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CARCINOSARCOMA OF THE BREAST

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Primary sarcomas of the breast are rare and constitute 0.6 to 1.2% of the total number of malignant tumours of the breast. A 42 years old housewife is admitted with a lump in her right breast. Examination revealed a 3 cm mobile cystic lump in the upper quadrant of her right breast. There were not palpable axillary nodes. Fibrocystic breast disease – macrocyst was considered after mammography and breast ultrasound. Fine needle aspiration biopsy was performed. It was determined 5 ml bloody fluid on aspiration. Histologic examination was performed and this was reported as a malignant. Lumpectomy and axillary dissection were performed. The tumour was reported as a carcinosarcoma. She subsequently underwent adjuvant chemotherapy and radiotherapy because of breast-conserving surgery and size of the tumour. This report of a tumour in a young woman reinforces the surgical belief that any cystic lump including bloody fluid should be adequately investigated to decide its nature.

MEME KARSİNOSARKOMU

ÖZET

Memenin primer sarkomları çok nadir tümörlerdir ve tüm memedeki malign tümörlerin %0.6 ile %1.2'sini oluşturmaktadır. 42 yaşında bayan hasta sağ memesinde kitle ile başvurdu. Fizik muayenede sağ meme üst dış kadranda 3 cm boyutunda mobil kitle mevcuttu. Muayenede aksilla normaldi. Mammografi ve meme ulrasonu sonucu fibrokistik meme hastalığı-makrokist düşünüldü. Bunun üzerine ince iğne aspirasyon biopsisi uygulandı. Aspirasyon sonucu 5 ml hemorajik sıvı aspire edildi. Histolojik inceleme neticesi malign olarak geldi. Metastaz taramaları yapıldı ve uzak metastaz saptanmadı. Bunun userine hastaya lumpektomi ve aksiller diseksiyon operasyonu uygulandı. Patoloji raporu karsinosarkom olarak geldi. Koruyucu meme cerrahisi uygulandığından ve tümör boyutundan dolayı adjuvan tedavi olarak kemoterapi ve radyoterapi aldı. Bu olgu göstermiştir ki genç bir bayanda memede kistik kitle varsa ve aspirasyon sonucu hemorajik mayii gelmişse mutlaka bunun etyolojisi araştırılmalıdır.

Case report

A 42 years old housewife is admitted with a lump in her right breast of 15 days duration. There was no pain in the region of the lump and no history of obvious trauma or past breast disease. She had two children and had not taken the pill. There was no family history of breast disease and no significant previous medical history. Examination revealed a 3 cm mobile lump in the upper quadrant of her right breast. There were not palpable axillary nodes. Her left breast was normal. Fibrocystic breast disease – macrocyst was considered after mammography and breast ultrasound. Fine needle aspiration biopsy was performed. It was determined 5 ml bloody fluid on aspiration. Histologic examination was performed and this was reported as a malignant. Subsequently a lumpectomy and axillary dissection were performed. The tumour was reported as a carcinosarcoma with safe margins.. It is size was 3 cm, negative for oestrogen and progesteron receptors and no axillary metastatic lymph node.Her pre-operative chest X-ray, torax and abdominal computerized tomography and bone scan were normal. She subsequently underwent adjuvant chemotherapy and radiotherapy because of breast-conserving surgery and size of the tumour. The patient is now postoperatively 24th months of her operation with free disease of survival.

Histology

A lumpectomy and axillary dissection were performed. Macroscopically the cut surface of the tumor was 3x2 cm in size. The cut surface was cystic. Solid and grayish – white.

Microscopically the tumor consists of intermigled carcinomatous and sarcomatous areas. The atypical nests of invasive carcinoma extended into the sarcomatous structure of the tumor with pleomorphic spindle cell. (Figure 1) The sarcomatous areas showed pleomorphism with bizarre and gaint hyperchromatic nuclei but there were no obvious sarcomatous features. These two components interlocked with each other without transition areas.

Hormonal receptor assay revealed the tumor to be negative for both estrogen and progesterone receptors in both carcinomatous and sarcomatous components.

Immunohistochemical staining revealed positive reaction in epithelial component for Low molecular weight cytokeratin. (MNF 116) (Figure 2) While sarcomatous cells were focal positive for smooth muscle actin (SMA) and both components were positive for vimentin.

Carcinosarcoma of the breast was diagnosed. No metastasis to lymph node was noted (0/12).

Discussion

Primary sarcomas of the breast are rare and constitute 0.6 to 1.2% of the total number of malignant tumours of the breast. (1) The case we present is the first carcinosarcoma of the breast in our clinic. Therefore the sarcomas of the breast is 0.2% of the total number of the malignant tumors of the breast which is a bit lower than the literature.

