

Double Trouble: Complex Presentation of Multiple Fibroadenomas with Concurrent Phyllodes Tumor in Same Patient

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Abstract

Fibroadenomas are common, well-circumscribed, and typically benign breast tumors often present in young women. Although also generally benign, phyllodes tumors are less common and are characterized by stromal overgrowth leading to a “leaf-like” architecture. When these two lesions coexist, the differential diagnosis becomes more complex, as both conditions can present with overlapping symptoms and imaging findings, such as palpable masses or irregularities on mammography and ultrasound. Histologically, the distinction between fibroadenomas and phyllodes tumors relies on the degree of stromal overgrowth and atypia. This is a case report of a 38-year-old multiparous female who presented with a lump in both breasts. Following imaging and biopsy, it was proved that the patient had phyllodes tumor concurrent with multiple fibroadenomas. We proceeded with a simple mastectomy for the phyllodes tumor due to its high chance of recurrence, and excision and biopsy for the fibroadenomas. The treatment protocol differs greatly for phyllodes tumors and fibroepithelial neoplasia; hence, it is important to differentiate and confirm the diagnosis before deciding on the treatment protocol. This paper emphasizes the need for heightened awareness and a multidisciplinary approach in the management of patients with this unusual combination of breast lesions.

Keywords: Cystosarcoma Phyllodes, Different Treatment Modality, Giant Fibroadenoma, Histopathological Diagnosis, Multiple Fibroadenoma.

Introduction

Fibroadenomas are usually present as firm, well-defined, mobile, and slowly progressive breast lumps [1]. Giant fibroadenomas, which are typically >5 cm, are rare benign breast tumors that account for 0.5-2.0% of fibroadenomas; giant fibroadenomas are commonly found in adolescent women and young adults, particularly during pregnancy or lactation [2-4]. Phyllodes tumor, also known as Cystosarcoma phyllodes, is a rare fibroepithelial tumor that accounts for 0.3-1.0% of all breast tumors, is commonly seen in the 30- to 40-year age group, and is characterized by stromal overgrowth and a distinctive leaf-like architecture. The World Health

Organization classifies phyllodes tumor into benign, borderline, and malignant categories based on histologic characteristics such as nuclear atypia, stromal cellularity, mitotic activity, the appearance of tumor margins, and the degree of stromal overgrowth [5]. These classifications help determine the appropriate management and prognostic considerations for patients with phyllodes tumor, which has a high recurrence rate or metastatic tendency. A complete wide local excision with margins >1 cm is typically curative and helps minimize the risk of local recurrence. For larger tumors, a mastectomy is necessary. Preoperative differentiation is needed between giant

fibroadenoma and phyllodes tumor of the breast due to the different treatment modalities.

Case Report

A 38-year-old multiparous female presented at the surgical outpatient department, as she had noticed a lump in her left breast for 4 months; she had also noticed another lump in her right breast 2 months before presentation. Both lumps were painless and progressive in nature. There was no history of trauma or nipple discharge, no known comorbidities or previous surgical history was given, and the patient had

breastfed for 1 year for each of her two children. On examination, a glandular-shaped lump (10×8 cm) was present in the left breast [Fig. 1], involving all quadrants, and skin over the lump was stretched with visible veins. On palpation, the lump was variable (firm to hard) in consistency, not fixed to muscle, and mobile in the horizontal direction. Another two ovoid-shaped lumps (3×2 cm and 2×1 cm) were palpable in the left-breast lower quadrant; these lumps were firm in consistency, mobile, and skin over both lumps was pinchable.



Figure. 1. Clinical Picture of Phyllodes Tumor of the Left Breast

An ovoid shaped lump with a size of 3×2 cm was palpable in right breast upper outer quadrant which was firm in consistency mobile. Skin over the both lumps pinchable.

Bilaterally axillary lymph nodes were not palpable.

