

بسم الله الرحمن الرحيم

*Sudan University of Sciences and Technology
College of postgraduate studies*

**Plain chest x-ray findings in patent
With pulmonary tuberculosis**

النتائج المرضية في صور الصدر لمرضى الدرن

*Thesis submitted fulfillment the award of M.Sc degree in
Diagnostic Radiological Technology*

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قال تعالى:

بسم الله الرحمن الرحيم

ءاقرا و ربك الأكرم الذي علم بالقلم
علم الإنسان ما لم يعلم

صدق الله العظيم

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*For the generous and endless
support through all my life*

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Dedication

I dedicate this thesis

To my parents

Dr.Ekhlās A.Alazeez

Mr.Gehad Khalid Hamed

All my colleges

Without their patience,
understanding supports,
and most of all love; the
completion of this work
would not have been
possible

Abstract

The main objective of this study was to evaluate the chest x-ray finding in the suspected Pulmonary TB (tuberculosis) in Sudanese patients at different hospitals & diagnostical centers in Khartoum State. This study includes 100 patients (35% female, 65%male) in different age and socioeconomic states, for seven months from December 2009 to June 2010. The mean ages was (32 Years) The result of this study showed that (72%)of the patients have a positive result for pulmonary T.B and (28) % have a negative result for pulmonary T.B, the most abundance symptoms of pulmonary TB in the study was coughing (85%), the most abundance finding was interstitial opacity (73%), and the most abundance site of finding was Rt upper zone (52%), that's a positive result were showed in the patients have more than three symptoms from all 6 symptoms and have more than two finding from all 5 finding when the chest x-ray are evaluated for T.B, There was a direct relationship between the summation of numbers of symptoms and the summation of numbers of chest x-ray finding and the correlation could be fitted in the following equation: $y=0.4666x+2.4488$ where x refers to summation of symptoms and y refers to summation of finding, the result shown that when the numbers of patients symptoms are increased the probability of positive finding were also increased, and thus the probability of positive results will also increased, the positive results in males (63.9%) more than females (36.1%) and the negative results of male (78.6%) more than females (21%) The most abundance ages groups have a positive and negative results was less than 35 year old

الخلاصة

كان الهدف الرئيسى من هذه الدراسة هو تقييم الظهور المرضى المتوقع لمرضى السل الرئوي السودانيين فى مختلف المستشفيات والمراكز التشخيصية فى ولاية الخرطوم. اشتملت الدراسة على 100 مريض 65% ذكر 35% أنثى فى مختلف الأعمار والأوضاع الاجتماعية الاقتصادية.

استمرت الدراسة لمدة 7 أشهر من ديسمبر 2009م وحتى يونيو 2010م بمتوسط أعمار 32 سنة. وأوضحت الدراسة أن 72% من المرضى لديهم نتيجة إيجابية للإصابة بالسل الرئوى و 28 لديهم نتيجة سلبية للإصابة بالمرض وكان العرض الأكثر تكراراً لمرضى السل الرئوى هو السعال 85% وكان الظهور المرضى الأكثر ظهوراً هو التعقيم وكان فى 73% والموقع الأكثر إصابة بالظهور المرضى هو المنطقة اليمينية العليا للصدر وكان 52%.

وكانت النتيجة إيجابية فى المرضى الذين لديهم أكثر من ثلاثة الأعراض من مجموع الأعراض الستة وكان لديهم أكثر من ظهورين مرضيين من أصل خمسة عندما تم تقييم صور الصدر بالأشعة السينية لمرضى السل، كان هناك علاقة مباشرة بين مجموع أعداد الأعراض ومجموع أعداد الظهور المرضى لصور الصدر بالأشعة السينية يمكن ترتيب هذا الارتباط فى المعادلة التالية: $2.4488 + 0.4666 \times \text{س} = \text{ص}$ حيث س يشير إلى مجموع الأعراض وص يشير إلى مجموع الظهور، أظهرت النتيجة أنه عند زيادة أعداد ظهور المرضى، بالتالى احتمال تزداد احتمالية الظهور الإيجابى للمرض، النتائج الإيجابية فى الذكور (63.9%) أكثر من الإناث (36.1%) والنتائج السلبية للذكور (78.6%) أكثر من الإناث (21%) وأكثر الفئات العمرية تكراراً كانت المجموعات التي لها نتائج إيجابية وسلبية أقل من 35 سنة.

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