

## *DEDICATION*

*To my parents who supported me every  
time*

*To my husband*

*To my sons To my daughter*

*To my big family*

*To my friends in friendship hospital*

*To ustazAbed Alsamad M. Salih*

*I dedicate this work*

## *Acknowledgement*

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## **Abbreviations**

Anterior Cruciate Ligament	<b>ACL</b>
Anteroposterior	<b>AP</b>
Direct Current	<b>DC</b>
Edition	<b>ED</b>
Erythrocyte Sedimentation Rate	<b>ESR</b>
Focal Film Distance	<b>FFD</b>
Figure	<b>Fig</b>
Gradient Echo	<b>GRE</b>
Kilo Electron Volt	<b>KEV</b>
Kilo Voltage	<b>KV</b>
Meter/second	<b>M/S</b>
Mille Ampere Second	<b>MAS</b>
Medial Collateral Ligament	<b>MCL</b>
Magnetic Resonance Image	<b>MRI</b>
Number	<b>NO</b>
Osteoarthritis	<b>OA</b>
Posterior Cruciate Ligament	<b>PCL</b>
Proton Density	<b>PD</b>
world Health Organization	<b>WHO</b>

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## **Abstract**

This study was conducted at Friendship Hospital Omdurman in the period from September 2012 to January 2013. The study is done to 75 patients (male and female), 50 patients (study group) with OA in knee joint all of them complaining of knee pain and were well known of OA disease and 25 normal patients (control group). The data was collected from the patient demographic criteria and history of patient. This data was analyzed by Excel and presented with tables and graphs in percentages according to the OA stage (I, II, III), marital status, obesity, healthy weight, and diseases which cause secondary OA. The age of the patient ranged (20- 60) years and the OA is common in the age group (41-50) years represented (46%) . The degeneration is primary cause of OA in all stages, we found that there is no relationship between disease and marital status. And the disease more common in female which is (68%) percentages. The weight of the patients range (20-120)Kg. The healthy weight's patients and pre obese were 10 patients which is ( 20%) for each groups in all stages. (there is association between OA and others diseases (diabetes, gout and hormone disorder) or genetic factors.). Obese class I took which is (54%) in all stages as high percentage. The study found that obesity is .the most secondary risk factor of OA

## ملخص الأطروحة

هذه الدراسة اجريت في مستشفى الصداقة امدرمان فى الفترة ما بين- سبتمبر 2012 وحتى يناير 2013م. وقد شملت الدراسة عدد 75 حالة من المرضى- (ذكور واثاث ) 50 منهم مشخصة حالتهم بواسطةاختصاصي الاشعة بالتهاب مفصل الركبة الضموريو 25 منهم اصحاء واصحاب اوزان صحية تم جمع البيانات بواسطةاستبيانات عن المعلومات الشخصية وتاريخ أي امراض اخريتم تحليل البيانات بواسطةعن طريق الجداول و الرسومات التوضيحية بالنسب المئوية حسب مراحل تطورالمرض ,الحالة الاجتماعية,السمنة,الوزن الصحي و المسببات الثانوية للمرض. تراوحت أعمار المرضى ما بين ((20-60سنة وجد ان التهاب مفصل الركبة الضموري اكثرانتشارا في الفئة العمرية 41-50 بنسبة(46%) مما يدل علي ان تقدم العمر هو المسبب الأساسي للمرض في كل مرحلته ووجدت الدراسة انه لا علاقة للمرض بالحالة الاجتماعية. وان المرض اكثر انتشارا عند السيدات بنسبة(68%).تراوحت اوزان المرضى بين ((20-120كجم وان أصحاب الوزن الصحي وما قبل السمنة الزائدة عددهم 10 مرضي (20%) في كل مراحل المرض(ارتبطت اصابتهم بعدد من الامراض الاخري (السكري ,النقرس واختلال الهرمونات) بالاضافة لعامل الوراثة كمسببات



ثانوية). واناصحاب الوزن الزائد من المرتبة الاولى (54%) كاعلى نسبة مئوية ووجدت

الدراسة ان الوزن الزائد (السمنة) هي اكثر الامسباب الثانوية خطورة .

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