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Breast Hamartoma - A Rare case report in a 17 year old girl

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Abstract

Breast hamartoma is one of the rare benign, tumor- like nodules which are composed of glandular, adipose and fibrous tissue. The incidence of hamartoma varies from 0.1 to 0.7 % of all benign lesions as described by various authors. Breast hamartoma comprises of adenolipoma ,fibroadenolipoma, lipofibroadenoma depending on its composition. Mammographic and sonographic features of this entity often mislead to a diagnosis of other lesions like fibroadenoma or fibrocystic disease. This lesions also lack cytological specificity with FNA and core biopsy being non conclusive most of the times. As rare cases of recurrences and malignancy arising in the epithelial elements of hamartomas are reported , histopathological examination holds immense importance in the diagnosis of this condition. Excision is the treatment of choice of breast hamartoma. We hereby present a case of 17 year old girl with a history of lump in left breast, which was felt 3 weeks before she came to surgery OPD.

Keywords: Hamartoma , Breast

Introduction

Stedman's medical dictionary describes breast hamartoma as a focal malformation that resembles a neoplasm grossly and even microscopically but results from development in an organ. It is composed of an abnormal mixture of tissue elements or an abnormal proportion of a single element normally present at that site.[1] Ductal hyperplasia, apocrine metaplasia ,calcification and adenosis may occur within the hamartoma with rare instances of lobular or ductal intraepithelial neoplasms. Hamartoma is usually benign but malignant transformation is possible.[2]

An excision and histological examination is necessary for the differential diagnosis and also for any epithelial

malignant lesion. The two common variants of mammary hamartoma are adenolipoma and chondrolipoma[2]

Case Report

A 17 Year old female patient came to the surgery opd with chief complaint of lump in the left upper quadrant of breast since 3 week. It was not associated with any other symptoms of inflammation or nipple discharge. Her menstrual history was normal. There was no other significant history.

On Local Examination

A Lump of size 2 x 2 cm in upper quadrant of left breast. Lump was firm in consistency , non tender , overlying surface is smooth , freely mobile and not fixed to skin /underlying structures. No any engorged veins were seen. Nipple areola complex was normal.no evidence of sinus tract or discharge seen. Bilateral Axillary lymph nodes were not palpable. Right breast was within normal limits.

Clinically Suspecting it to be fibroadenoma, fine needle aspiration was done which was inconclusive as only adipose tissue along with occasional benign ductal cells was aspirated.

Ultrasonographically image showed a well circumscribed isoechoic mass with no evidence of calcification and vascularity. It was easily compressed with a transducer. Skin and subcutaneous tissue being normal.

Other Investigation Done: Her complete blood count was normal.

The lesion was excised and sent for histopathological examination

On HP Examination

We received the gross specimen of two globular encapsulated whitish firm tissue pieces. Large piece measuring 4 x 2.5 x 2.8 cm

Smaller piece measuring 1.6 x 1 x 0.9 cm

Figure 1: Gross picture showing Cut surface which is homogenous whitish and yellowish areas**.**

Microscopically reveals a well encapsulated mass composed of few mammary ducts and acini along with hyalinised stroma and adipose tissue. focal adenosis is seen.

