Case Report

Case report: Intraductal papilloma in a male patient

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ABSTRACT

Introduction: In this case report, we discussed a rare case of an intraductal papilloma (IP) in a male patient. Intraductal papilloma of the breast is a benign tumor characterized by fibrovascular cores lined by an outer epithelial layer and inner myoepithelial layer.

Case Presentation: Our patient was a 36-year-old male who presented with a 6-month history of a bloody discharge from the right nipple. Mammography revealed right retroareolar, fibroglandular parenchyma with no associated discrete masses or suspicious microcalcifications. Ultrasound imaging revealed a lesion within the dilated ducts in the right breast. This was concordant with the biopsy result, which confirmed an IP with no evidence of malignancy. Although IPs are benign tumors, they can lead to atypical hyperplasia or ductal carcinoma in situ. Therefore, this patient was managed with total ductal excision, and the final histopathological examination confirmed the preoperative diagnosis.

Conclusion: IP is a rare condition in male patients and should warrant proper investigations. Surgical excision is the current mainstay of such condition.

Keyword: Intraductal papilloma, breast diseases, male patients.

Introduction

An intraductal papilloma (IP) is a benign tumor of the breast and is rare in men [1]. It is distinguished from other tumors by the presence of proliferating fibrovascular cores lined by an outer epithelial layer and an inner myoepithelial layer [2]. IPs can be divided into central papillomas (large-duct papillomas) and peripheral papillomas (small-duct papillomas) according to their distinct clinical manifestations and pathological characteristics [2]. IP commonly presents with a bloody nipple discharge and less often with a palpable retroareolar mass or density features upon mammography [2].

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Case Presentation

A 36-year-old Middle Eastern male with no other medical or surgically history visited the Breast-Surgical Oncology Clinic with the chief complaint of a chronic, bloody discharge from the right nipple over the previous 6 months. The discharge was low to moderate in volume. The patient did not experience any other forms of nipple discharge such as pus or a milky, clear, or green discharge, and the nipple did not have an abnormal appearance in terms of texture or inversion. He had no history of herbal or hormonal medication use or trauma to the breast. The patient was a current smoker with no family history of cancer, and he had no constitutional symptoms such as weight loss, night sweats, or fever. Additionally, he had no history of chest radiation or symptoms of bone pain, shortness of breath, shoulder pain, or jaundice. Physical examination of the patient's right breast revealed bloody nipple discharge, but no palpable masses were detected. His left breast was unremarkable. Examination of both axillary regions did not reveal any abnormalities. Mammography as shown in (Figure 1) showed right breast retroareolar, fibroglandular parenchyma with no associated discrete mass. The left breast was unremarkable. No microcalcifications or architectural distortions. No suspicious lymph nodes in the partially visualized axilla. Mammography findings correlated with Breast Imaging-Reporting and Data System (BI-RADS) category 0 and warranted a subsequent ultrasound imaging. Breast ultrasound showed right breast intraductal lesion within the ducts of right breast shown in (Figure 2), left breast was unremarkable, no focal breast mass, parenchymal distortion, abnormal acoustic shadowing or skin thickening. No suspicious axillary lymph nodes. Ultrasound findings showed BI-RADS category VI, a true cut biopsy was advised. True cut biopsy showed fragments of IP, no malignancy in the examined tissue. In response to these findings, treatment options were discussed with the patient, leading to a mutual decision to proceed with surgical intervention. The patient gave an informed consent to perform the needed surgical intervention. The patient was scheduled for total ductal excision of the right breast. During the intraoperative examination, no remarkable observations were made. Two central specimens from the right breast, weighing 3.3 and 1.1 g, respectively, were collected for histopathological analysis, with no inclusion of skin or nipple tissue. Patient procedure was uneventful. Tolerated postoperative recovery well. The patient was discharged in a good and stable condition after days. The histopathological examination confirmed the diagnosis of an IP in the right breast. No atypia or malignancy was evident.

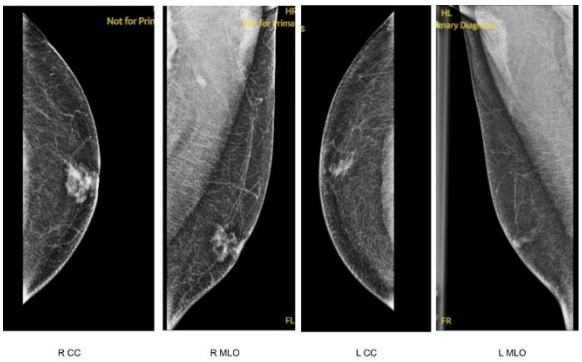

Figure 1: *Bilateral mammography showing right breast retroareolar, fibroglandular parenchyma. Left breast unremarkable.*

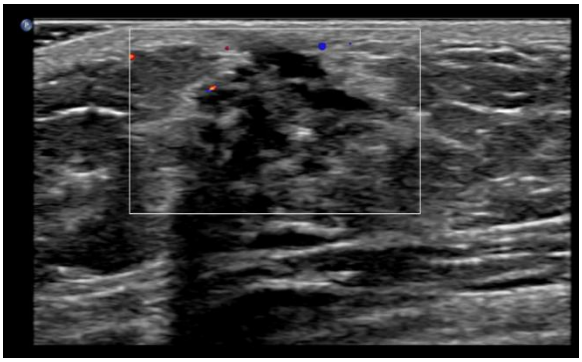

Figure 2*: Right breast ultrasound showing intraductal lesion.*

Discussion

IP is a rare, benign, breast tumor that more commonly occurs in females than in males [3]. About 80% of cases are accompanied with bloody nipple discharge [4]. IP carries the risk of ductal carcinoma in situ development or atypia [5]. Single-duct discharge, bloody discharge, discharge in patients over 50 years old, and discharge associated with a mass are risk factors for cancer [5]. Among men, these factors increase the risk both for cancer and for recurrence [6]. IPs can be classified as central (solitary) or peripheral (multiple) [1]. Central papillomas are usually benign and can present with a retroareolar mass with bloody or serous nipple discharge [2]. IPs are typically smaller than 1 cm in diameter but can reach up to 4 cm in diameter and more [7]. Histopathologically, they are described as finger-like, fibrovascular cores covered with epithelial and myoepithelial cell layers [1]. IPs can be diagnosed by using a combination of clinical, imaging-based, and histopathological assessments [8]. Upon initial ultrasound imaging, IPs can appear as well-defined solid nodules or masses within the lactiferous duct, giving the duct a dilated appearance [8]. Upon mammography, they can appear as well-

defined subareolar masses with or without microcalcifications [9]. Core needle biopsy can be used to confirm the diagnosis [9]. Management of IPs depends on the presence of atypia [10]. They can be managed via excision owing to the risk of atypical hyperplasia and ductal carcinoma in situ [10].

Conclusion

To summarise, in our case the patient was a male with clinical, radiologic, and histopathological findings of IP. IP is a rare condition in male patients and should warrant proper investigations. Surgical excision is the current mainstay of such condition.

Conflict of Interest

None

Funding

None

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