AB012. SOH23ABS_072. Management and outcomes of breast lesions with atypia (high risk lesions) in women under 40 years of age

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Background: Some indeterminate breast lesions are considered high risk due to their potential association with malignancy. It is recommended that a diagnostic excision is performed when such high-risk lesions are diagnosed. While it is accepted that these women are at higher risk of developing breast cancer in the future, there is limited data on long term outcomes of women with this diagnosis.

Methods: A retrospective review was conducted of a prospectively maintained database of all indeterminate lesions diagnosed in a single tertiary referral breast unit. Patients aged 39 and younger with a diagnosis of atypia of the breast from 2004 to 2016 were included. The aim of this study was to describe patient characteristics, determine cancer upgrade rates and assess the development of breast cancer in follow up.

Results: There were 31 women aged under 40 years old diagnosed with atypical hyperplasia during this time period. This diagnosis was made either by core needle biopsy (CNB) or diagnostic excision (DxEx). An initial CNB was performed in 29 patients, 22 had atypia on this initial biopsy and 15 of these patients went on to have atypia confirmed on DxEx. Six patients were upgraded to atypical hyperplasia at DxEx having been diagnosed with an indeterminate lesion without atypia at CNB. Two patients were diagnosed with atypia after proceeding directly to DxEx. Two patients with atypia at CNB who did not proceed to DxEx. One patient was upgraded to a diagnosis of ductal carcinoma in situ (DCIS) at DxEx, following a diagnosis of atypical intraductal epithelial proliferation (AIDEP) at CNB. No patients were upgraded to invasive carcinoma at DxEx. Presenting symptoms included a lump (n=19), bloody nipple discharge (n=4), mastalgia (n=2), breast abscess (n=1) and nipple ulceration (n=1). Four patients were asymptomatic. 55% of patients diagnosed with atypia had a family history of breast cancer. The mean duration of mammographic surveillance for these patients with atypia was 6.6 years (range, 0–17 years). Four patients (13%) were diagnosed with invasive breast cancer during follow up. The mean time to a diagnosis of cancer was 5.6 years (range, 4–7 years). All cancers developed in the ipsilateral breast. Three patients had a family history of breast cancer. Two of the cancers were invasive lobular carcinoma. The initial DxEx reported lobular carcinoma in situ (LCIS)/atypical lobular hyperplasia (ALH), and fibroadenoma with focal *in situ* lobular neoplasia. The other 2 cancers that developed during follow up were invasive ductal carcinoma. One of these patients had borderline atypical ductal hyperplasia (ADH) on CNB and the other had ALH/LCIS diagnosed on DxEx.

Conclusions: This data demonstrates a considerable number of patients in this young cohort will go on to develop breast cancer following the diagnosis of a high risk breast lesion. We currently recommend annual mammographic surveillance following this diagnosis. Family history may warrant more frequent follow up or risk reducing chemoprevention. Further research is warranted to clarify the most appropriate management and follow up of patients under 40 with atypia.

Keywords: Breast atypia; breast cancer; breast surveillance; high risk surveillance; younger patients

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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