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Phylloid tumour after excision recur as huge breast mass after excision in histology prove to be a case of fibrosarcoma breast

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ABSTRACT

Fibrosarcoma of the breast is a rare entity. Prognosis of fibrosarcoma of the breast is poor and the role of various treatment modalities is not clearly defined due to the rarity of the disease. It must be differentiated from other stromal tumours like malignant phylloid tumour, Malignant fibrous histiocytoma and pleomorphic rhabdomyosarcoma, liposarcoma, leiomyosarcoma. One such case is presented here. Primary sarcomas of the breast are extremely rare and account for less than 0.1% of all malignant tumours of the breast of which the conversion of a phyllodes tumour to sarcoma of the breast is even rarer and only two such case has ever been reported.

Keywords: Fibrosarcoma of breast, stromal tumour, malignant phylloid tumour.

Case report

A 45-year-old female presented at our institution for recurrent tumours in the left breast she complained of pain at the operative site. On examination, a ulcerated scar was present with mild induration. Palpable axillary lymph nodes were present. No abnormality was detected abdominally or in the right breast. A complete systemic examination of the patient did not show any other abnormality. The FNAC diagnosis from the last operative specimen was Phylloid tumour of the breast. Than patient present with recurrent swelling of breast ,with ulcerated scar. Systemic examination shows mild anemia, other investigation like total leukocyte count, platelet count are within normal limit. Biochemical examinations like urea, creatinine, FBS, Serum sodium, Serum potassium are within normal limit. The X-rays of the chest were normal. After modified radical mastectomy 10% formalin fixed specimen was send to our department. Weight of specimen 1.94 kg. Grossly it measures 20.0X15.0X12.0 CM. Skin covered area measuring 20.0X 7.0 cm. Ulcerated area identified measuring 8.0 X 6.0 cm. nipple ,areola cannot identified due to presence of ulceration.

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On cut homogenous, gray white involving whole breast with whorling pattern at places. Multiple sections are taken from gray white area and one sections are taken from anterior, posterior, superior, inferior, medial and lateral margins.4 lymphnodes identified size varies from 0.5 to 0.3 cm. After processing H &E stained sections studied under light microscope shows tumour cells spindloid to ovoid arranged in form of fascicles, cells interlacing at acute angle giving appearance of herring bone pattern. Along with trabecule, sheets and clusters. Individual malignant cells are highly pleomorphic varying in size and shape, having eccentric to centrally located, hyperchromatic, elongated nuclei, scanty to moderate amount of cytoplasm, indistinct cell border and altered nucleocytoplasmic ration. Mitotic count 12-14mitotic count/10 HPF with few atypical mitotic figure. Fare number of tumour giant cells also appreciated. Adjoining area shows proliferating fibrocollagenous tissue. No other epithelial component identified after multiple sections studied.Features are of Fibrosarcoma. All margins show tumour invasion and 4/4 lymph node shows tumour deposit. Differential diagnosis include-malignant Phylloid tumour and metaplastic tumour excluded because of absence of epithelial conmponent. Malignant fibrous histiocytoma excluded because of absence of histiocytes, lymphocytes, plasma cells and cells are not arranged in cart wheel pattern.

Discussion

Phyllodes tumours, despite being benign, have a tendency to recur after surgery. An originally histologically benign tumour may develop malignant features with recurrence. The literature shows that in most cases more aggressive growth and enhanced malignancy is found on recurrence [1-2]. Recurrences may result from proliferative remnants of the primary tumour following local excision or they may be de-novo tumours induced by an extra-tumoural stromal hypercellularity resulting ina new benign cystosarcoma phyllodes [3]. They behave more like soft tissue sarcomas rather than tumours arising from the glandular tissue of the breast [4]. Metastases have been observed in 19% of malignant phyllodes tumour [3]. The interval between the diagnosis of the primary tumour and identification of metastases ranged from seven months to five years, whereas the interval between recurrent tumour and metastases was from 6 to 24 months or in some cases matastases were present simultaneously [3]. Very rarely, the malignant potential increases and results in the conversion to a sarcoma of the breast. Fibrosarcomas are amongst some of the most rare tumours of the breast. Any breast neoplasia that does not display characteristics of a fibroadenoma are designated stromal sarcoma of which fibrosarcomas are a small percentage. They may occur at any age, but are commonly seen in women between 40 and 50 years [5]. There are no characteristic features that clinically distinguish them from other breast tumours. Metastases from fibrosarcoma breast are commonly seen in the lung but may occur in the brain, kidney and the bone; lymphatic spread is rare [5]. The prognosis for fibrosarcoma of the breast is poor and the role of various treatment modalities is not clearly defined due to rarity of disease [6]. Tumour size may be more important prognostic factor than tumour grade [2]. Distant metastases are developed in 3.2%, 11.1% and in 28.6% of patients with benign, borderline and malignant phyllodes tumours, respectively [6-8]. With histopathological conversion to a sarcoma, the chances of distant metastases increase.

