



HISTO-PATHOLOGICAL STUDY OF THYROID LESIONS

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ABSTRACT:

Background: Thyroid carcinoma is one of the common cancers affecting the women in their young age. They vary from being indolent to aggressive cancers. Improvements in diagnostics and understanding the pathophysiology have made the treatment more effective with good long-term results.

Methods: This is Cross sectional study conducted on 50 patients reporting to the pathology dept. with in study duration and eligible as per inclusion criteria were included in the study.

Results: Maximum 36% belonged to 31-40 years age group followed by 26% individuals in 21-30 years age group. Majority (90%) patients were benign and 10% patients were malignant.

Conclusion: FNAC is a simple, safe and cost-effective diagnostic modality in the investigation of thyroid disease with high specificity and accuracy.

Keywords: Thyroid swelling, goiter, FNAC.

INTRODUCTION:

The word 'Thyroid' originated from 'Thyreos', a Greek word meaning shield. It was first used by Thomas Wharton (1614-1673) of London, UK. He named it as Glandularis thyroideis in 1656 in his book "Adenographia." In old times, it was called Struma (Latin word for swollen gland), bronchocele (a cystic mass in the neck) and Goitre (Latin word – gutter meaning throat). The last name is in use even today¹. Diseases of the thyroid gland are commonly comprise a spectrum of entities causing systemic disease (Grave's disease) or a localized abnormality in the thyroid gland such as nodular enlargement (goitre) or a tumor mass. After diabetes mellitus, the thyroid gland is the most common organ to cause endocrine disorders². Thyroid disorders are the most common endocrine diseases particularly in countries where iodine intake through diet is low.

Thyroid carcinoma closely resembles its benign counterpart in physical characteristics, measurable physiological parameters such as serum T3/T4 levels and ultrasonic characteristics. Therefore, the surgical excision of the nodule and its histological examination is the only way to differentiate between the more frequent benign and much less frequent malignant nodules. Since most of the thyroid nodule are benign, symptomless and small in size, they do not require surgical excision³.

The thyroid gland is the most accessible and largest endocrine gland in the body. Normal thyroid gland is impalpable. It was one of the earliest endocrine gland to be recognized, investigated and researched into. It is situated in the lower part of front and the sides of the neck⁴. Its main function is regulation of the basal metabolic rate, stimulation of somatic and psychic growth.

Material & Method

Study Design: Cross sectional study.

Study Population: All patients reporting with thyroid swelling

Sample Size: 50 patients reporting to the pathology dept. with in study duration and eligible as per inclusion criteria were included in the study.

Sampling Method: Convenience sampling

Inclusion Criteria:

- Patients admitted with complaint of thyroid swelling.

Exclusion Criteria:

- Children with neck swelling(below 10 year).
- Head & Neck swelling other than thyroid origin
- Patients refusing for investigation/management

Study Tool: Information regarding following points will be noted down in a pretested pre-structured questionnaire from hospital records:

- Patients demographic
- Clinical Symptoms
- Meticulous History Taking
- Clinical Examination
- Appropriate laboratory and radiological investigations
- Operative findings
- Histopathological report and follow up of cases

Data Analysis:

The information thus collected was entered into Microsoft excel sheet thereafter with help of SPSS 22.0 data were analyzed with the help of frequencies, figures, proportions, measures of central tendency, appropriate statistical test wherever required.

Results:

Table 1: Distribution of study population according to Age

S.N.	Age Group	No.	%
1	11 – 20	3	6
2	21 – 30	13	26
3	31 – 40	18	36
4	41 – 50	8	16
5	51 – 60	5	10
6	>60	3	6
	Total	50	100.0

Table-1 shows distribution of study population according to age. Maximum 36% belonged to 31-40 years age group followed by 26% individuals in 21-30 years age group. Minimum 6% individuals were found in 11-20 years and >60 years age group.

Table 2: Distribution of study population according to FNAC report

S.N.	FNAC	No.	%
1	Benign	45	90
2	Malignant	5	10
	Total	50	100.0

Majority (90%) patients were benign and 10% patients were malignant.

Table 3: Distribution of study population according to Histopathology report

S.N.	Histopathology	No.	%
1	Benign	45	90
2	Malignant	5	10
	➤ Papillary Ca.	4	8
	➤ Follicular Ca.	1	2
	➤ Medullary Ca.	0	0
	➤ Malignant Lymphoma	0	0
	➤ Anaplastic	0	0

Table-3 shows that among 50 cases, 90% were diagnosed with benign swellings whereas 10% had malignant swellings. Out of 10% malignant swellings, 8% had papillary carcinoma and 2% had follicular carcinoma.

Discussion

In present study, maximum 36% belonged to 31-40 years age group followed by 26% individuals in 21-30 years age group. Similar findings were observed by Borgohain R et al(2013)5 in a cross sectional study in the department of ENT – Head and Neck Surgery, Guwahati Medical College & Hospital, Guwahati, Assam, from January 2012 to December 2013 (2 years). In this series of 122 thyroid swellings, patients were grouped in age groups of 0-20; 21-40; 41-60 and 61-80 years & patients in each age group were 9%; 50%; 37% and 4% respectively. Most of the patients were in the age group of 21-40 years.

In this study FNAC shows that majority (90%) patients were benign and 10% patients were malignant. The study reported by Manisha choudhary et al showed 78% non-neoplastic and 22% neoplastic.(papillary carcinoma ,15.56% and follicular lesion 3.3%).6

In sistopathological examination 90% were diagnosed with benign swellings whereas 10% had malignant swellings. Out of 10% malignant swellings, 8% had papillary carcinoma and 2% had follicular carcinoma in this study. Garib H et al also observed same result.7

Conclusion

FNAC is a simple, safe and cost-effective diagnostic modality in the investigation of thyroid disease with high specificity and accuracy.

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