Mona maghraby

بسم اللّه الرحمن الرحيم

مركز الشبكات وتكنولوجيا المعلومات

قسم التوثيق الإلكتروني

Mona maghraby

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم باللّه العظيم أن المادة التي تم توثيقها وتسجيلها

علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

Mona maghraby

بعض الوثائق الأصلية تالفة
وبالرسالة صفحات لم ترد بالأصل

THE USE OF LAPAROSCOPY IN FEMALE UROLOGY

Thesis

Submitted to the Faculty of Medicine
University of Alexandria
In partial fulfillment of the requirements
of the degree of

Doctor of Urology

By

Mohamed El-Sayed Aly Hassouna

Alexandria
1998

SUPERVISORS

Prof. Dr. Gamal M. Ghoniem
Professor of Urology & Gynecology
Tulane University School of Medicine
New Orleans, Louisiana

Prof. Dr. Salah E. Gaafar
Professor of Urology
Faculty of Medicine
University of Alexandria

Prof. Dr. Salah El-Salmy
Professor of Urology
Faculty of Medicine
University of Alexandria

CO-WORKERS

Dr. Alaa E. M. El-Rifai
Ass. Prof. of Urology
Faculty of Medicine
University of Alexandria

Dr. Mohamed Shafik Anwar
Lecturer of Urology
Faculty of Medicine
University of Alexandria

ACKNOWLEDGEMENT

I would like to express my appreciation and gratitude to **Prof. Dr. Salah E. Gaafar**, Professor of Urology, for his patience, infinite support, valuable scientific guidance and meticulous supervision of this work.

I would like to express my gratitude and thanks to **Prof. Dr. Gamal M. Ghoniem**, Professor of Urology and Gynecology, Tulane University, USA, for his support and precious directions. I will always remember the two years I have spent in Tulane, during which I have learned a lot.

This work would have never seen the light without the help of **both Dr. D. H. Clark, and Dr. P. H. Hall**. The gynecologists at Glenwood medical center, Monroe, Louisiana. I have gained much of their experience in laparoscopy. They made this work so easy as " a piece of cake".

My sincere thanks to **Prof. Dr. Yousry Mohey El-Dine**, Professor of Gynecology. His experience in laparoscopy made the part of this work that was done in Alexandria possible and successful.

I would like to thank **Prof. Dr. Salah El-Salmy, Dr. Alaa El-Rifai, and Dr. Mohamed Shafik** for their help during this work. The valuable cooperation of Dr. Shafik was essential for finishing the part of the work that was done in Alexandria.

I would also like to thank all of the heads of the Urology Department; **Prof. Dr. Saad M. Saad, Prof. Dr. Tousson Abou El-Azm, Prof. Dr. Abd El- Fattah Arafa**, for their support during the different stages of that work.

List of contents

LIST OF FIGURES

LIST OF TABLES

List of Appendices

INTRODUCTION

Female Urology

The term female urology or urogynecology have come to represent the field of special interest which deals with the interrelationship of the bladder, the urethra, and the rest of the female pelvic floor. A sound anatomic understanding of the interrelated structures of the female pelvis is required to any surgeon who is interested in urogynecology. The surgeon who operates for the correction of stress urinary incontinence may be asked to deal with complex problems in patients who have coexisting forms of pelvic relaxation, or who have had previous pelvic or vaginal surgery that affected the mechanism of continence.

Urogynecology requires a comprehensive understanding of the physiology of the lower urinary tract, and the mechanism of urinary continence. Differentiating between various types of incontinence and their causes is essential. Urodynamic techniques are also essential in the diagnosis of certain types of incontinence. The indications and the limitations of each of its testing should be well defined and understood by the urogynecologyst, including uroflowmetry, cystometry, urethral pressure profile, electromyography, and complex urodynamic studies like videofluorourodynamic study.

Urogynecology deals with a wide range of lower urinary tract and genital organs pathologies. Among the most common disorders the urogynecologist faces are the pelvic floor prolapse and the stress urinary incontinence (SUI). Pelvic floor prolapse includes cystocele, rectocele, enterocele, and vaginal vault prolapse. Pelvic pain related to vesical and gynecologic causes is another problem, sometimes with ill defined causes. Vesico-

vaginal, urethro-vaginal, and uretero-vaginal fistulae require a thorough evaluation of both genital and urological systems. Finally, urethral diverticulae, cysts, and paraurethral abscesses are rarely faced in this subspeciality but require the experience of the urogynecologist for their reconstructive repair.

ANATOMY OF PELVIC SUPPORT IN FEMALES

Pelvic floor

The pelvic floor is a collection of tissues that spans the opening within the bony pelvis. It is at the bottom of the abdominopelvic cavity and forms a supporting layer for the abdominal and pelvic viscera. This a complex and multifaceted unit that includes all of the structures that lie between the pelvic peritoneum and the vulvar skin. The pelvic floor has three main supportive layers:

1- The endopelvic fascia

2- Levator ani muscles.

