A STUDY ON FOETAL BLADDER MUSCULATURE WITH SPECIAL REFERENCE TO INTERNAL URETHRAL SPHINCTER

Thesis

Submitted for Partial Fulfillment of the Master Degree of Medical Science (Anatom

Sh.W.

Sherin Wagih Morcos

M.B, B.ch.

Supervised by

Prof. Dr. NABIL N. NAWAR

Professor of Anatomy, Faculty of Medicine, Ain-Shams University

Prof. Dr. KHALID NAIEM HAMDI

Professor of Anatomy, Faculty of Medicine, Ain-Shams University



Lecturer of Anatomy, Faculty of Medicine, Ain-Shams University

> FACULTY OF MEDICINE AIN-SHAMS UNIVERSITY 1999

> > r 1 Din

567





A STUDY ON FOETAL BLADDER MUSCULATURE WITH SPECIAL REFERENCE TO INTERNAL URETHRAL SPHINCTER

Thesis

Submitted for Partial Fulfillment of the Master Degree of Medical Science (Anatomy)

By Sherin Wagih Morcos M.B, B.ch.

56532

Supervised by

Prof. Dr. NABIL N. NAWAR

Professor of Anatomy, Faculty of Medicine, Ain-Shams University

Prof. Dr. KHALID NAIEM HAMDI

Professor of Anatomy, Faculty of Medicine, Ain-Shams University

Dr. MERVAT THABET NAGUIB

Lecturer of Anatomy, Faculty of Medicine, Ain-Shams University

> FACULTY OF MEDICINE AIN-SHAMS UNIVERSITY 1999



<u>ACKNOWLEDGMENT</u>

I am greatly indebted to **Prof. Dr. Nabil N. Nawar,** Professor of Anatomy, Faculty of Medicine, Ain-Shams University, for his help, supervision and advice throughout this study.

My special thanks go to **Prof. Dr. Khalid Naiem Hamdi,** Professor of Anatomy, Faculty of Medicine, Ain-Shams University, for his sincere, help and criticism.

My cordial thanks to **Dr. Mervat Thabet Naguib,** Lecturer of Anatomy, Faculty of Medicine, Ain Shams University, for her help and support.

I wish to express my gratitude to **Prof. Dr. Sawsan Abdel Hamid,** Chairman of Anatomy Department,

Faculty of Medicine, Ain-Shams University, for offering
facilities and encouragement during all steps of the

present work.



LIST OF CONTENTS

	<u>Page</u>
INTRODUCTION AND AIM OF THE WORK	1
REVIEW OF LITERATURE	2
I. Development of Urinary Bladder	2
II. Histology of Urinary Bladder	4
III. Musculature of the Urinary Bladder	5
1- Musculature of the ureterovesical junction	5
2- Musculature of the bladder trigone	6
3- Musculature of the bladder neck and internal urethral sphincter	8
MATERIAL AND METHODS	15
RESULTS	16
I. Mucosa of the Bladder	16
II. Musculature of the Bladder	16
- Apex of urinary bladder musculature	21
- Ureterovesical junction musculature	21
- Inferolateral surface musculature	25
- Trigonal musculature	25
- Bladder neck musculature	32
III. Adventitia of the Bladder	33

DISCUSSION	41
Musculature of the Apex	42
Musculature of the Ureterovesical Junction	43
Musculature of the Inferolateral Surface	44
Musculature of the Trigone	44
Musculature of the Bladder Neck	45
SUMMARY	49
REFERENCES	53
ANNEX	i
ARABIC SUMMARY.	

INTRODUCTION AND AIM OF THE WORK



INTRODUCTION AND AIM OF THE WORK

Conserning embryogenesis of the urinary bladder, the trigone of the urinary bladder develops as a result of absorption of the lower part of the mesonephric ducts. The apex however, develops from the proximal part of allantoenteric diverticulum and the rest of the urinary bladder develops from vesicourethral portion of the cloaca (Arey, 1962; Larson, 1992; McMinn, 1992; Moore and Persaud, 1993; Williams, Bannister, Berry, Collins, Dyson, Dussek, and Ferguson, 1995; and Sadler, 1996).

However, the histogenesis of the organ received scanty description. Accordingly, it became the aim of the present study to investigate that histogenesis and screen the histological arrangement of the different layers constituting the musculature of the organ.