 2,000 deliveries. Postpartum hemorrhage in a large Brooklyn hospital caused death in 34 of 37 cases of obstetric fatality. It can only be conjectured how many more occur in institutions with lower standards.

There are standard methods of treating postpartum hemorrhage. It must be assumed from the poor results reported that they are not always successful. The usual routine procedure is to endeavor to find out whether the uterus is empty or to establish other causes for the bleeding. By the time the examination is completed, the hemorrhage may become alarming. Posterior pituitary (pituitrin®) or ergot is given intravenously, the uterus is massaged, and in many cases valuable time is lost. Intrauterine packing is resorted to, which stops the bleeding for the moment. Blood transfusions are started. After a short time the bleeding may start again, seeping through the packing. Removal and reapplication of packing does not necessarily stop the bleeding and, in spite of concomitant transfusions, the patient may rapidly become moribund. It is the belief of Douglass [2] that when the first uterine packing is not successful, the uterus is probably ruptured. If such is the case, a second packing is

From the Department of Obstetrics and Gynecology, New York University Medical College.

1. Hunt, A. B.: Massive Obstetric Hemorrhage Requiring Hysterectomy, Am. J. Obst. & Gynec. **49**: 246-252 (Feb.) 1945.

2. Douglass, L. H., in discussion of Beacham, W. D., and Beacham, D. W.: Rupture of the Uterus, Am. J. Obst. & Gynec. **61**: 824-837 (April) 1951.

definitely contraindicated. Greenhill [3] also advised against packing the uterus a second time, recommending immediate hysterectomy as the safer procedure.

Postpartum hemorrhage can be controlled, no matter what its cause, by a method described many years ago by Logothetopoulos in Athens.[4] His method involves a type of packing that he originally used after clamp hysterectomies. It was inserted into the pelvis after the uterus was taken out, allowing immediate removal of the clamps without any loss of blood. Logothetopoulos applied the same principle of hemostasis to control of bleeding from the postpartum uterus after considerable experience in his surgical cases had proved it efficient. He called the procedure "traction packing."

METHOD

A doubly folded quadrangular piece of gauze 36 in. (91 cm.) square and a gauze roll 4 in. (10 cm.) wide and 16 yd. (15 m.) long are required. The operator grasps the cervix with one or several tenaculum forceps and brings it down well to the level of the vulva. The blades of a vaginal speculum are helpful in spreading the cervical canal apart. The center of the quadrangular piece of gauze is inserted into the uterus by means of a sponge forceps. In contrast to the conventional method, it is not necessary to reach the fundus with this packing.

The four corners of the quadrangular piece of gauze protruding from the uterus are spread apart. The operator then packs the long strip of gauze into the gauze sack situated in the uterus. Carefully done, this produces a large round ball inside of the uterus. The size of this ball is always the same, being determined by the uniform amount of gauze strip used. Thus the whole procedure becomes automatic and not subject to individual alterations, an important point in an operation when time means everything.

The four corners of the quadrangular piece of gauze are grasped in one hand and pulled downward. The blood supply of the uterus is cut off and bleeding ceases at once. In order to maintain the downward traction, the gauze stem is run through a thick ring pessary, and the pessary is pushed upward against the vulva, which is protected by a piece of gauze. The ring is fixed in its position with a clamp.

3. Greenhill, J. P.: in Yearbook of Obstetrics and Gynecology, Chicago, The Yearbook Publishers, Inc., 1950, p. 241.

4. Logothetopulos, K.: Gynäknelogische Chirurgie, Berlin, Julius Springer, 1939

Conventional packing is an attempt to compress the open sinuses and blood vessels in the wall of the bleeding uterus. To be sure, the packing itself may produce a contraction, and only in such cases will it be effective.

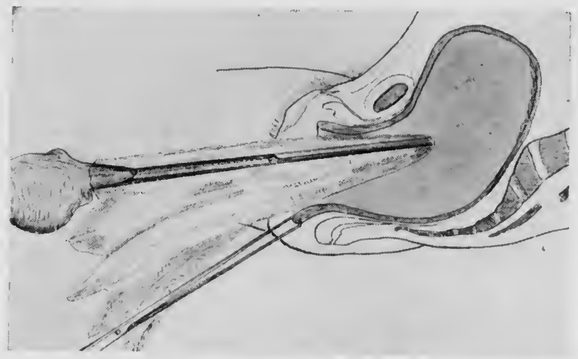


Fig. 1.—Insertion of the quadrangular piece of gauze into the uterine cavity.

Fig. 2.—Spreading the quadrangular gauze and filling it with a gauze strip.

On the other hand, traction compresses the uterine vessels against the pelvic wall, interrupting the blood flow to the uterus completely. If the uterus is atonic, there is in addition to this hemostatic effect the oxytocic

Fig. 3.—Downward traction applied to four corners of the quadrangular piece of gauze.

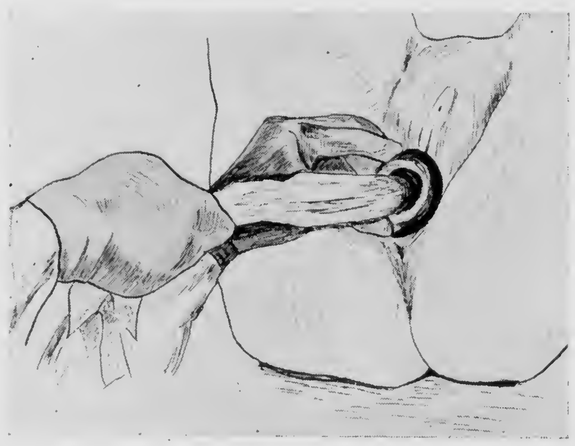


Fig. 4.—The stem of gauze pulled through a ring pessary

effect of anemia, which is produced by compression of the arteries. Furthermore, it is possible that pressure upon Frankenhauser's ganglion stimulates the uterine muscle to contract by way of the autonomic nerves. It is obvious that the cause of the bleeding does not influence the effectiveness of this packing. Wherever the bleeding comes from, it will be stopped. This packing is inserted with relative ease, far more readily than a conventional packing, with no need to fill the uterine cavity completely, and the procedure is rapid and precise.

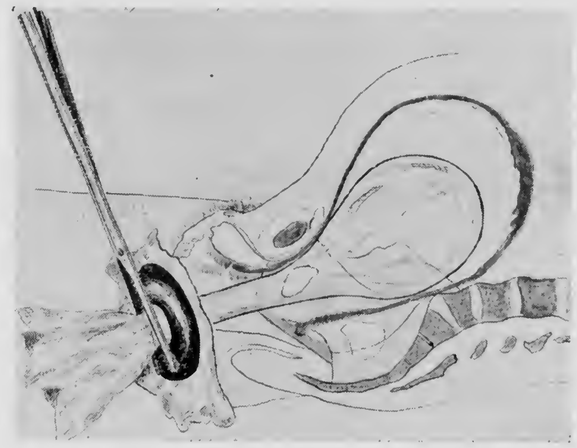


Fig. 5.—Packing in situ and maintenance of traction by application of a strong clamp.

This packing is indicated only in cases of severe hemorrhage, after simpler procedures have been attempted and the vagina and cervix examined as possible sources of bleeding. Its purpose is to control bleeding immediately and to eliminate anxiety and haste. Once accomplished, additional measures such as transfusion and consultation may be obtained in leisure. As the patient's condition improves with or without transfusion, the subsequent procedure depends upon diagnosis. If the uterus is atonic and the bleeding has stopped entirely, the pressure is released by opening the clamp. After a short while the internal strip of gauze may be gradually removed,

followed by the quadrangular piece of gauze, which may take out with it pieces of membrane left behind. The removal of the packing is almost painless.

If the hemorrhage has occurred after a difficult forceps delivery, a version, or in a case in which a cesarean section has been done previously, the possibility of a ruptured uterus must be considered. In this instance the packing may enter the abdominal cavity through the tear in the uterus, intentionally or by chance. No harm can be done by the possible additional trauma to the uterine wall, since it will be necessary to remove the uterus any-

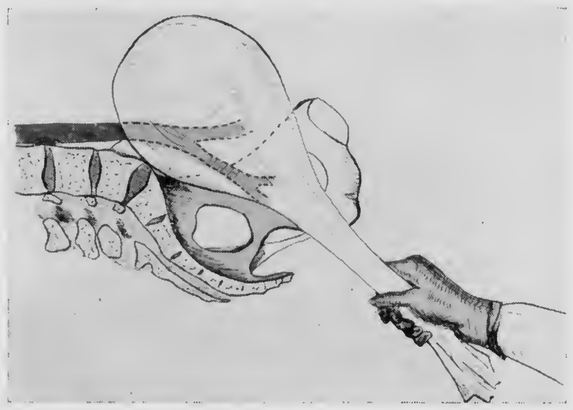


Fig. 6.—Compression of the hypogastric vessels when traction is applied to the gauze packing.

way. Once in place, traction packing allows time for careful preoperative preparation. There is no urgency for any operative intervention while the patient is in shock. Her chances for recovery after hysterectomy or more conservative procedures are much improved.

According to Greenhill, the mortality rate of uterine rupture is 58%. A very recent report from the Harlem Hospital [5] gives the mortality rate as 57.1%. Considering the excellent facilities and expert attention in this hospital, it may be assumed that in less well-equipped

5. Posner, L. B.; Smith, D. F., and Trambert, H. L.: 14-Year Survey of Parturient Ruptured Uterus at Harlem Hospital, New York J. Med. **51**: 641-644 (March) 1951.

institutions the mortality rate may be much higher. With successful hemostasis and eliminated urgency, with time to recover from shock, mortality rates should be considerably reduced. Posner and his co-workers [5] stated, "Immediate transfusion and laparotomy, regardless of the degree of shock, is the surgical treatment of rupture of the uterus." Speaking of mortality, they add that with adequate blood transfusion and present-day antibiotics all patients might have survived. All these ends can be realized with traction packing; there is no need of immediate operation "regardless of the degree of shock." Actual experience with this packing is limited. Logothetopoulos has used it in only about 10 cases of postpartum hemorrhage, but has had excellent results in all. This packing procedure was studied in cadavers at the University of Athens.[6] The packing was inserted in the manner described, followed by traction. A dye was injected into the carotid artery under pressure and thereafter the pelvic organs were examined. All blood vessels except the uterine arteries were filled with the dye. It was interesting to note that the ureters were not compressed; they could be flushed through from above with very slight pressure.

SUMMARY

There are few new methods available to reduce the mortality rate of postpartum hemorrhage. Blood transfusion is often unsuccessful because hemostasis is difficult. Operations are often done with the patient in shock. Traction packing controls all postpartum bleeding immediately and therefore should reduce the mortality rate.

65 E. 76th St.

6. Christopulos, C.: Anatomische Ergebnisse der Blutstillungsmethode nach Logothetopules, Zentralbl. f. Gynäk. **57**: 807-809 (April) 1933

Printed and Published in the United States of America

PROF. BERNHARD ZONDEK
ROTHSCHILD HADASSAH UNIVERSITY HOSPITAL
JERUSALEM

July 10, 1941.

Dear Colleague,

I have known Dr. Ernst Miller for 20 years. He is an able gynecologist and had a large practice is Germany (Nurenburg) and later in Athens.

It would be very kind of you to help Dr. Miller.

Sincerely yours,

Bernhard Zondek

Department of State
Washington, D. C.
September 25, 1941

Dear Dr. and Mrs. Müller:

Your letters from the Kawsar, mailed at Pernambuco on the 17th, came today and Mrs. Foster and I are overjoyed to know that you have safely reached this hemisphere and will soon be in the United States. We have had no word of you since your cable of June 7, telling us the visas had been issued, and had become increasingly concerned about you. There seemed to be absolutely no way to find out what had happened to you and we had almost given you up for lost. I cannot tell you how relieved and happy your letter has made us.

I can imagine what a terrible time you have had. Surely the worst of your troubles are now behind you. It will be difficult, of course, to try to start afresh in the United States, and there may be hard years ahead. But nothing will compare with what you have been through during the past year. Besides ourselves, there are many people here who are anxious to help you. I think especially of the Shears (I wrote to them today about your letters) but there are also the Russells, the Gordons, and I am sure many more Americans who knew and liked you in Athens. Mrs. Foster and I are [redacted] hoping very much that you will not fail to keep in frequent touch with us as soon as you land and thereafter; we want to hear of any way you think we can help you; we want you to call upon us for any assistance we may be able to give. I shall make inquiries at once regarding the laws of the various states as to the practice of medicine by aliens. Unfortunately, it appears that there are very few states where aliens can practice, and as you doubtless know it takes five years to become naturalized as an American citizen. I'll write you in a few days about the state laws. Meanwhile, I cannot help feeling that the main thing is that you and your family are safely here. State medical laws should be a little thing to worry about after what you have been through.

Your money reached me safely and is in my bank in Philadelphia in my name. The original amount was [redacted] $3,187.46, as received by the New York bank (Credit Suisse, 30 Pine Street) and as you will see from the attached letter the bank deducted $15.36 for cables and cost of license. The money is in a so-called "frozen" account and cannot be paid to me or anyone else until a license is obtained. I believe there will be no difficulty in obtaining a license, at least to pay out a certain amount per month, and I shall apply for the license as soon as I know you have arrived in the United States. In any case, I can advance you any sum you like from my own funds, regardless of your deposit in my name. Please let me know at once how much you need.

I gather from your letter that you plan to go straight from New York to Cleveland. If by any chance you decide to go through Washington, don't forget that we would be delighted to see you and to have a visit from you. I am glad you have decided not to stop in New York, which is so full of refugees these days that I am told it is extra difficult for any single refugee to make his way. I think you are wise to push westwards and to seek a part of the country where there are proportionately fewer refugees-- and fewer doctors as well. Of course, when we find out what the state medical laws are we shall have to be guided by them in your choice of where to live.

This letter is meant for both of you from both of us-- and it carries our thankfulness for your escape and all our best wishes for security and health and happiness in your future lives in the United States.

Ever sincerely,

Andrew B. Forbes

P. S. I am mailing the original of this letter to Cleveland and a copy to the boat, though I doubt if the latter will reach you.

CITY OF NEW YORK)
STATE OF NEW YORK) SS:
COUNTY OF NEW YORK)

On this day personally appeared before me

Kate L. Lenel ,

who, after being duly sworn, deposes and says:

That she (he) is a professional translator of the English, German, a.o. languages, employed by the National Refugee Service, Inc., 165 West 46 Street, New York, N.Y.;

That she (he) has personally made the attached translation(s) and hereby certifies to the best of her (his) knowledge and belief that it is (they are) a true version(s) of the original document(s) written in the German language(s).

Ruth K. Lenel

Sworn to before me, the Notary Public
on this 13 day of November , 1941

Jacob S. Chalat

NOTARY PUBLIC, Westchester Co.
N.Y. Co. Clk's No. 975 Reg. No. 3 C 59
Term Expires March 30, 1943

RS-478a-7/41

636

COPY

1052.108 1912/13

OBERREALSCHULE AT SCHMALKALDEN

MATURITY CERTIFICATE

E r n s t M ü l l e r

born February 26, 1893 at Schmalkalden, District estate Schmalkalden of Jevish faith, son of the druggist Joseph Mueller of Schmalkalden attended 9 years the Oberrealschule, 2 thereof the highest grade (Prima)

I Conduct and Diligence:

1) Conduct: good

2) Deligence: very good He was exempt from the oral examination

II Knowledges and abilities

1) Religion (No Jewish religion lessons are given at the school)

2) German: fair

3) French: good

4) English: good

5) History: good

6) Geography: fair

7) Mathematics: good

8) Physics: good

9) Chemistry: good

10) Natural history:—

11) Gymnastics: fair

12) Freehand drawing: good

13) Linear drawing: ——

14) Singing: ——

15) Handwriting: fair

637

The undersigned Board of Examiners therefore grants him a

MATURITY CERTIFICATE

since he is leaving this Oberrealschule to study medicine and dismisses him with the best wishes for his future.

Schmalkalden, March 23, 1911

Royal Provincial
School Board. Cassel

Royal Board of Examiners

Signatures of examiners and teachers

He attended the optional Latin lessons held in connection with the three highest grades of the Obe realschule with satisfactory results.

Schmalkalden, March 23, 1911

Homburg

Director of the Oberrealschule

The above signature is certified correct
Berlin November 20, 1933
sgd. Brennecke Clerk of the Court

The above signature is certified correct
Berlin, November 20, 1933
sgd. Block County Court President

The above signature is certified correct
Berlin, November 21, 1933
sgd. Reimke Foreign Office

Seals

ROYAL BAVARIAN JULIUS MAXIMILIAN UNIVERSITY

W U E R Z B U R G

LEAVING CERTIFICATE

Mr. ERNST MUELLER of Schmalkalden, born at Schmalkalden was enrolled from April 29, 1911 to date, as a student of

m e d i c i n e

at this University and registered duly to the lectures designated hereinafter.

Concerning his conduct nothing derogatory has been reported during this period.

IN WITNESS WHEREOF this certificate has been issued and the seal of the University and the personal signature of the acting rector and the University syndic affixed thereto.

Wuerzburg, April 11, 1912

University Rector: sgd. Prof. Dr. K.B. Lehmann

University Syndic: sgd. illegible

Seal
M 17882

Semester	Lecture
Summer 1911	Osteology Organic chemistry Physics Botany
Winter 19112/1912	Anatomy I Dissection laboratory, course 1

Wuerzburg, April 11, 1912

R. University Syndyc
sgd. illegible

Seal

W E R E C T O R A N D S E N A T E

OF THE ROYAL CHRISTAN ALBRECHT UNIVERSITY AT KIEL

certify by this leaving certificate that Mr. ERNST M U E L L E R
born at Schmalkalden son of the druggist J. Müller, prepared for
academic studies at the Oberrealschule at Schmalkalden,
was matriculated with us on the strength of a leaving certificate
from the University Wuerzburg, on April 26, 1912 and devoted himself
to the study of m e d i c i n e.
During his 6 months stay at this University, he duly registered to
the lectures hereinafter specified, and in accordance with certificates
submitted, and gave notice.

SUMMER SEMESTER 1912

Systematic anatomy of the human body II
a) Nervous system
Practical course in chemistry for
medical students
Short survey on inorganic and organic chemistry
Physiology of the muscles

Concerning his conduct at the University nothing derogatory has been reported.

Issued by the acting Rector. Signature and seal affixed.

Kiel, August 22, 1912

sgd. illegible

Seal

sgd. Werner
University Secretary

Done on
August 1, 1912

640

No 945

ROYAL BAVARIAN JULIUS MAXIMILIAN UNIVERSITY WUERZBURG

LEAVING CERTIFICATE

Mr. Ernst M ü l l e r of Schmalkalden, born at Schmalkalden was matriculated at this University from October 18, 1912 to date as a student of

m e d i c i n e

and duly registered to the lectures hereinafter specified.
Concerning his conduct during this period nothing derogatory has been reported.

IN WITNESS WHEREOF this certificate has been issued and the seal of the University and the personal signatures of the acting rector and the university syndic affixed thereto.

Wuerzburg, August 18, 1913

University Rector — University Syndic

sgd. Prof. Dr. J. Hehn — sgd. Mueller

Seal

Semester	Designation of Lecture
Winter 1912/1913	Dissection exercises 2nd course Physiology Zoology Topographic anatomy Repetition course in anatomy Physiologic chemistry
Summer 1913	Physiology Topographic anatomy Exercises in physiology Zooloty Course in microscopy

641

C E R T I F I C A T E

by the

Board of Examiners at Wuerzburg

on the

medical preliminary examination of the

student of medicine Mr. ERNST M U E L L E R of Schmalkalden

****

The following marks were given him after the [illegible] preliminary examination held in accordance with the examination order of May 28, 1901.

1)	In anatomy	the mark	very good
2)	In Physiology	" "	very good
3)	In Physics	" "	very good
4)	In Chemistry	" "	good
5)	In Zoology	" "	very good
6)	In Botany	" "	good

thus the average rating

" VERY GOOD "

Wuerzburgm July 17, 1913

The chairman of the board of examiners

sgd. Enderlen

Seal

Legalized

Wuerzburg, November 20, 1933

Government of Unterfranken and Aschaffenburg

Chmaber for Internal Affairs

sgd. illegible

Seal.

642

1023/483

U N I V E R S I T Y M U N I C H

CERTIFICATE

WHEN LEAVING THE UNIVERSITY

Mr. Ernst M ü l l e r, of Schmalkalden, born at Schmalkalden was matriculated at this University from October 28, 1913 through the end of the summer semester 1917 as student of m e d i c i n e and registered to the lectures designated in the attached college book.

Concerning his conducts during this period nothing derogatory has been reported.

IN WITNESS WHEREOF this certificate has been issued and the university seal, as well as the personal signatures of the acting rector and syndic of the university affixed thereto.

Munich, December 3, 1917

The acting Rector
sgd. O. Weigl

The Syndic
sgd. Dr. Einhauser

SEAL

****

Winter Semester 1913/1914	Hours per week
Propaedeutic gynecologic clinic	4
Therapeutics of internal diseases	1
Pain prevention in surgery and practical exercises	1
Surgical propaedeutics (surgical diagnosis and surgical therapeutics, exercises)	3
Medical clinic for beginners	6
Mental diseases	2
Clinic and polyclinic of pediatric diseases including physiology and pathology of nutrition in infants' age	5

643

University Munich

Summer Semester 1914

	Hours per week
Surgical clinic	6
Obstetric gynecologic clinic with clinical and polyclinical obstetric observations and exercises in touch examinations	6
Otiatric clinic (with otoscopy)	2
Exercises in diagnosis on polyclinical patients	1
Rhino - laryngologic clinic	2
Theoretic and practical vaccination course	1
Clinic for syphilis and dermatologic diseases	2
Medical clinic for advanced students	6
Intubation and tracheotomy	1

Winter semester 1914/1915
Summer semester 1915
Winter semester 1915/1916
Summer semester 1916
Winter semester 1916/1917
Summer semester 1917

leave of absence; in the army.

seals

WE RECTOR AND SENATE

OF THE ROYAL FRIEDRICH WILHELM UNIVERSITY AT BERLIN

certify by this leaving certificate that Mr. ERNST M U E L L E R
born at Schmalkalden in Hessen-Nassau, son of the merchant Müller
was prepared for academic studies at the Oberrealschule at Schmalkalden
and was matriculated with us on the strength of a leaving certificate
from the University Munich on November 22, 1917 and remained here
as a student of

m e d i c i n e

until the end of the summer semester 1918.

During the time he attended this university he duly registered to the lectures specified in the attached list:

No	Designation of lecture
	I Winter Semester 1917/1918
1	Experimental pharmacology
2	Forensic medicine
3	Topographic anatomy
	II Summer Semester 1918
1	Medical polyclinic
2	Obstetric gynecologic clinic
3	Psychiatric clinic
4	Surgical clinic
5	Ophthalmic clinic
6	Course in pathologic anatomy and exercises
7	Course in microscopy in pathologic histology
8	Course in pathology on fresh preparations

Seal
Fee stamp

After the candidate of medicine

ERNST M U E L L E R of Schmalkalden has passed his medical examination before the board of examiners at Berlin with the mark " g o o d " and his war services had been taken account of in stead of the obligatory practical interne year, he is hereby granted a

LICENSE AS PHYSICIAN

valid from the November 27, 1918 and for the territory of the German Reich in accordance with Par 29 of the Reichs trade order.

Berlin, December 17, 1918

S e a l

Ministry of Interior

By order
sgd. Kirchner

Seen for verification of
above signature
Berlin, November 7, 1933

The Foreign Office of
the German Reich
Seal sgd. Reimke

L I C E N S E
for
Ernst M ü l l e r
as physician

M. 18850

MAY THIS INURE TO HAPPINESS
IN THE FRIEDRICH-WILHELM'S
UNIVERSITY IN BERLIN

Under the magnificent Rectorship of Reinold Seeberg, Doctor of Theology, Doctor h.c. of Law and Philosophy, Public Professor in ordinary at this University, *

by order of the gracious Faculty of Medicine,

Wilhelm His, duly commissioned Promotor, Doctor of Medicine and Surgery, Public Professor in Ordinary at this University, *
Dean pro tem. of the Faculty of Medicine,

has lawfully conferred upon the most learned

Ernst M u e l l e r
of Hessen-Nassau,

a medical practitioner,

the prerogatives and privileges, the degree and the honors of

DOCTOR OF MEDICINE

after he passed the oral examination and after his praiseworthy thesis, written in the German language and bearing the title: "Ueber die Torsion des Samenstrangs" was printed with the approval of the Faculty.

This 17th day of January 1919.

IN WITNESS WHEREOF THIS DIPLOMA HAS BEEN ISSUED UNDER THE SEAL OF THE FACULTY.

The genuineness of the (seal)
signature of the Rector
of the University of Berlin
is hereby certified.
Berlin, November 9, 1933.

The Prussian Minister of Science,
Art and Public Education:
By: sgd. Dr. Zunkel.
(seal)
MI28719.

sgd. His, Dean pro tem.
The foregoing signature has been affixed by the Dean of the Faculty of Medicine at that time, Professor Dr. His.
Berlin, November 6, 1933. The Rector:
(seal of the University) sgd.illegible

Seen for certification of the aforegoing signature.
Berlin, November 15, 1933. The Foreign Office
of the German Reich:
By: sgd. illegible. (seal)

* Translator's note: further titles omitted.

CITY OF NEW YORK)
STATE OF NEW YORK) SS
COUNTY OF NEW YORK)

On this day personally appeared before me

HANS D. FROEHLICH

residing at 111 - 10, 76th Road, Forest Hills, N.Y., who after being duly sworn, deposes and says:

That he is thoroughly familiar with the English and Greek languages;

That he personally made the attached translation and hereby certifies to the best of his knowledge and belief that it is a true version of the original document written in the Greek language.

Hans D. Froehlich

Sworn to before me the Notary Public
on this 13th day of November 1941

Jacob S. Chalat

NOTARY PUBLIC, Westchester Co.
N.Y. Co. Clk's No. [illegible]
Term Expires March 30, 1943

b 4 8

UNIVERSITY OF ATHENS

DIRECTOR OF MEDICAL SCHOOL

Athens, May 15, 1935

File No 249/1071

C E R T I F I C A T E

Dr. ERNST J. MUELLER, doctor of medicine, graduated from the University of Berlin, born at Schmalkalden, Germany

PASSED WITH HONORS

an examination held in accordance with the laws of this University as of April 15, 1935 and is hereby granted a

LICENSE TO PRACTICE MEDICINE

in Greece and hold government positions.

Sgd: (illegible) Director
" " Secretary

S e a l

No. 839,641. PATENTED DEC. 25, 1906.

E. REAVLEY.

CURETTE.

APPLICATION FILED DEC. 21, 1905.

Fig. 1.

Fig. 2.

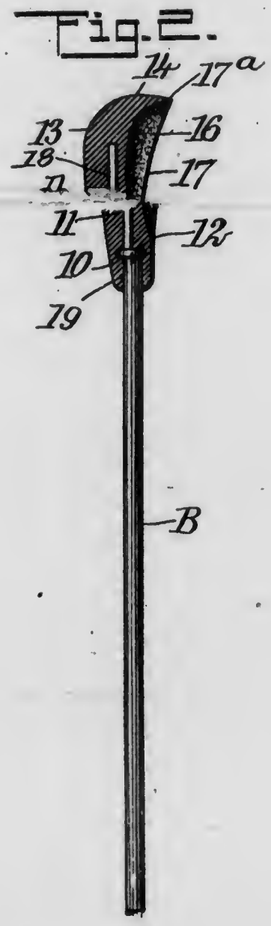


Fig. 3.

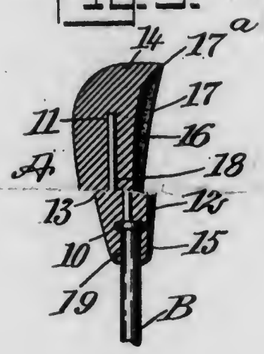
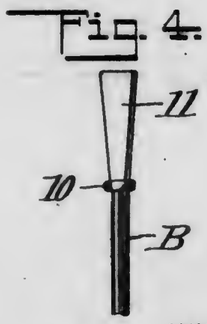


Fig. 4.



WITNESSES:

L. Almquist.

J. Ed. Ackley

INVENTOR

Ethelbert Reavley

BY Munn & Co.

