



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

THE ROLE OF MRU IN PATIENTS WITH OBSTRUCTIVE UROPATHY

Thesis

*Submitted for partial fulfillment of
M.D. Degree in Radiodiagnosis*

By

Sherif Abdel fattah Khedr
M.B., B.Ch., M.Sc., Radiodiagnosis

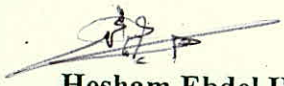
Supervisors

Prof.



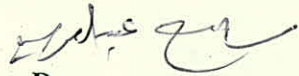
Dorria Saleh Salem, M.D
Professor of Radiodiagnosis
Faculty of Medicine, Cairo University

Prof.



Hesham Ebdel Hameed Badawi
Professor of Urology
Faculty of Medicine,
Cairo University

Dr.



Sameh Abdel Aziz Zaky Hanna
Professor of Radiodiagnosis
Faculty of Medicine,
Cairo University

B.
1127

**FACULTY OF MEDICINE
CAIRO UNIVERSITY
2001**

Abstract

MRU assumes an expanding role as diagnostic step in evaluation of the patients with urinary tract obstruction as a non invasive procedure

This study was carried on 106 patients with urinary tract obstruction who underwent US and MRU in all the cases using HASTE technique in 21 patient and respiratory triggering 3D with reconstructed MIP image in the rest of the cases. The study population was classified into 5 separate groups according to the cause of obstruction,

The technique accurately identified urinary tract dilatation in all patients, the exact site of obstruction in 99% and cause of obstruction in 94 % of the cases

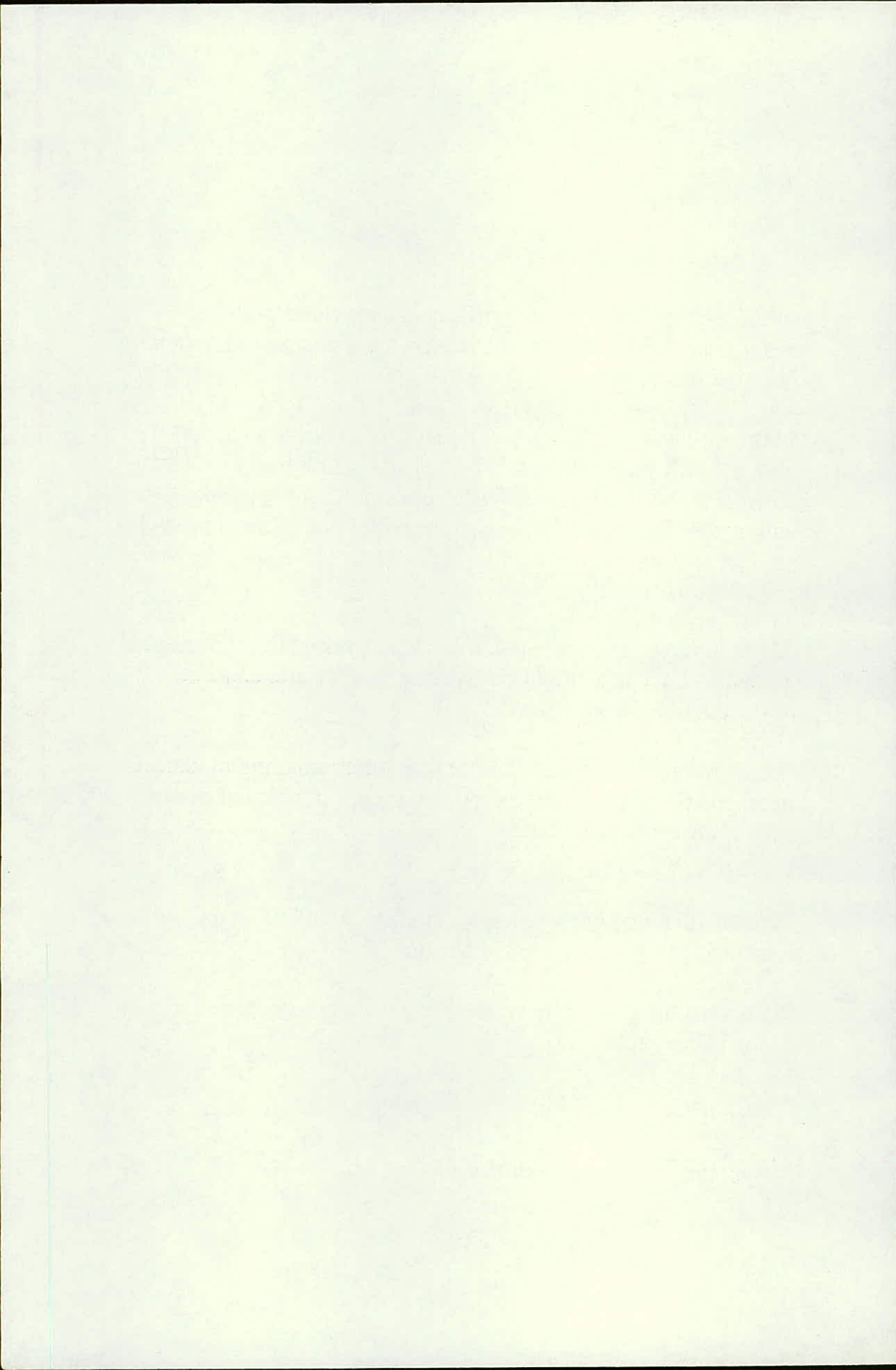
The technique was more accurate than other imaging modalities in diagnosis of obstructive uropathy except in calcular group where Spiral CT was better

