



MALIGNANT PHYLLODES TUMOUR IN A NINETEEN YEAR OLD WOMAN

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ABSTRACT

One of the rare tumours of breast, phyllodes is a large, capsulated tumour often with cystic spaces and leaf-like projections. Clinically it is a smooth, non-tender, fluctuant swelling frequently associated with necrosis of skin due to pressure. Lymph nodes are usually not involved. Suspected case of phyllodes tumour is further investigated with ultrasound and mammography. FNAC or core biopsy is confirmatory. Wide excision with 1 cm margin is the treatment of choice. However if there are radiological or pathological signs of malignancy total mastectomy is indicated.

KEYWORDS :

INTRODUCTION

Phyllodes tumour also known as serocystic disease of Brodie is a rare fibro-epithelial tumour of the breast comprising of almost 3% of all fibroepithelial tumours.¹ It usually occurs in women over the age of 40 years but can appear in younger women. It presents as large, often massive tumour with an unevenly bosselated surface, occasionally overlying skin is ulcerated due to pressure necrosis. Histologically it is known to show a wide spectrum of activity, varying from a benign mass to a locally aggressive and sometimes malignant tumour. Since it is mostly a non-epithelial tumour which rarely transforms to sarcoma, lymph nodes are usually not involved, although metastasis through bloodstream may occur.

Case Report

A 19 year old woman presented with large lumps in her left breast the size of which was gradually increasing. She had been operated for the same complain two years ago. On examination there were three large lumps in the upper outer, upper inner and lower outer quadrants of the right breast measuring around 12cm x 10 cm, 8 cm x 8 cm and 7 cm x 5 cm respectively.

The swellings were bosselated, non-tender and mobile over the chest wall. On sonomammography at least three large soft tissue density mass were reported in the right breast measuring 11, 8 and 6 cm respectively. BIRADS score was IV B especially malignant phyllodes. FNAC of the swelling observed pauci-cellular smears showing occasional cohesive fragment of stromal cells with moderate atypia. Based on the radiological, clinical and cytological findings a simple mastectomy was planned after counseling the patient for the same.

Under general anesthesia, patient in supine position, classical Stewart incision was given over the right breast. Incision was deepened through the subcutaneous fat. First the upper skin flap and then the lower flap was raised until at the edge of the breast the plane came down to the deep fascia.

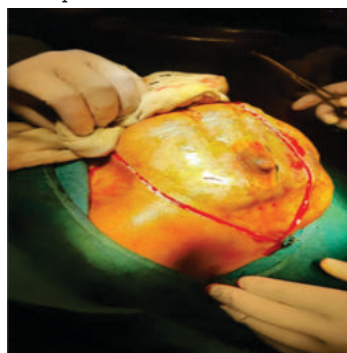
Whole breast along with the tumours were dissected off the deep fascia from above downwards and the bleeding vessels were secured. A romovac drain was fixed in the wound. Dead space was obliterated with quilting sutures and skin flaps were sutured. Compression bandage was done over the surgical site.

On cut section area of necrosis were seen in the breast tissue which was sent for histopathological examination. The post-operative period was uneventful; drain was removed on the 5th day. The final histopathological report was suggestive of a

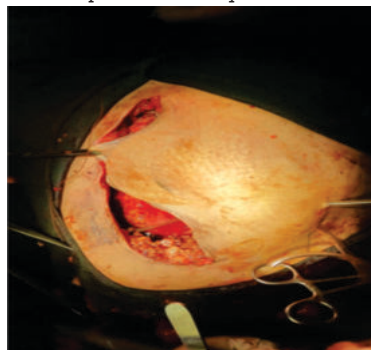
metaplastic spindle cell carcinoma. Total stitch removal was done on 8th post-operative day and patient was sent for radiotherapy. The wound was healthy on discharge.



Pre-Operative picture of bosselated, non-tender, mobile swellings over right breast of the patient. Surgical scar from previous operative procedure was observed over the skin.



