



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



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

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %



شبكة المعلومات الجامعية



بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات
لم ترد بالأصل

DETECTION AND MANAGEMENT OF PERI-NATAL HYDRONEPHROSIS

Thesis

Submitted to Al-Minya University in Partial Fulfillment of
Requirements for MD Degree in Urology

By

Gamal Abdel-Hamid Alsagheer

MB.Bch, M.Sc (Urol.)

Assistant Lecturer of Urology

Faculty of Medicine - Al-Minya University

Supervised By

Professor Dr. Mohamed Hamdy Aboul-Hassan

Professor and Chairman of Urology Dept.,

Faculty of Medicine - Al-Minya University

Professor Dr. Khalid M. Badr

Professor of Urology,

Faculty of Medicine - Al-Minya University

Professor Dr. Mohamed Abdel-Malik Hassan

Professor of Urology,

Faculty of Medicine - Al-Minya University

Dr. Lotfy M. Abdel-Kader

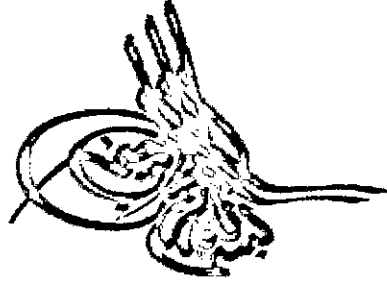
Assistant Professor of Urology

Faculty of Medicine - Al-Minya University

Al-Minya University

2002

B 71.1



فَوَيْلٌ لِلْعِبَادِ

فَوَيْلٌ لِلْعِبَادِ
فَوَيْلٌ لِلْعِبَادِ
فَوَيْلٌ لِلْعِبَادِ
فَوَيْلٌ لِلْعِبَادِ
فَوَيْلٌ لِلْعِبَادِ
فَوَيْلٌ لِلْعِبَادِ
فَوَيْلٌ لِلْعِبَادِ
فَوَيْلٌ لِلْعِبَادِ
فَوَيْلٌ لِلْعِبَادِ
فَوَيْلٌ لِلْعِبَادِ

Dedicated to everyone supported me to complete this work
Gamal

ACKNOWLEDGEMENT

Acknowledgement

First of all, every thanks and praise are to "Allah", the most merciful and the most compassionate. Then, I would like to express my deepest thanks and gratitude to **Professor Dr. Mohamed Hamdy Aboul-Hassan**; *Professor and Chairman of Urology Dept., Faculty of Medicine, Al-Minya University*, for the fatherly support, meticulous supervision and positive opinions to this work. Also, I would like to convey my thanks and appreciations to **Professor Dr. Khalid M. Badr**; *Professor of Urology, Faculty of Medicine, Al-Minya University*, for his everlasting helps and support and guidance throughout this work. And, I would like to express my deep thanks and gratefulness to **Professor Dr. Mohamed Abdel-Malik Hassan**; *Professor of Urology, Faculty of Medicine, Al-Minya University* for his great help, constructive criticism and kind guidance throughout this work. Finally, I would like to express my thankfulness and appreciation for **Dr. Lotfy Mohamed Abdel-Kader**; *Assistant Professor of Urology, Faculty of Medicine, Al-Minya University*, for his encouragement, rationale advice and support.

Also, I'd like to express my thankfulness and appreciation to **Dr. Takeshi Miyano**; the *Professor and head of the Pediatric Surgery Departments at Juntendo University School of Medicine, Tokyo, Japan*, for his kind support and valuable instructions to carry out this study in the Pediatric Urology Section.

Finally, I express my due gratitude for all **staff members and doctors** in the *Department of Urology, Faculty of Medicine, Al-Minya University; Al-Minya, Egypt*; and the *Department of Pediatric Surgery at Juntendo University School of Medicine, Tokyo, Japan* for their devoted help and support that paved the way for this work to see the light.

