B3 Lesions

Summary

Essentially recommend reading Pinder SE et al. NHS Breast Screening multidisciplinary working group guidelines for the diagnosis and management of breast lesions of uncertain malignant potential on core biopsy (B3 lesions). Clin Radial**. 2018 Aug;73(8):682-692and Shaaban, A.M., Sharma, N. Management of B3 Lesions— Practical Issues. Curr Breast Cancer Rep. 2019;11: 83–88**

The overall risk of malignancy with a B3 lesion is 17%. Atypia increases the risk of malignancy most significantly.

Acronyms are rife: FEA = flat epithelial atypia, lobular in situ neoplasia (LISN), ADH = atypical ductal hyperplasia, ALH = Atypical lobular hyperplasia, AIDP = Atypical Intraductal Proliferation, pLCIS = pleomorphic lobular carcinoma in situ, cLCIS = classical lobular carcinoma in situ.

Guidance

NICE guidance concludes that there is sufficient evidence for large volume biopsy of B3 lesions over surgical excision however the management varies with each subtype.

BSP guidance

Most patients will have had a 14g core or VAB that is then discussed at MDT. Most B3 will then go for a VAE, which should obtain >4g of tissue. Exception to this is papillary lesion with atypia on initial biopsy, which should proceed to surgical excision.

So following core and then VAE, the decision then depends on the presence, and extent of atypia as this influences the risk of malignancy (see table below).

Clearly, any lesion upgraded to in DCIS (or pLCIS) or invasive disease will proceed to surgical excision. Equally, papilloma with atypia should be surgically excised.

Any lesions without atypia and not upgraded or more extensive on VAE may be considered fully treated with the 2nd line VAE and should re-enter screening i.e. 3yrl surveillance.

In between are those cases with more disease but no atypia and those that are upgraded to atypia on VAE. In general, it is accepted that if there is no atypia, another VAE is acceptable. If there is atypia, 2nd line VAE or surgical excision. This varies hugely through the UK.

Evidence

The following table summarises the chance of associated malignancy if reported on core biopsy and the recommended action if found on core. As above, if upgraded in terms of extent, atypia or DCIS/invasive disease this may alter management.

	No atypia Rate of malignancy (action)	Atypia Rate of malignancy (action)
Papilloma	7% - VAB – if fully excised - 3 yrly mammo	32% - surgical excision + annual mammo
Radial Scar	6% - if diagnosed on CNB – sampling with VAE – then 3 yrly mammo	18% VAE/ excision and annual mammo if no further atypia (if further ie more extensive - excise)
ADH/AIDEP		22% - surgical excision (VAE can be considered particularly if <15mm) + annual mammo
FEA	Surveillance	11%- VAE and 3 yrly mammo
ALH		12% - VAE and 3 yrly mammo
LCIS	22% - pleomorphic/florid as DCIS, classical is VAE + annual mammo	