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A CASE REPORT OF EXCISION OF GIANT JUVENILE FIBROADENOMA IN YOUNG FEMALE BY SWISS ROLE TECHNIQUE

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Abstract

Background:Giant Juvenile Fibroadenomas are rare variety of fibroadenama usually occurring in young Girls aged 12 to 20 Yrs.They are characterised by massive,rapid enlargement of breast with a rubbery,irregular margined and surfaced,mobile,non tender mass causing obvious breast deformity.Surgical excision is the only treatment modality scientifically and to sooth very tensed patient & family.Considering cosmesis in young females,we remove the tumor through cosmetically acceptable circumaerolar incision to maintain the shape & symmetry of breast by swiss roll technique for the excision of giant fibroadenomas which prooved to be very useful in postoperative follow up.

Keywords: Giant Fibroadenoma, Juvenile Fibroadenama, Swiss Roll Technique, Benign Breast Lump.

INTRODUCTION

Breast development is a physiological change during puberty caused by hormonal factors.Any abnormality leads to assymetry in breast development and some time as mass as fibroadenoma which are usually benign,these are called juvenile as occurs in young age of 12 to 20 yrs[1].A rare variety is of rapidly growing giant fibroadenoma with a mass greater than 5cm [2],weighing more than 500gms or replaces 80% of breast tissue [3].Giant fibroadenomas are 4% of all fibrodenomas and giant juvenile fibroadenoma are 0.55 of all fibroadenomas[4].It needs to be differentiated from phyllodes tumor, physiological hypertrophy, and other inflammatory lesions like breast abscess.[5] Due to rapid growth,tumor might create self-consciousness, discomfort, and anxiety in young patient and family that just impacts the psychological and emotional aspects of the individual.[6].we resent a rare clinical case of an adolescent female who presented with rapidly growing juvenile fibroadenoma which was excised by swiss roll technique after making a circum areolar incision over breast nd lesion.Follow up of patient establishes early surgical excision as treatment modality for such tumor where swiss roll technique provide a good cosmesis to young female.

CASE REPORT

An 17-year-old unmarried young girl presented to surgical outpatient department of sharda school of medicine,with complaints of gradually increasing giant lump in the left breast breast accompanying almost whole breast particularly whole inner quadrant and upper outer quadrant.since last 2 yrs and a small lump in upper inner quadrant of rt breast since few weeks. The left size lump was gradual in onset,

