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Case Study
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# FROM ATYPICAL FIBROADENOMA TO INTRADUCTAL PAPILLOMA: THE DIAGNOSTIC DILEMMA OF A BREAST LUMP. (CASE REPORT)

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### **ABSTRACT**

Any woman, regardless of age, who finds a breast lump—whether self-detected, discovered by a screen, or discovered by a clinician—becomes more fearful of breast cancer. Even though most breast lumps are benign, it is most important to evaluate any palpable breast lesion. A benign breast tumor called intraductal papilloma typically manifests clinically as bloody nipple discharge. Malignant transformation can occasionally occur in the intraductal papilloma of the breast. Many pathologists recognize solitary and numerous papillomas as distinct entities nowadays, with the latter typically considered the source of malignancy. There is still debate regarding how to treat intraductal papilloma after core biopsy. Usually, atypia-presenting papilloma is removed, since coexisting cancer is present in all studies at a rate of 22-67%. Here we are reporting a case of intraductal papilloma which presented as an atypical right breast swelling, small  $2.2 \times 1.2$ cm in the anterior lower quadrant of the right breast with serous yellowish discharge from the nipple, from the last 5 years, Patient complained of pain in swelling during her menstrual cycles. The patient was evaluated and diagnosed as a case of Atypical Fibroadenoma right breast and was excised under local anesthesia and sent for a histopathologic examination which suggested intraductal papilloma.

KEYWORDS: Excision and Removal, Intraductal Papilloma, Atypical Fibroadenoma, Breast Lump, Cancer.

# INTRODUCTION

Intraductal papillomas (IDPs) are fibrovascular corecovered proliferative epithelial tumors that develop in the lactiferous ducts and can be single and centralized or multifocal and peripheral in the mammary ductal systems. [1] Because of the well-known risk of associated malignancy, which has been reported to reach 22-63%, surgical removal is necessary for all atypical intraductal papillomas.<sup>[2]</sup> About 10% of all benign growths in the breast are intraductal papillomas (IPs).<sup>[3]</sup> According to estimates, the incidence of these conditions among females is 2-3%; however, in the event of nipple discharge, the risk rises to 40–70%. [4] Women of all ages can develop papillomas, however, the most common age range is between 30 and 77. [5] Peripheral papillomas commonly form in young women, which significantly enhance the chance of developing invasive breast cancer and, in contrast to central papillomas, typically coexist with atypical growths such as ductal carcinoma in situ (DCIS), lobular carcinoma in situ (LCIS), and atypical ductal hyperplasia (ADH). [6] According to Page et al., women with atypical papillomas were 4- to 5-fold more likely to experience invasive breast cancer in the future. [7] IPs can present on imaging as hypoechogenic,

well-differentiated hyper-vascular solid masses or as hyperechogenic growths in the ducts or cysts. [9] Pathologically speaking, hyperplastic lesions, likely benign or malignant tumors, are included in papillary lesions. Large duct papillomas, peripheral duct papillomas, sclerosing papillomas, nipple adenomas, papillomas with low-grade neoplastic atypia, and uncommon adeno-myoepitheliomas with papillary form are examples of benign assumed neoplastic papillary lesions.[8] Differential diagnosis requires immunohistochemistry because of their structural similarity to papillary malignant lesions such as lowgrade papillary DCIS, encapsulated papillary carcinoma, or solid papillary carcinoma.

### CASE REPORT

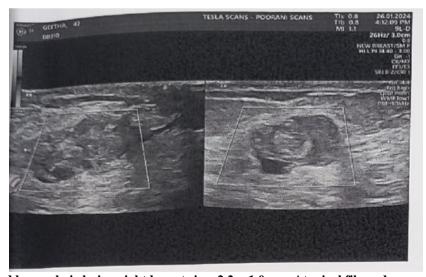
A 47-year-old female reported to the OPD with a history of yellowish and bloody discharge from the right breast nipple on and off for the past 6 months duration and Pain with swelling in the right breast lower outer quadrant near the areolar complex from last 5-6 years, discharge was serous with yellowish ting in it, there was no foul smell from discharge or history of fever. The lump gradually increased to the size of a walnut in the last 1