The technique may prove viable alternative to IVP and CT in diagnosis of urinary tract obstruction

In conclusion MRU give an excellent morphological delineation of the urinary tract

Keywords:

Mrurography -Urinary tract obstruction



ACKNOWLEDGEMENT

Words can not express my deep gratitude and appreciation to Prof. Dr Dorria Salem ,Prof. Dr Hesham Badwi and Prof. Dr Sameh Hanna for their wise guidance and supervision ,their most kind encouragement and instructive advice that allowed completion of this work

I wish to express my appreciation to Prof .Dr Nabil Mashhour , the head of Radiodiagnosis departemen, Cairo University , for his valuable and kind care

Last but not least I am deeply thankful to all my senior staf and colleagues for their help and encouragement

LIST OF THE CONTENTS

	Page
INTRODUCTION AND AIM OF THE WORK.....	1
PART I REVIEW OF LITERATURE.....	4
Anatomy of the kidney.....	4
Physiology.....	6
Pathology of obstructive uropathy	10
Imaging of urinary tract obstruction	21
Plain X ray of the urinary tract (PUT).....	21
Intravenous urography (IVP).....	22
Retrograde pyelogram.....	27
Antegrade pyelography.....	28
Ultrasonography.....	30
Color coded duplex sonography	34
Computed tomography.....	38
Scintigraphic evaluation of the the upper..	43
urinary tract obstruction	
MRU.....	52
MRU physic.....	53
MRU technique	62
MRU application	71
Enhanced MRI study.....	83
Advances in MRI technique	92
PART II Subjects and methods.....	97
PART III Results	103
PART IV Case persentation	133
PART V Discussion.....	192
PART VII Summury.....	221
PART VIII References.....	224
PART IX Arabic summary	260

LIST OF FIGURE

Fig 1	Nephron	8
Fig 2	IVP	23
Fig 3	US.....	32
Fig 4	CT.....	39
Fig 5	Diuretic renogram.....	45
Fig 6, 7	Normal MRI of the kidney.....	68
Fig 8	Normal MRI of the UB	70
Fig 9	Periuretric and perinephric fluid collection.....	74
Fig 10	Uretric stone on IVP and MRI.....	77
Fig 11	Malignant obstructive uropathy	80
Fig 12	Dynamic enhanced MRI study of the kidney.....	88
Fig 13	Location of different levels of obstruction	107
Fig 14	Percentage of different obstruction level in patients with neoplasm....	108
Fig 15	Percentage of different obstruction level in patients with stones	109
Fig 16	Percentage of different obstruction level in congenital preoup	110
Fig 17	Percentage of different obstruction level in stricture group	111
Fig 18	Morphological pattern in stricture group	118
Fig 19	Morphological pattern in calcular group	119
Fig 20	Morphological pattern in congenital group	120
Fig 21	Morphological pattern in all group	121
Fig 22	Morphological pattern in neoplastic group	122

