بسم الله الرحمن الرحيم

قال تعالى:

{ قالوا سبحانك لا علمنا إلا ما علمناك إذك أنت العليم الحكيم

صدق الله العظيم
Acknowledgment

Praise and thanks are due to ALLAH the lord and creator.

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**Dedication**

*My parents, who have been raising me to be the person I am today. They have been with me every step of the way, through good bad. They have been a source if encouragement and inspiration to me throughout my life, a very special thank you for providing a “writing space” and for nurturing me through the months of writing. Thanks for the unconditional love, guidance, and support they have always given me, helping me to succeed and installing in the confidence that I am capable of doing anything I put mind to. To my brothers and sisters, to my friends, I spent with them most beautiful years.*
Abstract

Background:
The lack of anatomical details in standard 131 iodine whole body scanning (1311 WBS) interferes with the proper localization of metastatic differentiated thyroid carcinoma (DTC) lesions. In addition, nearby or overlapping variable physiological distribution of 1311 may affect the specificity of 1311 uptake, giving indeterminate results. The aim of this study was to demonstrate the clinical usefulness of simultaneous co-registration of 99m Tc MDP bone scanning as an anatomical landmark with 1311 scanning in the evaluation of metastatic DTC.

Material and Methods:
Twenty-five patients (16 females and 9 males, mean age + SD = 52 + 13 years) with metastatic DTC (17 papillary, 8 follicular), were included. Whole body scanning were obtained 48 hours after oral administration of 185-370
MBq 1311 and 2 hours after IV administration of 185-370 MBq 99mTc MDP. Occasionally, additional simultaneous co-registration of localized detailed images was also performed. The two planar images were fused with optional fusion of SPECT images. Fusion image were considered to improve image interpretation in comparison with standard 1311 scanning when they provided better localization of lesion.

لاختلاصة

قلة التفاصيل التشبيحية في معيرات دالمشع 131 للمسح الالري الكامل للجسم تتداخل مع افضلية تحديد انتشر موطن الغدة الوقية المتمايزة. بالإضافة في مكان قريب أو يتدخّل مغروًا في الموقع الفيديو لجى الود و ذلك يعطي نتيجة غير محدّدة. هدف هذه الدراسة كانت أن توضح الفائدة الفوتوية لتسجيل المشاكل الأني مادة التكنفوت م99 دالمخطط بالمادة الصيدلانية الميثاليين داي فسؤنب في المسح الالرى للعظام كمعلم تشبيحي مع الود 131المشع في مسح تقني انتشر موطن الغدة الوقية المتمايزة. 

الماؤتو الطريق خمسة وعشرة ودبيض (16 أنثى و9 ذكر، عمر متوسط + الانعاف المعبي حي Sally = 52 ±13 سنوات) مع انتشر موطن الغدة الوقية (7 خليمي، 8 وصلي)

أشتمل على المسح الالرى للعظام بعد 48ساعة من اعطاء جوده الود باللم بطاقة 370-185 ميتابيكروم ساعتين من اعطاء جودة واحدة من التكنفوت م99 دالمخطط بالمادة الصيدلانية ميثاليين داي فسؤنب بطاقة 185-370 ميتابيكروم. بالإضافة إلى ذلك تم دمج الصورتين المستخلصتين من القاما كما المسطحة مع القاما كموا ثلاثية الإبعاد. عملية
Table of Contents

Acknowledgment i
Dedication ii
List of the figures iii
Abstract v
Alchemy vi
Table of contents vii

List of Contents

Chapter One Introduction
1.1. Introduction 1
1.2. Problem 2
1.3. Objectives 2
Chapter Two Literature Review
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1. Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>2.2. Blood supply</td>
<td>3</td>
</tr>
<tr>
<td>2.3. Nerves supply</td>
<td>4</td>
</tr>
<tr>
<td>2.4. Histology</td>
<td>4</td>
</tr>
<tr>
<td>2.5. Physiology</td>
<td>5</td>
</tr>
<tr>
<td>2.5.1. Triiodothyronine</td>
<td>6</td>
</tr>
<tr>
<td>2.5.2. Effects of thyroid hormones</td>
<td>8</td>
</tr>
<tr>
<td>2.5.6. Pathology</td>
<td>10</td>
</tr>
<tr>
<td>2.6.1. Features of benign thyroid nodule</td>
<td>10</td>
</tr>
<tr>
<td>2.6.2. Features increase the suspicion of a malignant nodule</td>
<td>10</td>
</tr>
<tr>
<td>2.6.3. Thyroid cancers</td>
<td>11</td>
</tr>
<tr>
<td>2.6.4. Papillary carcinoma</td>
<td>11</td>
</tr>
<tr>
<td>2.6.5. Follicular carcinoma</td>
<td>11</td>
</tr>
<tr>
<td>2.7. Stages of the thyroid cancer</td>
<td>11</td>
</tr>
<tr>
<td>2.7.1.1. Papillary and follicular</td>
<td>11</td>
</tr>
<tr>
<td>2.7.2.1. Medullary</td>
<td>12</td>
</tr>
<tr>
<td>2.7.2.1. Anaplastic</td>
<td>12</td>
</tr>
<tr>
<td>2.8. Symptoms of thyroid cancer</td>
<td>13</td>
</tr>
<tr>
<td>2.9. Complete history and physical examination</td>
<td>13</td>
</tr>
<tr>
<td>2.10. Thyroid Scintigraphy</td>
<td>14</td>
</tr>
<tr>
<td>2.11. Radionuclides for Thyroid Imaging and Measurements</td>
<td>14</td>
</tr>
<tr>
<td>2.12. MDP (Methylene-diphosphonate) in-vivo kit for preparation of radiopharmaceutical product (Tc-IK-10)</td>
<td>15</td>
</tr>
<tr>
<td>2.13. Field of indication</td>
<td>15</td>
</tr>
<tr>
<td>2.13.1. Recommended mode of examination</td>
<td>15</td>
</tr>
</tbody>
</table>
2.13.2. Contraindications

