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# BREAST HAMARTOMA: A CASE REPORT AND LITERATURE REVIEW

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## ABSTRACT

Breast hamaratoma is a benign and rare tumour consisting of benign mammary glandular tissue, fibrous stroma and fat in variable proportions, that affects women at any age from puberty onwards. We report a radio-clinical and anatomopathological case of breast hamartoma discovered in a 46-year-old women.presented with a voluminous lump of the breast with mastodynia and discuss the literature data.The diagnosis of this lesion is usually made on mammography. Ultrasound is not helpful in the diagnosis. The histological and radiological aspects are variable and depend on its adipose tissue content. The identification of these lesions is important in order to avoid systematic surgical removal but also the possibility of the appearance of breast cancer.

**KEYWORDS:** Hamartoma, Breast, Mammography.

## INTRODUCTION

Hamartoma of the breast is a benign, well-limited lesion composed of a variable amount of glandular, adipose and fibrous tissue. It is a rare lesion with an estimated incidence of 0.7% of benign breast lesions in women. It is often unrecognized and difficult to diagnose histologically because of the absence of specific signs. We report a new case of breast hamartoma.

## PATIENT AND OBSERVATION

A 46 year old woman with four gestations and four parities, with no significant pathological history pathological history, not yet menopausal, presented with a seven month history of a right breast lump with mastodynia. The symptomatology marked by the appearance of a right breast nodule that progressively increased in size with homolateral mastodynia. Clinical examination showed a right breast nodule measuring 9 x 8 cm, mobile in relation to both superficial and deep planes, well limited, painless and without inflammatory signs opposite or associated nipple discharge. No palpable lymph nodes or other masses of the contralateral breast were detected.

Mammography (Fig.1-2) identified a well-circumscribed mass in the right breast, measuring 95mm x 85mm and giving the appearance of the breast within the breast in relation to the hamartoma at the junction of the lower quadrants. Inside the hamartoma, there is a tubular density asymmetry. On ultrasound of the right breast (Fig.3) the hamartoma contains multiple galactophore dilatations, with hypoechogenic content, homogeneous without tissue buds.

The patient was treated by simple excision. On macroscopic examination, the mass measuring 9 × 8.4 × 6.2 cm was found to be rubbery and well circumscribed with a thin capsule. The mass was greasy and yellow and was transected by bands of fibrous tissue. Histology showed an association of adipose tissue, fibrous tissue and glandular elements, creating nodular formations within a fibrous stroma that surrounds the mass and insinuates between the lobules, confirming the diagnosis of hemartoma. The surgical follow-ups were simple.

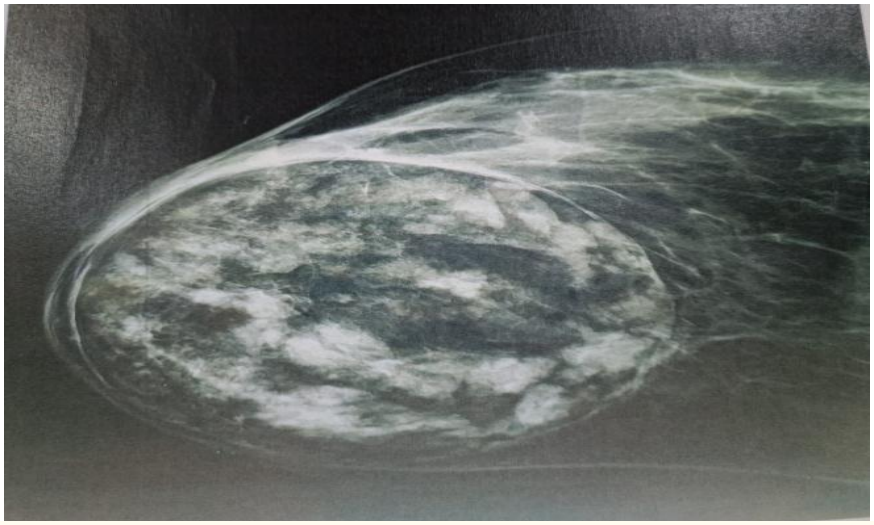

**Figure 1: Typical appearance of a hamartoma on mammography: a well-defined mass containing a substantial amount of fat (radiotransparent) and fibroepithelial components (radio-opaque) The "slice of salami" appearance is shown.**

