

POSTMENOPAUSAL WOMEN WITH PHYLLODES OF BENIGN ORIGIN IN THE BREAST REGION – A CASE REPORT AND REVIEW OF LITERATURE

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ABSTRACT

Based on histopathological findings, World Health Organisation termed phyllodes of benign nature. Fibroadenoma might mimic phyllodes. In this case report we describe phyllodes tumour in a geriatric female of 64 years old.

KEYWORDS: *Phyllodes, Breast, Pathology, Benign, Female, Fibroadenoma*

Article History

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INTRODUCTION

Epithelial and stromal components of the breast constitute biphasic neoplasm. As per the World Health Organisation phyllodes tumours are of benign category. Mostly seen in postmenopausal females as a defined mass with a gradual increase in size. Sometimes they can be malignant and metastasize. In this case report we describe phyllodes tumour in a geriatric female of 64 years old.

CASE REPORT

A geriatric female individual of 64 years old attended the department with swelling in the breast on the left side for 2 years. Swelling gradually increased in size to attain the current size and was associated with dragging pain.

Clinically, a firm to hard lump of 6x5cm in 10-2'0 clock position, occupies the external and top quadrant of the left breast. The swelling moved along the breast tissue with a smooth surface and well-defined border. No axillary lymph nodes were palpated. Phyllodes was the choice for clinical diagnosis. Ultrasound revealed a 6.2x5.8 cm sized well defined, lobulated, solid, cystic heterogenous lesion with specks of calcification seen in the left breast at 9'0 clock position with peripheral and internal vascularity. A modified radical mastectomy was done and the lump was excised. (Figures 1 and 2)



Figure 1

The cut section of the specimen showed multiple slit-like spaces along with a small foci of calcification. Histopathological examination revealed an encapsulated circumscribed lesion composed of elongated ducts and slit-like spaces lined by layers of myoepithelial and epithelial encircled by moderately stromal cellularity showing spindle cells with elongated and vesicular nuclei with ill-defined whorl formation and extensive hyaline changes.

Focal sclerotic areas and scattered lymphocytic infiltration were also noted. Very Few mitoses (<5/HPF) were noted.

Diagnosis of Left simple mastectomy- Benign phyllodes tumour was made.

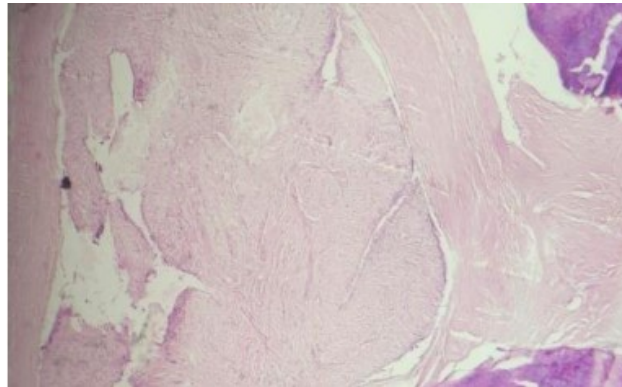


Figure 2: H &E: Scanner View-Capsulated Lesion.

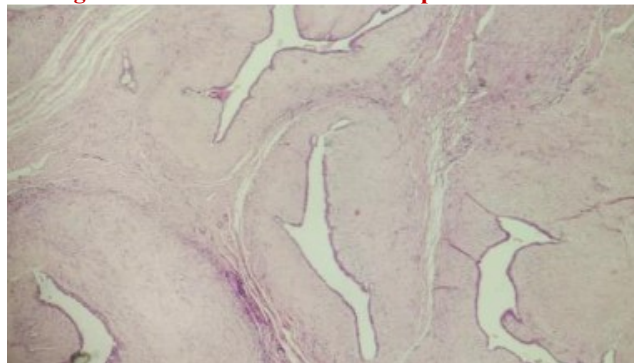


Figure 3: H &E: Low Power View- Leaf-Like Epithelial Pattern.