ATTORNEYS

650

May 24, 1949. J. E. AYRE 2,471,088

CERVICAL SCRAPER

Filed Oct. 1, 1947

Fig. 1

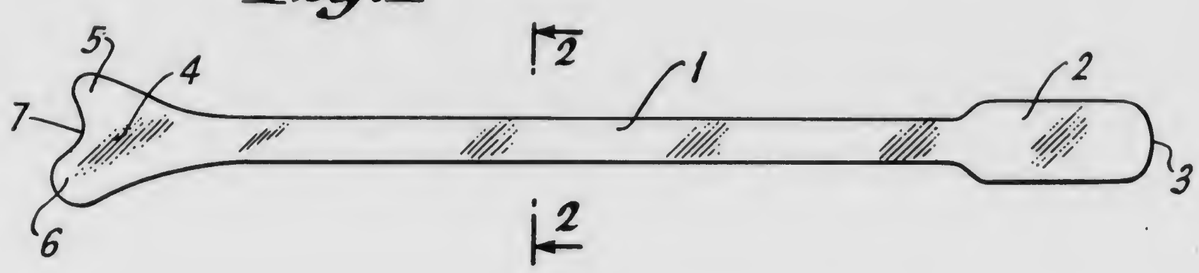


Fig. 2

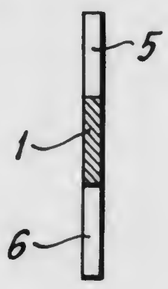


Fig. 3

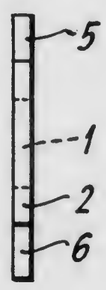


Fig. 4

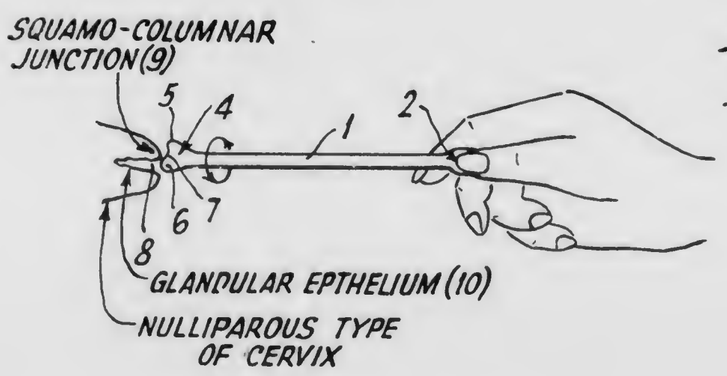
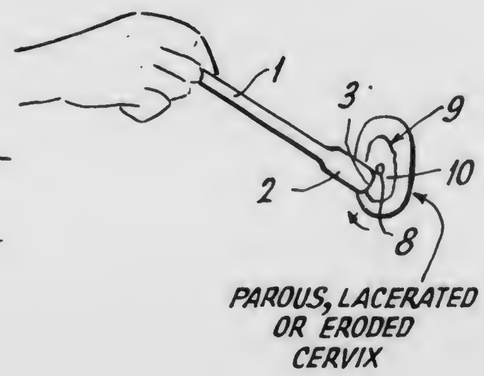


Fig. 5



INVENTOR.
JAMES ERNEST AYRE

BY Abraham S. Greenberg
ATTORNEY

651

Patented May 24, 1949

2,471,088

UNITED STATES PATENT OFFICE

2,471,088

CERVICAL SCRAPER

James Ernest Ayre, Mount Royal, Quebec, Canada, assignor to Clay-Adams Company, Inc., a corporation of New York

Application October 1, 1947, Serial No. 777,218

1 Claim. (Cl. 128—304)

1

My present invention relates in general to an improved and novel scraper for use in "spatula cytology technique," and more specifically to an improved scraper for use in selective cytology employed in the diagnosis of any accessible surface cancer.

The selective cytology technique was developed in a search for a method of studying evidence of cancer growth in the cells which become earliest involved in cervical cancer. The squamous cells encircling the tiny cervical opening at the squamo-columnar junction constitute a key point of origin for cancer more frequently than any other single focus in the female body. The scraper test offers a technique providing "surface biopsy" information of these cells prior to their actual desquamation. The idea is to detect evidence of the earliest cell change in malignancy and of precancerous cell changes. It must be emphasized that the surgical biopsy is dependent for success upon the lesion being visually demonstrable. Numerous cases have been encountered where a single biopsy missed the growth while repeat sections revealed a small cancer. By study of cells in selective cytology smears, morphologic changes have been identified believed to constitute a precancer cell-complex. Through early diagnosis of cancer by routine cytology tests, death from cancer of the cervix should become highly preventable.

One of the important objects of my present invention is to provide a novel and improved scraper of particular advantage in the selective method for obtaining "surface biopsy" from the squamo-columnar junction of the cervix, and of general advantage in the diagnosis of any accessible surface cancer, e. g., tongue, lip, throat, skin and vulva.

Another important object of my invention is to provide a cervical scraper which is generally elongated in configuration and possesses a degree of flexibility, the scraper having one end thereof constructed to take a smear of a nulliparous type of cervix, while the opposite end is constructed to be adapted for a parous or eroded type of cervix.

A more specific object of my invention is to provide a thin elongated scraper, one end thereof having the form of a broad blade of uniform width, while the opposite end generally has a pair of divergent protuberances whereby one of them functions as a pivot for the other as it is rotated during gentle scraping of the entire squamo-columnar junction throughout its circumference.

Still other objects of my invention will appear

2

as this description proceeds, it being emphasized that my present scraper is extremely economical in manufacture thereby to make entirely practical a simple office test for uterine cancer diagnosis.

In the drawing:

Fig. 1 is a full size front view of a scraper constructed in accordance with my invention;

Fig. 2 is a section taken along line 2—2 of Fig. 1 looking in the direction of the arrows;

Fig. 3 is an end view of the spatula viewed from the blade end;

Fig. 4 shows the manner of using the hook end of the scraper; and

Fig. 5 illustrates the use of the broad blade end of the scraper.

Referring now to the accompanying drawing, the scraper is generally of the configuration depicted in Fig. 1. The intermediate section **1** of the elongated scraper is a narrow thin strip of generally rectangular shape. One end of the strip **1** is formed into a broad blade or paddle **2** whose sides are parallel, and whose leading edge **3** is arcuate. The opposite end **4** of the strip **1** is essentially heart-shaped in that it comprises a pair of divergent protuberances or rounded peaks **5** and **6**. The protuberance **6** is larger than its mate, and extends beyond it. The arcuate valley or concavity **7** between the peaks or convex sections **5** and **6** functions as a scraping edge. The concave and convex sections **7** and **6** function as a scraping edge. The entire strip is made of thin wood. but may be pressed from a plastic material, or a pulp material such as cardboard. The scraper may, also be made of metal. The scraper is disposable after use for obtaining a surface biopsy. It will be noted that the edges of the section **4** are rounded. The width of blade **2** is somewhat less than the width of section **4**.

The method of taking a cervical smear for selective cytology requires first the adequate exposure of the cervix with a bivalve speculum. The mucus present at the external os is aspirated using a small glass pipette, or it may be wiped off with a cotton swab and discarded. In all cases we take both the external os smear by aspiration and the scraper smear for selectivity. In these cases the aspirated mucus is placed on a slide for the usual staining procedure, preceding the taking of the scraper test. Following the removal of excess mucus, the squamo-columnar junction is visualized. The precise method of taking the scraper test will vary according to the type of cervix, e. g., the presence of extensive lacerations or erosions will modify the procedure.

A nulliparous or healthy-appearing cervix showing the squamo-columnar junction just outside the circle of the cervical opening may readily be approached by simply placing the end 4 of the scraper gently against the cervical opening. Reference is made to Fig. 4 which shows the manner of using the section 4 for a nulliparous type of cervix. The extensive peak 6 is gently positioned, as shown, against the cervical opening 8. While held in this position a rotary movement, indicated by the circular arrow, permits light scraping of the entire squamo-columnar junction 9 throughout its circumference. By rotating the scraper the entire circumference of this cancer zone may be "surface biopsied." The cells shed from this key point show the earliest indication of incipient carcinoma before any lesion may be recognized by the naked eye. The hook end 4 is not suitable for cervices with long erosions, as the scraping might miss the squamous tissue, obtaining a "surface biopsy" of glandular tissue only.

Parous cervices more commonly exhibit a larger portion of the reddish glandular cervical epithelium, with or without an erosion, eversion or laceration. For cervices of this type the scraper test is taken by scraping along the squamo-columnar margin at the most suspicious area with the other end 2 of the scraper. This is shown in Fig. 5, which depicts the manner of using the end 2. The scraper is rotated in the direction of the arrow. Whether the secretion is derived as shown in Fig. 4 or Fig. 5 it is spread over a glass slide, and then processed to preserve in a glycerine media for 7–14 days so as to submit to any specialized cytological laboratory for experienced interpretation.

In summary, from a cytological study of over 3000 cases, by the use of cervical cytology tests in general and the scraper technique in particular, death from carcinoma of the cervix could potentially become highly preventable. It would appear that by routine cervical cytology tests with a scraper of the present type it becomes more practical and easier to take advantage of the life-saving possibilities offered by cytology.

What I claim is:

A cervical scraper consisting of an elongated strip, one end of the strip being generally triangular and having a pair of unsymmetrical convex end sections connected by a section of concave configuration, one of said convex sections being substantially longer than the other, and said longer section being adapted to enter the cervical opening and function as a pivot, the shorter section functioning as a rotatable wing relative to said pivot, said concave section being adapted to scrape cells from the squamo-columnar junction in response to rotation of the scraper about the pivot afforded by said longer section.

JAMES ERNEST AYRE.

REFERENCES CITED

The following references are of record in the file of this patent:

Catalog of George Pilling & Son Co. of Philadelphia, published in 1921, page 122. (Copy in Division 55.)

Reprinted from NEW YORK STATE JOURNAL OF MEDICINE, Vol. 50, No. 3, Feb. 1, 1950

A CERVICAL "SCRAPER"

ERNEST MYLLER, M.D., New York City

(From the University Hospital, New York University-Bellevue Medical Center)

PAPANICOLAOU'S detection of exfoliated cancer cells in the vaginal smear has added greatly to the early recognition of malignant disease. The present method of scraping the cervical canal in order to obtain a greater concentration of cancer cells, and especially more cells from the cervical epithelium, is considered an improvement over the simple vaginal smear. The important region to be investigated is the junctional region between the columnar cell epithelium and the squamous cell epithelium, since the majority of cervical cancers originate in that area. The detection of cancer of the cervix and the fundus at the earliest possible moment will increase the curability of this disease to a considerable degree. The well-founded assumption that a noninvasive carcinoma may be present intraepithelially for many years without any symptoms and without progress justifies an examination of every adult woman by the vaginal smear method or with a cervical scraping, or both.

A simple instrument, the cervical "scraper," facilitates obtaining satisfactory specimens with every routine vaginal examination.* This instrument consists of a small metal cone attached to a handle (Fig. 1). On both sides of the cone there is a fin (Fig. 2). These two fins converge on the top of the cone. The free sides of the fins are rectangular but not sharp. When used properly no trauma occurs; only epithelial cells will be scraped off. Satisfactory smears can be obtained by an examiner without previous experience.

FIG. 1.

After exposure of the cervix with a speculum, the cone is inserted into the cervical canal and rotated once or twice with very slight pressure (Fig. 3). Occasionally, suspicious areas outside the canal should also be scraped off with the top of the instrument where the two fins join. The epithelial cells will adhere to the fins, and the

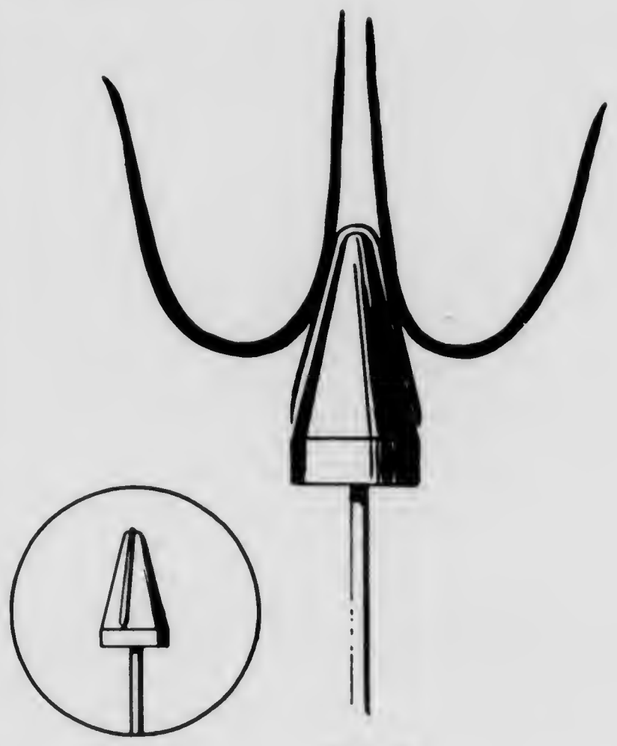


FIG. 2. FIG. 3.

material thus obtained is transferred to glass slides by smearing it from the fins directly on the slides. The slides are immediately immersed in the fixative solution.

The conical shape of the cervical "scraper" prevents its deviation from the longitudinal axis of the cervical canal; the scraper is bound to come in contact with the epithelial junction line whether the cervix is small or large.

The cervical "scraper" is easily sterilized and can be used repeatedly to obtain cells from the cervix. In comparing smears taken with this scraper and with disposable wooden spatulas, it appears that more sheets of well-preserved cervical cells are obtained with the former with little or no bleeding. The instrument penetrates as easily into the nonparous cervical os as into a lacerated, diseased cervical canal.

---

* Manufactured and distributed by United Surgical Supply Co., 160 East 56th Street, New York City.

Reprinted from NEW YORK STATE JOURNAL OF MEDICINE, Vol. 50, No. 3, Feb. 1, 1950

A CERVICAL "SCRAPER"

ERNEST MYLLER, M.D., New York City

(*From the University Hospital, New York University-Bellevue Medical Center*)

PAPANICOLAOU'S detection of exfoliated cancer cells in the vaginal smear has added greatly to the early recognition of malignant disease. The present method of scraping the cervical canal in order to obtain a greater concentration of cancer cells, and especially more cells from the cervical epithelium, is considered an improvement over the simple vaginal smear. The important region to be investigated is the junctional region between the columnar cell epithelium and the squamous cell epithelium, since the majority of cervical cancers originate in that area. The detection of cancer of the cervix and the fundus at the earliest possible moment will increase the curability of this disease to a considerable degree. The well-founded assumption that a noninvasive carcinoma may be present intraepithelially for many years without any symptoms and without progress justifies an examination of every adult woman by the vaginal smear method or with a cervical scraping, or both.

A simple instrument, the cervical "scraper," facilitates obtaining satisfactory specimens with every routine vaginal examination.* This instrument consists of a small metal cone attached to a handle (Fig. 1). On both sides of the cone there is a fin (Fig. 2). These two fins converge on the top of the cone. The free sides of the fins are rectangular but not sharp. When used properly no trauma occurs; only epithelial cells will be scraped off. Satisfactory smears can be obtained by an examiner without previous experience.

FIG. 1.

After exposure of the cervix with a speculum, the cone is inserted into the cervical canal and rotated once or twice with very slight pressure (Fig. 3). Occasionally, suspicious areas outside the canal should also be scraped off with the top of the instrument where the two fins join. The epithelial cells will adhere to the fins, and the material thus obtained is transferred to glass slides by smearing it from the fins directly on the slides. The slides are immediately immersed in the fixative solution.

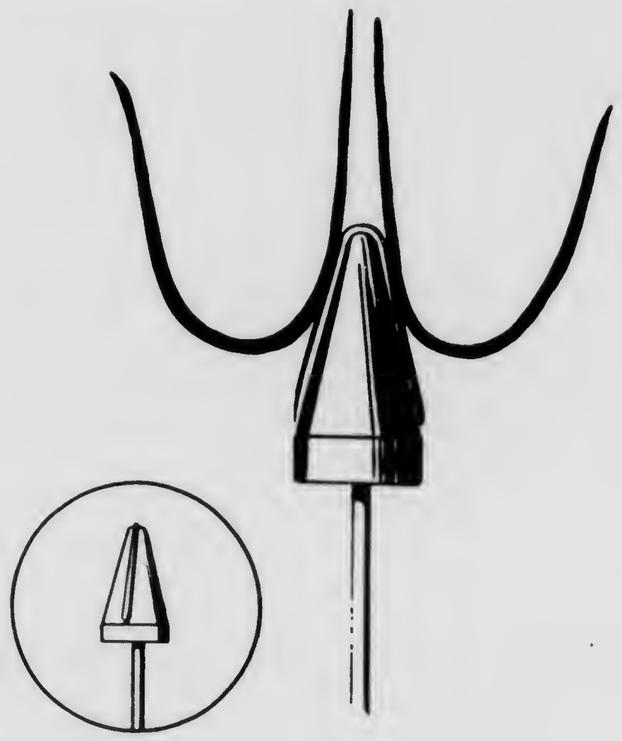


FIG. 2.

FIG. 3.

The conical shape of the cervical "scraper" prevents its deviation from the longitudinal axis of the cervical canal; the scraper is bound to come in contact with the epithelial junction line whether the cervix is small or large.

The cervical "scraper" is easily sterilized and can be used repeatedly to obtain cells from the cervix. In comparing smears taken with this scraper and with disposable wooden spatulas, it appears that more sheets of well-preserved cervical cells are obtained with the former with little or no bleeding. The instrument penetrates as easily into the nonparous cervical os as into a lacerated, diseased cervical canal.

* Manufactured and distributed by United Surgical Supply Co., 160 East 56th Street, New York City.

Conclusions

The importance of cervical obturation in the procedure of uterotubal insufflation and hysterosalpingography has been emphasized. Desiderata of the ideal uterine cannula are:

1. Painless application unaccompanied by trauma.
2. Airtight closure of the cervical canal.
3. Maintenance of the normal anatomical position of the uterus.

A new cannula with inflatable balloon for cervical obturation has been described.

References

1. Personal communication. Acknowledgment is herewith made to R. B. Stout, M.D., for his kindness in letting us see his instrument.
2. Decker, Albert: Am. J. Obst. & Gynec. 54: 1077, 1947.
3. Rubin, I. C.: Am. J. Obst. & Gynec. 45: 419, 1943.

CERVICAL OBTURATION WITH INFLATABLE CANNULA IN UTEROTUBAL INSUFFLATION AND HYSTEROSALPINGOGRAPHY

I. C. RUBIN, M.D., F.A.C.S.
and
ERNEST MYLLER, M.D.
New York, N. Y.

Reprinted from
AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY
St. Louis

Vol. 56, No. 6, Pages 1077-1082, December, 1948

(Printed in the U. S. A.)

CERVICAL OBTURATION WITH INFLATABLE CANNULA IN UTEROTUBAL INSUFFLATION AND HYSTEROSALPINGOGRAPHY

I. C. Rubin, M.D., F.A.C.S., and Ernest Myller, M.D., New York, N. Y.

CERVICAL obturation is of major importance in the technical procedure of uterotubal insufflation and hysterography. Regurgitation of CO_2 gas or oil leads to unreliable estimation of the pressure employed, and not infrequently to wrong interpretation as to tubal patency. Obturation is usually secured by pressing a rubber or metal acorn against the cervical os. This is easily accomplished in the presence of a round and well-shaped external orifice. However, if the external os is irregular in contour as in lacerations and eversions, excessive pressure must be exerted by the acorn in order to prevent leakage of the contrast medium or of CO_2 gas as the case may be. To prevent regurgitation the cervix must be grasped firmly with a tenaculum forceps exerting counter pressure. In this maneuver, the uterus is either pushed upward or drawn down. To keep the balance by equal push and pull is sometimes difficult. The anatomic change in position may occasionally be sufficient to simulate closure of the tubes by causing artificial kinks at the uterotubal junction or by artificially stretching adhesions which do not otherwise obstruct the tubal lumen when the normal position of the uterus is undisturbed. The cannula devised by Colvin with screw tips of various sizes, later modified by Hudgins, affords tight obturation but involves a certain amount of trauma which theoretically may predispose to embolization.

After many years experience with hysterosalpingography and uterotubal insufflation the prerequisites of an ideal uterine cannula appear to be the following:

1. Its application should be painless and unaccompanied by trauma.
2. It must provide airtight obturation of the cervical canal.
3. It should maintain the normal anatomical position of the uterus.

The cannula presented in this paper has been devised with these desiderata in view. It is based on a rather old device, namely, the use of an inflatable rubber bulb in order to change the diameter of a rigid instrument. Nitze, the inventor of the cystoscope, made use of this principle for a ureteral catheter. In 1883, a United States patent was granted to Henry E. Finney for an instrument based on the same principle for "the treatment of the male urethra." About twelve years ago, one of us (I.C.R.) constructed a cannula similar in principle to the one about to be described. Dr. R. B. Stout had the same idea, except that he placed the rubber balloon within the uterine cavity.[1] Decker,[2] in a recent publication, also recommends inserting the rubber balloon surrounding the cannula tip into the uterine cavity. This principle has been employed by one of us in studying the differential between uterine and tubal contractions during uterotubal insufflation.[3]

The present cannula (Fig. 1) has developed out of a simple model which we have used since 1946 in 175 cases for cervical obturation. The cannula has the length and diameter of an ordinary uterine sound. It consists of two metal channels, one of which is very narrow and ends about 2 cm. behind the tip of the instrument. Its opening is covered by a thin, elastic rubber tube, 2 to 3 cm. long, which is tied at each end to the shaft of the instrument by surgical silk.*

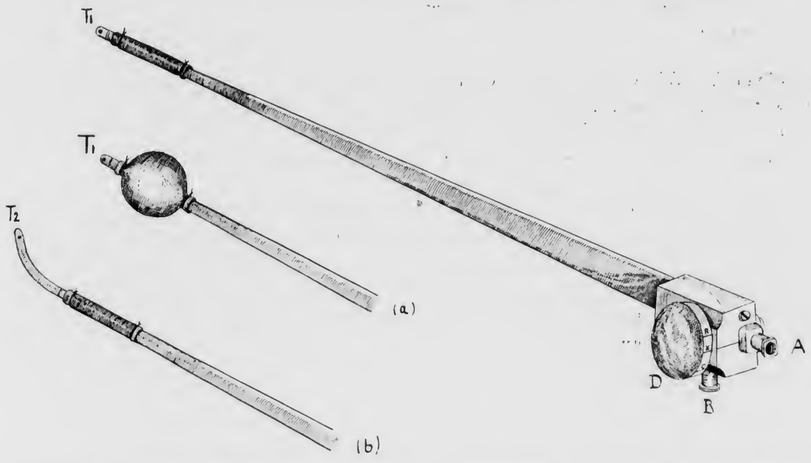


Fig. 1.—Cannula assembled ready for use with revolving disc, hubs for syringe and manometer connections and inflatable tip (letter B below letter C not visible). (*a*). Rubber tubing distended. (*b*). Extension tip for insertion into uterine cavity.

The instrument can be inserted easily into any cervical canal which admits a uterine sound. In most cases it is not necessary to grasp the cervix with a tenaculum forceps. The latter can be removed as soon as the rubber-covered tip has been inserted inside the cervical canal. In certain cases, e.g., stenosis of the internal os, it may be desirable to insert the cannula with its tip in the uterine cavity. For such purpose the short tip (T) (Fig. 1) may be replaced by a longer one (T_1) (Fig. 1). Preliminary dilatation, when desirable, should not be done just before the injection of contrast media or before insufflation. So far it has been possible in our cases to introduce the cannula in cervical stenosis after the latter was passed by a uterine sound.

The cannula is inserted with the revolving disc *D* in the position that presents the engraved letter *B* (bulb on the disc) (Fig. 1) opposite a fixed indicator. Through hub *A*, which fits the Luer syringe, 1 to 3 c.c. of water or air are injected and thus the rubber tube at the end of the instrument becomes distended (Fig. 1*a*). With a little experience one can soon feel whether the bulb is sufficiently expanded. If one is interested in checking the pressure in the inflated balloon, he need only turn the disc to *C*, remove the syringe, and attach a manometer to hub *A*. On turning the disc back to *B*, the pressure within the rubber balloon will be promptly indicated on the manometer. It is to be noted

*The cannula presented here is made and distributed by United Surgical Supply Co., 160 E. 56 Street, New York, N. Y.

that if less than 1 c.c. of air or water is used to inflate the balloon, the pressure readings in the balloon may not be accurate. Now the disc is turned to the position marked by the letter *C* (closed) and the instrument is ready for the procedure.

Fig. 2.—Inflatable cannula filled with diodrast obturating the cervical canal. Note that it is pyriform or acorn in shape as compared to the oval-shaped inflated cannula outside of the body.

The disc is now turned to the position X (= x-ray) thus connecting hub *A* directly with the tip of the instrument inside the cervical canal, or to tip T_2 in the uterine cavity. A Luer syringe containing the contrast medium is connected to hub *A* and the medium is injected into the uterus and the x-ray exposure follows. For fractional injection of contrast medium, the disc is turned to position *C* after the first fraction is introduced. Hands and syringe may now be removed because the expanded bulb retains the cannula in situ.* By turning the disc back to position X the second fractional injection can be made, and if need be, a third or fourth.

When the kymograph is employed it is connected to hub *A* and the disc is turned to position X. The insufflation test can be carried out with a 20 c.c.

*A special clamp adaptable to any vaginal speculum has been devised to keep the cannula in the horizontal position.

659

Luer syringe attached to hub *A*. The disc is turned to position R (= Rubin test) which enables us to measure the exerted pressure by connecting the manometer to hub *B*. In the simplified test, 20 c.c. of carbon dioxide injected by a syringe is sufficient because of the complete closure of the cervix without any leakage. A sudden fall of manometric pressure is indicative of tubal patency. If shoulder pains result they are minimal.*

By inflating the rubber bulb with an aqueous contrast medium (e.g. diodrast) one can easily demonstrate the relation of the bulb to the cervical canal (Fig. 2). In order to note the distensibility of the intracervical balloon and any changes that the cervical walls might exert upon it, another cannula with the balloon filled with an equal amount of diodrast was exposed at the same time on the same x-ray film. The shape of the balloon inside the cervix may be compared to the external balloon in Fig. 2. In Fig. 3, water has replaced the diodrast and is therefore invisible, while the uterine cavity is seen filled with contrast medium. Incidentally, the cervical balloon reveals a configuration which does not conform to what one notes in conventional drawings of the cervical canal because of distention by the rubber balloon. The cervical canal appears, from our study, to yield readily to a greater degree of dilatation than has hitherto been realized.†

Owing to rigid walls, some cervices were found to resist balloon distention with 2 to 3 c.c. of water. Nevertheless, good obturation could be obtained with less filling. If the rubber part of the instrument is not inserted deep enough into the cervical canal the balloon may bulge through the external os. However, this does not prevent airtight closure. Should the rubber bulb be pushed out entirely from the cervix it may be reinserted and kept in place by grasping the anterior lip of the cervix with a tenaculum forceps. In several cases the cervix was found transformed into a shallow cone. Airtight closure could be obtained in these cases by advancing the expanded rubber bulb into the cone while the cervix was held in place by a tenaculum forceps.

The present cannula has the advantage over the ordinary cannula with an acorn tip in that it brings a larger area of the endocervix in contact with the acorn. Hence, the pressure required to obturate the cervix is less. As this pressure is not only directed upward, but upon all sides, dislocation of the cervix does not as a rule result.

The pressure within the rubber balloon automatically predetermines the maximum pressure which is intended to be used for the insufflation test or salpingography. If, for example in the bulb is 250 mm. Hg and the pressure used during insufflation or salpingography is higher, no matter how little this may be, there is prompt escape of the gas, or oil from the cervix. The same physical law operates here as in measuring blood pressure. If the blood pressure exceeds the pressure in the armcuff, the pulse wave immediately returns. The balloon in the present cannula thus forms a desirable safety valve which automatically prevents an undue increase of pressure inside the uterus.

This feature of the instrument is of importance for salpingography. Usually a contrast medium is used which has a certain viscosity. Pressure determinations when lipiodol or other viscous fluid is used are not accurate because of the considerable friction inside the small lumen of the cannula where a rapid decrease of pressure takes place with each progressive centimeter of the lumen. When the constrast medium enters the uterine cavity the

*The senior author does not recommend or employ the use of the syringe for injecting CO_2 into the uterus for testing tubal patency, preferring insufflation by means of the automatic siphon meter with kymograph. The present cannula is admirably adapted for this apparatus.

†This point of elasticity of the cervix under various conditions will be the basis of a future publication.

pressure inevitably falls. If tubal obstruction is encountered there is a gradual increase of pressure inside the uterus until it equals that which is exerted by the syringe. Before this point is reached a high pressure may be exerted through the syringe which is not usually appreciated by the operator unless he uses a manometer. The rubber balloon affords safety because when the pressure exceeds that within the bulb, the oil escapes at once through the external cervical os.

Fig. 3.—Inflatable cannula filled with water (therefore invisible by x-ray) obturating the cervical canal. The contrast medium (rayopaque) demonstrates the uterine cavity. The rubber balloon distended by diodrast is seen below outside of the body for purpose of comparison.

The instrument can be sterilized by boiling. The rubber bulb can stand boiling many times; its cost, however, is so small that it may readily be replaced for each test. We have found it practical to fill the bulb before inserting the cannula in order to note whether it is watertight. However, should the rubber break it is immediately appreciated by the drop in resistance. The water escapes through the external os and does no harm. It is particularly to be noted that the operation of the cannula is exceedingly simple, and after some little experience, requires a minimum of time.

new

excellent visualization
simplified technique

painless
no damage to tissues
systemically safe

no danger of oil embolization
no radiopaque residue
no foreign body granulomata

Sulpix

CONTRAST MEDIUM

Ortho

Ortho Pharmaceutical Corporation

bb1

for safer hysterosalpingography

Salpix
T.M.

