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Mohankumar K., Suresh T.N., Vikranth S.N and  
Vivekanand



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## CASE REPORT

# HISTOPATHOLOGICAL CHALLENGES IN DIAGNOSIS OF BREAST TUMORS

Mohankumar K<sup>1</sup>., Suresh T.N<sup>2</sup>., Vikranth S.N<sup>3</sup> and Vivekanand<sup>4</sup>\*

<sup>1,3,4</sup>Department of Surgery

<sup>2</sup>Department of Pathology

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### ABSTRACT

Palpable breast mass is a common problem in female patients. The diagnostic delays of breast cancer occur due to the low index of suspicion. Breast tumors are known for their morphological diversity. We report here a rare case of 40 year female presented in surgical OPD at Sri R.L.Jalappa Hospital Kolar with a history of a lump in the left breast for past 1 year for which mastectomy was performed and twice pathologists could not give confirmatory histopathology report and finally reported as Ulcerative Benign phyllodes tumor with adjacent area showing papillomatosis. The aim of this case report is to increase awareness of these tumors which show diagnostic challenges and morphological spectrum of breast tumors.

#### Key words:

Breast tumor, FNAC, Core biopsy,  
Histopathology, Phyllodes tumor.

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## INTRODUCTION

Unusual pathologic findings can be challenging for health care professionals and often is stressful for patients. With the development of sophisticated techniques of examination, pathologists have continued to seek biological information regarding the different types of breast cancer that are linked to clinical data such as overall survival, disease-free survival, or quality of life, and they have continued to develop methods for the earlier detection of tumors and metastases. Two important diagnostic techniques includes FNAB and core needle biopsy. However, the role of FNAB has been challenged of late by better overall results attained by core biopsies. Core biopsy is definitely a robust and reliable diagnostic modality, but carries disadvantages in terms of a longer turn-around due to the tissue processing time, and patient discomfort during the procedure. Breast tumors show morphological diversity with its effect on patient outcome. This case posed diagnostic challenges and therapeutic dilemma.

#### Case report

A 40 year female presented to us with a history of a lump in the left breast which was lemon sized (3x3cm), gradually progressed over a year to attain the present size of about 6x12cm. Patient gives History of sudden increase in the size of

the swelling and had developed blebs over the lump in the upper and lower outer quadrants which open up to form ulcers over the past 3 months. Gives History of bloody discharge from the ulcer. History of loss of weight and appetite. Patient had normal menstrual cycles.

**Obstetric history:** Married since 15 years and nulliparous.

**Patient had pallor.** Rest of the general physical examination was normal.

#### Local Examination

Lump involving the whole of the left breast of size measures 7x11cm with ulcero-proliferative growth in the upper inner and outer quadrants and lower outer quadrants. Nipple areola complex was pushed medially and downwards and was normal. Ulcer of size 5x11 cm seen over the lump with bloody and serous discharge. Both axilla and opposite breast were normal. No local rise of temperature. Tenderness was present. Consistency is hard mass. Lump was fixed to the underlying pectoralis muscle. Ulcer bleeds on touch, margins were indurated and edges were everted. No nipple discharge. Axillary lymph nodes were not palpable. **Clinically diagnosed as ?Carcinoma of the left breast – T4bNoMo (Stage IIIb)?Fungating Phyllodes tumor.** Fig.1.Clinical picture showing ulcerated left breast tumor

\*Corresponding author: **Vivekanand**  
Department of Surgery



**Investigations**

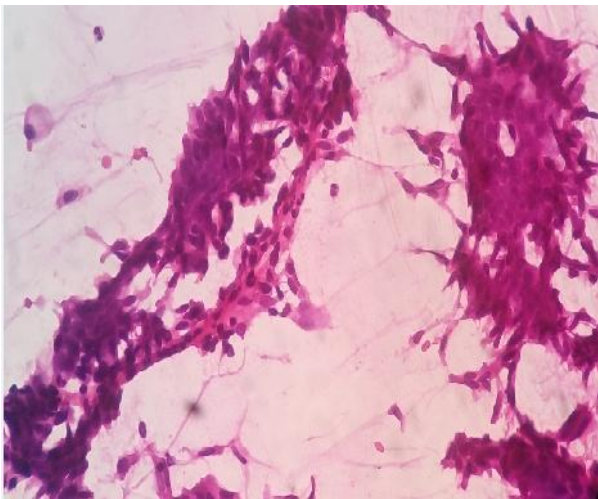
**Blood Investigations:** CBC: Hb: 6.5. Other blood investigations: Within normal limits.

