International Clinical and Medical Case Reports Journal
Case Report (ISSN: 2832-5788)

Breast Hamartoma in Pregnancy: A Case Report

Efstratiadou Marianna*, Prompona Nefeli, Stagaki Evgenia, Damatopoulou Anna and Dimosthenous Efthymios

Department of Obstetrics and Gynecology, Venizeleio General Hospital, Heraklion, Greece

Citation: *Marianna E, Nefeli P, Evgenia S, Anna D, Efthymios D. Breast Hamartoma in Pregnancy: A Case Report. Int Clinc Med Case Rep Jour 2025;4(9):1-6.*

Received Date: 30 August, 2025; **Accepted Date:** 01 September, 2025; **Published Date:** 03 September, 2025

***Corresponding author:** Efstratiadou Marianna, Venizeleio General Hospital, Department of Obstetrics and Gynecology, Knosou Ave. 144, Heraklion, 71409, Greece

ABSTRACT

Background: Breast hamartomas are rare benign lesions composed of an abnormal mixture of glandular, fibrous and adipose tissues. They are typically seen in middle-aged women, with a peak incidence between 35 and 55 years and are uncommon in younger women or during pregnancy. The physiological changes of pregnancy-including lobuloalveolar proliferation, ductal enlargement and increased vascularity-can complicate the detection and evaluation of breast lesions.

Case Presentation: We report the case of a 26-year-old woman in her second trimester of pregnancy who presented with an augmented painless right breast mass. Ultrasound demonstrated imaging features suggestive of a hamartoma or phyllodes tumor. Conservative management was undertaken throughout pregnancy, with careful monitoring. Following delivery, an excisional biopsy confirmed the diagnosis histologically.

Conclusion: Although hamartomas are rare in pregnant women, they should be included in the differential diagnosis of breast masses detected during gestation. Imaging with ultrasound and MRI provides valuable diagnostic guidance. Conservative follow-up during pregnancy, with postpartum excision for histological confirmation, is a safe and effective strategy. Reporting such cases contributes to the clinical literature by providing guidance for the diagnosis and management of rare breast tumors during pregnancy.

Keywords: Breast hamartoma; Pregnancy; Benign breast tumor; Case report

INTRODUCTION

Breast hamartomas are uncommon benign tumors that account for less than 5% of all benign breast lesions[1]. They are composed of a variable mixture of breast components arranged in a disorganized but non-neoplastic fashion, often encapsulated by a thin pseudo capsule. Histologically, they resemble normal breast tissue but with an irregular distribution of ducts, lobules, stroma and adipose tissue. Clinically, hamartomas are usually painless, slow-growing and mobile, frequently leading to their misdiagnosis as fibroadenomas, lipomas or other benign entities[2].

The classic mammographic appearance of a hamartoma is the so-called “breast within a breast” or “slice of sausage” sign, characterized by the presence of both radiolucent (fatty) and radio dense (fibroglandular) components. On ultrasound, hamartomas are often heterogeneous and on MRI, they appear as encapsulated lesions with intermixed fat and fibroglandular elements[3,4].

Pregnancy complicates the diagnosis of breast lesions for several reasons. Physiological hypertrophy of glandular tissue increases breast density, which reduces the sensitivity of mammography and alters the sonographic appearance of the parenchyma. Hormonal changes also stimulate growth of pre-existing benign lesions such as fibroadenomas or hamartomas, which may become clinically apparent or enlarge during gestation[5]. Given the association between pregnancy and more aggressive forms of breast cancer (such as pregnancy-associated breast carcinoma), any breast mass discovered during pregnancy warrants careful evaluation[6].

To date, very few reports describe breast hamartomas in pregnant women and even fewer detail their management and outcomes. This case report presents a rare example of a breast hamartoma diagnosed during pregnancy, discusses the imaging findings and reviews management considerations within the context of maternal and fetal safety.

