

RARE JUVENILE GIANT FIBROADENOMA

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ABSTRACT

Juvenile giant fibroadenoma is an uncommon benign breast tumor most frequently seen in adolescence. The lesions are generally unilateral, painless, solitary masses characterized by rapid growth. Herein we report an uncommon case of 22 cm juvenile giant fibroadenoma weighing 2200 grams.

Keywords: Juvenile fibroadenoma, Juvenile giant fibroadenoma, benign tumor of breast

NADİR DEV JUVENİL FİBROADENOM

ÖZET

Dev juvenil fibroadenom sıklıkla puberte döneminde gözlenen memenin iyi huylu nadir bir tümörüdür. Lezyonlar genellikle tek taraflı, ağrısız ve hızlı büyüyen kitle şeklindedir. Bu yazıda 2200 gr ağırlığında, 22 cm boyutunda nadir bir dev juvenil fibroadenom olgusunu sunmaktayız.

Anahtar sözcükler: Juvenil fibroadenom, dev juvenil fibroadenom, memenin benign tümörü

Introduction

Juvenile fibroadenoma is a benign breast tumor which emerges during puberty. Cases greater than 5 cm and/or 500 grams are called juvenile giant fibroadenoma (JGF) (1-3). Juvenile giant fibroadenoma constitute 0.5 % of all fibroadenomas. Increased estrogen stimulus and receptor sensitivity and a decrease in estrogen antagonist levels during puberty are thought to be responsible for the etiology (4).

In this article, we present a juvenile giant fibroadenoma case and the surgical approach we performed.

Case Report

An 18 year old female patient appeared in our clinic with a painless, growing mass in her right breast. In the patients family history there were no maternal or close relatives with breast tumors. Examination revealed excessive hypertrophy of the right breast and distinct asymmetry due to this hypertrophy was noted. There was a prominent ptosis, nipple, and superficial vein enlargement in the right breast. In the right breast, a round, solid mass with clear margins and 22 cm in diameter, was determined by palpation. A right breast ultrasound showed a uniform mass 22x20x17 cm in size. A tru-cut biopsy was taken from the mass. Pathologic examination showed that the mass was a fibroadenoma (Figure 1).

The patient was operated under general anesthesia. The inferior pole of the breast and the skin area including nipple was surgically excised. The mass was well limited and encapsulated with a 22 x 20 x 17 cm size and 2200 g weight (Figure 2). After the excision, it was decided to use the nipple as a graft and reshape the remaining breast tissue. The breast tissue was shaped in a conic form by integrating the flaps elevated from the lateral and medial breast tissue. By this technique, a prominent breast projection was provided. The new nipple with a 5 cm diameter on the appropriate anatomic localization was reconstructed with the nipple graft tissue. The patient did not encounter any problems in the long and short term follow ups (Şekil 3). In the postoperative sixth month, mastopexy for the left breast was advised. The patient did not want any surgical intervention for the left breast. After the post operative second year the patient did not encounter any problems.

Discussion

Breast tumors are rare among puberty aged adolescents and they are most frequently benign. 75% of puberty period breast lesions are fibroadenomas (5). These benign tumors are characterized with the proliferation of the epithelial and stromal structures. Fibroadenomas are frequently mobile, painless, asymptomatic masses. Giant juvenile fibroadenomas are seen as unilateral, painless, rapidly growing masses in the breast (1-7). This tumor is well

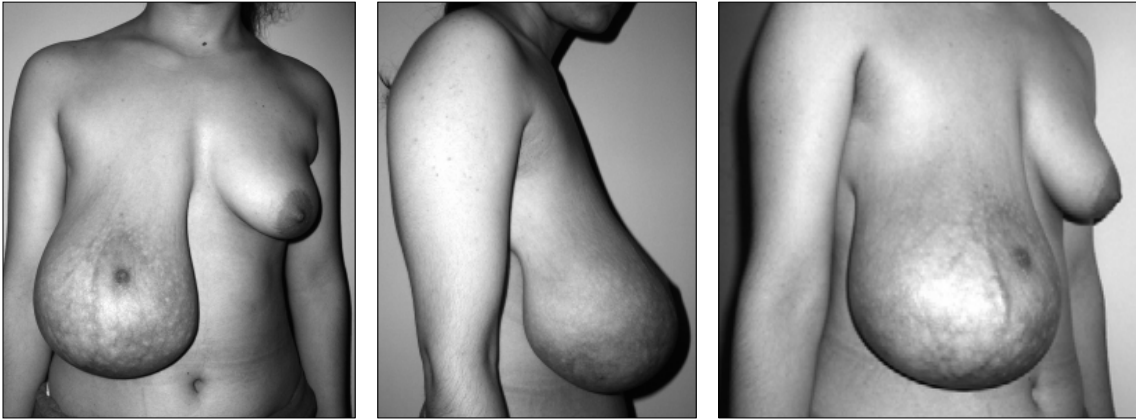


Figure 1. Preoperative appearance of patient.

