Thyroid Nodules in Baghdad, Iraq: A Personal Experience

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Abstract: **Background:** Iraq is an endemic goiter area. Thyroid nodules are a common medical problem. Population studies suggest that 3-8% of adults have asymptomatic thyroid nodules. The prevalence of such nodules increases with age. Thyroid nodules are four times more common in women than men. Reports on changes in the thyroid pathology in developing countries were published.

This work was carried out to throw a light on thyroid nodules in a private practice in Baghdad, Iraq.

1. Introduction

Ira is an endemic goiter area. Thyroid nodules are a common medical problem. Population studies suggest that 3-8% of adults have asymptomatic thyroid nodules. The prevalence of such nodules increases with age. Thyroid nodules are four times more common in women than men. Reports on changes in the thyroid pathology in developing countries were published.

2. Materials and Methods

A total of 79 patients with thyroid nodules was included in this study. They were recruited from attendants to a private surgical clinic in Baghdad, during 2007 through 2009. They were evaluated clinically and investigated. After surgery specimens were evaluated histopathological.

3. Results

A total of 79 patients was included in the study. Their age ranged 21 – 74 years (38.2 ± 12.3), with female to male ratio of 3.4:1. Clinically multinodular goiter was noticed in 51 (64.6%) patients, diffuse goiter was in 18 (22.8%) and solitary nodule was in 10 (12.6%). Thyrotoxicosis was present in 17 (21.5%). Most of patients with thyrotoxicosis were > 40 years old. Thyroid malignancy was diagnosed in 5 (6.3%) patients. Out of them 4 (80%) patients were females. Papillary carcinoma was in 4 (80%) patients.

Hashimoto’s thyroiditis was observed in 5 (6.3%) female patients, and Grave’s disease was in 2 (2.5%) female patients.

4. Discussion

In the line of previous reports, the study showed a female predominance. High observed rate of multiple nodular goiter (MNG) is consistent with that previously reported high figure in Baghdad. Different figures reported in Europe and Africa. The variations might be explained by different levels of iodine in diet. Similar to that reported in Baghdad, toxic goiter was 10.1%. The study revealed that rate of malignancy was 6.3%. It is lower than that reported in other Iraqi studies; in Al-Sulaimanyia (8.6%), Baghdad (8.5%), Kerballa (18%). However, higher figures were reported in Iraq: Baghdad (15.3%) and in Kerballa (18%).

Papillary thyroid carcinoma (PTC) constituted 80% of thyroid malignancy. It is similar to the high figures reported in Baghdad (87.5%) previously. In Kerballait was 50%. PTC has been doubled in the world especially the West.

The finding that HT rate was 6.3% is similar to that of other workers (6.5% and 6.6%). The rate of Grave’s disease was 2.5%. It may occur in genetically susceptible individual in the same family. The HLA alleles associated with the disease in Iraqi Arab Muslims patients were A19, B35 and B40. The data on the incidence of thyroid autonomy (HT


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and Grave's disease) after mass iodination are scarce. Some reports indicate short term increase 20,21, others observed decrease in the first year after iodination 22,23. In Iraq, iodination was practiced during 1990s years i.e. during sanctions, with no reference about the dose of iodization 24,25. Literature shows that autoimmune thyroid disorders are an important cause of goiter in post-iodination phase 26. Iodination in Iraq might affect the prevalence of HT, however, no epidemiological study tackled this situation. In this study, HT and Grave’s disease were only in females. It is in agreement with previous reports 17,18,26.

Total thyroidectomy constituted 12.6% on surgery. During the last decade there was a noticed change in the behavior of surgery toward radical surgery as near total thyroidectomy and total thyroidectomy 8,27. It was found that total thyroidectomy and near total thyroidectomy are safe and effective approach in thyroid pathology 27. In conclusion, this work documented changing pattern in thyroid pathology and trend of surgery.

References

[23] Head of dept. of preventive medicine and primary health care, Baghdad directorate, MOH. Now (2012) dept. of Community Medicine, College of Medicine, Baghdad University. Personal communication. 2012

Table 1: Characteristics of the studied sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean ± SD (range)</th>
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<tbody>
<tr>
<td>Age</td>
<td>38.2 ± 12.3 (21 – 74)</td>
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<tr>
<td>No.</td>
<td>%</td>
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<tr>
<td>Pathology</td>
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<tr>
<td>MNG</td>
<td>43</td>
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<tr>
<td>Toxic MNG</td>
<td>8</td>
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<tr>
<td>Benign adenoma</td>
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<tr>
<td>Hashimoto’s thyroiditis</td>
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<td>Follicular adenoma</td>
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<tr>
<td>Benign cyst</td>
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<tr>
<td>Papillary carcinoma</td>
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<tr>
<td>Grave’s disease</td>
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</tr>
<tr>
<td>Total</td>
<td>79</td>
</tr>
<tr>
<td>Malignancy</td>
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<tr>
<td>Undifferentiated ca</td>
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<tr>
<td>Papillary carcinoma</td>
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