A Review of Subsequent Breast Cancers Detected on Mammographic Surveillance Following Vacuum Assisted Excision for Lesions of Uncertain Malignant Potential (B3) with Atypia

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Background

The spectrum of lesions that fall into the category of 'uncertain malignant potential' (B3) are often associated with atypia, in situ carcinoma or invasive carcinoma. Therefore, once these lesions are discovered on biopsy, it necessitates the need to ensure adequate sampling to exclude focal carcinoma. Vacuum Assisted Excision (VAE) has become the management of choice of small B3 lesions which meet criteria as set out by the National Health Service Breast Screening Programme B3 guidelines.

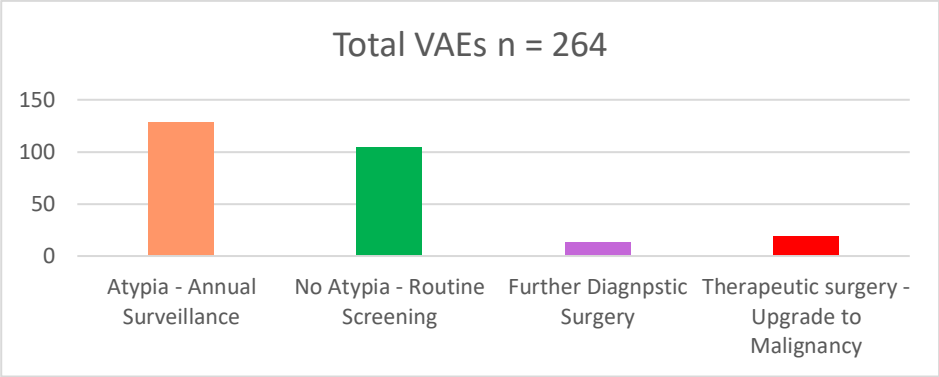
Because B3 lesions with atypia confer a risk for a future breast cancer, it is important to ensure mammographic follow up following VAE to ensure early diagnosis of a potential subsequent breast cancer. Our protocol for surveillance of VAE or biopsy) histology demonstrating atypia is annual mammography for 5 years, followed by return to routine biennial screening thereafter.

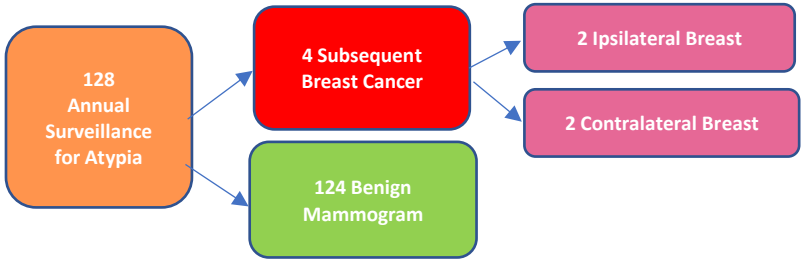
Material and Methods

We conducted a retrospective review of all VAE cases performed in our screening centre over a 5 year period in women aged 50-68 years old, who underwent mammographic surveillance for excised B3 lesions with atypia. Of this group, we identified cases of subsequent cancers which were picked up using consensus review on annual surveillance mammography.

Results

Between 2015 and 2020, a total of 264 women underwent VAE in our screening centre as a result of a B3 screen detected lesion. Of these, 128 women (48%) demonstrated atypia and it was recommended for them to undergo annual mammographic surveillance for 5 years, followed by return to routine screening. Of these women who have been undergoing annual surveillance for atypia on VAE, 4 women have had a subsequent cancer picked up on surveillance (2 ipsilateral breast at the site of excision and 2 in contralateral breast).





Conclusions

Breast lesions with atypia confer an increased risk of future malignancy. In our cohort of women who underwent annual mammographic surveillance following VAE for B3 lesions with atypia, 3% developed a subsequent cancer. Half of these subsequent cancer cases occurred in the same breast as the site of the previous B3 with atypia and half occurred in the contralateral breast. This demonstrates the importance of close mammographic surveillance following VAE for lesions with atypia, not just focussing on the site/side of previous VAE, but also in the contralateral breast.

Reference: NHSBSP. 2016. Clinical Guidance for Breast Cancer Screening Assessment [publication number 49, 4th ed]