National Board of Examinations - Journal of Medical Sciences
Volume 3, Issue 2, Pages 232–235, February 2025
DOI 10.61770/NBEJMS.2025.v03.i02.011

CASE REPORT

From Benign Beginning to Malignant Giant: The Journey of Recurrent Cystosarcoma Phyllodes

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Accepted: 20-December-2024 / Published Online: 10-February-2025

Abstract

A 42-year-old lady presented with a recurrent left breast mass, initially diagnosed as a benign phyllodes tumor. Despite wide local excision, the tumor recurred thrice over three years, each recurrence demonstrating increasing stromal cellularity and atypia. Imaging revealed a giant heterogeneous mass, and core biopsy confirmed a borderline phyllodes tumor. Surgical management included a wide local excision of the mass and chest wall with immediate reconstruction. Histopathology showed malignant transformation with negative margins. Postoperative recovery was uneventful. This case highlights the aggressive potential of recurrent phyllodes tumor and emphasizes the importance of close monitoring, timely surgical intervention, and consideration of adjuvant therapy.

Keywords: Fibro-epithelial neoplasm, Benign phyllodes; borderline phyllodes; malignant phyllodes; recurrence; margins

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Case Report

A 42-year-old woman, previously operated thrice for cystosarcoma phyllodes (histologically benign), presented with a massive 30 cm × 28 cm recurrent tumor in the left breast, causing breathlessness, restricted daily activities, and significant cosmetic concerns (Figure 1). MRI was unfeasible due to the tumor size, and CT revealed chest wall involvement with axillary lymphadenopathy. A trucut biopsy indicated a borderline tumor.

With no significant family or medical history, she underwent a wide local excision with a 1 cm margin, axillary dissection, and chest wall resection from 4th to 6th intercostal spaces. Chest wall reconstruction was achieved using dual mesh and a bi-lobed latissimus dorsi flap (Figure 2). The excised postoperative specimen weighed 6 kg (Figure 1). Postoperative recovery was uneventful (Figure 1), and she was discharged on the 10th day. Histopathology confirmed malignant phyllodes with clear margins and reactive lymph nodes. The patient was referred to oncology division for adjuvant therapy.

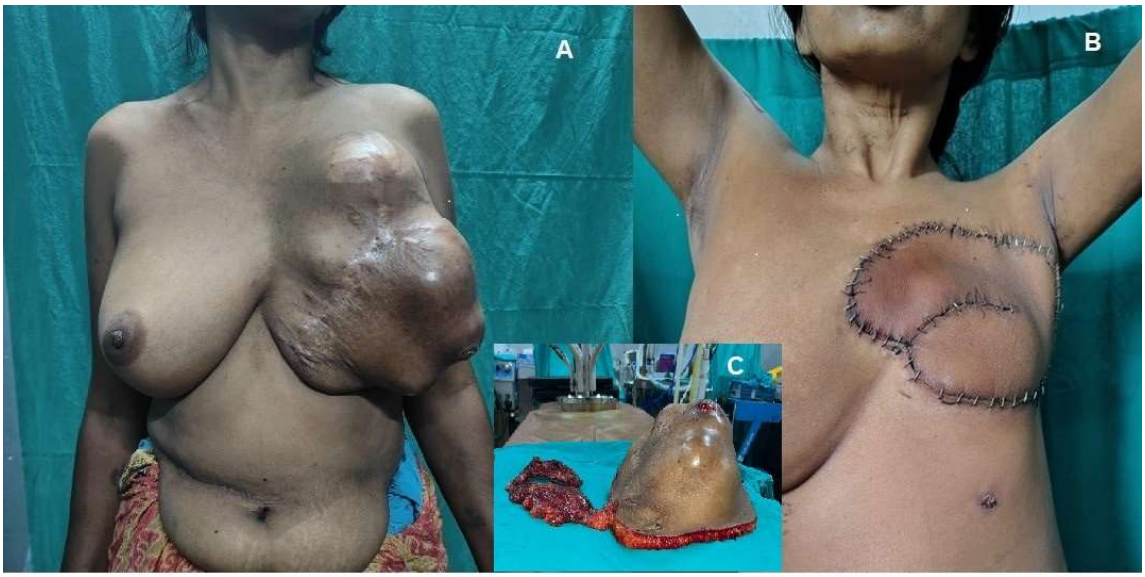

Figure 1. **A.** Preoperative picture of recurrent Phyllodes, **B**. Postoperative picture after reconstruction, **C.** Specimen.

