

بسم الله الرحمن الرحيم

قال تعالى:

(قل هل يستوي الذين يعلمون والذين لا
يعلمون)

صدق الله
العظيم

سورة الزمر الآية (9)

Dedication

To My parents

My wife

My teachers

And friends

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

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Table of contents

Subject	Page
الإلية	I
Dedication	II
Acknowledgement	III
Table of contents	IV
List of Tables	VII
List of Figures	VIII
Abbreviations	IX
Abstract	X
Abstract (Arabic)	XI
CHAPTER ONE	
1.1 Introduction	1
1.2 Iodine deficiency	2
1.2.1 The Iodine deficiency disorders	2
1.2.2 Specific iodine deficiency disorders	4
1.2.2.1 Endemic goiter	4
1.3 Rationale and importance of the study	5
1.4 Objectives of the study	6
1.5 Methodology	6
1.5.1 Type of study	6
1.5.2 Study population	6
1.5.3 Area of Study	6
1.6 Resources information	7
1.7 Thesis scope	7
Chapter Two	
2.1 Thyroid anatomy, histology, and embryology	8
2.1.1 Thyroid anatomy	8
2.1.2 Histology of thyroid gland	13
2.1.4 Diseases of the thyroid gland	17
2.1.4.1 Hyperthyroidism	17
2.1.4.2 Graves' disease	17
2.1.4.3 Hypothyroidism	18
2.1.4.3.1 Hypothyroidism in adults (myxedema)	19
2.1.4.3.2 Congenital hypothyroidism (cretinism)	19
2.1.4.3.4 Endemic cretinism	20
2.1.4.4 Nontoxic goiter	20
2.1.4.4 .1 Epidemiology of goiter	21

2.1.4.4. 2 Causes of goiter	22
2.1.4.4.3 Goitrogenic factors	22
2.1.4.3 .5 Diagnosis of goiter	23
2.1.4.4.6 Prevalence of goiter	23
2.1.4.4 Thyroid tumor	26
2.1.4.4 .1Toxic adenoma	26
2.1.4.4 .2 Thyroid carcinoma	27
2.1.4.4 .3 Papillary carcinoma	27
2.1.4.4 .4 Follicular carcinoma	27
2.1.4.4 .5 Anaplastic (undifferentiated) carcinoma	28
2.1.4.4 .6 Medullary carcinoma	28
2.1.4.5 Thyroglossal cyst	28
2.1.4.6 Thyroiditis	29
2.1.4.7 Hashimoto,s disease	29
2.1.4.8 Subacute thyroiditis:	30
2.1.4.9 Riedel's thyroiditis	30
2-2 Review of Literature	30

Chapter Three

-2 Subjects and Methods	35
3-3 Radioimmunoassay(RIA) Methods	35
3-4 (RIA) of Thyroid Hormones	36
3-4.1General Descriptions of (T4,T3 and TSH)	36
3-4-2 (RIA) of (T4)	37
3.4.2.1 Principle of the method	37
3.4.2,2 Assay procedures	38
3.4.2.3Calculation of results	38
3-4-3 (RIA) of (T3)	39
3.4.3.1 Principle of the method	39
3.4.3,2 Assay procedures	40
3.4.3.3Calculation of results	41
3-4-4 (RIA) of (TSH)	41
3.4.4.1 Principle of the method	41
3.4.4.2 Specimen collection	41
3.4.4.3 Preparation of assay	41
3.4.4,4 Assay procedures	42
3.4.4.5Calculation of results	42
3-5 The Normal Range (TSH,T4and T3)	43

	Chapter Four	
Results		44
Discussion		55
	Chapter Five	
Conclusion		60
	Chapter Six	
Recommendations		61
References		62

List of Tables

Table number	Table content	Page number
(Table 2-1)	WHO simplified classification of goitre	19
(Table 3-1)	Normal range of thyroid hormones level	34
Table (4.1)	represents of male and female patients versus their ages groups	36
Table (4-2-1)	Represents T.S.H results of Male patients versus their age group	38
Table (4-2-2)	Represents T.S.H results of Female patients versus their age groups	39
Table (4-3-1)	Represents T ₃ results of Male patients versus their age groups	41
Table (4-3-2)	Represents T ₃ results of Female patients versus their age groups	42
Table (4-4-1)	Represents T ₄ results of Male patients versus their age groups	44
Table (4-4-2)	Represents T ₄ results of Female patients versus their age groups	45
Table (1)	(RIA) Result form	59

List of Figures

No of figure	Figure repression	Page of figure
Fig.2. 1	Thyroid anatomy. Thyroid relations with surrounding cervical structures	10
Fig.2.2	Histology of normal adult thyroid gland	12
Figure 2.3	Thyroglossal cyst	22
Fig. (4.1)	Represents of male and female patients versus their ages groups	36
Fig (4-2-1)	Represents T.S.H results of Male patients versus their age group	38
Fig (4-2-2)	Represents T.S.H results of Female patients versus their age groups	39
Fig (4-3-1)	Represents T ₃ results of Male patients versus their age groups	41
Fig (4-3-2)	Represents T ₃ results of Female patients versus their age groups	42
Fig (4-4-1)	Represents T ₄ results of Male patients versus their age groups	44
Fig (4-4-2)	Represents T ₄ results of Female patients versus their age groups	45
Figure.(1)	Shows ¹²⁵ I Gamma Counting multi-channel	57
Figure.(2)	Shows ¹²⁵ I Gamma Counting single channel	57
Figure.(3)	Shows kits ,tubes ,and racks	58

List of abbreviations

RIA	Radioimmunoassay
RICK	Radiation and Isotope Center of Khartoum
SPSS	Statistical Package for Social Sciences
TBG	Thyroxine-Binding Globulin
TFT	Thyroid Function Test
TG	Thyroglobulin
TSH	Thyroid Stimulating Hormone
TSI	Thyroid-Stimulating Immunoglobulin
T ₄	Thyroxine
T ₃	Triiodothyronine
WHO	World Health Organization
U/S	Ultrasound
NM	Nuclear Medicine
GH	Growth hormone
TRH	Thyrotrophin releasing hormone
NSB	Non Specific Binding

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 (T_4), triiodothyroinine (T_3) 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

أجريت هذه الدراسة الإحصائية على عدد (14227) من المرضى السودانيين لتحديد نسبة الإصابة باضطرابات الغدة الدرقية لديهم في الفترة من 1/1/2005 الى 31/12/2005 . وكان قد تم مسبقاً قياس هرمونات الغدة الدرقية (T_4) الثيروكسين، ثيرونين ثلاثي اليود (T_3) والهرمون المنبه للغدة الدرقية (TSH). لقد تم عمل هذه الدراسة خلال فترة عام كامل في المركز القومي للعلاج بالأشعة والطب النووي بالخرطوم في معمل 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 اقل من سنة وحتى عمر اكبر 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 تمت دراسة كل هرمون على حدا. تم استعمال البرنامج الاحصائي للتحليل الاجتماعي (SPSS) في هذه الدراسة لتحليل البيانات. ومن خلال نتيجة الدراسة اتضح ان اضطرابات الغدة الدرقية أكثر شيوعاً في النساء مقارنة مع الرجال 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.