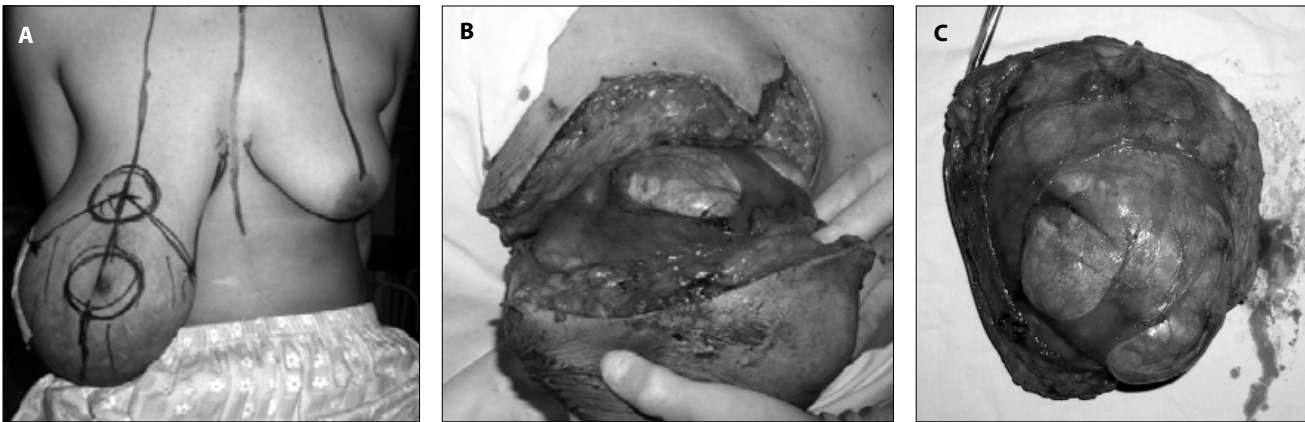


Figure 2.a. Planning of operation. b,c. Appearance of lesion.

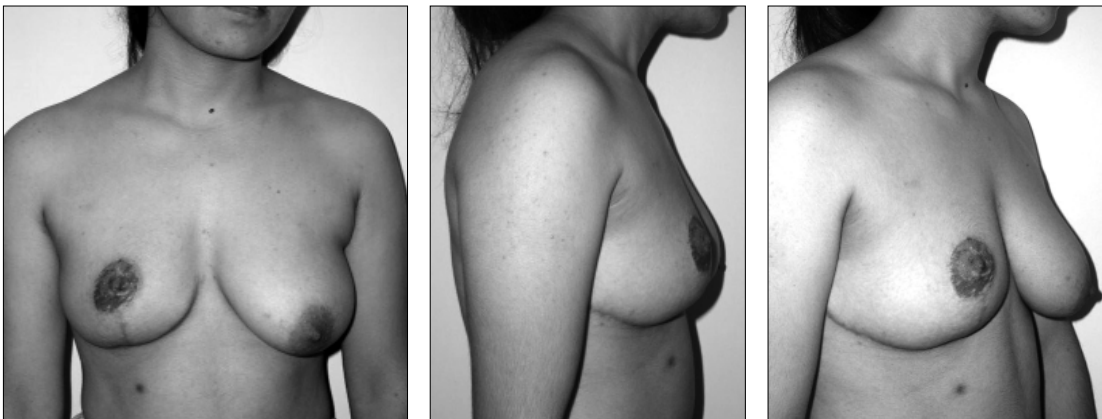


Figure 3. Postoperative appearance of patient.

limited and encapsulated. The size of the tumor doubles in three to six months time. In the affected breast, some deformities such as the expansion, congestion, dilation of the superficial venous structures, and superficial ulcerations are seen according to the size of the mass. The ultrasonographic examination of the breast determines the well limited mass. The diagnosis can be made clinically; however, the gold standard of the diagnosis is tissue biopsy.

In the differential diagnosis of giant juvenile fibroadenoma, juvenile breast hypertrophy, giant lipoma, breast abscess, great hamartomas, cystosarcoma phyllodes must be eradicated (1,2,4,8,9). In juvenile breast hypertrophy, diffuse growth of the breast without nodule or tumor is seen. Giant lipomas can cause unilateral breast hypertrophy. Soft, immobile, mass can be determined in palpation. Radiolucent appearance is seen on mammography and ultrasonographic examination. Breast abscesses developing during

puberty causes sudden and rapid growth in the breast. Pain, fluctuation, and erythema make the differential diagnosis. Hamartomas can be easily determined with their multilobular structures. Another great, lobulated, homogeneous solid mass tumor with well defined margins in the breast is cystosarcoma phyllodes. These are mostly benign (95%) tumors, which are seen in the 4th decade. Although these tumors are morphologically similar to fibroadenomas, phyllodes tumors are not really encapsulated. Phyllodes tumors are rarely reported in puberty (4).

In order to prevent the growth of the giant juvenile fibroadenoma and to preserve the shape of remaining breast tissue, immediate surgical excision should be performed (10,11). The intervention to be done to the breast changes according to the size of the lesion and its localization. If the lesion is small, it can be treated by simple

enucleation from an areolar incision (11). A skin sparing mastectomy and reconstruction with prosthesis are eligible choices when the tumor is not gigantic (12). When there are gigantic tumors causing structural deformities, it becomes necessary to reshape the breast by excising excessive skin (13,14). When performing excision, the symmetric appearance between each breast should be protected. In this case, GJF was located in the lower pole of the breast causing distinct skin excess due to expansion. It was not possible to transfer the nipple by a skin island. Thus total excision of the lesion and nipple transfer as a graft was performed.

Giant juvenile fibroadenoma is a rare clinic anomaly. On the other hand, after excision with proper reshaping of the remaining breast tissue and repositioning of the nipple areola as a graft, a satisfying appearance can be provided.

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