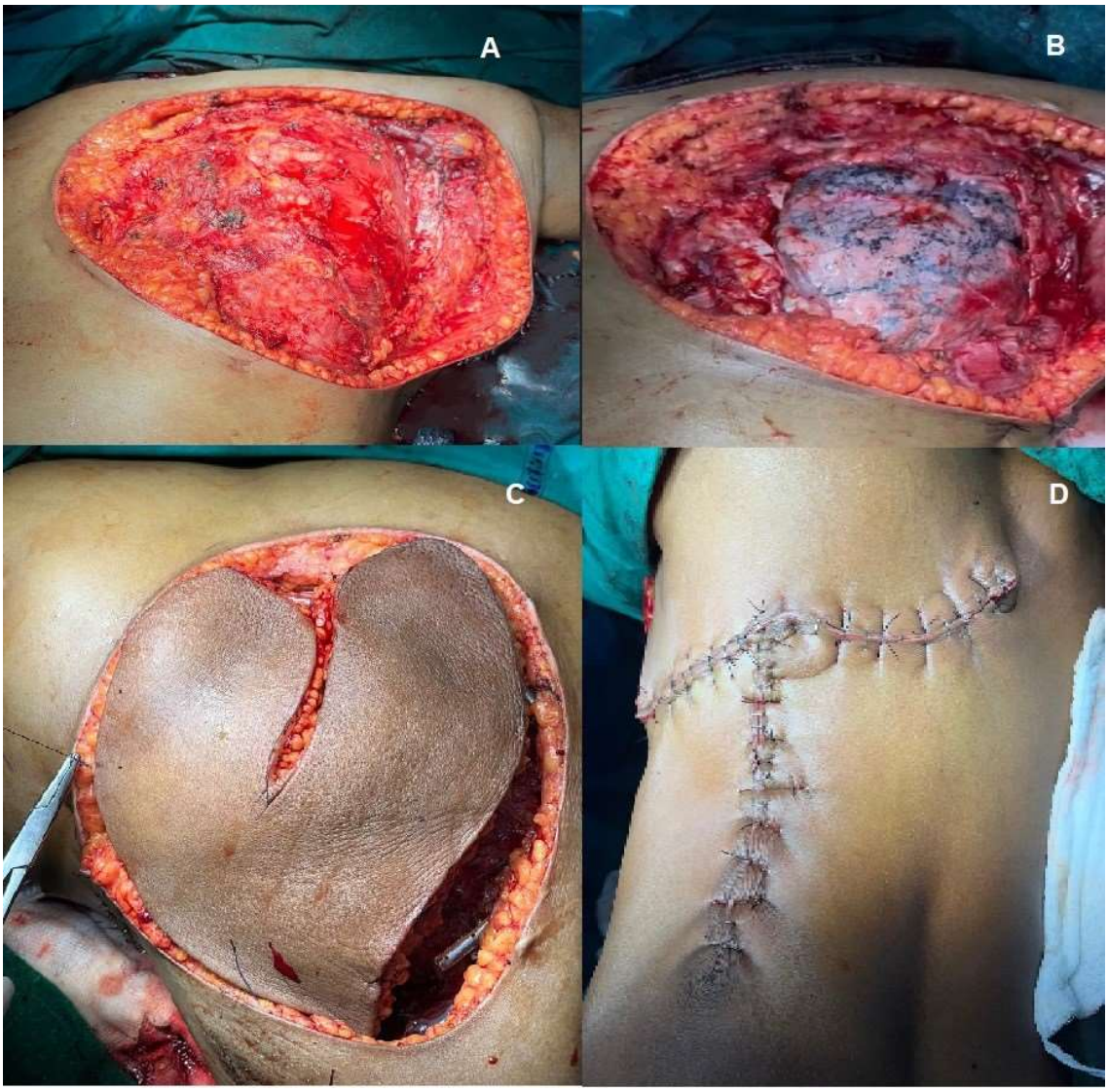

Figure 2. **A.** After wide excision, **B.** Chest wall excision, **C.** Coverage with bi-lobed myo-cutaneoous Latissimus Dorsi Flap, **D.** Primary closure of doner site.

Discussion

Phyllodes tumours are rare fibroepithelial lesions, accounting for 0.3% to 0.5% of all breast neoplasms [1]. They primarily affect women aged 45 to 49 years and are histologically classified into benign, borderline, and malignant subtypes [2]. Benign tumours constitute 35% to 64% of cases, while the remainder are borderline or malignant [2]. These tumours arise from the stromal components of the breast and involve monoclonal proliferation, often triggered by somatic mutations, endothelin-1 stimulation, or growth factor pathways [3]. Typically, they occur in the upper outer quadrant of the breast and can grow significantly, with giant phyllodes tumours exceeding 10 cm and reaching up to 40 cm [1,2]. Clinically, they may present with dilated subcutaneous veins, skin or pectoral fixation, while ulceration is rare. Axillary lymphadenopathy is seen in 10% to 15% of cases, but less than 1% show

pathological involvement [4]. Radiological investigations such as ultrasonography and mammography are the mainstay for diagnosis, while MRI is reserved for complex cases. Cytologically, fine-needle aspiration cytology (FNAC) can be helpful, but a core needle biopsy using Paddington's criteria is more reliable for diagnosis [5]. The treatment of choice is a wide local excision with at least a 1 cm margin for smaller tumours. For tumours larger than 10 cm, mastectomy is often required, though axillary dissection is typically unnecessary. Adjuvant treatment remains controversial due to the low incidence of metastatic spread [1-5]. Despite appropriate management, recurrence is common, necessitating close follow-up.

Conclusion

Recurrent phyllodes tumors require vigilant follow-up and timely surgical intervention due to their potential for aggressive behavior and malignant transformation

Authors Contribution

Study conception and design –UD, DK, SR, SD; Material preparation – SR, DK, SD; Data collection - SR, DK; Drafting and final approval – UD, DK, SR, SD

Data Availability

All the data pertaining to the patient is available with the corresponding author and would be made available if necessary.

Conflict of Interest

The authors declare no competing interests.

Patient consent

With the corresponding author would be made available if necessary.

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