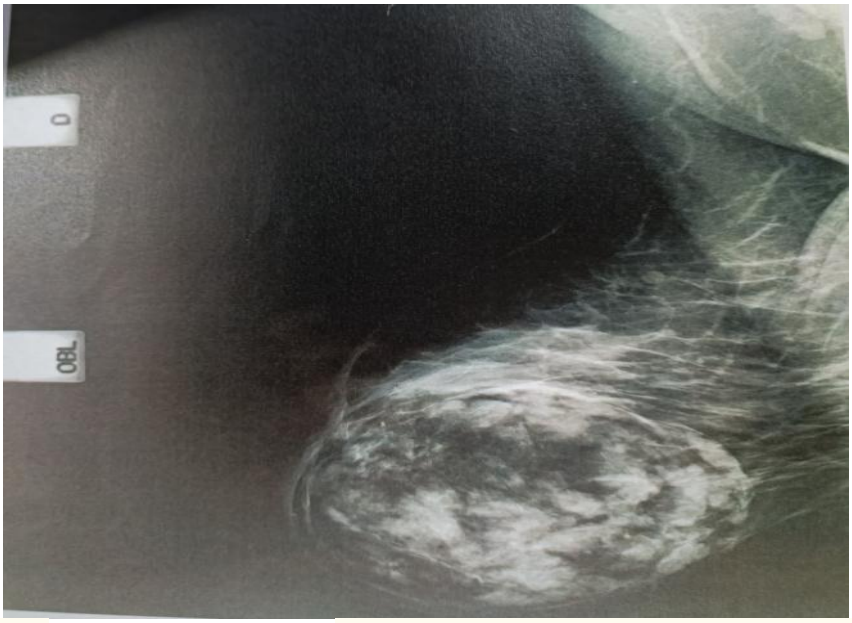


**Figure 2: Oblique mammography provides better visualization of the pseudocapsule.**

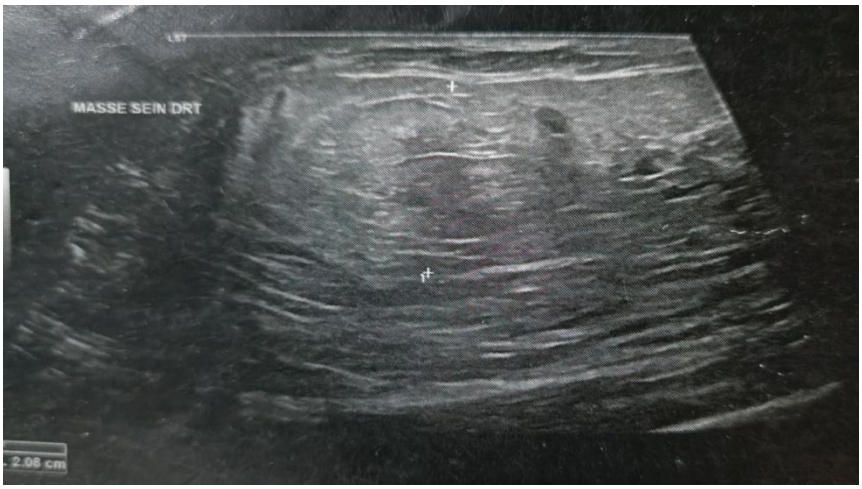


**Figure 3: Ultrasound of the same mass as in the mammography showing a well-circumscribed, ovoid, hypoechoic mass.**

## DISCUSSION

Hamartomas were defined as mastoses in 1928 by Prym. Subsequently several cases were reported and classified as adenolipomas, fibroadenolipomas or lipofibroadenomas. This tumor was first described by Arrigoni et al in 1971.[1] It is a rare lesion that affects the breast at any age from puberty.[2] According to Feder et al,[3] the majority of these lesions are seen in women over 35 years of age with extremes ranging from 16 to 59 years of age. The reported incidence of this anomaly in the literature varies between 0.1 and 0.7% of all benign breast tumors in females. However, Breast hamartomas have become more frequently diagnosed due to the increased use of mammography.[4]

