

Case Report

Giant fibroadenoma mimicking phylloides tumor in post-menopausal female: a case report and review of literature

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ABSTRACT

Giant fibroadenomas are rare breast lesions in elderly women especially post-menopausal women and accounting for 0.5-2% of all cases of fibroadenomas. They pose diagnostic as well as therapeutic challenge because resemblance of its clinical and imaging features with other breast lesions, especially phylloides tumor. We present a rare case of giant fibroadenoma of breast in postmenopausal female of 53 year of age mimicking phylloides tumor. Ultrasonography and fine needle aspiration cytology (FNAC) suggestive of fibroadenoma. Tumor was completely excised and diagnosis of giant fibroadenoma was confirmed by histopathology. Breast conserving surgery is the gold standard treatment.

Keywords: Giant fibroadenoma, Phylloides tumor, Breast, Post-menopausal woman

INTRODUCTION

Fibroadenomas are common benign lesions of breast before the age of 30 years. Fibroadenomas usually present as hard to firm, mobile, painless and accessible breast nodule.¹ Giant fibroadenomas defined as fibroadenomas of size larger than 5 cm or 500 gm in weight, or disproportionately large compared to the rest of the breast.² They may be either adult type or juvenile type. Giant fibroadenomas are rare benign breast lesions that account for 0.5-2% of fibroadenomas, and commonly occurs in women in child bearing age or in adolescent women.^{3,4} Since giant fibroadenoma and phylloides tumor of breast have different approach of management, it is important to distinguish them preoperatively. However, it is challenging to distinguish them preoperatively.⁵

CASE REPORT

A 53-year-old woman presented in our outpatient department (OPD) with insidious onset and gradual enlargement of the right breast for more than 7 years with rapid increase in size and heaviness for last 4 months. No history of weight loss, breast trauma, surgery and nipple

discharge. She attained menopause at the age of 48 years. There was no history of hormone replacement therapy. There is no family history of breast cancer.

On local examination, huge enlargement of right breast and a large palpable lump was present in right breast. Breast lump was nontender, firm to hard in consistency, freely mobile and free from the chest wall and breast skin. Dilated veins were present on the skin of right breast (Figure 1). Left breast, axilla and right axilla were normal. A clinical diagnosis of cystosarcoma phylloides was made.

Routine blood investigations were within normal limits. Ultrasonography of breast revealed a large mass approximately 12×13 cm with heterogenous parenchymal pattern, suggestive of fibroadenoma. Fine needle aspiration cytology (FNAC) of breast mass suggestive of fibroadenoma. Complete excision of breast lump was done under general anesthesia. The excised lump was lobulated and encapsulated with smooth surface, measuring 13×12 cm in size (Figure 2).

Cut surface of specimen showed multiple gray white nodules (Figure 3). Histopathological examination

revealed proliferating duct and fibrous stroma in a predominantly intracanalicular pattern (Figure 4). Hence diagnosis of giant fibroadenoma was confirmed. Post-operative period was uneventful and patient doing well on follow up.

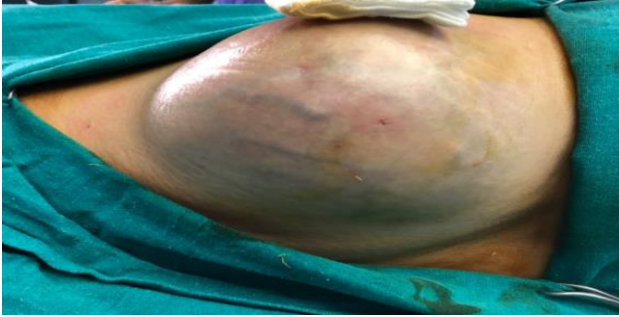


Figure 1: Preoperative photograph showing large right breast mass with dilated veins in overlying skin.



Figure 2: Macroscopic view of excised breast mass.

