The Journal of Breast Health
meme sağlığı dergisi

The Journal of Breast Health 2012 Vol: 8 • No: 2
Meme Sağlığı Dergisi 2012 Cilt: 8 • Sayı: 2

CASE REPORT/OLGU SUNUMU

PRIMARY LIPOSARCOMA OF THE BREAST

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Sunulduğu Kongre: 30 Eylül- 4 Ekim 2009 tarihinde X. Ulusal Meme Hastalıkları Kongresi'nde poster olarak sunulmak üzere kabul edilmiştir.

MEMENİN PRİMER LİPOSARKOMU

ÖZET

Malign tümörler arasında meme glandının mezenşimal dokusundan köken alan primer liposarkomlar memede nadir görülür. Erişkinlerde görülen meme liposarkomunun en fazla görüldüğü yaş 4. ve 6. dekatlar arasıdır. Vakamız literatürde yayınlanan 3. dekatta görülen 3.liposarkom vakasıdır. Biz, memede liposarkom olan bu vaka ile daha önce yayınlanan literatürler ışığında nadir malign tümörler ve memenin diğer sarkom tiplerini tartıştık

Anahtar sözcükler: meme, liposarkom

ABSTRACT

Primary sarcomas of the breast are rare, malignant tumors arising from the mesenchymal tissue of the mammary gland. The peak incidence of breast liposarcoma occurs in adults between the fourth and the sixth decades. Our case is the third liposarcoma case of the breast in the literature observed in the third decade. We report a case of liposarcoma of the breast and discuss this rare malignant tumor and other types of sarcoma of the breast in the light of the previously published literature.

Key words: breast, liposarcoma

Introduction

Sarcoma of the breast constitutes less than 1% of all malignant breast tumors and liposarcoma of the breast has an incidence of 3-24 % of all the mammary sarcomas. The first information about breast sarcoma was reported by Neuman in 1862. Austin and Dupruee published the largest series which included 20 breast liposarcoms in 1986. In this study, 13 cases were pure liposarcoma of the breast, and 7 cases were patients who had liposarcoma developing on a base of cystosarcoma (1). The mass in the breast appears as a hard, painless and mobile mass. They do not display specific radiological findings. Fine needle aspiration cytology is valuable in the preoperative diagnosis, but a proper examination is essential (2).

Case report

A 29-year-old female patient presented to the General Surgery clinic of our hospital in March 2009, who had a mobile mass of hard consistency in the upper inner quadrant of the right breast, growing partly irregularly in the last 3 months, of approximately 2x2.5 cm in size. Axillary and supraclaviculer lymph nodes were not palpable bilaterally. The history of the patient, who had delivered three times and was currently 18 weeks pregnant, revealed that her father and brothers had neural tumors. She had no family history of breast cancer. The patient's hematological and biochemical tests were normal. Although ultrasonographical examination revealed that the mass had benign properties, suspicious findings in the fine needle aspiration biopsy supported the decision for total excision of the mass. Since the patient was pregnant, the mass was totally excised under local anesthesia. Grossly, the resection specimen measured 2x2,5x2 cm and was unencapsulated. The cut surface of the tumor was lobulated, gelatinous, opaque and yellow in color. No hemorrhage or necrosis was seen. Microscopically, hematoxylene-eosin stained sections revealed low to moderately cellular, small mesenchymal cells with minimal nuclear pleomorphism, insconspicuous nucleoli and scanty cytoplasm in a highly myxoid ground substance. Mitotic figures were rare. A characteristic chicken-wire like capillary network was present in the background. Immunhistochemically, the tumor cells were diffusely and strongly positive for vimentin and focally positive for S-100 antibodies, which showed that the small mesenchymal cells were lipoblasts. The case was diagnosed as myxoid liposarcoma of the breast (figure 1). The patient was discharged on the first postoperative day without any complications.

Discussion

Liposarcoma is the most common soft tissue sarcoma in adults. While extremity and retroperitoneal localizations are frequent, the spermatic cord, the axilla, the vulva and the breast are rare locations (2). Primary breast sarcomas are quite a heterogenous group and they include malignant fibrous histiocytoma, fibrosarcoma, angiosarcoma, leiomyosarcoma, osteosarcoma, rhabdomyosarcoma and other sarcomas (3).

