



HISTOPATHOLOGICAL STUDY OF FIBROEPITHELIAL LESIONS OF BREAST AT TERTIARY CARE CENTRE

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ABSTRACT

Introduction- Fibroepithelial lesions are the most common lesions of the breast. Mammary fibroepithelial tumours are biphasic neoplasms that exhibit proliferation of epithelial and stromal (mesenchymal) components. The proliferation of the epithelial and stromal components of fibroepithelial tumors results in two histological patterns first intracanalicular, in which the compression of benign ductal elements by stroma leads to the formation of arciform slit-like, epithelium-lined luminal spaces, and second peri canalicular, in which stroma grows around patent rounded tubules. **Purpose-** To study the histopathological spectrum, distribution of lesions in different age group and incidence of fibroepithelial lesions in total breast specimen. **Material And Method-** Study type- Hospital based descriptive observational study Study duration- May 2021 to November 2021 Study place- Department of Pathology Jhalawar medical college, Jhalawar, Rajasthan Sample size-72 biopsies were studied in which 45 cases were fibroepithelial lesions. **Results** - Out of the total of 72 specimens of biopsies, there were 45 cases of Fibroepithelial lesions which are of 62.5%, Out of 45 lesions 38 cases of fibroadenoma (84.4%), 4 cases of phyllodes tumour (8.88%), 3 cases of mammary hamartoma (6.66%) were diagnosed. **Conclusion-** We conclude that fibroepithelial lesions are the most common lesions of breast in which commonly found tumours are fibroadenomas and phyllodes tumours. Mammary fibroepithelial tumours are biphasic neoplasm that exhibits proliferation of epithelial and stromal {mesenchymal} components.

KEYWORDS :

INTRODUCTION

- Fibroepithelial lesions are the most common lesions of the breast. Mammary fibroepithelial tumours are biphasic neoplasms that exhibit proliferation of epithelial and stromal (mesenchymal) components.
- The proliferation of the epithelial and stromal components of fibroepithelial tumors results in two histological patterns first intracanalicular, in which the compression of benign ductal elements by stroma leads to the formation of arciform slit-like, epithelium-lined luminal spaces, and second peri canalicular, in which stroma grows around patent rounded tubules¹
- These lesions generally present as painless, isolated, firm, and slow-growing masses which measures around <3 cm. They might be bilateral and multifocal in appearance. Mammary FELs consists of a broad range of heterogeneous collection of biphasic tumors that varies from a dormant fibroadenoma to a potentially active and fatal malignant phyllodes tumor.
- Phyllodes tumor (PT) affecting the breast is an unusual and rare biphasic cancer, accounting for around 2.5% of total FELs. At first, this tumor was described in 1774 as a giant fibroadenoma type and in 1838 it was named as "Cyst sarcoma phyllodes" by Johannes Muller⁴

OBJECTIVES

- To study the histopathological spectrum of fibroepithelial lesion of breast.
- To study the distribution of lesions in different age group.
- To analyse incidence of fibroepithelial lesions in total breast specimen.

MATERIAL AND METHODS

- Study type- Hospital based descriptive observational study
- Study duration- May 2021 to November 2021
- Study place- Department of Pathology Jhalawar medical college, Jhalawar, Rajasthan
- Sample size- 72 biopsies were studied in which 45 cases were fibroepithelial lesions.

Inclusion Criteria

All female patients with breast mass/ lump undergoing excision biopsy/lumpectomy/mastectomy

Exclusion Criteria

Breast masses/lump undergoing excision in males.

RESULTS & DISCUSSION

- Out of the total of 72 specimens of biopsies, there were 45 cases of Fibroepithelial lesions which are of 62.5%, 38 cases of Fibroadenomas (84.4%), 4 cases of Phyllodes Tumour (8.88%), and 3 cases of Mammary Hamartoma (6.66%) were diagnosed.
- In Bhawani C et al⁵, incidence of fibroepithelial lesions among the total breast specimen is found to be 52.06%. In Rashid A et al⁶ incidences of fibroepithelial lesions among the total breast specimen is found to be 55.50%.
- As above in different studies fibro-epithelial lesions of breast are one of the most common breast lesions. They comprise of a wide spectrum of biphasic tumours ranging from most common fibroadenoma to infrequent phyllodes tumour with epithelial and stromal components that demonstrate widely variable clinical behaviour.
- As well as In Sharma K et al⁷ among the fibroepithelial lesion the most common lesion is found to be fibroadenoma with incidence of 86.11% followed by mammary hamartoma with an incidence of 11.11% in total of 72 cases of fibroepithelial lesions
- Fibroadenoma is a very common fibroepithelial lesion which is freely mobile and firm tumour of breast occurs in the reproductive age group. Fibroadenomas are biphasic tumours, benign in nature which are made up of proliferation of both epithelial and stromal components. These components may show varied histomorphological changes.^{8,9}
- In Naveen N et al¹⁰ among the fibroepithelial lesion the most common lesion is found to be fibroadenoma with incidence of 92.85% followed by benign phyllodes tumour with incidence of 7.14% in total of 28 cases of fibroepithelial lesions.
- Mammary hamartoma is a rare benign lesion accounting

