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Primary angiosarcoma of the breast

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Abstract: Malignant vascular tumors are rarely encountered and angiosarcoma which is the most common one in this group are seen less than 2% among all sarcomas. Breast angiosarcomas are clinically classified in 3 groups depending on primary breast angiosarcoma, chronic lymphedema, radiation therapy and mastectomy. A 51 year old female patient with primary breast angiosarcoma is presented in our study. Conclusively, primary breast angiosarcoma is a rare breast tumor. It has a bad prognosis and diagnosis is challenging.
Keywords: Breast Cancer, Angiosarcoma, Breast Tumor.

INTRODUCTION

Malignant vascular tumors are rarely encountered and angiosarcoma which is the most common one in this group are seen less than 2% among all sarcomas. Angiosarcoma is a rare mesenchymal tumor mostly seen in the breast. This followed by heart, pericardium, liver, skin, bone, lungs (metastasis) and soft tissues [1]. Breast angiosarcomas are clinically classified in 3 groups depending on primary breast angiosarcoma, chronic lymphedema, radiation therapy and mastectomy. Angiosarcoma of the breast is a rarely seen tumor. It comprises approximately 0.04% of breast cancers and 8% of breast sarcomas. Primary angiosarcoma of the breast is usually seen in the third and fourth decades. It appears especially in young women as a fast growing and palpable mass. 6-12% of the primary breast angiosarcoma cases are seen in pregnancy. Mastectomy is applied in the treatment. The efficacy of chemotherapy and radiotherapy is limited [2]. The prognosis is poor despite early diagnosis and treatment. A 51 year old female patient with primary breast angiosarcoma is presented in our study.

CASE REPORT

The 51 year old female patient who admitted to our clinic with complaints of swollen breast and bleeding mass in the right breast. She had no known systemic diseases. There was no property in the family history. The patient admitted to an outer health center with complaints of 1 cm swelling in the breast. The patient was told that the mas was benign and it was probably hemangioma and follow-up was recommended. During this one year period, the patient had occasional bleedings and the mass grew (Figure 1). The patient admitted to our clinic upon non-stop bleeding for a 3 day period, and urgent operation was suggested to the patient. As the district government hospital was 2nd level hospital, there were no frozen examination, fine needle aspiration biopsy, tru-cut, and breast ultrasound and mammography facilities available. Tumoral mass excision was performed for hemostasis and diagnostic purposes (Figure 2a). The patient was discharged on the third day of the operation. The pathology result of the patient was reported as angiosarcoma. In the pathology report, it was reported that a pushing type, highly hemorrhagic and necrotic tumoral lesion with cross sectional diameter of 5 cm in the long axis (Figure 2b), there was an evident lymphoplasmacytic cell response in the tissues surrounding the tumor, CD34, CD31; desmin, PanCK performed with immunohistochemical methods were negative, D2-40 and vimentin were diffuse strong positive and factor 8 was detected as weak positive in a small area. Within the light of the present findings, the case was evaluated in favor of with high-grade angiosarcoma. There were no skin invasions; it was reported as there were no tumors within the surgical margins.

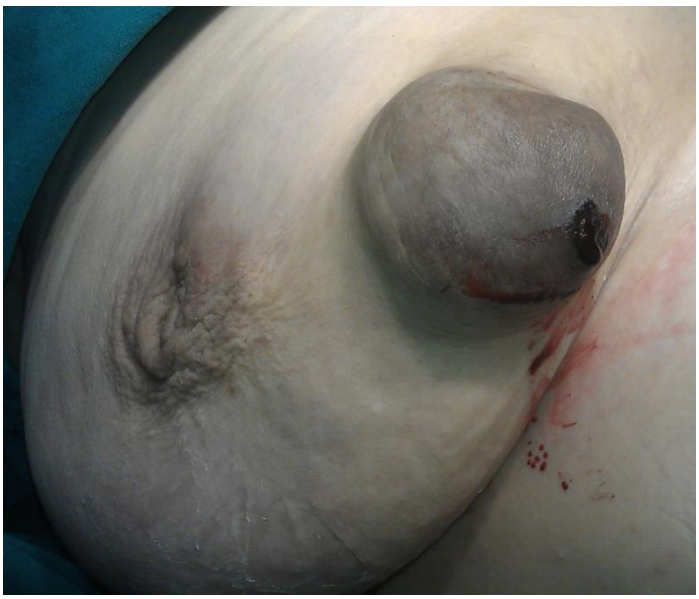

Figure 1: Haemorrhagic breast mass during physical examination.

