

Dedication

To my family

,Dear father

,Dear mother

,My husband

,My brother

.My sisters

**Always I ask ALLAH for them to be healthy and happy
.all the time**

Acknowledgment

I deeply thanks Dr. Ekhlaz Abd-alaziz for her support and guidance till accomplished this work. My thanks go to staff technologists in Fedail hospital and Ibn-Alhaytham Diagnostic Center. My thanks extend to everyone who helped me in different ways to make this work available.

Abstract:

This study carried out namely in two hospitals: Fedail hospital and Ibn-Alhaytham Diagnostic Center, during the period from July 2012 to January 2013.

The objective of this study was to evaluate the accuracy of computerized tomography urography (CTU) in diagnoses pathology of hydronephrosis , minimize the radiation dose , examination cost , and time to reach the final diagnoses.

Siemens somatom sensation 16 slice helical CT scan apparatus was used. Abdomen routine protocol was performed with or without administration of amanopaque as contrast media.

A total of 63 patients their ages are (1-14 years) with hydronephrosis CTU detected the underlying pathology of hydronephrosis in 59 out of 63 (93.7%), and failed in 4 cases to detect it , although CTU detect the presence of hydronephrosis in these cases.

These cases include , one case of lower ureteric ligation during surgical operation, one case of urinary tract neoplasm , and two cases of chronic inflammatory of urinary tract.

CT has become superior modality for diagnosing the underlying pathology of hydronephrosis , and concluded to that CTU is the best protocol for demonstration the underlying pathology of hydronephrosis than other modalities as U/S and IVU.

- ملخص الدراسة

اجريت هذه الدراسة بمستشفى فضيل ومركز ابن الهيثم التشخيصي في فتره من يوليو 2012 الي يناير 2013

هدفت هذه الدراسة الي تقييم فحص الاشعه المقطعيه الملونه للجهاز البولي في تشخيص الامراض المسببه للتموه الكلوي , وذلك لتقليل التعرض للاشعه المؤينه وتقليل تكلفه الفحوصات والزمن المطلوب للوصول للتشخيص النهائى .

استخدم في هذه الدراسة جهاز اشعه مقطعيه حلزوني ذو 16 مقطع في كل تعرض لشركه سيمينس باستخدام فحص البطن العادي مع اوبدون ماده الامنيوبيك كماده ملونه في 63 مريض بالتموه الكلوي نجح الفحص في التشخيص الامراض المسببه له في 59 حاله بنسبه (93.7%) وفشل في تحديد الامراض المسببه للتموه الكلوى في اربعة حالات , مع انه اشار بوضوح لوجود التموه الكلوي. وتشمل هذه الحالات , حاله واحدهى ربط الحالب اثناء عمليه جراحيه , حاله واحده وجود خلايا سرطانيه بالجهاز البولي , وحالتين التهاب مزمن بالجهاز البولي وقد اوضحت الدراسه ان الاشعه المقطعيه هي افضل الخيارات لتشخيص الامراض المسببه للتموه الكلوى , كما ان الدراسه خلصت الي ان فحص الاشعه المقطعيه الملونه افضل في تشخيص هذا المرض من بقية الفحوصات الاخري كالموجات فوق الصوتيه والاشعه الملونه

قدمت الدراسه عدد من التوصيات في كيفيه اختيار طريقه التصوير وخطواته للمرضي الذين يعانون من التموه الكلوى

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Abbreviation:-

3D	three dimension
Abd	abdomen
BUN	blood urea nitrogen
CT	computerized tomography
CTKUB	computerized tomography, Kidneys,Ureters,Bladder
CTU	computerized tomography urography
e.g.	example
IRCS	intra renal collecting system
IV	intra venous
IVU	intra venous urography
KV	kilo voltage
mAS	milliampere second
MGy	milli gray
MIP	maximum intensity projection
MPR	multi planner reconstruction
MSv	millisevert
Sec	second
U/S	ultra sound
UB	urinary bladder
UT	urinary tract