IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 14, Issue 11 Ver. VIII (Nov. 2015), PP 133-135
www.iosrjournals.org

Hamartoma of the breast: A rare case

[1]Siddharth Jai Singh, [1]Shameer Deen, [2]Saroj Chhabra Kapoor, [3]S.C. Dutt

[1]*PG Resident, Dept. Of General Surgery Mahatma Gandhi Medical College and Hospital*
[2]*Asst. Prof., Dept. Of General Surgery Mahatma Gandhi Medical College and Hospital*
[3]*Professor, Dept. Of General Surgery Mahatma Gandhi Medical College and Hospital*

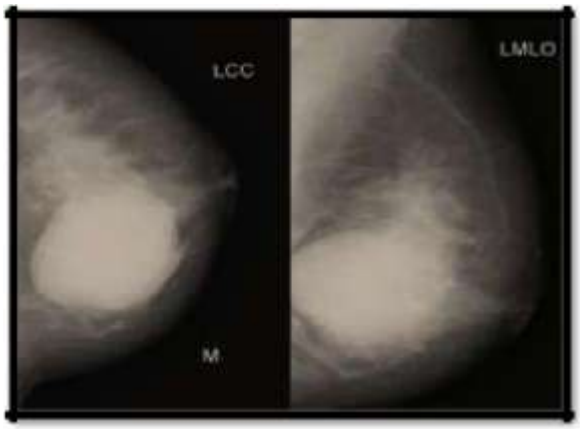
Abstract*: Breast hamartomas "Breast within a breast" is a rare entity with a low incidence (0.1 – 7%). It was first mentioned by Hogeman and Ostberg in 1968, and described by Arrigoni et al [6] in 1971. They clinically resemble fibroadenoma. The concern with the condition is that it may present as a palpable breast lump or may be identified on sometimes routine mammographic examination leading to appropriate triple test and its associated investigations to rule out possible breast malignancy. They have a possibility for malignant transformation and thus should be speculated and treated in the same manner. We present the case of a 36 year old female with a palpable breast lump identified as fibroadenomatoushamartoma. Simple excision is was treatment of choice as there was no coincidental epithelial malignant lesion. No recurrence or complications developed in the post-operative and follow-up period.*
Keywords: *Fibroadenomatoushamartoma, Fibroadenoma, Neoplasm*

I. Introduction:

Breast hamartoma (also known as a fibroadenolipoma) is a benign breast lesion. They are also referred to as lipofibroadenomas, fibroadenolipomas or adenolipomas based on their predominant components. They typically occur in women older than 35 years of age. While they can present as a painless soft lump, it may also present as unilateral breast enlargement without a palpable localised mass lesion. It results from a benign proliferation of fibrous, glandular, and fatty tissue (hence fibro-adeno-lipoma) surrounded by a thin capsule of connective tissue. All components are found in normal breast tissue (hence the term hamartoma). Macroscopically, hamartomas are slightly larger and softer than common adenofibromas and, are well-defined, whitish, pinkish and fleshy, with islands of yellow fat tissue. Histologically, they exhibit pushing borders with a pseudo-encapsulation, and consist of a combination of variable amounts of stromal and epithelial components.We present a rare case of breast hamartoma.

II. Case Report:

A 36 year old woman arrived at our surgical outdoor with the chief complaint of lump in left breast since 2 months. Lump was slowly growing in nature, not associated with pain. There were no other symptoms. General physical examination revealed no abnormalities. Local examination revealed a globular, mobile, smooth mass in the upper outer quadrant of the left breast. There was no associated axillary lymphadenopathy.



Ultrasonography and mammography revealed a 10 cm well circumscribed mass with calcification and revealed an intramammarian lymph node.FNAC revealed no significant cytological features and core biopsy did not reveal any features of malignancy. The patient underwent t surgical excision of the lump.