The origin of these tumours is still being debated. It is a form of the metaplastic mammary carcinomas and it is probably derived of myoepithelial cells. The myoepithelial cell has been suggested as the link because it can differentiate to epitehelial as well as mesenchymal cells (2).

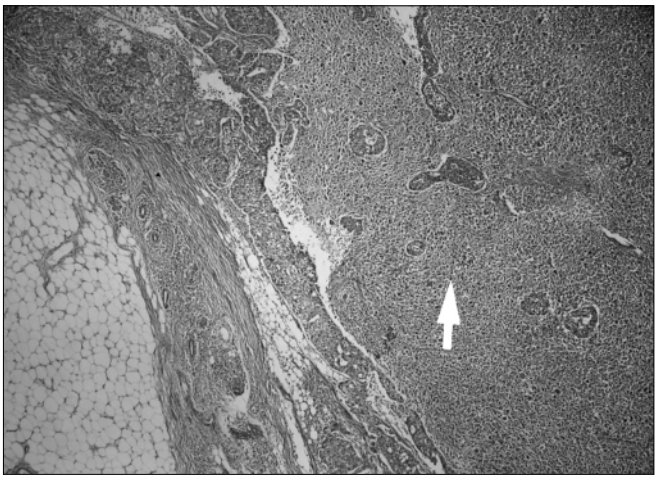

Figure 1. Microscopic view of the tumor demonstrated that tumor consisted of intermigled carcinomatous and sarcomatous areas.

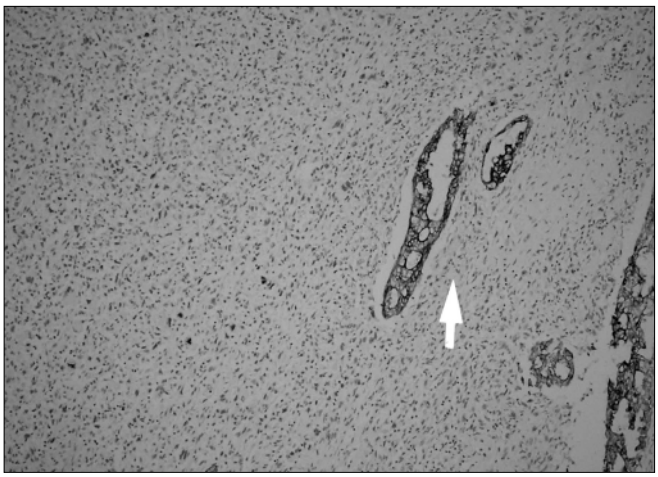

Figure 2. Immunohistochemical staining was positive in epithelial component with MNF 116

However, cases arising from pre-existing fibroadenomas and cystosarcoma phylloides have been reported (3).

Carcinosarcomas usually present as large masses, are often painful and show no prefence for any particular age group. (3) The macrocyst including bloody fluid, as seen our case, has been noted in other reports (4, 5).

Histological examination of these tumours shows co-existing malignant epithelial and malignant epithelial and malignant connective tissue elements. The epithelial part may consist of undifferentiated carcinoma or squamous carcinoma (3). The sarcomatous cells range from undifferentiated connective tissue cells to fibro, chondro or osteo blasts in an extra-cellular matrix containing chondroid areas of osteoid trabeculae. If the tumour consist osteogenic elements, preoperative mammography demonstrate osteoid matrix calcification (6).

Carcinosarcomas metastasize via lymphatics and bloodstream. They also tend to recur locally because neoplastic cells often extend within the perivascular tissues beyond the capsule of the tumour (4).

Simple mastectomy is often used to treat these tumours, their tendency to infiltrate the underlying pectoral muscle and to produce axillary nodal metastases argues for wide removal of the breast and the axillary nodes, including the pectoral muscle if the tumour is large or involvement seems likely (7). Radiotherapy and hormone therapy have no defined place in the treatment of sarcomas; they are probably useful in carcinosarcomas, because of their epithelial component (1). The place of chemotherapy is not known because of the small number of cases. Although our case showed no oestrogen and progesteron receptors, there are cases where they were present (8).

Generally the prognosis of these tumours is poor, with survival being measured in months. (4) However, reports of 5-year survivors are well documented and, in one report, 3 of 15 cases survived for 5 years and another 4 were alive, although for less than 5 years from diagnosis. (1, 3, 4) The prognosis undoubtedly depends on the extent of the tumour and the degree of cellular differentiation. (1) It is also claimed that increased number of mitoses per high power field has a poor prognosis (9, 10).

This report of a tumour in a young woman reinforces the surgical belief that any cystic lump including bloody fluid should be adequately investigated to decide its nature.

References

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