

## Case Report

# A RARE CASE OF GIANT JUVENILE FIBROADENOMA

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## ABSTRACT

Breast masses are uncommon in childhood. The majority of them are related to inflammation (infection or abscess) or benign tumors as fibroadenomas. Juvenile fibroadenoma is a rare clinical entity and forms 4% of the total fibroadenomas, and giant juvenile fibroadenoma constitutes only 0.5% of all fibroadenomas. We are presenting a rare case of giant juvenile fibroadenoma in an 18 yrs female. The diagnosis was done on fine needle aspiration cytology and later on confirmed on histopathology.

## CASES

An 18 yrs unmarried female presented with breast lump in left breast since 3 yrs. There was history of dull ache in the breast. There was no family history. History of trauma, nipple discharge, fever, anorexia, or weight loss was absent. On local examination slightly tender, huge, well-circumscribed mass was seen, which was firm in consistency. The overlying skin was tense and shiny with prominent superficial veins. The lump measured 15 cms X 12 cms in size. The right breast was normal. The lump was not fixed to underlying structures. There was no discharge from the nipple, and axillary lymphadenopathy was absent. FNAC was done and it showed features of fibroadenoma. The lump was excised in total and histopathology confirmed the diagnosis of fibroadenoma. Post operatively the recovery of the patient was uneventful. Patient is regularly attending the follow up clinics and presently having no complaints.



**Figure 1: Gross Appearance**



**Figure 2: Microscopic Appearance**

## DISCUSSION

According to Stanford School of Medicine, juvenile fibroadenoma of the breast is defined as circumscribed, often large, breast mass usually occurring in adolescent females with stromal and epithelial hypercellularity but lacking the leaf-like growth pattern of phyllodes tumors (Kempson et al., 2006). Diagnostic criteria for juvenile fibroadenoma are (1) circumscribed and rarely multiple; (2) biphasic stromal and epithelial process in which pericanalicular pattern is most common and lacks leaf-like growth pattern in uniformly hypercellular stroma. Fibrotic areas may be present; (3) lack of atypical features in stroma-like periductal increase in cellularity, stromal overgrowth, cytologic atypia, and mitotic

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rate >3/hpf; (4) frequent epithelial and myoepithelial hyperplasia; (5) most patients' age is 10–20 years with a mean age of 15 years. Juvenile fibroadenomas may be multiple (Kempson *et al.*, 2006).

Giant fibroadenoma is defined as a tumor >500gms or disproportionally large compared to the rest of the breast. It is more frequently seen in young and black patients. Giant fibroadenoma may be either adult type or juvenile fibroadenoma (Kempson *et al.*, 2006).

Giant juvenile fibroadenoma is an uncommon tumor presenting in adolescent females and the exact etiology is not known. Hormonal influences are thought to be contributing factors (Musio, 1991). Excessive estrogen stimulation and/or receptor sensitivity or reduced levels of estrogen antagonist during puberty have been implicated in pathogenesis (Musio, 1991 and Issam, 2006).

It is necessary to exclude the close differentials of juvenile fibroadenoma which are benign low-grade phyllodes tumor, virginal hypertrophy, and other rare differentials such as lipoma, hamartoma, breast abscess, macrocyst, adenocarcinoma, and pseudoangiomatous stromal hyperplasia, as the treatment modalities and the prognosis differ quite significantly in these various conditions. Some of the lesions were treated by mastectomy, but some lesions may require only local excision, aspiration, or conservative management (Issam, 2006; Chang, 2007 and Uygur, 2009).

Giant juvenile fibroadenoma is a benign tumor, and total excision of the lump with conservation of nipple and areola is the optimal treatment (Issam, 2006; Chang, 2007 and Uygur, 2009).

It is essential to know that giant juvenile fibroadenoma may recur after complete excision, and the chance of recurrence becomes less after the third decade (Schnitt, 2004).

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