CONTRAST MEDIUM

Salpix contrast medium makes available for the first time for hysterosalpingography a radiopaque substance that

1. **is nonirritating**
2. **is painless**
3. **leaves no radiopaque residue**
4. **permits adequate visualization of the uterus and tubes *safely***

Although long proposed as an extremely valuable diagnostic procedure,[1] hysterosalpingography has not met with general acceptance because of the pathological and morbid sequelae so frequently found with the use of hitherto available contrast media.[2-6]

Neither the "interrupted fractional injection" technique proposed by Hyams[7] nor the 24-hour postinjection film, common with iodized oils, is necessary with Salpix contrast medium.

Salpix contrast medium combines the blood extender polyvinylpyrrolidone[8] with sodium acetrizoate. P.V.P. is stable,[9] nonantigenic and possesses certain characteristics similar to human serum albumin[10] which assert a protective action diverting excretion of toxic dyes and other toxins through the kidney rather than the liver.[11] Sodium acetrizoate contains 65.8% iodine per molecule of the compound and thus possesses a high degree of radiopacity. It is water-soluble,[12] stable, and does not release any free iodine.

methods of use

1 hysterosalpingography

Standard gynecological procedures are followed, with the important exception that 24-hour postinjection films, common with iodized oils, are not necessary[13] following the use of Salpix contrast medium because of its ability to pass through the finest tubal lumen.

2 as an aid to diagnosis of uterine pathology

Rubin[14] observed that diagnosis of uterine pathology is greatly aided if excess Salpix contrast medium is withdrawn from the uterus via the introducing cannula. This is due to the property which Salpix contrast medium possesses of coating the uterine wall with a fine film of the radiopaque medium.

indications for hysterosalpingography

1. Determination of tubal patency.
2. Mechanical release of tubal obstruction.
3. Diagnosis of malformations of the uterus or fallopian tubes.
4. Postoperative visualization of tubal plastic surgery.
5. A diagnostic procedure as an aid in the detection of uterine and tubal pathology.

contraindications to hysterosalpingography

1. Presence of severe vaginal or cervical infections.
2. Existing or recent pelvic infection.
3. Pregnancy.

Salpix
T.M.

CONTRAST MEDIUM

for safer hysterosalpingography

available

Package of 6 individual rubber-capped sterile vials,
each vial filled to deliver 6 cc. Salpix contrast medium.

bibliography

1. Rubin, I. C.: Röntgendiagnostik der Uterustumoren mit Hilfe von Intrauterinen Collargolinjektionen, Zentralbl. f. Gynäk. *38*:658, 1914.
2. Wharton, L. R.: Gynecology with a Section on Female Urology, Philadelphia, W. B. Saunders Company, 1943.
3. Bloomfield, A.: Six Cases of Venous Intravasation following Intrauterine Lipiodol Injection, J. Obst. & Gynaec. Brit. Emp. *53*:345, 1946.
4. Brown, W. E.; Jennings, A. F., and Bradbury, J. T.: The Absorption of Radiopaque Substances Used in Hysterosalpingography, Am. J. Obst. & Gynec. *58*:1041, 1949.
5. Eisen, D., and Goldstein, J.: Lipiodol Intravasation during Uterosalpingography with Pulmonary Complications, Radiology *45*:603, 1945.
6. Holm Nielsln, P.: Injuries Caused by Hysterosalpingography, Acta obst. et gynec. Scandinav. 26:565, 1946.
7. Hyams, M. N.: Uterosalpingography by Interrupted Fractional Injections, Surg., Gynec. & Obst. 60:224, 1935.
8. Reppe, W.; Schuster, C., and Hartman, A.: Polymeric N-Vinyl Lactams and Process of Producing Same. Bibliographical list published by General Aniline & Film Corporation, New York, March, 1951.
9. Schildknecht, C. E.; Kinney, P. W., Stecker, M. L.: Periston Type Polyvinylpyrrolidone: Report on Physical Properties, P B Report 96884, Office of Technical Services, United States Department of Commerce.
10. Bennhold, H., and Schubert, R.: Investigation of the Possible "Vehicle Function" of the Plasma Substitute Periston, Ztschr. f. d. ges. exper. Med. *113*:722, 1944.
11. Schubert, R.; New Method for Detoxication by Infusion of Low Molecular Fractions of Kollidon: Preliminary Report, Deutsche med. Wchnschr. 73:551, 1948.
12. Neuhaus, D. R.; Christman, A. A., and Lewis, H. B.: Biochemical Studies on Urokon (sodium 2,4,6-triiodo-3-acetylaminobenzoate), a New Pyelographic Medium, J. Lab. & Clin. Med. *35*:43, 1950.
13. Rubin, I. C.; Myller, E., and Hartman, C. G.: Salpix: A New Approach to the Ideal Radiopaque Medium for Uterosalpingography, Fertil. & Steril., in press.
14. Rubin, I. C.: Personal communication.

Ortho

Ortho Pharmaceutical Corporation

Raritan, New Jersey

L-126

Printed in U.S.A.

664

Reprinted, with additions, from The Journal of the American Medical Association, June 21, 1952, Vol. 149, pp. 757 and 758

CONTROL OF POSTPARTUM HEMORRHAGE

Ernest Myller, M.D., New York

Hemorrhage is one of the most frequent causes of postpartum death. Statistics being reliable only from larger hospitals, we may assume that many postpartum deaths are either unreported or designated otherwise. In a report from the Mayo Clinic,[1] the incidence of death from hemorrhage is 0.491 per 1,000 births, an average of 1 case per 2,000 deliveries. Postpartum hemorrhage in a large Brooklyn hospital caused death in 34 of 37 cases of obstetric fatality. It can only be conjectured how many more occur in institutions with lower standards.

There are standard methods of treating postpartum hemorrhage. It must be assumed from the poor results reported that they are not always successful. The usual routine procedure is to endeavor to find out whether the uterus is empty or to establish other causes for the bleeding. By the time the examination is completed, the hemorrhage may become alarming. Posterior pituitary (pituitrin®) or ergot is given intravenously, the uterus is massaged, and in many cases valuable time is lost. Intrauterine packing is resorted to, which stops the bleeding for the moment. Blood transfusions are started. After a short time the bleeding may start again, seeping through the packing. Removal and reapplication of packing does not necessarily stop the bleeding and, in spite of concomitant transfusions, the patient may rapidly become moribund. It is the belief of Douglass [2] that when the first uterine packing is not successful, the uterus is probably ruptured. If such is the case, a second packing is

From the Department of Obstetrics and Gynecology, New York University Medical College.

1. Hunt, A. B.: Massive Obstetric Hemorrhage Requiring Hysterectomy, Am. J. Obst. & Gynec. **49**: 246-252 (Feb.) 1945.

2. Douglass, L. H., in discussion of Beacham, W. D., and Beacham, D. W.: Rupture of the Uterus, Am. J. Obst. & Gynec. **61**: 824-837 (April) 1951.

definitely contraindicated. Greenhill [3] also advised against packing the uterus a second time, recommending immediate hysterectomy as the safer procedure.

Postpartum hemorrhage can be controlled, no matter what its cause, by a method described many years ago by Logothetopoulos in Athens.[4] His method involves a type of packing that he originally used after clamp hysterectomies. It was inserted into the pelvis after the uterus was taken out, allowing immediate removal of the clamps without any loss of blood. Logothetopoulos applied the same principle of hemostasis to control of bleeding from the postpartum uterus after considerable experience in his surgical cases had proved it efficient. He called the procedure "traction packing."

METHOD

A doubly folded quadrangular piece of gauze 36 in. (91 cm.) square and a gauze roll 4 in. (10 cm.) wide and 16 yd. (15 m.) long are required. The operator grasps the cervix with one or several tenaculum forceps and brings it down well to the level of the vulva. The blades of a vaginal speculum are helpful in spreading the cervical canal apart. The center of the quadrangular piece of gauze is inserted into the uterus by means of a sponge forceps. In contrast to the conventional method, it is not necessary to reach the fundus with this packing.

The four corners of the quadrangular piece of gauze protruding from the uterus are spread apart. The operator then packs the long strip of gauze into the gauze sack situated in the uterus. Carefully done, this produces a large round ball inside of the uterus. The size of this ball is always the same, being determined by the uniform amount of gauze strip used. Thus the whole procedure becomes automatic and not subject to individual alterations, an important point in an operation when time means everything.

The four corners of the quadrangular piece of gauze are grasped in one hand and pulled downward. The blood supply of the uterus is cut off and bleeding ceases at once. In order to maintain the downward traction, the gauze stem is run through a thick ring pessary, and the pessary is pushed upward against the vulva, which is protected by a piece of gauze. The ring is fixed in its position with a clamp.

3. Greenhill, J. P.: in Yearbook of Obstetrics and Gynecology, Chicago, The Yearbook Publishers, Inc., 1950, p. 241.

4. Logothetopulos, K.: Gynäknelogische Chirurgie, Berlin, Julius Springer, 1939

Conventional packing is an attempt to compress the open sinuses and blood vessels in the wall of the bleeding uterus. To be sure, the packing itself may produce a contraction, and only in such cases will it be effective.

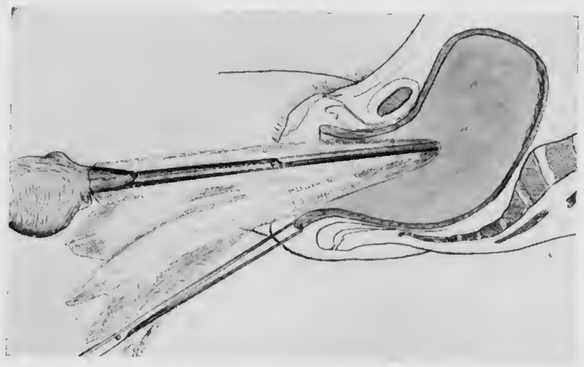


Fig. 1.—Insertion of the quadrangular piece of gauze into the uterine cavity.

Fig. 2.—Spreading the quadrangular gauze and filling it with a gauze strip.

On the other hand, traction compresses the uterine vessels against the pelvic wall, interrupting the blood flow to the uterus completely. If the uterus is atonic, there is in addition to this hemostatic effect the oxytocic

Fig. 3.—Downward traction applied to four corners of the quadrangular piece of gauze.

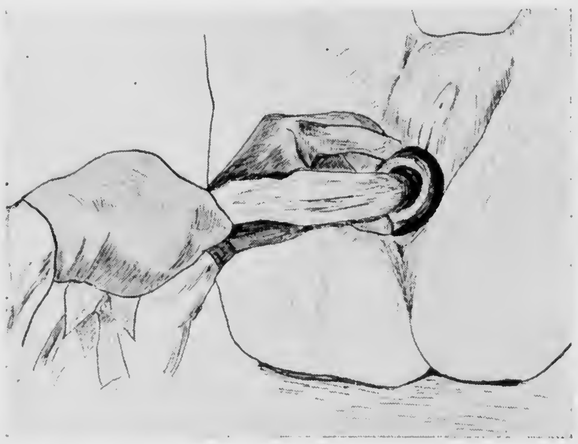


Fig. 4.—The stem of gauze pulled through a ring pessary

effect of anemia, which is produced by compression of the arteries. Furthermore, it is possible that pressure upon Frankenhauser's ganglion stimulates the uterine muscle to contract by way of the autonomic nerves. It is obvious that the cause of the bleeding does not influence the effectiveness of this packing. Wherever the bleeding comes from, it will be stopped. This packing is inserted with relative ease, far more readily than a conventional packing, with no need to fill the uterine cavity completely, and the procedure is rapid and precise.

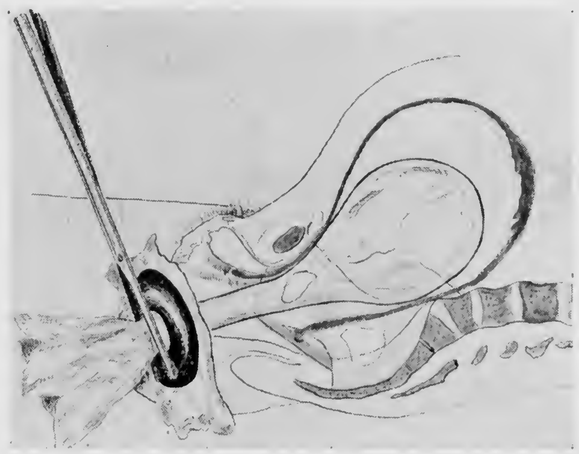


Fig. 5.—Packing in situ and maintenance of traction by application of a strong clamp.

This packing is indicated only in cases of severe hemorrhage, after simpler procedures have been attempted and the vagina and cervix examined as possible sources of bleeding. Its purpose is to control bleeding immediately and to eliminate anxiety and haste. Once accomplished, additional measures such as transfusion and consultation may be obtained in leisure. As the patient's condition improves with or without transfusion, the subsequent procedure depends upon diagnosis. If the uterus is atonic and the bleeding has stopped entirely, the pressure is released by opening the clamp. After a short while the internal strip of gauze may be gradually removed,

followed by the quadrangular piece of gauze, which may take out with it pieces of membrane left behind. The removal of the packing is almost painless.

If the hemorrhage has occurred after a difficult forceps delivery, a version, or in a case in which a cesarean section has been done previously, the possibility of a ruptured uterus must be considered. In this instance the packing may enter the abdominal cavity through the tear in the uterus, intentionally or by chance. No harm can be done by the possible additional trauma to the uterine wall, since it will be necessary to remove the uterus any-

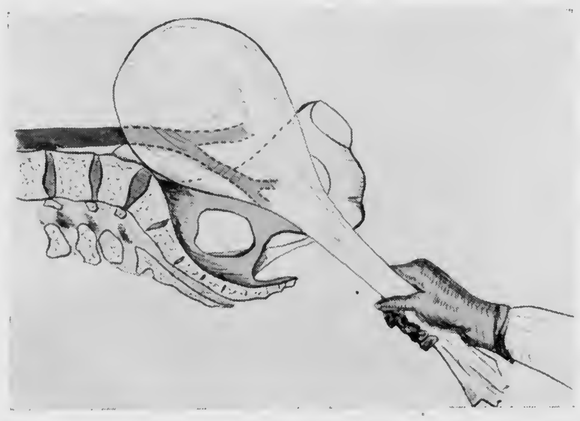


Fig. 6.—Compression of the hypogastric vessels when traction is applied to the gauze packing.

way. Once in place, traction packing allows time for careful preoperative preparation. There is no urgency for any operative intervention while the patient is in shock. Her chances for recovery after hysterectomy or more conservative procedures are much improved.

According to Greenhill, the mortality rate of uterine rupture is 58%. A very recent report from the Harlem Hospital [5] gives the mortality rate as 57.1%. Considering the excellent facilities and expert attention in this hospital, it may be assumed that in less well-equipped

5. Posner, L. B.; Smith, D. F., and Trambert, H. L.: 14-Year Survey of Parturient Ruptured Uterus at Harlem Hospital, New York J. Med. **51**: 641-644 (March) 1951.

institutions the mortality rate may be much higher. With successful hemostasis and eliminated urgency, with time to recover from shock, mortality rates should be considerably reduced. Posner and his co-workers [5] stated, "Immediate transfusion and laparotomy, regardless of the degree of shock, is the surgical treatment of rupture of the uterus." Speaking of mortality, they add that with adequate blood transfusion and present-day antibiotics all patients might have survived. All these ends can be realized with traction packing; there is no need of immediate operation "regardless of the degree of shock." Actual experience with this packing is limited. Logothetopoulos has used it in only about 10 cases of postpartum hemorrhage, but has had excellent results in all. This packing procedure was studied in cadavers at the University of Athens.[6] The packing was inserted in the manner described, followed by traction. A dye was injected into the carotid artery under pressure and thereafter the pelvic organs were examined. All blood vessels except the uterine arteries were filled with the dye. It was interesting to note that the ureters were not compressed; they could be flushed through from above with very slight pressure.

SUMMARY

There are few new methods available to reduce the mortality rate of postpartum hemorrhage. Blood transfusion is often unsuccessful because hemostasis is difficult. Operations are often done with the patient in shock. Traction packing controls all postpartum bleeding immediately and therefore should reduce the mortality rate.

65 E. 76th St.

6. Christopulos, C.: Anatomische Ergebnisse der Blutstillungsmethode nach Logothetopulos, Zentralbl. f. Gynäk. **57**: 807-809 (April) 1933

Printed and Published in the United States of America

Sonderabdruck aus dem Zentralblatt für Gynäkologie 1933 Nr. 14

Aus dem Anatomischen Institut in Athen
Direktor: Prof. Dr. G. Sklawunos

Anatomische Ergebnisse der Blutstillungsmethode nach Logothetopulos[1]

Von Dr. **Ch. Christopulos,**
Assistenzarzt an der Gynäkologischen Universitätsklinik in Athen

Als vor 2 Jahren der Professor der Anatomie in Athen, G. Sklawunos, bei einer Operation die Blutstillungsmethode nach Logothetopulos anwenden sah, fand er es zweckmäßig, diese Methode einem Studium zu unterwerfen und sie auch an Leichen anzuwenden. Darauf wurde ein Assistenzarzt der Gynäkologischen Klinik, Dr. Ch. Christopulos, beauftragt, diese Untersuchungen im Anatomischen Institut unter Aufsicht von Prof. Dr. G. Sklawunos auszuführen.

Diese anatomischen Untersuchungen bezwecken einerseits die Feststellung der Art der Wirkung des Zugtampons, andererseits die Bestimmung der Lage und des Verhältnisses desselben zu den Organen des Beckens. Die Untersuchungen wurden bei fünf einbalsamierten Leichen ausgeführt. Es wurden 3mal vaginale und 2mal abdominale Totalexstirpationen vorgenommen. Es muß hier betont werden, daß sowohl die abdominale, wie auch die vaginale Anwendung der Tamponade und der Zug der Gazezipfel bei allen Fällen genau so ausgeführt wurde wie bei Lebenden.

Bei allen Fällen wurde die Einspritzung von Farbstoff in die Carotis den 2.—3. Tag nach Anwendung des Tampons vorgenommen. Die Eröffnung der Leichen wurde am 8.—12. Tag gemacht; die Beckenhöhle wurde freigelegt durch einen Längsschnitt in der Mitte und zwei anderen senkrecht auf dem ersteren verlaufend.

1. Fall. Abdominale Totalexstirpation des Uterus mit Hinterlassung der Adnexe. Die A. uterinae werden nicht unterbunden. Die Eröffnung des Leibes erfolgte den 8. Tag nach der mit der Operation verbundenen Tamponade. Nach Freilegung der Beckenhöhle sehen wir das Netz auf den Därmen liegen und dieselben wieder auf dem obersten Teil des Tampons. Nach Verschiebung der Darmschlingen nach aufwärts sehen wir, daß der oberste Teil des Tampons 4 cm nach vorn oberhalb der Symphyse reicht, hinten in der Höhe des III. Sakralwirbels und seitlich in der Höhe der Linea innominata und im Verhältnis zu den Iliacalgefäßen 3 cm unterhalb der Teilung der Iliaca comunis.

Der Douglas'sche Raum ist trotz des starken Zuges der Gazestreifen hinten frei, so daß man leicht mit dem Finger bis zum Beckenbogen kommen kann. Das Sigmoideum sowie das Rektum sind in ihrem ganzen Lauf vollkommen frei.

Der größte Druck wird außer auf die seitlichen Beckenwände hauptsächlich auf das Trigonum urogenitale ausgeübt. Der rechte Eileiterstumpf wird gedrückt, der linke liegt höher und ist infolgedessen frei. Wir nehmen den Tampon heraus und sehen, daß die Höhle, in welcher der Tampon lag, umgeben wird von der Blase, dem Mastdarm und dem Trigonum urogenitale, welches nach vorn und unten leicht verschoben ist.

[1] Vortrag, gehalten von Prof. Dr. K. Logothetopulos in der Gynäkologischen Gesellschaft in Wien am 20. XII. 1932.

Wir tasten die Höhle aus und finden, daß sie als feste Unterlage die innere Fläche des Os ischii hat. Darauf schreiten wir zur anatomischen Präparierung der Gefäße des kleinen Beckens. Zu diesem Zweck spalten wir das Becken in der Schamfuge. Nach der Freilegung der Gefäße der linken Beckenhälfte sehen wir, daß alle Äste der Arteria hypogastrica von Farbstoff gefüllt sind. Wir verfolgen speziell die Arteria uterina, welche bei der Operation nicht unterbunden wurde. Dieselbe ist oberhalb der Schnittstelle in einer Länge von 2 cm frei von Farbstoff. Daraus schließen wir, daß gerade auf diese Stelle der Tampon einen großen Druck ausübt. Aus den Kapillargefäßen merkt man keinen Austritt von Farbstoff.

2. Fall. Vor der Operation und Anwendung der Tamponade und 6 Tage nach der Einbalsamierung der Leiche wurden die Gefäße mit einer Lösung von 3proz. Natrium citricum durchgespült, um dieselben von eventuell vorhandenen Thromben zu befreien. Die Operation bestand in der vaginalen Totalexstirpation des Uterus mit Hinterlassung der Adnexe. Bei der Anlegung des Tampons wurden die Stümpfe der Eileiter etwas heruntergezogen, die Klemmen sind jedoch entfernt worden, ohne die Gefäße zu unterbinden, die Arteriae uterinae sind durchschnitten worden, ohne überhaupt angefaßt zu werden.

Die Eröffnung der Leiche wurde am 8. Tage vorgenommen, nach der Einspritzung des Farbstoffes durch Herausschneiden der ganzen vorderen Bauchwand. Das Netz und die Därme liegen auf dem Tampon, genau wie in dem 1. Fall. Ein Stück von dem Dünndarm liegt hinter dem Tampon tief im Douglas'schen Raum. Nach Herausziehen der Därme sieht man den Tampon, der eine ovale Form hat und dessen Oberfläche etwas unregelmäßig ist. Die Harnblase ist leer und liegt auf dem Tampon. Rechts hat das parietale Blatt des Peritoneums wegen des Zuges des Adnexstumpfes nach unten eine Falte gebildet, welche ungefähr im V. Lendenwirbel anfängt. Links sieht man nur die Falte des Lig. latum. Beiderseits sitzen die abdominalen Teile der Eileiter auf den Seitenflächen des Tampons. Der Stumpf aber des Eileiters liegt unter dem Druck des Tampons.

Wir wollen feststellen, inwiefern die Tamponade drückend auf die Ureteren wirkt, zu dem Zweck legen wir den linken Ureter vollkommen frei und eröffnen ihn etwas über seiner Kreuzungsstelle mit den Iliacalgefäßen. An der Eröffnungsstelle spritzen wir unter schwachem Druck mit einer Spritze etwas Wasser ein. Das Wasser tritt ungehindert in die Blase ein. Bei der Füllung der Blase wird die Dehnung derselben nach oben nicht gehindert, nur ein leichter Druck der gefüllten Blase wird im unteren Teil derselben bemerkt, und zwar nur, wenn die in die Blase eingelaufene Flüssigkeit 300 g überschreitet.

Wir vergrößern den Zug der Gazezipfel, die vor der Scheide liegen, auf das höchste und führen auf die gleiche Weise Flüssigkeit in den rechten Ureter ein. Trotz des großen Zuges wird bei dem Durchlaufen der Flüssigkeit durch den Ureter kein Hindernis bemerkbar. Nach Einlaufen von 200 g Flüssigkeit in die Blase drücken wir auf dieselbe, worauf die Flüssigkeit sich durch die Harnröhre entleert. Daraus schließen wir, daß trotz des starken Zuges kein Druck auf den ganzen Verlauf der Urethra ausgeübt wird. Der Tampon wird entfernt, wir präparieren die Gefäße des Beckens und finden, daß die A. uterinae 3 cm lang oberhalb des Schnittes keinen Farbstoff enthält.

3. Fall. Vaginale Totalexstirpation des Uterus ohne die Adnexe. Es wurde kein Gefäß unterbunden. Folgende Tamponade. In diesem Fall wollten wir den Druck feststellen, unter welchem der Farbstoff aus der Spritze in die Carotis eindrang. Zu diesem Zweck vereinigten wir den einen Teil der T-förmigen Röhre

mit der Carotis, den anderen Teil mit der Spritze, die Farbstoff enthielt, und den dritten Teil mit einem Quecksilbermanometer. Dieser Teil wird mit einer Klemme geschlossen gehalten. Sobald wir anfangen den Farbstoff einzuspritzen, nehmen wir die Druckklemme weg und lassen den Farbstoff mit dem Manometer in Berührung kommen. Der Druck steigt dauernd, und erst nachdem er 750 mm überschritten hat, zeigt sich der Farbstoff in den Beckengefäßen. Am 8. Tag nach der Einspritzung des Farbstoffes wird die Leiche geöffnet. Nach dem Herausziehen der Därme sehen wir die leere Blase auf dem Tampon liegen, genau wie bei den vorher beschriebenen Fällen.

Der Tampon wird herausgenommen und man sieht auf seinen seitlichen Flächen die Abdrücke, die die gedrückten Adnexen hinterlassen haben.

Die Stümpfe der Eileiter befinden sich auf den seitlichen Wänden des kleinen Beckens. Wegen des nach unten gedrängten Beckenbogens ist der Scheidenstumpf nach unten zusammengefaltet, ein Zeichen des ausgeübten Druckes des Tamponhalses. Nach dem Durchspalten des Beckens werden die Gefäße präpariert und wir bemerken, daß trotz des verhältnismäßig kleinen Druckes, unter welchem der Farbstoff eingespritzt wurde, alle Äste der Hypogastrica gefüllt sind.

Wir verfolgen die Aa. uterinae und präparieren sie sorgfältig. 3 cm von der Schnittstelle befindet sich wegen des auf diese Stelle ausgeübten Druckes kein Farbstoff. Ebenfalls befindet sich kein Farbstoff in den Kapillargefäßen der Umgebung. Auf die Harnröhre, Blase und den Mastdarm ist kein Druck ausgeübt worden.

4. Fall. Vaginale Totalexstirpation des Uterus. Kein Gefäß ist unterbunden. Tamponade. — Bei der Eröffnung der Leiche durch Mittel- und Querschnitt befinden sich die Grenzen des Tampons etwas höher als bei den bis jetzt beschriebenen Fällen. Die Harnblase ist leicht nach rechts verschoben. Der herausgenommene Tampon hat wie gewöhnlich eine ovale Form. Der Grenzunterschied derselben ist auf den gefüllten Mastdarm zurückzuführen. Das Becken wird gespalten und wir bemerken, daß trotz des gefüllten Mastdarms wenig Druck auf ihn ausgeübt wird.

Beide Eileiterstümpfe sind auf die seitlichen Beckenwände gedrückt. Wir präparieren die linke Beckenhälfte. Wir sehen, daß die A. uterina in der Länge von 2 cm vom Schnitt aus ohne Farbstoff ist.

5. Fall. Abdominale Totalexstirpation des Uterus ohne die Adnexe. Unterbunden sind nur die Adnexstümpfe. Die Grenzen des Tampons sind genau wie bei den anderen beschriebenen Fällen. Die unterbundenen Stümpfe liegen hoch und werden nicht von dem Tampon gepreßt. Blase und Mastdarm sowie Sigmoideum sind frei. Der Scheidenstumpf ist wegen des auf ihn ausgeübten Druckes zusammengefaltet. Die Präparierung der Gefäße zeigt, daß alle Farbstoff enthalten, außer an der gedrückten Stelle der Aa. uterinae.

Aus den beschriebenen anatomischen Untersuchungen ergibt sich, daß die Blutstillung durch die Tamponade nach Logothetopulos vollkommen sicher ist, und wie sich auch klinisch nachweisen läßt, wird auf kein anderes Organ ein irgendwie schädlicher Druck ausgeübt.

Die Nekrosen der Gewebe sind leicht zu vermeiden durch das Abnehmen der vor dem Pessar liegenden Klemme, 8 Stunden nach der Operation, wodurch der Druck aufhört.

Damit auch kein Druck auf die Blase ausgeübt wird, führt man während der 2 ersten Tage einen Dauerkatheter ein, damit die Blase dauernd leer ist.

to the pelvic cavity, especially the sacral contour. If the symphysis pubis outlines well, one may obtain, by scale measurement, the anteroposterior diameter of the pelvic inlet.

The simple anteroposterior flat film, so often employed by many hospitals, is usually deluding and therefore pernicious. Much more reliance can be placed upon the lateral film. However, the additional flat film is useful in obtaining a complete concept of the fetal presentation in a few cases, especially in transverse presentations, where version and extraction operation is often necessary. This previously obtained knowledge immeasurably facilitates the operation in that the precise location of the feet in relation to the fetal spine is then known.

