

Dedication

To:

- *My Parents, Brothers and Sisters*
- *To my Wife.*
- *Dear Teachers and Specially Supervisors*
- *My Friends*
- *My Colleagues*

Acknowledgement

Profound thanks and gratitude to all academics who played great role for making success to finish work in good manner, to everyone who encouraged me to complete this research.

Firstly I would like to express my feeling to supervisor ***Mr. Hussein Ahmed Hassan*** for his continuous supports and advice.

Also great thank to radiologist of spiral CT scan department in Khartoum Advanced Diagnostic Centre (KADC) for helping me.

I would like to thank all staff of Khartoum Advance Diagnostic Centre.

Abstract

In this study the researcher assessed, the effectiveness of spiral CT Scan to detect lower uretric stone.

This study is conducted at CT department in Khartoum Advanced Centre (KADC).

Random sample of forty patients, males and females with different ages and symptoms were chooses, axial cut done and coronal reformat from axial cut to see the level of stone clearly.

This study was extended from August 2005 up to March 2006.

Some of these cases had the diagnosis by X-ray KUB and U/S, while the majority of them were diagnosed only by spiral CT scan KUB.

The researcher found that the CT studies KUB technique when permunv

mformed and used as essential technique to detect lower uretric

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Abbreviations

CT	:	Computerize Tomography
Kvp	:	Killo-voltage Peak
mA	:	Milli-ampere
mAs	:	Milli-ampere seconds
WL	:	Window Level
WW	:	Window Width
U/S	:	Ultrasound
CT	:	Computed Tomography
I.V.U	:	Intra-Venous Urography
KUB	:	Kidney, Ureter and Bladder
MPR	:	Multiplanner Reconstruction
MRU	:	Magnetic Resonance Urology

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ملخص البحث

في هذه الدراسة تم تقييم فعالية الأشعة المقطعية في الحساوي أسفل

الحالب. تمت هذه الدراسة في مركز الخرطوم التشخيصي المتطور.

أخذت عينة عشوائية 40 شخص من المرضى (رجال ، نساء) ينتمون من مختلف الأعمار و الأعراض ، خضع كل المرضى للأشعة المقطعية للبطن (Axial) ثم من (Axial) تم عمل (Coronal) لتوضيح الحصوة من جميع الجوانب وتحديد مستواها .

امتدت هذه الدراسة من شهر أغسطس 2005م حتى مارس 2006م .

تم تشخيص بعض هذه الحالات بواسطة الأشعة العادية و الموجات الصوتية لكن الغالبية تم اكتشافها بواسطة الأشعة المقطعية .

توصل الباحث أن تشخيص الحصوي أسفل الحالب تتم بصورة دقيقة بواسطة الأشعة المقطعية.

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بسم الله الرحمن الرحيم

Sudan University of Science and Technology
College of Post Graduate Studies

College of Medical Radiological Sciences

Efficiency of Spiral CT scan to
Detecting Lower Uretric Stone

كفاءة الأشعة المقطعية الحلزونية بالحاسوب في الكشف
عن الحصوة أسفل الحالب

*Directed complimentary research submitted for partial
fulfillment for award of M.Sc. Degree in Diagnostic Radiologic
Technology.*

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August, 2007

بسم الله الرحمن الرحيم

قال تعالى:

(وَقُلْ أَعْمَلُوا فَسِيرَی اللّٰه عَمَلَكُمْ
وَرَسُولَهُ وَالْمُؤْمِنُونَ وَسَتُرَدُّونَ إِلَىٰ عَالَمِ
الْغَيْبِ وَالشَّهَادَةِ فَيُنَبِّئُكُمْ بِمَا كُنْتُمْ
تَعْمَلُونَ).

صدق الله العظيم

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