

PATTERN OF SURGICALLY TREATED THYROID DISEASE IN KARACHI

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The study was carried out to evaluate the histologic spectrum of these surgically treated thyroid disease in Karachi. A total of 662 cases were collected, 570 were females and 92 were males i.e. 6.19:1 ratio. The age range was from 12 to 70 years. Multinodular goiter was the commonest thyroid disease (61.63%), follicular adenoma was encountered next, 93 cases (14.05%). Amongst 26 cases of thyroiditis, lymphocytic thyroiditis was seen in 22 (3.32%) which was commoner than Hashimoto's thyroiditis (0.06%). The overall incidence of malignancy was 14.35%. Papillary carcinoma was found to have higher incidence (11.17%) than follicular carcinoma (1.81%).

Key Words: Thyroid gland, Goiter, Thyroid Cancer

INTRODUCTION

Thyroid diseases are amongst the commonly encountered disorders in the hospital. Thyroid nodules are more frequent in females and their prevalence increases with age due to iodine deficiency and exposure to radiation¹. Most of the nodules are due to cystic change in nodular goiter or colloid cyst while a few of the solitary nodules are neoplastic. Marked variation in the prevalence of thyroid tumours has been observed in different regions of the world^{3-10, 15}. Thyroid cancer is more prevalent in females as compared to males and it is more common in the third, fourth and fifth decade of life⁵. In iodine - rich areas, higher frequency of papillary carcinoma of thyroid gland was encountered⁷. The purpose of this study was to observe the frequency and to identify various histological types of thyroid lesions in specimens sent to the hospital for histopathology.

MATERIAL AND METHODS

In the present study, 662 thyroid specimens, the department of Pathology, Baqai Medical University Hospital and BMSI, Jinnah Postgraduate Medical Center, Karachi during the period from 2002 to 2004 have been analyzed. The specimens were received in 10% buffered formalin and processed as per routine laboratory procedure and then embedded in paraffin for block preparation. The sections were stained with the routine haematoxylin and eosin method. The special stains were performed whenever required.

RESULTS

Among 662 cases studied, there were 570 females and 92 males, with a female to male ration of 6.19:1. The ages ranged from 12-70 years. The causes of goiter in surgically treated patients are shown in table 1. Multinodular goiter was the commonest thyroid lesion (61.63%). Follicular adenoma was found in 93 cases (14.05%). Toxic goiter was seen in 0.91% of patients. Autoimmune thyroiditis was found in 26 cases, 22 of whom had lymphocytic thyroiditis and the remaining 4 had Hashimoto's thyroiditis. Hurthle cell adenoma was found in 1 patient (0.15%).

Among these 662 patients, 95 patients (14.35%) had thyroid cancer. Sixteen of these were

Table 1: Histological Types of Lesions.

Histopath Diagnosis	No.	%
Multinodular goiter	408	61.63
Colloid goiter	15	2.27
Toxic goiter	6	0.91
Thyroid cyst	17	2.57
Autoimmune thyroiditis	26	3.92
Granulomatous thyroiditis	01	0.15
Follicular adenoma	93	14.05
Hurthle cell adenoma	01	0.15
Thyroid malignancy	95	14.35
Total	662	100%

Table 2: *Histological Types of Cancer in 95 Cases.*

Histopath Diagnosis	No.	%
Papillary carcinoma	74	77.89
Follicular carcinoma	12	12.63
Medullary carcinoma	04	4.21
Anaplastic carcinoma	03	3.16
Hurthle cell carcinoma	02	2.11
Lymphoma	00	00

females (83.16%) with a female to male ratio of 4.93 : 1. Papillary carcinoma (11.17%) was the most common thyroid malignancy followed by follicular carcinoma (1.81%), Medullary carcinoma (0.06%) and anaplastic carcinoma (0.45%). The overall incidence of malignancy being (14.35%).

DISCUSSION

Thyroid enlargement is one of the most common disorders of the endocrine system. The reported incidence of both benign and malignant lesions in surgically treated thyroid swellings varies widely from one geographical area to the other^{8-12, 15}.

The overall incidence of malignancy in this study was 14.35% whereas in USA it was 5.8%, in Libya 9.7% and in South Africa 5.4%^{2,6,9,10}. The studies from Riyadh reported a strikingly high incidence of thyroid malignancy ranging from 21% to 29%¹¹⁻¹³.

In the present study, papillary carcinoma was more frequent than the follicular variant which is in accordance with the published figures^{2,5,12,13-15, 17-19}. Follicular and medullary carcinoma comprised 12.63% and 4.21% respectively. From Saudi Arabia, Mofti et al reported papillary carcinoma (66.6%), Follicular carcinoma (22%) and medullary carcinoma (4%)¹³. In our study thyroid carcinoma is more common in females. Other studies from different parts of the world also exhibited a similar pattern with thyroid carcinoma being more prevalent (62%-81%) in females^{15-16, 18-20}.

Statistical data about the disease not only provides clues to the aetiology but it also helps in the development of future plans regarding control and prevention of the disease. Evaluation of thyroid hormones and antithyroid antibodies should be done to rule out autoimmune thyroiditis. FNAC is superior to isotope scan and ultrasonography. This should be used as the initial investigation in patients with solitary thyroid nodule to distinguish between benign and malignant thyroid lesions. It is of great help in deciding that a more radical procedure will be needed in case of suspicious or

malignant cytology. Surgical treatment should not be delayed if there is any doubt about the diagnosis.

The information in the present study may be considered as a baseline data of thyroid diseases in Karachi and a more elaborate prospective study carried out on a large scale in this country will contribute more to make the things clearer. Such a study will also help in outlining the plans for early detection, diagnosis and management of the thyroid diseases.

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