3- Perineal membrane

Endopelvic fascia

The pelvic viscera are connected to the pelvic sidewalls by the endopelvic fascia, which is the direct continuation of the abdominal fascia (fig. 1).The pelvic fascia is anchored to the body of the pubis. A parietal layer covers the muscles that line the pelvis and forms its floor. The parietal fascia over the pelvic musculature is simply a continuation of the transversalis fascia. It is tough and very dense. Some of the pelvic viscera are surrounded by a visceral layer that forms a sheath for them. A specialized condensations of the fascia serve to form ligaments tethering the viscera to the pelvic wall. The obturator fascia is thicker than other parts of the parietal fascia.[1,2,3]

The fascia of the pelvic diaphragm covers both sides of levator ani. Fascia on the upper surface of the levator ani laterally follows the muscle's attachment, anteriorly from

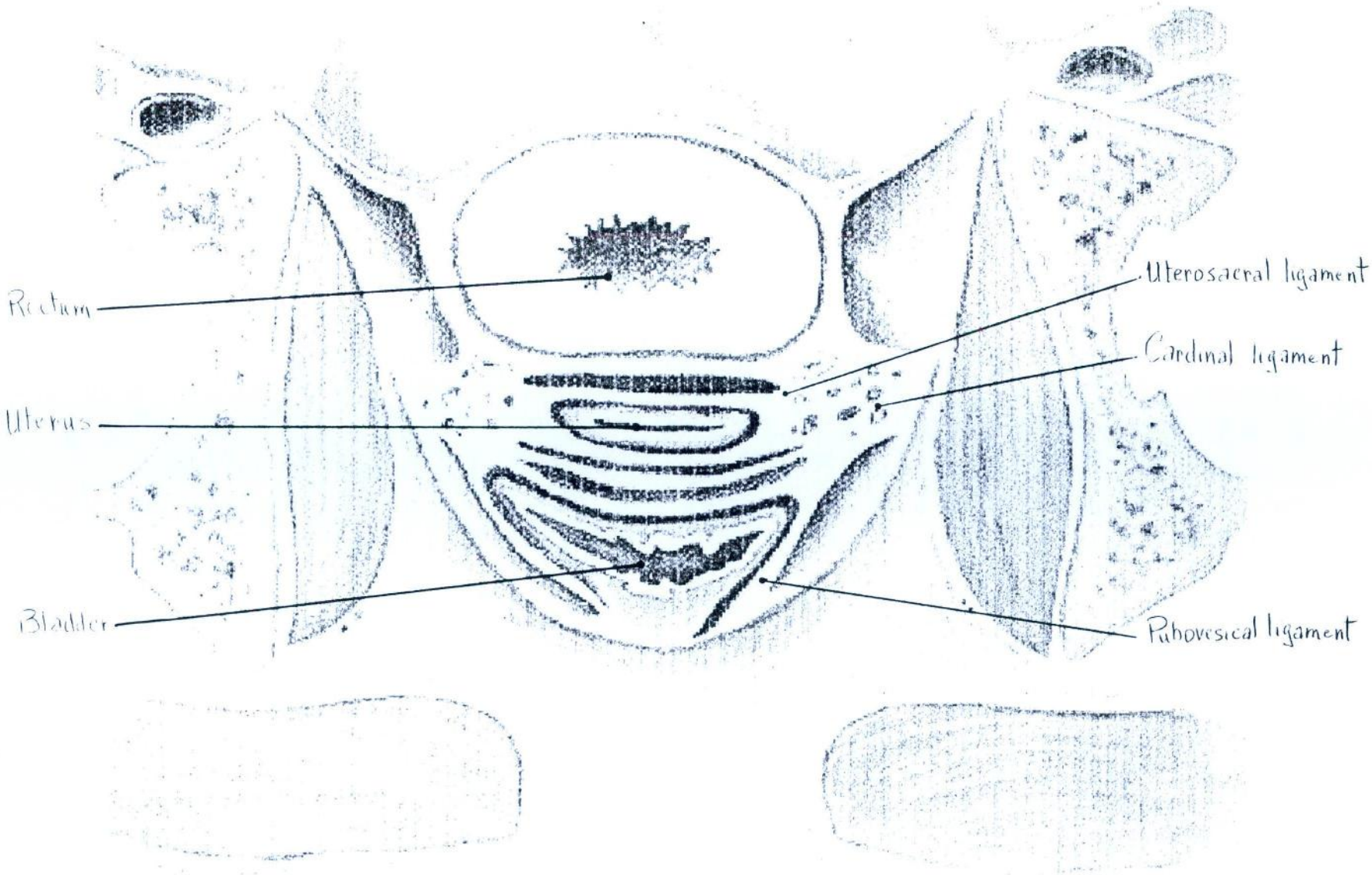

Figure 1: Schematic drawing of the ligaments surrounding and attaching the pelvic organs in females.

(From De Lancey, J.O.L., Anatomy of the female pelvis, Compact Disc)