Usg bilateral breast shows a well defined hetero-echoic, wider than taller, bi-lobulated

lesion in right breast suggestive of fibroadenoma with some calcified part (BIRADS III) and an ill defined, lobulated, heterogeneous, wider than taller lesion with few cystic spaces within occupying the entire left breast shows internal vascularity on colour doppler (BIRADS-IVA) [Fig.2]. FNAC of the lump over left breast reported as atypical cells.

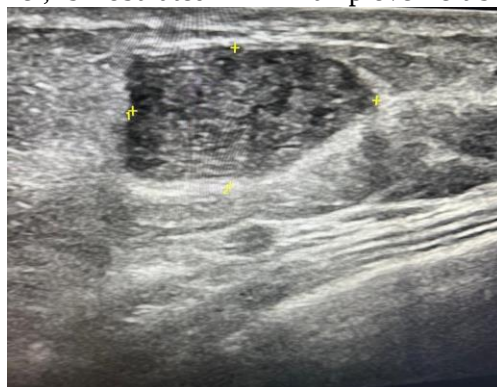


Figure.2. Usg Image of Phyllodes Tumor

Core-needle biopsy of left breast lump reported as Phyllodes tumor and right breast

lump as fibroadenoma or benign proliferative ductal lesion.

Simple Mastectomy was performed for phyllodes tumor of left breast. Grossly, the lump measured 11 X10 X 6cm ,firm to hard in consistency noted occupying all quadrants of

left breast [Fig.3].On cut section 1cm away from resected margin another two swelling was noted of size 3X2 cm and excised in toto.



Figure 3. Simple Mastectomy for Phyllodes Tumor for Left Breast

Excision and biopsy was performed for fibroadenoma of right breast. Circum-areolar incision made and deepened over right breast.

Lump of size 3X2cm has been excised in toto [Fig.4]. All excised specimen sent for histopathological examination [Fig.5].



Figure 4. Excision and Biopsy for Fibroadenoma of Right breast

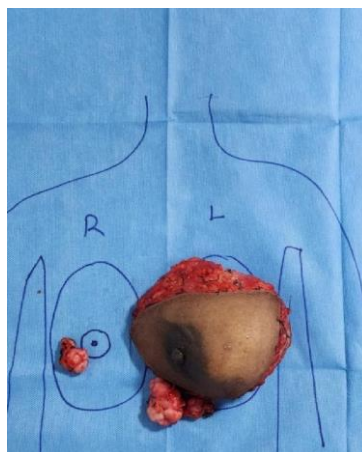


Figure 5. Excised Specimen of Phyllodes Tumor and Fibroadenoma of Bilateral Breast

Post operatively patient was on follow up and no evidence of complications such as

seroma, flap necrosis [Fig.6 & 7] or recurrence noticed.



Figure 6. Post Operative Picture of Left Breast



Figure 7. Post Operative Picture of Right Breast

Histopathology reported as Moderate stromal cellularity with some overlapping stromal nuclei and mild stromal atypia seen for left breast lump . Stromal overgrowth was noticed and mitotic rate was seen 7mitosis per 10high power field which suggestive of borderline phyllodes tumor [Fig.8 &

Fig.9].Additionally fibroepithelial proliferation coexisting fibroadenoma , fibrocystic disease, sclerosing adenosis in the adjacent breast parenchyma was found [Fig.10].

Specimen from right breast was reported as Fibroadenoma [Fig.11].



