



A Case of Benign Intraductal Papilloma Presenting with a Giant Palpable Breast Mass

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Abstract:

Introduction: Papillary neoplasms (IPNs) of breast are a group of pathological changes with benign intraductal papilloma occupying one end of the spectrum and papillary carcinoma, the other end. Intraductal papillomas are observed relatively rarely, with an incidence of 2-3%. In elderly patients, intraductal papillomas are often asymptomatic and usually smaller than 2 cm. Therefore, they are seen commonly as an incidental finding in biopsy specimens. **Case Report:** We observed a 50 year old patient who has a 10 cm mass in her breast, enlarging over a 4-year period. Patients' only complaint was mastalgia of two months duration. She was referred for breast sonography and later Magnetic Resonance Imaging (MRI). Radiologic examination revealed a 10x4 cm solid-cystic lesion with 4x2 cm and 3x3 cm solid components inside. The mass was surgically removed and histologic examination revealed intraductal papilloma. **Conclusion:** This case illustrates an unusual presentation of benign intraductal papillomas as a large breast mass and therefore should be considered in the differential diagnosis of very large breast lesions.

Key words: Breast Neoplasms, Hypertrophy, Mastodynia, Papilloma, Ultrasonography.

Introduction

Intraductal papillomas are benign breast tumors that originate from the epithelium of the lactiferous ducts. The incidence of these tumors is 2-3% and they develop in women between the ages of 30 and 77 years. Two types of intraductal papillomas are generally distinguished: central and peripheral. The central type develops in the subareolar region. They are solitary tumors and arise most frequently during the perimenopausal period. Peripheral intraductal papillomas tend to be multiple, and are observed among young women, arising within

the terminal duct-lobular unit [1]. The average diameter of benign papillary neoplasm is 1.8 cm whereas atypical or malignant papillary neoplasm is 2.2 cm in diameter [2]. We report this case due to an unusual presentation.

Case Report

The patient is a 50-year old woman who had a 10 cm mass on her right breast, enlarging over a 4-year period. Her only complaint was mastalgia

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which started two months prior to presentation to our clinic. She did not have nipple discharge. She was referred for mammography and sonography which revealed a 86x42 mm solid-cystic heterogenous mass in the upper inside quadrant which included irregular solid areas of 42x28 mm and 33x23 mm. MRI confirmed solid components inside mass suggesting malignancy. Mass was surgically removed. Grossly, the resected specimen featured a well circumscribed 10x5x5 cm diameter, cystic mass containing hemorrhagic and necrotic material and a solid papillary lesion with 5x4x2 cm diameter [Fig.1].

Histopathological examination revealed a cyst with thick wall containing variable sized ectatic ducts and cholesterol clefts [Fig.2]. An intracystic multiple branching papillae with fibrovascular cores was present [Fig.3]. Papillary structures were lined by luminal cuboidal cells showing occasional apocrine metaplasia and an outer layer of myoepithelial cells of which the presence was confirmed by p63 immunostaining [Fig.4,5]. No mitoses or atypical cells were found. Morphological findings were consistent with intraductal papilloma with accompanying ductal ectasis.

Discussion

Intraductal papillomas are relatively rare tumours which are usually asymptomatic and diagnosed at screening. World Health Organization (WHO) classification of intraductal papillary breast lesions includes intraductal papilloma, intraductal papillary carcinoma, encapsulated papillary carcinoma and solid papillary carcinoma [3]. Intraductal papilloma is characterized by the presence of finger-like fibrovascular stromal cores lined by epithelium and intact myoepithelial layer. Identification of myoepithelial cell layers essentially by immunohistochemical analysis is important in distinguishing benign from malignant papillary lesions. Presence of haemorrhage and ductal ectasis



Fig.1: A well circumscribed, 10x5x5 cm diameter, cystic mass containing solid papillary lesion with 5x4x2 cm diameter.

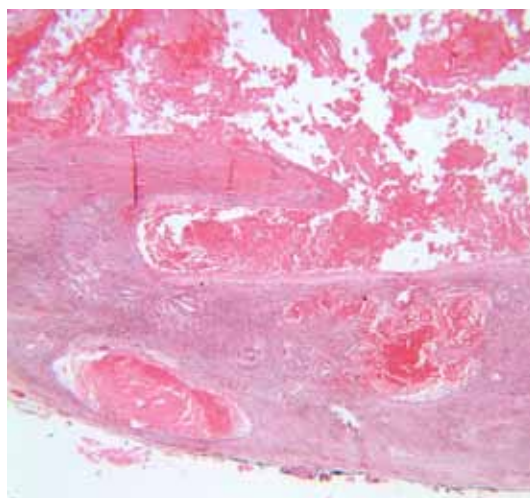


Fig.2: Cyst wall contained dilated and ectatic ducts filled with hemorrhagic-necrotic material. Cholesterol clefts and accompanying chronic inflammatory reaction was also present.

