

HAMARTOMA OF THE BREAST IN A POST-MENOPAUSAL WOMAN - CASE REPORT

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ABSTRACT

The term hamartoma was first coined by Arrigoni *et al* in 1971 [1] as well- demarcated mostly encapsulated nodule representing as a mass composed of varying amount of benign epithelial elements, fibrous tissue, and fat. Breast hamartoma is benign proliferations of variable amounts of epithelium and stromal supporting tissues. Many authors consider this entity to be underdiagnosed[2-4]. Breast hamartomas are rare, benign, tumor composed of glandular, adipose and fibrous tissue. There are several variants such as lipofibroadenoma fibroadenolipoma or adenolipoma, based on the predominant component of the breast tissue in mass lesion. Clinically hamartoma resembling fibroadenoma with big palpable mass. The pathogenesis of the development of a breast hamartoma is still not fully understood. Ductal hyperplasia, apocrine metaplasia, calcification and adenosis may occur within the hamartoma, with rarer instances of lobular or ductal intraepithelial neoplasms. Hamartoma is a benign but transformation into malignant may occurs. So excision and biopsy is necessary with histopathological examination of biopsy sample. The patient in this study was treated with lumpectomy as there was no evidence of any cellular atypia/malignancy in FNAC report of the lump. There was no recurrence or any other complication detected during follow up period. Current study shows case of breast hamartoma which was diagnosed as an hamartoma on the basis of macroscopic and microscopic analysis of lesion

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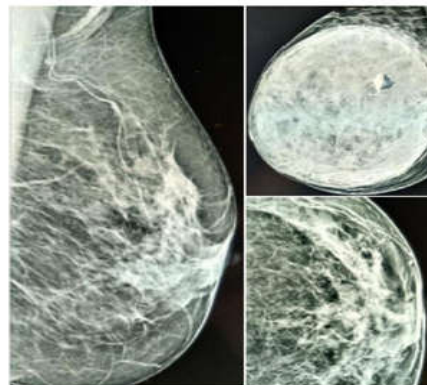
INTRODUCTION

Hamartoma of breast is a benign lesions [5]. This mass lesions are also known as lipofibroadenomas, fibroadenolipomas or adenolipomas, based on their predominant components [5-7]. It is composed of glandular, adipose and fibrous tissue [7] often in abnormal proportions (as malformations) [8]. Mammographic examination usually describe this lesion as a well-defined radio-opaque lesions with smooth margins and no calcifications; however, the sonography shows well defined hypoechoic lesion [6]. The current study presents one cases of breast hamartoma. Written informed consent was taken from the patients.

CASE REPORT

A 70-year-old postmenopausal female was admitted to M.M.I.M.S.R. Hospital, Mullana, Haryana, India with a lump in the right breast that had been detected by self examination. A physical examination revealed a round, mobile, regular mass in the lower outer and inner quadrant (subareolar) of the breast. There was no axillar lymphadenopathy.

Mammography identified a well-circumscribed mass in the right breast that was ~17× 15 cm with smooth margin and no calcifications. An ultrasonographic examination revealed well-defined hypoechoic solid breast mass with area of cystic degenerations and fatty tissue without internal vascularity and no significant lymphadenopathy. The patient was treated by lumpectomy. Macroscopically, the tumor was a well circumscribed nodular mass with firm in consistency, oval shape 1.4kg weight with size of 15.5×13.5×5 cm. greyish white(Fig. 1A).



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Figure 2 Clinical appearance of breast hamartoma



