

الآية

قال تعالى :

وَفِي أَنْفُسِكُمْ أَفَلَا تُبْصِرُونَ

صدق الله العظيم

الذاريات 21

Dedication

This thesis is dedicated with great love to

Soul of My parents

My Dear Husband Adil

Dear Brothers and Sisters

Acknowledgment

Praise be to Allah firstly, great thanks to my supervisor Dr Asma Ibrahim Ahmed Elamin for all the help, guidance and expertise provided by he throughout the stages in this study to complete positive arguments in the field of ultrasound.

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ABSTRACT

Gall bladder stone is a common clinical problem. Accurate diagnosis is essential to minimize the complications of this disease in order to establish a reliable diagnosis, many factors need to be present e.g. patient with clinical signs and symptoms of right upper quadrant pain, that is irradiated to right shoulder, positive Murphy's sign and other radiological diagnostic methods. From which ultrasound, that is chosen modality for this research. The purpose of this research is to assess the role of ultrasound in diagnosing gall stone. The target of this study is the patient who entered ultrasound department with classical signs and symptoms of gall bladder stone. U/S is now the most widely used and important imaging investigation for detection of gall stone. This research reviewed the gross and sonographic anatomy of gall bladder, clinical and ultrasonographic findings of gall stone. This study is a practical study which was carried out in Omdurman Military Hospital from August 2015 to March 2016. It discusses the role of ultrasound scanning in characterization of gall stone.

50 patients were scanned by ultrasound machine using 3.5-5 MHz, curved transducer

All patients were evaluated with ultrasound following the international scanning guidelines and protocols. The age of patients is between (9 - 86) years old, (64 %) were female and (36%) were male, The youngest patient in this study was 9 years old male, while the oldest was 86 years.

Range of age group accumulation for gall stone presence was (31-50)

Years in both female and male. The study found that female patients were affected more than male. We considered in our study the relationship between obesity, sudden weight loss in male and female, multiple

pregnancy and other related diseases such as Diabetic, Hypertensive patients, Thyroid gland diseases and the gall stone discover. From this study it finds that ultra sound is an excellent imaging modality for evaluation of patient suspected to have gall stone, which can provide information about the presence of gall stone and its complication. it is preferred to be the first method of choice.

ملخص البحث

حساوى المرارة هى مشكلة سريرية شائعة.سرعة التشخيص لهذا المرض لها أهمية كبرى في التقليل من المشاكل التى تنتج عن تكون حساوى المرارة. وللوصول الى التشخيص الصحيح يجب علينا أن نأخذ فى اعتبارنا عدد من الأعراض والعلامات مثل ألم فى الجانب الأعلى يمتد الى الكتف الشمال .ألم فى نفس المنطقة عند الضغط عليها أثناء الفحص .كذلك كثير من وسائل التشخيص الأخرى التى اخترنا منها فحص الموجات فوق الصوتية للحصول على تشخيص نهائى للحالة الغرض من هذا البحث دراسة دور الموجات فوق الصوتية في تشخيص حساوى المرارة . استهدفت هذه الدراسة مجموعة من المرضى الذين حضروا لقسم الموجات الصوتية

بمستشفى السلاح الطبى بأمر درمان وهم يعانون من أعراض حساوى المرارة . وتعتبر الموجات فوق الصوتية الطريقة الأكثر انتشاراً والأسرع والأدق فى تشخيص هذا المرض . فى هذه الدراسة قمنا باستعراض التشريح العام بالموجات فوق الصوتية بالنسبة للمرارة وموجودات الموجات فوق الصوتية بالنسبة لحساوى المرارة ومشاكلها .فى هذا البحث تمت دراسة 50 حالة مرضية تعاني من اعراض حساوى المرارة فى الفترة ما بين اغسطس 2015 حتى مارس 2016 .

تم اخضاع كل المرضى للتشخيص بواسطة أجهزة الموجات فوق الصوتية وفقاً للبروتوكولات العالمية المتبعة .فى هذه الدراسة كانت أعمار المرضى ما بين ال 9 وال 86 سنة .كانت نسبة الاناث 64% والذكور 36% وكان أصغر الأعمار 9 أعوام وأكبرها 86 عام . وجدت الدراسة أن العمر التراكمى لحدوث حساوى المرارة ما بين 31 الى 50 عام بالنسبة للجنسين وخلصت أيضا الى اذدياد نسبة الاصابة وسط الاناث أكثر من الذكور. أخذت الدراسة فى الاعتبار العلاقة بين زيادة الوزن ونقصان الوزن المفاجئ ونسبة الاصابة بحساوى المرارة.

كانت أوزان المرضى تتراوح بين (45_100) كجم . ومن خلال النتائج التى توصلت اليها الدراسة وجد ان أكبر نسبة اصابة كانت بين الاناث بسبب الوزن الذائد أو نقصان وزن مفاجئ أو اذدياد عدد مرات الولادة وغيرها من الامراض المصاحبة كالسكرى و الضغط واضطرابات الغدة الدرقية ونقص المناعة المكتسبة وامراض الدم.من خلال دراسة النتائج التى توصلت اليهاالدراسة وجدان الموجات فوق الصوتية لها دور عظيم فى تشخيص حساوى المرارة وكانت هى الأكثر دقة والأقل مخاطر حيث انها تتسم بالسلامة وقلة التكلفة مما جعلها فى متناول يد المريض .

List of abbreviations

GB	Gall bladder
AP	Anteroposterior
CBD	Common bile Duct
CHD	Common hepatic Duct
Cm	Centimeter
Mm	Millimeter
CT	Computed tomography
MRI	Magnetic resonance imaging
ERCP	Endoscopic retrograde cholangio – pancreaticograpy
PSC	Primary sclerosing cholangitis
US	Ultrasound
I.V.C	Inferior venacava
L.S	Longitudinal section
T.S	Transverse section
M.H.Z	Mega Hertz

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