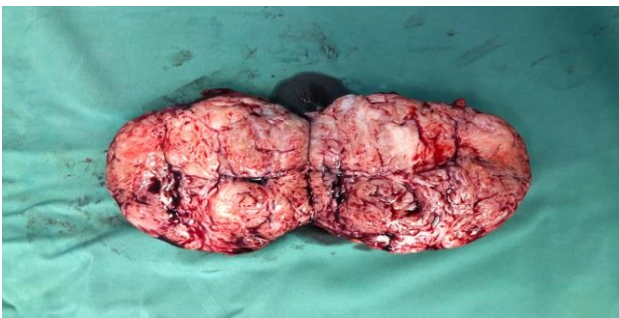


Figure 3: Cut section of specimen showing multiple gray white nodules.

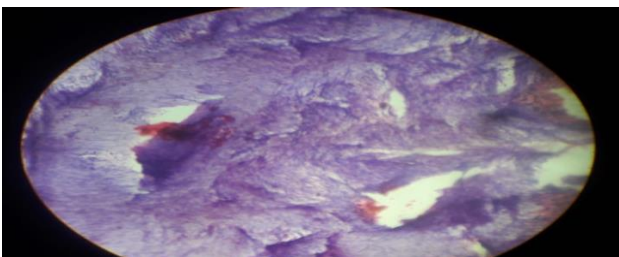


Figure 4: Microscopic photograph showing proliferating duct and fibrous stroma in a predominantly intracanalicular pattern.

DISCUSSION

Fibroadenoma is a common benign breast disease, which have abnormal growth of glandular and fibrous tissue, giant fibroadenoma are very rare. Giant fibroadenomas are usually found in lactating or pregnant women. Growth of fibroadenoma is associated with increase in estrogen, progesterone, and prolactin.⁶ Giant fibroadenoma found in adolescent women are termed as juvenile giant fibroadenoma.^{3,6}

In post-menopausal phase, approximately 5% women encountered with fibroadenoma. In our case, patient was 6 years in postmenopausal phase.

Giant fibroadenomas are rapidly growing lesions, causing breast asymmetry, major distortion to the breast contour and overlying skin distortion. Pathologically, fibroadenoma classified in to simple and complex variants. Simple fibroadenoma has epithelial and stromal elements while complex fibroadenoma may contain sclerosing adenosis, foci of cysts, papillary apocrine metaplasia, and epithelial calcifications.⁷ Patients with complex fibroadenomas have higher risk of developing future breast cancer.⁷

Other than giant fibroadenomas, a wide variety of breast conditions such as phylloides tumor, lipoma, hamartoma, virginal hypertrophy, cyst, abscess and carcinoma can Cause solitary or multiple giant breast masses.⁸ Phylloides tumor is important differential diagnosis of giant fibroadenoma. Both giant fibroadenoma and phylloides arise from intralobular stroma of breast, consist of proliferating epithelial and stromal cells and there are a lot of overlaps.⁹

Ultrasonography of breast, mammography, and the breast magnetic resonance induction used to identify the tumor site and size and exclude multifocal disease.¹⁰ However, in many cases, radiological evaluation could fail to differentiate giant fibroadenoma from phylloides.¹¹ The FNAC and core biopsy are used for tissue diagnosis of breast masses preoperatively. It is difficult to differentiate the giant fibroadenoma from benign and borderline phylloides tumors.¹² Fibroadenoma diagnosed by core biopsy does not completely exclude the diagnosis of phylloides tumor.¹³

The differential diagnosis between giant fibroadenomas and phylloides tumors is important due to different management strategies. Fibroadenomas can treated by simple enucleation, while phylloides tumors must be treated surgically by complete excision of mass with adequate margins (surgical margin must be 1 cm) or mastectomy, to avoid local recurrence.^{1,14}

20-30% of phylloides tumors are malignant and approximately 25% of malignant phylloides tumors metastasize.¹⁵

CONCLUSION

Giant fibroadenoma of breast is a rare tumour in elderly females especially in postmenopausal women. Diagnosis and treatment of such giant breast masses is still challenging. Giant fibroadenoma should be clinically and histologically differentiated from phylloides tumour. Breast conservative surgery is the treatment of choice for giant fibroadenoma of breast. Histopathology is only definitive diagnostic tool in such cases.

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