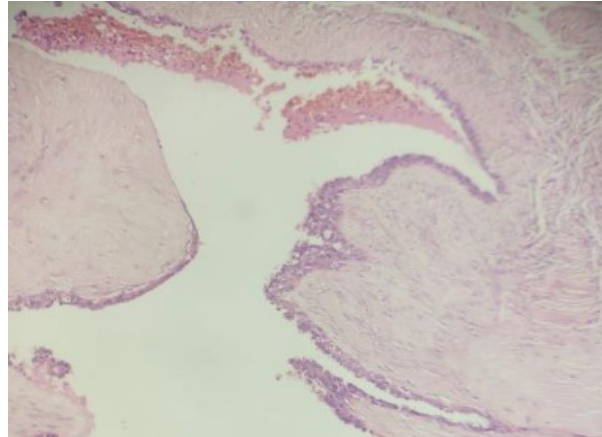


Figure 4: H & E: High Power View- Increased Stromal Cellularity with Areas of Haemorrhage.

REVIEW OF LITERATURE

Phyllodes tumour comprises of mammary fibroepithelial lesions^{1,2}. In 1827, Chelius first described the tumour³. Rosen subdivided it into benign, borderline and malignant based on histopathological features (World Health Organization) in 1981^{2,4}. Phyllodes account for 0.3% to 05% of female breast tumours involving middle-aged individuals between 45 years to 49 years^{2,5}.

Aetiology

Phyllodes tumours have been associated with Li-Fraumeni syndrome and hormonal imbalance^{6,7}. Trauma, lactating period, pregnancy, hyperoestrogen and lactation have been associated with tumour growth stimulation. Insulin-like growth factors and endothelin have been associated with stromal induction of phyllodes tumours^{7,8}. In benign/borderline phyllodes tumours, there may be overexpression of Wnt5a in the epithelium⁹.

Clinical Presentation

It can occur as a painless rapid growing mass¹⁰ or as masses with slow progression. They usually manifest as a single, unilateral nodular mass which can sometimes push the chest wall due to high tumour activity¹¹. The size ranges from 1 to 40 cm with tumours occupying the entire breast¹². Few studies have reported that malignant tumors have a larger diameter compared to benign and borderline¹³. The overlying skin can be stretched with distension of superficial veins. Nipple ulceration, retraction and bleeding can be present¹². Axillary lymphadenopathy is common but only 5% of them are pathologically confirmed with lymph node metastasis¹⁴.

Pathophysiology

Phyllodes tumors arise externally from fibroadenoma^{15,16,17}. Genetic etiology targets +5p, -9p, -6q, +1q, -13q and -10p^{18,19}. MDM12 somatic mutations have been reported in fibroadenoma and phyllodes tumours suggesting that these tumours could have a common origin¹⁷.

Histopathological Features

Pathognomonic features include intracanalicular growth pattern, epithelium-lined cleft space and increased stromal cellularity. Benign phyllodes tumour is the most common. Uplifting and neatly defined margins are seen. Encircled

invasiveness of border present. Cases with malignancy display nuclear pleomorphism, stromal overgrowth, and increased and diffuse stromal activity. The borders are infiltrative^{22,23,24}.

Immunohistochemical Features

p53 expression and Ki67 index present. PAX3 and SIX1 is expressed in a few cases^{25,26,27}.

Diagnosis

Core needle biopsy is the routine investigation used. However, few tumours require excision biopsy. Mammography, ultrasonography and MRI are used as imaging tools for the diagnosis of phyllodes tumours. Phyllodes tumours often mimic fibroadenoma in a mammograph. Inhomogeneous, smooth walls are seen in an ultrasound. Benign and malignant entities cannot be differentiated only with imaging features²⁸.

Management

Surgical excision of the wider area ensures histologically clear margins are done. Mastectomy is done in malignant phyllodes tumour. Axillary nodal dissection is not necessary. Incomplete excision can lead to local recurrence. The average local recurrence rate is 15%. Further wide excision can be done for local recurrence. 96%, 74%, and 66% account for ascending five-year survival rates respectively^{5,29}.

CONCLUSIONS

Surgical excision plays an important role in phyllodes tumours. Methodology in relation to therapy changes as per tumour size. Limitations are present in the case of chemotherapy. Radiotherapy is of very little use.

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