VOLUME-9, ISSUE-1, JANUARY-2020 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Pathology

STUDY AND CORRELATION BETWEEN CLINICAL AND CYTOLOGICAL FINDINGS OF THYROID LESIONS

Dr Rina Kumari	Tutor/ Senior Resident Department of Pathology, J L N medical college Bhagalpur
Dr Dhanesh kumar*	Tutor Department of Pathology J L N medical college Bhagalpur *Corresponding Author
Dr R. K. Mishra	Professor Department of Pathology J L N medical college Bhagalpur

ABSTRACT

Method and Material: This study was carried out over the period of 4 month in JLNMC Bhagalpur 50 patients. All the patients b/w 0-80yrs age and either gender were included. Every patient was evaluated in terms of detailed history, thorough examination and relevant investigations.

Results: Out of 50 patients, 90% were female and 10% were males. Maximum cases belonged to the age group 21-60 years, 60% of the patients came with a swelling on one side of the neck and 80% patients came with complains of mutinoddular swelling of thyroid.The main complaint was anterior neck swellling and the duration of swelling was > 1 year 40% patients followed by <1 year in 60% patients. On clinical examination,80% were diagnosed as benign and remaining 20% as malignant swellings. Later on FNAC, 8% patients were diagnosed with malignant swellings.

Conclusion: FNAC is a reliable tool of investigation for thyroid nodule. In thyroid disease early diagnosis of lesion is established by FNAC which is a well-known recognized procedure for preoperative assessment of thyroid nodules. It acts as a good screening test and avoids unnecessary thyroidectomies.

KEYWORDS : Thyroid lesion ,Benign, Malignant, fine-needle aspiration cytology, Cytoclinical correlation.

INTRODUCTION

Disorders of thyroid gland are amongst the most common endocrine disorder.It comprise a spectrum of entities causing systemic disease (Grave's disease) or a localised abnormality in the thyroid gland such as nodular enlargement (goitre) or a tumour mass. Diffuse thyroid lesions are associated with conditions affecting entire gland such as hyperplasia and thyroiditis. Nodular lesion comprises those disorders that produce a clinical nodule and consists of non-neoplastic hyperplasia as well as benign and malignant tumours. The clinically solitary nodule may not always be a real solitary nodule but just a dominant nodule of a multinodular goiter (MNG). At times, it may be impossible to clinically differentiate malignancy in thyroid, especially in cases of thyroiditis. The clinically solitary nodule may not always be a real goiter(MNG). Fine needle aspiration cytology (FNAC) is now a well-established, first line, simple and quick screening test as well as the diagnostic tool for surgical and non-surgical goitres. A careful physical examination along with relevant investigations such as fine needle aspiration cytology (FNAC) and ultrasonography (USG) may be required to reach an exact diagnosis and management.

METHOD AND MATERIAL

The present study was done for period of 4 month in Nehru medical college bhagalpur and establish correlation clinical and cytological findings of thyroid swellings.patients presenting with thyroid swelling included in the study. Prior to aspiration, physical examination was carried out to note the mobility of thyroid during swallowing and the presence of enlarged cervical lymph node. The patients were made to lie supine with their neck stretched up. A 23-gauge needle was used for aspiration The slides were stained with May-Grunwald-Giemsa (MGG).

RESULT

Total 50 cases of thyroid lesion were observed for a period of 4 month in which 90% cases were benign,2% cases were suspicion of malignancy and 8% cases were malignant.Most of cases of thyroid lesions b/w 21- 40 yrs (55%) and 41-60 (30%)yrs of age.Most of pts present with unilateral swelling (60%), (left side is more common than rt side) followed by diffuse/bilateral involvement.Most common clinical symptom in thyroid lesion is swelling in neck(90%),non tender,firm in consistency and it is more in female (90%) than male (10%).

Disttribution of thyroid lesion

Benign lesion

colloid goitre or noduar goitre(65%)
Lymphocytic thyroiditis
Haashimoto's thyroiditis
Colloidal cyst
Granulomatous
Hyperplastic nodule
Thyroglosal cyst

Suspicion of malignancy

Follicular neoplasm (2%)

Malignant lesion (8%)

Follicullar carcinoma(1case)
Meddulllary carcinoma(1case)
Papillary carcinoma(2cases)

Distribution of cases on clinical diagnosis

Multinodular	80%
Solitary	20%

Consistancy of thyroid swelling

Soft	10%
Firm	85%
Hard	5%

Clinical symptom in patient with thyroid lesion

Complain
Swelling of neck- 90% of cases
Pain in swelling
Dysphagia
Palpitation
Weight gain
Fever
Menstrual symptom

Duration of symptom

Less than 1 month	22%
1- 6 m	10%

>6-12m	28%
>1yr	40%

Tenderness of swelling

Tender	90%
Nontender	10%

Nature of aspirate of thyroid cases

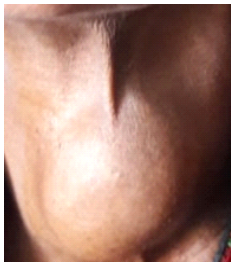
Hemorrhgic	90%
Blood mixed colloid	40%
Colloid	10