**Chest X-Ray:** Normal study.

**USG of the abdomen and pelvis:** No evidence of metastasis. Ultrasound of the breast: Large ill defined heterogenous lesion replacing the left breast with necrotic areas and increased vascularity – ?carcinoma of the left breast.

**Ultrasound of the axilla:** showed lymph node enlargement largest being 9mm.

**FNAC of the breast lump:** Cytological features are suggestive of fibro adenoma with epithelial hyperplasia without atypia

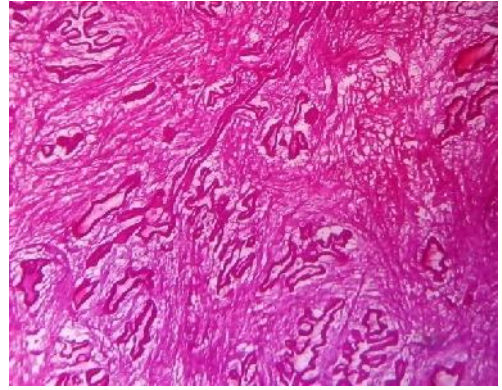


**Fig 2** FNAC Showing Ductal epithelial cells in monolayered sheets and staghorn pattern

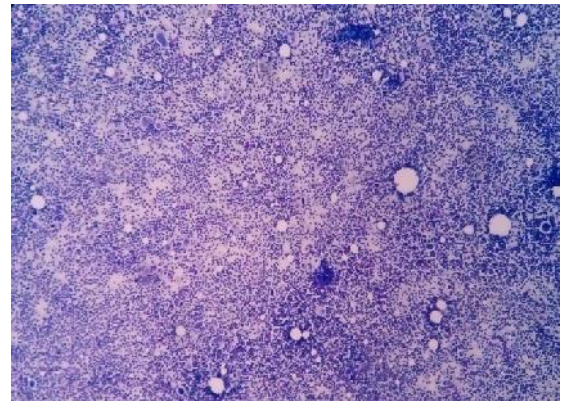
Biopsy of the lump (Edge wedge biopsy): Proliferative breast lesion.

Patient underwent simple mastectomy of the left breast along with axillary lymph node sampling which was sent for frozen section intraoperatively.

Frozen section of the breast lump: Shows features of Benign breast disease likely fibroadenoma.



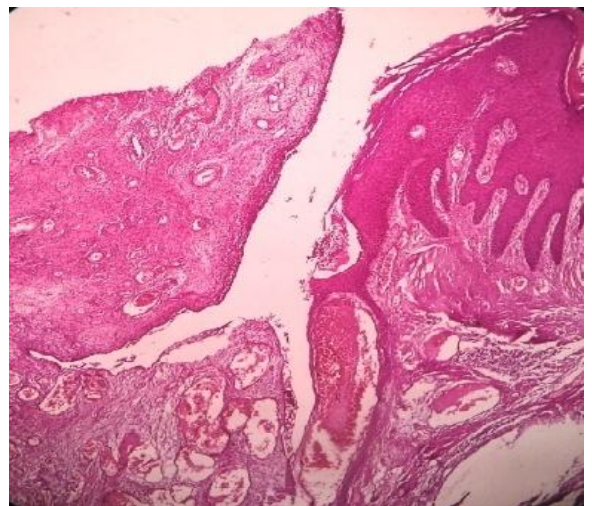
**Fig 3A** Frozen biopsy of breast lump and lymphnodes showing Round to oval ducts compressed by stroma