Figure 8. Histopathological Image of Phyllodes Tumor of left breast

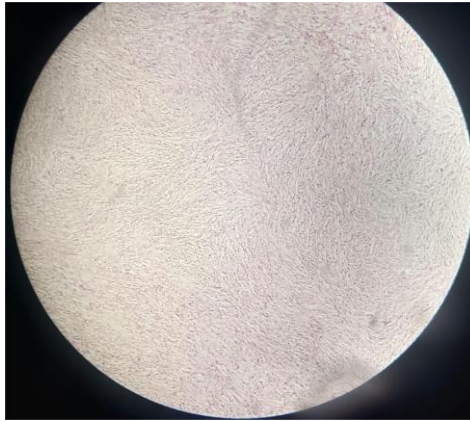


Figure 9. Histopathological Image of Phyllodes Tumor of Left Breast

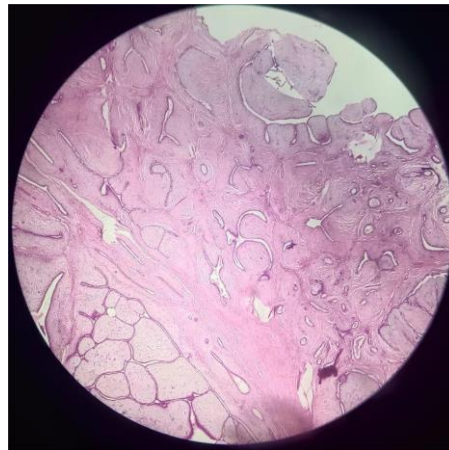


Figure 10. Histopathological Image of Fibroadenoma of Left Breast

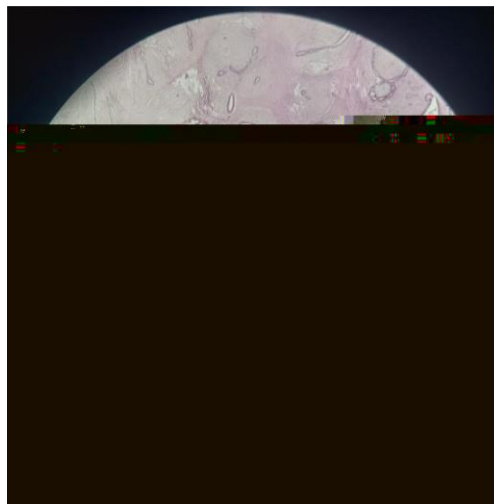


Figure 11. Histopathological Image of Fibroadenoma of Right Breast

Discussion

The treatment modalities for fibroadenomas and phyllodes tumors are different: typically, the treatment of fibroadenomas involves excision and biopsy, with enucleation or observation because many fibroadenomas are

self-limiting [6]; whereas the treatment of phyllodes tumors involves wide local excision or simple mastectomy, and a clear margin is necessary to minimize the risk of recurrence. Simple mastectomy is often the preferred surgical approach, although breast-conserving

surgery is also performed for cosmetic reasons [7]. Axillary dissection is conducted only when there is evidence of axillary lymphadenopathy [8], given the infrequent occurrence of lymph-node involvement. The rate of local recurrence varies between 8% and 46%, influenced by factors such as age, tumor size, surgical technique, mitotic activity, stromal overgrowth, and the adequacy of surgical margins . Fibroadenomas are usually found in adolescent women and young adults, particularly during pregnancy or lactation, with no risk of malignancy. FNAC is often insufficient for distinguishing between fibroadenomas and phyllodes tumors. Tru-cut biopsy is more effective to differentiate between giant fibroadenomas and phyllodes tumors. Differentiating between these two conditions is essential due to the malignant potential of cystosarcoma and the importance of achieving negative surgical margins.

Conclusions

Phyllodes tumors can be classified as benign, borderline, or malignant, based on histologic features, including stromal overgrowth and cellularity. Wide local excision with clear margins is crucial, as these tumors can recur locally and may metastasize in

malignant cases. Giant fibroadenomas are typically benign and can often be managed with simple excision. In contrast, phyllodes tumors, even when benign, require more extensive surgical margins to reduce the risk of recurrence. In this case report, the patient presented with multiple fibroadenomas with a giant lump in the left breast. It was challenging to achieve the correct diagnosis. Histopathologic evaluation and imaging facilitates accurate diagnosis and the selection of appropriate surgical management.

Conflict of Interest

The authors have no conflicts of interest to declare. All co-authors have seen and agree with the contents of the manuscript and there is no financial interest to report. We certify that the submission is original work and is not under review at any other publication.

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