Image 1: Mammography

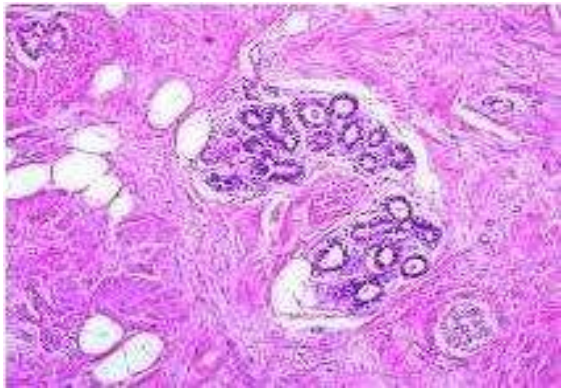


Image 2: Histopathological analysis under hematoxylin-eosin–stained section

Macroscopically the mass was encapsulated, soft andyellow in colour measuring 9cm x 11cm, grossly appearing to be a lipoma. Histopathological analysis under hematoxylin-eosin–stained sections revealed characteristics of a lipoma and the tumor was surrounded by a fibrous pseudocapsule and consisted of mature fat and islands of structurally normal glandular tissue with lobular arrangement, in specific areas, lobular aggregates had direct contact with the fat cells without interference by the fibrous tissue. No proliferative changes in lobules and ducts were detected within the lesion. The case was consequently diagnosed as afibroadenomatoushamartoma.

III. Discussion:

Hamartomas are described as classically wellencapsulated lesions composed of glandular and fibrous tissue and fat in varying proportions on pathologic specimens [1]. Mammary hamartoma has a reported incidence of 0.1% to 0.7% [2, 3, 4]. The true incidence is probably higher, as pointed out by Daya et al,3 Fechner [5]. Hamartomas were first described in 1971 by Arrigoni et al in a study of 10 patients whose breast tumors clinically and grossly resembled fibroadenomas [6]. The majority of these lesions occur in females >35 years old. At clinical examination, hamartomas are usually occult, but they may manifest as large, mobile, soft to firm masses [7]. Ahamartoma may be indistinguishable from a fibroadenoma by imaging ormisdiagnosed as a fibroadenoma on pathologic examination after core biopsy.Hamartoma has the typical mammographic appearance of a radiolucent lesion containing fat, varying radio dense fibrous and adenomatous elements, a sharp margin, and sometimes a thin capsule. Lobulated densities are dispersed within the encapsulated fat, described as a ―slice of salami‖. The ultrasound shows sharp definition and displacement of surrounding structures. It contains sonolucent fat and echogenic fibrous components with a heterogeneous internal echo pattern [8]. The sonographic appearance of breast hamartoma has been reported to be variable and non-specific [9, 10]. Upon gross examination, hamartomas are typically well-demarcated, occasionally lobulated lesions with smooth contours and an often rubbery greyish-white to yellow cut surface, resembling a fibroadenoma or a lipoma [11, 12]. The two common variants of breast hamartoma are adenolipoma and chondrolipoma [9]. Adenohibernoma and myoidhamartoma are rare variants of hamartoma [12, 13]. microscopic examination, Arrigoni et al identified ‗mammary glanduler tissue with a prominent lobuler arrangement, fibrous stroma and fat in varible proportions' [6]. The lesion generates the impression of a ‗breast within a breast' [12, 13]. Although hamartomas are usually benign, malignant transformation is possible and intraepithelial neoplasms and ductal intraepithelial neoplasms have also been reported [12, 14].

Surgical removal is the curative method for breast hamartomas [11, 15].Our patient underwent surgical excision. She was followed for 6 months and revealed no signs of recurrence.

IV. Conclusion:

Hamartomas are rare conditions and present with particular characteristics more appropriately ―Breast within Breast‖ owing to its features. They are rarely benign but the possibility of malignancy should not be dismissed too early. They may also be homogeneously hypoechoic on sonography, well defined, and oval or round, making hamartomas indistinguishable from fibroadenomas other than the lack of calcifications. This entity should be considered in the differential diagnosis of solitary solid masses that are mammographically dense or sonographically homogeneously hypoechoic.Thus, if there is a distinct ‗lump', and evidence of asymmetrical breast densityon the radiological analysis, it could suggest malignancy.It is highly unlikely that

any single diagnostic approach can confidently diagnose breast hamartoma soappropriate diagnosis is requiredand is important to correlate by clinical examination, imaging and pathological analysis.

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