Pseudoangiomatous Stromal Hyperplasia (PASH) of the Breast: A Report of Four Cases

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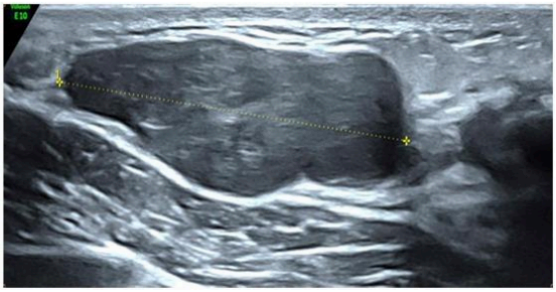
Abstract

Pseudoangiomatous stromal hyperplasia (PASH) is a rare benign proliferation of the breast stroma that can clinically and radiologically mimic malignant lesions. Its diagnosis relies on histology and immunohistochemistry (IHC). We report four cases of PASH managed in our department, highlighting the diversity of its clinical, radiological, and pathological presentations.

Introduction

PASH is a benign hyperplasia of the breast stroma characterized by the proliferation of myofibroblastic cells forming slit-like spaces resembling vascular structures. It is often asymptomatic but can present as a palpable nodule, posing a diagnostic challenge with phyllodes tumors and some carcinomas. The exact etiology remains unclear, although hormonal influence is strongly suspected. Breast imaging may suggest a suspicious lesion (ACR4), requiring biopsy and IHC for confirmation.



Ultrasound image showing the appearance of a PASH (Pseudoangiomatous Stromal Hyperplasia).

Case Reports

Case 1 :

A 45-year-old woman with no medical history presented with a 3 cm nodule in the right breast. Breast ultrasound showed a lesion classified as ACR4a. A biopsy suggested PASH, confirmed by IHC. The patient underwent lumpectomy with uneventful postoperative recovery. Histopathological examination of the surgical specimen confirmed the absence of malignancy.

Case 2 :

A 51-year-old woman with no prior medical history presented with a left breast nodule evolving over three months. Clinically, the lesion was classified as cT2N0Mx. Mammography and ultrasound classified it as ACR4c. Biopsy revealed PASH with IHC findings suggestive of fibrocystic mastopathy. Histopathological examination confirmed the diagnosis of PASH.

Case 3 :

A 25-year-old single woman presented with a right breast nodule that had been present for five years and had progressively increased in size to 4 cm. Mammography and ultrasound classified the lesion as ACR4a. Biopsy confirmed PASH, with IHC findings consistent with PASH. Histopathological examination of the lumpectomy specimen revealed a fibroadenoma with associated PASH lesions.

Case 4 :

A 24-year-old single woman with no medical history presented with a 4 cm right breast nodule, classified as cT2N0Mx. Biopsy and IHC confirmed PASH. Histopathological examination of the lumpectomy specimen also confirmed the diagnosis of PASH.

Discussion

PASH is a benign breast condition that is often an incidental finding but may also present as a palpable mass, making it difficult to distinguish from malignant lesions on imaging. The ACR4a and ACR4c classifications observed in our cases highlight that PASH can mimic suspicious lesions, warranting biopsy for histological confirmation.

Immunohistochemistry plays a crucial role in the differential diagnosis. PASH can be associated with other benign breast conditions, such as fibrocystic mastopathy (case 2) or fibroadenoma (case 3). Management depends on symptoms and lesion progression:

- Small, asymptomatic lesions can be monitored.
- Large or growing lesions require surgical excision.
- Recurrence is rare but possible.

Conclusion

PASH is a benign entity that can pose a diagnostic challenge, requiring a multidisciplinary approach combining imaging, histology, and IHC. Its prognosis is generally favorable after excision. A better understanding of this condition allows for appropriate management and avoids unnecessary aggressive treatments.

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