freely mobile,initially very small 2x2 cm as Rt sided lump but ,gradually which increased to the present size occupying almost whole left breast approximately 8x7x4cm approx.The mass was not associated with pain or skin color changes or any abnormal discharge per nipple. There was no any history of trauma, fever, cough, or difficulty in breathing. There was no history of similar illness among the family members or first-degree relatives, chest irradiation, or any use of oral contraceptive pills. Her menarche was at 13 years with regular menstrual cycle.Vitals were stable. All the laboratory and biochemical parameters along with systemic examination were within the normal limit. Left breast examination revealed a mobile mass involving central area of the breast along with whole left inner compartment and outer upper quadrant approximately.The lesion was with irregular nodular surface and irregular margin but with no adherence to the skin or fixity to the posterior wall.However,lesion was underneath whole nipple areolar complex but no discharge from nipple was present.Skin over breast and nipple areolar region a was not breached or reddend or oedematous or dented with no obvious dilated veins.It was nontender, well circumscribed, and firm in consistency. Nipple appeared normal in texture,no thrill felt or brui listened..Axillary lymphnodes were not palpable breast examination showed a painless, firm freely mobile,nontender,lesion measuring 2x2 com in upper innner quadrant,neither fixed to skin or underlying muscles with no discharge from nipple,nipple areolar region and skin over lesion being normal with no palpable rt sided axillary lympnodes Ultrasonography of lt and rt breast breast showed heterogenously hypoechoic lesions as solid mass with posterior acoustic enhancement in breast suggestive of fibroadenoma measuring as evident clinically. Pathological examination with FNAC shoed benign fibroadenomas in both breast and patient and family was very tense to undergo excision as soon as possible. refusing for other specific investigations. The patient was operated under general anaesthesia where first enucleation of the rt sided lesion was done A 4 cm circumaerolar incision was made over left breast and skin was mobilized over the giant lesion using the index finger gradually till it was completely free from the surrounding breast tissue. The lump was then grasped using towel clip and pulled up to the skin and a circumareolar incision was made into the lesion.The fibroadenomas was progressively incised & rotated out of the incision till the entire swelling was taken in a swiss roll type fashion. The dead space after the removal of fibroadenoma was packed with Roller ribbon gauze and pressure was applied for 3-5 min, later again the cavity was inspected after removing the pack and if there are any bleeders they are cauterized using bipolar cautery. Homeostasis was secured and a negative suction drain was used for careful driange of any collection as tumor was a large one. Wound is closed in two layers underlying. subcutaneous layer by putting interrupted sutures with vicryl 3/0, and skin with monocryl 3/0 subcuticular stitch. Dynaplast pressure dressing was done, and it was applied for 48 hrs. The excised mass was sent for histopathological examination, which confirmed the diagnosis of fibroadenoma.Both macroscopic and microscopic histophological examination confirmed for a giant lesion of cellular feature of fibroadenoma on left side specimen showing circumscribed lesion with glandular and stomal elementswith no evidence of malignancy,rt sided lesion showed terminal ductal lobular units (TDLU) in dense fibro collagenous and firo adipose tissue. Postoperative event remained uneventful. The patient got discharged and followed uneventfully. As enclosed photographs in figure 1 to 7 clinical observation, incision made removal of tumor as swiss role, excise tumor and histopathological finding in enclosed.

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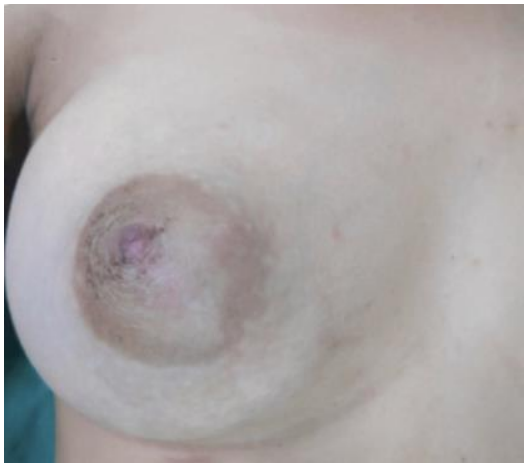

