ORIGINAL RESEARCH PAPER
Volume - 10 | Issue - 06 | June - 2021 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

JUVENILE GIANT FIBROADENOMA: A RARE PRESENTATION

General Surgery

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ABSTRACT

Giant Juvenile Fibroadenoma is a rare clinical entity which occurs in adolescent age group between 12-18 years of age. The cause of this clinical entity is unknown. **Case Report:** We are presenting a case bilateral breast lumps of Left giant juvenile fibroadenoma and Right Fibroadenoma. The patient had history of painless, rapidly growing lump in both breast since 2 months. For which patient is undergone total surgical excision.

KEYWORDS

Adolescent age group , Giant juvenile fibroadenoma , Total surgical excision.

INTRODUCTION:

Fibroadenomas are benign solid tumors composed of stromal and epithelial elements. Fibroadenomas are seen and present symptomatically predominantly in younger women aged 15 to 25 years .

A Giant Juvenile Fibroadenoma shows the rapid growth with diameter >5cm or >500gms or replace at least 80% of breast.[1] Juvenile fibroadenoma forms only 4% of the total fibroadenomas, and giant juvenile fibroadenoma constitutes only 0.5% of all fibroadenomas.[2]

Hormonal factor may be responsible for this. The etiology is not clear yet but is considered that increased estrogen levels and estrogen receptor sensitivity can cause these enormous growth and changes. [1] Sometime patient may present with large lump in breast with dilated veins over the skin of breast lump. Surgical treatment is only choice available.

CASE REPORT:

A 12 years old girl came to pediatric surgery opd with complaints of lump in left side of breast since 2months and lump in Right side of breast since 1.5months.There is no history of trauma, fever or weight loss or medical condition.

On examination, a lump of size 11x14 cm was present in left breast involving all quadrants of left breast with dilated veins over the lump and bosselated surface. There was no e/o skin discoloration over the lump of left breast, no e/o nipple discharge, lump was nontender and firm in consistency, freely mobile and not fixed to underlying structures. A lump of size 5x4cm was found in Right breast in lower inner quadrant which was firm in consistency, nontender, freely mobile and not fixed to underlying structures, no e/o nipple discharge (Figure1,Figure 2, Figure 3). Both axillary lymph nodes were not palpable.

Ultrasonography was suggestive of 14x15cm well defined circumscribed parallel heterogenous predominantly hypoechoic solid lesion involving all four quadrants of left breast classified as BIRADS Stage III and 5x7 well defined circumscribed parallel heterogenous predominantly hypoechoic solid lesion in lower inner quadrant of Right breast from 4'o Clock to 8ó Clock classified as BIRADS Stage II. Surgical excision of both lumps was done.Cut section was grey-white in color with slitlike spaces (Figure 4, Figure5).

Histopathology report on microscopic examination of left breast shows a well circumscribed and an encapsulated mass composed of mammary ducts and stroma. The ducts are round, oval and few are dilated. They are lined by bilayered epithelium few ducts showing multilayering. Stroma is cellular and composed of spindle cells. At places , it shows fibromyxoid areas. Focally mononuclear inflammatory infiltrates present in stroma. Capsule is composed of connective tissue and shows few congested blood vessels suggestive of Giant fibroadenoma (cellular). Histopathological report on microscopic examination of right breast shows a well circumscribed and encapsulated mass composed of mammary ducts and stroma. The ducts are irregular, dilated and lined by bilayered epithelium. Few ducts shows epitheliosis and papillary infolding. Stroma is fibromyxoid and focally cellular suggestive of Fibroadenoma.(Figure 6, Figure 7, Figure 8 ,Figure 9) .


FIGURE-1


FIGURE-2


FIGURE-3

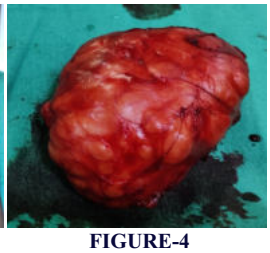
FIGURE-4


FIGURE-5

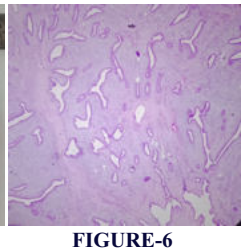
FIGURE-6

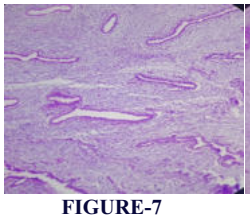
FIGURE-7

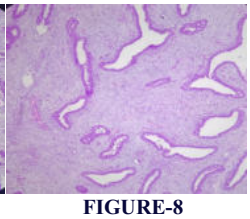
FIGURE-8

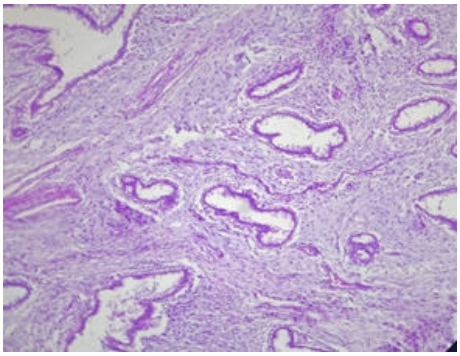

FIGURE-9

DISCUSSION:

Fibroadenoma is a common tumor of the female breast which contains both connective tissue and epithelial proliferation without atypia. It arises from epithelium and stroma of the terminal duct-lobular unit.[1] Fibroadenoma is most common benign lesion is an adolescent age group. The most common age group involved is between 10 years to 18years. Giant Juvenile Fibroadenoma, because of its rapid growth presents as a malignancy but malignancy potential of giant juvenile fibroadenoma is less than 0.3%.[3]

The rapid growth in giant juvenile fibroadenoma may be due to hormonal imbalance i.e due to increased estrogen receptor stimulation or decreased estrogen antagonistic response. Tissue biopsy is essential for the confirmatory diagnosis of large lesion.

The differential diagnosis for giant juvenile fibroadenoma are Phyllodes tumor and Virginal hypertrophy. On the basis of FNA it is difficult to differentiate between giant juvenile fibroadenoma and phyllodes tumor. Virginal hypertrophy is unequal growth of breast buds on one side related to stimulation of hormone. Histologically, phyllodes can be differentiated from giant fibroadenoma by the presence of leaf-like projections and stromal cell atypia while virginal hypertrophy lacks lobule formation along with presence of abundant connective tissue with ductal proliferation.[2]

The radiological investigations like ultrasonography and MRI can be done.The goal of the treatment is complete excision of the tumor, preservation of the areola and nipple, and achievement of symmetrical breasts. It was thought that reconstructive methods are usually needed after resection of large breast lesions to attain symmetrical breasts bilaterally.[2]

Surgical excision with preservation of nipple areola complex is the treatment of choice. However, the recurrence rate is about 33% at the 5-year follow-up after excision.[3] In our case surgical excision of left breast lump with preservation of nipple areola complex was done.

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