Gönderilme Tarihi: 06 Aralık 2010 • **Revizyon Tarihi:** 16 Mart 2011 • **Kabul Tarihi:** 11 Nisan 2011

When we look at the literature, breast liposarcomas are usually seen between the ages of 45-55. Clinically, thinning of the skin and rash occurs in patients who present with a painless, palpable mass. Pectoral muscle invasion and nipple retraction are rarely seen (1). Preoperative diagnosis is important in planning the most appropriate type of treatment. Liposarcomas that do not contain specific features on radiology are usually evaluated as fibroadenoms.

Liposarcomas are classified into five types by the world health organization: myxoid, round cell, pleomorphic, well differentiated, and dedifferentiated (2). Their behavior and pattern of recurrence depend on their histological subtype (5). When encountered at a young age, it is a stuation which causes difficulty in the diagnosis for both the clinician and the cytologist. Despite articles which have stated that fine needle aspiration biopsy is adequate (4), a study on 5306 patients has reported that liposarcoma can interfere with poorly differentiated carcinomas (3). Core needle biopsy has a place in liposarcom diagnosis (6,7). However, there is a known case where a patient has been wrongly diagnosed with cancer by core needle biopsy(8).

Sarcomas which act differently from other malignant tumors of the breast, spread as distant organ metastasis rather than lymphatic metastasis. When patients are diagnosed preoperatively, the possibility of distant organ metastasis must be investigated. Sarcomas, which pimarily metastasize to the lungs, spread to organs like the liver, brain and bones, respectively (1).

In breast liposarcomas, surgery is the first treatment. However, due to the limited number of cases in the literature, the excision width of surgery is controversial. Clean surgical borders must be acquired during surgical excision. Because there is no lymph node metastasis in liposarcomas, axillary lymph node dissection is unnecessary. Because of local recurrence, radiotherapy is recommended after breast conservative surgery. However, there are studies that have reported that radiotherapy does not provide significant benefit on local relapse and illness-free duration of life. (1). Adjuvant chemotherapy is offered for high grade and large tumors (5).

Patients must be followed up for local recurrence and distant metastasis in the postoperative period. Factors which affect local recurrence are positive surgical borders and pleomorphic type liposarcomas. Another factor effecting local recurrence is 1.1% if the tumor size is between 1-2 cm,; when it is between 2.1 and 5 cm, it is %1.7; if it is larger than 5 cm, it is %6.1 (1). The treatment for local relapse is surgery. The type of surgery can range from wide excision to mastectomy.

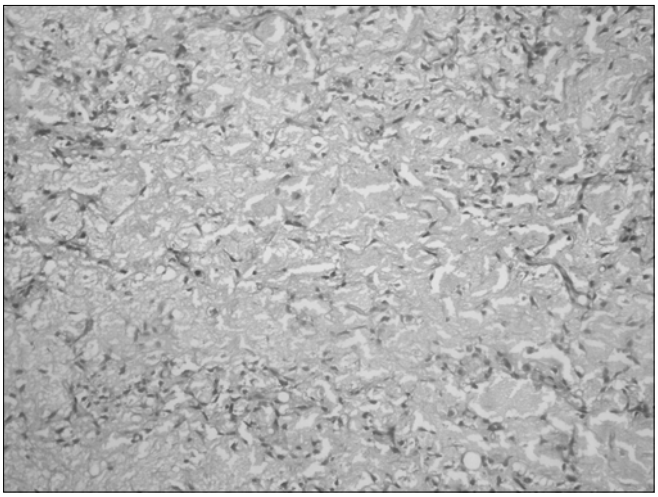

Figure 1. Pathologic view.

The overall survival results have not been good in patients with distended metastasis, even after additional chemotherapy. The survival rate decreases in the presence of distant metastasis. The five-year survival rate in liposarcomas of the breast is 50% (1).

In conclusion, liposarcoma of the breast is a rare condition. Fine needle aspiration biopsy can be sufficient for the diagnosis when adequate material is provided. Surgery, ranging from total excision to mastectomy is offered in the literature. Since lymphatic dissemination does not occur, lymph node dissection is unnecessary. Radiotherapy can be added to the treatment. The dimension of the tumor, histological subtype and clean surgical borders are important in the prognosis. Due to the inadequate number of cases in the literature, the choice of treatment and determination of prognosis can be difficult.

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