Case Report

Fibroadenolipoma of breast - A rare case report

S. Raghuram Mohan[1*], Harika Venishetty[2], S. Sandhya Anil[3], H. Sandhya Rani[4]

[1]Assistant Professor, [2]Post Graduate, [3]Professor, [4]Professor and Head
Kakatiya Medical College, Warangal, India
[*]Corresponding author email: **samalaraghurammohan@gmail.com**

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Abstract

Fibroadenolipoma is a solid, rare benign tumor. It is a circumscribed lesion composed of fat and other breast tissues which may be normal or which may show various changes. The reported incidence of breast hamartomas is 0.7% of all benign breast tumors in females [1]. Clinical findings resemble fibroadenoma and if there is a palpable mass, the patients may receive an immediate diagnosis. Ductal hyperplasia, apocrine metaplasia, calcification and adenosis may occur within the hamartoma, with rarer instances of lobular or ductal intraepithelial neoplasms.

Key words

Adenolipoma, Hamartoma, Lipofibroadenoma, Benign, Breast mass.

Introduction

Fibroadenolipoma is an uncommon lesion with a low incidence, according to the literature, but this may also be the result of under-diagnosis. These growths are also referred to as fibroadenolipoma, lipofibrodenoma or adenolipoma based on their predominant component [1]. Clinically, it is a painless, smooth, mobile breast lump that may or may not be palpable and can slowly enlarge in size [2]. We have reported here a case of 31 years old female presenting with breast lump which was diagnosed as Fibroadenolipoma. We have published this case, because of its rarity.

Case report

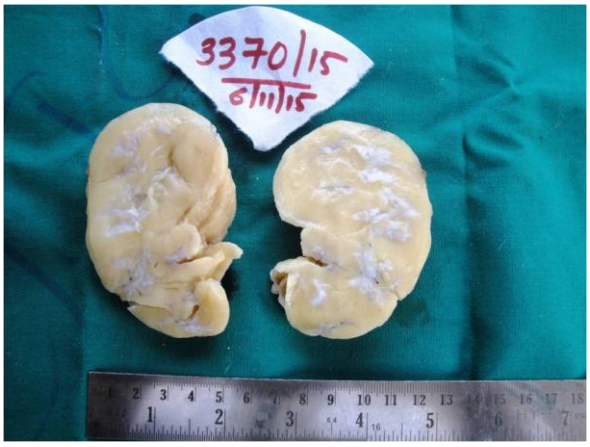
A 31 years old female was admitted to Mahatma Gandhi Hospital and Kakatiya Medical College, Warangal with a lump in breast that had been detected by self examination. A physical examination revealed a well defined mobile mass measuring 10 x 6 cm occupying upper outer and inner quadrant of right breast. Mass was firm,

non tender with smooth surface and regular margins. No lymph nodes were palpable.

Mammographic findings were a well circumscribed mass in the right breast measuring 9 cm in diameter and consistent with lipoma. USG findings revealed breast mass composed of iso-echoic fat tissue, consistent with lipoma.

Grossly, the tumor was well circumscribed, globular, encapsulated, and yellow in color and soft, measuring 8 x 5 x 4 cm. Cut surface was lobulated and yellow, with grayish white areas (**Figure – A**).

Figure – A: Well circumscribed encapsulated globular mass. Cut Surface shows yellow with grayish white areas.



Histopathological findings revealed a tumor tissue surrounded by a fibrous pseudo capsule and consisted of mature fat and islands of structurally normal glandular tissue with lobular arrangement. A fibrous stroma was found around the glandular tissue, however, 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 (**Figure - B, Figure – C**).

