

## **Annals of Pathology and Laboratory Medicine: Looking Forward**



Dear readers,

Diagnostic Pathology and Laboratory Medicine acts as a fulcrum between radiology and treatment modality. It has to keep pace with advanced technology in diagnostic imaging and recent trends in treatment of malignant tumors. Diagnostic pathology and laboratory medicine are progressing by leaps and bounds.

In the era of advanced radiology like HRCECT, MRI and PET-CT, almost all lesions, however deep seated can be located precisely. The origin, shape, size, vascularity, resectability and even the nature of the lesions can be assessed with these advanced techniques.

The treatment modalities of malignant lesions have been amazing in recent years. The targeted therapy, adjuvant and neoadjuvant therapy are very precise and accurate. These therapies act only on tumor cells without any effect on normal tissue.

In this juncture of advanced radiology and therapy, diagnostic pathology and laboratory medicine has to fulfill the expectations of the clinicians and the patients by providing not only the morphological diagnosis but prognostic classifications of tumors on which specific targeted therapy can be given for the best benefit of the patients with minimum side effects. Study of sophisticated tumor marker levels in laboratory medicine help to study the tumor response to chemotherapy and thus act as a guide line for treatment.

The recent advances in cytology are use of ancillary techniques on aspirated material obtained by FNAC or on exfoliated cells in fluid. The main ancillary techniques utilized are cell blocks with immuno-histochemistry (IHC), flow cytometry, PCR, RT-PCR, morphometry, molecular techniques, cytogenetics and FISH. Utility of cell blocks with IHC is considered the best asset in cytology which can pinpoint accurate diagnosis in almost all tumors. Only in difficult cases help of costly tests available in few centres of our country like molecular biology, cytogenetics and FISH become essential.

Tru-cut biopsy or core biopsy of solid tumors is at present becoming very fascinating as the above tissue can not only be used for morphological diagnosis but also for IHC, tumor markers, molecular techniques and cytogenetics. As morphology is well maintained by the above technique, the pathologists at present favor the core biopsy more than FNAC in most of the cases except some areas like thyroid lesions, salivary gland tumors, solid cystic tumors and tumors closely related to blood vessels and vital structures where there are chances of grave complications by tru-cut biopsy. This procedure is now

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widelypracticed in diagnostic and prognostic classifications of tumors of breast, prostate, soft tissues and bones. The cytopathologist prefer cell blocks with IHC while histopathologists favor tru-cut biopsy. Cytogenetics and molecular genetics have changed the way to diagnose and treat acute leukemia.

The journal, Annals of Pathology and Laboratory Medicine (APALM) invites research papers, original and review articles, unique case reports and letters to Editor based on these recent advances of diagnostic pathology and Laboratory

Medicine. We look forward for continuous support so that APALM gets the honor of an internationally reputed journal, becomes indexed with high input factor.

## Dr (Prof.) Asitava Mondal; MD

(PGI-Chandigarh) Clinical Cytologist and Oncopathologist President IAC, 2006 Vice-President IAPM, 2013 Associate Editor- APALM

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