

CASE REPORT

Malignant Phylloides Tumour with Giant Cells & Rhabdomyosarcomatous Differentiation: A Case Report

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ABSTRACT

Phylloides tumours are uncommon biphasic lesions of breast that are further classified as benign, borderline & malignant. Malignant phylloides tumours must be distinguished from spindle cell carcinoma and primary breast sarcoma. Demonstration of benign epithelial component will help to establish the diagnosis of malignant phylloides, but this may require extensive sampling in some cases. The present case was diagnosed after extensive sampling.

Key Words: Malignant Phylloides Tumour Breast; Rhabdomyosarcomatous Differentiation; Giant Cells

INTRODUCTION

Phylloides tumours are uncommon biphasic lesion that account for 1% or less of all primary breast tumours. Most patients are middle aged or elderly. Phylloides are classified as malignant depending on several histologic criteria's.^[1-4] However the most reliable criteria for predicting malignant behaviour in a phylloides is the presence of heterologous sarcomatous element i.e. liposarcoma, Rhabdomyosarcoma and osteosarcoma.^[6-9]

CASE REPORT

A 40 years female presented with huge swelling in right breast. FNAC was done and 10ml hemorrhagic fluid aspirated out.

Smears from sediment showed lots of foreign body giant cells, spindle cells and few large cells with moderately N: C ratio and pleomorphism. Features were suspicious of malignancy (Could not typify the malignancy)

Mastectomy specimen was received altogether measuring 15x15x7cm. On cutting tumour occupied almost all the area of breast. Cyst was also seen filled with fluid. Areas of necrosis and hemorrhage along with greyish white solid tumour area were seen on gross. Posterior margin was 0.5 cm away. No lymph nodes dissected on gross.

Histology sections stained with hematoxylin and eosin (H&E) shows heterologous malignant cells with many strap cells few showing striations indicating muscle origin (Rhabdomyosarcomatous differentiation), many multinucleated osteoclast like giant cells were seen, typical & atypical mitotic figures with areas of hemorrhage & necrosis. Tumour tissue also shows highly pleomorphic cells with spindle to round nuclei prominent nucleoli with eosinophilic cytoplasm.

A differential diagnosis of sarcoma with rhabdomyosarcomatous differentiation & malignant phylloides tumour with mesenchymal component was offered. Multiple additional sections were given showed the benign epithelial

component suggesting the diagnosis of malignant phylloides tumour with predominant Rhabdomyosarcomatous differentiation.

Figure-1: Gross Appearance of Tumour showing Leaf Like Pattern with Necrotic & Hemorrhagic Areas



Figure-2: Benign Epithelial & Sarcomatous Component (Low Power)

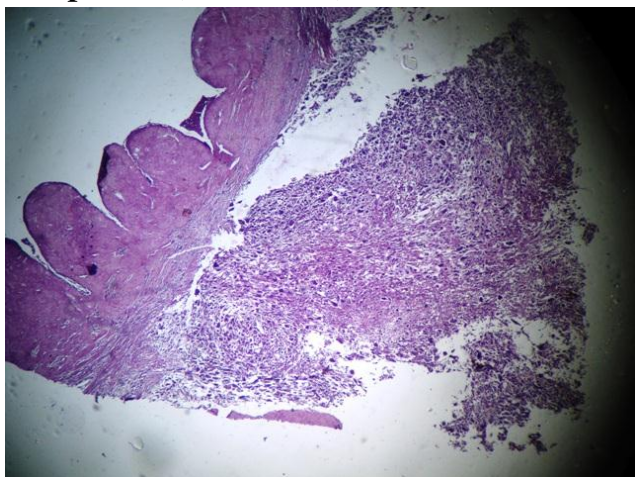


Figure-3: Strap Cells showing Striations Indicating Muscle Differentiation (High Power)

