

Ulcerated juvenile giant fibroadenoma

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Introduction

Fibroadenoma is the most common benign breast lump in the age group of 20 to 35 years. Fibroadenomas more than 5 cm in diameter are labelled as giant fibroadenoma, and these constitute less than 4% of all fibroadenomas. Ulcerated giant fibroadenoma is a rare entity. The exact aetiology of giant fibroadenoma is unknown but may be due to an abnormal response to oestrogen, as these cases occur in increased frequency during puberty, pregnancy and oral contraceptive use. Fibroadenoma usually presents as an encapsulated, mobile, firm, non-tender breast lump but rarely these may present as ulcerated breast lump mimicking a more sinister pathology. Here we report a case which presented as a large, ulcerated breast lump.

Case presentation

A 12-year-old girl with a history of a lump in her left breast for 6 months presented at our outpatient department. She also complained of a sudden increase in size and development of ulceration over the last 1-2 week. The lump was 12x10cm in size and was primarily occupying the lower inner quadrant of her breast. It was firm, mobile and had ulceration of the overlying skin (Figure 1). Rest of the breast was normal except for few mobile, discreet lymph nodes were palpable in the ipsilateral axilla. Ultrasonography (USG) of the breast showed a large, homogenous, hyperechoic mass lesion in the left breast with increased vascularity and smooth margins.

There were few enlarged lymph nodes, the largest measuring 19.8 x 9.7 mm in the left axilla. FNAC from the left axillary node showed reactive lymphoid hyperplasia and incisional biopsy from left breast ulcerated mass showed benign breast tissue with non-specific mastitis. Simple excision of the breast lump was done preserving the normal breast tissue and nipple-areola complex using inframammary (Gaillard-Thomas) incision.



Figure 1. Giant ulcerated breast lump



Figure 2. Postoperative photograph one year after surgery

Histopathological examination of the left breast lump showed features suggestive of giant fibroadenoma with ulceration and necrosis. There was no recurrence or any complications at one year of follow up (Figure 2).

Discussion

Fibroadenomas are the most common benign tumours of the breast found in pubertal females. They typically present as firm, freely mobile, painless, palpable breast lump. They are more common in the age group 20 to 35 years but may occur throughout the reproductive age. Fibroadenoma found in

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children and adolescents are termed juvenile fibroadenoma [1]. Giant fibroadenoma is an uncommon tumour and it can lead to rapid and enormous enlargement of the breast in adolescents. The tumour can compress normal mammary tissue and stretch the overlying skin. Hormonal influences may be a contributory factor however a definitive aetiology is unknown. Pathophysiological processes during puberty such as excessive oestrogen stimulation and or receptor sensitivity, or decreased levels of antagonists have been postulated [2].

The majority of breast masses in the young arise from congenital malformations or could be benign neoplasms. The rapid growth, skin congestion, ulceration, seen in our patient raised doubts of a malignancy. Malignant tumours of the breast are rare in young females, though 2% of all primary malignant breast lesions occur under the age of 25 years [3]. The most important differential diagnosis that needs to consider is the phyllodes tumours, and in some cases, it might be very difficult to completely rule it out preoperatively [4].

The other issue in treating giant juvenile fibroadenomas pertain to the preservation of as much breast tissue as possible to obtain a cosmetically gratifying and a functionally intact breast. This can be achieved by breast-conserving surgery, supplemented with breast reconstruction when needed [5].

In our case, since the tumour was only involving the lower inner quadrant, we got away by doing a simple excision and the remaining breast tissue expanded quite well so that the

patient achieved an acceptable cosmesis at one-year follow-up (Figure 2). Our patient was young hence we did not do any nipple centralization or volume displacement because that would have meant division of the mammary ducts, although the cosmesis could have been better.

All authors disclose no conflict of interest. The study was conducted in accordance with the ethical standards of the relevant institutional or national ethics committee and the Helsinki Declaration of 1975, as revised in 2000.

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Learning Points:

- Neglected fibroadenomas may present as ulcerated breast lumps.
- Most breast lumps in young age are benign, but a careful assessment should be done to establish the diagnosis of benignity.
- A confident diagnosis of fibroadenoma helps in preserving breast.
- Juvenile fibroadenomas should be treated by minimal resection of breast tissue and preservation of mammary ducts.