

Acknowledgment

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Finally, I would like to thanks every one who has participated in completion of this study.

Dedication

To my parent

To my family

To my work colleague in university of Khartoum

To every one who supported me I dedicate this work

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List of abbreviation

CT computed tomography

3D	three dimensions
KUB	kidney ureter bladder
L1	first lumbar vertebra
L2	second lumbar vertebra
IVC	inferior vena cava
In	inch
T11	11 thoracic vertebra
S2	second sacral vertebra
HIV	human immunodeficiency virus
IVP	intra venous pyelogram
MRI	magnetic resonance imaging
CAT	computed axial tomography
2D	two dimensions
HU	house field unit
KVP	kilo volt
MAS	milli ampair second
MIP	maximum intensity projection
M	male

Abstract

The main objectives of this study were to determine the type, size and CT number of common urinary tract stones by CT KUB.

The study was performed on fifty patients, 36 male and 14 female, with different ages and symptoms, and this study was done in Khartoum scan, Ibn alhaytham and Almodarris specialist centers from July to November 2011. All of patients underwent CT KUB studies. The CT images of these patients were interpreted by radiologist.

The main finding of study are found that, 72% of urinary tract stones are found in male, while 28% in female patient, and most of stones are present in the kidneys in both male and female (56%), follows by lower ureter stone (24%), then upper uretric stones (16%), and urinary bladder stones (4%). the main type of stones are whewellite (calcium oxalate monohydrate) (36%).

From this study can conclude that, male have more potential to get urinary tract stones than female, also most of the stones are small in size, and CT KUB used as tool to determine the types of stone.

ملخص الدراسة

الهدف الرئيسي لهذه الدراسة هو تحديد أنواع وأحجام ومكونات حصاوي الجهاز البولي.

أجريت هذه الدراسة علي خمسين مريض ، 36 من الرجال و 14 من النساء ، من مختلف الأعمار والأعراض ،أخذت العينات من مركز الخرطوم إسكان ومركز ابن الهيثم ومركز المدرس التخصصي في الفترة من يوليو الي نوفمبر 2011 ، كل المرضي أجري لهم فحص الأشعة المقطعية للجهازالبولي بدون صبغة.

من أهم نتائج هذه الدراسة أن 72% من حصاوي الجهاز البولي وجدت في الرجال بينما 28% منها في النساء ، و أكثر هذه الحصاوي وجدت في الكلي بنسبة 56% تليها الحصاوي الموجودة في الجزء السفلي من الحالب بنسبة 24% ثم في الحالب العلوي بنسبة 16% وفي المثانة البولية بنسبة 4%. أما أكثر أنواع الحصاوي هي الحصاوي المكونة من أوكسلات الكالسيوم 36%.

من أهم نتائج هذه الدراسة أن الرجال لديهم قابلية لتكوين حصاوي الجهاز البولي أكثر من النساء بالإضافة الي أن أكثر الحصاوي التي وجدت كانت صغيرة الحجم وأن فحص الأشعة متعددة الكواشف بدون صبغة للجهاز البولي يستخدم كوسيلة لتحديد نوع الحصاوي.