Figure 1: Patient with Giant Fibroadenoma

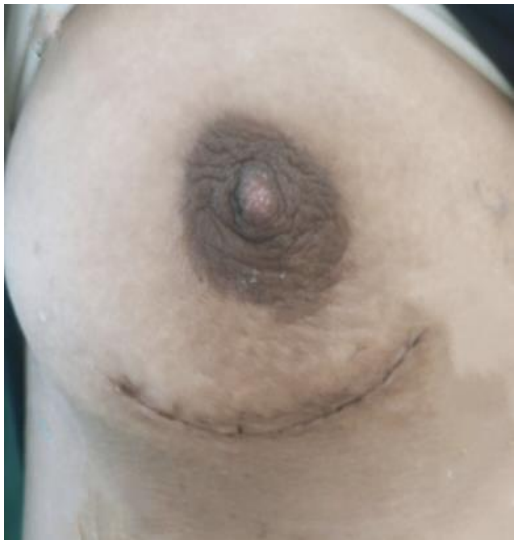

Figure 2: Incision Made over Breast

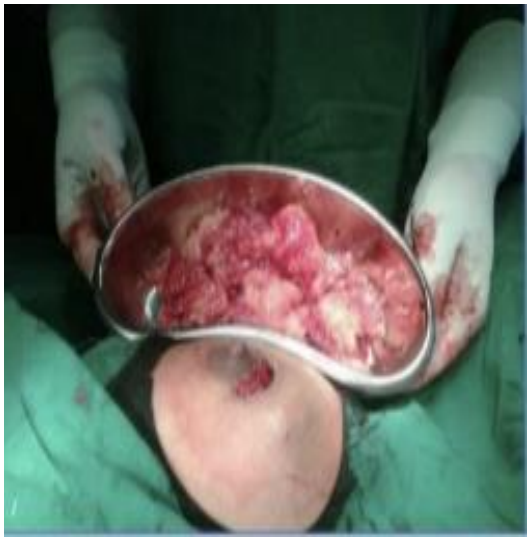

Figure 3: Excised Giant Fibroadenoma

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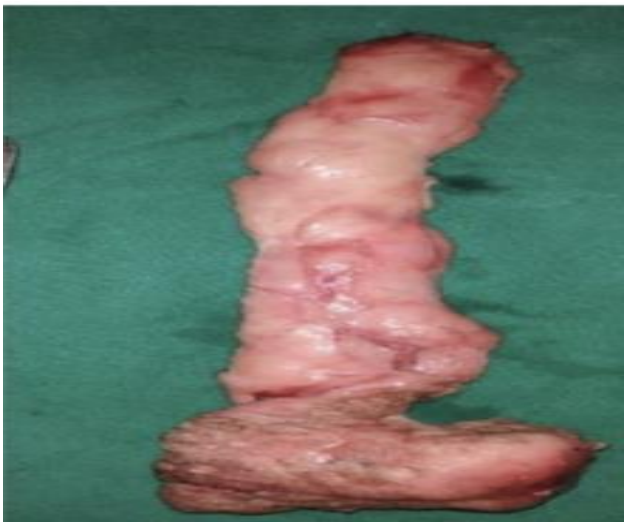