are exclusively found in larger papillomas [4]. In our case, we suggest that this large mass containing hemorrhagic and necrotic material occurred due to

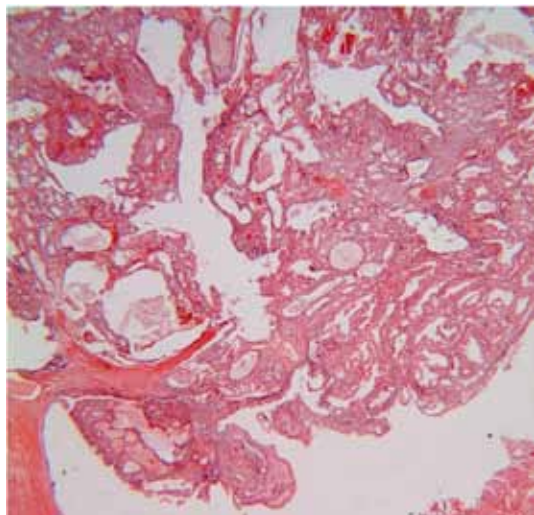


Fig.3: A papillary lesion with prominent fibrovascular core was present within the cyst.

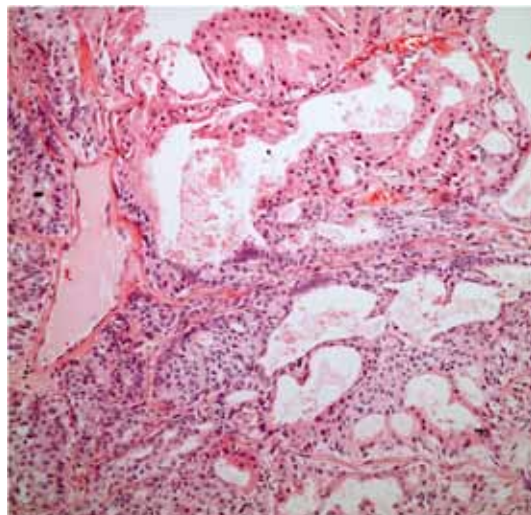


Fig.4: Papillae lined by benign epithelial cells showing focal apocrine metaplasia.

obstruction of the main duct by papilloma within the dilated cyst.

Clinically palpable masses are important since they are the most significant signs of progression to malignancy [4]. In review of literature there are few cases which present with a giant mass. Kavolius J *et al.* reported a case of multiple intraductal papillomas which has a history of two-year long nipple discharge [5]. Both intraductal papilloma and ductal ectasis are clinically associated with nipple discharge. However in this case, no nipple discharge was observed. Farid *et al.* and Bloem *et al.* have reported cases with giant intraductal papilloma of breast in pediatric age group [6,7]. Roy *et al.* reported a 15 cm mass, enlarging over 2 years which is similar to our case [8].

Conclusion

In conclusion, even though benign intraductal papillomas may rarely present with a large breast mass they should be considered in the differential diagnosis of very large breast lesions.

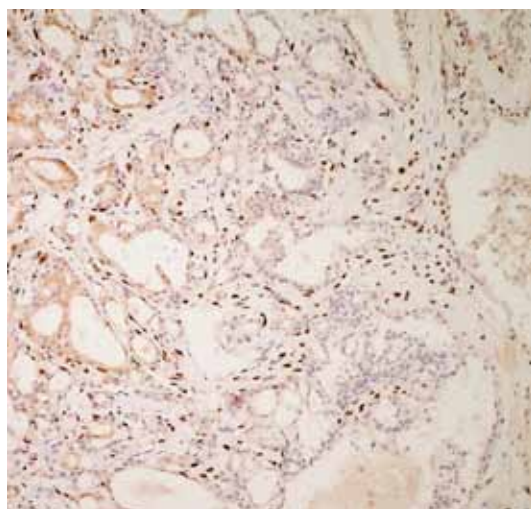


Fig.5: Immunostaining highlighted the presence of myoepithelial cells supporting the diagnosis of intraductal papilloma.

Authors' Contributions

DK found the patient. Both KB and DK were active in the management of the patient. OK and KK did the histopathological examination. KB drafted the

manuscript. All authors read and approved the final the manuscript.

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