BIBLIOGRAPHY

1. Fabre's **Obstetrique,** Gilbert, A., and Fournier, L.: Paris, 1915, pp. 512-522.
2. Commandeur et al.: **La Pratique de l'Art des Accouchements,** Volume II, pp. 197-200, Asselin et Houzian, Paris, 1915.
3. Johnson, C. R.: Mensuration and localization by means of the roentgen ray. Radiology 8: 518, 1927.
4. Hanson, S.: A new pelvimeter for the measurement of the bispinous diameter. Am. J. Obst. & Gynec. 19: 124, 1930.
5. Caldwell, W. E., and Moloy, H. C.: Anatomical variations in female pelvis and their effect in labor with suggested classification. Am. J. Obst. & Gynec. 26: 479, 1933.
6. Hodges, P. C., and Ledoux, A. C.: Roentgen ray pelvimetry; a simplified stereoroentgenographic method. Am. J. Roentgenol. and Radium Therapy 27: 83, 1932.
7. Caldwell, W. E., Moloy, H. C., and D'Esopo, D. A.: Further studies on the pelvic architecture Am. J. Obst. & Gynec. 28: 482, 1934.
8. Caldwell, W. E., Moloy, H. C., and D'Esopo, D. A.: A roentgenologic study of the mechanism of engagement of the fetal head. Am. J. Obst. & Gynec. 28: 824, 1934.
9. Snow, W., and Powell, C. B.: Roentgen visualization of the placenta. Am. J. Roentgenol. & Rad. Ther. 31: 37, 1934.
10. Caldwell, W. E., Moloy, H. C., and D'Esopo, D. A.: Further studies on the mechanism of labor. Am. J. Obst. & Gynec. 30: 763, 1935.
11. Schumann, E. A.: The size and shape of the pelvic inlet as determined by direct measurement. Am. J. Obst. & Gynec. 32: 832, 1936.
12. Ball, Robert P.: Roentgen pelvimetry and fetal cephalometry. Surg., Gynec. & Obst. 62: 798, 1936.
13. Torpin, R., Holmes, L. P., and Hamilton, W. F.: A roentgen pelvimeter simplifying Thoms' method. Radiology 31: 584, 1938.
14. Snow, W., and Rosensohn, M.: Roentgenologic visualization of the soft tissues in pregnancy. Am. J. Roentgenol. and Radium Therapy 42: 709, 1939.
15. Snow, W.: Visualization of soft tissues of advanced pregnancy in normal and abnormal pregnancies. New York State J. Med. 39: 2050, 1939.
16. Torpin, Richard. and Holmes, L. P.: Pelvic inlet variation in 400 Negro women. Am. J. Obst. & Gynec. 38: 594, 1939.
17. Dippel, A. L., and Brown, W. H.: Roentgen visualization of the placenta by soft tissue technic. Am. J. Obst. & Gynec. 40: 986, 1940.
18. Brown, W. H., and Dippel, A. L.: The uses and limitations of soft tissue roentgenography in placenta previa and in certain other obstetrical conditions. Bull. Johns Hopkins Hosp. 66: 90, 1940.
19. Thoms, H., and Godfried, M. S.: Suboccipito-bregmatic circumference. Am. J. Obst. & Gynec. 39: 841, 1940.
20. Warren, Cora: Radiographic technic involved in pelvimetry. The X-ray Technician. 12: 52. 1940.
21. Dippel, A. L., and Brown, W. H.: Direct visualization of the placenta by soft tissue roentgenography. New England J. Med. 223: 316, 1940.
22. Hodges, P. C., and Dippel, A. L.: The use of X-ray in obstetrical diagnosis, with particular reference to pelvimetry and fetometry. Internat. Abstr. of Surg. 70: 421, 1940.
23. Torpin, Richard: Roentgen pelvimetry in labor by the pelvic inlet grid method. Am. J. Roentgenol. and Radium Therapy 47: 717, 1942.
24. Torpin, Richard, and Holmes, L. P.: The influence of the placental site upon fetal presentation. Am. J. Obst. & Gnec. 46: 268, 1943.
25. Torpin, Richard: The influence of placental site on fetal presentation. J. A. M. A. 127: 442, 1945.
26. Thoms, H.: **The Obstetric Pelvis.** The Williams & Wilkins Company, 1935, Baltimore, Md.

BULLETIN
OF THE
UNIVERSITY HOSPITAL
(Affiliated with the University of Georgia School of Medicine)

Vol. 7 Augusta, Georgia, March, 1948 No. 1

ROENTGENPELVIMETRY IN LABOR BY THE GRID METHOD AND BY THE LATERAL SOFT TISSUE TECHNIC

By RICHARD TORPIN, M. D.*

Instructions for use of Torpin-Thoms Roentgenpelvimeter.

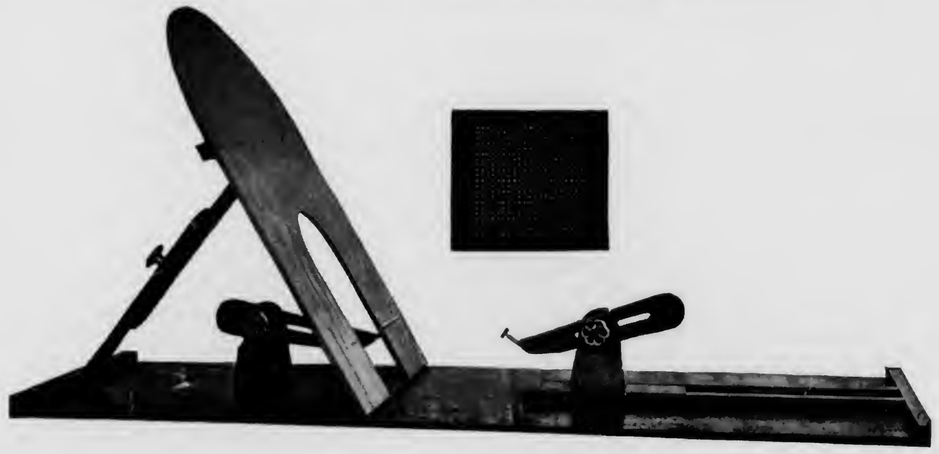


Fig. 1

This device,[13] developed at the University Hospital for single film accurate measurement of the most important obstetrical distances within the pelvic cavity, must be used with a degree of technic necessary with all special instruments.

The advocacy of this method casts no reflections upon others, some of which are more exact and therefore more scientific. Their complexity, however, militates against their practicality, in most cases, for routine use. These include the triangulation methods of Johnson,[3] Hodges,[6 22] Ball,[12] etc., and the stereoroentgenographic method perfected by Caldwell, Moloy, and D'Esopo.[5 7 8 10]

*Professor and Chairman, Department of Obstetrics and Gynecology, University of Georgia School of Medicine, Augusta, Georgia

The problems of the grid method and their simple solutions are set forth in the following outline:

A decade of study has been devoted to ascertaining the basic crucial dimensions of the female pelvic cavity in regard to their clinical application in labor. These may be reduced to the following: size and shape of the obstetrical pelvic inlet and of the width of the ischial spines. The width of the ischial spines, also, is in direct relation to the width of the outlet because both are almost invariably associated. A narrow midpelvis usually denotes a narrow outlet and vice versa. It is reasonable to suspect that the contour of the sacral curve would be of importance. However, in a conscientious study of several thousand labors in Caucasian and Negro women, there was no specific case in which a correlation could be demonstrated between inward curving of the sacrum and dystocia. In a few instances an inward pointed and ankylosed coccyx has temporarily held up delivery.

The exact size and shape of the inlet and the relative widths of the ischial spines are simultaneously obtained by use of this instrument which facilitates the application of the grid method, previously developed by Thoms[26] and shown by Schumann,[11] to be accurate to within 2 mm., if proper attention to details is observed. For clinical purposes, accuracy to 5 mm. (i. e. approximately 5 per cent error) is satisfactory.

While attention to details in the set up is not very important in case the pelvis is of adequate size, these features should be observed routinely because they become essential in the smaller and borderline examples.

Study of the appended wash drawings, Fig. 2, 3, 4, of the pelvic inlet reveals that the forward or backward tilting of the pelvis, during the film exposure, is significant. It is desirable to have a film which shows a clear posterior aspect of the pelvic inlet. If the position is correct as in Fig. 3, the upper part of the sacral portion of the cavity wall forms a perpendicular line, which is desirable. If the tilting is too far forward, as in Fig. 2, the promontory of the sacrum shows up in the film in a disturbing manner, and the ischial spines then appear too far posterior and the two rami of the pubic bones show separately in the film. This causes an artificial aberration which may be wrongly interpreted in the reading of the film. When the tilting is too far posterior as in Fig. 4, the various component parts of the sacrum show, and it is then difficult to outline, in the film the posterior termination of the obstetrical conjugate upon which the anteroposterior diameter depends. One also notes that when the tilting of the pelvis is accurate as in Fig. 3, a line drawn between the

Fig. 2

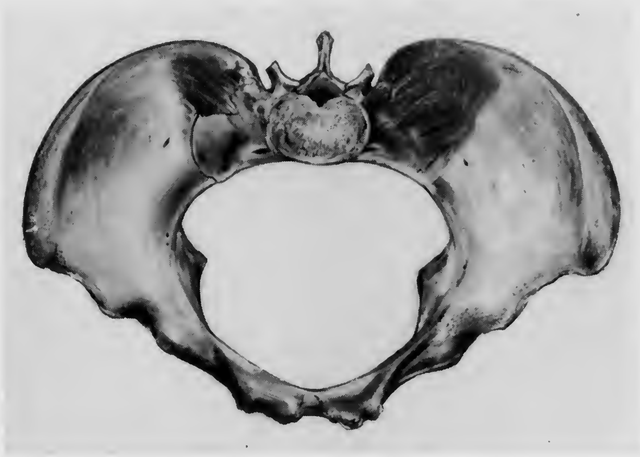


Fig. 3

anterior superior spines of the ilium bisects the pelvic cavity, and that the lower rami of the pubic bones are hidden by the upper rami. The method of obtaining the film, as in Fig. 3, is shown under positioning of the patient.

Fig. 4

POSITIONING OF THE PATIENT

(1) With the patient standing on the floor, and her sacral region exposed, an ink line is drawn at the apex of the rhomboid of Michaelis, as illustrated. Fig. 5. In obese patients, these landmarks are indis-

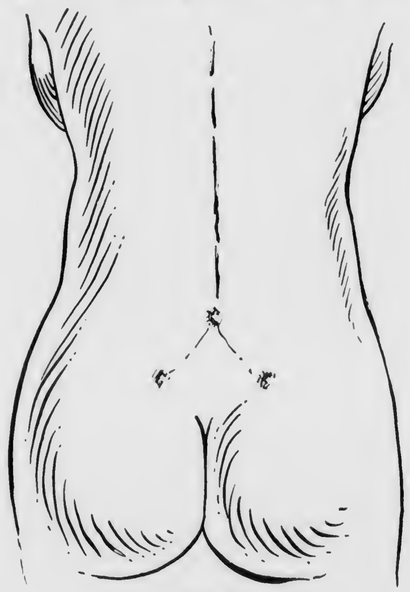


Fig. 5

tinct. Here it may be necessary to use others. If so it is quite well to draw a line across the back between the iliac crests. The point at which the line crosses the spinal column is in the neighborhood of the posterior end of Baudelocque's diameter, which presumably and usually does lie in or near the plane of the obstetrical conjugate. The posterior extremity of this is ordinarily the interspace between the fourth and fifth lumbar spines.

(2) The device, Fig. 1, is placed upon the X-ray table and, in most types of tables, 22 inches wide, is automatically centered from side to side. The patient then sits upon the frame, Fig. 6, with her buttocks against the lower part of the backrest, which should lean back approximately 30° from the perpendicular. The posterior marker then is applied at the ink mark over her lumbar region. The anterior marker support is pushed, in its slot, back as far as it will go toward the patient. The loosened marker is then fixed in position against

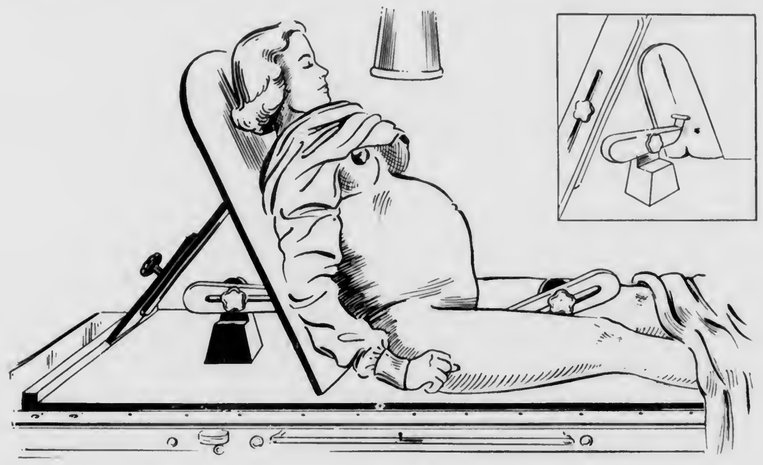


Fig. 6

the skin over the pubic bone 1 cm. below its apex. Proper adjustment of the front marker is more important than that in the rear. At eight months pregnancy or near term, the patient is instructed to take a deep breath and relax her abdominal wall muscles so that by pressing inward, the fingers of the obstetrician may palpate the apex of the pubic bone. Only by this method, can one be sure of the proper adjustment of the marker, which should be against the pubic bone and 1 cm. below the top margin. After both markers are adjusted, it is necessary to see that the level of the posterior one is approximately 1 cm. above that of the anterior. If such is found

not to be the case, then both markers should be loosened and the back rest adjusted forward if the posterior one is relatively too low; or the back rest is adjusted backward if the posterior marker is relatively too high, after which the markers are readjusted. Only by such adjustment can the technician be certain of obtaining a proper film of the pelvic inlet, as in Figure 3 instead of an incorrect one as in Figures 2 or 4.

(3) A Bucky diaphragm is employed and casette with 8 x 10-inch film. This size film is adequate since all that is desired, is an outline of the pelvic inlet and the ischial spines, and this region lies directly over the center of the film. The employment of a larger film entails waste, more space for storage, and the films are less easily manipulated in any subsequent study.

(4) Centering the X-ray tube with a 5″ cone over the center of the pelvic inlet is accomplished by focusing it over a line drawn between the anterior superior iliac spines. The tube casette distance recommended is 32 inches.

RADIOGRAPHIC TECHNIC

Tube casette distance, 32 inches. (30 to 36 inches, Thoms[26].)

Bucky Diaphragm, 5-inch cone.

Milliamperage, 50.

K. V. P., 85.

Exposure time for 6 to 7 months pregnancy, 7 to 9 seconds.

Exposure time for 8 to 9 months pregnancy, 10 to 12 seconds.

If the tube is of a different calibration, the voltage, amperage and time may be varied to obtain the similar milliampere seconds. This is a rather heavy dosage and should not be repeated. Consequently it is best to use care in all details so as to make only one exposure. As an alternative, the film could be made before pregnancy, or at three months pregnancy with a marked reduction in total M. A. S.

INTERPRETATION OF THE FILM

The film may be read by the roentgenologist and the report presented to the obstetrician. In order to save delay in certain cases, it is wise for the obstetrician to be able to read the film directly, and it is better for him to do so in all cases.

There are four essential factors to note: (1) size of inlet in centimeters, (2) shape of inlet, (3) relative width of the ischial spines, (4) presentation cephalic or breech ,etc.

(1) Size of inlet.
This is recorded by counting the dots between the posterior border of the symphysis pubis and the center of the promontory or the sacral contour of the image of the pelvic inlet; and for the transverse diameter by counting the dots transversely across the widest diameter of the inlet.

(2) Shape of inlet.
For the purpose of classification and of some small practical value in certain instances, it is useful to state the facts in regard to the contour of the pelvic cavity in the terms of the primary classification of Caldwell, Moloy and D'Esopo as illustrated.

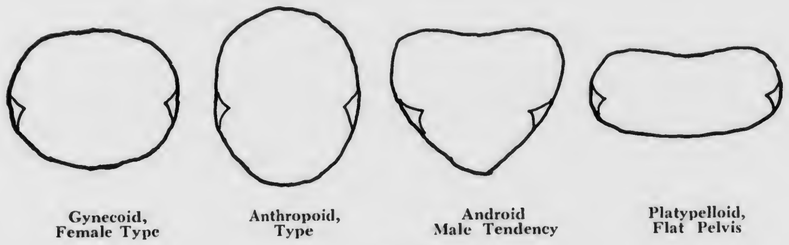


Fig. 7

If one wishes to use Thoms classification, the following illustrations Fig. 8 reveal the essential contours of the inlet:

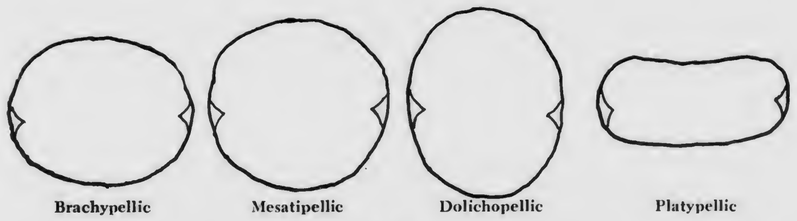


Fig. 8

For the sake of consistency, differentiation of platypelloid type from gynecoid type has been postulated as follows:
If the transverse diameter is more than 3 cm. greater than

the A. P. diameter, the type has been recorded as platypelloid or platypellic (Thoms).

(3) Relative width of ischial spines.

Of utmost importance in the interpretation is consideration of the midpelvis, because in this portion the contraction is often productive of dystocia, especially if the fetal head presents occiput posteriorly. The ischial spines are shown in the film as lateral triangular projections from each side, into the image of the inlet. The measurement between these points is relative only in this film, but with experience one can determine quite well midpelvic contraction. Narrowing of the spines as seen in the film is of more importance in case the whole pelvic cavity is relatively narrow, especially in the anthropoid and android types. In any doubtful case, the exact distance between the spines may be determined by direct measurement on the patient, by use of Hanson's rectovaginal internal pelvimeter.[4]

(4) Fetal presentation.

At eight months or term pregnancy, the head shows as a circular or oval outline in or overlapping the image of the pelvic inlet. The more nearly circular the head image is, the more flexed is the head, and usually the deeper it is in the pelvic canal.

Sometimes one is able to differentiate the occiput in the oval images, but usually not. If the presentation is breech, the hip bones or femurs are seen and not the cranium. In a few cases, diagnosis of anencephalus has been made from this type of film. Usually the whole outline of the fetal cranium is framed well within the pelvic inlet image. In such cases there can be no question of any dystocia occurring at the inlet.

Completed Report

The record of the film then should contain the following information: classification type of pelvis; anteroposterior and transverse diameters of the inlet; relative width of the ischial spines (wide, relatively narrow, or narrow as the case may be); and the fetal presentation. As an illustration, the final report may read: type of pelvis, gynecoid; A. P. diameter of inlet, 11 cm.; transverse diameter, 13 cm.; midpelvis wide; cephalic presentation, fetal head well framed in pelvic inlet image. Prognosis (if desired) no question of any pelvic dystocia.

Signed:_____

If the obstetrician is able to show the film to the patient and interpret these facts to her, the psychological effect upon her is pronounced. Since the vast majority of pelves are normal, the news that the patient receives is usually good news and aids in buoying her mental approach to labor. This often proves to be one of the major factors in making it a normal procedure. In addition, the use of exact factors determined by roentgenography permits the obstetrician knowledge of the case in hand, that eliminates much of the uncertainty, and he may then direct his attention to maintaining a normal physiology of labor as elsewhere described.[21 25] In our large series, most of the patients with inlet A. P. diameters of 9 cm. or more, have delivered spontaneously due care having been taken to insure physiological normal labor by fluid intake, correction of anemia and by proper sedation with especial attention to control of the uterine contractions. In addition there should be knowledge as to the midpelvis, and the distance between the ischial spines ought to be at least 9 cm. Usually a woman with a contracted pelvis delivers a small fetus, but this is not always the case. In the series of spontaneous labors with contracted pelves, there were many in which the diameters of the presenting fetal cranium were within a few millimeters of the shortest diameters of the mother's pelvic cavity.

THE LATERAL SOFT TISSUE FILM

As an adjunct to the grid film view of the inlet, reliable additional information may be derived from the lateral soft tissue film.[9 14 15 17 18] In some cases, this information is invaluable, especially in malpresentation, as transverse lie, brow, etc. Some obstetricians favor limiting X-ray studies to lateral films, but from this no adequate information can be obtained as to the width of the pelvis at the inlet or at the midpelvic outlet region, nor can the contour of the inlet be noted; and it is upon this latter factor that the classifications are based. The lateral film indisputably reveals the presentation of the fetus and relation to engagement including the variety of position of the presenting part, and the attitude of the fetus. Thus, only, can one be certain in all cases as to occiput anterior, lateral, or occiput posterior presentation. The contour of the sacrum is shown if the technic of the filming has been adequate. This information, while theoretically good, is in my opinion of doubtful practical value. The obstetrical conjugate should be available from the lateral film, but one objection is that the anterior delimitation is not well shown since the symphysis pubis delineates poorly. The location of the placenta is well shown in approximately 80% of cases and more often than that if the technic is carefully performed. It is possible that by taking the lateral view with the patient standing with her abdomen supported employing a specially constructed X-ray machine, more uniformity

and accuracy would be obtainable. When the patient lies on her side, her uterus has a tendency to fall toward the plane of the table and this causes some distortion, unless corrected by special pillows.

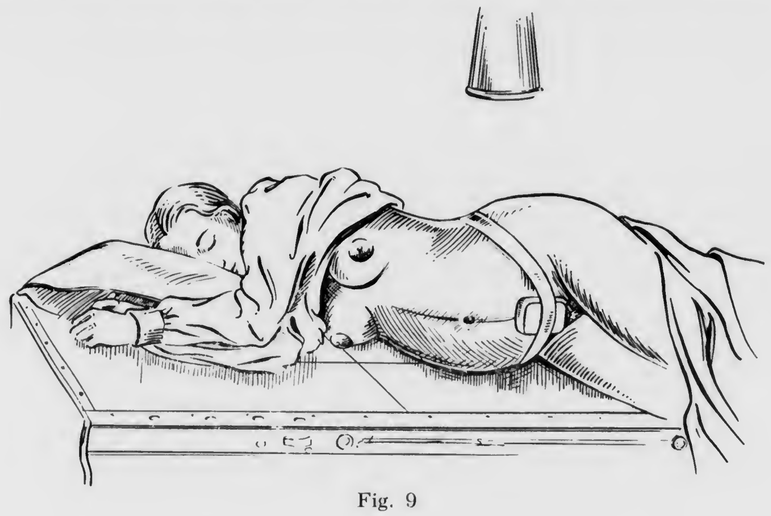


Fig. 9

The simplest form of fetal roentgencephalometry is that obtained by an isometric scale placed over the fetal head at the time of making the lateral film. Such may be attached by an abdominal belt as illustrated, Fig. 9, but the technic of application should be done by the obstetrician if the results are to be at all reliable. In 67 per cent of five hundred such measurements, the error was no more than 5 per cent. Many of these, in routine cases, were left to the various X-ray technicians who had often not been especially trained and in some of these cases the error became 20 per cent—far too much for reliance. However, the grid method of inlet pelvimetry, if done at the eighth month, presents a good estimate of the relative size of the fetal head and, of course, if the head is as low as engagement, its measurement is then quite precise.

TECHNIC OF THE LATERAL SOFT TISSUE FILM

Tube casette distance: 36 inches.

4 mm. aluminum, shielding the uterus and fetus above the pelvic inlet region.

Bucky diaphragm: 14 x 17 inch film.

Voltage: 68 to 70.

Milliamperage: 100.

10 cm. lead scale attached to mother's abdomen longitudinally and at level with the fetal head.

Time for term pregnancy: 2 to 2½ seconds, depending upon size of patient.

Position of the patient: lying upon the X-ray table with her right side down and her shoulders far back to the edge of the table with her pelvis lying over the middle of the table, as illustrated, Fig. 9. The technician should try to visualize the 30 x 20 cm. ovoid uterus so that it lies longitudinally over the 14 x 17 inch film. The tube is focused directly over the center of the film and on a level with a line a few centimeters above the iliac crests.

READING THE LATERAL SOFT TISSUE FILM

If appropriate technic has been utilized, the image of the uterus should be seen in the upper portion of the film with the image of the sacrum (lateral view) directly below. In cephalic or breech presentations, the image of the fetus should lie almost longitudinally. The placenta attached, as a rule, to the anterior or posterior wall of the fundus uteri, thereby usually causes a heavy shadow between the uterine wall and the fetus; sometimes there is evidence of calcified particles. Ordinarily this shadow is higher in the fundus, but in placenta previa it may be so low that it displaces the fetal head or other presenting part. With careful technic and proper study, this film becomes much more important in diagnosis of placenta previa than the technic in which the urinary bladder is partially filled with radiopaque fluid; since the bladder technic could possibly reveal only those 50 per cent or less of placentas on the anterior wall. The chief merit of the lateral soft tissue film seems to lie in its information in regard to the fetus in labor. These facts are the exact presentation, variety of position, attitude of the fetus, and descent of the presenting part, and these are all conclusively revealed.

It has been shown ([24] [25]) that the site of the placenta has considerable effect upon the fetal presentation. When the placenta is located upon the posterior wall of the fundus, there is increased tendency for the fetal presentation to be occiput anterior; and when the placenta is upon the anterior wall, there is increased tendency for occiput posterior presentation. In fact, this probably is the chief etiologic factor in occiput posterior presentation which occurs originally in approximately 20 per cent of all cephalic presentations. Roughly 40 per cent are occiput anterior and the remaining 40 per cent occiput transverse (or lateral). Substantial information is presented in regard

Reprinted from
The American Journal of Roentgenology and Radium Therapy
Vol. XLVII, No. 5, May, 1942

ROENTGEN PELVIMETRY IN LABOR BY THE PELVIC INLET GRID METHOD*

By RICHARD TORPIN, M.D.
AUGUSTA, GEORGIA

THIS study was conducted in association with the obstetric delivery of 1,420 women, 510 white and 910 negro. About two-thirds were home deliveries, but pathologic conditions were taken care of in the hospital where 138 had pelvic measurements made during labor. This was a single view of the inlet showing the outline of fetal head generally framed within that of the pelvic inlet, since the patient is in a semi-sitting position when the film is exposed, and the fetal head has a tendency to sink into the true pelvis.

The resulting 8 by 10 inch film, made with the device previously described,[1] illustrated in Figure 1, shows (1) the outline of the pelvic inlet and its diameter in centimeters directly by counting the dots between two points; (2) the contour of the inlet, and this is important in the pelvic classification into the four groups of Caldwell, Moloy and D'Esopo,[2] who amplified the older classification of the anthropologists, Weber, Stein and others. These types are (*a*) gynecoid (female type) symmetrical, oval pelvic inlet with transverse diameter up to 3 cm. longer than the anteroposterior diameter; (*b*) anthropoid—round or oval inlet with transverse diameter less or no more than equal to the anteroposterior diameter; (*c*) android (male type) inlet with triangular contour wider in the posterior third and narrow anteriorly. In some cases the ischial spines protrude inward and show in the film; (*d*) platypelloid (flat pelvis) in which the anteroposterior diameter is shorter by 3 cm. or more than the transverse diameter. Other characteristics of the four types may be noted by palpating the

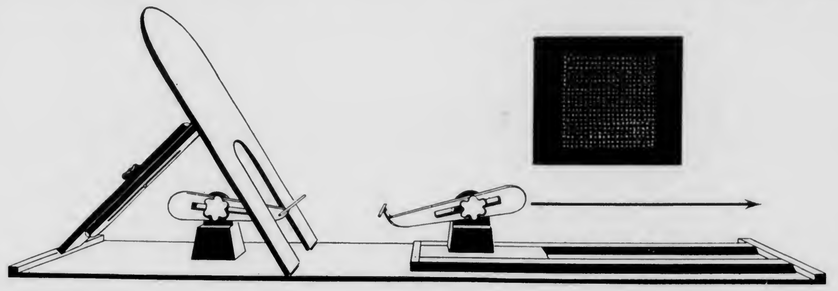


FIG. 1

contour of the sacrum which may bend rather forward, especially in the android type. By palpating the ischial spines and the tuberosities, narrowness of the pelvis may be identified frequently with anthropoid or android types. However, in this study these narrow types of pelves seem to have less effect on labor than does the shortening of the true conjugate (the anteroposterior diameter of the inlet). Of course the effect is greater if there is an associated narrow transverse diameter.

TECHNIQUE

The number of patients in each group in this series is shown in Table 1.

