

00423 Factors Influencing the Upstage of Atypical Ductal Hyperplasia of the Breast on Core Needle Biopsy - Can Surgical Excision Biopsy Be Avoided?

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Aims: The risk of upstaging benign atypical ductal hyperplasia (ADH) diagnosed on core needle biopsy (CNB) to malignant breast ductal carcinoma-in-situ (DCIS) or invasive ductal carcinoma (IDC) on subsequent excision biopsy is 9-56%. The aim of this study is to evaluate the clinicoradiological factors that predict the risk of upstaging ADH diagnosed on CNB to avoid unnecessary surgical intervention in low-risk patients.

Methodology: A retrospective study was performed on all females with CNB-diagnosed ADH who attended the Breast Screen Singapore (BSS) Clinics (a national screening program) at the National Cancer Centre Singapore (NCCS) between 2010 and 2015. Patients followed up with excision biopsy were studied and associated clinicoradiological factors were evaluated for possible predictors of upstaging.

Result: 2686 patients were screened at NCCS between 2010 and 2015. 89 patients (2 bilateral) were diagnosed with ADH on CNB and underwent excision biopsy. Median age was 51.7 years. 27(29.7%) lesions were upstaged to DCIS (n=25) and IDC (n=2). Mass lesion on ultrasound (p=0.018) or mammogram (p=0.026), use of smaller needles (14G vs 11G) on CNB (p=0.042) and lower tissue cores counts (p=0.041) were significantly associated with upstaging. Mammographic scattered fibroglandular density (22.2% v 6.3%) and heterogenous density (70.4% v 62.5%) of the breast were associated with upstaging. On multivariate analysis, high breast density (OR -3.09, 95%CI -0.42 - -0.91) remained associated with non-upgrade.

Conclusion: The overall upstage rate of ADH to a breast malignancy in our institution is 29.7%. Mass lesions on imaging, use of smaller CNB needles (14G) and lower tissue core count are associated with upstaging to malignancy. Future studies are required to include histologic factors and formulate a nomogram allowing risk-stratification of CNB-diagnosed lesions to reduce unnecessary surgical intervention in low-risk patients, and to predict patients' prognoses.