Mammary Gland Hamartoma

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ABSTRACT

Mammary gland hamartoma are uncommon benign tumour like lesions. The pathogenesis still poorly understood and because of its rarity, often under reported by clinicians and pathologist. We reported a case of 36 year female with left breast lump treated by simple excision and histologically diagnosed as Mammary gland hamartoma.Present case reported to increased the awareness of this poorly recognized benign entity and although hamartoma is usually benign ,a malignant transformation is possible.

Keywords: Hamartomas, imaging, histology, surgery

INTRODUCTION

Mammary hamartoma (MH) is benign tumour like nodules, seen in all age groups after puberty. Though breast lump being encountered commonly in clinical practice mammary hamartoma reported incidence of only 1.2% of benign lesions and 4-8% of benign breast tumours in women. Hamartomas are composed of glandular,adipose and fibrous tissue often in abnormal proportions. There are many variants described depending these compositions[1]. Mammary hamartomas lacks cytological specificity with fine needle aspiration cytology(FNAC) and core biopsy inconclusive most of the times. Mammographic and sonographic features of MH often mislead to diagnosis of other breast lesions including benign and malignant one[2].

CASE REPORT

A 36 year old female came to surgery OPD with a lump in left breast noticed for one month. There was no history of pain and nipple discharge. On local examination breast lump in upper outer quadrant, nontender,firm, mobile, measuring 8x7x4cm. Other breast was normal and there were no axillary lymphadenopathy. Suspecting as fibroadenoma FNAC was done which was inconclusive. Mammography left breast mediolateral view (Figure1a) shows well circumscribed mixed density lesion with internal fat densities noted in left breast (BIRAD-2). Ultrasound show(Figure1b) heterogenous lesion with fat component noted in left breast at 1-5 clock position.No internal vascularity, suggestive of benign pathology.

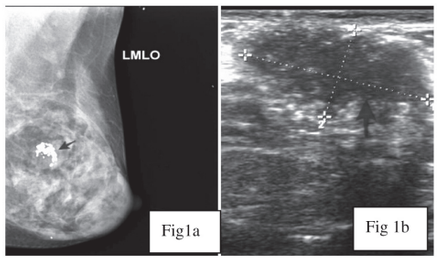

Figure:1a;Mammography left breast mediolateral view-well curcumscribed mixed density lesion.

Figure:1b;Ultrasound image show heterogenous lesion with fat component

The patient operated as simple excision.Macroscopic examination show well circumscribed white to gray yellow,soft measuring 14x7x4 cms (Figure;2a). Cut section yellow with greyish white areas(Figure 2b).

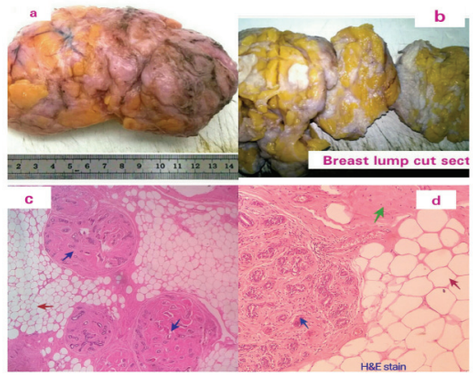

Figure:2a Breast lump show well encapsulated lesion with white to gray-yellow areas

2b Breast lump cut section show yellow with greyish white areas.

2cMicroscopic histology(H&Estain) show dilated duct and stroma (blue arrow),adipocytes(red arrow)

2dMicroscopic histology(H&Estain)high power view show hyalinisation(green arrow)

Microscopic histological features(Figure2c&2d) revealed show circumscribed lesion composed of benign breast parenchyma with cystically dilated ducts.Stroma show hyalinisation admixed with lobules of mature adipocytes. Focal areas show fibroadenomatoid change and few show pseudoangiomatous stromal hyperplasia. Based on these findings diagnosed as mammary hamartoma. The patient did not receive any further treatment and was referred for regular follow up.

DISCUSSION

Mammary hamartoma is a rare,benign breast lesion was initially described in year 1968 by hogeman and osbterg and term hamartoma was introduced in the year 1971 by Arrigoni et al[3]. Clinically they can present as a painless,mobile and soft lump. It may also present as uniateral breast enlargement without palpable localised mass lesion. It result from a benign proliferation of fibrous ,glandular and fatty tissue surrounded by thin capsule of connective tissue. The pathogenesis of mammary hamartoma not fully understood.Hamartomas may not simply result from normal breast stromal and epithelial elements entrapped by proliferating adipocytes, but from mutated mesenchymal cells capable of differentiation to stroma and adipocytes[1].

USG ,Mammography and FNAC are more beneficial but limited diagnostic utilities for breast hamartomas. Mammography features in hamartoma show radiolucent lesion containing fat, varying radiodense fibrous and adenomatous elements, a sharp margin and sometimes a thin capsules. Ultrasound show radiolucent fat and echogenic fibrous component with a heterogenous echo pattern[4].

Upon gross examination hamartomas containing fatty tissue predominantly may mimic lipoma,fat necrosis and oil cyst and those containng glandular tissue may mimic fibroadenoma. Histologically the tumour consist of mature fat and mammary parenchyma,mixed in varying proportions, delimited by a pseudocapsule of compressed breast tissue,lobules and duct in the lesion appear structurally normal with no proliferative activity[1]. Surgical removal is the curative method of hamartoma[5] as malignant transformation is possible and intraepitheilal neoplasms and ductal intraepithelial neoplasms have also been reported[6].

CONCLUSION

To conclude, though mammary hamartomas are rare benign breast lesions,secondary tumours and malignancies arising from the elements of this lesion have been documented. Surgical excision must be the treatment of choice as FNA and core biopsy are inconclusive in these cases,unlike other breast lesions and imaging ultrasound and mammography is non-specific.

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