Among the 1,420 deliveries occurred 24

* From the Department of Obstetrics and Gynecology, University of Georgia School of Medicine, Augusta, Georgia.

forceps operations in which the pelvis had roentgen studies, and this included almost all forceps cases. This reveals a forceps incidence of not over 3 per cent and corresponds well with the more or less ideal rate in vogue at the Grady Hospital in Atlanta. Since 16 of the forceps deliveries were in negro women, the incidence is the same as in white women, identical rules as to necessity of application being used in both cases. Table 1 shows a higher incidence of contracted pelves in negro women. It seems, however, that the negro newborn's head is softer and molds more than that of the white infant. The mid forceps incidence was 16 to low forceps 8. Five of the mid forceps deliveries were in white women and 11 in negro. There were 3 low forceps deliveries in white women and 5 in negro women. In 5 cases of forceps delivery there was a narrow outlet as shown by the shortening of distance between the ischial spines seen in the pelvic inlet film and by rectal palpation. Ten of the 24 women who had to be delivered by forceps had normal size pelves, 2 of these being justo major 12 by 13 cm.; one of these had a 9 pound, 4 ounce baby and the other, 7 pounds 12 ounces.

Among the 24 operative deliveries requiring forceps, 17 of the pelves were gynecoid in type, 3 were anthropoid—all negro, 3 android or tendency to android—2 white and 1 negro, and 1 Nägele pelvis in a negro woman.

TABLE I

								Totals
Gynecoid								
Conjugate vera in cm. White	8–9	9–10 3	10–11 12	11–12 20	12–13 10	13–14 1	14–15	46
Negro	1	10	24	16	5			56
Anthropoid								
Conjugate vera in cm. White	8–9	9–10	10–11	11–12	12–13	13–14	14–15	
Negro			3	6	5			14
Android								
Conjugate vera in cm. White	8–9	9–10 1	10–11 1	11–12 4	12–13 1	13–14	14–15 1	8
Negro		4	1	3				8
Platypelloid								
Conjugate vera in cm. White	8–9 1	9–10	10–11 2	11–12	12–13	13–14	14–15	3
Negro	2							2
Nägele								
Conjugate vera in cm. White	8–9	9–10	10–11	11–12	12–13	13–14	14–15	
Negro		1						1
					(White 57 plus Negro 81)			138

Experience teaches one to suspect difficulty in labor in the short obese type of patient, so-called dystrophia dystocia syndrome, and one gathers from the literature that these patients have a tendency to contracted pelves of android or anthropoid types. In this group there were 8 such patients delivered in the hospital, 4 white and 4 negro. All but one had gynecoid type pelves; contraction below 10 cm. anteroposterior in 2, slight contraction 10–11 cm. anteroposterior in 3, large gynecoid pelvis in one and a contracted android type in one negro.

Of these 8 patients, 4 delivered spontaneously—1 negro, contracted gynecoid; 1 negro, slightly contracted gynecoid in 113 hours; 1 white woman of 235 pounds weight with justo major gynecoid pelvis in 32½ hours, and 1 negro whose slightly contracted pelvis had a tendency to android type and a narrow outlet. There were 2 mid forceps, 1 white gynecoid slightly contracted and 1 white normal size gynecoid type. There was 1 cesarean section in a white woman with a slightly contracted gynecoid pelvis who had a thirty hour labor test. There was 1 craniotomy in a negro with a contracted gynecoid pelvis who had a large baby weighing more than 8 pounds.

In this series it is felt that no woman or infant was neglected in giving each mother, under amnesia, full opportunity to complete the labor spontaneously. The craniotomy cases were neglected before admission.

INDIVIDUAL DESCRIPTION OF LABOR IN EACH CASE ILLUSTRATED

The case histories correspond in number to the pelvic outlines shown in Figures 2, 3, 4 and 5.

CASE 1. White primipara, aged eighteen; contracted gynecoid pelvis; anteroposterior 9.25 cm., transverse 11 cm. Labor 8 hr. test followed by low cervical cesarean section. Weight of infant 5 lb. 11½ oz.

CASE 2. Negro primipara, aged fifteen; contracted gynecoid pelvis; anteroposterior 9.25 cm., transverse 10.25 cm. Labor 1st stage 17 hr., 45 min., 2nd stage 30 min. Presentation left occipito-anterior, weight of infant 3 lb. 5 oz. The measurements of the biparietal and suboccipital bregmatic diameters of the head of the newborn infant were about 0.25 cm. less than those of the pelvic inlet. One year later she duplicated the procedure delivering spontaneously an 8 lb. 4 oz. infant after a rather longer 1st stage and a 30 min. 2nd stage of labor. This proves that Nature is able to accommodate the fetal head to a much tighter fitting pelvis than is usual.

CASE 3. Negro, para 0, gravida 1, aged nineteen, toxemia of pregnancy; slightly contracted gynecoid pelvis; anteroposterior 10 cm., transverse 11 cm. Labor 1st stage 22 hr., 2nd stage 2 hr. Spontaneous deliveryleft occipito-anterior, living infant, weight 7 lb.

CASE 4. Negro primipara, aged seventeen, obese, eclamptic; contracted gynecoid pelvis; anteroposterior 9 cm., transverse 11.5 cm. Labor short after two convulsions. Spontaneous delivery of living infant right occipito-anterior, weight of infant, 7 lb. ½ oz.

CASE 5. Negro primipara, aged twenty; gynecoid pelvis; anteroposterior 11 cm., transverse 11.5 cm. Labor 1st stage 33 hr., 2nd stage 4 hr. 35 min. Spontaneous delivery left occipito-anterior, living infant, 7 lb.

CASE 6. Negro, para 7, gravida 8, aged thirty-eight, 5 living children, 1 forceps delivery; anthropoid pelvis, anteroposterior 11.5 cm., transverse 11 cm. Test of labor 24 hr. then low cervical cesarean operation with hysterectomy, presentation left occipitoposterior at operation.

CASE 7. Negro primipara, aged eighteen; gynecoid pelvis; anteroposterior 12 cm., transverse 12.5 cm. Labor 1st stage 48 hr. with infrequent uterine contractions, 2nd stage 2 hr. Spontaneous delivery, left occipito-anterior, living infant, weight 6 lb. 3 oz.

CASE 8. Negro, para 0, gravida 4; markedly contracted gynecoid pelvis with prominent promontory; anteroposterior 8.5 cm., transverse 11.5 cm. Labor 22 hr. test without engagement of the head then low cervical cesarean section, delivery of living infant, weight 8 lb. 5 oz. (congenital syphilis).

CASE 9. White primipara, aged twenty-three; gynecoid pelvis; anteroposterior 11.5 cm., transverse 13 cm. Labor 1st stage 25 hr., 2nd stage 40 min. Spontaneous delivery left occipito-anterior, living infant, weight 6 lb. 8¾ oz.

CASE 10. Negro primipara, aged nineteen; gynecoid contracted pelvis; anteroposterior 9.5 cm., transverse 11.5 cm. Labor 1st stage 3 or 4 days with infrequent pains, 2nd stage 3½ hr. Low Kjelland forceps delivery, right occipito-anterior, living infant, weight 5 lb. 14 oz.

CASE 11. Negro, para 2, gravida 3, aged thirty; gynecoid pelvis; anteroposterior 11.5 cm., transverse 12.25 cm. Labor 1st stage 5 hr. 45 min., 2nd stage 1 hr. Spontaneous delivery, left occipito-anterior, living infant, weight 7 lb. 7 oz.

CASE 12. Negro, para 3, gravida 4, aged twenty; gynecoid pelvis; anteroposterior 11.5 cm., transverse 12 cm. Transverse presentation at time of roentgen examination. Fetus turned spontaneously and delivered normally after rapid labor, left occipito-anterior, weight of infant 8 lb.

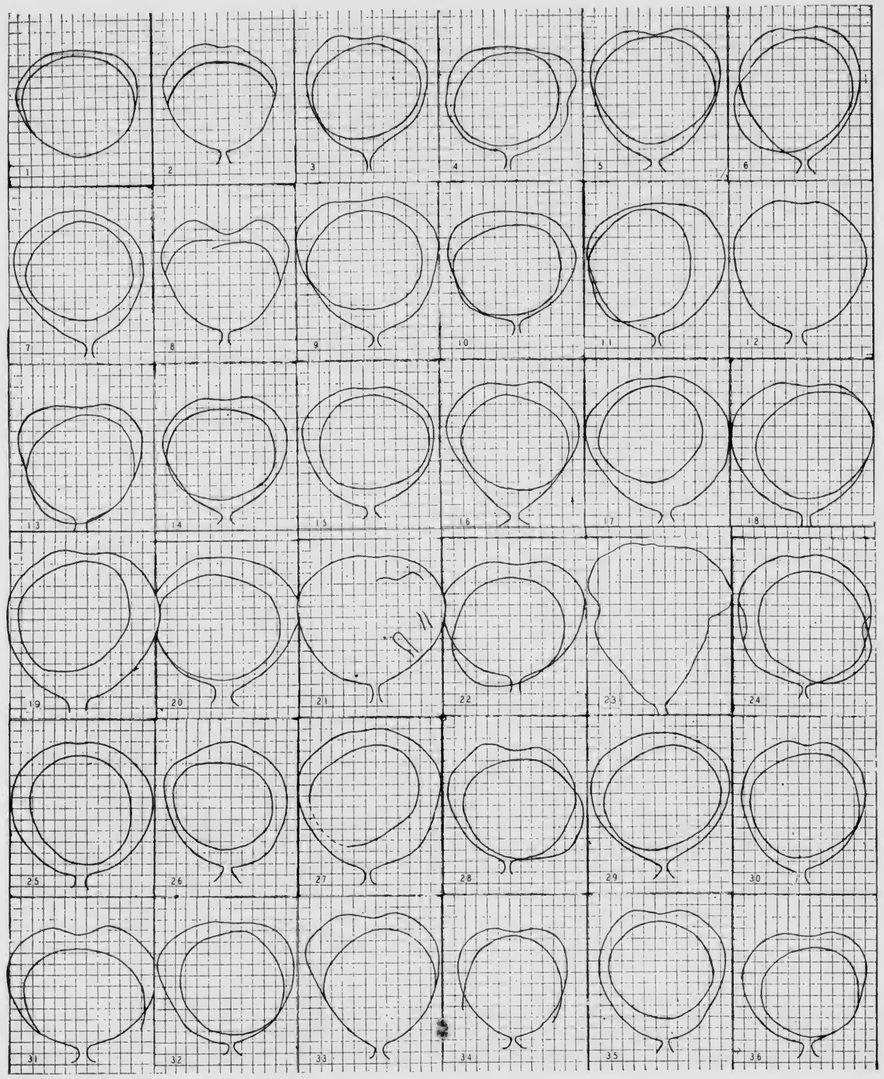


Fig. 2. Pelvic outlines of Cases 1 to 36.

Case 13. White, para 1, gravida 2, aged twenty-one; slightly contracted gynecoid pelvis; anteroposterior 10 cm., transverse 11.5 cm. Labor placenta previa marginalis. Voorhees bag inserted into lower uterine segment followed in 1½ hr. by spontaneous delivery living infant, right occipito-anterior, weight 6 lb. 11½ oz.

Case 14. Negro primipara, aged fourteen; slightly contracted gynecoid pelvis; anteroposterior 10 cm., transverse 11.25 cm. Labor 1st stage 15 hr. 20 min., 2nd stage 2 hr. 50 min. Spontaneous delivery, right occipito-anterior, living infant, weight 6 lb. 11 oz.

Case 15. Negro primipara, aged fourteen, anemic with placenta previa marginalis; slight contracted gynecoid pelvis; anteroposterior 10.5 cm., transverse 12 cm. Labor 77 hr. Right occipitoposterior rotation 135° to left occipito-anterior with spontaneous delivery living infant, weight 5 lb. 13 oz.

Case 16. White primipara, aged sixteen; android pelvis; anteroposterior 11 cm., transverse 12 cm. Labor 1st stage 48 hr., 2nd stage 7 hr. 31 min. Right occipitoposterior to right occipito-anterior spontaneous delivery living infant, weight 6 lb. 4 oz.

Case 17. Negro primipara, aged twenty-one; gynecoid pelvis; anteroposterior 11.75 cm., transverse 13 cm. Labor 1st stage 6 hr. 30 min., 2nd stage 3 min. Right occipito-anterior spontaneous delivery living infant, weight 6 lb.

Case 18. Negro, para 6, gravida 7, aged thirty; gynecoid pelvis; anteroposterior 11.25 cm., transverse 13 cm. Labor 1st stage 13 hr. 33 min., 2nd stage 2 min. Spontaneous delivery left occipito-anterior, living infant, weight 8 lb. 3 oz.

Case 19. White, para 3, gravida 4, aged twenty-two; justo major gynecoid pelvis. Labor 1st stage 31 hr. 40 min., 2nd stage 2 min. Fetal head ballotable until just before delivery. Spontaneous delivery from complete occiput posterior presentation, living infant, weight 7 lb. 11.5 oz.

Case 20. White, para 2, gravida 3, aged twenty-one; gynecoid pelvis; anteroposterior 11.5 cm., transverse 13.5 cm. Labor 1st stage 22 hr., 2nd stage few minutes. Spontaneous delivery right occipito-anterior, living infant, weight 8 lb. 4 oz

Case 21. White primipara, aged thirty-three; gynecoid pelvis; anteroposterior 11.5 cm., transverse 13.5 cm. Labor twins, female, small, both breech spontaneous delivery living infants, weight No. 1, 4 lb. 11 oz., No. 2, 4 lb. 8¼ oz.

Case 22. White primipara, aged nineteen; slightly contracted platypelloid pelvis; anteroposterior 10 cm., transverse 13 cm. Labor 1st stage 15½ hr., 2nd stage 2 hr. Spontaneous delivery, right occipito-anterior, living infant, weight 6 lb. 13½ oz.

Case 23. White para 7, gravida 10, aged thirty-six; large android pelvis; anteroposterior 14 cm., transverse 13 cm. Labor, total 3 hr.; precipitate delivery from direct occiput posterior presentation, one living infant, weight 9 lb. 4 oz. One year previously she had spontaneous delivery, from left occipito-anterior of one living infant, weight 9 lb. 13 oz. Total labor, 4 hr. 22 min.

Case 24. White, para 1, gravida 2, aged twenty-five; gynecoid pelvis; anteroposterior 11.5 cm., transverse 12 cm. Labor 1st stage 13 hr., 2nd stage 2 hr. 47 min. Spontaneous delivery, left occipito-anterior, living infant, weight 7 lb. 11¼ oz.

Case 25. Negro, para 2, gravida 3, aged twenty; gynecoid pelvis; anteroposterior 11.75 cm., transverse 12.75 cm. Labor 1st stage 19 hr. 40 min., 2nd stage 28 min. Spontaneous delivery.

Case 26. Negro primipara, aged fifteen; gynecoid pelvis; anteroposterior 11 cm., transverse 11.25 cm. Labor short, entered the hospital with the fetal head in the perineum and spontaneously delivered a living infant from left occipito-anterior, weight 5 lb. 11 oz.

Case 27. White primipara, aged nineteen; justo major gynecoid pelvis; anteroposterior 12.5 cm., transverse 13 cm. Labor 1st stage 31 hr. 14 min., 2nd stage 1 hr. Spontaneous delivery right occipito-anterior living infant, 5 lb. 3 oz.

Case 28. White primipara, aged thirty-five; slight contracted gynecoid pelvis; anteroposterior 10 cm., transverse 11.5 cm. Labor 1st stage 1 hr., 2nd stage 4 hr. 32 min. (left hand prolapsed beside head). Spontaneous delivery, right occipito-anterior living infant, weight 7 lb. 4¼ oz.

Case 29. Negro primipara, aged seventeen, mild toxemia; gynecoid pelvis; anteroposterior 11.5 cm., transverse 12.5 cm. Labor 1st stage 27 hr. 15 min., 2nd stage 3 hr. 9 min. Low forceps right occipito-anterior living infant, weight 7 lb. 9 oz.

Case 30. Negro primipara, aged twenty-four, toxemia; anthropoid pelvis; anteroposterior 11 cm., transverse 11 cm. Labor 1st stage 36 hr. Cervix fully dilated by a Voorhees bag. 2nd stage 1 hr. 30 min. Mid pelvis Kjelland application of Kjelland forceps. O.L.T. living infant, weight 7 lb. 14 oz.

Case 31. White, para 5, gravida 6, aged twenty-five; slight contracted platypelloid pelvis; anteroposterior 10 cm., transverse 13.5 cm. Labor 1st stage 14 hr. 45 min., 2nd stage 10 min. Spontaneous delivery, right occipito-anterior living infant, weight 8 lb. 4 oz.

Case 32. White, para 5, gravida 6, aged thirty-two; gynecoid pelvis; anteroposterior 10.75 cm., transverse 12.5 cm. Labor 1st stage 7 hr. 30 min , 2nd stage 30 min. Spontaneous delivery, right occipitoposterior to right occipito-anterior living infant, 7 lb. 4 oz.

Case 33. Negro, para 5, gravida 6, aged thirty-four; android pelvis; anteroposterior 11.25 cm., transverse 12 cm. Labor 1st stage 10 hr., 2nd stage 25 min. Spontaneous delivery O.R.A. living infant, weight 8 lb.

Case 34. Negro primipara, aged fifteen; contracted pelvis android tendency; anteroposterior 9 cm., transverse 10 cm. Labor 1st stage 22 hr., 2nd stage 2 hr. Spontaneous delivery O.R.A. living infant, weight 6 lb. 8 oz.

Case 35. Negro primipara, aged eighteen, toxemia; gynecoid pelvis; anteroposterior 11 cm., transverse 12.25 cm. Labor 1st stage 15 hr. 30 min., 2nd stage 1 hr. 25 min. Spontaneous delivery O.R.A. living infant, weight 6 lb. 12 oz.

Case 36. Negro primipara, aged eighteen; contracted gynecoid pelvis; anteroposterior 9.25 cm., transverse 11 cm. Labor 1st stage 19 hr. 15 min., 2nd stage 30 min. Spontaneous delivery O.R.A. living infant, weight 7 lb. 4½ oz.

Case 37. Negro primipara, aged thirty-two; gynecoid pelvis; anteroposterior 11 cm., transverse 12.75 cm. Labor, precipitant spontaneous delivery of living infant.

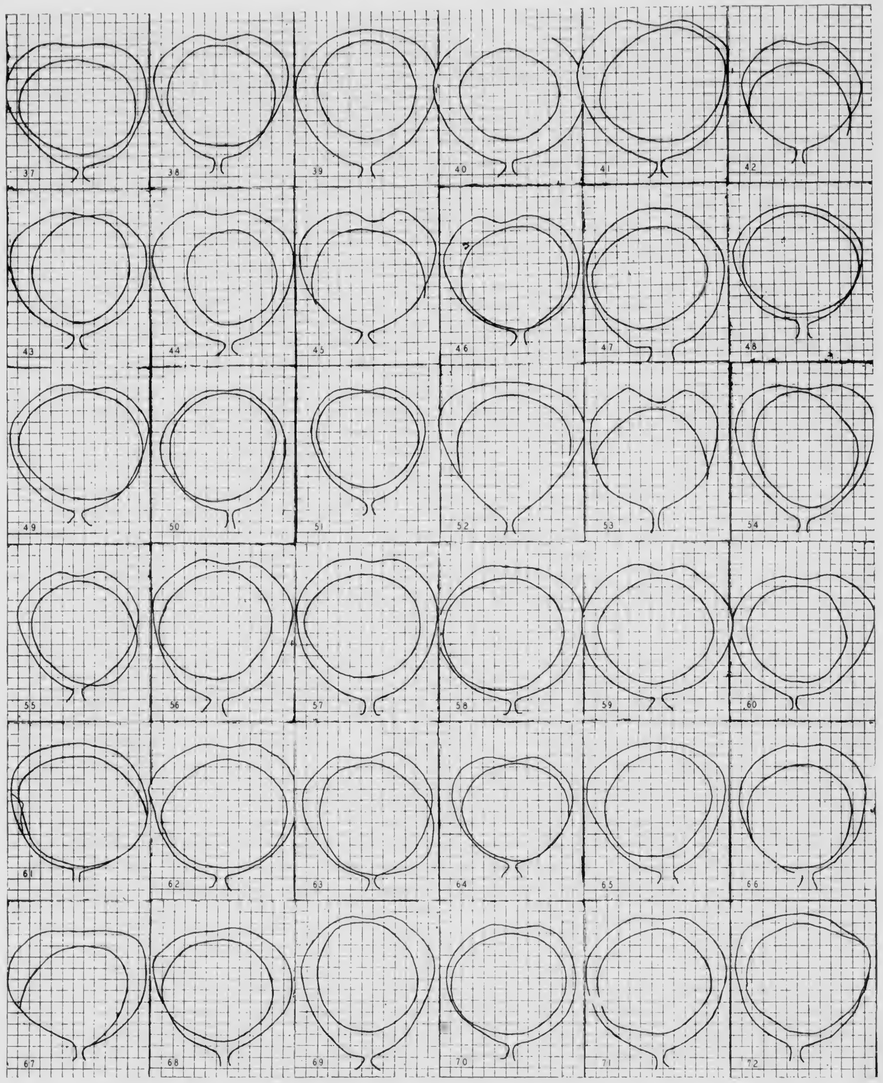


FIG. 3. Pelvic outlines of Cases 37 to 72.

CASE 38. White, para 2, gravida 3, aged thirty-seven; slight contracted gynecoid pelvis; anteroposterior 10.25 cm., transverse 12 cm. Labor 1st stage 7 hr., 2nd stage 1 hr. Spontaneous delivery O.R.A. living infant, weight 7 lb. 2 oz.

CASE 39. White, para 1, gravida 2, aged nineteen, mild toxemia; gynecoid pelvis; anteroposterior 12 cm., transverse 13 cm. Labor 1st stage 6 hr. 30 min., 2nd stage 10 min. Spontaneous delivery O.R.A. living infant, weight 6 lb. 7½ oz.

CASE 40. White primipara, aged eighteen; gynecoid pelvis; anteroposterior 11 cm., transverse 13.5 cm. Labor 1st stage 8 hr. 50 min., 2nd stage 30 min. Spontaneous delivery O.R.A. living infant, weight 5 lb. 12 oz.

CASE 41. White, para 8, gravida 9, aged forty-three, obese and toxemic; justo major gynecoid pelvis; anteroposterior 12 cm., transverse 13.5 cm. Labor 1st stage futile uterine contractions over period of 3 days during which time she received 25 gm. $MgSO_4$ for hypertension. Finally cervix became fully dilated and she spontaneously delivered O.L.A. living infant, weight 9 lb. 8 oz.

CASE 42. Negro primipara, aged twenty-five, toxemia; contracted gynecoid pelvis; anteroposterior 9.25 cm., transverse 10.75 cm. Labor 1st stage 76 hr., 2nd stage 3 hr. Deep transverse arrest in mid pelvis O.R.T. Kjelland application of Kjelland forceps delivered living infant, weight 6 lb. 12 oz.

CASE 43. Negro, para 2, gravida 3, aged twenty-three; slightly contracted gynecoid pelvis; anteroposterior 10.5 cm., transverse 12.25 cm. Labor, 1st stage 39 hr., 2nd stage 4 hr. 35 min. Low forceps delivery O.L.A. living infant, weight 6 lb. 7 oz.

CASE 44. White primipara, aged sixteen; gynecoid pelvis; anteroposterior 12.0 cm., transverse 12.5 cm. Labor, 1st stage 3 hr., 2nd stage 50 min. Spontaneous delivery O.R.A. living infant, weight 6 lb. 1 oz.

CASE 45. Negro primipara, aged seventeen; slightly contracted gynecoid pelvis with prominent promontory; anteroposterior 10 cm., transverse 12.5 cm. Labor, 1st stage 24 hr., 2nd stage 1 hr. Spontaneous delivery O.R.A. living infant.

CASE 46. White, para 1, gravida 2, aged twenty-two; slightly contracted gynecoid pelvis; anteroposterior 10 cm., transverse 12 cm. Labor, 1st stage 26 hr. 45 min., 2nd stage 1 min. Spontaneous delivery O.R.P. living infant, weight 8 lb. 4½ oz.

CASE 47. Negro, para 6, gravida 7, aged thirty-four, toxemia; justo major gynecoid pelvis; anteroposterior 12 cm., transverse 12.5 cm. Labor, 1st stage 5 hr., 2nd stage 10 min. Spontaneous delivery O.L.A. living infant, weight 9 lb. 12 oz.

CASE 48. Negro, para 2, gravida 3, aged twenty, toxemia; slight contracted gynecoid pelvis; anteroposterior 10 cm., transverse 11.5 cm. Labor, 1st stage 19 hr., 2nd stage 10 min. Spontaneous delivery O.R.A. living infant, weight 8 lb. 2 oz.

CASE 49. White, para 1, gravida 2, aged eighteen, toxemia; gynecoid pelvis; anteroposterior 10.75 cm., transverse 12.5 cm. Labor, 1st stage 11 hr. 15 min., 2nd stage 27 min. Spontaneous delivery O.L.A. living infant, weight 7 lb. 12¼ oz. (1st labor 48 hr. delivered by Kjelland forceps mid pelvis O.L.T. living infant, weight 7 lb. 8 oz.)

CASE 50. Negro, para 4, gravida 5, aged twenty-four; slightly contracted gynecoid pelvis; anteroposterior 10.5 cm., transverse 11.25 cm. Labor, 1st stage 5 hr., 2nd stage 20 min. Spontaneous delivery O.L.A. living infant, weight 5 lb. 13 oz.

CASE 51. Negro, para 4, gravida 5, aged thirty-four, toxemia; contracted gynecoid pelvis; anteroposterior 9.75 cm., transverse 10.25 cm. Labor, 1st stage test 33 hr. 50 min. then low cervical cesarean section. Fetal head tightly fitted into pelvic brim O.R.T. living infant, weight 8 lb. 8 oz. (All of her previous children were living.)

CASE 52. White, para 2, gravida 3, aged twenty-seven; large android pelvis; anteroposterior 11.5 cm., transverse 13 cm. Labor, 1st stage 22 hr. 30 min., 2nd stage 2 hr. 25 min. Spontaneous delivery O.L.A. living infant, weight 8 lb. 8⅜ oz.

CASE 53. White, para 2, gravida 3, aged twenty-nine; slightly contracted gynecoid pelvis with prominent promontory; anteroposterior 9.5 cm., transverse 11.5 cm. Labor, 1st stage 9 hr. 15 min., 2nd stage 31 min. Spontaneous delivery O.L.A. living infant, weight 9 lb. 8 oz.

CASE 54. Negro, para 1, gravida 2, aged twenty-six; android pelvis; anteroposterior 11.5 cm., transverse 12.25 cm. Labor, 1st stage 15 hr. 30 min., 2nd stage 2 hr. 35 min. Spontaneous delivery O.L.A. living infant, weight 9 lb. 8 oz.

CASE 55. Negro primipara, aged seventeen, dystrophia dystocia syndrome, obese and toxemic; slightly contracted gynecoid pelvis; anteroposterior 10 cm., transverse 11 cm. Labor, 1st stage 112 hr., 2nd stage 1 hr. Spontaneous delivery O.R.P. to O.R.A. living infant, weight 6 lb.

CASE 56. White, para 2, gravida 3, aged twenty-one; justo major gynecoid pelvis; anteroposterior 12 cm., transverse 12.75 cm. Labor, 1st stage 4 hr. 45 min., 2nd stage 15 min. Spontaneous delivery O.L.A. living infant, weight 6 lb. 12 oz.

CASE 57. Negro, para 2, gravida 3, aged twenty; justo major gynecoid pelvis; anteroposterior 12.25 cm., transverse 12.75 cm. Labor, 1st stage 11 hr. 40 min., 2nd stage 10 min. Spontaneous delivery O.L.A. living infant, weight 6 lb. 8 oz.

CASE 58. White primipara, aged seventeen; gynecoid pelvis; anteroposterior 11.5 cm., transverse 13 cm. Labor, 1st stage 19 hr. 30 min., 2nd stage 2 hr. 10 min. Spontaneous delivery O.L.A. living infant, weight 9 lb. 14 oz.

CASE 59. White primipara, aged fifteen; gynecoid pelvis; anteroposterior 11.5 cm., transverse 13.5 cm. Labor, 1st stage 10 hr., 2nd stage 1 hr. 10 min. Spontaneous delivery O.L.A. living infant, weight 7 lb. 4½ oz.

CASE 60. White primipara, aged twenty-eight; slightly contracted gynecoid pelvis; anteroposterior 10 cm., transverse 13 cm. Labor, 1st stage 25 hr. 55 min., 2nd stage 39 min. Spontaneous delivery O.L.A. living infant, weight 4 lb. 4¼ oz.

CASE 61. White, para 1, gravida 2, aged twenty-nine; gynecoid pelvis; anteroposterior 11 cm., transverse 12 cm. Labor, 1st stage 12 hr. 5 min., 2nd stage 1 hr. 40 min. Spontaneous delivery O.L.A. living infant, weight 10 lb. 6⅞ oz.

CASE 62. White, para 2, gravida 3, aged nineteen, toxemia and twins; gynecoid pelvis; anteroposterior 11.5 cm., transverse 13 cm. Labor, 1st stage 17 hr.

