

HISTO-PATHOLOGICAL STUDY OF THYROID LESIONS

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Conflicts of Interest: Nil

ABSTRACT:

Background: 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.

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 34% belonged to 31-40 years age group followed by 24% individuals in 21-30 years age group. Majority (88%) patients were benign and 12% 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

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 Thyroid diseases are quite common. The incidence of thyroid diseases varies from one geographical region to another, mainly depending upon iodine deficiency status.² There is enormous burden of thyroid diseases in the general population. Among all the endocrine disorders, thyroid disorders are the most common in India.³ Thyroid lesions may be developmental, inflammatory, hyperplastic and neoplastic. Diseases of the thyroid gland are common and comprise a spectrum of entities causing systemic disease (Grave's disease) or a localized abnormality in the thyroid gland such as nodular enlargement (goiter) or a tumor mass.⁴

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 excision⁵.

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: Random 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

Sr. No.	Age Group	No.	%
1	11 – 20	4	8
2	21 – 30	12	24
3	31 – 40	16	32
4	41 – 50	10	20
5	51 – 60	5	10
6	>60	3	6
	Total	50	100.0

Table-1 shows distribution of study population according to age. Maximum 32% belonged to 31-40 years age group followed by 24% individuals in 21-30 years age group. Minimum 6% individuals were found in >60 years age group.

Table 2: Distribution of study population according to FNAC report

Sr. No.	FNAC	No.	%
1	Benign	44	88
2	Malignant	6	12
	Total	50	100.0

Majority (88%) patients were benign and 12% patients were malignant.

Table 3: Distribution of study population according to Histopathology report

Sr. No.	Histopathology	No.	%
1	Benign	44	88
2	Malignant	6	12
3	Papillary Ca.	4	8
4	Follicular Ca.	2	4
5	Medullary Ca.	0	0
6	Malignant Lymphoma	0	0
7	Anaplastic	0	0

Table-3 shows that among 50 cases, 88% were diagnosed with benign swellings whereas 12% had malignant swellings. Out of 12% malignant swellings, 8% had papillary carcinoma and 4% had follicular carcinoma.

Discussion

In present study, maximum 32% belonged to 31-40 years age group followed by 24% individuals in 21-30 years age group. Similar findings were observed by Borgohain R et al(2013)⁶ 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 (88%) patients were benign and 12% 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%).⁷

In histopathological examination 88% were diagnosed with benign swellings whereas 12% had malignant swellings. Out of 12% malignant swellings, 8% had papillary carcinoma and 4% had follicular carcinoma in this study. Garib H et al also observed same result.⁸

Conclusion

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

References

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