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MALIGNANT PHYLLODES TUMOR COEXISTENT WITH INVASIVE DUCTAL CARCINOMA, DUCTAL CARCINOMA IN SITU AND LOBULAR CARCINOMA IN SITU: A CASE REPORT

Oncology

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ABSTRACT

Phyllodes tumor is a rare type of fibroepithelial neoplasm accounting for <1% of all breast tumors and breast carcinoma within is found in approximately 1-2% of all phyllodes tumor. We present a case of a 40 years old lady with a lump of size 6X5cm in right breast for 6months which on biopsy revealed features of phyllodes tumor and underwent simple mastectomy in view of large tumor size as compared to breast size and the histopathology report showed features of malignant phyllodes tumor with a foci of invasive carcinoma (2mm), ductal carcinoma in situ and lobular carcinoma in situ. Later on she underwent axillary lymph node dissection where in 15 lymph nodes were isolated which showed reactive changes and the patient was started on tablet tamoxifen 20mg daily.

KEYWORDS

Malignant phyllodes tumor, invasive carcinoma, carcinosarcoma

INTRODUCTION

Phyllodes tumor (PT) of breast is a rare type of circumscribed biphasic fibroepithelial neoplasm characterized by an epithelial component arranged in clefts surrounded by a hypercellular mesenchymal component that is typically organized in a leaflike pattern, and accounts for <1% of all breast tumors and represents 2–3% of fibroepithelial neoplasms [1,2] with a peak age of incidence of 45-49 years [3,4]. According to the standards set by the World Health Organization (WHO), PTs may be classified as benign, borderline or malignant based on the degree of stromal cell atypia, mitotic status, degree of stromal overgrowth, tumor necrosis and appearance of tumor margins [5]. PTs are predominantly benign with only ~10% identified as malignant [6]. The majority of malignant transformation of PTs typically occurs in the stromal compartment and rarely in the epithelial compartment. Breast carcinoma within PT accounts for 1-2% of all PTs [7] and is very rare. We present a rare case of an invasive carcinoma with ductal carcinoma in situ and lobular carcinoma in situ coexistent with malignant phyllodes tumor, only reported once in literature.

CASE REPORT

A 40 years old lady presented with complaints of lump in right breast for 6 months which was progressively increasing in size and was associated with dull aching pain. On examination, there was a lump of size 6X5 cm in upper quadrant and retroareolar region of right breast which was well defined, firm, granular surface and non tender. The left breast and bilateral axilla were normal on examination. On mammography, there was an asymmetric hyper densities with indeterminate micro calcifications in right breast suggestive of BIRADS IV, following which a biopsy was performed which showed phyllodes tumor. A right simple mastectomy was performed in view of large mass as compared to breast size. Histopathology revealed malignant phyllodes tumor with a foci of invasive ductal carcinoma (2mm) with ductal carcinoma in situ and lobular carcinoma in situ. Immunohistochemistry showed positivity for ER, PR, CD34, CD10 and SMA. (Figure 1 and 2) Patient was taken up for right axillary lymph node dissection in which 15 lymph nodes were isolated all of which showed reactive changes with no tumor deposits. Later on chest X-ray, ultrasound of abdomen and bone scan were done to rule out any metastases. The patient is under regular follow up and is on tablet tamoxifen 20mg once a day.

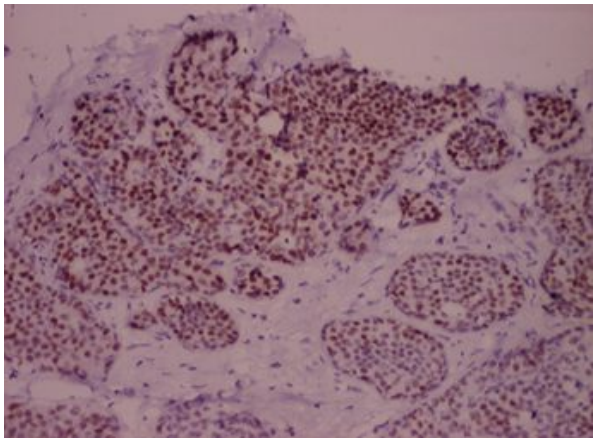

Figure A: ER positive stain

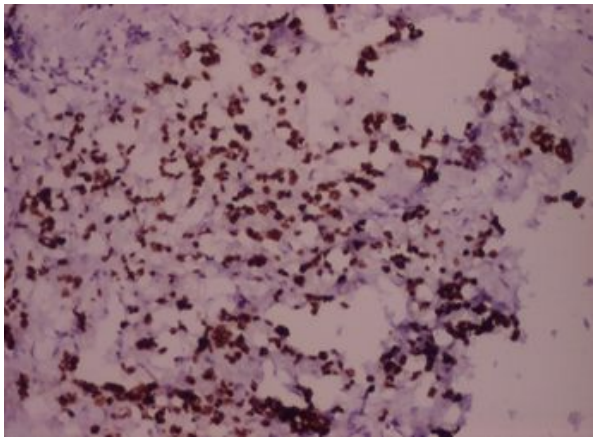

Figure B: PR positive stain

DISCUSSION

PT may coexist with breast cancer in three situations. It may coexist in the bilateral breasts [8] or in the ipsilateral breast but at different sites [9]. Finally, PT may coexist with breast cancer in the same mass, as occurred in the current case.

The epithelial abnormality in PT rarely reaches a level acceptable as intraductal carcinoma, and the diagnosis of intraductal or invasive ductal carcinoma in PTs is infrequent.[10] Recent WHO classification [5] on breast tumors clearly stated that any PT that has recognizable epithelial elements may harbor DCIS, LCIS or their invasive counterparts but still breast carcinoma arising within PT is extremely rare with <40 cases reported in the literature[11]. All these cases either had in situ disease or invasive carcinoma or combination of 1 in situ and invasive disease within PT. On extensive review of literature, only 1case have previously been reported consisting of invasive carcinoma, DCIS and LCIS together in a malignant PT [7], and this being the 2nd case.

Occurrence of PT with invasive carcinoma is rare and thus diagnostic and management protocols are not clear. Imaging studies cannot diagnose such changes and these can only be picked on detailed histopathological analysis of complete mass or breast. Multiple treatment modalities have been combined to treat such tumor using protocols set for primary invasive tumour. We also treated invasive carcinoma component on lines of already set protocols and therefore did not advice radiotherapy or chemotherapy. From the available data, five patients with malignant PTs with coexisting carcinoma died from metastatic PT, between three months to 51 months after diagnosis [7]. Our patient is now under regular follow up for last 10months and have not shown any evidence of metastases.

The occurrence of cases like current case shows the diverse pathological changes taking place in breast at cellular level. There are various theories given for co-existence of PT with invasive disease with none proven yet. The distinction between a malignant PT with coexisting carcinoma and a metaplastic carcinoma or carcinosarcoma should be considered in the diagnosis as these entities are managed differently and the distinction affects patients' outcome. Carcinosarcomas have mixed malignant epithelial and stromal components with the latter showing no reactivity for epithelial immunohistochemical markers.

CONCLUSION

The prognosis of carcinomas in phyllodes tumors is generally favorable because the stroma is benign in the majority of cases and a rapidly growing mass enables detection of a carcinoma element earlier than a primary breast cancer[12] before systemic metastasis takes place. Still whether the prognosis of patient should be decided based on PT or invasive counterpart is still debatable.

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