

Original article:

Histopathological study of thyroid gland and its clinical implications

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Abstract:

Introduction: Thyroid gland is one of the most important endocrine organs and almost all cells of the body are target sites for its hormones. Thyroid disorders form colossal burden to our society. Although chronic thyroid diseases have become a major global morbidity and mortality, there is scarcity of literature regarding the burden of chronic thyroid diseases in India.

Material and methods: The present study was carried out in Department of Pathology in last one year duration. Sample size was estimated with help of expert . The study design was simply included randomly selected 100 cases in our hospital in age range 11- 65 years. The patient data was collected and analyzed. Histopathological study was carried out over evaluated by light microscopy and immunohistochemistry.

Results: In our study, Age group of patients ranged from 11-65 years, with a mean age of 32.4 years and Male to Female ratio was 1:4.2. Among total 100 cases, 51 non-neoplastic masses and 49 neoplastic masses. Incidence rate of inflammatory lesions was 13%. The most common type of inflammatory lesion was lymphocytic thyroiditis (55% of total inflammatory lesion). Incidence rate of hyperplastic lesions was 32%. It was most common thyroid lesion in our study. Most of the cases presented at the age group of 18-60 years. The most common histopathological sub type of hyperplastic lesion was colloid goiter (64.22% of the total hyperplastic lesion).

Conclusion: Neoplastic and non-neoplastic disorders affect thyroid gland. Non-neoplastic disorders outnumber the neoplastic disorders. Most common non-neoplastic lesion was colloid goiter.

Introduction:

Thyroid gland is one of the most important endocrine organs and almost all cells of the body are target sites for its hormones. Thyroid disorders form colossal burden to our society. Although chronic thyroid diseases have become a major global morbidity and mortality, there is scarcity of literature regarding the burden of chronic thyroid diseases in India. ¹To study asymptomatic thyroid lesions in living individuals is a difficult task, and autopsy study is the best possible way to work on it. The data obtained can be utilized for further epidemiological and clinical studies. This study gives us information about the prevalence and frequency of different thyroid lesions, especially papillary carcinoma in people residing in our region.

Material and methods:

The present study was carried out in Department of Pathology in last one year duration. Sample size was estimated with help of expert . The study design was simply included randomly selected 100 cases in our hospital in age range 11- 65 years. The patient data was collected and analyzed. Histopathological study was carried out over evaluated by light microscopy and immunohistochemistry.

Results:

In our study, Age group of patients ranged from 11-65 years, with a mean age of 32.4 years and Male to Female ratio was 1:4.2. Among total 100 cases, 51 non-neoplastic masses and 49 neoplastic masses. Incidence rate of inflammatory lesions was 13%. The most common type of inflammatory lesion was lymphocytic thyroiditis (55% of total inflammatory lesion). Incidence rate of hyperplastic lesions was 32%. It was most common thyroid lesion in our study.

Most of the cases presented at the age group of 18-60 years. The most common histopathological sub type of hyperplastic lesion was colloid goiter (64.22% of the total hyperplastic lesion).

Discussion:

Thyroid gland is one of the important organs, which plays wide and vital physiological roles in the body. The thyroid hormones affect all body organs and are responsible for maintenance of homeostasis and the body integrity.[1] There is enormous burden of thyroid diseases in the general population. Among all the endocrine disorders, thyroid disorders are the most common in India.[2] Literature suggests that as many as 50% of people in the community have microscopic nodules, 3.5% have occult papillary carcinoma, 15% have palpable goitre, 10% have an abnormal thyroid stimulating hormonal level, and 5% of women have overt hypothyroidism or hyperthyroidism.[3] Thyroid disorders are one of the common problem witnessed in clinical practice with majority of them are benign in nature.[4] They are endemic in mountainous regions of the world – where the soil, water, and food supply contain little iodine.[5] Consumption of iodinated salts by the people in their diet has reduced the occurrence rate.

In our clinical practice we encounter various types of neck swelling. Enlargement of thyroid accounts for the significant number of cases. It becomes a challenge to come out with a proper diagnosis and management when the swelling is not due to thyroid. Besides, cosmetic deformity, neck swelling may also cause various pressure symptoms related to trachea and esophagus and major blood vessels according to size and histopathological type. Sometimes, to rule out malignancy, biopsy may be required especially in adenoma cases.

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Diseases of the thyroid are of great importance as most can be controlled by medical or surgical management.[2] According to WHO, 7% of the world population is suffering from clinically apparent goitre, and majority of them are from developing countries, where the disease is attributed to iodine deficiency.[1] Thyroid enlargement may be in the form of multinodular, solitary or diffuse goitre – and is accounted for frequent surgical problem.[2]

Thyroidectomy, presently, has become a routine procedure as result of safe anaesthesia, antiseptics, fine surgical instruments, developments of new techniques and is offering the chances of cure to many patients.[3]

Conclusion:

Neoplastic and non-neoplastic disorders affect thyroid gland. Non-neoplastic disorders outnumber the neoplastic disorders. Most common non-neoplastic lesion was colloid goiter.

References:

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