بسم الله الرحمن الرحيم

قال تعالى:

( قل هل يستوي الذين يعلمون والذين لا يعلمون)

صدق الله العظيم

سورة الزمر الآية (9)
To My parents

My wife

My teachers

And friends

For giving me never-ending gifts of encouragement, love and patience.
Acknowledgement

I would like to thank every one who assisted by one way or another to bring this study to the light.

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Colleagues in Radiation &Isotopes Centre of Khartoum (RICK),
Radioimmunoassay laboratory staff.

My family for generous and endless support through all my life.
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<td>RIA</td>
<td>Radioimmunoassay</td>
</tr>
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<td>RICK</td>
<td>Radiation and Isotope Center of Khartoum</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<tr>
<td>TBG</td>
<td>Thyroxine-Binding Globulin</td>
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<tr>
<td>TFT</td>
<td>Thyroid Function Test</td>
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<td>TG</td>
<td>Thyroglobulin</td>
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<td>TSH</td>
<td>Thyroid Stimulating Hormone</td>
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<td>TSI</td>
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<td>T₄</td>
<td>Thyroxine</td>
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<td>T₃</td>
<td>Triiodothyronine</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>U/S</td>
<td>Ultrasound</td>
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<td>NM</td>
<td>Nuclear Medicine</td>
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<tr>
<td>GH</td>
<td>Growth hormone</td>
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<tr>
<td>TRH</td>
<td>Thyrotrophin releasing hormone</td>
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<tr>
<td>NSB</td>
<td>Non Specific Binding</td>
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Abstract

In this study 14227 Sudanese subjects attended the RadioImmunoAssay laboratory at RasioIsotope Centre Khartoum (RICK) for thyroid function test during the period from 1/1/2005 to 31/12/2005. The test included serum analysis for thyroid related hormones which are thyroxin (T₄), triiodothyroinine (T₃) and thyroid stimulating hormone (TSH).

The patients were referred to (RICK) from different hospitals and clinics in Khartoum state.

The main objective of this study was to determine the incidence of thyroid gland abnormalities among the Sudanese subjects sent for thyroid hormones analysis and to find out the most affected age and sex of the patients among them. A further objective was to evaluate the thyroid gland disorders based on its related hormones.

The age of the patient varied from less than 1 year up to more than 60 years. Patients were firstly divided into two groups according to their gender and then divided according to their age into 7 groups with 10 years intervals in order to study the demonist thyroid disorders in each gender and age interval (the risk group).

All statistical analyses in this study were performed using SPSS software, version 13.0 (SPSS Software, Chicago, USA).

The results obtained in this study indicated that thyroid disorders were more common among female than male with a ratio of about (4:1). It was also observed that the most common affected group were the subjects between 20-30 years old (41.5%) followed by those aged between 30 to 40 years which represented 26.6% of the total patients.
الخلاصة

أجرت هذه الدراسة الإحصائية على عدد (14227) من المرضى السودانيين لتحديد نسبة الإصابة باضطرابات الغدة الدرقية لديهم في الفترة من 1/1/2005 إلى 31/12/2005. وكان قد تم مسبقاً قياس هرمونات الغدة الدرقية (T3) والثيروكسين، ثيروكسين ثلاثي الiod (T4) والهرمون المنبه للغدة الدرقية (TSH). لقد تم عمل هذه الدراسة خلال فترة عام كامل في المركز القومي للعلاج بالأشعة والطب النووي بالخطروم في معامل الهرمونات بطريقة تقنية القياس المناعي الإشعاعي (RIA).

تم تقسيم المرضى إلى مجموعتين حسب الجنس لتحديد مدى انتشار اضطرابات الغدة في كل جنس، وأيضاً تم تقسيم المرضى على حسب أعمارهم إلى فئات عمرية تبدأ من عمر أقل من سنة وحتى عمر أكبر من 60 سنة حيث تم تقسيمهم إلى فئات كل فئة عمرية مداها 10 سنوات وذلك لتحديد نسبة الخلل في وظيفة الغدة الدرقية في كل شريحة عمرية.

ثم تم دراسة كل هرمون على حادٍ. تم استعمال البرنامج الإحصائي للتحليل الاجتماعي (SPSS) في هذه الدراسة لتحليل البيانات.

ومن خلال نتيجة الدراسة اتضح ان اضطرابات الغدة الدرقية أكثر شيوعاً في النساء مقارنة بالرجال وذلك بمعدل (4 : 1) وأيضاً أثبتت الدراسة أن أكثر الفئات العمرية إصابة باضطرابات الغدة الدرقية هي الفئة العمرية (20-30 سنة) وتليها الفئة العمرية (30-40 سنة) بمعدل اصابة (41.5 و (26.6)% على التوالي.