

Diagnostic Accuracy of Fine Needle Aspiration Cytology (FNAC) in Metastatic Lymphadenopathy

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Abstract

Objective: To determine the diagnostic accuracy of Fine needle aspiration cytology (FNAC) in metastatic lymphadenopathy, using histopathology of the same lymph node as a gold standard

Study Design: Cross sectional study

Setting: Department of Pathology, Pakistan Institute of Medical Sciences (PIMS), Islamabad

Duration of study: Samples were collected from 13th April, 2011 to 09th February, 2013

Methodology: After getting adequate clinical data, patients underwent FNAC. The slides were stained with Hematoxylin and Eosin (H&E), evaluated according to the set criteria and compared with histo-pathological slides

Results: All of the 54 cases were found to be lymph node lesions. Mean age was 45.17 ± 17.1 years. Male to female ratio was 1:1.08. Most of the smears were hypercellular. Most common metastatic tumor was Metastatic Squamous Cell Carcinoma (51.85%), followed by Metastatic Adenocarcinoma (7.41%). In 38 cases, the involved lymph node was found to be cervical, followed by supraclavicular lymph node which was involved in 9 cases. Axillary and inguinal lymph nodes comprised 4 and 3 cases respectively. A strong correlation was found between the diagnosis made by fine needle aspiration cytology and the final histopathological diagnosis. The sensitivity and specificity of FNAC came out to be 97.37% and 93.75% respectively with an overall diagnostic accuracy of 96.29%.

Conclusion: Fine needle aspiration cytology (FNAC) is a useful diagnostic test in metastatic lesions of lymph nodes because it is rapid, simple and inexpensive and has high diagnostic accuracy.

Key words: Fine needle aspiration cytology, FNAC, Lymph node, Lymphadenopathy, Metastasis.