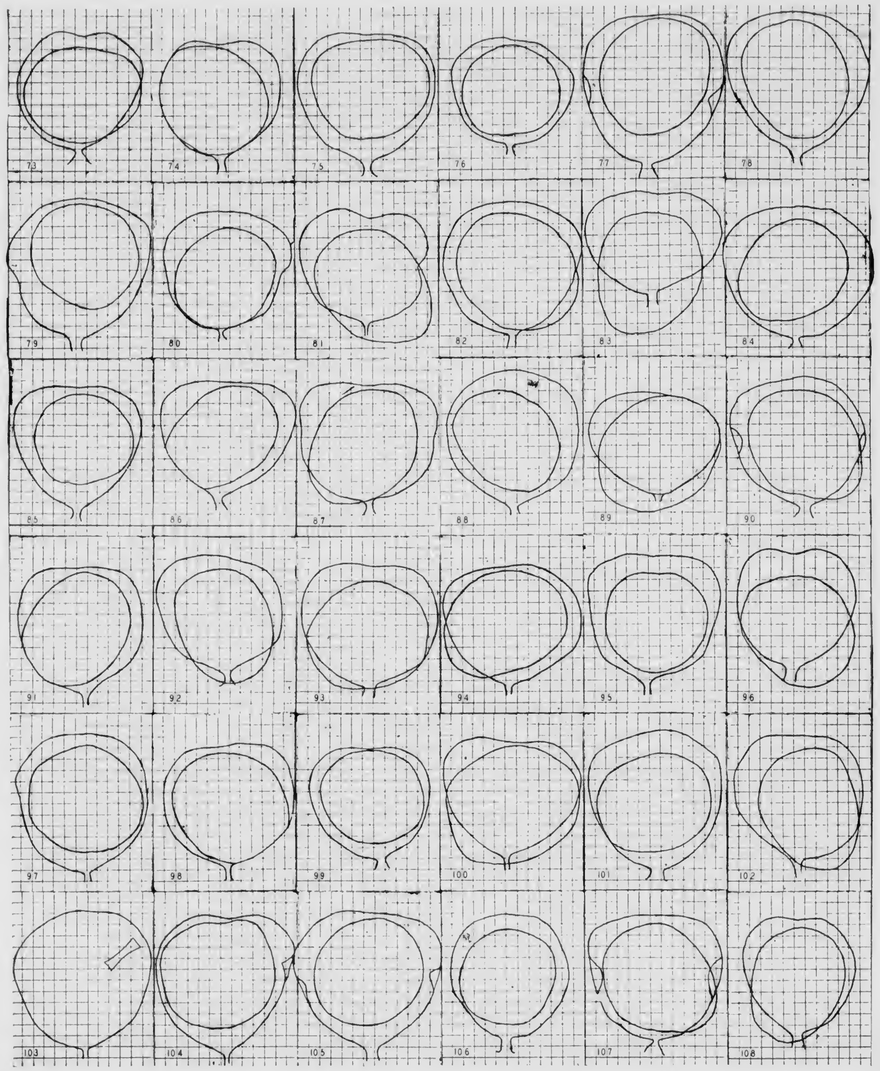


Fig. 4. Pelvic outlines of Cases 73 to 108.

5 min., 2nd stage 1 hr. Spontaneous delivery O.L.A. living female, weight 6 lb. 3 oz., and O.L.A. living male, weight 6 lb 2 oz.

Case 63. White, para 2, gravida 3, aged twenty-one; slightly contracted gynecoid pelvis; anteroposterior 10.5 cm., transverse 11.5 cm. Labor, 1st stage 17 hr. 50 min., 2nd stage 2 hr. 10 min. Spontaneous delivery O.R.A. living infant, weight 8 lb. 4 oz.

Case 64. Negro primipara, aged seventeen, dystrophia dystocia syndrome; contracted gynecoid pelvis; anteroposterior 9 cm., transverse 10.5 cm. Labor, 1st stage 63 hr., 2nd stage 2 hr. 5 min. Maternal temperature 104° F., pulse 180 in spite of fluids and oxygen. Dead fetus delivered by craniotomy. Weight of fetus 6 lb. 11 oz plus an estimated 20 per cent for brains and blood.

Case 65. Negro, para 1, gravida 2, aged nineteen; pelvis android tendency; anteroposterior 11.5 cm., transverse 12.5 cm. Labor, 1st and 2nd stages 18 hr. Spontaneous delivery O.L.P. to O.L.A. living infant, weight 6 lb. 14 oz.

Case 66. Negro primipara, aged nineteen; anthropoid pelvis; anteroposterior 11.5 cm., transverse 11.5 cm. Labor, 1st stage 15 hr., 2nd stage 4 hr. 27 min. Kjelland mid forceps delivery O.L.T. living infant, weight 7 lb.

Case 67. White primipara, aged thirty-four, short and stout; slightly contracted gynecoid pelvis; anteroposterior 10 cm., transverse 12.5 cm. Labor, 1st stage 38 hr. 30 min., 2nd stage 8 hr. 52 min. Mid forceps delivery O.L.P. living infant, weight 7 lb. 5 oz.

Case 68. Negro primipara, aged sixteen; slightly contracted gynecoid pelvis; anteroposterior 10.5 cm., transverse 12.5 cm. Labor, 1st stage 19 hr., 2nd stage 8 hr. 18 min. Delay due to large shoulders. Low forceps delivery O.L.A. living infant, weight 8 lb. 6 oz.

Case 69. Negro primipara, aged seventeen; anthropoid pelvis; anteroposterior 12.25 cm., transverse 12 cm. Labor, 1st and 2nd stages 6 hr. Spontaneous delivery O.R.A. living infant, weight 6 lb. 8 oz.

Case 70. Negro primipara, aged twenty-one; slightly contracted gynecoid pelvis; anteroposterior 10.5 cm., transverse 11.5 cm. Labor, 1st stage 46 hr., 2nd stage 2 hr. 50 min. Spontaneous delivery O.L.T. to O.L.A. living infant, weight 7 lb. 12 oz.

Case 71. White primipara, aged eighteen; gynecoid pelvis; anteroposterior 11.5 cm., transverse 12.75 cm. Labor, 1st stage 15 hr. 12 min., 2nd stage 1 hr. 16 min. Spontaneous delivery O.L.T. to O.L.A. living infant, weight 6 lb. 5 oz.

Case 72. Negro, para 1, gravida 2, aged twenty-seven, toxemia; gynecoid pelvis; anteroposterior 11.75 cm., transverse 12 cm. Labor, 1st stage 11 hr. 45 min., 2nd stage 8 hr. 35 min. Extension of the fetal head, mid pelvis application of Kjelland forceps O.R.P. to O.R.A. delivery of stillborn infant, weight 10 lb. 3 oz. Autopsy of the fetus revealed brain injury. (History of 1st labor: 1st stage 60 hr., 2nd stage 5 hr. 48 min. Kjelland forceps to fetal head in mid pelvis O.L.T. delivery living infant, weight 8 lb. 3 oz.)

Case 73. Negro, para 3, gravida 4, aged thirty-six; slightly contracted gynecoid pelvis; anteroposterior 10 cm., transverse 11.25 cm. Labor, 1st stage 24 hr., 2nd stage 15 min. Spontaneous delivery O.L.A. living infant, weight 6 lb. 12 oz.

Case 74. Negro, para 4, gravida 5, aged twenty-three, toxemia; slightly contracted gynecoid pelvis; anteroposterior 10 cm., transverse 10.75 cm. Labor, 1st stage 2 hr. 40 min., 2nd stage 20 min. Spontaneous delivery O.L.A. living infant, weight 9 lb. 11 oz.

Case 75. Negro, para 4, gravida 5, aged twenty-seven; gynecoid pelvis; anteroposterior 11 cm., transverse 12.5 cm. Labor, 1st stage 32 hr., 2nd stage short. Spontaneous delivery living infant O.L.A., 7 lb. 3 oz.

Case 76. Negro primipara, aged sixteen; contracted gynecoid pelvis; anteroposterior 9 cm., transverse 11 cm. Labor, 1st stage 33 hr., 2nd stage 1 hr. 50 min. Spontaneous delivery living infant, weight 5 lb. 12 oz.

Case 77. White, para 0, gravida 2, aged eighteen; justo major gynecoid pelvis; anteroposterior 12.75 cm., transverse 13 cm. Labor, 1st stage 17 hr., 2nd stage 20 min. Spontaneous delivery O.L.A. living infant, weight 8 lb.

Case 78. White primipara, aged twenty-one; gynecoid pelvis with android tendency; anteroposterior 12 cm., transverse 12.75 cm. Labor, 1st stage 7 hr., 2nd stage 31 min. Spontaneous delivery O.L.A. living infant, weight 8 lb. 10 oz.

Case 79. White primipara, aged eighteen; gynecoid pelvis; anteroposterior 12 cm., transverse 13 cm. Labor, 1st stage 36 hr., 2nd stage 5 hr. 27 min. Mid pelvis Kjelland forceps O.L.T. living infant, weight 7 lb. 12 oz.

Case 80. Negro primipara, aged eighteen; slightly contracted gynecoid pelvis; anteroposterior 10.25 cm., transverse 11.75 cm. Labor, 1st stage 34 hr. 30 min., 2nd stage 30 min. Spontaneous delivery O.L.A. living infant, weight 5 lb. 2 oz.

Case 81. White primipara, aged fifteen; contracted gynecoid pelvis; anteroposterior 9 cm., transverse 11.5 cm. Labor, 1st stage 52 hr. 28 min., 2nd stage 1 hr. 56 min. Low forceps delivery O.R.A. living infant, weight 7 lb. 6 oz.

Case 82. White, para 1, gravida 2, aged twenty-one; gynecoid pelvis; anteroposterior 11.5 cm., transverse 12.5 cm. Labor, 1st stage 6 hr. 20 min., 2nd stage 27 min. Spontaneous delivery O.R.A. living infant, weight 8 lb. 13 oz.

Case 83. White, para 2, gravida 3, aged twenty-one; contracted platypelloid pelvis; anteroposterior 8.75 cm., transverse 12.75 cm. Labor, 20 hr. without engagement, then low cervical cesarean section at which there was found a brow presentation occiput to the right. Living infant, weight 7 lb. 3½ oz. (She had had two previous difficult spontaneous deliveries, both babies were small.)

Case 84. Negro primipara, aged sixteen; gynecoid pelvis; anteroposterior 11.5 cm., transverse 13.5 cm. Labor, 1st stage 42 hr., 2nd stage 2 hr. 40 min. Spontaneous delivery O.L.A. living infant, weight 5 lb. 2 oz.

Case 85. Negro, primipara, aged nineteen; slightly contracted pelvis android tendency; anteroposterior 10.5 cm., transverse 11.5 cm. Labor, 1st stage 40 hr. 20 min., 2nd stage 28 min. Spontaneous delivery O.R.A. living infant, weight 5 lb. 2 oz.

Case 86. Negro primipara, aged seventeen; slightly contracted gynecoid pelvis, android tendency; anteroposterior 10 cm., transverse 12.25 cm. Labor, 1st stage 22 hr. 45 min., 2nd stage 30 min. Spontaneous delivery O.L.A. living infant, weight 9 lb.

Case 87. White, para 1, gravida 2, aged twenty-three; gynecoid pelvis; anteroposterior 10.5 cm., transverse 12.75 cm. Labor, 1st stage 6 hr. 30 min., 2nd stage 34 min. Spontaneous delivery O.R.A. living infant, weight 6 lb.

Case 88. Negro primipara, aged eighteen; anthropoid pelvis; anteroposterior 12 cm., transverse 12 cm. Labor, 1st stage 36 hr. 30 min., 2nd stage 40 min. Spontaneous delivery O.R.P. to O.R.A. living infant, weight 7 lb. 12 oz.

Case 89. Negro primipara, achondroplastic dwarf, aged twenty-four, brought to hospital after 50 hr. of labor, anemic, eclamptic, neglected, and fetus in poor condition; large fetus and platypelloid pelvis; anteroposterior 8.5 cm., transverse 11.5 cm. Delivery by craniotomy infant, weight 8 lb. 6 oz. plus estimated 20 per cent for brains and blood. Uterus packed, mother died on sixth day, autopsy revealed infarct of the posterior lobe of the pituitary gland, anemia, fatty degeneration of the liver, pulmonary congestion and edema.

Case 90. Negro primipara, aged sixteen; gynecoid pelvis; anteroposterior 11 cm., transverse 12 cm. Labor, 1st stage 36 hr., 2nd stage 1 hr. 30 min. Spontaneous delivery O.R.P. to O.R.A. living infant, weight 6 lb. 6 oz.

Case 91. Negro primipara, aged twenty-five; gynecoid pelvis; anteroposterior 11 cm., transverse 11.5 cm. Labor, 1st stage 30 hr., 2nd stage 2 hr. Spontaneous delivery O.L.P to O.L.A. living infant, weight 7 lb. 5 oz.

Case 92. Negro primipara, aged twenty; slightly contracted gynecoid pelvis; anteroposterior 10 cm., transverse 11.75 cm. Labor, 1st stage 20 hr., 2nd stage 2 hr. 15 min. Spontaneous delivery O.R.A. living infant, weight 6 lb. 4 oz.

Case 93. White, para 2, gravida 3, aged twenty; gynecoid pelvis; anteroposterior 10.5 cm., transverse 12.25 cm. Labor, 1st stage 12 hr. 20 min., 2nd stage 30 min. Spontaneous delivery O.L.A. living infant, weight 6 lb. 14 oz.

Case 94. White primipara, aged sixteen, short fat type, hereditary; slightly contracted gynecoid pelvis; anteroposterior 10.25 cm., transverse 12.75 cm. Labor, 30 hr. test, then low cervical cesarean section. Delivery of living infant, weight 6 lb. 1 oz.

Case 95. Negro, para 6, gravida 7, aged twenty-eight; gynecoid pelvis; anteroposterior 10.75 cm., transverse 12 cm. Labor, 1st stage 23 hr., 2nd stage 25 min. Spontaneous delivery O.R.A. living infant, weight 7 lb. 11 oz.

Case 96. Negro, para 2, gravida 3, aged twenty-seven, toxemia; slight contracted gynecoid pelvis; anteroposterior 10 cm., transverse 10.75 cm. Labor, 1st stage 77 hr., 2nd stage 5 hr. 25 min. Mid forceps O.R.P. stillborn infant, weight 9 lb. 5 oz. Autopsy: brain injury.

Case 97. Negro, para 1, gravida 2, aged twenty-nine; anthropoid pelvis; anteroposterior 12 cm., transverse 12 cm. Labor, 1st stage 48 hr., 2nd stage 30 min. Spontaneous delivery O.L.P. to O.L.A. living infant, weight 8 lb. 12 oz.

Case 98. Negro primipara, aged twenty; slightly contracted gynecoid pelvis; anteroposterior 10.5 cm., transverse 12 cm. Labor, 1st stage 79 hr. at home with several vaginal examinations. Membranes ruptured and infection of amniotic fluid, dead fetus delivered by craniotomy, mother died suddenly six hours later. Autopsy: bilateral pulmonary emboli, streptococcus found in vaginal culture.

Case 99 Negro primipara, aged nineteen; slightly contracted gynecoid pelvis; anteroposterior 9.75 cm., transverse 11 cm. Labor, 1st stage 30 hr., 2nd stage 6 hr. Kjelland forceps delivery O.R.T. living infant weight 5 lb. 6 oz.

Case 100. Negro, para 2, gravida 4, aged twenty; slightly contracted gynecoid pelvis; anteroposterior 10 cm., transverse 12.5 cm. Labor, 1st stage 56 hr., 2nd stage 2 hr. 20 min. Spontaneous delivery O.L.A. living infant, weight 9 lb.

Case 101. Negro primipara, aged sixteen; anthropoid pelvis; anteroposterior 12.25 cm., transverse 12 cm. Placenta previa marginalis treated by rupture of the membranes. Labor, 1st stage 12 hr. 20 min., 2nd stage 20 min. Spontaneous delivery O.L.A. living infant, weight 5 lb. 4 oz.

Case 102. White primipara, aged eighteen; gynecoid pelvis; anteroposterior 11 cm., transverse 13.75 cm. Labor, 1st stage 9 hr. 30 min., 2nd stage 1 hr. Spontaneous delivery O R.A. living infant, 7 lb. 6 oz.

Case 103. Negro, para 3, gravida 4, aged thirty, toxemia; gynecoid pelvis; anteroposterior 12 cm., transverse 12.5 cm. Labor, 1st stage 7 hr., 2nd stage 1 hr. 10 min. Breech delivery, macerated fetus, weight 6 lb. 2 oz.

Case 104. White, para 4, gravida 5, aged twenty-nine; malformed gynecoid pelvis; anteroposterior 11.75 cm., transverse 12.5 cm. Labor 1st stage 36 hr., 2nd stage 1 hr. 10 min. Spontaneous delivery O.L.A. living infant, weight 4 lb. 5½ oz.

Case 105. White primipara, aged twenty; gynecoid pelvis; anteroposterior 11.75 cm., transverse 13.25 cm. Labor, 1st stage 8 hr., 2nd stage 1 hr. 48 min. Spontaneous delivery O.L.A. living infant, weight 6 lb. 10 oz.

Case 106. Negro primipara, aged sixteen, toxemia; slightly contracted anthropoid pelvis; anteroposterior 10.75 cm., transverse 10.5 cm. Labor, 1st stage 12 hr. 10 min., 2nd stage 10 min. Spontaneous delivery O.L.A. living infant, weight 5 lb. 4 oz.

Case 107. White primipara, aged fifteen; gynecoid pelvis with narrow outlet; anteroposterior 11 cm., transverse 12.25 cm. Labor, 1st stage 58 hr. 5 min., 2nd stage 53 min. Low forceps delivery after rotation O.R.P. to O.R.A. living infant, weight 6 lb. 12¼ oz.

Case 108. Negro primipara, aged twenty-one, toxemia; contracted anthropoid pelvis; anteroposterior 10 cm., transverse 10 cm. Labor, 1st stage 13 hr., 2nd stage 5 hr. 20 min. Kjelland mid forceps O.L.T., infant died following cerebellar injuries.

Case 109. Negro, para 2, gravida 3, aged twenty; anthropoid pelvis; anteroposterior 11 cm., transverse 11 cm. Labor, 1st stage 23 hr. 30 min., 2nd stage 30 min. Spontaneous delivery O.L.A. living infant, weight 6 lb. 6 oz.

Case 110. Negro primipara, aged seventeen, pyelitis of pregnancy and anemia; justo major gynecoid pelvis; anteroposterior 12.5 cm., transverse 13 cm. Labor, 1st stage irregular contractions for 72 hr., 2nd stage 3 hr. Mid forceps delivery O.L.A. living infant, weight 9 lb. 4 oz.

Case 111. Negro primipara, aged seventeen, toxemia; anthropoid pelvis with narrow outlet; anteroposterior 12 cm., transverse 12 cm. Labor, 1st stage 16 hr., 2nd stage 2 hr. Spontaneous delivery O.L.A. living infant, weight 6 lb. 7 oz.

Case 112. White, para 4, gravida 5, aged thirty-six; contracted android pelvis; anteroposterior 9.5 cm., transverse 12 cm. Labor, 1st stage 16 hr., 2nd stage 1 hr. Spontaneous delivery O.R.A. living infant, 5 lb. 12 oz.

Case 113. Negro primipara, aged fifteen; slightly contracted gynecoid pelvis; anteroposterior 10.75 cm., transverse 11.75 cm. Labor, 1st stage 30 hr., 2nd stage 2 hr. plus. Mid Kjelland forceps delivery O.L.T. living infant, weight 7 lb. 8 oz.

Case 114. Negro, para 4, gravida 5, aged twenty-seven, toxemia; slight contracted gynecoid pelvis; anteroposterior 10.5 cm., transverse 11.75 cm. Labor, 1st stage 24 hr., 2nd stage 2 hr. Spontaneous delivery O.R.T. to O.R.A. living infant, weight 5 lb. 8 oz.

Case 115. Negro primipara, aged eighteen, toxemia; gynecoid pelvis with narrow outlet; anteroposterior 11 cm., transverse 11.75 cm. Labor, 1st stage 56 hr., 2nd stage 5 hr. 15 min. Kjelland application of Kjelland forceps O.R.P. in mid pelvis, delivery living infant, weight 6 lb. 9 oz. This fetal head rotated from O.L.P. to O.P. to O.R.P.

Case 116. White primipara, aged twenty-six; pelvis tendency to android; anteroposterior 10.75 cm., transverse 11 cm. Labor, 1st stage 14 hr., 2nd stage 21 min. Spontaneous delivery O.R.T. to O.R.A. living infant, weight 6 lb. 3½ oz.

Case 117. White primipara, aged seventeen, female type; pelvis android tendency, very narrow outlet; anteroposterior 11.25 cm., transverse 11.75 cm. Labor, 1st stage 27 hr., 2nd stage 7 hr. 45 min. Mid pelvis Kjelland application of Kjelland forceps O.L.P. delivery of living infant, weight 6 lb. 3 oz., temporary facial paralysis of fetus.

Case 118. White, para 1, gravida 4, aged seventeen, had previous low cervical section; gynecoid pelvis; anteroposterior 11.25 cm., transverse 13 cm Labor, 1st stage 18 hr. 56 min., 2nd stage 1 hr. Spontaneous delivery O.L.A. living infant, weight 7 lb. 2½ oz.

Case 119. White primipara, aged eighteen; gynecoid pelvis narrow outlet; anteroposterior 12 cm., transverse 12.25 cm. Labor, 1st stage 33 hr. 30 min., 2nd stage 10 min. Spontaneous delivery O.L.A. small macerated fetus, dead for several days.

Case 120. Negro, para 4, gravida 5, aged thirty-three; contracted pelvis android tendency; anteroposterior 9.5 cm., transverse 11 cm. Labor, 1st stage 7 hr., 2nd stage 9 hr. 49 min. Dead fetus transverse with elbow presenting, weight 7 lb. 7 oz. delivered by version and extraction.

Case 121. Negro, para 5, gravida 6, aged thirty-five; gynecoid pelvis; anteroposterior 10.5 cm., transverse 13 cm. Labor, 1st stage 13 hr., 2nd stage 52 min. Spontaneous delivery O.L.A. living infant, weight 7 lb. 14 oz.

Case 122. White, para 3, gravida 4, aged twenty-four, familial obesity; justo major gynecoid pelvis slight android tendency; anteroposterior 12.25 cm., transverse 14.25 cm. Labor induced, 1st stage 3 hr. 30 min., 2nd stage 12 min. Spontaneous delivery O.L.A. living infant, weight 10 lb. 1½ oz.

Case 123. White primipara, aged twenty; slightly contracted gynecoid pelvis; anteroposterior 10.25 cm., transverse 12 cm. Labor, 1st stage 22 hr., 2nd stage 6 hr. Low forceps delivery O.R.A. living infant, weight 9 lb. 6 oz.

Case 124. Negro primipara, aged seventeen, toxemia; slightly contracted anthropoid pelvis; anteroposterior 10.75 cm., transverse 10.75 cm. Labor, 1st stage 26 hr. 30 min., 2nd stage 2 hr. 30 min. Spontaneous delivery O.R.A. living infant, weight 6 lb. 1 oz.

Case 125. Negro primipara, aged eighteen, toxemia; slightly contracted gynecoid pelvis; anteroposterior 10.5 cm., transverse 12 cm. Labor, 1st stage 10 hr. 30 min., 2nd stage 1 hr. Spontaneous delivery O.R.A. living infant, weight 7 lb. 4 oz.

Case 126. Negro, para 1, gravida 2, aged nineteen; slightly contracted gynecoid pelvis; anteroposterior 10.5 cm., transverse 12 cm. Labor, 32 hr. 10 min., test, head engaged, cervix dilated 4 cm. Low cervical cesarean section, living infant, weight 7 lb. 1 oz. This patient had postpartum eclampsia. (Her 1st labor, 1st stage 32 hr. 10 min., 2nd stage 1 hr. 45 min. Spontaneous delivery living infant, weight 7 lb. 4 oz.) This patient might have delivered the 2nd time with the use of the Voorhees bag to dilate the cervix.

Case 127. Negro primipara, aged twenty-two, short obese type; contracted pelvis android tendency with narrow outlet; anteroposterior 9.75 cm., transverse 10.5 cm. Labor, 1st stage 17 hr. 45 min., 2nd stage 1 hr. 10 min. Spontaneous delivery O.R.A. living infant, weight 7 lb.

Case 128. Negro primipara, aged eighteen; Nägele pelvis; anteroposterior 9.75 cm., transverse 10.5 cm. Labor, 1st stage 32 hr., 2nd stage 5 hr. 55 min. Mid pelvis application Kjelland forceps O.L.A. delivery living infant, weight 5 lb. 9 oz., with fetal head biparietal diameter 9 cm. and suboccipital bregmatic diameter 8 cm.

Case 129. Negro, para 4, gravida 5, aged thirty-six, diabetes and marked toxemia; contracted platy-

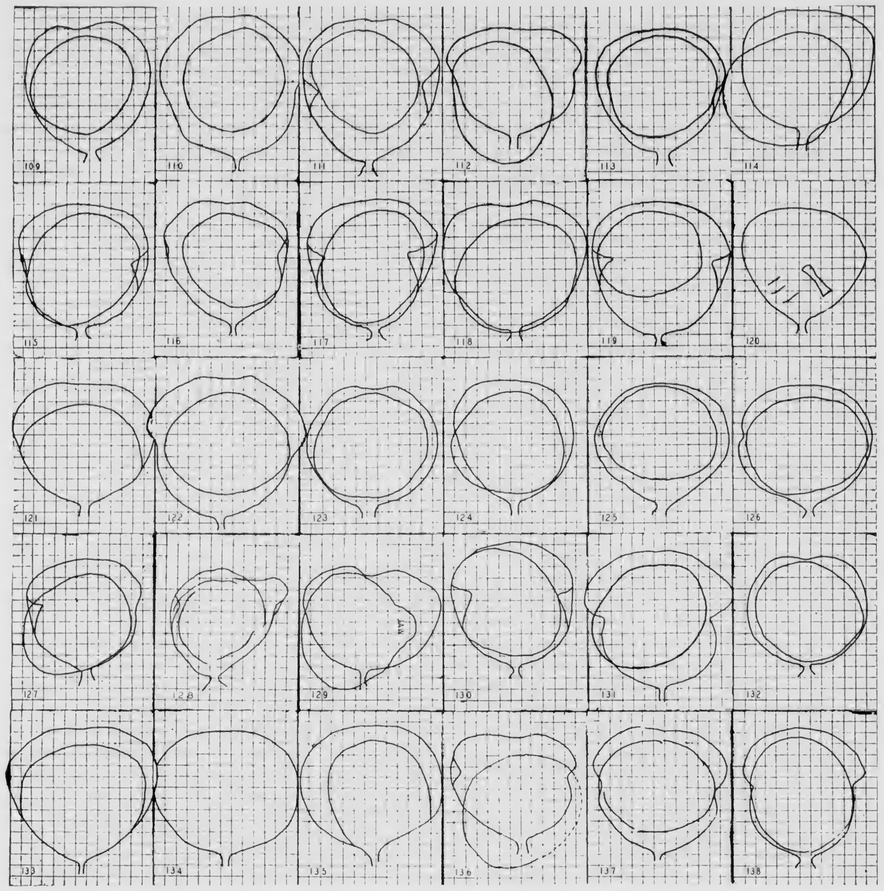


Fig. 5. Pelvic outlines of Cases 109 to 138.

pelloid pelvis; anteroposterior 8.5 cm., transverse 12 cm. She had given birth to 3 babies spontaneously weighing from 6 lb. 1 oz. to 7 lb. Labor, membranes ruptured 22 hr., head engaging, cervix dilated 4 cm. Low cervical cesarean section delivery, living infant, brow presentation, weight 9 lb. 7 oz. The mother died suddenly the next day, autopsy not granted.

Case 130. Negro, para 1, gravida 2, aged thirty, with multiple large fibromyomas; anthropoid pelvis narrow outlet; anteroposterior 11 cm., transverse 11 cm. Labor, 1st stage 14 hr., 2nd stage 50 min. Spontaneous delivery complete occiput posterior living infant, weight 6 lb. 3 oz.

Case 131. White, para 1, gravida 2, aged thirty-eight, short stout; pelvis android tendency, narrow outlet; anteroposterior 12.25 cm., transverse 13.25 cm. Labor, 20 hr. test then low cervical cesarean section delivery living infant, weight 5 lb. 8 oz.

Case 132. Negro primipara, aged seventeen; contracted gynecoid pelvis; anteroposterior 9.5 cm., transverse 10.75 cm. Labor, 1st stage 15 hr. 30 min., 2nd stage 2 hr. 30 min. Spontaneous delivery living infant, weight 6 lb. 8 oz.

Case 133. White, para 5, gravida 6, aged thirty-six, cardiac patient recently decompensated; large gynecoid pelvis android tendency; anteroposterior 12 cm., transverse 13.5 cm. Labor, medical induction

1st stage 2 hr. 30 min., 2nd stage 35 min. Spontaneous delivery O.L.A. living infant, weight 6 lb. 4 oz.

