



Primary Breast Sarcoma: A Case Report

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Abstract

Breast cancer is the commonest cancer that afflicts females worldwide. Of all the cancers of the breast majority arise from epithelial component (carcinoma). Breast sarcoma arises from mesenchymal components. Sarcomas in the breast are very rare, these constitute 0.2–1.0% of all breast malignancies with an approximate incidence of 17 new cases per million women. Breast sarcoma that arises after previous radiotherapy is secondary breast sarcoma and are quite commoner than primary breast sarcoma.

Case Report

A 40 year-old housewife presented with history of painful right breast lump which was previously excised at another hospital twenty months back, it recurred 8 months before presentation to us (Figure1). There was no information about histological diagnosis of the excised breast lesion from the first hospital, no systemic symptoms. She was Para 3 and had no family history of breast or ovarian cancer. Physical examination revealed globular enlargement of the right breast measuring 25 cm × 20 cms. The mass occupied the whole breast, was warm, multinodular and ulceration present on lower lateral quadrant, no lymph nodal enlargement. Examination of the other systems was within normal limits. FNAC from the mass reported cyst sarcoma phylloides. Patient was planned for mastectomy. The mastectomy specimen weighed 950 grams (Figure 2 and 3). Histopathological examination revealed sheets of spindle cells arranged in herring bone pattern which often contain squamous epithelial islands, with 5 mitoses per 10 fields was detected (Figure 4). Surgical excision borders were negative for tumor cells, and there was no neural, vascular invasion suggestive of

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Figure 1: Huge right breast lump clinically resembling cystosarcoma phylloides.



Figure 2: The mastectomy specimen weighed 950 grams.



Figure 3: The mastectomy specimen weighed 950 grams.

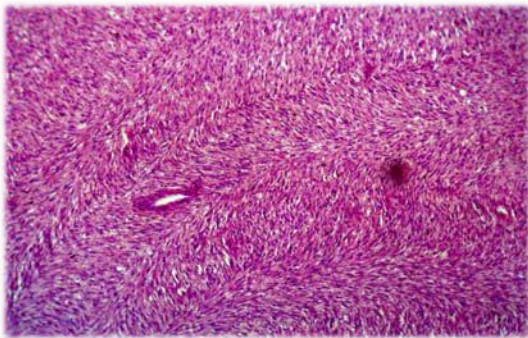


Figure 4: Histopathological examination revealed sheets of spindle cells arranged in herring bone pattern which often contain squamous epithelial islands, with 5 mitoses per 10 fields was detected.

sarcoma. Immunohistochemistry was positive for vimentin. Postoperative period was uneventful, she was discharged on seventh post operative day. She was planned for chemo radiotherapy but refused further treatment on financial grounds. She did well for nine months of follow up and did not turn up thereafter.

Discussion

Primary breast sarcomas are extremely rare. They constitute

a specific clinicopathologic entity. These should be differentiated from the two main entities in differential diagnosis, cystosarcoma phylloides and metaplastic carcinoma. Diagnosis is determined by histopathological examination. Immunohistochemistry (IHC) may be useful to rule out other subtypes of primary breast sarcoma.

Breast sarcomas should be distinguished from metaplastic carcinomas. Spindle cell neoplasm in an epithelial organ such as the breast should be carefully evaluated to mark a diagnosis of sarcoma. Immunohistochemistry using the appropriate antibodies is of major input in diagnosing such lesions in the breast [1].

Complete resection of the primary tumor with clear margins is an important factor for local disease control and overall survival [2]. Other prognostic markers are tumour size, infiltrative features and histopathologic grading [3,4]. Overall 10 year survival in primary breast sarcoma is around 50% depending on various prognostic factors.

Conclusion

Most invasive breast neoplasms are epithelial tumors and mesenchymal breast tumors are rarely seen. In primary breast sarcomas, adequate surgical excision of the tumor is very important. Fine needle aspiration cytology may not be relied upon in diagnosing the lesions which clinically mimic cystosarcomas.

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