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# *Dedication*

**To my home country**

**To my lovely family**

With best wishes

# **Acknowledgement**

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# **Abstract**

**In this study 711 Sudanese female have been analyzed for thyroid function. Thyroid related hormones were measured thyroxin (T4), triiodothyronine (T3) and thyroid stimulating hormone (TSH).**

**The study had been held during one complete year. The female subjects were referred to Sudan Atomic Energy Commission Radioimmunoassay laboratory from different hospitals in Khartoum State.**

**The age of females was varied from less than one year up to 70 years. The age was divided in to 10 years interval in order to study the dominst thyroid disorder in each interval. Statistical package for social science (SPSS) program was used in the study as data analysis tool. The clear observation from this study was the high incidence of disorders among the age between 20 up to 40 years.**

## ملخص الدراسة

اجريت هذه الدراسة الاحصائية علي عدد 711 امرأة سودانية لتحديد نسبة الاصابة باضطرابات الغدة الدرقية لديهن . لقد تم مسبقا قياس هرمونات الغدة الدرقية : (4) (T ثيروكسين و 3) (T ثيرونين ثلاثي اليود و (TSH) الهرمون المنبه للغدة الدرقية .

لقد تم عمل هذه الدراسة خلال فترة عام كامل في مقر هيئة الطاقة الذرية السودانية في معمل (RIA) , وكان المرضى قد حضروا من مختلف مستشفيات ولاية الخرطوم .

تم تقسيم أعمار النساء الي فئات عمرية تبدأ من عمر اقل من سنة واحده وحتى عمر 70 سنة , وتم تقسيمها الي فئات تضم 10 سنوات في كل منها لتحديد نسبة الخلل في وظيفة الغدة في كل شريحة عمرية .

تم استعمال البرنامج الاحصائي للتحليل الاجتماعي (SPSS) في هذه الدراسة لتحليل البيانات . ومن خلال هذه الدراسة اتضح لنا ان اعلي معدل في الاصابة بامراض الغدة الدرقية يكون فئة العمر بين 20 الي 40 سنة .



## **ABBREVIATIONS**

**Ab** : Antibody

**A g** : Antigen

**RIA**: Radio Immuno Assay

**TSH**: Thyroid Stimulating Hormones

**RICK**: Radiation and Isotopic Center of Khartoum

**SPSS**: Statistical Package for Social Science

**SAEC**: Sudan Atomic Energy  
Commission

**IAEA**: International Atomic Energy  
Agency

**MRI** : Magnetic Resonance  
Imaging