CASE PRESENTATION

A 32-year-old woman, gravida 2, para 1, at 24 weeks’ gestation, presented to obstetrics clinic with a complaint of an augmented painless lump in her right breast. She had first noticed the lesion approximately two years earlier in her first pregnancy and it had gradually increased in size during the second pregnancy. She denied nipple discharge, erythema, tenderness, fever or systemic complaints.

Medical and family history

The patient had no history of breast disease, surgery or trauma. She had no family history of breast or ovarian cancer. She reported no exposure to hormonal treatments aside from routine prenatal vitamins.

Clinical examination

On inspection, the breasts appeared asymmetrical, with no skin dimpling, peau d'orange and the right nipple was retracted. Palpation of the right breast revealed a mobile, well-circumscribed, soft-to-firm mass measuring approximately 4 × 5 cm in the lower inner quadrant. The lesion was non-tender. No axillary or supraclavicular lymphadenopathy was detected **(Figures 1,2)**.

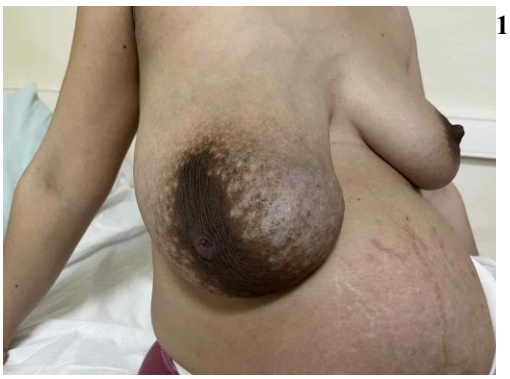

Figure 1: No Axillary Lymphadenopathy

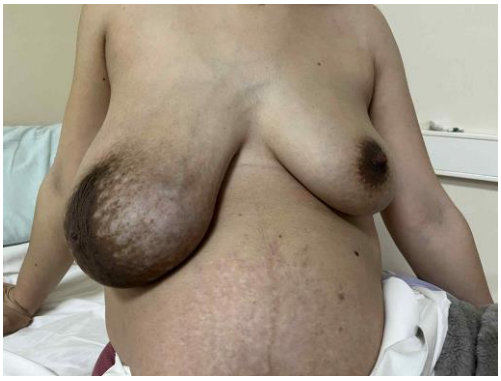

Figure 2: Supraclavicular Lymphadenopathy

Imaging studies

- **Ultrasound:** A well-defined, oval-shaped lesion with heterogeneous echotexture was identified. The lesion contained both hyperechoic and hypoechoic areas, suggestive of fibroglandular and fatty tissue. The margins were smooth, with no suspicious calcifications or increased vascularity on Doppler study. The differential diagnosis included hamartoma or phylloides tumor.
- **Mammography:** was not performed due to the patient's pregnancy.
- Magnetic Resonance Imaging (MRI) without gadolinium : Was not performed.

Management

Considering the benign radiological features, absence of suspicious findings and gestational status, a conservative approach with close clinical and sonographic monitoring was adopted. The pregnancy proceeded without complication.

At three months postpartum, the lesion remained stable in size. Given patient preference and to obtain definitive diagnosis, an excisional biopsy was performed.

Histopathological findings

Microscopic examination revealed normal breast components arranged in a disorganized pattern: ducts and lobules embedded in fibrous stroma, interspersed with mature adipose tissue, consistent with hamartoma. No atypia or malignancy was identified.

Outcome and follow-up

The postoperative course was uneventful. At six months follow-up, the patient remained asymptomatic with no evidence of recurrence.

DISCUSSION

Breast hamartomas are uncommon, benign, tumour-like lesions that can mimic other breast pathologies. Their prevalence is estimated at 0.7-5% of benign breast lesions, although true incidence is likely underreported due to under recognition and misclassification[1,2].

Diagnostic challenges in pregnancy

Pregnancy introduces unique diagnostic challenges. Breast density increases, reducing mammographic sensitivity. Ultrasound is considered the imaging modality of choice during pregnancy because it avoids radiation exposure and allows characterization of solid versus cystic lesions. MRI, particularly without gadolinium, can provide additional diagnostic confidence, especially in equivocal cases[3,4].

