

الآية

قال تعالى:

(و لسوف يعطيك ربك فترضي)

صدق الله العظيم

((سورة الضحي اية (4)))

Dedication

This research is dedicated to my respective parents and my husband who have been my constant source of support and inspiration.

It's also dedicated to my best friend who consistently pushed me forward to accomplish my goals .without this sort of love and support this project would not have been possible.

Acknowledgment

First and foremost thanks are due to Allah the most beneficent and merciful.

I am so grateful for the effort of Dr. Mohamed Elfadel who gave me lots of his precious time and his valuable knowledge and support.

Finally I am deeply thankful for my parents, friends and my respective husband mutaz and his lovely family for their love and support which allowed me the completion of this study.

Abstract

Thyroid gland is one of most important endocrine glands in the body, it plays a vital role in growth control and its measurements tends to change in respect to age, sex, weight and ethnic group of the individual.

The aim of this study is estimation of thyroid gland volume in children using ultrasonography. The sample size is 50 subjects (normal subjects) 30 female and 20 male were included from Alshikh Mustafa Alamin School for girls and Hassona high school for boys (13-15years) old. The data was collected using ultra sound machine used was portable GE {general electric} machine with linear high frequency [7MHz] transducer. Thyroid isthmus thickness was measured and RT and LT thyroid lobes length, width and AP diameters were measured and then using ellipsoid method the thyroid volume of both lobes was estimated.

The unit of measurements used was metric and the study was done with ideal protocol.

The results showed that the RT thyroid lobe is larger than the LT measuring (2.19gr) (1.83gr) respectively. There is no significant association between thyroid measurements and subject in the range of (13-15 years old) there is no significant between the thyroid measurements and the subjects geographic area and living area, there is no association between thyroid measurements and subjects age except in the LT lobe length which is found bigger in females .in the other hand there is strong linear correlation between the subjects weight and the isthmus thickness and RT lobe AP diameter. According to this strong leaner correlation this study recommends to take the subjects BMI in respect when measuring the volume of thyroid gland.

ملخص البحث

الغدة الدرقية هي أحد أهم الغدد الصماء في جسم الإنسان حيث تؤدي دورا حيويا في عملية النمو وتتغير قياساتها علي حسب جنس وعمر ووزن الفرد والمنطقة التي ينتمي اليها .

تهدف هذه الدراسة إلي تقدير حجم الغدة الدرقية للأطفال باستخدام التصوير بالموجات فوق الصوتية . أجريت هذه الدراسة في مدرستي الشيخ الثانوية بنات وحسونة الثانوية بنين وحدد حجم العينة 50 شخصا سليما 30 فتاة و 20 شابا تم قياس حجم الغدة الدرقية لديهم داخل مدارسهم.

تم إجراء فحص الموجات الصوتية بجهاز موجات المتنقل بمسبار خطي عالي التردد (7ميغاهيرتز) وتم قياس سمك برزخ الغدة الدرقية و كل من عرض وطول و عمق كل من فصيها ثم باستخدام الطريقة الإهليلجية تم حساب حجم كلا الفصين.

تم التعبير عن القياسات اعتمادا علي النظام المتري وبعتماد البرتوكول المتعارف عليه .

أظهرت نتائج هذه الدراسة انه للأطفال في سن المدرسة فإن الفص الأيمن للغدة الدرقية أكبر من الفص الايسر حيث يبلغ حجمهما (2.19 جرام) و (1.83 جرام) علي الترتيب .

توصلت الدراسة الي انه لا توجد علاقة تذكر بين تغير قياسات الغدة الدرقية و اختلاف الأشخاص تحت الدراسة في السن داخل مدي الدراسة (13-15 عام) أو في المنطقة الجغرافية او السكن الحالي كما انه لا يوجد تغير ملحوظ مع تغير جنس الاشخاص داخل الدراسة الا في قياس الطول للفص الايسر من الغدة حيث وجد انه اكبر عند الفتيات من الفتيان.

كما أظهرت الدراسة وجود علاقة طردية قوية بين وزن الطفل تحت الدراسة وسمك برزخ الغدة الدرقية و بين وزنه وعمق الفص اليمين للغدة الدرقية وعليه فإن الدراسة توصي بأخذ وزن الشخص في الاعتبار عند قياس حجم الغدة الدرقية له.

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