Cytology techniques in diagnosis of breast lesions in resource poor settings

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Breast cancer is the most commonly diagnosed cancer among women. Incidence rates have been rising in traditionally low-incidence Asian countries. Breast cytology, particularly fine needle aspiration cytology (FNAC), has been an integral part in the management of women with breast lesions in the reproductive to menopausal age group. It is used for the initial management of breast lesions and is a safe and cost-effective technique for the diagnosis of breast lesions, especially when correlated with clinical and imaging studies. Manual liquid based cytology (MLBC) is designed to improve conventional smears (CS) by avoiding limiting factors such as obscuring material, air-drying and smearing artifacts. Cell blocks of breast FNAC offer the advantages of IHC. LBC permits the use of residual material for ancillary studies such as immunocytochemistry (ICC) and FISH, which has an important role in the pathology of breast disease. In advanced countries tests like fluid from duct system provide material for biomarkers with DNA material used for molecular studies. The detection of circulating tumor cells (CTCs) in the peripheral blood is one of the newest tools in the management of many human cancers including breast cancer. This study compares cost effective methods like FNAC, MLBC and cell block with IHC on MLBC and cell block along with histopathological correlation in resource poor settings. IHC shows over-expression of angiogenic markers in the samples which correlates with the stage and grade of the tumor.

Biography

Nandini Manoli is the Professor for the Dept. of Pathology, JSS Medical College, a constituent of JSS University and has been working on breast cytology from the past 12 years. Her work on Masood scoring system, use of cell block on breast FNAC and manual liquid based cytology is going on from past 5 years. She has written several books on breast cytology, articles and presented her work in many international and national conferences.

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