Oblique elliptical incision given with areola complex in the centre to perform simple mastectomy.



Complete breast tissue along with nipple and areola excised.



Surgical sample.

Naked Eye	Received an oval soft tissue of 5.0cm diameter. It cuts soft and the cut surface is variegated.
Microscopic	The microsections show sheets of spindle cells with plump nucleus and opened up nuclear chromatin. A few bizarre cells, giant cells and abnormal mitoses are present. No epithelial differentiation is seen. Cystically dilated blood vessels are present although.
Impression	SUGGESTIVE OF METAPLASTIC SPINDLE CELL CARCINOMA (MONOPHASIC)/SOFT TISSUE SARCOMA. IHC SUGGESTED FOR CONFIRMATION.

Histopathology report of the excised breast.

DISCUSSION

Phyllodes tumour was originally described by Johannes Muller and was termed cystosarcoma phyllodes.² These are uncommon biphasic lesions that account for 1% or less of all primary breast tumours.^{3,4} Most patients of this ailment are middle-aged or elderly. These tumours are mostly larger than fibroadenomas and present as firm, palpable mass. They are usually unilateral and grow rapidly to attain a large size with bosselated surface. Since the tumour grows exponentially, areas of pressure necrosis often develops. Even the benign variety of phyllodes tumour is known to recur.

Along with typical clinical findings an ultrasound or mammography and FNAC is essential to diagnose a case of phyllodes. Core biopsy is considered ideal to reach a conclusion. Microscopy of the surgical sample shows stromal hypercellularity and a prominent intra canalicular growth pattern. Frond-like projections of cellular stroma protrude into cystic spaces creating a leaf-like appearance. Phyllodes tumours are most often classified as benign, borderline and malignant based on various histological factors such as tumour border, stromal cell atypia and mitotic activity. WHO criteria for distinguishing benign, borderline and malignant phyllodes tumour are as follows³:

Benign tumour:

well defined border, mild stromal cellularity, none to mild stromal cell atypia, <5 per 10 HPF mitotic activity, no stromal overgrowth, low Ki67 index and malignant heterologous elements absent.

Borderline tumour:

focally infiltrative border, moderate stromal cellularity, mild to moderate stromal cell atypia, frequent mitotic activity (5-9 per 10 HPF), focal stromal overgrowth, intermediate Ki-67 index and malignant heterologous elements absent.

Malignant tumour:

infiltrative tumour border, marked and diffuse stromal cellularity, marked stromal cell atypia, abundant mitotic activity (> 10 per 10 HPF), stromal overgrowth is often present, high Ki-67 index and malignant heterologous elements may be present.

The National Comprehensive Cancer Network guideline has recommended wide excision with margin >1 cm with no axillary lymph node clearance as the mainstay of management of phyllodes tumour.⁵ However the major clinical concern is local recurrence the risk of which is 65% in malignant lesions according to a large literature review.⁶ Since our patient already presented with a recurrent lesion and due to the large size of the tumour, negative resection margin would be extremely difficult to achieve without a mastectomy, hence a complete mastectomy was preferred over wide excision. Adjuvant radiotherapy have shown decreased hazard and improved disease-free survival of patients with malignant phyllodes tumour.⁷ Hence as soon the histopathological report confirmed malignant lesion our patient was counseled and sent for radiotherapy.

CONCLUSION

Phyllodes tumours of breast are rare tumours of stromal origin mostly. It is characterized by bosselated surface and is often huge in size. Wide excision with 1 cm margin is the mainstay of treatment. As seen in this case report a malignancy may underlie phyllodes tumour hence careful examination of clinical and radiological findings must prelude surgery. If malignancy is suspected total mastectomy is indicated followed by radiotherapy. Metastasis is very rare but if occurs it most commonly involves the lungs. Axillary lymph nodes are known to not be involved.

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