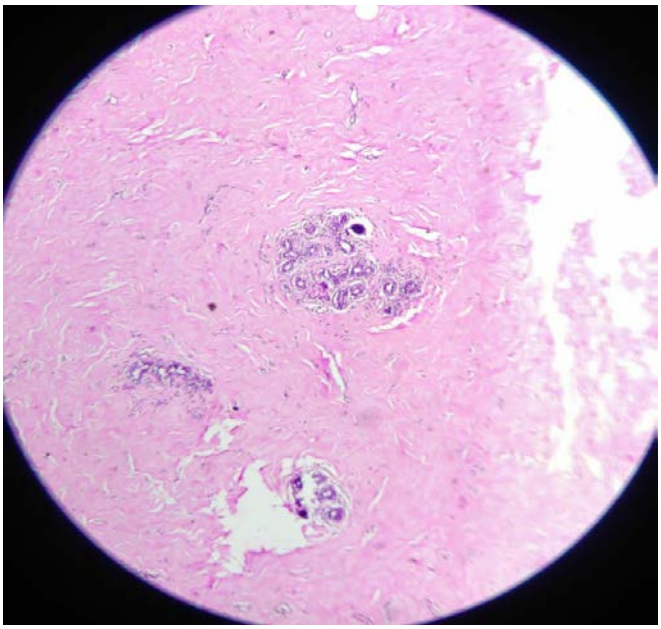

Figure 2: H & E X 40

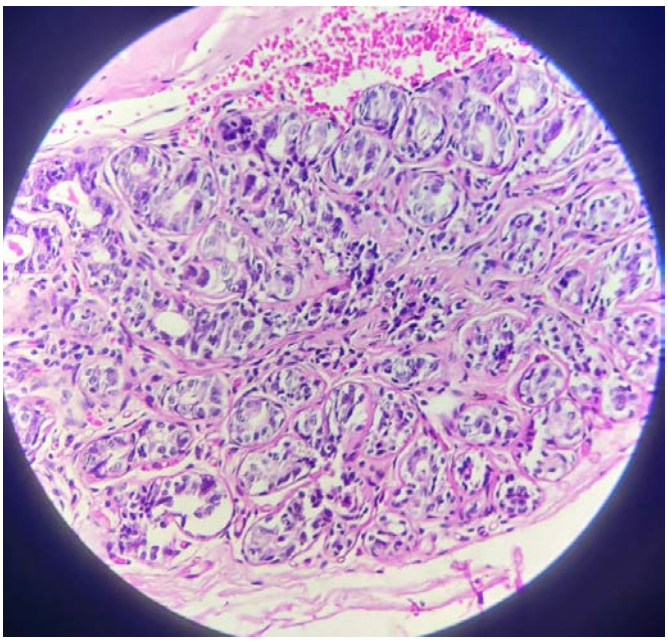

Figure 3 : H & E X 100

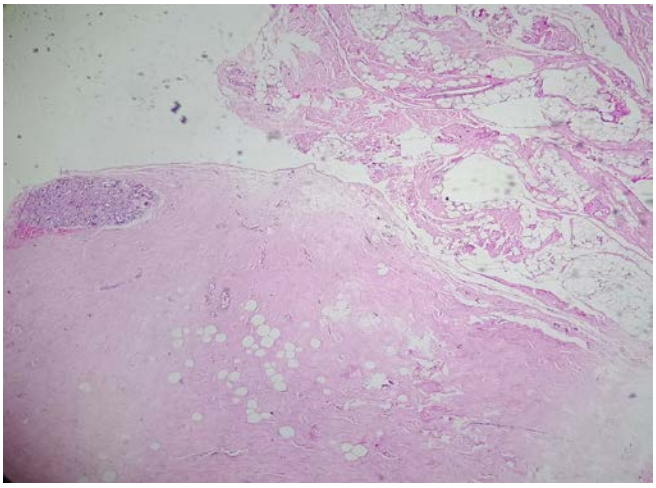

Figure 4 : H & E X 400

Discussion

The breast hamartoma was initially identified by Arriggoni et al in 1971 and he described it as well circumscribed lesion comprising a mixture of benign mammary elements, fibrous tissue and fat and is generally classified as rare benign tumour.[3]

Ultrasonographically hamartomas have heterogenous appearance. They are oval ,well encapsulated with internal echotexture surrounded by echogenic halo without intramural calcification and absent retro tumour acoustic phenomenon. [3]

Hamartoma containing predominantely fatty tissue may mimic lipoma ,fat necrosis and oil cysts and those containing predominantely glandular tissue may mimic fibroadenoma. [4]FNAC and core needle biopsy are accurate for diagnosis of most breast lesions except hamartomas. [5]

Upon microscopic examination Arrigoni et al identified mammary glandular tissue with a prominent lobular arrangement, fibrous stroma and fat in variable proportions. [6]The lesion generates the impression of “breast within a breast”.[7] & [8] Usual ductal hyperplasia,apocrine metaplasia , calcification ,stromal giant cells and adenosis may be associated with hamartoma .[9]

In rare cases lobular intraepithelial neoplasms and ductal intraepithelial neoplasms have also been reported to occur within hamartoma. Although usually benign , malignant transformation is possible. [10,11]

Surgical removal is the curative method for the breast hamartomas.[11] There is potential for recurrence if coincidental epithelial malignancy present.[12] Excision and histological examination is necessary for a differential diagnosis and also for any epithelial lesions of the hamartoma[.2]

Conclusion

As hamartomas are rare benign breast lesions a high degree of suspicion must be kept in mind for this entity by pathologist and surgeons while encountering breast masses in routine day to day practise. FNA and core biopsy are inconclusive in these cases ; unlike in other breast lesions. As reports of malignancy arising from elements of this lesion have been documented in the literature, excision must be treatment of choice.

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