

Role of Cytology in Thyroid Lesions: A Comparative study of Fine Needle Aspiration and Non Aspiration Techniques

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Abstract

Objectives: To evaluate cytological diagnosis of thyroid lesions and compare the results of Fine Needle Aspiration Cytology (FNAC) and Fine Needle Non Aspiration Cytology (FNNAC) and correlate the findings with histopathology. **Materials and Methods:** A total of 123 patients with thyroid swelling were included, which were then subjected to Fine needle Non Aspiration followed by Fine Needle Aspiration technique. Cyto-histology correlation was done. **Results:** Out of 123 cases 114 (92.68%) and 117 (95.12%) were adequate for diagnosis on FNAC and FNNAC respectively. The study recorded adequacy rates by FNNAC technique to be more (95.12%) when compared to FNAC (92.68%). The overall correlation of benign and malignant lesions was 96.66% and 75% respectively. The overall Sensitivity was found to be 75%, and Specificity 96.66%. The positive predictive value was 75% and negative predictive value 96.66% with diagnostic accuracy of 94.11%. **Conclusions:** The cytomorphological appearances of thyroid lesions obtained by the technique of FNAC and FNNAC are equally appreciative with histomorphological appearances. The cellularity thus obtained by FNAC and FNNAC is near similar. FNNAC doesn't have the advantage of superior cell yield as compared to conventional technique of FNAC but the combination of both techniques can fill the gap of inadequacy in minor number of cases. Both are the complimentary diagnostic techniques for cytodiagnosis of thyroid lesions with simple maneuvers, economical, safe, quick procedure as their advantages, which can safely be applied in all types of thyroid lesions.