

**SUDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**COLLEGE OF GRADUATE STUDIES**

**Role of Ultrasound in Diagnosis  
Obstructive Jaundice**

**دور الموجات الصوتية في تشخيص اليرقان  
الانسدادى**

A thesis submitted for partial fulfillment for the requirement of M.Sc  
Degree  
in Medical Diagnostic Ultrasound

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((سبحانك لا علم لنا إلا ما  
علمتنا إنك أنت العليم  
الحكيم))

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صدق الله العظيم  
(سورة البقرة - الآية 32)

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***To my parents***

***To my dear husband***

***To my little cute daughter “Rihab”***

***To my brothers and sisters***

***My Teachers and my supervisor***

***With my best regards***

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## Abbreviations

<b>US</b>	<b>Ultrasound</b>
<b>I.V.C</b>	<b>Inferior vena cava</b>
<b>Rt.</b>	<b>Right</b>
<b>Lt.</b>	<b>Left</b>
<b>HAV, HBV</b>	Hepatitis A virus, Hepatitis B virus
<b>ERCP</b>	Endoscopic retrograde choli-pancreatography
<b>MRCP</b>	<b>Magnetic resonance</b> choli-pancreatography
<b>CT</b>	Computed tomography
<b>MRI</b>	Magnetic resonance imaging
<b>PTC</b>	<a href="#"><u>Percutaneous transhepatic cholangiography</u></a>
<b>CECT</b>	High-dose contrast-enhanced computed tomography
<b>USG</b>	Ultrasonography

## **Abstract**

In most instances, abdominal US is considered to be the screening procedure of choice for the diagnosis of obstructive jaundice of unknown etiology.

This study was done to assess the role of ultrasound in diagnosis of obstructive jaundice and to identify the sonographic features.

The study took place in Ibnsina hospital in the period between Jan 2015 and March 2015. A total of 50 patients with obstructive jaundice were examined using ultrasound machine, 3.5-7 MHz probe.

The study revealed that 56% of the study population with obstructive jaundice were male and 44% was female. The most common affected groups were housekeepers 42% and workers 38%. The major sonographic feature of obstructive jaundice were biliary tree dilatation (78%). The ultrasound modality had role in detection cause of obstructive jaundice 26% were as other diagnostic modalities 74%.

Ultrasound was superior diagnostic tool in detecting and assessing biliary system obstruction, because it was easy, available, accurate and noninvasive.

## مستخلص البحث

إن الموجات فوق الصوتية للبطن في معظم الأحيان تعتبر الخيار الأفضل للكشف عن اليرقان الانسدادي المجهول الأسباب. هذه الدراسة أجريت لتقييم اليرقان الانسدادي ومعرفة التغيير الذي يحدث تشريحياً لمرضي اليرقان الانسدادي باستخدام الموجات فوق الصوتية. أجريت هذه الدراسة بمستشفى ابن سينا لأمراض الجهاز الهضمي وشملت الدراسة خمسين مريضاً خضعوا لفحص الموجات فوق الصوتية بعد أن شُخصوا عرضياً ومعملياً. وكشفت هذه الدراسة أن 56% من مرضي اليرقان الانسدادي كانوا رجال و 44% من النساء وأكثر فئه مصابة ربات المنازل 42% ومن ثم العمال بنسبة 38%، وفحص الموجات فوق الصوتية كشف أن القنوات الصفراوية اظهرت اتساعاً بنسبة 78% لمرضي اليرقان الانسدادي. وان للموجات فوق الصوتية دور ايضاً في معرفة الاسباب التي أدت إلي ظهور اليرقان الانسدادي بنسبة 26% مقارنة بوسائل التشخيص الاخرى 74%.

أثبتت الدراسة أن للموجات فوق الصوتية دور بارز في كشف اتساع القنوات الصفراوية وسبب اتساعها. وأن الموجات فوق الصوتية وسيلة فحص سهلة ومتاحة وأقل تكلفة مقارنة بفحوصات أخرى.