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A RARE CASE OF MALIGNANT PHYLLODES TUMOUR

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Abstract : phyllodes tumour of the breast have histological features with both epithelial and stromal components. Careful characterization of the stromal component is critical since it is the pathological features of the stromal cells that determine its malignant potential. We present this case report of 41 year old women with malignant phyllodes tumour of breast with metastatic ipsilateral axillary lymphadenopathy because of rare presentation.

Keyword : Spindle cells , malignant phyllodes , mitotic activity 10hpf.

CASE REPORT

INTRODUCTION:

Phyllodes tumour are fibro epithelial tumours of the breast representing 2 to 3 % of all fibro epithelial tumours and <1% of all breast tumours. Phyllodes tumour are uniquely found in breast tissue and histologically have both epithelial as well as mesenchymal (stromal) component . The pathological appearance of stromal over growth ,stromal cellularity, degree of nuclear atypia, number of mitotic cells, nature of tumour margin (circumscribed, infiltrative) determines whether a tumour is benign fibroadenoma, benign phyllodes tumour or malignant phyllodes tumour . The stroma of malignant phyllodes tumour are distinguished by marked cellularity with nuclear atypia ,nuclearpleiomorphism, increased mitotic activity and stromal overgrowth. Heterogenous stromal component is commonly associated with malignant phyllodes tumour.

CASE REPORT:

A 41 year old female came to our hospital with complaints of mass in the lower quadrant of right breast for past two months. The mass was initially small in size and rapidly increasing in size and involves the entire breast. History of dull aching pain for past 10 days .No history of nipple discharge. Attain menarche at age 14 years. Menstrual cycles regular. Obsteteric index of G3 P1 L1 A2. No family history of breast cancer. On physical examination(FIGURE 1) , she had 20 x 15 cm multilobulated right breast mass with skin over the mass is stretched and shiny with numerous dilated veins. Notwarm, not tender , firm to hard in consistency, no ulceration/fungation, paeduorange. There was palpable ipsilateral mobile axillary node of size 2 x 2 cm in anterior group. No other palpable supraclavicular or contralateral axillary nodes. Contralateral breast examination was normal.

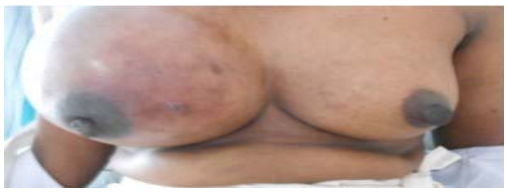

FIGURE 1

FNAC smear shows ductal epithelial cells showing nuclear pleiomorphism and arranged in cohesive and dyscohesive clusters- suggestive of malignancy. Core needle biopsy shows cellular stroma showing plump spindle cells only. Chest X-ray USG abdomen and pelvis, CT chest taken and it was normal. She underwent right modified radical mastectomy (FIGURE 2) , post-operative period was uneventful

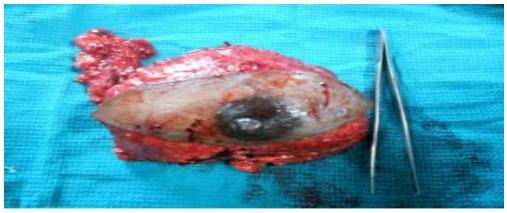

FIGURE 2

Final Pathological report (FIGURE 3) confirmed that malignant phyllodes breast tumour of size 15 x 9 x 6 cm with cut section shows greyish white fleshy tumour situated 0.1 cm from posterior surface margin and circumferential clearance of 1.2cm. Breast parenchyma with highly cellular and necrotic tumour composed of pleomorphic spindle shaped cells with atypical nuclear features seen infiltrating into the stroma in sheets. Tumour

shows increased mitotic activity more than 10 / 10 hpf. Postsurgical margin are free of tumour infiltration .

