

#### **Dedication**

### To my father -----

Who always supported me in every endeavor

## To my mother -----

Who is the reason I am here at all, and made me who I am today

## To my wife and my kids

If I donated to you everything in this world, it is not enough to give you your right

# Acknowledgement

My deep thanks to my supervisor **Dr. Mohamed Mohamed Omer M. Yousef** for his contact supervision, inexhaustible patience& unlimited help.

My thanks extend to any one who helps me to complete this study with his full patience & cooperation

I would like to thanks also radiology department staff in Al–Ribat University Hospital In Burri and peripheral centers for their cooperation.

Finally I would like to thanks my friends, teachers and colleagues.

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#### **Abbreviations**

TPUS	TransPerineal Ultrasonography
TRUS	TransRectal Ultrasonography
TAUS	TransAbdominal Ultrasonography
PSA	Prostate Specific Antigen
DRE	Digital Rectal Examination
BPH	Benign Prostate Hyperplasia
TUNA	Trans Urethral Ablation
TUMT	TransUrethralMicrowave Thermotherapy
TURP	Trans Urethral Resection of the Prostate

#### **Abstract**

This study was carried out to determine the range of volumes of the prostate gland in adult Sudanese males in our local environment using supra-pubic

ultrasonography, and to provide acceptable range of normal prostate gland volumes.

A prospective random selection of fifty asymptomatic adult males were recruited and measurements of the maximum length, height and width of their prostate gland were obtained and the volume was calculated. Subjects were selected, if they had no complaints related to the urinary system or signs of urinary tract disease.

The transverse, AP and Longitudinal diameters mean values are (2.68) cm, (3.56) cm, and (3.02) cm respectively.

The mean prostate volume obtained from the above parameters was 15.24ml. these results are discussed in details, from the data obtained.

Finally, prostate volume measurement was conducted by using the ellipsoid formula which calculates volume by considering the largest anteroposterior height (H), transverse width (W), cephalocaudal length (L) diameters.

The findings show that prostate volume increases linearly with body weight and age.

# ملخص البحث

هذه الدراسة اجريت لتحديد مدى قياسى معين احجم غدة البروستاتا لدى الرجل البالغين من السودانيين الاصحاء في بيئتنا المحلية وذك باستخدام الموجلت فوق الصوتية

استخدمنا في هذه الدراسة تقنية التصويربالموجلت فوق الصوتية على منطقة العانة وذك بتسليط الموجلت اسفل منطقة البطن. بهذه الطريقة يمكن الحصول على قيلسك معيارية مقبولة لحجم البروستاتا الطبيعي تم اختيار عينة عشوائية من 50 فردا من الرجل البالغين من السودانيين الاسحاء وتم قيلس الابعاد القسوى الثلاث لغدة البروستاتا وهي الطول والعض والارتفاع

وجد ان متوسط قياسات تك الابعاد هو 2.68 سم للعوض , 3.56 سم الطول و 3.02 سم الارتفاع, وان متوسط حجدم غدة البروستاتا طبقا لهذه الابعاد , وباستخدام معادلة الاجسام بيضاوية الشكل بضرب هذه الابعاد المذكورة في الثابت 0.529 هو 15.24. مل

اثبتت الدراسة ل حجم البروستاتا يزيد طبقا لزيادة بعض العوامل كزيادة وزن الجسم وزيادة عصر الفرد, كما ل هناك عوامل قد تأثر بطريقة غير مباشرة في زيادة حجم البروستاتا كالحالة الاجتماعية للفرد والبيئة الحياتية والعوامل الجينية