Benign papilloma excised at an NAPBC-accredited breast center: analysis of local upgrade rates for use in patient counseling

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INTRODUCTION

- Until recently, most surgeons have recommended excision of intraductal papillomas (IP) diagnosed on core biopsy, as there is a risk of under-diagnosis of malignancy when IP is identified by core biopsy.
- In more recent series, the rate of upgrade of an IP without atypia (on core biopsy) to malignancy (on excision) is <10%.
- ASBrS and NCCN guidelines allow for observation without excision in select patients with a core biopsy showing IP without atypia.
- The primary objective is to examine our institutional upgrade rate from IP without atypia on needle core biopsy to atypia or malignancy on excisional biopsy.

METHODS

- Retrospective analysis of patients treated at AAMC from December 2010 to April 2018, with core biopsy showing IP (without atypia), that underwent excision.
- Patients with atypia or papillomatosis in the core biopsy were excluded from the analysis.
- The clinical and radiographic characteristics were recorded for correlation with final diagnosis by excision.

CONCLUSION

- Based on our study results, we can counsel patients with intraductal papilloma without atypia and concordant imaging that the risk of being upstaged to cancer on excision is quite low.
- This aligns with the recommendations put forth by the American Society of Breast Surgeons 2016 Consensus Statement and NCCN guidelines.
- We continue to recommend excision for any patient with accompanying atypia, large (>1cm) lesion (due to sampling error), palpable, symptomatic, or a peripheral lesion (posterior third of breast). For other patients, observation and excisions are discussed as options.
- Patients who would consider increased surveillance or chemoprophylaxis in light of a diagnosis of atypia may benefit from excision of a papilloma.
- We recommend that other surgeons offering observation rather than excision of intraductal papilloma verify their own institutional rate of upgrade to atypia or malignancy.

RESULTS

Table 1. Patient characteristics (n=87)

Mean age at diagnosis (y)	50
No. of patients with nipple discharge (%)	30 (34.5%)
No. of patients had associated mass on imaging	76 (87.4%)
Average mass size (cm)	0.8
No. of patients with associated microcalcifications (%)	24 (27.6%)

Table 2. Upgrade rates of intraductal papilloma without atypia on excisional biopsy (n=87)

	No atypia	Atypia	DCIS	Invasive breast cancer
Patient number (%)	82 (94.3%)	5 (5.7%)	0 (0%)	0 (0%)

Table 3. Five year literature review of upgrade rates of intraductal papilloma (IP) without atypia on surgical excision

		No. of IP without atypia that had surgical excision	Upgrade to high risk lesion (ADH,ALH,LCIS,FEA)	Upgrade to DCIS	Upgrade to invasive cancer
2014	Glenn et al	146	25 (17%)	7 (4.7%) cancer	
2015	Nakhlis et al	45		2 (4.4%)	1 (2.2%)
2016	Hong et al	234		9 (3.8%)	5 (2.1%)
2016	Pareja et al	171		2 (1.2%)	2 (1.2%)
2017	Tran et al	28	2 (7.1%)	1 (3.6%)	0
2017	Ko et al	135	15 (11.1%)	7 (5.2%)	0
2017	Armes et al	67		5 (7.5%)	0
2017	Seely et al	107	7 (6.5%)	4 (3.7%)	1 (0.9%)
2018	Han et al	398	17 (4.3%)	3 (0.8%)	0
2018	Asirvatham et al	104	8 (7.7%)	4 (3.9%)	0
2018	Zaleski et al	206	17 (8.3%)	8 (3.9%)	0
2018	Leithner et al	62		6 (9.7%)	4 (6.5%)
2018	Kiran et al	136	5 (3.7%)	2 (1.5%)	2 (1.5%)
2019	***Tran et al***	***87***	***5 (5.7%)***	***0***	***0***

DCIS = ductal carcinoma in situ, ADH = atypical ductal hyperplasia, ALH – atypical lobular hyperplasia, LCIS = lobular carcinoma in situ, FEA = flat epithelia atypia