

Case Report

Giant juvenile fibroadenoma: a case report

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ABSTRACT

Breast Lumps are not a common occurrence in paediatric patients. When encountered, they call for a thorough workup and meticulous treatment plan. Like in adults, fibroadenomas can be seen in children. These are termed 'juvenile fibroadenomas'. When these are larger than 5cm or weigh more than 500gm, they can be called 'giant juvenile fibroadenomas'. These comprise 1-8% of breast lumps in adolescent population. We report here a case of a 10 years old girl who presented with a rapidly growing unilateral breast lump which provided a diagnostic dilemma but was diagnosed as giant juvenile fibroadenoma on histopathology performed post excision. She was successfully treated surgically by removing the entire well-defined lump intact after raising overlying breast flaps. The post-operative period was uneventful. The patient shows no signs of recurrence or co-morbidity even now at follow up OPD visits.

Keywords: Breast, Fibroadenoma, Juvenile

INTRODUCTION

Breast lumps are not very commonly encountered in the paediatric age group. Their occurrence demands a thorough assessment. A varied number of pathologies can be the cause of breast lumps in children. As in adult females, fibroadenomas can be a probable occurrence in young girls. Fibroadenomas present as rubbery, discrete and non-tender masses.¹ Fibroadenomas in children and adolescents are termed juvenile fibroadenomas. A juvenile fibroadenoma is considered 'giant' if it is greater than 5cm, 500gm or replaces at least 80% of the breast. Giant juvenile fibroadenomas are less common than fibroadenomas and comprise 1-8% of breast lesions in the adolescent population.² Peak incidence occurs in late adolescent with African - American females at increased risk.³ Authors reported here a case of a 10 years old girl presenting with a massive breast lump which turned out to be a giant fibroadenoma.

METHODS

A 10 years old female presented to the hospital with complaint of a lump in the left breast since last 2 months. There was history of mild aching pain off and on. No history of any discharge from the affected side. There was no history of trauma either. On examination, the left breast was grossly enlarged as compared to the normal right side.

Skin over the breast was stretched, including the nipple-areola complex and engorged veins were visible. The whole swollen breast was inseparable from the lump and could be moved slightly en-masse. Patient underwent an ultrasound of the breast which revealed left breast parenchyma nearly replaced by a large, well encapsulated, iso to mild hypoechoic solid nature lesion extending to all quadrants of the breast and measuring 97x66x88mm in size.



Figure 1: Pre-operative image of the affected breast. The massive lump is evident and engorged veins and stretched nipple-areola complex can be visualized.

Margins were smooth and there was no intra-lesional calcification, cystic degeneration or necrosis. It was reported as - 'likely giant fibroadenoma'. FNAC was inconclusive and reported two entities as likely possibilities- 1) Fibroadenoma, 2) Benign phyllodes. The patient's guardians were counseled about the need for surgery and the necessity of excising the lump.

Patient underwent routine pre-operative preparation and left sided lumpectomy under general anaesthesia was performed. Left sub-mammary incision was given and the lump was reached. The upper flap was meticulously raised till above the nipple-areola complex, taking care not to render it too thin else ischemia might ensue. The lump was well defined and almost entire normal breast tissue of the affected developing breast was compressed on to one side by the lump.

The complete lump was thus excised, and wound was closed by subcuticular sutures after securing thorough hemostasis. Compression dressing was done. Author purposely chose not to put a suction drain in situ as author were confident about the hemostasis, although this fact cannot always be relied upon; but more importantly, author was applying a pressure dressing.

The post-operative period was uneventful and on the first dressing on 2nd post-operative day, the stitch-line appeared very healthy. The patient was discharged on 3rd post-operative day after another dressing and was subsequently attended to in the OPD on follow-up visits with no complications.

The biopsy revealed marked stromal and epithelial proliferation with proliferating stroma around numerous ducts in a peri-canalicular pattern. There was no stromal atypia and no evidence of malignancy. In the final opinion, the lump was reported as 'giant fibroadenoma'.



Figure 2: The entire lump being removed after raising the upper flap and meticulously separating normal breast tissue.

DISCUSSION

The most important aspect of treating a breast lump is reaching a correct diagnosis. This invariably guides further management irrespective of the patient's age group. In this case, the diagnosis of giant fibroadenoma was not straight forward. Other conditions of the breast tissue may be mistaken for fibroadenomas including physiologic hypertrophy, phyllodes tumor and inflammatory conditions like breast abscess.⁴ The patient underwent a thorough clinical examination, an ultrasound and FNAC. The two likely possibilities were-giant fibroadenoma and phyllodes tumor. Overlapping of the features of these two entities is not unknown. Nithya et al reported a case of giant fibroadenoma with features of benign phyllodes in a 12 years old girl which was successfully managed by surgery and been on follow-up with no recurrence for atleast 1 year.⁵ Histologically, it is essential to differentiate giant fibroadenoma from cystosarcoma phyllodes by the lack of leaf like structures and stromal cell atypia.⁶ Malignancy too must be similarly ruled out. Although malignant tumors of the breast are rare in adolescent age group, 2% of all primary malignant breast lesions do occurs under 25 years of age in females.⁷ Having zeroed in on two likely pathologies as diagnosis, excision of the lump was the logical next step. A study involving 52 articles (153 patients) concluded that the mainstay of treatment is complete excision with an emphasis on preserving the developing breast parenchyma and nipple areola complex.⁸ Emphasis on preserving the developing breast parenchyma and nipple areola complex is of paramount importance in achieving superior aesthetic results.⁹ Giant juvenile fibroadenomas may compress normal breast tissue, which may falsely minimize the perception of non-diseased parenchyma. However, the remaining displaced breast tissue will often fill in the void left by excised giant juvenile fibroadenoma, precluding the need for reconstruction.¹⁰

This approach was successfully applied in the management of this case and there was no need for reconstruction. Mastectomy as a treatment modality for giant fibroadenoma has been debated but is commonly reserved for unusual or recurrent cases.¹¹

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