2.13.2.1. Relative contraindications

2.13.2.2. Absolute contraindications

2.14. Radio-physical properties of the radionuclide and the absorbed dose values

2.15. Pharmaceutical particulars

2.16. Incompatibilities

2.16.1. Shelf life

2.16.2. Special precautions for storage

2.16.3. Instructions for use and handling

2.16.4. Sodium Iodide I 131

Chapter Three material & Methods

3.1. Material and Methods

3.1.1. Scintigraphy procedures

3.1.3. Fused 99mTc-MDP / 1311- WBS scanning

3.1.4. Data processing and image fusion

Chapter Four Results

4.1. Results
4.2. $^{131}$I whole body scintigraphy ($^{131}$I-WBS) 29

4.3. $^{131}$I-WBS and $^{99m}$Tc-MDP bone scan fusion scintigraphy 31

Chapter Five Discussion

4.4. Discussion 34

5.2. Conclusion 39

5.3. Recommendations 40

References........................................................................................................................................41

List of figure

Figure 2.1 shows the anatomical lobes of the thyroid gland.................................3

Figure 2.3 shows the Arterial blood supply from the aortic arch for the thyroid gland .................................................................................................................................4

Figure 2.4 shows the anatomical structure for thyroid gland........................................5
Figure 2.5. Shows the chemical structure of thyroid hormones with iodine attachment.

Figure 2.6. Shows the chemical structure of thyroid hormones with iodine attachment.

Figure 2.6. Shows TSH release.

Figure 2.6. Shows thyroid hormone response elements (TRE) in target genes.

Figure 3.1: The difference in intensity scales and count per pixel for 99mTc-MDP and 1322 scans. A. Figure shows the difference in count intensity between bone for iodine and bone scale. Image manipulation entails the use of variable multiplication factor (K) for 1-131 image followed by summation of iodine and bone scan images producing fused image with single intensity scale AB.

3-5 Images analysis and interpretation:

Figure 3-2: 1311 WBS and bone performed for 48-year-old male patient with metastatic disease before fusion FCT. Out of the three who demonstrated hot foci in 1311, two were indeterminately localized, one was located in the thoracic region and the other was located in the pelvic region.

Figure 3-3: shows multi-spot anterior and posterior planar views before and after fusion. The used planar images clearly identify the location of hot foci in left ribs posteriorly as well as left ala close to tip of sacro-iliac region.

Figure 4-1: 99mTc-MDP bone scan (left column), standard 1311 WBS (middle column) and fused scans (right column) in a female patient with multiple.
Metastatic hot foci. The planar used image can not clarify totally the indicated intra-thoracic lesion because of overlapping structures.

Figure 4-2: Reconstructed transverse, sagittal and coronal slices for thoracic region for the same patient showing the hot foci to be nodal mediastinal lesion.
List of table

Table 2.1 showing the thyroid hormones levels in percentage.............................5

Table 2.2. shows the properties of the Tc-99m..........................................................17

Table 2.3 shows a single dose of a patient.................................................................17

Table 2.4 shows the list of Recipients..................................................................17

Table 2.4. Shows side effects or problems in older people.................................20

Table 3.1. shows the Patients’ disease characteristics and frequency..............25

Table 4.1. shows the sites of metastases from DTC.............................................30

Table 4.2. shows the distribution of metastases by region.................................31

Table 4.4. Shows the findings of standard 1-131 and fused 1-131 /MDP bone scan.........................................................................................................................32

Table 4.5. Shows the Effect fused planner 1-131/MDP scans in identification of indeterminate lesions...............................................................................................33