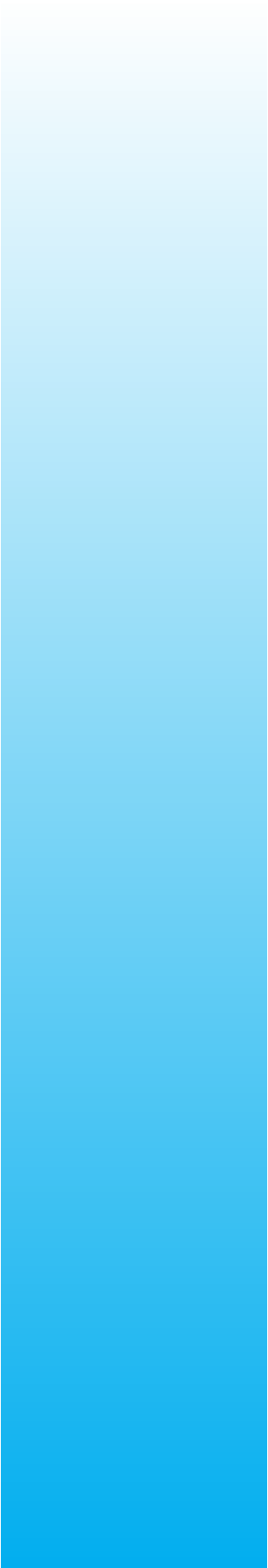




وقل ربي زدني علماً



Dedication:



To my mother and
father.



Acknowledgement:

I would like to thanks and appreciate to:

Ass. Prof Suliman Iragie for his greatest efforts that he gave me to complete this research successfully.

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The nuclear medicine staff in RICK for their help.

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Abbreviations

T4	Thyroxin
T3	Triiodothyronine
AITD	Auto immune thyroid disease
I131	131 Iodine radioactive
SPECT	Single photon emission computed tomography
CT	Computed tomography
MRI	Magnetic resonance imaging
N.M	Nuclear medicine
Mm	Millimeter
g	Gram
TG	Thyroglobulin
Tpo	Thyroid peroxidase
TSH	Thyroid –stimulating hormone
TRH	Thyroid releasing hormone
α	Alpha
β	Beta
PTH	Parathyroid hormone
PTU	Propylthiouracil
HLA	Human lymphocyte antigen
PTC	Papillary thyroid carcinoma
FTC	Follicular thyroid carcinoma
MTC	Medullar thyroid carcinoma
MEN	Multiple endocrines neoplasia
BMD	Bone mineral density
WHO	World health organization
NaI	Sodium iodide
Tl	Thallium
PMT	Photo multiplier tube
cm	Centimeter
Kev	Kilo electron volt
SMC	Summing matrix circuit
PHA	Pulse height analyzer
SCA	Single channel analyzer
MCA	Multi channel analyzer
3D	Three dimension
Tc99m	Technetium (99m) metastable
WBs	Whole body scintigraphy
mci	Mile curie
RICK	Radio isotope center khartoum
SPSS	Statistical professional for social sciences

الخلاصة

يعتبر سرطان الغدة الدرقية واحدا من أكثر أنواع السرطانات شيوعا في السودان. والعظام هي واحدة من الأماكن الأكثر شيوعا لانتشاره لذلك توصيف المواقع الأكثر شيوعا لانتشاره في العظام تساعد في التحكم و العلاج المبكر لتلك المواقع.

في هذه الدراسة مجموعة من ٥٠ من المرضى الذين يعانون من سرطان الغدة الدرقية تم تقويمها من قبل المسح بواسطة جهاز القاميرا الكلي للعظام بواسطة استعمال اليود المشع-١٣١ في مركز العلاج بالشعة والطب النووي في الخرطوم خلال الأعوام ٢٠٠٨ و ٢٠٠٩.

والهدف من هذه الدراسة هو اظهار نمط انتشار سرطان الغدة الدرقية في العظام ليسهل التحكم في معالجتها.

ونتيجة لهذا المسح تبين ان اماكن انتشاره في العظام كالاتي وهي على التوالي الكتف (٣٨٪) ، السلسلة الفقرية (٣٦٪) ، في الجمجمة (٣٤٪) ، القص (٢٦٪) ، في الحوض (٢٤٪) والتي تعتبرمناطق انتشار العظام.



Abstract

Carcinoma of the thyroid gland is one of the most common types of cancer in Sudan. And bone is one of the common sites of metastases so the characterization of the most common sites of metastases help in early therapy control and for assessing the prognosis.

In this study a group of 50 patients with carcinoma of the thyroid gland were evaluated by whole body bone I^{131} scan in the Radiation and isotope center of Khartoum during the years 2008 and 2009.

The main objective of this study was to show the pattern of spread of bone metastases in thyroid cancer to assist in the treatment management and control.

The result of the scan shows metastases on the body bone respectively shoulder (38%), vertebra (36%), skull (34%), sternum (26%), pelvic (24%) and ribs (22%).



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