



CLINICO- HISTOPATHOLOGICAL STUDY OF THYROID LESIONS

Pathology

**Dr Shailejkumar
Kanku Mane**

Associate Professor, Department of Pathology, Kanachur Institute of Medical Sciences, Mangalore.

ABSTRACT

Thyroid cancer is the most frequent endocrine malignancy. Although thyroid nodules are common, differentiated and undifferentiated thyroid carcinomas are relatively rare, constituted 0.5% to 1% of all cancer worldwide. This study was undertaken to describe the spectrum and various histopathological patterns of thyroid lesions.

KEYWORDS

clinico-histopathological, thyroid, malignant.

INTRODUCTION:

The thyroid gland is unique among endocrine organs in many ways.¹ It is the largest of all endocrine glands and by virtue of its superficial location is the only one, i.e., amenable to direct physical examination and biopsy.² Thyroid cancer is the most frequent endocrine malignancy. Although thyroid nodules are common, differentiated and undifferentiated thyroid carcinomas are relatively rare, constituted 0.5% to 1% of all cancer worldwide.³ Most of the nodules are benign, and only 5% are considered to be malignant.⁴ precise diagnosis of thyroid nodule is necessary for correct clinical management of patients and to avoid needless surgical interventions. Histological classification of thyroid tumours is essential for further therapy and prognosis.⁵

This study was undertaken to describe the spectrum and various histopathological patterns of thyroid lesions.

AIMS AND OBJECTIVES:

To Study the clinico-histopathological of thyroid lesions.

MATERIALS AND METHODS:

The study was done in 30 patients.

The study was done in the Department of Pathology, Institute of Medical Sciences and Research, Mayani District, Satara.

The study was done from March 2014 to February 2018.

Inclusion Criteria

Lobectomy, Hemithyroidectomy, subtotal thyroidectomy and total thyroidectomy specimens received for histopathological examination suspected for neoplastic and non-neoplastic lesions of thyroid.

Exclusion Criteria

Cases on therapy and recurrent lesions and were excluded from the study.

RESULTS:

Table 1: Mean Age of the Population

Sample Size	Mean Age	Standard Deviation
30	27.67 years	± 5.76 years

Table 2: Sex Ratio

Male	Female
13	17

Table 3: Histo-pathological Study:

Histo-pathology	Frequency
Colloid goiter and Cyst	03
Nodular goitre	16
Hashimoto's thyroiditis	01
Adenomatous goitre	01
Follicular adenoma	06
Papillary carcinoma	02
Poorly differentiated carcinoma	01

Table 4: Significance of Nodular goiter with Statistics available at the District Hospital

Sample Size	X-Value	P-Value (>0.05)
16	0.625	0.027

DISCUSSION:

The Thyroid Gland (Glandula Thyreioidea; Thyroid Body) The thyroid gland is a highly vascular organ, situated at the front and sides of the neck; it consists of right and left lobes connected across the middle line by a narrow portion, the isthmus. Its weight is somewhat variable, but is usually about 30 grams. It is slightly heavier in the female, in whom it becomes enlarged during menstruation and pregnancy.

The thyroid gland is unique among endocrine organs in many ways. It is the largest of all endocrine glands and by virtue of its superficial location is the only one, i.e., amenable to direct physical examination and biopsy. Thyroid cancer is the most frequent endocrine malignancy. Although thyroid nodules are common, differentiated and undifferentiated thyroid carcinomas are relatively rare, constituted 0.5% to 1% of all cancer worldwide. Most of the nodules are benign, and only 5% are considered to be malignant. precise diagnosis of thyroid nodule is necessary for correct clinical management of patients and to avoid needless surgical interventions. Histological classification of thyroid tumours is essential for further therapy and prognosis. The lobes (lobuli gl. thyreioideae) are conical in shape, the apex of each being directed upward and lateralward as far as the junction of the middle with the lower third of the thyroid cartilage; the base looks downward, and is on a level with the fifth or sixth tracheal ring. Each lobe is about 5 cm. long; its greatest width is about 3 cm., and its thickness about 2 cm. The lateral or superficial surface is convex, and covered by the skin, the superficial and deep fasciae, the Sternocleidomastoideus, the superior belly of the Omohyoideus, the Sternohyoideus and Sternothyroideus, and beneath the last muscle by the pretracheal layer of the deep fascia, which forms a capsule for the gland. The deeper medial surface is moulded over the underlying structures, viz., the thyroid and cricoid cartilages, the trachea, the Constrictor pharyngis inferior and posterior part of the Cricothyroideus, the esophagus (particularly on the left side of the neck), the superior and inferior thyroid arteries, and the recurrent nerves. The anterior border is thin, and inclines obliquely from above downward toward the middle line of the neck, while the posterior border is thick and overlaps the common carotid artery, and, as a rule, the parathyroids^{6,7,8}. The isthmus (isthmus gl. thyreioidea) connects together the lower thirds of the lobes; it measures about 1.25 cm. in breadth, and the same in depth, and usually covers the second and third rings of the trachea. Its situation and size present, however, many variations. In the middle line of the neck it is covered by the skin and fascia, and close to the middle line, on either side, by the Sternothyroideus. Across its upper border runs an anastomotic branch uniting the two superior thyroid arteries; at its lower border are the inferior thyroid veins. Sometimes the isthmus is altogether wanting. A third lobe, of conical shape, called the pyramidal lobe, frequently arises from the upper part of the isthmus, or from the adjacent portion of either lobe, but most commonly the left, and ascends as far as the hyoid bone. It is occasionally quite detached, or may be divided into two or more parts. A fibrous or muscular band is sometimes found

attached, above, to the body of the hyoid bone, and below to the isthmus of the gland, or its pyramidal lobe. When muscular, it is termed the Levator glandulae thyroideae^{9,10}. Small detached portions of thyroid tissue are sometimes found in the vicinity of the lateral lobes or above the isthmus; they are called accessory thyroid glands (glandulae thyroideae accessoriae). Identification of thyroid malignancy requires proper diagnostic tools, including clinical history, ultrasonography and proper pathological examination. Diagnosis by histopathological examination is important for the prompt diagnosis and treatment of neoplastic lesions. This study accentuates the need of periodic assessment in middle aged female patients for early detection of papillary carcinoma. Early diagnosis and excision of lesion will provide relief for the patient and also decreases the problems arising from malignant lesions.

CONCLUSION:

Identification of thyroid malignancy requires proper diagnostic tools, including clinical history, ultrasonography and proper pathological examination.

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