

بسم الله الرحمن الرحيم

*Sudan University of Sciences and Technology*

*College of Graduate Studies*

*Measurement of spleen Among Sudanese Adults by using  
computed tomography*

قياسات الطحال لدى السودانيين البالغين باستخدام الأشعة المقطعية المحوسبة

*Thesis submitted for partial fulfillment of requirements of  
M.Sc degree in diagnostic radiological technology*

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## *Dedication*

**This research dedicated to my husband ,without his support  
this project would not have been made possible .**

**And also to my family , sons and all most influential people  
in my life who encourage and want to be the best.**

## **Acknowledgement**

**Firstly , My great thanks to Allah to let me reaching this place .**

**Also my great thanks to my supervisor Dr Caroline Edward Ayad for her support , inexhaustible patience and unlimited help .**

**My thanks also extend to my colleague Mohammed Adam who help me to complete this study .**

## **Abstract**

**The spleen is the largest organ in reticuloendothelial system ,the splenic size use as indicator of disease activity in a variety of disorders of the reticuloendothelial system**

**The objective of this prospective study is to evaluate normal spleen measurements (length, width , CTnumber) in different Sudanese tribes using CT and correlated to patients age**

**For the normal subjects the mean of splenic length, width ,CTnumber were 8.75 cm(1.95---STDV),4.29 cm(.89---STDV)and 48.69 HU(8.39---STDV) respectively .**

**For the diseased subjects the mean of splenic length,width ,CTnumber were 12..59cm(.63---STDV),4.93 cm(..44---STDV) and 44.3 HU2.92---STDV) respectively.**

**The correlation between mean splenic dimension parameters for all subjects showed that was a linear relation between splenic length, width and CTnumber with the patient age and weight.**

## ملخص الدراسة

الطحال هو أكبر عضو في الجهاز الليمفاوي وحجم الطحال يستخدم كمقياس  
للامراض التي تصيب الجهاز الليمفاوي .

بعد تحليل النتائج للعينات السليمة وجد متوسط طول الطحال 8.75 سم ومتوسط  
عرض الطحال 4.29 سم ومتوسط الرقم 48.69.

اما بالنسبة للعينات المريضة وجن ان متوسط طول الطحال 12.59 سم ومتوسط  
عرض الطحال 4.93 سم ومتوسط الرقم 44.3

العلاقة بين متوسط قياسات الطحال لكل العينات اظهرت انه يوجد علاقة خطية بين  
طول , عرض والرقم وعمر ووزن العينات المأخوذة.

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