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Case Report

A massive phylloides tumor in the breast: case report and literature review

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ABSTRACT

Phylloides tumor (PT) is a rare fibro epithelial neoplasm comprising <1% of all breast tumors. Clinical spectrum ranges from benign (B), borderline (BL), and locally recurrent to malignant (M) and metastatic type. Phylloides tumors originate from the connective tissue of the breast, so the malignant phylloides are histologically sarcomas. We are reporting a massive phylloides tumor in a 45 years old female. She presented with a huge breast mass occupying almost the whole of the right breast with two areas of pressure necrosis, on the overlying skin. She noticed a small lump 7 months ago in the right breast, which slowly grew to the current dimensions and areas of pressure necrosis appeared recently. FNAC was reported as a complex fibroadenoma; however due to strong suspicion, a core needle biopsy was done. The report came as a phylloides tumor. Simple mastectomy was done. The tumor specimen measured exactly 20×15×10 cm in size; the histopathology report came as benign phylloides tumor.

Keywords: Phylloides tumor, Breast, Malignant, Diagnosis, Prognosis

INTRODUCTION

Phylloides tumor was first described by Johannes Muller's in 1838.[1] Classically, the name cystosarcoma phylloides was declared as the correct term by World Health Organization because of the tumor's fleshy appearance and tendency to contain macroscopic cysts. The term, however, is a misnomer as these tumors are usually benign. Phylloides tumor is the currently accepted nomenclature according to the World Health Organization.[2] Phylloides tumor (PT) of the breast is a rare fibro epithelial neoplasm that constitutes <1% of all female breast tumors.[3] Because it originates from fibroepithelial connective tissue, it could be classified as sarcoma. Most of the cases occur between 35 and 55 years of age, having unilateral disease, bilateral tumors are rare. Histologically, phylloides is composed of epithelial elements and mesenchymal stroma, the mesenchymal component being the characteristic feature. The presence of high stromal component is associated with aggressive nature of the disease. WHO classified three microscopic types: benign, borderline (BL), and malignant phylloides tumor.[4] Axillary lymph nodes metastases are seen only in <1% of patients.[5] Recurrence is the peculiar characteristic of phylloides tumor.[6] Histopathological methods are not always reliable for diagnosing a case of phylloides tumor, hence having a high degree of clinical suspicion is important to diagnose a case of phylloides. Surgery is the mainstay of management, varying from wide local excision (WLE) to mastectomy.[7] Phylloides tumor of breast has been a challenge for surgeons due to its unpredictable clinical presentation, uncertain pathological behavior, and inaccurate pre-operative diagnosis. Type of surgery and pathology of tumor play a major role in outcome. Largest reported phylloides is 50×25.2×16.4 cm and 15 kg in

weight, our tumor was of size 20×15×10 cm, weighing 1.75 kg which is fairly large in size.

CASE REPORT

Clinical presentation

A 45 years old female presented in the OPD with a lump in the right breast that had been gradually increasing for 7 months. Patient was receiving alternative medical therapy (ayurvedic) for 5 months before coming to our institution. There was no family history of the similar illness. On examination, giant mass of size 15×15 cm occupied the whole of right breast (Figure 1), not adherent to overlying skin or underlying muscle. There were two areas of pressure necrosis on the overlying skin (Figure 2), on the inferior surface of the breast. There was no other palpable mass or axillary lymphadenopathy.

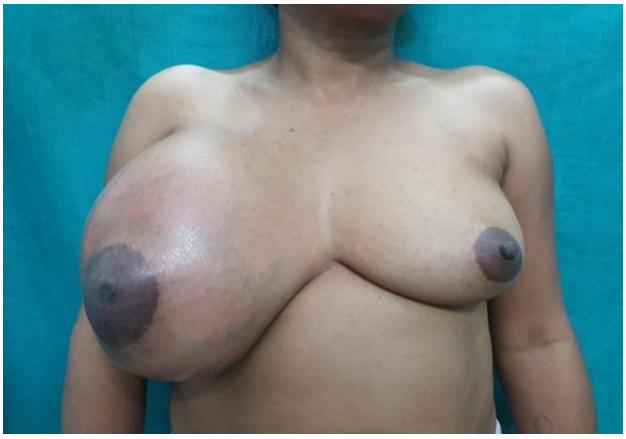

Figure 1: Giant mass occupying whole of right breast.