Case 134. White, para 1, gravida 2, aged twenty-nine; gynecoid pelvis; anteroposterior 11 cm., transverse 13 cm. Outline of head hidden behind pelvic brim. Labor, 20 hr. test, then low cervical cesarean section delivery of living hydrocephalic infant, weight 9 lb. 8 oz., with extremely hard head. The parents refused the operation of choroid cauterization but consented one month later when the head had grown enormously and the operation proved fatal.

Case 135. White primipara, aged eighteen, dystrophia dystocia syndrome with toxemia; gynecoid pelvis; anteroposterior 11 cm., transverse 12.75 cm. Labor, 1st stage 31 hr. 24 min., 2nd stage 7 hr. 24 min. Mid pelvis Kjelland application of Kjelland forceps O.L.T. delivery living infant, weight 8 lb. 15¾ oz.

Case 136. Negro primipara, aged twenty-one, toxemic; contracted pelvis android tendency; anteroposterior 9 cm., transverse 11.25 cm. Labor, 1st stage 20 hr., 2nd stage 2 hr. 30 min. Mid pelvis Kjelland application of Kjelland forceps O.L.T. delivery living infant, weight 7 lb. 15 oz. (delivery required five 45 second tractions at intervals of a minute and a half with measured pull of 115 lb. The infant, uninjured, breathed spontaneously).

Case 137. White primipara, aged nineteen, toxemia with generalized edema; pelvis android tendency with narrow outlet; anteroposterior 11 cm., transverse 12 cm. Labor, 1st stage 23 hr., 2nd stage 4 hr. Mid pelvis Kjelland application of Kjelland forceps O.L.T. delivery living infant, weight 7 lb. ½ oz.

Case 138. Negro primipara, aged sixteen, toxemia; anthropoid pelvis with android tendency, narrow outlet; anteroposterior 11.25 cm., transverse 11 cm. Labor, 1st stage 7 hr., 2nd stage 1 hr. 55 min. Spontaneous delivery direct occiput posterior living infant, weight 6 lb. 12 oz.

Conclusions

An analysis of these cases shows that while each patient in labor must still be individualized, enough information may be obtained from the single grid film to prognosticate delay definitely due to fetopelvic disproportion. The method's freedom from technical error, its ease of performance by any technician and its economy (a single 8 by 10 inch film) warrant its wider use not only in private practice, but also in the clinic, where its use in all doubtful cases practically doubles the amount of scientific information ordinarily available. Specifically:

(1) If there is a free space 1 cm. wide between the image of the fetal head and that of the pelvic inlet, there should be no pelvic interference with labor unless the iliac spines markedly protrude into the pelvis as in Cases 117 and 130.

(2) Thoms[4] and others have shown that the length of the suboccipitobregmatic diameter is very nearly equal to that of the biparietal, while the occipitofrontal diameter is much longer. Therefore, for practical purposes, when the image of the fetal head approaches the circle, it is to be assumed that the view of the head is that of marked flexion, and one can assume that it is engaged or engaging, while if the image is markedly oval, the head must be extended, and one can assume that it is still floating. A diagnosis of floating head is evident if the borders overlap the pelvic brim in the roentgenogram.

(3) Now if the head is thus seen to float high, one must assume that its image is relatively larger than actual, and this must be taken into account in predicting the outcome of these relatively few cases.

(4) The most important observation made in this study is that if the conjugata vera is 9 cm. or more, a test of labor should be allowed, and in most cases the outcome should be successful. A test of labor ordinarily should include uterine contractions of forty seconds' duration recurring every two to five minutes for twenty to twenty-four hours. At the end of that time, the head should be at least in midpelvis. If not, and if no vaginal examination has been made, it has been shown that the lower cesarean section operation is quite safe.

References

1. Torpin, R., Holmes, L. P., and Hamilton, W. F. Roentgen pelvimeter simplifying Thoms' method. *Radiology*, 1938, *31*, 584–586.
2. Caldwell, W. E., and Moloy, H. C. Anatomical variations in female pelvis and their effect in labor with suggested classification. *Am. J. Obst. & Gynec.*, 1933, *26*, 379–505.
3. Torpin, R., and Holmes, L. P. Pelvic inlet variation in 400 Negro women. *Am. J. Obst. & Gynec.*, 1939, *38*, 594–598.
4. Thoms, H., and Godfried, M. S. Suboccipitobregmatic circumference. *Am. J. Obst. & Gynec.*, 1940, *39*, 841–843.

ADDRESSES

Daily Guide to the Program

•

FIRST WORLD CONGRESS

on

FERTILITY AND STERILITY

NEW YORK CITY

MAY 25-31, 1953

•

Sponsored by

The International Fertility Association

American Society for the Study of Sterility

General Information

REGISTRATION— All delegates, members and conferees to the Congress should register. It is urged that wives register at the Women's Registration desk. Identification badges for admittance to meetings and exhibits will be issued at time of registration. *Admission to meetings will be by badges only.*

REGISTRATION DESKS— All registration desks will be on the Second Floor Foyer and East Room.

SCIENTIFIC MEETINGS—Will be held promptly at the time and hours specified. Meetings will be held in the rooms designated in the Guide.

SCIENTIFIC EXHIBITS— Open to registrants from 1 P.M. Monday May 25th to Sunday May 31st: daily 9 A.M. to 6 P.M.

SCIENTIFIC MOTION PICTURES— Will be shown in the Terrace Room (Room E) on the second floor—except Monday morning May 25 and Wednesday afternoon May 27—when they will be shown in the Ballroom (Room A) on the Main floor.

TECHNICAL EXHIBITS— Are open to registrants from 1 P.M. Monday May 25 to May 30. Visit these exhibits from 9 A.M. to 6 P.M. throughout the Congress Week beginning on Tuesday.

PRESS HEADQUARTERS— Parlor C—Second Floor.

BULLETIN BOARDS— These will be found at the main desks and will carry special announcements, information and telephone messages for physicians. Be sure to visit these Bulletin boards from time to time since meetings cannot be interrupted for paging physicians.

CONGRESS HEADQUARTERS— Parlor F—Second Floor.

SUNDAY

MAY 24

8:00 A.M. to 5:30 P.M.	Registration of Congress participants—Delegates, Members and Guests—*Second Floor*
9:00 A.M.	Meeting of the Board of Directors of the International Fertility Association — *Panel Room (Room D) Second Floor*
11:00 A.M.	Committee Meetings of International Fertility Association
2:00 P.M.	Committee Meetings of American Society for the Study of Sterility
4:00 P.M.	Business Meeting, International Fertility Association — Members only — *Tudor Room (Room B) Second Floor*
5:00 P.M. to 7:00 P.M.	Meeting of the Board of Directors of the American Society for the Study of Sterility —*Panel Room (Room D)—Second Floor*
8:30 P.M. to 11:30 P.M.	Reception by members of A.S.S.S. for Distinguished International Guests (La Noche Latino-Americana) — By invitation only — (Courtesy of Schering Corp.) — *Ballroom (Room A) Main Floor*

WOMEN'S PROGRAM

2:00 P.M. to 5:00 P.M.	Registration of all Doctors' Wives — *East Room (Room G) Second Floor*
3:30 P.M.	Get-to-gether in women's lounge headquarters—*Georgian Lounge (Room H) Second Floor*
8:30 P.M.	Reception for Distinguished International Guests—(by invitation only) — *Ballroom (Room A) Main Floor*

Official Banquet

Thursday Night, May 28 - 7 P.M., Grand Ballroom, Commodore Hotel.
Please obtain your tickets early at the Registration desk. Dress Optional.

MONDAY

MAY 25

8:00 A.M. to 5:30 P.M.	Registration of Congress participants—Delegates, Members and Guests—*Second Floor*
8:30 A.M. to 11:00 A.M.	Setting up of Scientific and Technical Exhibits—*Ballroom Foyers* and *Second Floor Corridors*
9:00 A.M. to 12 Noon	Motion Picture Program—*Ballroom (Room A) Main Floor*—(Selected films)
12 Noon to 2:00 P.M.	Time for visits to Scientific Exhibits—*Ballroom Foyer (Room A)* Time for visits to Technical Exhibits—*Second Floor Corridors*
2:00 P.M. to 5:30 P.M.	Pre-inaugural Session—(Section I) "The Reason for the Congress—the Challenge"—*Ballroom (Room A) Main Floor*
5:30 P.M. to 6:00 P.M.	Visits to Scientific Exhibits—*Ballroom Foyer (Room A)* Visits to Technical Exhibits—*Second Floor Corridors*
8:30 P.M. to 11:00 P.M.	Inaugural Session—Official Opening of the Congress: The Roll Call of Nations and Delegates—*Ballroom (Room A) Main Floor*

(Monday—continued)

WOMEN'S PROGRAM

10:00 A.M. to 12 Noon	Registration of all Doctor's Wives — *East Room (Room G)—Georgian Lounge (Room H) Second Floor*
2:00 P.M. to 4:00 P.M.	Registration fo all Doctors' Wives — *East Room (Room G)—Georgian Lounge (Room H) Second Floor*
8:30 P.M. to 11:00 P.M.	Inaugural Session—Official Opening of the Congress: The Roll Call of Nations and Delegates—*Ballroom (Room A) Main Floor*

Transactions may be ordered now at the Congress at the pre-publication price of $21.00.

Over 173 papers and all the discussions will appear in the large volume.

TUESDAY

MAY 26

8:00 A.M. to 5:30 P.M.	Registration of Congress participants—Delegates, Members and Guests—*Second Floor Foyer*
8:30 A.M. to 10:15 A.M.	Section II of the Congress—"Clinical Aspects of Ovarian Physiology"—*Ballroom (Room A) Main Floor* Section III of the Congress—"Clinical Aspects of Spermatogenesis" — *Tudor Room (Room B) Second Floor* Section IIIA of the Congress—"General Session" — *Terrace Room (Room E) Second Floor*
10:15 A.M. to 10:45 A.M.	Intermission for visiting Scientific and Technical Exhibits *Ballroom Foyers* and *Second Floor Corridors*
10:45 A.M. to 12:30 P.M.	Sections II, III, and IIIA continued
12:30 P.M. to 1:30 P.M.	Visits to Scientific and Technical Exhibits—*Ballroom Foyers* and *Second Floor Corridors*
1:30 P.M. to 3:15 P.M.	Section IV of the Congress—"Factors Influencing Sperm-Egg Union"—*Ballroom (Room A) Main Floor*

(Tuesday—continued)

	Section VI of the Congress—"Patterns and Evaluation of Semen"—*Tudor Room (Room B) Second Floor*
3:15 P.M. to 3:45 P.M.	Intermission—time for visiting Scientific and Technical Exhibits — *Ballroom Foyers* and *Second Floor Corridors*
3:45 P.M. to 5:30 P.M.	Section V of the Congress—"Endocrine Factors"—*Ballroom (Room A) Main Floor* Section VI continued (*Room B*)
5:30 P.M.	Business Meeting, American Society for the Study of Sterility—Members only—*Tudor Room (Room B) Second Floor*

Scientific Exhibits 9 A.M. to 6 P.M. *Main Floor*

Scientific Motion Pictures 2 P.M. to 6 P.M. *Terrace Room (Room E) Second Floor*

Technical Exhibits 9 A.M. to 6 P.M. *Second Floor*

8:30 P.M. Night Meeting	Section VII of the Congress—"Clinical Recognition of Ovulation"—*Ballroom (Room A) Main Floor*

WOMEN'S PROGRAM

9:30 A.M. to 12 Noon	Registration of all Doctors' Wives — *East Room (Room G) Second Floor*
12:30 P.M.	Fashion Show and Luncheon—*Ballroom of the Hotel Pierre (Fifth Avenue and 60th St.)*

WEDNESDAY

MAY 27

8:30 A.M. to 5:30 P.M.	Registration of Congress participants
8:30 A.M. to 11:00 A.M.	Section VIII of the Congress—"Treatment of Anovulation" — *Ballroom (Room A) Main Floor* Section IX of the Congress—"Male Therapeutic Aspects" — *Tudor Room (Room B) Second Floor*
11:30 A.M. to 12:30 P.M.	Time for visiting Scientific and Technical Exhibits
12:30 P.M. to 5:00 P.M.	Outing and Luncheon for Visiting International Scientists (Courtesy of Schering Corp.) (By Invitation Only)
1:15 P.M. to 5:00 P.M.	Boat Trip Around Manhattan Island for Visiting Guests
2:00 P.M. to 6:00 P.M.	Scientific Motion Pictures—*Ballroom (Room A) Main Floor* Scientific Exhibits—*Ballroom Foyers* Technical Exhibits—*Second Floor Corridors*
2:30 P.M. to 4:00 P.M.	Meeting of the Canadian Committee for the Study of Sterility—*Terrace Room (Room E) Second Floor*

5:00 P.M. Meeting of the Women Physicians Attending the Congress—*Terrace Room (Room E) Second Floor*

Meeting of the Members of the A.S.S.S. from the Southern States—*Tudor Room (Room B) Second Floor*

Meeting of the Members of the A.S.S.S. from the Midwestern and Rocky Mountain States —*Panel Room (Room D) Second Floor*

7:30 P.M. Meeting of the New York Fertility Society—*Panel Room (Room D) Second Floor*

Meeting of the Members of the A.S.S.S. from the Pacific States—*Terrace Room (Room E) Second Floor*

8:30 P.M. Section X of the Congress—"The Hostile Cervix"—*Ballroom (Room A) Main Floor*

WOMEN'S PROGRAM

9:30 A.M. to 12 Noon — Registration of all Doctors' Wives — *East Room (Room G) Second Floor*

1:15 P.M. to 5:00 P.M. — Boat Trip Around Manhattan Island

THURSDAY

MAY 28

8:30 A.M. to 5:30 P.M. — Registration of Congress participants

8:30 A.M. to 10:15 A.M. — Section XI of the Congress—"Blood Incompatibility and Fertility" — *Ballroom (Room A) Main Floor*

Section XIII of the Congress—"Pelvic Tuberculosis and Infertility" — *Tudor Room (Room B) Second Floor*

10:15 A.M. to 10:45 A.M. — Time for visiting Scientific and Technical Exhibits

10:45 A.M. to 12:30 P.M. — Section XII of the Congress—"Perinatal Mortality"—*Ballroom (Room A) Main Floor*

Section XIII continued

12:30 P.M. to 1:30 P.M. — Time for visiting Scientific and Technical Exhibits

1:30 P.M. to 3:15 P.M. — Section XIV of the Congress—"Diagnosis of Fallopian Tube Occlusion"—*Ballroom (Room A) Main Floor*

Section XV of the Congress—"Problems in Reproduction (Animal)" — *Tudor Room (Room B) Second Floor*

(Thursday—continued)

3:15 P.M. to 3:45 P.M.	Time for visiting Scientific and Technical Exhibits
3:45 P.M. to 5:30 P.M.	Section XIV continued Section XV continued
7:00 P.M.	Official Banquet of the Congress—*Grand Ballroom of the Hotel Commodore*

Scientific Exhibits 9 A.M. to 6 P.M.

Scientific Motion Pictures 2 P.M. to 6 P.M. *Terrace Room (Room E) Second Floor*

Technical Exhibits 9 A.M. to 6 P.M.

WOMEN'S PROGRAM

9:30 A.M.	Lever House Tour
7:00 P.M.	Official Banquet of the Congress—*Grand Ballroom of the Hotel Commodore*

FRIDAY

MAY 29

8:30 A.M. to 5:30 P.M.	Registration of Congress participants
8:30 A.M. to 10:15 A.M.	Section XVI of the Congress—"Problems in Reproduction (Animal)" — Continued from Previous Day's Session—*Tudor Room (Room B) Second Floor* Section XVII of the Congress—"Treatment of Disordered and Occluded Fallopian Tubes" —*Ballroom (Room A) Main Floor*
10:15 A.M. to 10:45 A.M.	Time for visiting Scientific and Technical Exhibits
10:45 A.M. to 12:30 P.M.	Section XVI continued Section XVII continued
12:30 P.M. to 1:30 P.M.	Time for visiting Scientific and Technical Exhibits
1:30 P.M. to 3:15 P.M.	Section XVIII of the Congress—"Uterine and Pelvic Physiopathology" — *Ballroom (Room A) Main Floor* Section XIX of the Congress—"Psychogenic Aspects of the Infertile Couple" — *Tudor Room (Room B) Second Floor*

(Friday—continued)

3:15 P.M. to 3:45 P.M.	Time for visiting Scientific and Technical Exhibits
3:45 P.M. to 5:30 P.M.	Section XVIII continued Section XIX continued

Scientific Exhibits 9 A.M. to 6 P.M.

Scientific Motion Pictures 2 P.M. to 6 P.M. *Terrace Room (Room E) Second Floor*

Technical Exhibits 9 A.M. to 6 P.M.

8:30 P.M. Night Meeting	Section XX of the Congress—"Human Artificial Insemination" — *Ballroom (Room A) Main Floor*

WOMEN'S PROGRAM

2:30 P.M. to 5:30 P.M.	Bus Tour of New York City

Official Banquet

Thursday Night, May 28 - 7 P.M., Grand Ballroom, Commodore Hotel.
Please obtain your tickets early at the Registration desk. Dress Optional.

SATURDAY

MAY 30

8:30 A.M. to 12 Noon	Registration of Congress participants
8:30 A.M. to 10:15 A.M.	Section XXI of the Congress — "Diagnosis and Treatment of Sterility of Uterine Origin" —*Ballroom (Room A) Main Floor* Section XXII of the Congress—"Problems of Child Adoption"—*Tudor Room (Room B) Second Floor*
10:15 A.M. to 10:45 A.M.	Time for visiting Scientific and Technical Exhibits
10:45 A.M. to 12:30 P.M.	Section XXI continued Section XXII continued
12:30 P.M. to 1:30 P.M.	Time for visiting Scientific and Technical Exhibits
1:30 P.M. to 3:15 P.M.	Section XXIII of the Congress—"Threatened and Habitual Abortion" — *Ballroom (Room A) Main Floor* Section XXIV of the Congress — "Reports from Infertility Clinics" — *Tudor Room (Room B) Second Floor*

(Saturday—continued)

3:15 P.M. to 3:45 P.M. Time for visiting Scientific and Technical Exhibits

3:45 P.M. to 5:30 P.M. Section XXIII continued
Section XXIV continued

Scientific Exhibits 9 A.M. to 6 P.M.

Scientific Motion Pictures 2 P.M. to 6 P.M.

Technical Exhibits 9 A.M. to 6 P.M. (Technical Exhibits may be dismantled after 6 P.M.)

WOMEN'S PROGRAM

8:30 A.M. Problems of Child Adoption—*Tudor Room (Room B) Second Floor*

Transactions may be ordered now at the Congress at the pre-publication price of $21.00.

Over 173 papers and all the discussions will appear in the large volume.

SUNDAY

MAY 31

10:00 A.M. Joint Meeting, Board of Directors of the International Fertility Association and the Board of Directors of the American Society for the Study of Sterility—*Terrace Room (Room E) Second Floor*

10:00 A.M. to 4:00 P.M. Time for visiting Scientific Exhibits (Scientific Exhibits may be dismantled after 4 P.M.)

2:00 P.M. to 4:00 P.M. Section XXV—"The Closing Session of the Congress" *Ballroom (Room A) Main Floor*

WOMEN'S PROGRAM

2:00 P.M. to 4:00 P.M. The Closing Session of the Congress—*Ballroom (Room A) Main Floor*

Official Banquet

Thursday Night, May 28 - 7 P.M., Grand Ballroom, Commodore Hotel.
Please obtain your tickets early at the Registration desk. Dress Optional.

MOTION PICTURE FILMS

Monday 9:00 A.M. - 12:30 P.M.

(Ballroom - Room A)

9:00 A.M. Dr. Stone—Biology of Conception
9:15 A.M. Dr. Hodgson—Frog Test for Pregnancy
9:30 A.M. Schering Corp.—Physiology of Normal Menstruation —Spanish
10:00 A.M. Dr. Mayer—Tuboplasty
10:15 A.M. Dr. Moricard—Study of Function of Follicular Liquid by Micro Injection
10:30 A.M. Dr. Romberg—Endometrial Aspiration Technic
10:45 A.M. Dr. Ingersoll—Stein Leventhal Syndrome
11:00 A.M. Dr. Doyle—Tubo-ovarian Mechanism
11:15 A.M. Dr. Doyle—Ovulation—3 dimensional stills
11:30 A.M. Dr. Bachrach—Vaso-Epididymostomy
11:45 A.M. Dr. Bachrach—Congenital Bilateral Atresia
12:00 P.M. Dr. Karczmar—Hysterosalpingography with Lipiodol F. —Ether
12:15 P.M. Dr. Lopez de Nava—Double Uterus and Vagina—Strassman's Operation

Monday Afternoon

(Terrace Room - Room E)

5:30 P.M. Dr. Abarbanel—Myomectomy and Myometrial Reconstruction
5:45 P.M. Dr. Guerrero—Myomectomy through Hysterotomy
6:00 P.M. Schering Corp.—Male Sex Hormone—Spanish

Tuesday Afternoon

(Terrace Room - Room E)

1:30 P.M. Dr. Doyle—Uterotubal Denervation
2:00 P.M. Dr. Barker—Testicular Biopsy in Bulls

2:15 P.M. Dr. Abarbanel—Myomectomy and Myometrial Reconstruction
2:45 P.M. Dr. Guerrero—Myomectomy through Hysterotomy
3:00 P.M. Dr. Ribeiro—Hysterosalpingography
3:15 P.M. Dr. Ribeiro—Tuban Anastamosis
3:30 P.M. Dr. Couri—Office Technic of Testicular Biopsy
3:45 P.M. Dr. Shirodkar—Tubal Patency and Utero-tubal Implantation
4:15 P.M. Schering Corp.—Male Sex Hormone—Spanish
4:45 P.M. Dr. Hodgson—Frog Test for Pregnancy
5:00 P.M. Dr. Romberg—Endometrial Aspiration Technic
5:15 P.M. Dr. Ingersoll—Stein-Leventhal Syndrome
5:30 P.M. Dr. Mayer—Tuboplasty
5:45 P.M. Dr. Stone—Biology of Conception
6:00 P.M. Schering Corp.—Normal Menstruation—Spanish

Wednesday Afternoon

(Ballroom - Room A)

1:30 P.M. Dr. Mayer—Tuboplasty
1:45 P.M. Dr. Moricard—Study of Follicular Liquid by Micro-Injection
2:00 P.M. Dr. Doyle—Tubo-Ovarian Mechanism
2:15 P.M. Dr. Doyle—Ovulation—3 dimensional stills
2:30 P.M. Dr. Bachrach—Vaso-Epididymostomy
2:45 P.M. Dr. Bachrach—Congenital Bilateral Atresia
3:00 P.M. Dr. Karczmar—Hysterosalpingography with Lipiodol F. —Ether
3:15 P.M. Dr. Lopez de Nava—Double Uterus and Vagina, Strassman's Operation
3:30 P.M. Dr. Barker—Testicular Biopsy in Bulls
3:45 P.M. Dr. Shirodkar—Tubal Patency and Utero-Tubal Implantation
4:00 P.M. Dr. Ribeiro—Hysterosalpingography
4:15 P.M. Dr. Ribeiro—Tubal Anastamosis

4:30 P.M. Dr. Couri—Office Technic of Testicular Biopsy
4:45 P.M. Dr. Shirodkar—Tubal Patency and Utero-Tubal Implantation
5:00 P.M. Dr. Mayer—Tuboplasty
5:15 P.M. Schering Corp.—Normal Menstruation—English
5:45 P.M. Requests

Thursday Afternoon

(Terrace Room - Room E)

1:30 P.M. Schering Corp.—Male Sex Hormone—English
2:00 P.M. Dr. Barker—Testicular Biopsy in Bulls
2:15 P.M. Dr. Couri—Office Technic of Testicular Biopsy
2:30 P.M. Dr. Mayer—Tuboplasty
2:45 P.M. Dr. Bachrach—Vaso-Epididymostomy
3:00 P.M. Dr. Bachrach—Congenital Bilateral Atresia
3:15 P.M. Dr. Doyle—Tubo-Ovarian Mechanism
3:30 P.M. Dr. Doyle—Autonomic Uterotubal Denervation
4:00 P.M. Dr. Stone—Biology of Conception
4:15 P.M. Dr. Romberg—Endometrial Aspiration Technic
4:30 P.M. Dr. Karczmar—Hysterosalpingography with Lipiodol F. —Ether
4:45 P.M. Dr. Hodgson—Frog Test for Pregnancy
5:00 P.M. Dr. Abarbanel—Myomectomy and Myometrial Reconstruction
5:15 P.M. Dr. Lopez de Nava—Double Uterus and Vagina, Strassmann's Operation

Friday Afternoon

(Terrace Room - Room E)

1:30 P.M. Dr. Ingersoll—Stein-Leventhal Syndrome
1:45 P.M. Dr. Couri—Office Technic of Testicular Biopsy
2:00 P.M. Dr. Shirodkar—Tubal Patency
2:15 P.M. Schering Corp.—Normal Menstruation—English

2:45 P.M. Schering Corp.—Male Sex Hormone—English
3:15 P.M. Dr. Guerrero—Myomectomy through Hysterotomy
3:30 P.M. Dr. Coyle—Tubo-Ovarian Mechanism
3:45 P.M. Dr. Doyle—Autonomic Uterotubal Denervation
4:15 P.M. Dr. Bachrach—Vaso-Epididymostomy
4:30 P.M. Dr. Bachrach—Congenital Bilateral Atresia
4:45 P.M. Dr. Romberg—Endometrial Aspiration Technic
5:00 P.M. Dr. Stone—Biology of Conception
5:15 P.M. Dr. Ribeiro—Hysterosalpingography
5:30 P.M. Dr. Ribeiro—Tubal Anastamosis
5:45 P.M. Dr. Moricard—Study of Follicular Liquid by Microinjection
6:00 P.M. Requests

Official Banquet

Thursday Night, May 28 - 7 P.M., Grand Ballroom, Commodore Hotel.
Please obtain your tickets early at the Registration desk. Dress Optional.

SCIENTIFIC EXHIBITS

Ballroom Fayer

1 *A New Improved X-ray Opaque Mass for Hysterosalpingography*, I. C. Rubin, M.D., Ernest Myller, M.D., Carl G. Hartman, Ph.D., New York City, N. Y. and Raritan, N. J.

2 *Some Interesting Uterotubal Radiographs*, Cerif Canga, M.D., University of Ankara, Ankara, Turkey

3 *Investigation of Tubal Physiology*, Americo Stabile, M.D., Facultad de Medicina, Montevideo, Uruguay

4 *A New Non-Biological Pregnancy Test*, Howard W. Jones, Jr., M.D.,G. E. S. Jones, M.D., Baltimore Maryland

5 *A Fifteen Year Study on Sterility*, Juan Wood, M.D., Amalia Ernst, M.D., University of Chile, Santiago, Chile

6 *Pre-Colombian and South American Fertility Symbols: Primitive African and Oceanique Sexual Symbols*, Abner I. Weisman, M.D., Julius Carlebach, New York City, N. Y.

7 *The Cytologic Approach to Gynecologic Disorders*, Emanuel L. Hecht, M.D., William E. Studdiford, M.D., New York University —Bellevue Medical Center University Hospital, New York, N. Y.

8 *A Simple Test for the Determination of Pregnancy and Ovulation Using Cervical Mucus Secretion*, Maxwell Roland, M.D., Queens General Hospital, New York City, N. Y.

9 *Cervical Mucus "Spinnbarkeit" Test for Ovulation*, U. J. Salmon, M.D.,New York City, N. Y.

10 *Use of Radiopaque and Bacteriostatic Medium (Lipiodol-Ether medium) in Gynecological X-ray Diagnosis*, Antonio Karczmar, M.D., American-British Cowdray Hospital, Mexico, D. F.

11 *Use of the Pelviscope in Culdotomy*, Joseph B. Doyle, M.D., Department of Obstetrics, Tufts Medical School, Boston, Mass.

12 *A Study of the Post-Ovulatory Phase of the Menstrual Cycle in Relation to Age: The Length of the Premenstrual Phase*, R. F. Vollman, M.D., Geneva, Switzerland and New York, N. Y.

13 *Pelvic Photoscopy During the Ovarian Cycle*, Melvin R. Cohen, M.D., Henry S. Guterman, M.D., Michael Reese Hospital, Chicago, Ill.

14 *"Polyethylene Intubated Salpingoplasty" A Newer Approach to Closed Tube Sterility*, Mario A. Castallo, M.D., Amos S. Wainer, M.D., Jefferson Medical College, Philadelphia, Pa.

15 *Electromicroscopic and Phase Microscope Study of Human Spermatozoa*, Meyer D. Schnall, M.D., Mount Sinai Hospital, New York, N. Y.

16 *Culdoscopic Diagnosis of Gynecologic Disease*, Albert Decker, M.D., New York Medical College, Martin J. Clyman, M.D., New York City, N. Y.

17 *A Method of Studying the Uterine Canal by Hysteroscopic Examination*, W. B. Norment, M.D., Wesley Long Hospital, Greensboro, N. C.