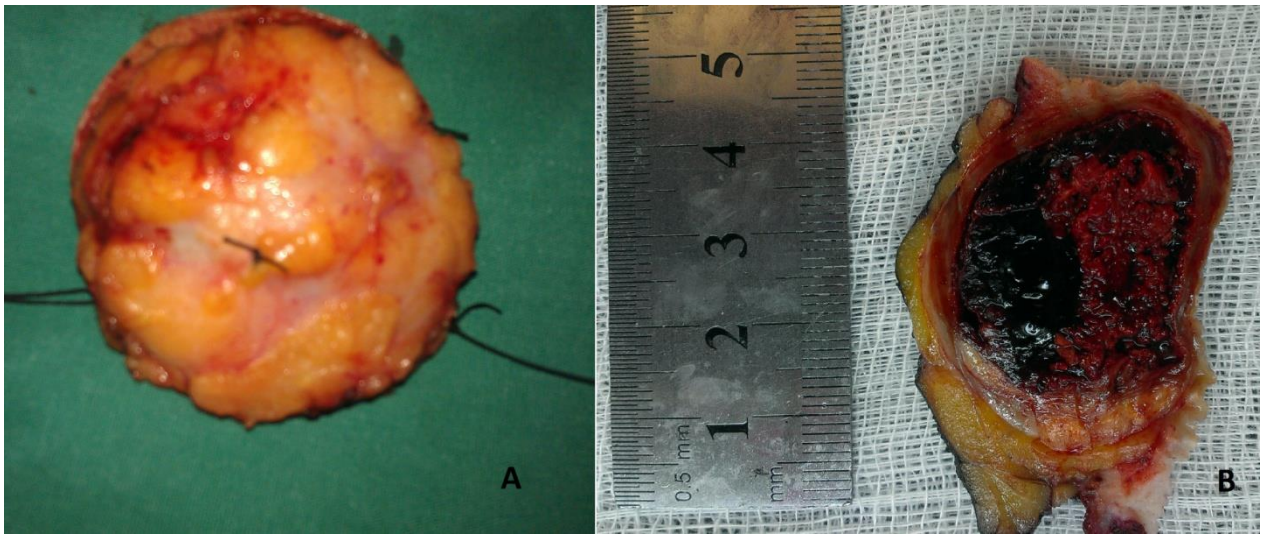

Figure 2. A. Surgical excision of the mass B. Macroscopic view of the tumoral mass.

DISCUSSION

Primary angiosarcoma of the breast is among the rare diseases of the breast. There are very few number of primary cases reported. [3] The first reported angiosarcoma of the breast was defines by Schmidt in 1887. [4] The incidence has continuously increased since then. It comprises less than approximately 0.04% of the primary breast malignancies. [5] The incidence age is generally the 3rd and the 4th decades. In our case, the patient is a 51 year old premenopausal. The most important clinical finding is the painless mass in the affected. In most cases, the masses are larger than 4 cm. [5] Mastectomy, local excision, radical mastectomy are used in the treatment. [6] However, because of the high local recurrence rates, breast-preserving surgery is not a preferred method. [7] In our case, following the pathological diagnosis, the patient was referred to an advanced center for modified radical mastectomy. Diagnosis of angiosarcoma is hard as the appearance is similar to those of benign lesions and it frequently leads to misdiagnosis. [8] In our case, no biopsy was taken from the lesion one year ago and no imaging method was studied.

CONCLUSIONS

Conclusively, primary breast angiosarcoma is a rare breast tumor. It has a bad prognosis and diagnosis is challenging. It should be considered that it could be a malign mass unless otherwise is proven by biopsy especially in patients who admitted with solid mass. Surgery should be particularly preferred in the treatment.

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