

Reporting Papillary Lesions of the Breast on Core Biopsies

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Pathologist often face difficulty in reporting papillary lesions of the breast on core needle biopsies. Papillary lesion of the breast is defined by the presence of ductal epithelial proliferation supported by fibrovascular cores. Histologically, these lesions are classified as intraductal papilloma, papilloma with atypical ductal hyperplasia, papilloma with ductal carcinoma in situ and intraductal papillary carcinoma.¹ Even, though histological identification of papillary lesion is not challenging, classifying these lesions according to specific category is not always straightforward especially on core needle biopsy specimens. As papillary lesions range from benign to malignant entity, defining a specific category on core biopsies of the breast needs careful interpretation of these lesions based on histomorphology and immunohistochemistry profile.²

Differentiation of benign and malignant papillary lesions are done by identification of myoepithelial cells in the papillary fronds.

Usually on higher magnification these myoepithelial cells are easily recognizable but immunohistochemical stains might be required in difficult cases where myoepithelial cells are not obvious on routine histology. Commonly used myoepithelial markers are p6, high molecular weight keratins and smooth muscle myosin heavy chain.³

Core needle biopsies of the breast are performed to reach a definite diagnosis which ultimately guide the surgeon for further management of the patient. But due to the histological heterogeneity of these lesions it is better not to categorize benign and malignant papillary lesions based on histomorphology alone on core needle biopsies. As immunohistochemistry facility is not widely available in our country, core needle biopsy of papillary lesions of the breast should be reported as papillary neoplasm with a recommendation for excision biopsy to rule out malignancy.

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2. Wei S. Papillary Lesions of the Breast: An Update. *Arch Pathol Lab Med*. 2016 Jul 1; 140(7): 628–43.
3. Brogi E, Krystel-Whittemore M. Papillary neoplasms of the breast including upgrade rates and management of intraductal papilloma without atypia diagnosed at core needle biopsy. *Mod Pathol*. 2021 Jan; 34(S1):78–93.

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