

Upgrading Rate of Precancerous Breast Lesions in Pathology and Related Clinicoradiological Characteristics

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Abstract

Introduction: The increasing use of percutaneous imaging guided core needle biopsy (CNB) has reduced the application of excisional biopsy for assessment of breast lesions. Most often, lesions are reported as benign and sometimes as precancerous. In these cases, it is possible that the lesion is upgraded to malignant after excisional biopsy. This study aimed to evaluate upgrading rate in these lesions and the related factors.

Methods: We conducted a retrospective study of medical records of patients who received CNB in the radiology department of Iranian Breast Cancer Research Center between March 2014 and March 2017, were reported as Atypical Ductal Hyperplasia (ADH), Sclerosing Adenosis (SA), Flat Epithelial Atypia (FEA) Papillary Lesion (PL).

Results: A total of 208 patients had a diagnosis of precancerous lesions and entered the study. The patients' mean age was 44.6 years (range: 22–61 years). The highest upgrading rate was in papillary lesions (20.4%) and atypical ductal hyperplasia (25%) while this rate was zero in sclerosing adenosis and flat epithelial atypia lesions. Data analysis indicate the significant correlation of tumor size and age with upgrade rate ($p=0.001$ and $p=0.038$, respectively).

Conclusion: Our study showed that upgrading rate increases with increasing age and tumor size. This rate is much higher in PL and ADH as compared to SA and FEA. Therefore, it is recommended that the tumor be excised in older patients and larger tumors to prevent cancer. In order to achieve more accurate results, specific studies for each lesion are required.

Keywords: Breast Cancer, Precancerous Lesions, Core Needle Biopsy.