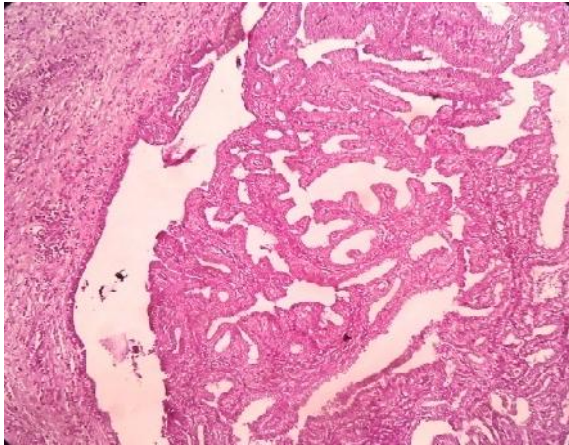
**Fig 3B** Frozen biopsy of axilla Varying sizes of lymphoid follicles composed of polymorphous population of lymphocytes along with histiocytes

Frozen section and scrape cytology of the axillary lymph node: Negative for malignancy

Histopathology of mastectomy specimen show: Features are suggestive of papillary carcinoma of the breast in a background of phyllodes tumor. Advised myoepithelial marker (p63) for definitive diagnosis.



**Figure 4 A** shows. Histopathology findings: proliferating spindle cell component separated by cleft like spaces lined by cuboidal to columnar epithelium.



**Figure.4 B** shows: Tumor also shows papillary areas, glands & tubules. Lined by cuboidal to columnar cells with overlapping of nuclei Cribriform pattern and infiltration into adipose tissue.

**Second opinion on H and E slides is as follows:** Morphologically there is no stromal invasion by epithelial component however “Based on aggregates of adipose tissue with scattered lipoblasts a low grade liposarcoma in a phylloides tumor cannot be ruled out”.

**Tissue blocks and H and E slides send to tertiary referral centre for Immunohistochemistry and for diagnosis:** The neoplastic cells show intact myoepithelial cells positive for CD10(3+,cyto),P63(nuclear,3+) and SMA(2+cytoplasmic)

**Histopathological diagnosis:** Finally confirmatory diagnosis was given which showed Ulcerative Benign phyllodes tumor with adjacent area showing papillomatosis.

## DISCUSSION

There are a number of possible diagnoses after biopsy for which the management is not straightforward and around which there may be controversy, or just a lack of sufficient evidence to support a definite management plan. These ‘lesions of uncertain malignant potential’ include papillary lesions, fibroepithelial lesions like phyllodes tumor and papillary carcinoma.

Phyllodes tumour is an unusual fibroepithelial tumour of the breast constituting only 0.3% to 0.5% of all breast lesions.<sup>1,2</sup> The incidence of breast carcinoma in phyllodes is 1-2%.<sup>3</sup> Solid papillary carcinomas are tumors morphologically characterized by round, well-defined nodules composed of low-grade ductal cells separated by fibrovascular cores.

Phyllodes tumor showing a papillary structure is unusual. Clinically, these tumors present as a palpable, centrally located mass or as bloody nipple discharge. Pathologically, solid papillary carcinomas exhibit low-grade features, and often the tumors display neuroendocrine and mucinous differentiation. In the majority of cases an associated invasive carcinoma is present, with colloid and neuroendocrine carcinomas being the most common. Several histological parameters should be evaluated, including stromal cellularity, atypia, mitoses, stromal overgrowth, infiltrative borders, and presence or absence of necrosis.<sup>4,5</sup> Loss of myoepithelial cells by immunohistochemical markers (p63, SMA). In our case tumor was predominately ulcerated phyllodes tumor with focal areas of papillomatosis leading to suspicion of papillary carcinoma. Immunohistochemical markers helped in definite diagnosis. This case highlights the importance of extensive grossing of specimen and utilization of immunohistochemical markers.

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