



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Ain Shams University

Information Network

جامعة عين شمس

شبكة المعلومات الجامعية

@ ASUNET



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of
15-25- c and relative humidity 20-40%



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم

بعض الوثائق الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

ILIOCOCCYGEUS FASCIA VERSUS SACROSPINOUS LIGAMENT COLPOPEXY IN THE PREVENTION AND TREATMENT OF VAULT PROLAPSE

Thesis

Submitted for Partial Fulfillment of
M.D. Degree in
Obstetrics & Gynaecology

By

Usama Ahmed El-Tohamy
M.B., B. Ch. & MSc.

Supervised By

Prof. Mohamed Abdallah Moustafa El-Maraghy

*Professor of Obstetrics and Gynaecology
Faculty of Medicine
Ain Shams University*

Prof. Sobhi Khalil Abolouz

*Professor of Obstetrics and Gynaecology
Faculty of Medicine
Ain Shams University*

Prof. Mohamed Alaa Mohy El-Din El-Ghannam

*Professor of Obstetrics and Gynaecology
Faculty of Medicine
Ain Shams University*

Faculty of Medicine
AIN SHAMS UNIVERSITY
2001

92
/

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿ قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا

إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ

الْعَلِيمُ الْحَكِيمُ ﴾

صدق الله العظيم

سورة البقرة / الآية (٣٢)

Acknowledgement

First, thanks to Allah, the most kind and the most merciful.

I would like to express my sincere gratitude and appreciation to Prof. Dr. Mohamed Abdallah Moustafa El-Maraghy, Professor of Obstetrics & Gynaecology, Faculty of Medicine, Ain Shams University for his continuous guidance, valuable advice, support and kindness throughout execution of this work. It's great honour to work under his supervision.

I also wish to thank Prof. Sobhi Khalil Abolour, Professor of Obstetrics & Gynaecology, Faculty of Medicine, Ain Shams University for his direct supervision and his guidance throughout the practical part of this work.

I am also grateful to Prof. Dr. Mohamed Alaa Mohy El-Din El-Ghannam, Professor of Obstetrics & Gynaecology, Faculty of Medicine, Ain Shams University for his follow-up of this work, his kindness and his great effort with me in this study.

Last but by no means least I would express my thanks to all members of the Fourth Unit, especially, Dr. Ismail El-Lamie; Dr. Mohamed Abd El-Hamed and Dr. Hosam Kamel.

CONTENTS

	Page
Introduction and Aim of the Work	1
Review of Literature	
Anatomy of Pelvic Supports	4
Pathophysiology of Pelvic Organ Prolapse	97
Types of Vaginal Support Defects	118
Clinical Evaluation of Vaginal Support Defects	126
Treatment of Pelvic Support Defects	172
Subjects and Methods	200
Results	233
Discussion	261
Summary and Conclusion	281
Recommendations	286
References	287
Arabic Summary	--

LIST OF FIGURES

No.	Title	Page
1	The vaginal axis of the erect living female	7
2	Sites of attachment of the cardinal ligament	7
3	Shows the vaginal supports (sagittal view)	12
4	Vaginal supports (An abdominal view)	13
5	Pubocervical fascia viewed from above	14
6	Cross-section of the upper vagina showing the arcus tendinei and perivaginal fascia	15
7	A diagram to show the ATFP, ATLA and ALA	16
8	The pubocervical fascia with demonstration of vessels running along the lateral sulcus of vagina	17
9	A diagram showing the normal relationship between the vagina and arcus tendinei	18
10	The three pubourethral ligaments and their relations	21
11	The orientation of the pubourethral ligaments	22
12	The levator ani musculature drawn from three dimensional computer reconstruction	27
13	Shows the effect of contraction of the levator ani	28
14	Muscles of the pelvic wall and floor	29
15	parasagittal view of the pelvic wall and floor muscles	29
16	The effect of tipping of the levator plate	34

No.	Title	Page
17	The posterior perineum and the deep layers of the vulva	40
18	Perineal body and rectovaginal septum	40
19	Vaginal topography and underlying supports	47
20	the eight avascular planes of the pelvis	55
21	The connective tissue septa and spaces of the pelvis	55
22	The relationship between the three midline organs	61
23	Normal vesicourethral relationships	73
24	Proximal urethra and its surrounding structures	74
25	Distal urethra and striated muscle of the urethra and perineal membrane	75
26	A paravaginal defect seen from the space of Retzius	78
27	Compression of urethra against the pre-cervical arc (PCA) by the vaginal wall following contraction of the pelvic floor	79
28	A semiadhesive note as a paragon for one type of paravaginal defect	80
29	Lateral view of the pelvic floor with the urethra	81
30	"Wheeling" or rotational descent of the vesico-urethral junction	82

No.	Title	Page
31	Normal active support of the levator ani muscle	86
32	Loss of active support provided by the levator ani muscle	86
33	Possible mechanism by which birth trauma and aging may lead to urinary stress incontinence and prolapse	87
34	Intrinsic urethral anatomy show in axial section	90
35	Intrinsic urethral anatomy shown in longitudinal section	90
36	Peripheral innervation of the lower urinary tract	93
37	Levels of vaginal support mechanism	102
38	Vaginal support loss	117
39	Sites at which breaks in the pubocervical fascia have been observed, the four defects	122
40	Cross-section of paravaginal defect	123
41	Comparison of ordinal classification of pelvic organ prolapse	142
42	Shows sites used for pelvic organ support quantification	149
43	Three-by three grid for recording quantitative description of pelvic organ support	151
44	This figure represents stage 0 vaginal support	151

No.	Title	Page
45	Grid and line diagram of predominant anterior and posterior support defects	152
46	Half way system in grading prolapse	156
47-53	Technique of enterocele repair	210-213
54-58	Technique of anterior colporrhaphy	216-219
59-60	Technique of iliococcygeal colpopexy	222-223
61	The surgical anatomy of the coccygeus muscle-sacrospinous ligament complex	228
62	Route from the vagina to the sacrospinous ligament	228
63-67	Technique of sacrospinous colpopexy	229-230
68	Distribution of symptoms preoperatively among both groups	235
69	Preoperative grading of superior segment support defects in both groups	236
70	Preoperative grading of cul-de-sac in both groups	237
71	Defined point C in both groups preoperatively	239
72	Preoperative grading of anterior and posterior vaginal segment defects in both groups	241

No.	Title	Page
73	Reviewing relevant symptomatology on maximum follow-up period and comparison with preoperative symptoms in the iliococcygeal colpopexy group	247
74	Reviewing relevant symptomatology on maximum follow-up period and comparison with preoperative symptoms in sacrospinous colpopexy group	248
75	Comparison between relevant symptomatology in both groups on maximum follow-up	249
76	Grades of vaginal vault postoperatively in comparison to preoperative grading in the iliococcygeal colpopexy group	250
77	Grades of vaginal vault postoperatively in comparison to preoperative grading in sacrospinous colpopexy group	251
78	Comparison between grading of vaginal vault postoperatively in both groups	252
79	Defined point C in patients of iliococcygeal colpopexy group pre and postoperatively	254
80	Defined point C in patients of sacrospinous colpopexy group pre and postoperatively	256

No.	Title	Page
81	Defined point C in both groups postoperatively	257
82	Comparison between grading of cystocele postoperatively in both groups after maximum follow-up	258
83	Comparison between grading of rectocele postoperatively in both groups after maximum follow-up	259
84	Site specific symptomatic and anatomic cure rates in both groups during follow-up	260