

الآية

: قال تعالى

{وَقُلْ اَعْمَلُوا فَسَيَرَى اللّٰهُ عَمَلَكُمْ وَرَسُولُهُ وَالْمُؤْمِنُونَ
وَسَتُرَدُّونَ اِلَىٰ عَالِمِ الْغَيْبِ وَالشَّهَادَةِ فَيُنَبِّئُكُمْ بِمَا كُنْتُمْ
تَعْمَلُونَ}

صدق الله العظيم

[التوبة:105]

Dedication

To my parent
To my brother
To my teachers
To my friends

Acknowledgement

I wish to thank all those helped me, without them I could not have completed this project.

This research could not have written without Dr. mona Ahmed Mohammed who not only served my supervisor but encouraged me.

To colleague in royal care Hospital radiologists, technologist and staff of reception.

To who helped me I gave them my great thanks.

List of Table

Item		No
4-1	Showed the gender distribution	36
4-2	Showed the age distribution	37
4-3	The presentation of stones according to the sites	38
4-4	The size of the stones	39
4-5	The density of the stones	40

List of figure

Item		No
2-1	Anatomy urinary system	5
2-2	Blood supply and venous drainage the kidneys	7
2-3	Nerve Supply of the kidney	8
2-4	Transverse section of ureter	10
2-5	Gross anatomy of the bladder	12
2-6	Kidney Stone	18
2-7	kidney , ureter and bladder Stones	19
2-8	Bilateral kidney stone	26
2-9	Axial CT Scan of abdomen without contrast	29
2-10	Procedure of intravenous pyelogram	27
2-11	x-ray with contrast (intravenous pyelogram)	28
2-12	Patient position for abdomen	31
4-1	Diagram shows the gender distribution	36
4-2	A diagram shows the correlation between the age and the stone formation	37
4-3	Diagram shows the site of stones	38
4-4	Diagram shows size of the stones	39
4-5	Diagram shows the density of the	40

stones

Contents

Item	No
1 الآيـةـ	I
2 Dedication	II
2 Acknowledgment	III
3 List of table	IV
4 List of figure	V
5 Contents table	VI
6 Abstract in English	VIII
7 Abstract in Arabic	IX
Chapter One	
9 Introduction	1

10	Problem of the study	3
11	Objective of study	3
12	Overview of Study	3
	Chapter Two	
13	Anatomy of urinary	4
14	Kidney	4
15	The ureter	8
16	The urinary bladder	12
17	The urethra	14
18	Physiology of urinary system	15
19	Urinary system stone	18
20	Causes urinary system stones	20
21	Type of urinary system stones	21
22	Diagnosis of urinary system	22
23	Ultrasound imaging	24
24	KUB	24
25	CT scan	28
26	Intravenous pyelogram (JYP)	27
27	Magnetic Resonance Imaging	30
28	Urine Test	30
29	Indication of CT KUB	30
30	Basic Patient Position	31

31	Radiation protection	31
32	Risks of the procedure	32
33	Previous studies	33
34	Chapter three	
35	Material	34
36	Patient	34
37	Machine used	34
38	Methods	34
39	Technique	34
40	Imaging interpretation	35
41	Data analysis	35
	Chapter Four	
42	Result	36
	Chapter five	
43	Discussion	41
44	Conclusion	42
45	Recommendation	42
46	Reference	43

Abstract

The study aimed evaluation of renal tract stone using Computed tomography Kidney Ureter bladder (CT UKB) in measuring of unary system stone. .

This study was expended from 2015 to 2016 , in royal care hospital random sample of 50 patients , 36 males (72%) and 14 females (28%) , their ages range from 20 to 65 years , were chosen for CT -KUB .

CT- KUB was obtained the entire subject and stones length, width computed tomography (CT) number, and we were measured by using computer.

Scanning was done using Toshiba (64 slices) Machine with slice thickness 8 mm , collimation of $0.8 \times 16\text{mm}$, 120 Kvp , and mAs 150 mill ampere

The result showed , the male were more affect than female and there were linear relationship between the stone lengths , width area , CT number with age .

There is signification correlation between age of the patient and stone size (correlationsignificant 0.934)

CT KUB has great value in detection of calculus as it accurate without magnification

ملخص الدراسة

الهدف من الدراسة هو تقييم دقة الاشعة المقطعية في أكتشاف حصوى الجهاز البولي .

أجريت هذه الدراسة في مستشفى رويال كير في الفترة من 14 فبراير إلى 20 أغسطس 2016م.

عينة من 50 مريض وكان عدد الذكور (72%) وعدد الاناث (28%) وكان

عمر المرضى بين 20 - 65 سنة. تم عمل صورة أشعة مقطعية وتم عمل الصور

المقطعية لكل المرضى ثم الحصول على طول وعرض ومساحة ورقم الاشعة المقط للحصوة وتم قياسه بالكمبيوتر.

تم استخدام جهاز أشعة مقطعية 64 شريحة بسمك 1.8 مل ومحدد 0.8

. × 16 مل و 120 كيلو فولت مللي أمبير.

النتائج أظهرت- أن- الذ- كور- أكثر- إصابة بالحصوى- من- الإناث- وهناك علاقة- خطية- بين- طول- وعرض- ومساحة ورقم- الأشعة المقطعية للحصوة- مع العمر- .

كما- بينت- الدراسة- وجود إرتباط- ذو دلالة معنوية بين- العمر- وحجم- (الحصوة-)- قيمة الاحتمال- 0.934

الأشعة المقطعية ذا قيمة- كبيرة- في- كشف- عن- الحصوة- في- الجهاز- البولي- ولها- دقة- كبيرة- بدون- تكبير-