



TRENDS OF CYTOLOGICAL EVALUATION OF THYROID LESIONS: IN JHARKHAND REGION

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INTRODUCTION:

Thyroid disorders are the most common endocrine disorders worldwide, including India. Thyroid nodules cause apprehension because their behavior is unpredictable[1]. The diagnosis of thyroid lesions using aspiration cytology was first reported by Martin and Ellis in 1930[2]. This relatively simple procedure has assumed a dominant role in determining the management of patients with thyroid nodules[3,4]. FNAC of thyroid is non-invasive, cost effective, efficient and time saving procedure with minimal risk and early diagnosis. FNAC is usually considered as first line of investigation followed by ultrasound examination, thyroid function and antibody level [5]. Thyroid disorders, both benign and malignant, occur in men and women of all ages and are more common in females. The prevalence of a palpable thyroid nodule is about 12.2%[6].

AIMS AND OBJECTIVES:

To study the utility of FNAC in thyroid lesions and to categorize as non-neoplastic and neoplastic lesion.

MATERIALS AND METHOD:

This study was done over a period from June 2017 to June 2019 in the Department of Pathology, RIMS, Ranchi, Jharkhand. FNAC of thyroid swelling was performed under aseptic precautions using 23-24 G needle. Patients were made to lie down flat with pillow under the shoulder, head falling back with neck extended. Patients were asked not to speak or deglutinate during procedure. Needle was inserted in the gland, to and fro movement of needle was done, with minimal negative pressure, material was aspirated and expelled on slides. Smears were made and slides were air dried and stained by Giemsa stain and alcohol fixed slides were stained by PAP stain.

RESULTS AND ANALYSIS:

In the present study, evaluation of 352 cases of thyroid FNA's was undertaken and interpreted. Out of which, 34 cases were neoplastic- 27 benign and 7 malignant. There are 318 non neoplastic lesions. In this study, most common lesions were colloid goitre, colloid cyst, lymphocytic thyroiditis, hashimoto thyroiditis, granulomatous thyroiditis and thyroglossal cyst. In benign cases, most common was follicular neoplasia of thyroid. One case of hurthle cell adenoma was found. 4 cases of papillary carcinoma of thyroid were found. One case of medullary carcinoma of thyroid and 2 cases of metastatic carcinoma were found.

6.	>50	42	0	0
TOTAL	352	318	27	7

DISCUSSION:

Thyroid nodules cause apprehension because their behavior is unpredictable[7]. Thyroid enlargement, whether diffuse or in the form of a nodule, leads to a battery of investigations, mainly to rule out the possibility of a neoplasm or thyroiditis. Diagnostic accuracy of thyroid FNA is highly variable. The majority of diagnostic failures are due to non-diagnostic samples or pathologist issuing diagnosis on samples with inadequate material. An interpretation of an inflammatory process such as thyroiditis does not require a minimum number of follicle cells. An interpretation of a colloid nodule in which there is abundant, thick colloid present does not require a minimum number of follicle cells[8]. In solid nodules producing a follicular cell population with less abundant colloid, minimum number of 5-6 groups with at least ten cells is recommended, preferable on a single slide.

CONCLUSION:

FNAC is a safe, simple, and inexpensive technique that plays an important role in the diagnosis of thyroid lesions. FNAC is the test of choice for the triage of patients requiring surgery, thus avoiding approximately 80% of all thyroid surgery. The conclusion drawn from this study implicates FNAC as a useful primary investigative modality for evaluation of palpable thyroid nodules.

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AGE - WISE DISTRIBUTION OF THYROID LESIONS

S.NO.	AGE IN YEARS	NON-NEOPLASTIC	BENIGN	MALIGNANT
1.	<10	11	0	0
2.	11-20	46	1	0
3.	21-30	98	10	1
4.	31-40	80	11	4
5.	41-50	41	5	2