بسم الله الرحمن الرحيم

Sudan University of Science and Technology

College of Graduate Studies

Assessment of Pleural Effusion in Omdurman Teaching Hospital using Ultrasonography

تقييم الانصباب الجنبي في مستشفى ام درمان التعليمي باستخدام الموجات فوق الصوتية

A thesis Submitted for Partial Fulfillment of the Requirements of

M. Sc. Degree in Medical Diagnostic Ultrasound

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2017

الآيـــــــة

بسم الله الرحمن الرحيم

وَالْعَصْرِ {1} إِنَّ الْإِنسَانَ لَفِي خُسْرٍ {2} إِلَّا الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ وَتَوَاصَوْا بِالْحَقِّ وَتَوَاصَوْا بِالصَّبْرِ {3}

صدق الله العظيم

سورة العصر

Dedication

I dedicate this work to my father and my mother. And to my family, teachers and friends.

You are always in mind and that encourages me to do the best in my life.

Amani

Acknowledgment

I would like to thank God for enabling me to complete this thesis. I wish to thanks

my husband alfadelwho

encouraged me throughout this study .I sincerely

thank Dr.MonaAhmed,the supervisor of my thesis continuous help ,supervision and guidance.

I greatly thank all those who supported and helped me to complete this thesis.

I am very grateful to all my teachers in all educational levels.

And last but not least I would like to thank the panel who are here to discuss my thesis

Abstract

This was descriptive cross sectional study done in Omdurman teaching hospital during the period of 2016To 2017. The problem of study was that evaluation of the pleural effusion needs repetitive follow up with chest x-ray or Computerized Tomography scan which is harmful and expensive, ultrasound can detect any degree of pleural effusion and detect most of causes of it. The objective of study was to assess the pleural effusion by ultrasound.

This study applied among50patients suffering of pleural effusion came for follow up by chest x-rays. The data was collected by data collection sheet design specially for purpose of this study then classified and analyzed by using statistical package for social science (SPSS). The study found that 64% of pleural effusion patients were male while 36% were female , the mean age group 50.28 years , 34% within age group 36-65 years, 32% had family history of pleural effusion. Regarding the degree of pleural effusion by ultrasound the study found that 42% of the patients had mild pleural effusion, 40% had moderate while 18% had massive pleural effusion 32% of them causes by cardiac diseases and 26% causes by pulmonary diseases. The study found that the most associated findingby ultrasound with pleural effusion was ascities 48% of cases.

The study concluded that ultrasound was effective tool in assessment of pleural effusion, it can assess the degreeof effusion, detect the causes of effusion and associated pathological finding.

The study recommended that further studies should be done by larger sample volume to correlate the type of fluid in pleural effusion with causes and associated pathological conditions.

المستخلص

هذه دراسة مقطعية عرضية وصفية أجريت في أم درمان المستشفى التعليمي خلال الفترة من 2016الي2017. وكانت مشكلة الدراسة أن تقييم الانصباب الجنبي يحتاج لتكرار المتابعة بواسطة اشعة الصدر السينية أوباالمسح المقطعي المحوسب وهما ضاران ومكلفان و يمكن للموجات فوق الصوتية الكشف عن أي درجة من الانصباب الجنبي والكشف عن معظم أسباب ذلك. وكان الهدف من الدراسة هو تقييم الانصباب الجنبي بواسطة الموجات فوق الصوتية.

طبقت الدراسة على 50 مريضا يعانون من الانصباب الجنبي اتوا للمتابعة بواسطة الأشعة السينية للصدر . تم جمع البيانات عن طريق ورقة جمع البيانات التي صممت خصيصا لغرض هذه الدراسة ومن ثم صنفت وحللت باستخدام الحزمة الإحصائية للعلوم الاجتماعية . ووجدت الدراسة أن 64٪ من مرضى الانصباب الجنبي من الذكور في حين أن 36٪ من الإناث، ومتوسط الفئة العمرية لديهم 50.28 سنة، و 34٪ في الفئة العمرية 36-65 سنة، وكان لدى 32٪ تاريخ عائلي للانصباب الجنبي. وفيما يتعلق بدرجة الانصباب الجنبي بواسطة الموجات فوق الصوتية وجدت الدراسة أن 42٪ من المرضى كان الانصباب الجنبي بسيط ، 40٪ متوسط في حين أن 18٪ الانصباب الجنبي الهائل و وجدت الدراسة ان اكثر المسببات أمراض القلب 32٪ و أمراض الرئة 26٪. ووجدت الدراسة أن الاستسقاء من اكثر الامراض التي تظهر بالموجات فوق الصوتية مع الانصباب الجانبي بنسبة 48%.

وخلصت الدراسة إلى أن الموجات فوق الصوتية تمثل أداة فعالة في تقييم الانصباب الجنبي، فإنها تقدر درجة الانصباب وتكشف عن اسباب الانصباب والامراض المرتبطة معه .

وأوصت الدراسة الانه ينبغي أن يتم إجراء المزيد من الدراسات من حيث حجم العينة الاكبر لربط نوع السوائل في الانصباب الجنبي مع الأسباب والامراض المرتبطة بها.

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