Dedication

To my parents,

To anyone who taught

me a letter,

To my friends,

And to all my family.

Acknowledgements

First and foremost, I would like to express my deepest gratitude to Dr. Hussein Ahmed Hassan for his support and guidance. Without his help this work could not have been accomplished.

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ABSTRACT

Ultrasound is a technology using ultrasound in medical imaging, and uses sound waves with frequencies greater 20 kHz; which greater than the frequencies that the human's ears hear. The idea of the work of those medical devices depends on the ultrasound waves that fall on the body and reflected from it.

Ultrasound is the gold standard for detection of soft tissue.

This study aims to determine the fundamental changes in the image of ultrasound of appendicitis. The study was conducted on a sample containing the suspected infected with appendicitis, the patients were prepared and ultrasound examinations were performed by a number of ultrasonic machines.

A total of 38 patients were examined in both the Khartoum Teaching Hospital (KTH) and East Nile Hospital, typical in the period from September to December 2011. The average age of the patients (21 ± 6) years.

The study showed that the use of ultrasound in the diagnosis of appendicitis leads to see how the appendix inflamed or not, and this by either a presence of fluid collections around it or the mass.

Finally, the ultrasound is the first choice for diagnosis of appendicitis.

الملخص:

الموجات فوق الصوتية هي تكنولوجيا تستخدم الموجات فوق الصوتية في التصوير الطبي، وتستخدم موجات صوتية ذات ترددات اكبر 20 كيلو هرتز؛ أي أكبر من الترددات التي تسمعها أذن الإنسان. وتعتمد فكرة عمل تلك الأجهزة الطبية على الأمواج الفوق صوتية التي تسقط على الجسم وتنعكس عنه. تعتبر الموجات فوق الصوتية هي المعيار الذهبي للكشف عن الأنسجة الناعمة.

تهدف هذه الدراسة لتحديد التغيرات الأساسية في صورة الموجات فوق الصوتية للزائدة الدودية الملتهبة.

أجريت الدراسة على عينة تحتوي على مشتبة بإصابتهم بإلتهاب الزائدة الدودية، تم تحضير المرضى وعمل فحص موجات فوق الصوتية بعدد من أجهزة الموجات فوق الصوتية.

تم فحص 38 مريضا بكل من مستشفى الخرطوم التعليمي و مستشفى شرق النيل النموذجي في الفترة من سبتمبر وحتى ديسمبر 2011.

بلغ متوسط العمر للمرضى (21±6) سنة.

أظهرت هذه الدراسة أن إستخدام الموجات فوق الصوتية في تشخيص الزائدة الدودية الملتهبة يؤدي لمعرفة مدى الزائدة الدودية ملتهبة أم لا، وذلك بوجود تجمع للسوائل حولها أو بها ورم.

أخيرا، الموجات فوق الصوتية هو الخيار الأول لتشخيص التهاب الزائدة الدودية.