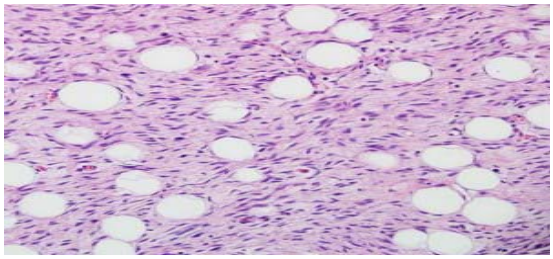

FIGURE 3
Section from 14 lymph nodes shows metastatic tumour deposit in two lymph nodes.

DISSCUSION:

A standard treatment for all phyllodes tumour requires a minimum of 1cm clear margin, only the stromal component metastasis, the metastatic deposits resemble sarcomas. (ref6) The most common sight of distant metastasis is lungs, other metastatic sights includes bone, liver, heart and distant lymph nodes. Rarely direct extension without distant metastasis may result in death. As with soft tissue sarcoma in general, distant pulmonary metastasis may be resectable for possible cure, if it is the only sight of distant disease. (ref2,3) Malignant phyllodes tumour rarely metastasis to central nervous system, however when present wide spread metastasis is common.(ref2) Sarcomas of the breast are extremely rare, representing less than 1 percent of malignant breast tumors. Included in this group are both benign and malignant cystosarcoma phyllodes (about0.5 percent), Cystosarcoma phyllodes(csp) was first described by Johannes Muller in 1838 who thought the tumors to be benign. phyllodes tumors have a leaf-like pattern and a more cellular stroma than fibroadenomas The average age at presentation is the mid-forties.(ref1,2,5) The important aspect of treating CSP is to differentiate benign from malignant lesions Norris and Taylor as well as Lester and Stout have reviewed the correlation between histology and malignant potential. Norris and Taylor concluded that important criteria for malignant potential were tumor size, degree of cellular atypia, mitotic activity, nuclear pleomorphism, and infiltrating margin (Ref 2) They most reliable predictor of metastases to be stromal overgrowth. (Ref4) CSPs are managed by wide local excision to include a good margin of normal breast tissue from the tumor bed. Even benign CSPs will have a high incidence of local recurrence if simply shelled out of the breast tissue. (Ref6,4) If a diagnosis of malignant CSP is established or strongly suspected after thorough pathologic review, then a total mastectomy is performed.(ref3,5) Advanced disease is treated as one would treat metastasis from extremity or truncal sarcoma.(Ref1) In addition to malignant CSP, sarcomas of the breast include a wide range of histologies such as carcinosarcoma, liposarcoma, angiosarcoma, malignant histiocytoma, leiomyosarcoma, stromal sarcoma, and mixed types. (Ref2,5,8) Carcinosarcoma is somewhat different in that it is composed of a combination of malignant epithelial cells, as would be found in breast adenocarcinoma, and malignant stromal cells characterstic of a sarcoma. As such, these tumors may behave somewhat differently from pure sarcomas and for example, can extend to axillary lymph nodes.

Treatment of carcinosarcoma usually includes mastectomy with good tissue margins including muscle and skin, if necessary, and complete axillary dissection. If axillary extension is found, adjuvant chemotherapy using a doxorubicin containing regimen is advised. The role of chest wall irradiation is influenced by tumor size location, and margins. (Ref1,5,8) A wide local excision is adequate primary surgical treatment for most lesions, with attention to obtaining wide margins including deep muscle, if indicated. Tumors larger than 5 cm and high-grade tumors my require mastectomy, possibly with chest wall resection, depending on location. It is important for the surgeon to approach such tumors using the established guidelines of sarcoma surgery. Adjuvant radiation therapy is used in almost all cases, but prospective data are not available to support this decision. Local failures are beast treated by repeat surgical excision. If radiation was not used at the time of treatment of primary tumor, then it is used following re-excision. (Ref2,1) The management algorithms of phyllodes tumors and recurrent phyllodes tumors were based on Naional Comprehensive Cancer Network (NCCM) guidelines. (ref1,2,7,8)

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