year. The pain is aggravated during the menstrual cycle. Vitals: BP- 130/80 mmHg, Pulse- 78bpm, Temp: 98.4F, SpO<sub>2</sub>- 98%. On local examination, a lump of size 2×2 cm, in the right breast lower outer quadrant at 8 o'clock position, soft to firm, not slipping, mobile side to side, and parallel to breast tissue, with mild tenderness, no puckering of breast tissue or no pseudo-orange appearance. No nipple indrawing nor deviation, on expressing a serous yellow discharge was found, and no lymphadenopathy. Both breasts were inspected, examined, and ruled out for any other lesions or lumps. Sono-mammography suggested  $1.8 \times 1.1$ cms of the well-defined lobulated hypoechoic lesion with areas of the solid and cystic components in the lower outer quadrant of the right breast with no lymphadenopathy signifying Atypical fibroadenoma. Other scan done after 6 months which suggested of increase in the size of the lump to 2.2 × 1.0cms s/o-Atypical fibroadenoma right breast. Excision and removal of the lump in the right breast were planned for proper histopathological evaluation and was done under local anesthesia, the specimen on histopathology report, s/o--circumscribed intraductal proliferation comprising of arborizing fibrovascular cores lined by the outer layer of cuboidal cells and an inner layer of myoepithelial cells. The surrounding stroma shows areas with entrapped ductal cells. Which suggested Intraductal Papilloma. For confirmation immunohistochemistry was done which also confirmed our diagnosis of the Intraductal Papilloma. The patient was kept on observation for 1 year and was given a tablet of tamoxifen 20mg for 1 month period. After 6 months of surgical excision, Sono-mammography was repeated which showed a normal study of both breasts.

Radiological images and reports of the patient before excision and removal and post removal.



Fig 1.0: Lobulated hypoechoic lesion right breast S/o- Atypical fibroadenoma, size  $1.8 \times 1.1$ cms (before surgery).



 $Fig~2.0:~Lobulated~hypoechoic~lesion~right~breast~size:~2.2\times1.0cms,~Atypical~fibroadenoma~(before~surgery).$ 

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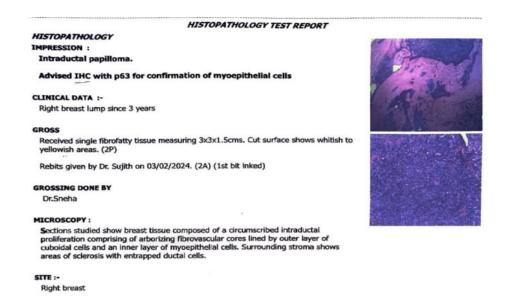


Fig 3.0: Histopathology report of the lump after excision and removal s/o- circumscribed intraductal proliferation comprising of arborizing fibrovascular cores lined by the outer layer of cuboidal cells and an inner layer of myoepithelial cells. The surrounding stroma shows areas with entrapped ductal cells. Which suggested Intraductal Papilloma.

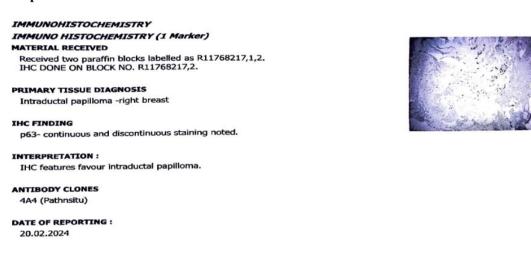


Fig 4.0: Immunohistochemistry report for confirmation, s/o- Intraductal Papilloma.



Fig 5.0: After 6 months of surgical excision and removal, Sono-mammography report s/o: the normal study of both breasts.

### DISCUSSION

A clinically palpable mass was the sole significant predictor of upstaging to malignancy, according to Shouhed et al., Age, menopausal status, lesions surrounding the nipple, and atypia on core needle biopsy were found to be predictive factors for cancer, according to Laval et al. The literature states that surgical excision should be advised when IP is diagnosed without atypia during a routine core needle biopsy. Because of the possibility of an upgrade to a malignant tumor or atypia on final surgical pathology. Women who are impacted must remember to undergo yearly ultrasound follow-up scans.

### CONCLUSION

In this case, initially, it was suspected of fibrocystic disease, and fibroadenoma was the provisional diagnosis due to the clinical and diagnostic presentation of this lump, but on continuous follow-up, for one year it showed an increase in size and nipple discharge which changed our provisional to ductal pathology and was subsequently excised and removed and sent for H.P.E which confirmed intraductal papilloma, the patient was followed up for 1 year time period to monitor any recurrence.

**Informed Consent:** Informed consent was obtained from the patient to publish the identified medical information.

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Conflict of Interest: nil.

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