

Spectrum of Bone Lesions Diagnosed on Fine Needle Aspiration Cytology

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Objective: The objective of this study was to determine the spectrum and morphological features of various bone pathologies as observed on fine needle aspiration cytology.

Study Design: It was a descriptive study.

Setting: Pathology Department of Pakistan Institute of Medical Sciences, Islamabad.

Duration: The study was carried out from 01.04.04 to 31.03.05.

Subjects: The total number of cases was 50, selected through convenience non-probability sampling.

Methods: The data was entered in the proforma. A criterion was set for examining each slide, which included cellularity of the smear, pattern (if any), cell type, cellular atypia, background and salient microscopic features. Cellularity was graded as 0, +, ++, ++++. Patterns included discohesive cells, clusters and sheets, mixed and others. Cells were typed as mesenchymal, epithelial, inflammatory, fibrohistiocytic, neuroectodermal and others. Atypia graded as nil, mild, moderate and marked while the background was labeled as clear, amorphous, chondromyxoid and hemorrhagic. Cytomorphologically, 7 groups of bone pathologies were identified. All the data was analyzed using computer software SPSS version 10 and descriptive statistics applied.

Results: There were 66% males and 34% females in our study. The most frequent age group was between 0-10 years. The most frequent group of bone pathologies in our study was inflammatory (32%), followed by fibrohistiocytic and synovial group (22%), primary malignant osseous tumors (18%), metastatic (12%), plasma cell dyscrasias (8%), primary benign tumors of bone (6%), and miscellaneous group (2%).

Conclusion: Our study of 50 cases of pathological osseous lesions carried out in Pathology Department of Pakistan Institute of Medical Sciences proves that FNAC is very useful diagnostic technique which can easily replace the need for biopsy.

Key words: Bone, Lesions, Spectrum, Fine needle aspiration cytology.