Benign intraductal papilloma: is surgical excision warranted?

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Background
Papillary lesions of the breast encompass a wide range of disease from benign papillomas to invasive papillary carcinomas. Due to increased screening and imaging in general, papillary lesions are being detected more frequently. Papillary lesions with atypia always warrant excision due the high risk of carcinoma on final histological evaluation. However, in recent years there has been a trend toward conservative management of papillomas without atypia, given the low reported rates of upgrade to in-situ or invasive cancer. Recently, a number of studies have been published attempting to clarify the most appropriate management of papilloma without atypia, producing conflicting results and recommendations.

Aims
The objective of this study was to determine the rate of upgrade to malignancy following excision of papilloma with no atypia diagnosed on core needle biopsy.

Methods
We carried out a retrospective review of a prospectively maintained database of all women diagnosed with papilloma without atypia on core needle biopsy, presenting to a single symptomatic tertiary referral centre, from July 2008 to July 2018. Patients with malignancy or atypia on core biopsy, those with a personal history of breast cancer, cancer mutations or syndromes were excluded.

Results
138 cases of benign papilloma with no atypia, diagnosed on core needle biopsy, were included in the analysis. All cases were female. The mean age of presentation was 51 (range 20-94). Mean follow up time was 9.6 months.

The most common presenting symptom was a lump, seen in 56 cases. Patients also presented with bloody discharge, non-bloody discharge, pain and nipple change. See Fig. 2.

Final histology results
Of the 124 papillomas which were excised, 3 (2.4%) were upgraded to DCIS on final pathology. High risk lesions were diagnosed in 15 (12%).

Of those upgraded to a high risk lesion, 12 (9.7%) were ADH, 2 (1.6%) were LCIS and 1 (0.8%) was ALH. See Fig. 3.

Conclusions
In this cohort of symptomatic women diagnosed with papilloma without atypia on core needle biopsy, diagnostic excision led to 2.4% having a diagnosis of invasive or in-situ carcinoma, and 12% receiving a diagnosis of high grade lesion. Therefore management or follow up plan was altered by the result of the excision for 14.4%.

Numbers of conservatively managed patients in this study were too small to demonstrate safety. Further research is necessary to establish if conservative management with radiological followup may be a safe option for these patients in the future.

References

Fig. 2. Presenting symptoms

On clinical examination, 10 patients had findings that were concerning for malignancy; 29 patients had a normal clinical exam, 99 patients had a palpable but non-concerning lump.

Abnormal radiological findings were reported in all patient, except 1. In 19 (14%) the imaging was reported as suspicious for malignancy. The majority (138, 86%) were found to have an indeterminate lesion on imaging. The overall radiographic/histological concordance was 86%.

Management
124 (90%) underwent diagnostic excision of the lesion. 120 (87%) underwent surgical excision while 4 (3%) had vacuum assisted excision. 12 patients (10%) were managed conservatively, due to patient choice following discussion with their clinician.

Outcomes
The table below demonstrates the outcomes of those patients who were upgraded to malignant disease following excision.

Fig. 3. Final histology results

Fig. 4. Outcomes of patients upgraded to malignancy following excision