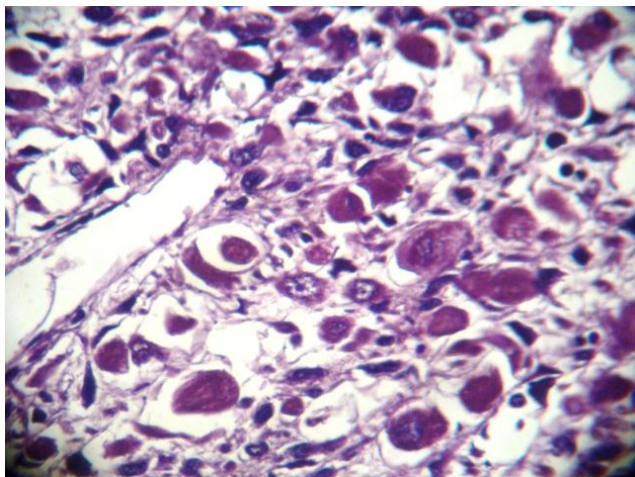
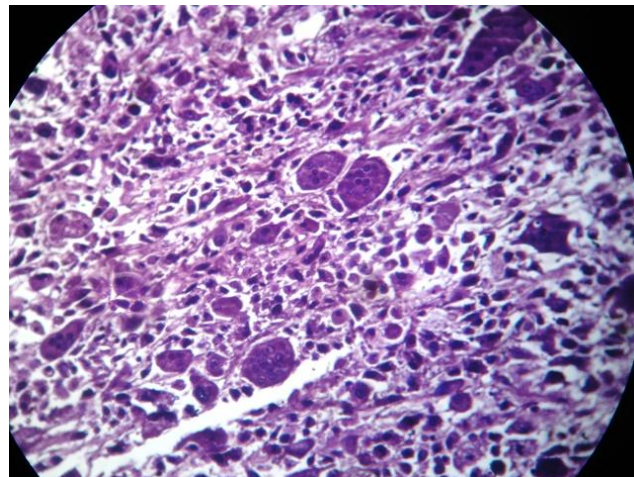


Figure-4: Multinucleated Osteoclast Like Giant Cells (Low Power)



DISCUSSION

Malignant phylloides are uncommon primary breast tumours.^[1-4] The definition of benign, borderline & malignant is not universally agreed upon. Malignant phylloides tumours must be distinguished from spindle cell carcinoma, primary breast sarcoma & metastasis of sarcoma to breast.

Demonstration of benign epithelial component will help to establish the diagnosis of phylloided tumour but this may require extensive sampling in some cases. It should be noted that a sarcomatous lesion in the breast is more likely to represent a malignant phylloides than a primary sarcoma or a metastatic sarcoma from another site.^[5] In one large study the risk of local recurrence (36%) among patients treated with wide local excision and frequency of metastasis was 20-25%. Most tumours that metastasize have obviously sarcomatous features and stromal overgrowth. The presence of heterologous elements appear to be indicative of a particularly poor prognosis.^[6-11] The most common metastatic sites are lungs & bones. Axillary node metastasis is rare. In our case no metastasis was seen at present.

CONCLUSION

This is a rare case of Malignant Phylloides tumour with giant cells and rhabdomyosarcomatous differentiation. Extensive sampling

was required to demonstrate the benign epithelial component. Primary sarcomatous tumours of breast are very rare so any sarcomatous growth in the breast should be extensively sampled to demonstrate any benign epithelial component thus rightly diagnosing the lesion.

REFERENCES

1. Bellocq JP, Magro G. Fibroepithelial tumours In : Tavassoli FA, Devilee P.ed. Pathology and Genetics : Tumours of the Breast and female Genital organs Lyon : IARC press 2003, 99-103.
2. Ward RM, Evans HL, Cystosarcoma phylloides. A clinicopathologic study of 26 cases cancer 1986;58 (10) : 2282-9
3. Grimes MM. Cystosarcoma phylloides of the breast: histologic features, How cytometric analysis, & clinical correlation Mod. Patho. 1992 ;5(3): 232-239.
4. Tre GMK, Tan PH. Recent advances in the pathology of fibroepithelial tumours of the breast. Current diag Pathol. 2005 ; 11 : 426-434.
5. Stuart J. Schnitt, Laura C.Collins. Biopsy interpretation of breast 2009 : 166-178.
6. Hawkins RE, Schofield JB, Fisher C et al. The clinical and histological criteria that predict metastasis from cystosarcoma phylloides Cancer 1992 ; 69 (1) 141-147.
7. Norris HJ, Taylor HB, Relationship of histological features to behaviour of cystosarcoma phylloides. Analysis of 94 cases. Cancer 1967 ; 20 (12) 2000-2099.
8. Qizibash AH. Cystosarcoma phylloides with liposarcomatous stroma : AMJ clin Pathol 1976 : 65 (3) : 321-327.
9. Cohn – Cedermark G. Rutquist LE, Rosendahl I Silfversward C. Prognostic factors in cystosarcoma phylloides. A clinicopathological study of 77 patients cancer 1991 ; 68 (9) ; 2017-2022.
10. Barth RJ Jr, Histologic features predict local recurrences after breast conserving therapy of phylloides tumours, Breast cancer Res Treat 1999; 57 (3) 291-295.
11. Murad TM, Hines JR, Beal J. et al histopathological & clinical correlation of cystosarcoma phylloides Arch pathol Lab Med 1988 ; 112 (7) 752-756.

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