Juvenile Fibroadenoma With Fibroadenomatoid Hyperplasia

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Citation

Abstract
A rare case of juvenile fibroadenoma (JFA) of the breast with fibroadenomatoid hyperplasia is reported here because of its rare occurrence. The commonest clinical presentation is an enlarged unilateral swelling of the breast. Radiological investigations including mammography, ultrasonography and excision biopsy can be helpful in non-invasive diagnosis of the condition. The common sonographic findings of fibroadenomatoid hyperplasia are benign, but some of them show the features of malignancy including irregular shape and border, hyperechogenicity and posterior acoustic shadowing. So when a malignant appearing mass is detected in relatively young patients the possibility of JFA with fibroadenomatoid hyperplasia must be included. Surgical treatment follows the principles of a benign tumor. Long term follow-up is recommended after excision of a JFA with such hyperplasia.

INTRODUCTION
Fibroadenomatoid hyperplasia is a well described but rare benign breast lesion with composite features of fibroadenoma and fibrocystic change. It is found in about 2% of the patients with fibroadenoma. Individual breast lobules may occasionally show fibroadenoma-like changes, loosely coalescent or discrete forming an ill defined and irregular mass. Four patterns have been observed ductal-lactiform, ductal-solid, cystic-papillary and lobular-terminal ductal. Clinical detection depends on their size; some lesions may not be detectable. In breast screening programmes, however, the lesions are mostly recorded as fibroadenomas.

CASE REPORT
A 13-year-old Sikh female belonging to rural Kashmir reported to the OPD of the surgical department of the Govt. Medical College Srinagar with a sudden and asymmetrical progressive enlargement of the left breast noticed 14 weeks before seeking medical attention. There was no history of trauma, pain, discharge from the breast, evidence of inflammation, similar swelling in opposite breast or ipsilateral axillary swelling. There was no history of drug intake. The patient had attained menarche 2 months back. The general and systemic physical examination was unremarkable. Secondary sexual characteristics were developed and of feminine type. Local examination was done as per protocol and revealed an enlarged left breast (approx. 3 times as compared to the other side, figs.1 and 2). There was prominent venous engorgement (fig.3) and no evidence of pus points, the nipple was normal. On palpation, the left breast measured 20 by 12cm in longitudinal axis and 13 by 10cm in horizontal axis. Breast tissue was non-nodular and was free from underlying structures. There was no axillary lymphadenopathy. On auscultation no venous hum or arterial bruit was heard.

Figure 1
Figure 1: Juvenile Fibroadenoma With Fibroadenomatoid Hyperplasia, Enlarged Left Breast
INVESTIGATIONS

All baseline investigations were normal and triple assessment was done. In radiological examination, mammography was normal with no evidence of calcification or solid lesion, the axilla also was normal; HR USG revealed a cystic swelling with no hematoma/abscess. FNAC features were consistent with juvenile fibroadenoma, excision biopsy revealed fibroadenomatoid hyperplasia.

SURGICAL PROCEDURE

Patient was subjected to nipple sparing subtotal mastectomy. The weight of the specimen was 680g (figs. 4 and 5). On cut section jelly like fluid came out (fig.6). Microscopy showed fibroadenomatoid hyperplasia of the breast with no evidence of malignancy (figs. 7, 8, 9). The patient is on regular follow-up and there is no recurrence of the tumor or appearance of a swelling in the opposite breast.
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Figure 4
Figure 4: Juvenile Fibroadenoma With Fibroadenomatoid Hyperplasia, Resected Specimen (Pectoral Surface)

Figure 5
Figure 5: Juvenile Fibroadenoma With Fibroadenomatoid Hyperplasia, Resected Specimen (Skin Surface)

Figure 6
Figure 6: Juvenile Fibroadenoma With Fibroadenomatoid Hyperplasia, Cut Section Of Resected Specimen

Figure 7
Figure 7: Juvenile Fibroadenoma With Fibroadenomatoid Hyperplasia, Microscopic Appearance

Figure 8
Figure 8: Juvenile Fibroadenoma With Fibroadenomatoid Hyperplasia, Microscopic Appearance

Figure 9
Figure 9: Juvenile Fibroadenoma With Fibroadenomatoid Hyperplasia, Microscopic Appearance

DISCUSSION
Bittesini et al. (1) described a fibroepithelial tumor of the
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breast with digital fibroma-like inclusion in the stromal component in a 34-year-old female. The lesion was nodular but ill-defined from the surrounding breast. Focally it exhibited the structural features of fibroadenomatoid hyperplasia. The epithelial components displayed apocrine cysts and prominent epithelial hyperplasia. The stroma was composed of plump spindle cells intermingled with bundles of collagen fibrils. The morphology of the lesion suggested it to be benign. Fibroadenomatoid hyperplasia is a well described but rare breast lesion with composite features of fibroadenoma and fibrocystic lesions and it is a cause of suspicious, granular, clustered microcalcifications on screening mammography (7). It can be confirmed using 14-gauge core biopsy in most cases. Fibroadenoma is typically observed in 21-30 years age group, and features of atypical hyperplasia are seen in the 40-60 years age group. Usually, this is a disease of females, but it may rarely be seen in men (8). Common sonographic findings of fibroadenomatoid hyperplasia are benign, but some of them show the features of malignancy including irregular shape and border, hypoechogenicity and posterior acoustic shadowing. So, when a malignant appearing mass is detected in relatively young patients on ultrasonography, the possibility of fibroadenomatoid hyperplasia must be included. Surgical treatment follows the principles of a benign tumor. Long term follow-up is recommended after excision of JFA with atypical hyperplasia as 4% of such patients develop malignancy in the contralateral or ipsilateral breast (4).

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