Conclusion

Phyllodes tumour of the breast has a tendency for recurrence after surgery with increased malignant potential. In rare instances, it may convert to fibrosarcoma of the breast.

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Fig1:Gross specimen of previously resected specimen specimen

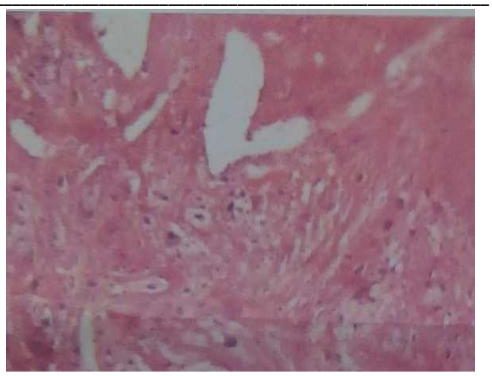

Fig2: Microscopy of previously resected

shows Phylloid Tumour

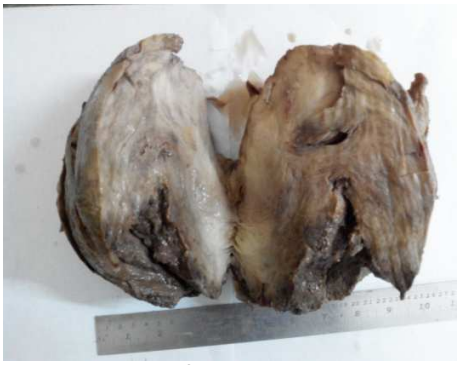

Fig3: Specimen of recurrent mass.

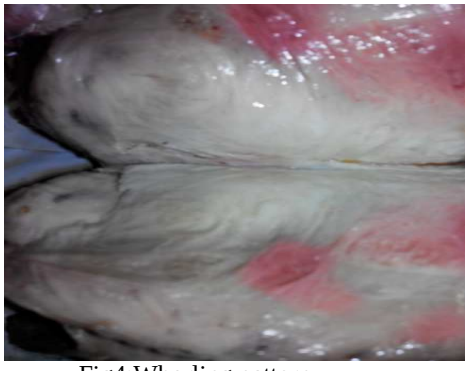

Fig4:Whorling pattern

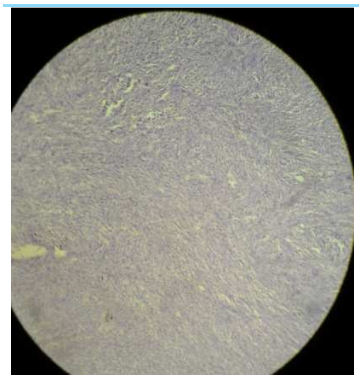

Fig5:Herring bone pattern

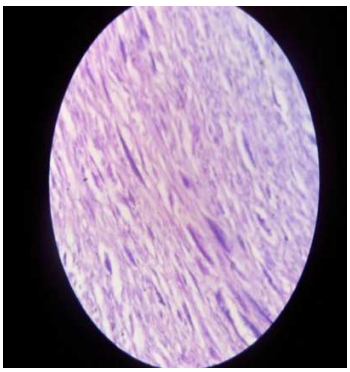

Fig6:Hyperchromatic spindloid nuclei

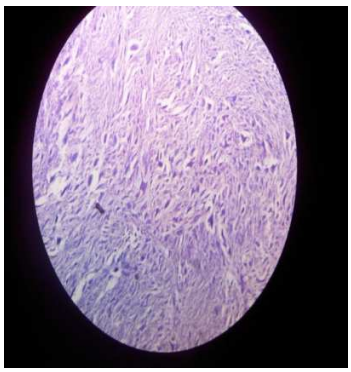

Fig 7:Hyperchromatic ovoid cells, giant Cell and mitotic figure

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