

Case Series

A case series of giant fibroadenoma presenting as an axillary mass: a rare presentation

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ABSTRACT

Fibroadenoma of breast is the most common benign tumour of breast but fibroadenoma of axillary breast tissue is rare, and giant fibroadenoma of axillary breast tissue is even rarer. This article is case series of three patients presented with axillary mass, who underwent surgery through an axillary incision, later found to be giant fibroadenomas in two cases and normal fibrofatty tissues of axilla in one case. Seroma formation and arm odema are common complications.

Keywords: Giant fibroadenoma, Axillary fibroadenoma, Ectopic breast tissue

INTRODUCTION

Fibroadenomas are the most common benign breast tumours in India, accounting for approximately 40% of all benign breast tumours and about 58% of tumours in women under 25 years of age.¹ They most frequently occur in women between the ages of 16 and 45 years.¹ The incidence of giant fibroadenoma is 0.5%-2% of all fibroadenomas.² Axillary fibroadenomas arising from ectopic breast tissue are rare; however, the axilla is the most common site for such extramammary growths, accounting for 60-70% of all ectopic breast tissue cases. Their rapid growth often raises suspicion of malignancy and prompts surgical consultation. In this case series the first two cases were diagnosed as giant fibroadenomas and third case as normal fibrofatty tissue of axilla.

CASE SERIES

Case 1

A 26-year-old female presented to the Surgery Outpatient Department with a gradually increasing painless swelling in the right axilla for one year. There was no history of swelling in the ipsilateral breast, nipple discharge, fever, anorexia, or weight loss.

On clinical examination, a round swelling measuring 5×5 cm, soft to firm in consistency, was noted in the right axilla. The swelling was mobile and was not associated with any skin changes. No significant personal or family history was present. Examination of both breasts was unremarkable.

Differential diagnoses considered included fibroadenoma, fibrofatty tissue, lymphadenopathy, phyllodes tumour, malignancy, and tuberculosis. Ultrasonography revealed a 5.3×4.5 cm well-defined, hypoechoic, oval mass, likely representing a fibroadenoma arising from the axillary tail of the breast, with no significant axillary lymphadenopathy. Fine-needle aspiration cytology (FNAC) demonstrated a cytologically benign proliferative lesion. Mammography was not routinely performed. Routine laboratory investigations were within normal limits.

The swelling was excised under general anaesthesia through an axillary incision. A lobulated mass measuring approximately 6×6 cm was removed. On gross examination, the cut section was homogeneous, non-haemorrhagic, and non-cystic. The wound was closed after placement of a drain. The drain was removed on postoperative day 3. The postoperative period was

uneventful, and the patient was discharged on postoperative day 5.

Histopathological examination revealed a 7×4×3 cm, well-encapsulated fibroepithelial tumour composed of compressed ducts within a fibrotic stroma, consistent with fibroadenoma.

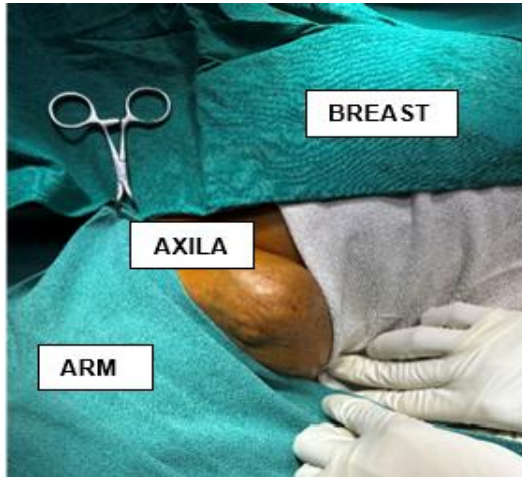


Figure 1: Preoperative image of swelling.



Figure 2: Chest X-ray showing a soft-tissue shadow of the swelling with no evidence of calcification.



Figure 3: Resected specimen.



Figure 4: Cut section of specimen showing a grossly homogeneous appearance.

Case 2

A 20-year-old female presented with a right axillary swelling of three months' duration, which had gradually increased in size to approximately 3×3 cm. Ultrasonography of the right axilla revealed a 4.5×3 cm well-defined lesion with a homogeneous echopattern. FNAC was suggestive of benign breast disease (IAC Yokohama Category C2). The axillary swelling excised through axillary incision. No post operative complication developed in this case. Histopathological examination of swelling excised was suggestive of fibroadenoma.

Case 3

A 30-year-old female presented with bilateral axillary swellings of one year's duration. The right-sided swelling was larger than the left-sided swelling. USG demonstrated diffuse proliferation of adipose tissue without evidence of an underlying lesion/collection. FNAC showed mature adipose tissue fragments without atypia; the possibility of an axillary tail of breast was considered.

Fibrofatty tissue was excised bilaterally, and drains were placed. Histopathological examination confirmed fibrofatty tissue only.

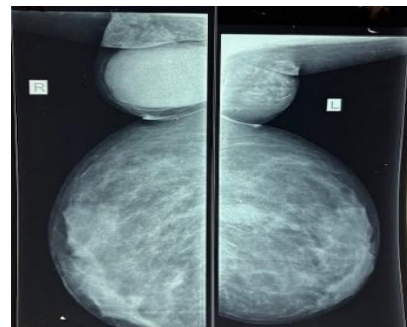


Figure 5: Case 2 patient's mammogram of both breasts and axillae showing homogeneous opacity.



Figure 6: Preoperative image of swelling.



Figure 7: Resected specimens of case 3.

DISCUSSION

Giant fibroadenomas are characterized by marked stromal and glandular proliferation stimulated by hormonal influences, particularly oestrogen. They present as enlarging, well-defined masses and may pose diagnostic and therapeutic challenges. Giant fibroadenomas are generally defined as fibroadenomas measuring more than 5 cm in diameter or weighing more than 500 gm.

Clinically, they usually present as painless, smooth, firm, non-tender, and mobile masses. They most commonly occur in the upper outer quadrant of the breast. Occasionally, due to rapid enlargement, they may cause skin ulceration secondary to pressure effects, although the skin is typically not adherent to the tumour.³

Giant fibroadenomas are believed to result from hypersensitivity of breast tissue to normal levels of gonadal hormones.⁴ When evaluating a large breast mass in an adolescent female, several differential diagnoses should be considered, including giant fibroadenoma and juvenile breast hypertrophy.^{5,6} Other important differential diagnoses include phyllodes tumour and normal fibrofatty tissue.

Histologically, giant fibroadenoma can be distinguished from phyllodes tumour by the absence of stromal atypia, stromal overgrowth, stromal condensation around ducts, and the characteristic leaf-like architecture seen in phyllodes tumours.

Surgical excision remains the treatment of choice for giant fibroadenomas, allowing expansion of the previously compressed surrounding breast tissue while preserving breast function and appearance.³ Giant fibroadenomas can be excised by enucleation with minimal risk of local recurrence.

CONCLUSION

In the cases presented above, cosmetic concerns and discomfort were the primary reasons for seeking medical attention. Fibroadenomas arising from the axillary tail of the breast have less space to expand compared with those occurring within the breast parenchyma and therefore become visible earlier, which may explain the earlier presentation.

Postoperative seroma formation is a common complication. To reduce this risk, drain placement for at least three days should be considered. A potential long-term complication is ipsilateral upper-limb oedema, which may result from disruption of lymphatic drainage. Such oedema generally responds to physiotherapy and compression garments.

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