Figure 3 Gross appearance of breast hamartoma

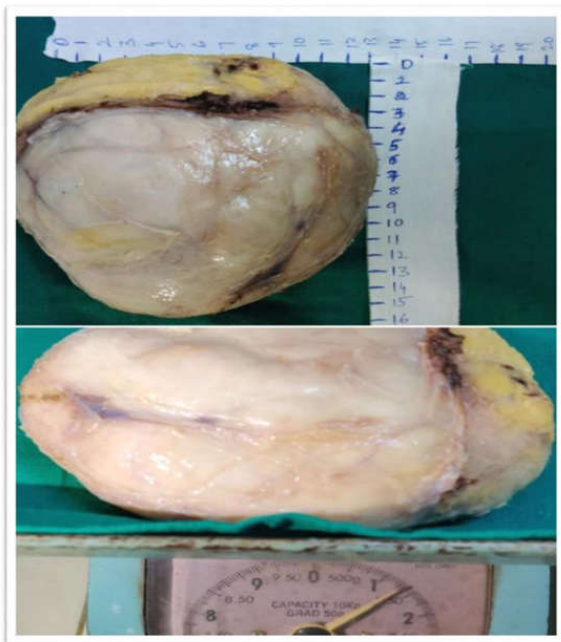


Figure 4 Showing weight and length of breast hamartoma

The cut surface was lobulated and yellow, with small greyish-white areas. The gross appearance of the tumor resembled that of a lipoma. Microscopic observations shows lobulated mass enclosing few ductal units, foci of adipose tissue along with markedly collagenized interlobular stroma. Focal lymphomononuclear infiltrate is noted within the stroma. No evidence of dysplasia / malignancy noted. No proliferative changes in lobules and ducts were detected within the lesion.

DISCUSSION

The word Hamartoma, Greek in origin- hamartia meaning “fault defect” and- oma meaning tumor or neoplasm. So Hamartoma is a benign tumor like malformation made up of an abnormal mixture of cells and tissues found in areas of the body where growth occurs. Hogeman and Osbterg were the first to describe the lesion back in 1968 [9], while the actual term “hamartoma” was created in 1971 by Arrigoni *et al* [1]. Hamartoma of the breast is rare nodular benign tumor also known as fibroadenolipoma, lipofibroadenoma or adenolipomas [7]. Hamartoma was first described in 1971 by Arrigoni *et al* in a study of 10 patients whose breast tumors clinically and grossly resembled fibroadenomas [1].

These lesions occur mostly in premenopausal females having age >35 years. On clinical examination, breast hamartomas are painless large mass usually mobile with soft to firm consistency [10]. This type of presentation often misleads physicians towards fibroadenomas. By using various diagnostic methods such as ultrasounds, FNAC, core needle biopsy, mammography, MRI physicians can diagnose this painless mass as hamartoma. On ultrasound this lesion appears as smooth well-circumscribed solid oval tumors with internal hyperechoic or heterogenous (mixed) echogenicity. Retrotumour acoustic phenomena were absent in most hamartoma [11]. Tumors as large as 17 cm have been reported [12]. During mammography scans, hamartomas are identified as well-circumscribed, round to oval masses containing non homogenous dense nodules with a thin, radiopaque pseudocapsule [13]. Lobulated densities are dispersed within the encapsulated fat, described as a “slice of salami”.

Upon gross examination, hamartomas are round to oval shape, well-demarcated and encapsulated greyish-white. Sometime lesions may be lobulated with smooth or nodular surface. Cut surface is greyish-white to yellow, resembling a fibroadenoma or lipoma (7,8). Adenolipoma and chondrolipoma are most common variants of breast hamartoma (12).

Upon microscopic examination, Arrigoni *et al* identified ‘mammary glandular tissue with a prominent lobular arrangement, fibrous stroma and fat in variable proportions’ (1). There is presence of lobules within the fibrous stroma with adipose tissue within the stroma..

Jones *et al* suggested a four category classification of breast hamartoma “encapsulated fibrocystic changes”, “fibroadenoma with fibrous stroma”, “fibroadenoma-like”, and “circumscribed adenolipoma”.5

The presence of pseudo-angiomatous stroma within the hamartoma has been reviewed and described in detail by Fisher *et al*. [2]

This circumscribed mass of breast tissue may reveal fibrocystic and atrophic changes. The lesion generates the impression of a ‘breast within a breast’ (8). Simple epithelial hyperplasia without atypia, apocrine metaplasia, cystic changes along with rare features like microcalcification, stromal giant cells and myoid differentiation may be associated with hamartoma [3,8]. Hamartomas are benign but malignant transformation can occur [6,14].

Surgical removal is the curative method for breast hamartomas (6,7). Excision and histological examination of breast lump is necessary for differential diagnosis and to know about any malignant changes in lump. If there is an epithelial malignancy

in the lesion, then there is a higher chances for recurrence (7). There was no recurrence or other problems in follow-up of the patients in the present study.

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