



ORIGINAL RESEARCH PAPER

Pathology

PSEUDOANGIOMATOUS STROMAL HYPERPLASIA, BENIGN PROLIFERATIVE BREAST DISEASE - A RARE CASE DIAGNOSED ON HISTOPATHOLOGY

KEY WORDS: Breast tumor, PASH, pseudoangiomatous, stromal hyperplasia.

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ABSTRACT

Introduction: Pseudoangiomatous stromal hyperplasia (PASH) is a benign mesenchymal proliferative lesion of the breast.
Case Report: A 25 years old female present in surgery department with complain of right breast lump since 2 months.
FNAC : Phyllodes tumor
USG: Phyllodes tumor, more likely BIRADS category III
Discussion: Pseudoangiomatous stromal hyperplasia is a rare but benign breast lesion presenting mostly in premenopausal women. It may be found incidentally in routine biopsy performed in benign or malignant disease of the breast.

INTRODUCTION:

Pseudoangiomatous stromal hyperplasia is a rare benign mesenchymal proliferative lesion of the breast present in premenopausal women. Patient present as a painless and palpable mass. Pseudoangiomatous stromal hyperplasia tumor are regarded as a benign proliferation of stromal myofibroblast.

CASE HISTORY:

A 25 year old female admitted in surgery department with complain of painless right breast lump since 2 months. On USG and FNAC report phyllodes tumor on right side of breast was diagnosed. After excision biopsy specimen taken from site of lesion and sent for histopathological examination. Specimen received in 10% formalin.

GROSS EXAMINATION:

A 12x7x4.5cm sized tissue specimen of breast covered with skin (nipple and areola) is received. On cut section, mass of size 6.5x5.5x4.5cm is seen. Cut surface of mass is whitish, shiny and is present laterally to nipple.

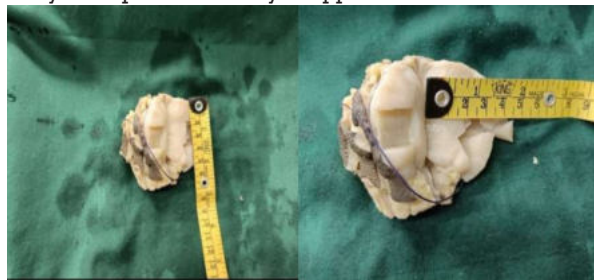


Fig 1: A 6.5x5.5x4.5cm sized whitish and shiny.

MICROSCOPIC EXAMINATION:

H&E stained section shows proliferating duct and stroma. Ducts are present in lobules as well as scattered singly. There are areas showing changes of sclerosing adenosis and fibroadenosis. At many places, there is columnar cell changes(CCC) in ductal epithelial cells, which shows apical snouts with secretion at tips and in lumen. So, there are changes of typical ductal hyperplasia(cribriform pattern), columnar cell hyperplasia(Blunt duct adenosis) with mild atypia at places.

In stroma, there are bands of thick collagen, which looks glassy(keloid like collagen). In between there are spaces which are lined by myofibroblastic cells (Pseudo vascular spaces). At places, there is marked proliferation of myofibroblastic cells.

There is no leaf like arrangement or increased stromal cellularity in other areas.

Diagnosis : "Benign Fibroepithelial Proliferative Lesion Of Breast Pseudoangiomatous Stromal Hyperplasia With Epithelial Ductal Hyperplasia"

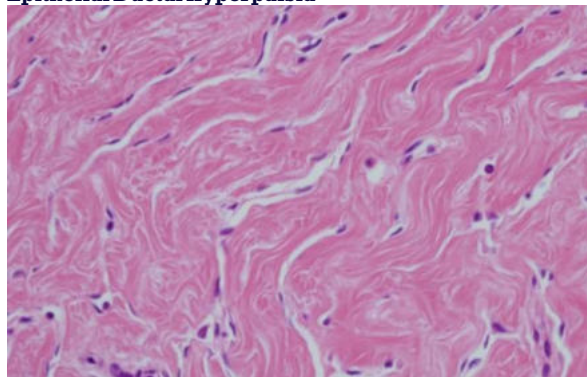


Fig 2: High Power (40X):

PASH: Thin channels lined by spindle cells are scattered within hyalinized stroma.

DISCUSSION:

- PASH is a benign proliferative condition of the breast stromal cell which does not exhibit any atypia or mitotic activity.
- It arises from mammary stromal cells and quite frequently found as an incidental findings on several pathological specimens of breast.
- PASH presenting as a solid breast lump is rare, therefore the patient's presentation was initially challenging as its differential includes phyllodes tumor to-rule-out malignancy.
- The myofibroblasts are believed to react aberrantly to hormones, particularly progesterone. Hence, some authors have postulated a hormonal cause to this condition. Ferrera et al noted 62% of pseudoangiomatous stromal hyperplasia tumor diagnosed in premenopausal women than in postmenopausal women and it was also associated with hormone therapy use.
- PASH show positivity for estrogen, progesterone, androgen gene receptors; CD34, and vimentin. Cytokeratin and vascular markers such as CD31 and factor 8 are negative.
- Differential diagnosis are: (I): Fibroadenoma, (II): Phyllodes tumor, (III) Low grade sarcoma

- Conclusion: PASH is a rare benign entity that is regarded as myofibroblastic proliferation of the breast. PASH is differentiated from fibroadenoma and phyllodes tumor by histopathological examination. PASH has rare chances of recurrence and malignancy. So to differentiate it from phyllodes and low grade sarcoma by histopathology is of utmost importance.

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