

## الآية

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قال تعالى:

(لَا يُكَلِّفُ اللَّهُ نَفْسًا إِلَّا وُسْعَهَا لَهَا مَا كَسَبَتْ وَعَلَيْهَا مَا اكْتَسَبَتْ رَبَّنَا لَا تُؤَاخِذْنَا إِنْ نَسِينَا  
أَوْ أخطأْنَا رَبَّنَا وَلَا تَحْمِلْ عَلَيْنَا إِيصْرًا كَمَا حَمَلْتَهُ عَلَى الَّذِينَ مِنْ قَبْلِنَا رَبَّنَا وَلَا تُحَمِّلْنَا مَا لَا طَاقَةَ  
لَنَا بِهِ وَاعْفُ عَنَّا وَارْحَمْنَا أَنْتَ مَوْلَانَا فَانصُرْنَا عَلَى الْقَوْمِ الْكَافِرِينَ)

سورة البقرة الآية (286)

## **Dedication**

To my parent god rest them soul in peace and insert dear.

To my eldest brother may god prolong his age, to my brothers and sisters.

To anyone who helped for completing research modest

## **Acknowledgment**

Firstly, thank god, for help me to continue and providing me insight to complete this reaches.

Secondly gratefully to my supervisor Doctor Asma Ibrahim and family and college, who continue to encourage me and support me, all this would never have been possible without them.

Finally gratefully to Modern Medical Center and Royal care International.

## **Abstract**

This study aimed to measurement of corpus callosum in Sudanese population used sagittal magnetic resonance images .the patient population consist of normal 50 males and 50 females . The study was carried out in the (Sudan -Khartoum state) in radiology department of modern medical center and royal care international hospital from January 2016 to January 2017.

The problem of the study was lacked to index value of normal corpus callosum in Sudanese population in order to avoid miss diagnosis.

The data were collected and descriptive statistic used statistic package (spss).

The study results were presented the length of corpus callosum 75.75 and the thickness was divided to genu 17.54, body 6.89 and splenium16.76. Also the study found in frequency of 50males and 50 females was no deferent in corpus callosum. The study found little difference in the size of the corpus callosum with age above 70 years old in both sexes.

The study concluded that the magnetic resonance image was the best modalities for measurement of corpus callosum .And the study concluded no significant difference in corpus callosum between both genders measurement in corpus callosum index.

## مستخلص الدراسة

هذه الدراسة تمثل قياس الجسم الثقني بواسطة الرنين المغنطيسي للتطبيق السهمي. تمت الدراسة في عدد من مستشفيات ولاية الخرطوم-السودان , في الفتره من يناير 2016 إلى يناير 2017 وتشمل 100 مريض تتمثل في 50 رجل و50 إمرأه .

تكمن مشكلة البحث في قصور في توفير قيمه مرجعيه للجسم الثقني لدي السودانين.

هدفت الدراسة في توفير البيانات الأساسية للتشخيص وذلك لمعرفة أي تغيرات مريضيه.

تم جمع البيانات وتحليلها وتصنيفها بواسطة برنامج التحليل الأحصائي. مع الأعتبار بأخذ الإختلاف في الأجناس وجدت الدراسة متوسط قياس الجسم الثقني الطبيعي لكل من قياسات الطول 75.75 و لقياس السمك في ثلاث مستويات :السمك العلوى 17.54 ,السمك الاوسط 6.89 والسمك السفلي 16.76. وأوضحت الدراسات أن هناك زياده بسيطه في حجم الجسم الثقني عندما يزيد العمر عن 70 سنه.

خلصت الدراسة علي أن التصوير بالرنين المغنطيسي أفضل تقنيه لقياس الجسم الثقني ,كما أوضحت أنه لا يوجد إختلاف في قياسات الجسم الثقني لكل من الجنسين .

أوصت الدراسة علي قياس الجسم الثقني للأطفال مقارنة مع البالغين بإستخدام التصوير بالرنين المغناطيسي.

## List of Contents

Subject	Page
الأية	I
Dedication	II
Acknowledgment	III
List of Contents	IV
Abstract English	V
Abstract Arabic	VI
List of table	VII
List of figure	VIII
Abbreviations	XI
<b>Chapter One</b>	
1-1 Introduction.	1
1 – 2 Statement of the problem.	1
1 – 3 Objective of the study.	1
<b>CHAPTER TWO</b>	
2-1 Anatomy of the corpus callosum.	2

2 -2Physiology.	7
2 -3Image of the corpus callosum.	12
2 - 4 previous study.	14

Chapter Three	
3-1 Materials.	16
3-2 Methods	16
Chapter four	
4-1 Results.	18
Chapter Five	
5-1 Dissection.	23
5.2 Conclusion.	25
5.3 Recommendation.	26
5. 4 References.	27
5.5 Appendices.	

## List of Tables

Table (4-1): Distribution frequency and percentages according to Age	18
Table (4.2) Distribution of ages and CCI and thickness genu and thickness body and thickness splenium	19
Table (4-3) Cc length, Thickness genu Aa, Thickness body Bb, Thickness splenium cc, CCI table for variables distribution according to age	19
Table (4-4) : Distribution frequency and percentages according to Gender	21
Table (4-6) display table for variables distribution according to gender	22



## List of Figures

Fig (2-14): Corpus callosum from above.	3
Fig (2-15): Median sagittal section of brain (person faces to the left).	3
Fig (2-20) Physiology of the corpus callosum.	7
<i>Fig(4-1) distribution of frequency and percentages according to age</i>	18
Fig (4-2) by graph show gender details	21
In figure (1)Female age 42 year old – sagittal T1 of CC Measure was taken in italics passing through the body	28
In figure (2) Female age 42 years old Measurements was taken casual line going through Genu and splenium	28
figure (3) Female The corpus callosum measure starting from Genu until splenium	29
figure (4) Female Measurements was taken in italics began in Genu and ended with Rostrum	29
figure (5) Female The body was taken to measure vertical line	30
figure (6) Female Splenium measure was taken in italics	30
figure(9)Male Measurements was taken in italics began in Genu and ended with Rostrum	31
fig(10)Male Splenium measure was taken in italics	31
figure (12)Male – age 47 years old Measure was taken in italics passing through the body	32

figure(13)Male Measurements was taken casual line going through Genu and splenium	32
Figure (5 -17) Magnetic resonance imaging in the user's machine samples	33
Figure (18) Magnetic resonance imaging in the user's machine samples.	33

## Abbreviations

AP	Anterior posterior
CC	Corpus callosum
CCI	Corpus callosum index
GRE	Gradient echo ,echo produce as a results of gradient to re generate
MRI	Magnetic reasons image
PT	Patient
T1 weighted image	Image that demonstrate the deferens in t1 time of the tissue
T2*	Dephasing due to magnetic field inhemogeities