DISCUSSION

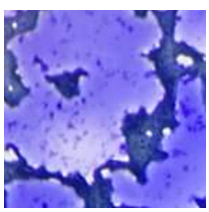
The main aims of our studied were to know percentage of various types of Thyroid lesion, age and sex distribution of lesions and Clinical features associated with these lesion. In our study most are benign lesions in which colloid goitre/ nodular colloid are most common lesion.Thyroid malignancy seen in 8% cases. According to Sushel (2009), age is a key prognostic indicator for well-differentiated thyroid cancer Most of the pt between the age of 21 -40yrs. Thyroid lesions are more common in females than in males.overall unilateral involvement are more common than bilateral/ diffuse involvement. Several studies observed patients with neck swelling presenting within variable durations. Maximum studies show the patients come for consultation at least after 1 year, very few cases have been presented before 6 months or 1 year (Mamun *et al*., 2014; Venkatachalapathy *et al*., 2012; Cady *et al*., 1979; Harmo *et al*., 1979).Swelling of neck is common presentation in my study and 40% pts came on consultation after 1 yr. Other symptoms neck swellings are pain in neck,wt gain,fever,palpitation,menstrual symptom, palpitation andd dysphagia. Ten percent cases were painful.Most of the thyroid lesion were firm in consistency and 80% were cases multinodular in nature. On the basis of appearance, blood mixed aspirate were noted more commonly in 50% cases followed by blood mixed colloid in 40% cases and caseous or colloid material in 10% of cases.

CONCLUSION

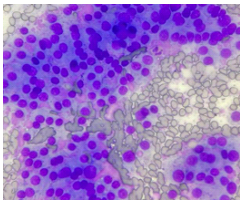
Benign lesions were more common.Goitre was common in females of middle age and majority had single lobe enlargement. Most of them presented midline neck sswelling . On clinical evaluation, the symptoms suggestive of malignancy were pressure symptoms and lymph node enlargement. FNAC is a reliable tool of investigation for thyroid nodule. A thorough assessment of patients with thyroid nodules include triple modalities of clinical examination, FNAC and radiologic investigations but thyroid FNA is simple, safe, reliable, and remains a powerful diagnostic tool for thyroid lesions. Thyroid FNA has high sensitivity and specificity, and act as a good screening test to avoid unnecessary thyroidectomise.



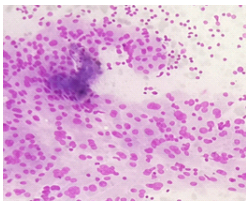
Thyroid swelling



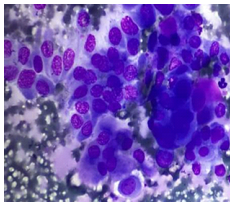
Colloid

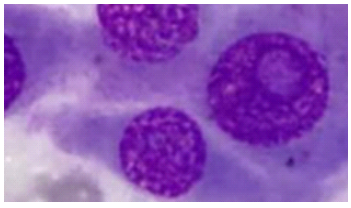


Fire flare

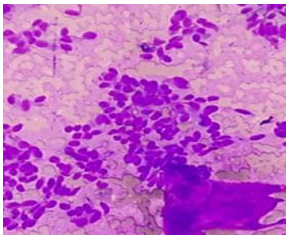


Graulomatous thyroiditis





Papilllary carcinom



medullary carcinoma

REFERENCES

1. Jo VY, Stelow EB, Dustin SM, Hanley KZ. Malignancy risk for fine-needle aspiration of thyroid lesions according to the Bethesda system for reporting thyroid cytopathology. Am J Clin Pathol. 2010;134:450–6.
2. Waseer MH, Hussain R, Malik MA. solitary thyroid nodule; role of FNAC. The Professional. 2001;8(2):1-6.
3. Khafagi F, Wright G, Castles H, et al. Screening for thyroid malignancy: the role of fine needle aspiration biopsy.Med J Aust., 1988; 149: 302-303, 306-307.
4. Manoj Gupta, Savita Gupta, Ved Bhushan Gupta. Correlation of fine needle aspiration cytology with histopathology in the diagnosis of solitary thyroid nodule. Journal of Thyroid Research, 2010; Article ID 379051: 5 page.
5. Jayaram G. Hurthle cell tumors. In: Atlas and Text of Thyroid Cytology.1st ed. Delhi, India: Arya Publication; 2006. p. 60-4.5.
6. Bukhari MH, Niazi S, Hanif G, Qureshi SS, Munir M, Hasan M, et al.An updated audit of fine needle aspiration cytology procedure of solitay thyroid nodule. Diagn Cytopathol. 2008;36(2):104-12.
7. Lopez LH, Canto JA, Herrera MF, Gamboa-Dominguez A, Rivera R,Gonzalez O, et al. Efficacy of fine-needle aspiration biopsy of thyroid nodules: Experience of a Mexican institution. World J Surg 1997;21(4):408-11.
8. Kochupillai N. Clinical endocrinology in India. Curr Sci 2000;79:1062-7.2. Stsjazhko VA, Tsyb AF, Tronko ND, SouchkevitchG, Baverstock KF.Childhood thyroid cancer since accident at Chernobyl. BMJ 1995;310:801.
9. Handa U, Garg S, Mohan H, Nagarkar N. Role of fine needle aspiration cytology in diagnosis and management of thyroid lesions: A study on 434 patients. J Cytol 2008;25:13-7.
10. Ridgway EC. Clinician evaluation of a soloitary thyroid nodule. Endocrinol Med 1982;96:221-32.
11. Suen KC, Quenville NF. Fine needle aspiration biopsy of the thyroid gland: a study of 304 cases.J Clin Pathol 1983;36(9):1036-45.
12. Yang J, Schnadig V, Logrono R, Wasserman PG. Fine-needle aspiration of thyroid nodules: A study of 4703 patients with histologic and clinical correlations. Cancer. 2007;111:306–15. [PubMed] [Google Scholar]