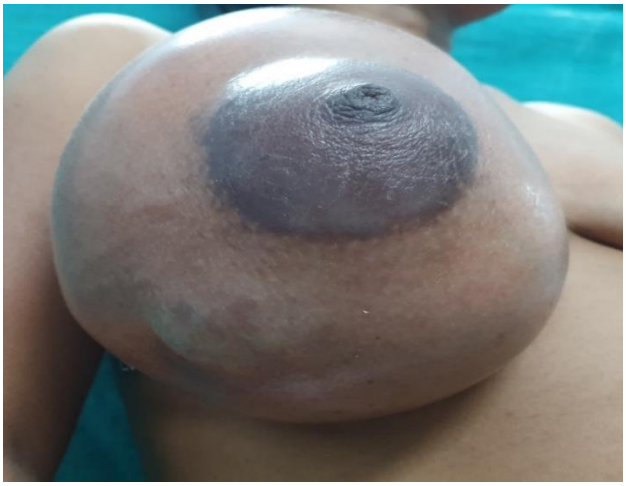

Figure 2: Two areas of pressure necrosis on the overlying skin can be seen.

Laboratory and imaging findings

All hematological investigations were within the normal limits. Fine needle aspiration cytological features were suggestive of complex fibroadenoma. Core needle biopsy was done which was reported as phylloides tumor.

Post-operative findings and follow-up

The patient underwent simple mastectomy.

Macroscopic findings

A tumor of size 20×15×10 cm in dimensions, weighing 1.75 kg was seen (Figure 3).

Microscopic findings

The histological diagnosis was benign phylloides tumor.

Follow-up

The patient had an uneventful recovery after surgery.

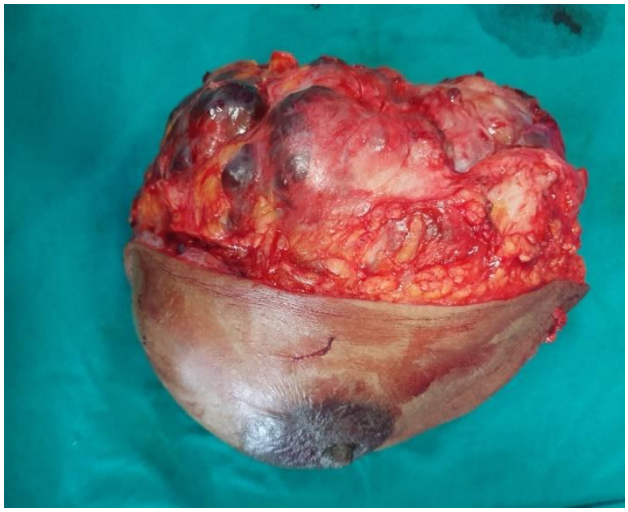

Figure 3: The macroscopic aspect shows tumor specimen of size 20×15×10 cm in dimensions, weighing 1.75 kg with bosselated appearance.

DISCUSSION

Phylloides tumor has an unpredictable clinical presentation, uncertain pathological behavior, and inaccurate preoperative diagnosis making it a challenge for surgeons, which leads to dilemma for treatment plan. The aggressive behavior of the tumor is due to its composition of stromal and epithelial tissue components.[8] The criteria proposed by Azzopardi et al and Salvadori et al were widely accepted and tumors were classified among benign, BL and malignant phylloides.[9,10]

The median age of presentation is 45 years.[11] The mean duration of presentation also varies with different countries which may be related to illiteracy, ignorance, poverty, and hesitation. Even though benign phylloides are proportionately higher than BL and malignant phylloides, the rate of recurrence is lower.[12] The local

recurrence is highest in malignant phylloides as reported in few series as 20-40%.[11,13] The systemic metastasis is also reported as 25-40%.[14-17]

The rate of malignancy increases with age, hence, there must be a high index of suspicion when treating older women, and carcinoma must be ruled out.

The fine needle aspiration cytology has low sensitivity to differentiate the type of histology as reported 72% and the core needle biopsy is rarely advised for that due to low clinical suspicion of malignancy.[8] Role of imaging is debatable in diagnosis of phylloides and fibroadenomas due to similar mammographic and sonographic features. Sonography cannot distinguish between different types of phylloides tumors.[18] Hence, appropriate diagnosis is necessary, to decide the type of surgery.

Recurrence of the tumour depends on the size of lesion. Larger tumors have risk of incomplete resection which can lead to higher recurrence. The number of recurrences is also more with larger tumors and malignant histology. Hence, the large and malignant phylloides require more aggressive treatment, and surgery must be altered according to the size and pathology of tumor.[19]

Phylloides being a challenge to treat due to difficulty in making correct clinical and accurate preoperative diagnosis, wide local excision with negative margins should be the initial surgery for all phylloides tumor. Type of surgery and pathology of tumor play a major role in the outcome of this disease. There are no accurate clinicopathological factors that can predict the recurrence and mortality. The role of adjuvant radiotherapy and chemotherapy is uncertain and not well established, and are only considered in recurrent, malignant, and metastatic patients. Axillary lymph node dissection is rarely indicated. Phylloides tumor is known for its unpredictable behaviour and high recurrence rate, hence long-term follow-up is advised.

CONCLUSION

Phylloides tumor, despite being a rare tumor, should be suspected in all cases of giant fibroadenoma and a core needle biopsy should be preferred to a fine needle aspiration cytology, due to its higher accuracy.

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