

Cytomorphological patterns in patients with lymphadenopathies - experience in a tertiary care hospital



Medical Science

KEYWORDS : Lymph node, FNAC, Tuberculosis, Carcinoma

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ABSTRACT

The present study was undertaken to evaluate the usefulness of FNAC as a diagnostic tool in cases of lymphadenopathy, to find the frequency and cause of lymph node enlargement in patients of different age groups and analyze the different cytomorphological patterns associated with various lymphadenopathies. We studied 182 patients presenting with lymphadenopathy in the Department of Pathology of Mahatma Gandhi Hospital, Jodhpur over a period of one year. Reactive hyperplasia, tuberculous lymphadenitis, metastatic carcinoma, pyogenic lymphadenitis and lymphomas were seen in 45.05%, 34.61%, 5.49%, 5% and 3.85% respectively. 6% FNACs were non-informative. Reactive hyperplasia was seen most often in first three decades of life and metastatic carcinoma over 40 years of age. Cases of tuberculous lymphadenitis and lymphoma were distributed in all age groups. Males showed preponderance of reactive hyperplasia, pyogenic lymphadenitis, lymphoma and metastatic carcinoma, while tuberculous lymphadenitis showed a slight female preponderance. Cervical lymph nodes were involved most often in all types of lymphadenopathy.

BACKGROUND

FNA is a simple, safe, rapid and inexpensive. It is an outpatient procedure.

Lymph node aspiration is of great value for the diagnosis of lymphadenitis, lymphomas and metastatic carcinoma .

The value of FNAC, besides making a diagnosis, also lies in early direction of appropriate investigations.

AIMS AND OBJECTIVES

- To evaluate the role of FNAC in patients presenting with lymph node enlargement.
- To find out the frequency of lymphadenopathy in different age groups.
- To find out the etiological factors causing lymphadenopathy in different age groups .
- To study the different cytomorphological patterns associated with various lymphadenopathies.

PROCEDURE:-

One hundred and eighty two (182) FNAs were performed on patients with LN enlargement in cytology section of M.G. Hospital, Jodhpur.

The records of these patients were retrieved and information about the age, sex , site and cytological diagnoses were extracted.

FNACs were performed using 22 - 24 gauze needles and 20 cc syringe.

Air dried smears were made from the aspirated material, stained with May Grunwald Giemsa (MGG) and examined under a light microscope.

OBSERVATIONS

A total of 182 patients underwent FNAC of lymph node swellings within the study period. Out of these, 99 were male patients, while 83 were males. Age of the patients ranged from two to eighty-five years.

CYTOLOGIC DIAGNOSIS OF 182 CASES OF LYMPHADENOPATHY :-

Cytologic Diagnosis No. of Cases Percentage

DIAGNOSIS	NO. OF CASES	PERCENTAGE
Reactive hyperplasia	82	45.05 %
Tubercular lymphadenitis	63	34.61 %
Metastatic carcinoma	10	5.49 %
Acute inflammatory	9	5 %

Lymphoma	7	3.85 %
Inconclusive	11	6 %

RESULTS

Most common group of lymph nodes involved was cervical group (86.81%) followed by axillary group (6.59%). Overall commonest cause of lymphadenopathy was reactive hyperplasia (45.05%) followed by tuberculosis(34.61%). Commonest type of metastatic carcinoma to lymph node was of squamous cell variety followed by adenocarcinoma. Males showed preponderance of reactive hyperplasia, lymphoma and metastatic carcinoma. Tuberculous lymphadenitis showed a slight female preponderance.

CONCLUSION:- While doing lymph node FNAC in patients >45 years of age, a precaution should be taken to make wet fixed smears more and also should keep unstained smears for special histochemical stains e.g. for mucin etc.

Though the diagnostic accuracy of FNAC is low as compared to histological examination, it is a valuable and reliable screening tool in outpatient clinics.

Following the cytodiagnosis, decision regarding the requirement of histological examination can be made and patient managed with a curative or palliative approach.

However, it must be realized that FNA not only offers tissue diagnosis but serves as a preliminary screening procedure for a number of clinical considerations e.g. lymphoma, leukaemia, metastases, tuberculosis and lymphadenopathy not otherwise specified.

Following the cytodiagnosis, decision regarding biopsy from appropriate sites, if necessary, and other relevant investigations can be done.

FNA gives quick diagnosis of lymphadenopathy & reduces need of surgical biopsy.

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