

**COLLEGE OF GRADUATE STUDIES**

**SUDAN UNIVERSITY OF SCIENCE**

**&**

**TECHNOLOGY**

**ULTRASONOGRAPHY OF SCROTAL DISEASES**

**A THESIS SUBMITTED FOR MSc. DEGREE  
IN MEDICAL ULTRASOUND**

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فَلْيَنْظُرِ الْإِنْسَانُ مِمَّ خُلِقَ ﴿١﴾ خُلِقَ مِنْ مَّاءٍ دَافِقٍ ﴿٢﴾  
يَخْرُجُ مِنْ بَيْنِ الصُّلْبِ وَالتَّرَائِبِ ﴿٣﴾



ABSTRACT

Firstly, scrotum ultrasound is the one of the main routine examination referred to the ultrasound department . Secondly, the ultrasound investigation is one of the best imaging modalities for scrotal abnormalities. For the reasons above mentioned, I decided to study on this field.

This study included 300 patients with scrotal problems who were referred from different clinics (e.g. Urology, Endocrinology.etc.) after they were clinically examined. Ultrasound examinations performed for them and the ultrasound findings explained in a table.

After that the 300 patients were classified into four groups based on the clinical symptoms and correlated with the ultrasound findings. The results tabulated for each group as follows:

- A. Group (1) included 81 patients presented with scrotal swelling.
- B. Group (2) included 115 patients who where the clinical symptoms were infertility.
- C. Group (3) included 52 patients who presented with scrotal pain.
- D. Group (4) included 52 patients with non-palpable testes.

Each group was analyzed individually, according to the ultrasound findings. The results were discussed and concluded.

Comparative study was done between my study and other relevant available studies prepared by some researchers.

In patients with unclear findings, and difficult to demonstrate on ultrasound, like intra-abdominally located testes, however, other modality is recommended to avoid misdiagnosis e.g. MRI .

بسم الله الرحمن الرحيم

## ملخص البحث

أولا الموجت فوق الصوتية لصفى من الفحوصت الرئيسية الروتينية للحالات المحولة إلي قسم الموجت فوق الصوتية . ثانيا الموجت فوق الصوتية واحد من أفضل سبل التصوير لشذوذ الصفى. للأسبب المذكورة انفا قررت لأبخت في هذا المجل. تشتمل هذه الدراسة على ثلاثمائة مريض (300) يعانون من مشاكل الصفى و الذين احيلوا من عيادات مختلفة ( المساك البولية ، العقم ..... ) بعد إجراء الفحوصت الإكلينيكية. فحوصت الموجت فوق الصوتية أنجزت لهم وتم توضيح النتائج في جدول .

وبعد ذلك تم تصنيف المرضى (300مريض) إلى أربعة مجموعات على أسس إكلينيكي مرتبلا مع نتائج الموجت فوق الصوتية .

النتائج جملت لكل مجموعة كالآتي :

المجموعة الأولى: وتشمل (81)مريض يشكون من تورم الخصية (1)

المجموعة الثانية: وتشمل (115)مريض يشكون من العقم (2)

(3)المجموعة الثالثة: وتشمل (52)مريض وهم المرضى الذين يشكون من ألم في الخصية

.المجموعة الرابعة: وتشمل (52)مريض يشكون من احلس عدم وجود الخصية (4)

وقد تم تحليل كل مجموعة علي انفراد على أسس نتائج الموجت فوق الصوتية . النتائج نوقشت ولخصت . تمت مقارنة بحثية بين درستي بعض درلست سابقة وثيقة الصلة بالموضوع لبعض الباحثين . وتم تدوين أوجه التوافق وعدمه . أما الحالات التي يكون الفحص فيها بالموجت فوق الصوتية غير حلسم مثل اختفاء الخصية في منطقة البطن وعدم القدرة على تحديد مكانها أو طبيعتها نصح بإجراء وسيلة أخرى كالرنين المغناطيسي مثلا حتى نتفدى التشخيص الخلطى .

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**CHAPTER (I)**  
**INTRODUCTION**

**CHAPTER (II)**  
**LITERATURE REVIEW**

## **CHAPTER (III)**

# **MATERIALS AND METHODS**

# **CHAPTER (IV)**

## **DATA ANALYSIS**

# **CHAPTER (V)**

## **DISCUSSION AND CONCLUSION**

**CHAPTER (VI)**  
**RECOMMENDATIONS**

**APPENDIX**  
**And**  
**REFERENCES**

# Data Collecting Form

**Hospital No:-**

**Age:-**

**Clinical symptoms: -** By using the table below

Scrotal swelling	Scrotal pain	Infertility	Non-Palpable testes

**Ultrasound findings:-**

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**Comments:-**

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**RESULT ANALYSIS FOR SCROTAL ULTRASOUND**