Figure 4: Swiss role extraction of Fibro Adenoma

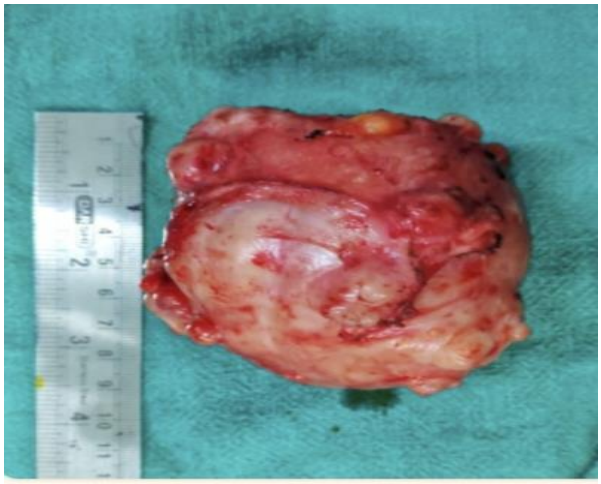

Figure 5: Excised Giant Fibroadenoma Measurement

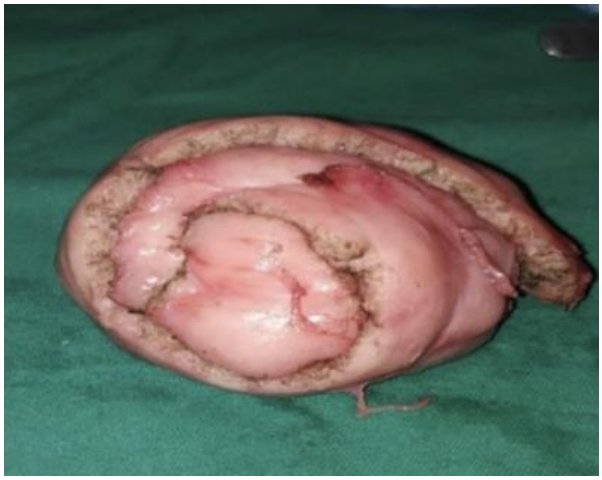

Figure 6: Excised Giant Fibroadenoma in Swiss role

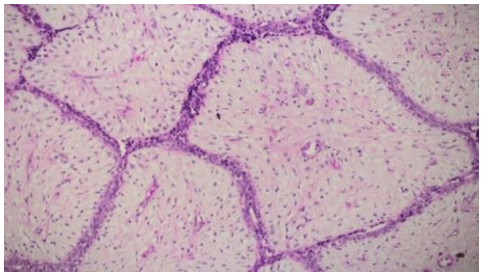

Figure 7: Histopathological Finding of Fibroadenoma

DISCUSSION

Breast development is one of the first obvious signs of puberty caused by hormones,any variation in its normal progression often deserves attention.Virginal hypertrophy,giant fibroadenoma, and cystosarcoma phyllodes,breast abscess are the important differential diagnoses to be considered when one encounters a large breast mass in young females.Fibroadenoma is the most common benign breast lesion diagnosed in young women [1]. Peak incidence occurs in adolescence between the ages of 10–18 years [3]. It presents as a rubbery, mobile, and nontender mass. It can be multiple in 10%–15% of cases, or bilateral in 10% of the cases [4]. Most commonly, it is located in the upper outer quadrant of the breast [5]. Giant fibroadenoma is a rare variant, which occurs only in 0.5% of all cases of fibroadenoma [2,3]. Giant Fibroadenoma present mostly as huge mobile mass occupying upper outer quadrant of breast. fibroadenoma is characterized by a rapidly growing mass with a diameter more than 5 cm in any dimension, weighing 500 g, or disproportionally large compared to the rest of the breast [1].Except hormonal factors as excessive estrogen stimulation, increased estrogen receptor sensitivity, or decreased estrogen antagonist sensitivity,no other cause is presumed for this. [6].Giant fibroadenoma can be disfiguring and may impede the normal breast tissue from growth by direct pressure effect but carries no malignant potential.Ultrasound proved to be superior to mammography in ruling out malignancy with a negative predictive value of 99.5% [8].Large masses (3 cm or larger) were more likely to be diagnosed as phyllodes tumor, which carries low risk of malignancy in young patients. Therefore, tissue biopsy is essential in the diagnosis of large lesions. Fine-needle aspiration (FNA) biopsy lacks the ability to differentiate phyllodes tumors from giant fibroadenoma. Core needle biopsy is more accurate.However, due to psychological and emotional effects of core needle biopsy in young patients, and stress of having such giant lesion needing early intervention, it is not uncommon to proceed with excisional biopsy as a diagnostic and therapeutic method as done in our case too.Surgical removal by enucleation is still the treatment of choice for firboadenoma as done for removal of rt breast lesion in our case too. Cosmesis is an important consideration when making breast incisions especially in young girls. A submammary in breast crease or circum areolar incision is preferred to hide the scar and in swiss role technique the tumor is removed in a shape of Swiss roll after complete enucleation, which was confirmed by observing tumor being freely moved within breast cavity [7]. One alternate is to fragment the fibroadenoma in situ and then remove the fragments. However; there is obvious risk of leaving pieces back. By cutting the lesion in the shape of a Swiss roll, the mass can be removed in its entirety. As the breast skin is stretched, quite a large circumareolar incision can be made. This shrinks back to normal after removal of the fibroadenoma

[8].Swiss-roll operation thus allows large tumors like giant fibroadenomas to be removed through a cosmetically acceptable small circumareolar incision [9]. As in our case,this technique, is extremely acceptable for giant fibroadenomas in young females.

CONCLUSIONS

Giant juvenile fibroadenoma is a variant of fibroadenoma that occurs in children and adolescent age group. It is a rare benign rapidly growing breast mass in adolescent females. It should be distinguished from other benign masses of the breast by proper evaluation and management. The definitive diagnosis is made histologically by the presence of certain features in the excised lesions. Total excision of the lump with conservation of nipple and areola is indicated to make a definitive diagnosis and to relief the compression of the normal breast tissue.Circum areolar or submammary incsions are of choice to hide the scar but tumor removal by swiss roll technique is an added advantage for complete removal of lesion.Reconstruction for breast asymmetry is almost not needed as normal breast development takes care of the discrepancy in size that occurs due to such operations,so these are differed for few yrs .

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