The etiopathogeny of mammary hamartomas is not known, but they are thought to result from dysgenesis rather than from a true tumorous process. However, female sex steroids hormones have been implicated in the development of breast hamartomas.[5] In one study, Herbert et al.[6] reported estrogen receptor (ER) and progesterone receptor (PR) positivity in epithelial cells and stromal cells in all 24 cases of breast hamartomas.

Clinically, although the hamartoma is generally asymptomatic, it can manifest as a tissue mass, sometimes with a firm and mobile consistency,[3-7] as was the case in our patient. The diagnosis of hamartoma is mammographic. Hamartoma has the typical mammographic appearance of lucent lesions containing fat, varying radio dense fibrous and adenomatous elements, a sharp margin, and sometimes a thin radioopaque pseudocapsule. Lobulated densities are dispersed within the encapsulated fat, described as a “slice of salami”. The pseudocapsule results from displacement of breast parenchyma by the tumor giving the appearance of <<breast in breast >>.[8] Dystrophy or punctate calcifications are rarely visualized within the lesions.[8]

Ultrasound is not useful for diagnosis; The echo structure is inhomogeneous with hypoechoic areas intermixed with hyperechoic band-like or nodular areas, reflecting the presence of adipose, epithelial, and fibrous connective tissues.

Magnetic resonance imaging (MRI) is not classically indicated but may be requested in case of a lesion of undetermined appearance on mammography and ultrasound. On T1- and T2-weighted sequences, the mass generally exhibits heterogeneous signal intensity, reflecting the presence of glandular and adipose tissue components, and a thin capsule. After administration of contrast medium, hamartomas show a gradual, progressive enhancement with a type I time/intensity curve.[9]

On anatopathologic examination; Macroscopically, this lesion is well limited, usually encapsulated, measuring between 1 and 20 cm in long axis. Its surface is smooth and its consistency is firm to soft. On section, it appears pearly white or yellowish-gray. Histologically, it gives the impression of a "breast within a breast".[10] Microscopically, hamartomas are composed of a combination of epithelial and stromal elements, usually with normal ducts or lobules, although variations of normal tissue may also be present.[6,9,11] Examination shows that there is no true capsule surrounding the mass and it is the compressed breast tissue that causes the pseudocapsule visualized on mammography.[3] The presence of lobules and ducts allows the differential diagnosis with fibroids.[12]

However, the presence of adipose tissue has been reported in 90% of cases.[13] Several associated lesions have been noted, in particular, pseudoangiomatous stromal hyperplasia (PASH) which should be considered as a diagnosis.[8] This is present in 20 to 71% of cases.[8] Cysts, apocrine metaplasia, in situ or invasive, ductal or lobular carcinoma have also been observed, hence the importance of careful specimen sampling.[14] More rarely, smooth muscle differentiation has been reported and is referred to as myoid hamartoma.[15] Similarly, microcalcifications, stromal edema and giant cells have been described.

Hamartomas usually have a similar progression to the adjacent breast and usually remain stable over many years. Malignant transformation of a hamartoma is a very rare event, but it can occur since the mass contains epithelial tissue.[5] Only eight cases of hamartoma transformed into breast carcinoma have been published in the literature.

Exceptionally, the hamartoma is part of the multiple hamartoma disease, or Cowden's disease (6) (associating periorificial verrucous papules and mammary, thyroid and digestive dysplasias).

Atypical forms have been reported in the literature, including three cases of breast hamartoma in men and one case of axillary hamartoma developed on ectopic breast tissue.[16]

Surgical removal is the curative method for breast hamartomas. Indeed, thanks to its well circumscribed character, this lesion is easily removed without resorting to reconstructive surgery, even in the case of a large mass.[8,13] in fact, the breast tissue, initially pushed back by the hamartoma, returns to its usual place and no aesthetic deformation is observed.