for approximately 4.8% of all benign breast masses.

- Mammary hamartoma is a well demarcated mostly encapsulated mass composed of haphazardly arranged breast tissue components. Several variants depending on the composition of glandular and fibroadipose elements that include adeno lipoma, fibro adeno lipoma and myoid hamartoma and show prominent smooth muscle proliferation.¹¹
- Phyllodes tumour of the breast is an infrequently encountered fibroepithelial neoplasm which are 0.3 % to 1% of all tumour. Macroscopically phyllodes tumours well circumscribed, firm, protruding masses.
- Microscopically phyllodes tumours exhibit an enhanced intracanalicular pattern with leaf like projections into dilated elongated lumina. The epithelial component consists of luminal epithelial and myoepithelial cells stretched into arc like clefts surmounting stromal fronds. There are three grading including benign, borderline, and malignant phyllodes.¹²

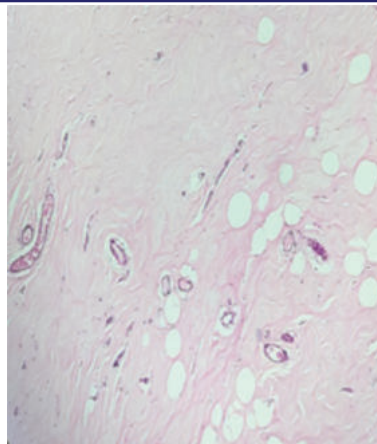


Fig 3: Mammary Hamartoma

Table 1. Age Distribution Of Fibroepithelial Lesions.

Age group(years)	No of cases(n)	Percentage(%)
0-20	19	41.31
20-40	26	57.77
40-60	0	0
60-80	0	0
Total	45	100

Table 2: Distribution Of Fibroepithelial Lesions Of Breast According To Histopathological Diagnosis.

Diagnosis	Number of cases (n)	Percentage (%)
Fibroadenoma	38	84.4%
Phyllodes Tumor	4	8.88%
Mammary Hamartoma	3	6.66%
Total	45	

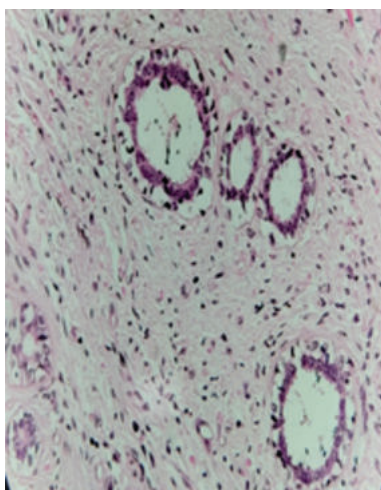


Fig 1: Fibroadenoma

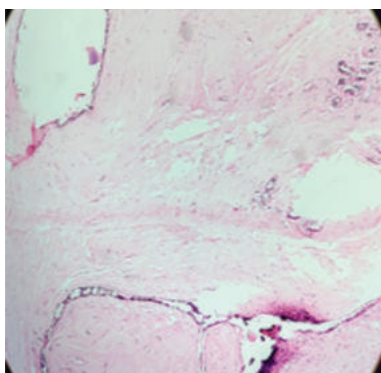


Fig 2: Benign Phyllodes Tumour

CONCLUSIONS

- We conclude that fibroepithelial lesions are the most common lesions of breast in which commonly found tumours are fibroadenomas and phyllodes tumours. Mammary fibroepithelial tumour are biphasic neoplasm that exhibits proliferation of epithelial and stromal {mesenchymal} components.
- We conclude that fibroepithelial lesions are mostly found as fibroadenoma. The most common age group is 20-40 yrs. of age group.

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