



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





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# شبكة المعلومات الجامعية

## التوثيق الالكتروني والميكرو فيلم

# جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

## قسم

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



## يجب أن

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15 – 25c and relative humidity 20-40 %



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# بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات  
لم ترد بالأصل

**ELECTROMYOGRAPHIC AND MANOMETRIC  
STUDY OF THE PELVIC FLOOR MUSCLES AND  
EXTERNAL ANAL SPHLNCTRS AFTER VAGINAL  
DELIVERY AND CESAEREAN SECTION**

**THESIS**

**Submitted for Partial Fulfillment of Master Degree in  
General Surgery**

**BY**

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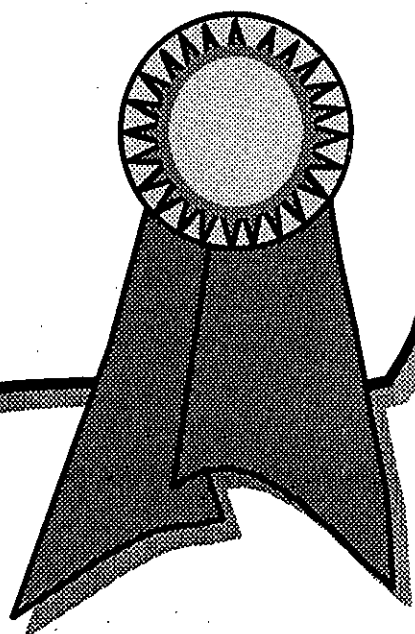
**2000**

**بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ**

**”وَقُلْ رَبِّكَ ذُنُوبُ الْعَالَمِينَ“**

صدق الله العظيم

To My  
Beloved  
Family





## Acknowledgments

Praise to **ALLAH**, the master of the world, most gracious, most merciful.

I wish to express my sincere gratitude and profound obligation to **Prof. DR. Olfat El. Sibai**, Head of the Department of surgery, Faculty of Medicine, Menoufiya University, to her I had the privilege to do this thesis under her close supervision, encouragement and beneficial advice in selecting and writing the subject of this thesis.

I would like also to express my sincere gratitude to **Prof. Dr. Awatif Farghaly**, Assistant Prof. Of general surgery, Faculty of Medicine, Menoufiya University for her kind supervision, constant advise and encouragement during this work.

NO words can justify and no expressions can help in presenting my cordial feelings and gratitude to **Prof. Dr. Said Askar**, Assistant Prof. of general surgery, Faculty of Medicine, Menoufiya University for his scientific suggestion, unfailing guidance encouraging supervision, generous cooperation and criticism that were of utmost help during this work.

My deep thanks also extended to **Dr. Mohamed Sabry**, Lecture of obstetrics and Gynecology Faculty of Medicine, Menoufiya University, for his continuous supervision and guidance in the course of this research.

I wish also to express my cordial thanks to **Prof. Dr. Nagla Ali**, Prof of Physical Medicine at Ain Shams University Faculty of Medicine for her kind support, as well as her guidance and effort during the performance of this work.

*Alaa Alsesy*

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# Introduction

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## INTRODUCTION

Ano-rectal incontinence is more common in women than in men, and most of the affected women have children with history of prolonged or difficult deliveries. However, many patients with ano-rectal incontinence do not voice their symptoms or are too embarrassed to do so (*Kiff and Swash, 1984*).

Snooks et al., found that the external anal sphincter muscle and its innervation might be damaged by vaginal delivery but not by cesaerean section. The reported abnormalities were most marked in multiparae and correlated most strongly with a prolonged second stage of labour and with forceps delivery. Substantial recovery from nerve damage, as measured by pudendal nerve terminal motor latency, occurred in the first two months after delivery, but recovery was least complete in multiparae (*Snooks et al., 1984*).

Snooks et al, have used Electro-physiological techniques to study the effect of childbirth on the innervation of external anal sphincter muscle. This study supported the concept that vaginal delivery can cause occult damage to the innervation of this muscle, and reported some factors that are specially likely to be responsible (*Snooks et al., 1984*).

The pudendal nerve is an important motor and sensory nerve to the pelvic organs and perineum. It supplies the anal and urethral sphincters as well as the penile and clitoral musculature. Pudendal neuropathy or nerve injury leads to pathological affection of these structures (*Kiff and Swash, 1984*).

The anatomical study of the pudendal nerve helps to understand the clinical symptoms of the anorectal pathology and choosing the technique of nerve localization or block most appropriate in the diagnosis of pudendal nerve compression and, its possible decompression (*Shafik, 1995*).

The external sphincter consists of 3 loops: Top, intermediate and base. The levator ani muscle is funnel-shaped with a transverse portion called the levator plate and a vertical portion called the suspensory sling. The intrahiatal structures namely the rectal neck with the prostate in males and vagina and urethra in females are enclosed, on their way down from the levator hiatus to the perineum, in a muscular tube called the levator tunnel. The levator tunnel represents the voluntary sphincter component to the intrahiatal organs. Its inner coat, a tunnel "dilator" opens up the rectal neck at defecation, whereas the outer coat, a tunnel "constrictor" is responsible for voluntary continence. (*Shafik, 1982*).

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The puborectalis muscle (PRM) as it passes backward from its origin in the symphysis pubis, gives rise to the external urethral sphincter (EUS), the vaginal (VS) or prostatic (PS) sphincter (EAS). This anatomic arrangement provides the pelvic organs in particular the rectum and the urinary bladder with a double sphincter control. Each pelvic organ, which includes the vagina and prostate, is supplied by an individual sphincter derived from the PRM, which is specific for the organ; all pelvic organs are under the control of a "Common" sphincter namely the PRM. Thus each of these organs is supplied with two sphincters. In this way, nature, provides separate sphincteric activity for the individual organs under the control of a common continent muscle. (*Shafik, 1997*).

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## **AIM OF THE WORK**

The aim of this work is to study the anal sphincters and pelvic floor muscles after normal vaginal delivery and cesarean section aiming to assess their role in inducing fecal incontinence.