18 *Testicular Biopsy*, Fred A. Simmons, M.D., Harvard Medical School, Boston, Mass.

19 *Tubal Insufflation*, Louis Bonnet, M.D., Paris, France

20 *Normal and Abnormal Development of the Human Embryo*, Medical Museum, Armed Forces Institute of Pathology, Washington, D. C.

21 *Pathology of Tubal Occlusion*, Edmundo G. Murray, M.D., Telemaco Susini Institute of Pathology, School of Medicine, University of Buenos Aires, Buenos Aires, Argentina

22 *The Cause of Manometric Oscillations during Uterotubal Insufflation*, Eduardo Bunster, M.D., Hospital del Salvador, Santiago-de-Chile, Chile, S. A.

23 *La Maturation Ovulaire, La Fecondation et L'exploration Cytohormonale (Muqueuse Uterine Humaine)*, R. Moricard, M.D., F. Moricard, M.D., Hospital Broca, Paris, France

24 *The Crystallization Test of the Cervical Mucus*, Arthur Campos Da Paz, M.D., Luis da Costa Lima, M.D., Orlando Baiocchi, M.D., Rio de Janeiro, Brazil

25 *Fetal Salvage Program: Preconceptional Therapy*, E. C. Hughes,
26 M.D., F. J. Schoeneck, M.D., C. W. Lloyd, M.D., A. W. Van
27 Ness, M.D., Department of Photography, Department of Obstetrics, State University of New York State University of New York Medical Center at Syracuse College of Medicine, Syracuse, N. Y.

28 *Abnormal Ovulation*, Walter W. Williams, M.D., Springfield, Mass.

29 *A New Apparatus for Intrauterine Instillation of Semen in Artificial Insemination*, Delfino Gallo, M.D., Guadalajara, Jal., Mexico

30 *Female Sterility: Endocrine Factors*, Rita S. Finkler, M.D., Sylvia F. Becker, M.D., Beth Israel Hospital, Newark, N. J.

31 *Studies on the Contractility of the Human Pregnant Uterus*, H. Alvarez, M.D., R. Caldeyro-Barcia, M.D., Facultad de Medicina, Montevideo, Uruguay

THE TECHNICAL EXHIBITS

Second Floor Corridor

THE PURDUE COMPANY (Booth 24) is featuring *Colpotabs*—therapeutic vaginal insert tablets—pH4— for specific treatment of Trichomonas vaginalis vaginitis. *Colpotabs* are also effective in control of leukorrhea, relief of pruritus, elimination of vaginal malodor and physiologic restoration of vaginal acid pH. *Chlorgiene Duchettes*, therapeutic-hygienic douche preparation, will be on display as well. Literature and samples in English and Spanish are available. Professional service representatives will be on hand to discuss the uses of the above products.

CAMPBELL ASSOCIATES (25) Campbell Associates greets the Conferees of the Congress and cordially invites them to visit their exhibit on the second floor corridor.

GRAFAX COMPANY (26) Grafax invites you to visit and see the Grafax Model "S", a kymoinsufflator for tubal insuffiation. Users have recognized the outstanding features of this apparatus, its accuracy, safety and simplicity.

WESTWOOD (27) displays its vaginal anti-infectives *Gentia-Jel* and *Westhiazole*—now packaged in plastic single-dose disposable applicators. These plastic applicators make possible anti-mycotic therapy in the office and at home, with gentian violet—without the mess and inconvenience usually associated with this specific moniliacide. Demonstrations will be made at the Westwood booth.

ENCYCLOPEDIA AMERICANA (28) Encyclopedia Americana is a *must for* visiting delegates to the Congress as well as for those who live in the United States. A visit to our booth will be highly informative.

CLAY-ADAMS CO., INC. (29) will feature the Adams Fertility Calculator, the Kahn Uterine Trigger Cannula outfit for X-ray diagnosis by hysterography and hysterosalpingography and tubal insufflation, the Nolan-Budd Cervical Biopsy Curet, material for Cancer diagnosis by cytology, Reich-Nechtow Intro-pelvic hydrothermy apparatus and selected laboratory specialties. Another section of the exhibit will be devoted to anatomical models, charts and obstetrical manikins for eaching and practice in Obstetrics and Gynecology.

MILEX PRODUCTS (30) presents it Pro-Ception Fertility Program. Pro-Ception Sperm Nutrient, the Mercury Level Indicator Thermometer, the Pro-Ception Thermometer, and the Oligospermia Cups, constitute our basic Fertility line. The Milex Folding Pessaries, for retroversion et al, and the Crescent Diaphragm used post-coitally to promote conception, add to the specialists Fertility armanentarium.

KIDDE MANUFACTURING CO. (31) This exhibit features the Kidde tubal insufflator for office use.

AT THE CAMERON BOOTH (32) you will find the very latest in Electrical Diagnostic and Operating Instruments. The Tele-Vaginalite (American made colposcope) with 10K color-aberration free lens system. Also being demonstrated is the world's finest Electro-Surgical Unit for office gynecology.

GOODMAN-KLEINER COMPANY (33) Goodman-Kleiner welcomes you to the Congress and wishes to take this opportunity to show its complete line of fertility and sterility apparatus. The exhibit will feature Weisman's apparatuses for sterility study. Here you will the Gynograph, the Gynogauge, the new "flexible conductor" for use in tubal plastic operations using polyethylene tubing, and other important instruments marking advances in sterility practice.

INTERNATIONAL FERTILITY ASSOCIATION (34) Information concerning the world-wide activities of the IFA may be had at the booth. Data about the various countries, their activities in the field and other information will be available. Brochures about the IFA and its requirements for membership are on display.

AMERICAN SOCIETY FOR THE STUDY OF STERILITY (35) Data concerning the activities of the A.S.S.S. will be available, as will the society's publications, brochures, and minimal standards.

FIRST WORLD CONGRESS ON FERTILITY AND STERILITY (36) Data and information concerning the World Congress may be found at this booth. A display featuring the workings of the Congress will be at hand as will recent and current activities of the Congress, while in session in New York.

AMERICAN CYSTOSCOPE MAKERS, INC. (37) Here you will find an opportunity to see demonstarted a complete line of catheters, electrically-illuminated instruments, and accessories and electro-medical equipment made by the

company. This interesting display of diagnostic and operating instruments should prove especially informative.

TEACHING FERTILITY AND STERILITY CLINICS (38 Here you will be able to find data on the teaching clinics in the local New York area. You can register for whichever clinic you wish to attend, either during the Congress Week, or the week following the Congress. Since the operative clinics will be limited in number, it is urged that you register early to insure your place in the operating rooms of the clinics.

ORTHO cordially invites you to visit their exhibit at booth 39. The Ortho display will feature *Preceptin* vaginal gel, their new product for conception control designed for use without a vaginal diaphragm. Preceptin vaginal gel has achieved an outstanding record of clinical effectiveness and has been widely acclaimed by the medical profession. Your inquiries on Preceptin vaginal gel are invited.

DISTINGUISHED BOOKS (40) this exhibit consists of a new display of new and recently published books on sterility and fertility. Those interested in books in Spanish will find Botella-Llusia's texts from Madrid on the shelves for perusal. An opportunity will be afforded to see Williams' new book on Sterility.

E. FOUGERA & CO., INC. (41) cordially invite physicians to discuss with Professional Service Representatives new preparations of importance to their every day practice. Descriptive literature and samples of all products will be available.

Officers of the Society

President
PAUL H. HOCH
1165 Park Avenue

Vice President
ERNST W. BERGMANN

Recording Secretary
RUDOLF A. STERN

Corresponding Secretary
ERNEST MYLLER
65 East 76th Street

Assistant Secretary
ANITA DE LEMOS

Treasurer
ARNOLD T. BENFEY
50 Park Terrace West

Assistant Treasurer
OTTO DEUTSCHBERGER

Archivist-Historian
ERICH SIEGEL

Committee on Admission
RUDOLF WEIL I. J. OCHS
RICHARD LEWIN

Program Committee
MARTIN GOLDNER ERNEST GOLD
HEINZ I. LIPPMAN

Publishing Committee
JOSEPH BERBERICH HANS BEHRENDT
LOTHAR B. KALINOWSKY

Legal Counsel
ALBERT HIRST, Esq.
51 Chambers Street

Rudolf Virchow Medical Society

in the City of New York

Founded 1860
Incorporated 1867

New York Academy of Medicine Building
Fifth Avenue at 103rd Street

Telephone, Trafalgar 6-8200

Regular Monthly Meeting

Monday, November 2nd, 1953

8:30 P.M. sharp

I. Scientific Session.

Modern Problems in Diabetes.

1) Kimmelstiel-Wilson's Syndrom.
Dr. Harold Rifkin
Associate Attending Physician,
Montefiore Hospital

2) Medical Management of Peripheral Vascular Diseases.
Dr. Heinz I. Lippmann

3) Surgical Management of Peripheral Vascular Diseases.
Dr. Samuel Silbert
Chief of Peripheral Vascular Surgery,
Montefiore Hospital

4) Eye Changes in Protracted Diabetes.
Dr. Georges Kleefeld

5) Insulin Management.
Martin G. Goldner

Discussion.

II. Executive Session.

III. Collation.

ERNEST MYLLER,
Corresponding Secretary.

Recommended for Election:

Friedrich W. Grossmann, 20 Sherman Avenue,
New York 34, N. Y.

Ernst E. Schweitzer, 133 East 40th Street,
New York 16, N. Y.

Applied for Membership:

Members of the Society are requested to read over the list of applicants and send to the President any information for or against a candidate. All such information will be considered confidential and the letters will be returned to the respective writers thereof.

Martin Fischer, 176 Atlantic Avenue, Lynbrook, N.Y.
through M. Wagner and
H. Brinitzer

Paul Frank Norris, 37-32 79th Street,
Jackson Heights 72, N. Y.
through William Curth and
Helen Curth-Ollendorf

UNITED NATIONS RELIEF AND REHABILITATION ADMINISTRATION

1734 New York Avenue, N. W.
Washington 6, D. C.
February 12, 1944

Dr. Ernest Myller
88-35 Elmhurst Avenue
Elmhurst, Long Island
New York

Dear Doctor Myller:

Thank you for your application and expression of interest in our relief and rehabilitation program. Your application will be placed in our active file and if and when the need arises for a physician with your training and experience, you may expect to hear from us.

Sincerely yours,

D. A. Reekie

D. A. Reekie, M. D.
Health Division

OFFICE FOR EMERGENCY MANAGEMENT

WAR MANPOWER COMMISSION

PROCUREMENT and ASSIGNMENT SERVICE for
PHYSICIANS, DENTISTS, and VETERINARIANS

FIELD OFFICE:

R. L. ZECH, M. D.
629 Medical Dental Bldg., SEATTLE, 1. WASH.

March 21, 1944

Ernest Myller, M. D.
100 W. 55th,
New York City, 19, New York

Dear Doctor Myller:

Thank you for your letter of March 1, 1944 and the excellent letter of recommendation attached thereto signed by Andrew B. Foster of the Department of State.

May I suggest before you relocate to the State of Washington that you write to the Director of Licenses, Olympia, Washington for information regarding licensure to practice in this State. If the Director of Licenses grants you a license this office will then submit possible locations where your services will be most needed.

Yours sincerely,

R. L. Zech M.D.

R. L. Zech, M.D.,
State Chairman

UNITED NATIONS
RELIEF AND REHABILITATION ADMINISTRATION

1344 CONNECTICUT AVENUE
WASHINGTON 25, D. C.

18 January 1945

Dr. Ernest Myller
100 West 55th Street
New York 19, N. Y.

Dear Dr. Myller:

Your recent letter addressed to Dr. Sawyer has been referred to this office for attention. Acknowledgment is also made of your application for employment which was submitted about a year ago.

As you may have inferred from the news from Europe, UNRRA's operations have been somewhat curtailed for the moment by military and political developments abroad; therefore, no further recruitment is being done at this time. It is unlikely that recruitment for Greece will be reopened in the foreseeable future. However, I would propose that you communicate with the Greek War Relief Association, Inc., 221 W. 57th Street, New York 19, N. Y. This organization has been seriously interested in sponsoring medical personnel as well as others for assignment to UNRRA. Should they be interested, it is not unlikely that you may find it possible to serve in Greece.

Sincerely yours,

W P Dearing

W. P. Dearing, M. D.
Medical Officer
Health Division

PROF. BERNHARD ZONDEK
JERUSALEM
ROTHSCHILD HADASSAH
UNIVERSITY HOSPITAL

بروفيسور برنهارد صوندك
القدس
مستشفي الجامعه روتشيلد هاداسا

פרופ' ברנהרד צונדק
ירושלים
ביה"ח האוניברסיטאי של הדסה
ע"ש מאיר דה רוטשילד

TO WHOM IT MAY CONCERN

THIS IS TO CERTIFY that Doctor ERNEST MYLLER from NEW YORK is known to me for about 30 years. I know that he got his education at the Paul Strassmann Gynecological and Obstetrical Hospital of the Berlin University.

Doctor Myller was later a well known gynecologist and obstetrician at Nuremberg in Germany, and since the time of the Nazi régime he has been working in Athens (Greece) where he had a Gynecological and Obstetrical Clinic of his own. I know that Doctor Myller had an outstanding reputation in Athens.

I can recommend Doctor Myller warmly as a man of excellent character, as a very reliable physician, and a well trained gynecologist and obstetrician.

Bernhard Zondek.

Jerusalem, September 22, 1946.

NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL

303 EAST 20TH STREET, AT SECOND AVENUE

NEW YORK, 3, N. Y.

OUT-PATIENT DEPARTMENT

GRAMERCY 5-7080

January 28, 1947

To Whom It May Concern:

Dr. Ernest Myller has been associated with the Gynecological Staff of the Post Graduate Hospital for the past 5 years.

During the past 4 years he has been associated with my clinic. I have found him to be competent and skillful in Gynecological diagnosis and treatment.

He has an agreeable personality and works well with the other members of the staff.

Adolph Jacoby, M.D.

New York State Education Department

EACH LICENSEE MUST CONSPICUOUSLY DISPLAY THIS CERTIFICATE IN HIS OFFICE AT ALL TIMES.
TOGETHER WITH HIS LICENSE IT CONSTITUTES HIS AUTHORITY TO PRACTISE DURING THE CURRENT PERIOD.
IN THE EVENT OF A CHANGE OF ADDRESS RETURN THIS CERTIFICATE FOR CORRECTION.

THIS IS TO CERTIFY THAT

ERNST MYLLER MD
65 EAST 75TH ST
NEW YORK NY

LICENSE NO.
40117

HAVING MET THE STATUTORY REQUIREMENTS OF THE STATE OF NEW YORK. IS ENTITLED TO THIS CERTIFICATE AS A

Registered Physician 1949 - 1950

THIS CERTIFICATE IS DATED JANUARY 1. 1949. AND EXPIRES DECEMBER 31. 1950

Jacob L. Lochner, Jr.
SECRETARY OF THE BOARD OF MEDICAL EXAMINERS

Irwin A. Conroe
ASSISTANT COMMISSIONER OF EDUCATION

Ernest Myller, M.D.
65 East 76th Street
New York 21, N.Y.

Journal of The American
Medical Association.
535 N.Dearborn Street
Chicago 10, Ill

August 14,1952

Austin Smith, M.D.
Editor.

To the Editor:

In the Journal of August 9,1952, page 1413, Dr. Louis H. Douglass has pointed out that I misquoted him in my article titled "Control of Postpartum Hemorrhage" (J.A.M.A. June 21,1952).

I regret this misquotation very much, and more so, because I am of the same opinion as Dr. Douglass concerning the use of conventional uterine packings for postpartum hemorrhage. However, his excellent results cannot be duplicated elsewhere unless facilities and experience are on a par with those which prevail in his hospitals. The prevention of postpartum hemorrhage is not under discussion here; but once present it has to be dealt with promptly and adequately. In many hospitals the specialist, be he surgeon or obstetrician, may not be at hand nor available at a moments notice. Diagnosis and operative procedure may be delayed. In these cases "Traction Packing", entirely different from the conventional packing, can perform a life-saving service in stopping the bleeding and obviating any haste thereafter.

Ernest Myller,M.D.
New York University Medical College.

WASHINGTON INSTITUTE OF MEDICINE

August 15, 1952

19½ E. 62nd St. ~~1523 L Street, N.W. Washington 5, D.C.~~ New York 21, N. Y.

EDITORIAL OFFICES

RE:
Control of Postpartum Hemorrhage. ERNEST MYLLER, New York, N. Y. J. A. M. A. 149:757-58, June 21, 1952.

Dr. Ernest Myller
65 East 76th Street
New York, New York

Dear Doctor,

The Editorial and Research Departments of the Washington Institute of Medicine will appreciate receiving from you, for our reference library and for possible presentation in one or more of our publications, an author's abstract of the article listed on the attached sheet. It is suggested, but not mandatory, that the abstract be approximately one-tenth the size of the original article.

With sincere thanks for your cooperation and inviting you to call upon us whenever we may be of service, we are

Cordially yours,

WASHINGTON INSTITUTE OF MEDICINE

Henry J. Klaunberg

Henry J. Klaunberg, Ph.D., President

CONTROL OF POSTPARTUM HEMORRHAGE.

Ernest Tyllor, New York, N.Y.

Hemorrhage is one of the most frequent causes of maternal death. It is conceded that its treatments by standard methods, is unsatisfactory. Packing of the uterine cavity, usually a last resort, is not always successful. Unfortunately it can not be repeated. Postpartum hemorrhage can be controlled, no matter what its cause, by a method described many years ago by Logothetopoulos in Athens.

The center of a quadrangular piece of gauze (90 cm square) is inserted into the uterus by means of a sponge forceps. The four corners of this gauze protruding from the uterus are spread apart. A long strip of gauze (10 cm by 15 m), is packed into this gauze sack now lining the uterine cavity. The four corners of the quadrangular piece of gauze are now approximated and grasped in one hand and pulled downward. The blood supply of the uterus is cut off and bleeding ceases at once. In order to maintain the downward traction, the gauze stem is run through a thick ring pessary, which is pushed upward against the vulva. The ring is fixed in its position with a clamp.

In conventional packing, we try to compress the open sinuses and blood vessels in the wall of the bleeding uterus. "Traction packing" compresses the uterine vessels against the pelvic wall, interrupting the blood flow to the uterus immediately and completely. It is obvious that the cause of the bleeding does not influence the effectiveness of this packing. It is indicated in cases of severe hemorrhage. It controls bleeding at once and eliminates anxiety and haste. Once accomplished, additional measures such as transfusions and consultation may be obtained in leisure. In the case of a ruptured uterus the packing may enter the abdominal cavity through the tear in the uterus. No harm can be done by the possible additional trauma, since removal of the uterus is in most cases necessary. Once in place,

traction packing allows time for careful preoperative preparation. There is no urgency for an operative intervention while the patient is in shock, a major factor in the high mortality rate in uterine rupture.

This procedure was studied in cadavers. The packing was inserted and traction applied. A dye was injected into the carotid artery under pressure and thereafter the pelvic organs were examined. All blood vessels except the uterine arteries were filled with the dye.

Remark: We are trying to simplify this procedure further by replacing the packing with an non-elastic rubber bag, the durability of which is guaranteed by the manufacturer for many years.

TELEPHONE:
PLAZA 5-1274

CABLE ADDRESS:
MESTERNA NEW YORK

ARMAND E. MESTERN
CECILY L. FREY

COPY

ARMAND E. MESTERN
PATENT ATTORNEY
565 FIFTH AVENUE
NEW YORK 17, N. Y.

UNITED STATES & INTERNATIONAL
PATENTS AND TRADEMARKS

BANK ACCOUNT
CHASE NATIONAL BANK - NEW YORK

May 29, 1953

Dr. Harry J.Greene
855 Ocean Avenue
Brooklyn, N.Y.

Re: Endocervical Spiral Curette

Dear Sir:

This is with reference to your publication in the American Journal of Obstetrics and Gynecology of March 1953, page 676 in which your endocervical spiral curette has been described.

This instrument is very similar to the Cervical Scraper, invented by my client Ernest Myller M.D. of New York, N.Y., on which U.S. Patent No. 2,514,665 has been issued on July 17, 1950.

My clientÝs device has been published in the New York State Journal of Medicine on February 1, 1950.

A letter, copy of which is enclosed, has been sent in this matter to Sklar Manufacturing Company, Long Island City, N.Y. on April 21, 1953. The enclosed answer has been received.

My client awaits your reaction in this matter, and an early reply to this letter in order to avoid legal consequences.

Very truly yours,

ARMAND E. MESTERN

AEM:md.
encls.

COPY

June 5,1953

Mr.Armand E.Mestern
565 Fifth Ave.
New York,N.Y.

Dear Mr.Mestern:

In reply to your recent letter and to the correspondence you have had with the Sklar Manufacturing Company concerning the Endocervical Spiral Curette, I regret the concern I have given your client, Dr.Ernest Myller.

The originality of this instrument goes back to the inception of the olive. The latter is used in performing the tubal insufflation test. It still can be used to obtain secretions for the "Papanicolaou" test. Also, Dr. A.P.Hudgins was the first to my knowledge to use the spiral olive in performing a Salpingogram. His article may be read in t he American Journal of Obstetrics and Gynecology, Vol.49, p.431,1945. When your client peruses this report by Dr. Hudgins he will immediately see that all I did was flatten the threads and make it solid. As a matter of fact I have used his instrument for my purposes for a number of years with good results. The only disadvantage was that a little more bleeding took place in some cervices.

Within the last few months the Gemco Specialties Corp.of 246 Fifth Ave., New York, is advertising in the Journal of Fertility and Sterility vol.4, number 2,1953, on page xiii a corrugated acorn with similar threads as the Endocervical Spiral Curette. This acorn can accomplish the same purpose as the curette.

The principle of the Endocervical Curette is not to cut but to obtain a specimen by compression. If Dr.Myller would take these fundamentals in studying the differences of the principle herein, I am sure there will be no issue.

It hasnot been my purpose to claim originality, neither do I seek any monetary remuneration. If any of the latter is forth coming, it has been assigned to the Cancer Fund. I just liked this instrument in my work and I asked the Sklar Manufacturing Company to make it.

Yours truly

signed: Harry J.Greene

TELEPHONE:
PLAZA 5-1274

CABLE ADDRESS:
MESTERNA NEW YORK

ARMAND E. MESTERN
CECILY L. FREY

ARMAND E. MESTERN
PATENT ATTORNEY
565 FIFTH AVENUE
NEW YORK 17, N. Y.

UNITED STATES & INTERNATIONAL
PATENTS AND TRADEMARKS

BANK ACCOUNT
CHASE NATIONAL BANK - NEW YORK

June 8,1953

Dr.Ernest Myller
65 East 76th St.
New York, N.Y.

Dear Dr.Myller:

I received today a letter from Dr.Harry J.Greene, copy of which is enclosed.

I am awaiting your reaction.

Very truly yours,

ARMAND E.MESTERN

encl.
AEM:BL

Hugh J. Bickerstaff, M. D.

Peter C. Graffagnino, M. D.

Doctors Bickerstaff and Graffagnino
Medical Arts Building
Columbus, Ga.

Gynecology - Obstetrics

Telephone 5565

October 30, 1953

Dr. Ernest Myller
65 E. 76th Street
New York 21, N.Y.

Dear Dr. Myller,

Your reprint on the traction pack sent in July is much appreciated. As luck would have it, we had another staff case of traumatic Couvelaire uterus and traumatic rupture this month, approximately one year from the first case in which I used the pack.

On this latter occasion we slipped the pack in by way of a Holmes packer within the gauze square, and traction immediately brought the cervix to the introitus and maintained complete hemostasis until the operating room was set up and hysterectomy was performed. It is much easier to pack with the wet gauze acting as a channel for the Holmes packer. Another satisfactory expedient is the use of a rubber covered intestinal clamp at the vulva to maintain traction instead of a doughnut pessary which is hard to find around a delivery room although present in most offices or clinics.

At the December meeting of the American Academy in Cincinnati one of the round tables on abruptio and previa is to be conducted by Dr. Carl Huber and myself. As part of my discussion I intend to refer to my experience with this pack for which we are indebted to your publication. If you are planning to attend the above meeting, I would appreciate it very much if you could attend that particular round table which I believe is Tuesday, December 15th, and if you are present, I would like to call upon you for a discussion.

As per your suggestion I intend to publish these two cases. I will probably never have a third in which it will be so direly needed.

Yours truly,

Hugh J. Bickerstaff, M. D.

HJB:gsj
Dictated but not read

copy of original letter

Doctor I. C. Rubin
911 Park Avenue
New York 21, N. Y.
BUtterfield 8-1980

November 5,1953

Dr. Hugh J. Bickerstaff
Medical Arts Building
Columbus, Georgia

Dear Doctor Bickerstaff:

I am answering the letter which you kindly sent Doctor Ernest Myller, October 30th, for Mrs. Myller because I regret to state that Doctor Myller passed away October 23rd; it was sudden and unexpected.

I happen to know of Doctor Myller's work very intimately, as I advised with him in the preparation of his article which you were good enough to recognize. I wish Doctor Myller could be present and that you might meet him; it would be for you, as it has been for me, a most pleasant and unforgettable experience to know him.

Perhaps my feeble discussion in his place may serve part of your purpose. I will be glad to participate in the discussion, as I expect to be at the Congress.

Mrs. Myller is grateful to you in behalf of her husband.

With kindest regards, I am

Sincerely yours,

ICR:ag

BUTTERFIELD 8-1980 REG. NO. 4790

DR. I. C. RUBIN

911 PARK AVENUE NEW YORK 21, N. Y.

OFFICE HOURS: 9:00 A.M. TO 12:30 P.M. BY APPOINTMENT ONLY

NAME _____ AGE _____

ADDRESS _____ DATE _____

℞

Dear Mrs. Myller:

Thought you might like the carbon copy of the letter sent to Dr. Hodgkinson.

Best regards.

Alice G.

November 19,1953

Dr. C. Paul Hodgkinson, Secretary
American Academy of Obstetrics and Gynecology
116 South Michigan Avenue
Chicago 3, Illinois

Dear Doctor Hodgkinson:

On September 24,1953, the late Doctor Ernest Myller, shortly before he died, sent a check of $50 to the American Academy of Obstetrics and Gynecology. His widow is unfortunately at a loss to know whether this was his unpaid dues for the previous year or whether it was dues for the coming year, and it would help her a great deal if she could salvage this unused fee for him, which she so badly needs.

I would appreciate your giving this your attention. Please communicate with her directly at 450 East 63rd Street, New York City.

Very truly yours,

Alice E. Griffin
Secretary

Kalamaki-Athen den 15-II. 57.

Lieber Herr Kollege!

Vielen Dank für Ihren vom 10. II. Brief. Mit der gleichen Post sende ich Ihnen die Arbeit von Christopulos über die Cadaverexperimente, sowie ~~die~~ die griechische Übersetzung meines Buches und ein Bild von der Blutstillung nach der Geburt.

Die Methode wurde bei mehreren Fällen in der Gebäranstalt „Marika Iliadou" angewand. Leider habe ich keine nähere Statistik darüber. Interessant sind die Ausführungen von Erik. Weber. Siehe S. 18 in meinem Buch. Die Frage ob die Blutung von der Ovarika sich fortsetzt, wurde auch in Wien von einem Kollegen gestellt, als ich im Jahre 1943 über meine Methode sprach. Aber alle anderen Kollegen stimmten mir

bei daß dies absolut keine Rolle
spielt, wie das auch bei allen
Fällen wo der Tempus angewandt
wurde sich ergeben hat.
Uns allen geht jetzt gut. Ich habe
angefangen wieder zu arbeiten; ob-
wohl ich wegen meines Beines nicht
mehr mit der Universität zu thun
habe.
Meine Frau hat bei einem Autom-
fall das Schlüsselbein gebrochen jetzt
geht es ihr aber gut. Ebenso gut geht
es meinen Töchtern und Enkeln.
Meine jüngere Tochter beschäftigt
sich jetzt mit Malerei, wobei sie
ein großes Talent ergeben hat.
Ich hätte sie gerne in Amerika wenn
wenn die Verhältnisse besser wären.
Denken sie nicht fortwährend wieder
an Europa? Viele denken noch an sie
und wenn ich sage über sie gefragt.
Grüßen sie bitte von uns allen Ihre
Frau Gemahlin und Kinder und seien
sie auch selbst gegrüßt v. Ihrem Lore-
chen

16. II. 57

Liebes Herr Kollege.

Da ich nicht weiß ob mein Buch Sie rechtzeitig erreicht, schicke ich Ihnen die Bilder mit meinem Vortrag wie ich ihn in Wien (1943) vorgetragen habe.

Eric Weber (Techniques chirurgicales Vaginales. Editeurs Baillère et Fils. Paris 1948) schreibt mir anderen ~~Tag~~ „Ich persönlich, seit ich Herr Schauta kenne, niemals habe ich mich gehabt eine Klemme zu halten und weniger eine Laparatomie vorzunehmen um ein Ureter-blutendes Gefäß zu fassen."

Ihr. Ergebenster