*Jamal Alsagheer
Tokyo, October 2001.*

INDEX

Introduction and aim of the work.....	1
Review of literature.....	3
I.	
Embryology.....	3
II. Pathophysiology of upper UT obstruction.....	12
III. Diagnosis of upper UT obstruction.....	18
IV. Management of antenatal hydronephrosis.....	32
V. Ureteropelvic junction obstruction.....	40
VI. Vesicoureteral reflux.....	51
VII. Megaureter.....	62
VIII. Ureterocele.....	67
IX. Prune belly syndrome.....	73
X. Multicystic dysplastic kidney.....	79
XI. Posterior urethral valves.....	82
Patients and methods.....	89
Results.....	99
Discussion.....	111
Case presentation.....	124
Conclusions and recommendations.....	134
References.....	136
Arabic summary.....	157

List of Tables

No.	Page	Section	Table legend
1	11	Review	<i>Common chromosomal abnormalities associated with renal anomalies</i>
2	19	„	<i>Gestational ages and renal pelvic diameter of postnatally confirmed obstructed and unobstructed kidneys</i>
3	21	„	<i>Grading of hydronephrosis</i>
4	23	„	<i>The differential diagnosis of hydronephrosis</i>
5	25	„	<i>Diuresis renography pitfalls</i>
6	62	„	<i>International classification of megaureter</i>
7	74	„	<i>Classification scheme for PBS</i>
8	92	Pats. & M.	<i>Antenatal pre-intervention criteria</i>
9	99	Results	<i>The demographic and ecologic data</i>
10	100	„	<i>The gestational age at antenatal diagnosis in 117 renal units</i>
11	104	„	<i>Fetal urine biochemical analysis in 12 cases</i>
12	105	„	<i>Fetal therapeutic and diagnostic interventions</i>
13	106	„	<i>Incidence of associated congenital anomalies</i>
14	107	„	<i>Discrepancy between antenatal and postnatal diagnoses</i>
15	107	„	<i>Distribution of surgical techniques in relation to the different diagnostic categories</i>
16	108	„	<i>Relationship between the antenatal course and postnatal management</i>
17	108	„	<i>Patients' age at surgery</i>
18	109	„	<i>Overall Postnatal complications</i>
19	109	„	<i>Follow up period (Months)</i>
20	110	„	<i>Prognosis and outcome</i>
21	115	Discussion	<i>Postnatal diagnostic groups encountered in different series</i>

List of Figures

No.	Page	Section	Figure legend
1	21	Review	<i>SFU grading system of hydronephrosis</i>
2	28	„	<i>Interpretation of the washout curve pattern</i>
3	36	„	<i>Algorithm for the postnatal evaluation of infants with prenatally detected hydronephrosis</i>
4	41	„	<i>Various causes of UPJO</i>
5	68	„	<i>Caecoureterocele</i>
6	79	„	<i>Appearance of the MCDK</i>
7	83	„	<i>Types of PUVs</i>
8	86	„	<i>Radiologic findings in PUVs</i>
9	91	Patients &M.	<i>The scheme of antenatal management</i>
10	96	„	<i>The scheme of postnatal management</i>
11	99	Results	<i>Distribution of sex and side of involvement</i>
12	100	„	<i>Graphic representation of the amniotic fluid volume</i>
13	101	„	<i>T₂-spin Fetal MRI; “A” cross section in a twin pregnancy at 20 wks, one of them with bilateral MCDK, and “B” a 31-wk fetus with bilateral UPJO</i>
14	102	„	<i>The first check of the anteroposterior renal pelvic diameter in relation to the gestational.</i>
15	103	„	<i>Karyotyping shows trisomy 21 (arrow)</i>
16	105	„	<i>Incidence of hydronephrosis grades and MCDK</i>

List of Abbreviations

^{99m}DTPA : Diethylene-triamine-pentaacetic Acid

AF : Amniotic fluid

ANDH : Antenatally diagnosed hydronephrosis

APRPD : Antero-posterior renal pelvic diameter

BOO : Bladder outlet obstruction

CBC : Complete blood count

CRF : Chronic renal failure

CRP : C-reactive protein

CVB : Chorionic villous biopsy

DMSA : Dimercapto-succinic acid

DR : Diuretic renography

ERPF : Effective renal plasma flow

HN : Hydronephrosis

HUN : Hydroureteronephrosis

IVU : Intravenous urography

MAG₃ : Mercaptoacetyl triglycerine

MCDK : Multicystic dysplastic kidney

MRU : Magnetic resonance urography

PADUA : Progressive augmentation and dilating the urethra anterior

PBS : Prune belly syndrome

PUVs : Posterior urethral valves

SFU : Society for fetal urology

UPJO : Urtero-pelvic junction obstruction

US : Ultrasonography

UVJO : Ureterovesical junction obstruction

VCUG : Voiding cysto-urethrography

VUR : Vesico-ureteral reflux

INTRODUCTION AND AIM OF THE WORK