



## EDITORIAL

## Fine Needle Aspiration Cytology at Crossroad or Coming at Age

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Fine needle aspiration cytology owes its existence to *George F. Papanicolaou* who made the world realize the significance of exfoliative cytology in his landmark publications in mid 40s and early 50s. Prior to this it was an unexplored and barren field (1).

To begin with, the reality of this subject was resisted by clinicians and inadequately trained pathologists. With the gradual progress of this evolving field in the last 4-5 decades, it has become a favoured diagnostic modality and is being performed on OPD basis in most of the hospitals. Reasons for its popularity are the simplicity of the procedure, a quick rapid diagnosis and its cost effectiveness. It has assumed more acceptance in underdeveloped countries as it is cheap and technologically less demanding. In India, most of the standardized laboratories are doing cytology on day-to-day basis. Biggest advantage of FNAC is the virtually negligible complications though, hematoma formation, hemorrhage and infections might occur rarely. In spite of the excellent acceptance of this procedure by the medical fraternity for the past 6-7 decades, the worth of this modality has been questioned over the last 10-15 years (1-3).

Is cytology losing its importance? Are the clinicians losing faith in FNA? Why there is a definite resurgence of the Trucut Biopsy? The answers to all these queries could be -

- A high error rate of FNA in the hands of inadequately trained cytologists.
- Lack of clinical correlation and clinical interactions.
- Higher rate of inconclusive reports, more so in FNA of deep seated organs.

A thoughtful analysis of the subject demands specialized training and dedication. In fact, the ideal approach in cytology should be " *See one, Do one & Teach one*". An in-depth knowledge of normal cellular

components and environment of the tissues to be examined (both physiological and pathological) is essential. Thus, a sound basis of histopathology is must for every cytologist.

The modern supplementary techniques like cell block preparation, flowcytometry, immunocytochemistry, morphometry and image analysis can also be performed on cytological material, therefore helping in refining the cytological diagnosis. However, in spite of all these specialized techniques available, the problem of differentiating a neoplasm from hyperplasia, localization of primary tumor from secondary malignancy and follicular neoplasm of thyroid remain those issues where histopathology has to follow FNA. So, then where do we stand? The budding cytologists are going to face more challenges in near future. Need of the hour is an adequate training for cytologists and cytotechnicians, FNA needs to be included in the examination curriculum and regular courses in cytology must be conducted for brushing of the knowledge. The reporting protocols in cytology need to be standardized and all cytologists should be aware of these guidelines. The cytological pitfalls should be conveyed to the treating clinicians before clinical decisions regarding treatment are made. The quality control programmes (both external & internal) should be maintained and accreditation of all cytology laboratories by national regulatory bodies should be undertaken. Regular CMEs and workshops for dissemination of knowledge in this field are mandatory.

### References

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