

**Sudan University of Science and Technology
College of Graduate Studies**

**Role of Ultrasound in Evaluating
Obstructive Uropathy in Sudanese**

دور الموجات الصوتية في تشخيص انسدادية المسالك البولية

**A thesis of Submitted for Partial Fulfillment
of the Requirements of M.Sc. Degree in
Medical Diagnostic Ultrasound**

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October 2015

Dedication

To the soul of my mother .

To My father .

To my wife and daughters.

To my brothers and family.

To my teachers

Acknowledgement

Many thanks to Allah almighty who helped me to write this thesis .

My sincere thanks to DR. Mona Ahmed Mohamed me to pay attention to the important of research .

His lectures were full of knowledge as I believe he tries honestly to transfer his expertise to all of his student .

My thanks to DR Nagwa Ali and for his continuous attention & valuable advices.

I would like to thanks my seniors DR . Faiz Ahmed and Somia Mohamed & my college for their help during the practical sessions .

Finally many thanks to my family & friends who always encourage & support me

Abstract

The objective of this study is detection of urinary tract (UT) obstruction abnormality in the Sudan in 2015 and compare them with the previous studies . This study depends on practical scanning the through which the data was collected in a configuration of data collection sheet the data was collected from October 2015 to December the main results of this study are : Ultrasound examination can very quickly , demonstrate hydronephrosis . Regarding the types of hydronephrosis , ultrasound examination can easily determine deferent types . This study (100) patients came to ultrasound department check up .

This result (65) patients (65%) obstruction uropathy the causes of obstruction. Main cause stones 75% came next mass 20% , least infection 5% .Types Mild hydronephrosis 29% and Moderate hydronephrosis58% , severe hydronephrosis 13%. Ultrasound is sensitive and specific for renal stones , 83% and 100% for hydronephrosis , 83% and 100% , respectively . Its sensitivity to pick ureteric stones (40%) and to identify Hydroureter (50%) is low. Addition of Computer tomography (CT) KUB abdomen increases the sensitivity for ureteric stones to 100%.

which results from obstruction . Ultrasound criteria of obstruction is hydronephrosis dilatation of the calyx ultrasound have high accuracy in detected fluid which results from obstruction the common causes of obstruction uropathy are stones and masses . prostrate enlargement and posterior urethral valve infant , infections . Ultrasound is non invasive portable no need for contrast media .

ملخص البحث

تهدف هذه الدراسة الي معرفة دور الموجات فوق الصوتية واهميتها في تشخيص الانسداد في

المجري البولية والوضع غير الطبيعي بها في السودان لعام 2015 ومقارنتها مع الدراسات

. السابقة

اعتمدت الدراسة علي المسح العملي ومن خلاله جمعت المعلومات عن طريق ورقة جمع المعلومات

. من اكتوبر الي ديسمبر تم مسح عدد 100 مريض من مناطق مختلفة

:نتيجة الدراسة

نتيجة الدراسة هي (65) مريض من عدد المرضى الكلي وتمثل (65%) في تشخيص الانسداد في

المجري البولية نسبة لوجود الحساوي والاورام والالتهابات . والحساوي تمثل نسبة 75%

ويليها الاورام بنسبة 20% واخيرا الالتهابات تمثل 5% اما الانواع انسدادية 58% وانسداد جزئي

29% واخيرا انسداد كامل 13% الموجات الصوتية عالية الحساسية بالنسبة للحصاوي داخل

الكلي وتمثل 83% الي 100% اما في الحالب تمثل 40% الي 50% بعد ان تأكدنا بالاشعة

. % المقطعية وتمثل 100

النتيجة الاساسية من هذا البحث ان الموجات الصوتية سريعة جدا بمعرفة التوسع في حوض

الكلي وانواعه المختلفة ومن الدراسة وجد ان اسباب الانسداد البولي الحصاوي والاورام وتضخم

البروستاتا وانسداد صمام مجري البول الخلفي عند الاطفال ووجد ان الموجات متحركه ولاتحتاج

.الي الصبغة وسهلة

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Abbreviations

US	Ultrasound
UT	Urinary Tract
Q	Question
PUJ	Pelvi-ureteric-junction
UVJ	Uretero-vesical junction
%	Percent
No	number
PCS	Pelvic collecting system
UB	Urinary bladder
PE	Piezoelectronic
A	Amplitude
CRT	Cathode ray tube
M	movement
B	Biplane or Brightness
CT	Computer Tomography
APKD	Autosomal dominant (adult) polycystic kidney disease
PCKD	polycystic kidney disease
MCDK	Multicystic dysplastic kidney
A.R.F	Acute Renal Failure