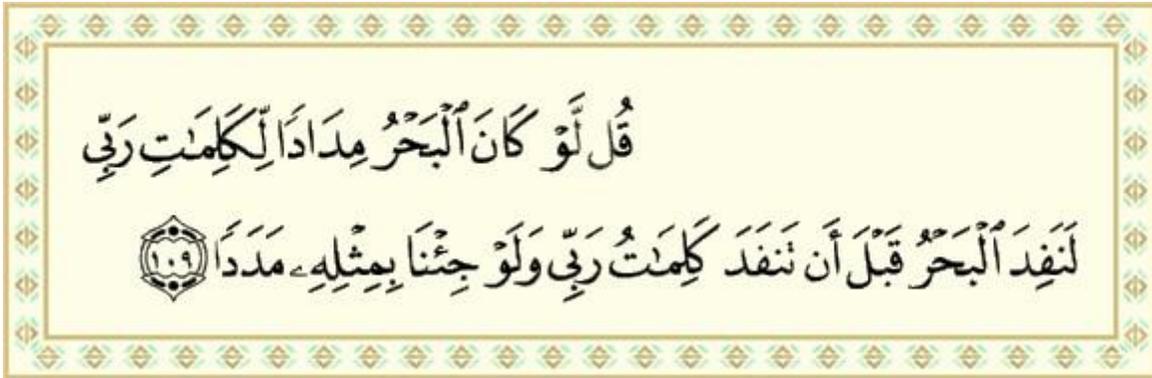


بسم الله الرحمن الرحيم

قال تعالى :



صدق الله العظيم

سورة الكهف – الآية ( 109 )

## **Dedication:**

I dedicate this research to my parents, brothers and sister. Other dedication to my dear friends.

Small effort dedicated to large country, I want to dedicate this research to all Sudanese.

Finally, ask Allah to accept this work and add it to my good works.

## **Acknowledgment:**

Thanks alot to my supervisor Dr. Doha Abdo who help me to make use of her long experience in X-ray studies, not only that but she succeeded to help me overcome fear and give me trust and confidence.

I also owed a lot to my colleagues on khartoum teaching hospital and others, who didn't hesitate to give help.

## **Abstract:**

The study objective to determine the skull morphology of Sudanese and adult sudanese male and female. Data was taken from the 100 CT images of normal skull 53 male, 47 female ( $\geq 18$  years), from Khartoum Teaching Hospital . The duration of the study is 6 months, from July 2011 to January 2012.

According to the classification of skull shape and size (cephalic index) to three categories dolicocephalic, mesocephalic and brachycephalic, the dominant appearance in Sudanese skull was found mesocephalic (average skull) 86.4%, dolicocephalic 83% but the brachycephalic was rare 30.42%. On the other hand, the skull width of Sudanese was measured 133.9 mm and the length was measured 177.2 mm.

The study revealed that, skull morphology of Sudanese male was found dolicocephalic 49.0% and female was found mesocephalic 46.8%. The skull width of Sudanese male was measured 135 mm and female 132 mm. Lastly, the skull length of Sudanese male 180.7 mm and female 173.1 mm.

Cephalic index of Sudanese was mesocephalic, this means axiolateral oblique projection “ Law method ” for the mastoids or the TMJs requires  $15^\circ$  of head rotation.

## مستخلص البحث:

يهدف البحث لتحديد شكل جمجمة الانسان السوداني بصورة عامة ، وجمجمة الرجل السوداني والمرأة السودانية بصورة خاصة . اخذت البيانات من 100 صورة اشعة مقطعية 53 ذكر و 47 انثى باعمار اكثر من او تساوي 18 سنة من مستشفى الخرطوم التعليمي .

تبعاً لتقسيمات شكل الجمجمة عن طريق (سعة الرأس) لثلاثة تقسيمات رأس اسدل ، رأس عريض ، ورأس كبير اقرب للاستدارة وجد ان الشكل الشائع للجمجمة السودانية هو شكل الرأس العريض 86.4% ثم يليه في الترتيب شكل الرأس الاسدل 83% واخيراً شكل الرأس المستدير 30.42% . من جهة اخرى وجد ان عرض رأس الانسان السوداني 133.9 مم وطول راسه 177.2 مم.

كما وجد ان شكل رأس الذكر السوداني هو الرأس الاسدل بنسبة 49.0% والانثى السودانية هو الرأس العريض بنسبة 46.8% . كما وجد ان عرض رأس الذكر السوداني 135 مم والانثى السودانية 132 مم. وطول رأس الذكر السوداني 180.7 مم ، والانثى 173.1 مم.

الرأس العريض (تبعاً لتقسيمات سعة الرأس ) يتطلب امالة الرأس 15 درجة عند اجراء فحص الاشعة لمنطقة الخشاء ومنطقة مفصل الفك السفلي (طريقة لو ) ، عليه فان الجمجمة السودانية تحتاج نفس الزاوية عند عمل هذا الوضع.

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## List of Abbreviations:

<b>AP</b>	Anterioposterior
<b>CI</b>	Cephalic Index
<b>cm</b>	Centimeter
<b>CNS</b>	Central Nervous System
<b>CR</b>	Central Ray
<b>CT</b>	Computed Tomography
<b>F</b>	Female
<b>M</b>	Male
<b>MRI</b>	Magnetic Resonance Imaging
<b>PA</b>	Posteroanterior
<b>SPSS</b>	Social Package of Statistical Science
<b>TMJs</b>	Tempromandibular Joints
<b>3DVA</b>	3-Dimensional Vector Analysis