

Dedication

To our lovely parents

To

Our lovely friends

To

Our teachers in the college

To

Our families

To

Our supervisor D. Ahmed abokonna

Acknowledgement

We would like to thank Allah for giving us the strength to finishing this Study.

Thanks with a great deal of love to our parents, sisters and brothers and extended family for their wonderful loving support, during the whole Period of this study. We would like to thank Dr. ahmedabokonn, for his guidance and support. We are very grateful to the many that have gone out of their way to help us with this research project. We also acknowledge all the radiology personnel of Ribat and Omdurman Hospital and all other hospitals we included in this study.

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Abstract

degenerative disease is a disease in which the function or structure of the affected tissues or organs will increasingly deteriorate over time, whether due to normal bodily wear or lifestyle choices such as exercise or eating habits.

This study was conducted in Ribat hospital and Omdurman hospital in Khartoum state. Data were obtained collected from May 2014 through June 2014. Data were collected by computed radiography device and conventional device.

The main aim of this study was done to determine the best modality for diagnostic degenerative disease.

A total of 50 samples were collected by CR and same sample by conventional radiographic films/screen system (23 male and 27 female), the reserch showed that both imging modalities can be used to detect joint space. Further more computed radiography is better than conventional rdiography in case of assessment of subarticular and subcondoral changes.

ملخص الدراسة:

اجريت هذه الدراسة على عدة حالات مصابة بالتغيرات العظمية وهو مرض يحدث فيه تدهور لانسجة ووظائف العضو المصاب بمرور الزمن ويحدث اما بسبب هيئة الجسم او اسلوب الحياة للفرد مثل عادات الطعام او الرياضة، وقد اجريت هذه الدراسة في مستشفى الرباط الجامعي ومجموعة اخرى من مستشفيات مدينة الخرطوم وقد تم جمع عدد 50 من البيانات ابتداءً من مايو 2014 وحتى اغسطس 2014 وقد كان الهدف الاساسي من الدراسة هو تحديد افضل نظام تصوير بالاشعة لتشخيص هذا المرض.

توصلت الدراسة الي ان كلا النظامين يمكن استخدامهما لكشف الزوائد العظمية. اما في حالات ضيق المسافة المفصلية وتغيرات الغضاريف فان نظام الاشعة المحوسبة قد تفوق علي نظام الاشعة

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List of abbreviation

CR	Computed Rdiogrphy
IP	Photostimulbore Phosphor
OA	Osteoarthritis
ROI	Region of interrest
JSW	Joint Space Width
SEM	Standard Error mean
SD	The Standrd Devition

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