## CONCLUSION

The diagnosis of breast hamartoma is relatively easy in its typical form. Mammography alone is sufficient to establish this diagnosis, allowing to avoid the recourse to biopsy or systematic surgical removal. The diagnosis is more difficult in the forms with fibrous and glandular or fatty component, in the voluminous hamartomas, for which the diagnosis of certainty is exclusively

anatomopathological. Finally, hamartomas may be diagnosed with greater frequency due to widespread screening mammography. Radiologists should recognize that malignancy may co-exist or develop in hamartomas and be alert to the presence of suspicious features within a hamartoma.

## REFERENCES


1. Suneet K. Pervatikar, Ravikala Rao, U. S. Dinesh, S. Parameswaraiah: Large mammary hamartoma with focal invasive ductal carcinoma. Indian Journal of Pathology and Microbiology, 2009; 52: 249-251.
2. Lee EH, Wylie EJ, Bourke AG, Bastraan De Booer W. Invasive ductal carcinoma arising in a breast hamartoma: two case reports and review of the literature. Clin Radiol, 2003; 58: 80-3.
3. Feder JM, de Paredes ES, Hogge JP, Wilken JJ. Unusual breast lesions: radiologic-pathologic correlation. Radiographics, 1999; 19: S11-26.
4. G M K Tse, B K B Law, L M Pang, H S Cheung : Ductal carcinoma in situ arising in mammary hamartoma. J Clin Pathol, 2002; 55: 541–542.
5. Salaheddine A, Bourass K, Saoud MK, Nissrine M, Sanaa E, Chahrazed B and Abdelaaziz B Hamartome Du Sein : Une Tumeur Bénigne Rare A Propos De 4 Cas Et Revue De La Littérature, 2021; 5(3).
6. Herbert M, Sandbank J, Liokumovich P, Yanai O, Pappo I, Karni T, et al. Breast hamartomas: clinicopathological and immunohistochemical studies of 24 cases. Histopathology, 2002; 41(1): 30-4.
7. Daya D, Trus T, D'Souza TJ, et al. Hamartoma of the breast, an underrecognized breast lesion. A clinicopathologic and radiographic study of 25 cases. Am J Clin Pathol, 1995; 103: 685–9.
8. G M K Tse, B K B Law, T K F Ma, A B W Chan, L-M Pang, W C W Chu, H S Cheung : Hamartoma of the breast: a clinicopathological review. J Clin Pathol, 2002; 55: 951–954.
9. Tse GM, Law BK, Ma TK et al. Hamartoma of the breast: a clinicopathological review. J Clin Pathol, 2002; 55: 541-2.
10. Tavassoli F.A., Devilee P. From tumors of the breast, fibroepithelial tumors. In the WHO Classification of tumours: pathology and genetics of tumours of the breast and female genital organs: IARC Press, 2002; 103.
11. Gatti G, Mazzarol G, Simsek S, Viale G. Breast hamartoma: a case report. Breast cancer Res Treat, 2005; 89: 145-7.
12. Oueslati S, Salem A, Chebbi A, Mhiri S, Kribi L, Ben Romdhane K, et al. Hamartome du sein. Imagerie de la femme, 2007; 17: 19–25
13. Tavassoli F.A., Eusebi V. From benign lesions. In tumors of the mammary gland. AFIP Atlas of tumor pathology : Series 4, n°10, 2009; 33-35.
14. G M K Tse, B K B Law, L M Pang, H S Cheung : Ductal carcinoma in situ arising in mammary hamartoma. J Clin Pathol, 2002; 55: 541–542.
15. Zafrani B, Vincent-Salomon A : Lésions et tumeurs bénignes du sein. Ann. Pathol., 2000; 20: 570-587.
16. Gupta S, Singh O, Hastir A, Arora G, Sabharwal G, Mishra H.Breast hamartoma with intrathoracic extension in 13-year-old boy. J cancer ResTher-January-March, 2010.