In our case, the diagnosis was suggested by U/S findings showing an encapsulated lesion with intermixed fatty and fibroglandular tissue. Such imaging features are considered highly specific for hamartoma or less frequently for phyllodes tumour.

Differential diagnosis

The differential diagnosis for a painless, well-circumscribed breast mass in pregnancy includes fibroadenoma, lactating adenoma, phyllodes tumour, lipoma and cyst. Malignant entities such as pregnancy-associated breast

carcinoma should also be considered, especially if the lesion shows rapid growth, irregular margins or associated lymphadenopathy[6].

Management considerations

Management of breast hamartomas is individualized. Many small, asymptomatic hamartomas can be observed, while larger lesions or those with cosmetic or symptomatic implications are typically excised[7]. In pregnancy, the risks of surgery-anaesthesia, fetal monitoring and perioperative complications-must be carefully weighed. Conservative management is acceptable when imaging features are benign, with postpartum excision reserved for diagnostic confirmation.

Malignant potential

Although hamartomas are benign, rare cases of carcinoma arising within hamartomas have been reported[8]. This underscores the importance of histological confirmation, particularly when imaging findings are atypical or when lesions change rapidly.

Review of literature

Reports of breast hamartomas in pregnancy are extremely limited. A 2007 report described infarction of a giant hamartoma during pregnancy, mimicking inflammatory carcinoma[5]. Another case involved unilateral gigantomachia of pregnancy due to a giant hamartoma[9]. These reports, together with our case, illustrate the variable clinical presentations and emphasize the need for awareness among clinicians.

CONCLUSION

Breast hamartomas are rare, benign breast lesions that may occasionally present during pregnancy. The physiological changes of gestation complicate clinical and radiological assessment, requiring careful evaluation. Ultrasound and MRI without contrast provide safe and reliable imaging in pregnant women. Conservative management during pregnancy, with postpartum surgical excision and histological confirmation, represents an appropriate and safe approach in cases with benign imaging features.

This case highlights the importance of including hamartomas in the differential diagnosis of breast masses in pregnant patients, thereby avoiding unnecessary interventions while ensuring timely diagnosis and treatment. Increased reporting of such cases will help refine diagnostic algorithms and management strategies for this rare but clinically significant entity.

ACKNOWLEDGEMENTS

The authors thank the radiology and pathology teams for their contributions to this case.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

REFERENCES

1. Tazeoğlu D, Dağ A, Arslan B, Berkeşoğlu M. Breast Hamartoma: Clinical, Radiological and Histopathological Evaluation. Eur J Breast Health 2021;17(4):328-332.
2. Charpin C, Mathoulin-Pelissier S, Guérin S, et al. Breast hamartoma: a clinicopathologic review of 45 cases. Pathol Res Pract 1994;190(4):362-371.
3. Ahn HS, Kim SM, Park SH, et al. Breast hamartomas: mammographic and sonographic appearances. J Clin Ultrasound 1999;27(6):293-300.
4. Giannotti E, Bottini A, Filice A, et al. Mammographic and sonographic features of breast hamartoma. J Ultrasound 2000;3(4):225-230.
5. Catania S, Zurrida S, Veronesi P, et al. Infarction of a giant breast hamartoma in a pregnant patient mimicking an inflammatory breast cancer. Breast Care 2007;2(2):99-101.
6. Amant F, Loibl S, Neven P, Van Calsteren K. Breast cancer in pregnancy. Lancet 2012;379(9815):570-579.
7. Tse GM, Law BK, Ma TK, Chan AB, Pang LM, Chu WC. Hamartoma of the breast: a clinicopathological review. J Clin Pathol 2002;55(12):951-954.
8. Wei L, Tian Z, Wang ZY, et al. Concurrent invasive ductal carcinoma and ductal carcinoma in situ arising inside and outside a breast hamartoma: A case report. World J Clin Cases 2025;13(18):101882.
9. Taboada JL, Stephens TW, Krishnamurthy S, et al. Unilateral gigantomastia of pregnancy associated with giant breast hamartoma. Breast J 2014;20(4):435-437.