Discussion

Breast hamartomas are poorly defined, rare, benign breast neoplasms. Hamartomas were initially defined as mastomas in 1928 by Prym. Afterward, several cases were reported and classified as adenolipomas, fibroadenolipomas or lipofibroadenomas. Arrigoni, et al. first used the term hamartoma in 1971 [3]. 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. The presence of smooth muscle has been recorded but not found in our case. Upon gross examination, hamartomas are typically well-demarcated, occasionally lobulated lesions with smooth contours and an often rubbery grayish-white to yellow cut surface, resembling a fibroadenoma or lipoma. The two common variants of breast hamartoma are adenolipoma and chondrolipoma. Adenohibernoma and myoid hamartoma are rare variants of hamartoma. The risk of malignancy in Hamartoma is very rare and develops from the glandular component. Rarely present in coexistence with lobular carcinoma and invasive ductal carcinoma (Gulnur, 2011) [4-8]. These lesions can be incidental findings or present as palpable lesions. They are frequently seen in middle aged women during 4^{th} - 5^{th} decade due to involution of the breast tissue which makes these lesions more apparent with asymmetrical enlargement [8]. Upon gross examination, adenolipomas are soft, circumscribed, occasionally lobulated masses, bordered by a thin fibrous pseudocapsule. The cut surface reveals a variegated pattern of fat and fibrous breast parenchyma. Lesions with abundant fat resemble lipomas [1]. The genetic defect is mapped to the MAR, a major cluster region of chromosome 12, often involved in other benign tumors [5]. Although fine-needle aspiration cytology (FNAC) and core needle biopsy are accurate for diagnosing most breast lesions, in cases of adenolipomas both may be inconclusive or non-specific as they reveal normal breast tissue components, similar to our case. Diagnosing hamartoma of the breast is difficult, especially in biopsy or FNAC. The pathologist, who sees fibrous tissue within the lobules, or fibrous tissue and fat in the stroma with or without pseudo-angiomatous changes, should be alerted to the possibility of a

hamartoma [6]. Regarding definitive diagnosis of a breast hamartoma, views differ. Most advocate that fine-needle aspiration (FNA) or core biopsy has a limited role, and recommend full excision biopsy for a better diagnosis [7].

Figure – B: Tumor tissue composed of lobules of mammary gland along with abundant fibrous stroma and adipose tissue (H&E stain, 4X).

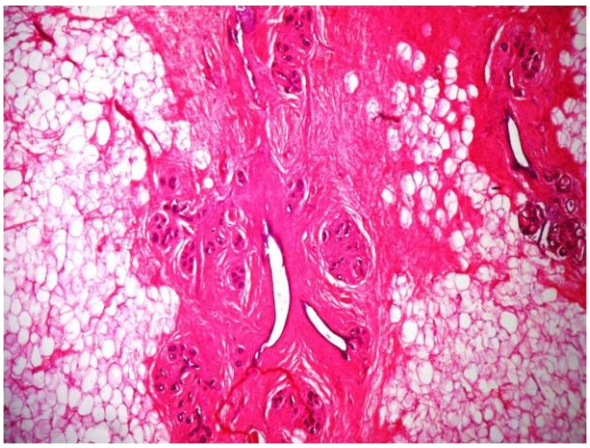
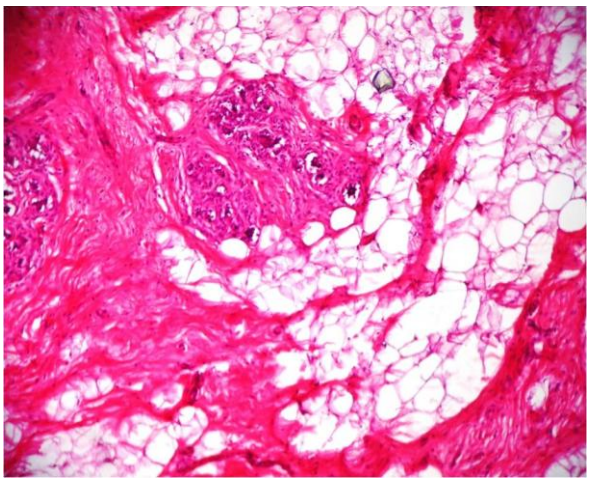


Figure – C: (H&E stain, 10X).



Treatment

Simple excision is enough for treatment if there is no coincidental epithelial malignant lesion.

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