

## الاية

بسم الله الرحمن الرحيم

{ قُلْ إِنِّي هَدَانِي رَبِّي إِلَى صِرَاطٍ مُسْتَقِيمٍ دِينًا قِيَمًا مِّلَّةَ إِبْرَاهِيمَ حَنِيفًا وَمَا كَانَ مِنَ الْمُشْرِكِينَ (161) قُلْ إِنَّ صَلَاتِي وَنُسُكِي وَمَحْيَايَ وَمَمَاتِي لِلَّهِ رَبِّ الْعَالَمِينَ (162) لَا شَرِيكَ لَهُ وَبِذَلِكَ أُمِرْتُ وَأَنَا أَوَّلُ الْمُسْلِمِينَ (163) }

سورة الانعام

## Dedication

To my parents always stay behind me

To my lovely husband (HYTHAM) the source of my power  
and support

To my daughter (ABIA) the light of my way

To my teachers and colleagues

To all people whom I love and they love me

## Acknowledgement

Full regards to my supervisor Dr Asocial prof: ALSAFY  
AHMED ABDALLAH

Who gave me perfect advices, ideas and motivations to  
complete this research in success

I would like to thank all people who have helped me and  
contributed to this research

## الخلاصة

الغرض من هذا البحث هو قياس حجم الغدة الدرقية لدى النساء السودانيات فوق سن الأربعين

في هذا البحث اجريت دراسة لمائة امرأة سودانية بالغة في مركز الخرطوم المتطور استغرقت الدراسة ثلاثة شهور

Toshiba with 7.5 MHz linear transducer باستخدام جهاز

تم قياس حجم الفص الايمن والفص الايسر للغدة الدرقية كل علي حدا عن طريق المعادلة (الطول × العرض × العمق  $\times 0.52$ ) داخل الجهاز والحجم الكلي للغدة نتج باضافة حجم الفصين الايمن والايسر

وكان متوسط الاعمار  $41.87 \pm 1.66$  سنة ومتوسط حجم الغدة كاملة  $6.40 \pm 0.39$  مل ومتوسط حجم الفص الايمن  $3.41 \pm 0.26$  مل ومتوسط حجم الفص الايسر  $2.98 \pm 0.21$  مل الفص الايمن اكبر من الفص الايسر.

يمكن اعتماد الموجات فوق الصوتية كوسيلة تشخيصية جيدة لقياس حجم الغدة الدرقية كما انها امنة ورخيصة كما يمكن اعتماد نتائج البحث كمرجعية محلية لحجم الغدة الدرقية للنساء السودانيات في عمر الاربعينات.

## Abstract

This study to measure the thyroid volume in normal adult Sudanese female over 40 years old

100 normal adult Sudanese female over 40 years old were scanned ultrasound at KHARTOUM ADVANCE DIAGNOSTIC CENTERE IN KHARTOUM SUDAN over 3month

High resolution sonography of the thyroid gland was performed with an ultrasound machine Toshiba by 7.5MHZ linear transducer the volume of each lobe was calculated automatically in the machine by using Ellipsoid formula (the volume =length ×width ×depth×0.52 )and the total thyroid volume obtained by adding the volume of both lobes . the mean ages and ranges was  $1.66\pm 41.87$  years old the overall mean volume  $\pm$ SDml of thyroid gland was  $0.93\pm 6.40$ ml the mean volume of right lobe was  $0.26\pm 3.41$ ml the mean volume of left lobe was  $0.27\pm 2.98$ ml the right lobe is greater than the left lobe .

The ultrasound has proven as a useful method for the assessment of the thyroid volume and it is safety and less expensive

And the results can used as a local reference of thyroid volume in adult Sudanese female in age of forty

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### List of appreciation

U\S	ULTRASOUND
CT	COMPUTRISE TOMOGRAPHY
MRI	Magnetic resonance imaging
WHO	World health organization
ML	milliliter
MM	Millimeter
ICCIDD	International Council for the Control of Iodine Deficiency Disorders
RT	right



LT	left
MHz	megahertz
TPO	Thyro peroxides

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