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Case report
Olgu sunumu

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Biphasic synovial sarcoma: A rare cause of axillary mass

Aksiller kitlenin nadir bir nedeni; Bifazik sinovyal sarkom

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Abstract

Synovial sarcoma is a subtype of soft tissue sarcoma which mostly affects the lower extremities, especially in young adults. Axillary involvement of the synovial sarcoma is a rarely seen clinical condition. A 68-year-old female applied with a rapidly grown palpable 4x4cm conglomerated mass in her right axilla. Except for the palpable axillary mass, her physical examination was regular. She was scanned for any distant metastasis with thoracoabdominal computerized tomography and breast ultrasonography with mammography. Tru-cut biopsy was performed on the palpable conglomerated axillary mass, and the pathological examination of the tru-cut biopsy specimen was reported as biphasic malignancy. In order to obtain a detailed examination and definite diagnosis, the mass was dissected and resected from axilla with extensive resection. Postoperative pathological examination was reported as a biphasic SS, and the surgical margins were clear. During the post-operative period, the patient had adjuvant chemoradiotherapy. There was no tumor relapse, both clinically and radiologically fourteen months after the surgery. Elder patients presenting with axillary lymphadenopathy, atypical, rare synovial sarcoma should be kept in mind. Total surgical excision should be performed, and clear margins should be obtained for the treatment of localized synovial sarcoma of the axilla.

Keywords: Synovial sarcoma, Lymphadenopathy, Breast cancer

Öz

Sinovyal sarkom sıklıkla genç erişkinlerde görülen, alt ekstremiteleri etkileyen bir yumuşak doku sarkomudur. Sinovyal sarkomun aksilla tutulumu çok nadir görülen bir klinik durumdur. 68 yaşında kadın hasta sağ aksillada ele gelen, hızlı büyüyen, konglomere, yaklaşık 4x4 cm çapında kitle yakınması ile başvurdu. Yapılan fizik muayenesinde aksiller kitle dışında ek bir özellik yoktu. Hasta torako-abdominal bilgisayarlı tomografi, meme ultasonu ve mammografi ile metastaz ve primer odak açısından araştırıldı. Tru cut biyopsi ile palpabl aksiller kitleden örnekleme yapıldı. Patolojisi bifazik malign kitle uyumlu gelen hastaya tanısal amaçlı eksizyonel biyospi yapıldı. Kitle sağlam cerrahi sınırlarla eksize edildi. Postoperatif kitle patolojisi bifazik sinovyal sarkom olarak raporlandı. Hastaya postoperatif adjuvant kemo-radyoterapi verildi. İzlem 14. ayında olan hastada klinik, radyolojik olarak nüks saptanmadı. Aksiller lenfadenopati ile başvuran ileri yaşta hastalarda sinovyal sarkom akılda tutulmalı, tedavisinde sağlam cerrahi sınırla eksizyon yapılmalıdır.

Anahtar kelimeler: Sinovyal sarkom, Lenfadenopati, Meme kanseri

Introduction

Synovial sarcoma (SS) is a rarely seen subtype of soft tissue tumor which has epithelial and mesenchymal differentiation [1]. SS typically affects the extremities and mostly seen in adolescents and young adults and consists of 8% of the soft tissue tumors [1]. Histologically, there are three subtypes of SS; monophasic, biphasic and poor differentiated. Most frequently seen subtype in adults is the monophasic type. SS is most commonly seen as a painless, palpable mass without radiological or clinical diagnostic features [2]. There was no consensus about the management of this disease, but most patients undergo surgical excision aiming to have clean surgical margins and the consequent adjuvant radiotherapy [1-4].

In this paper, we aimed to present biphasic SS of the axilla in an elderly female patient.

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Case presentation

A 68-year-old female applied with a rapidly growing indolent palpable mass for two months. She had no history of chronic disease, family history on malignancy, or drug use. Except 4× 4 cm conglomerate mass in her right axilla, her physical examination was unremarkable. Mammography was performed, but there were no significant findings. Superficial tissue ultrasonography was performed; a lesion consistent with cystic, solid mass was found in the right axillary with a diameter of 4 cm (Figure 1). A suspicious appearance was reported in terms of metastasis. For axillary lymphadenopathy, the most frequent possible differential diagnosis is breast cancer. In order to exclude the possibility, ultrasonography and mammography were performed. Mammography reported a well-defined, hypoechoic BI-RADS 4 malignant solid lesion with hyper-echogenic inter-septal occurrences with millimetric cystic areas in the right axilla 46x32 mm in size. Thoraco-abdominal computerized tomography scan showed no evidence of metastasis, except the 4x4 cm axillary mass (Figure 2). Tru-cut biopsy was performed, and the pathological examination revealed biphasic malignancy, which included epithelial and mesenchymal cells, which was not a leading result. Therefore; for definitive diagnosis, total surgical excision was performed, and clean surgical margins were obtained. The patient did not have postoperative complications. The postoperative histopathological examination was compatible with biphasic type synovial sarcoma (Figure 3, 4).

Postoperatively, the patient received adjuvant chemoradiotherapy. Either clinically or radiologically, no tumor relapse was observed 14 months after surgery,

Written informed consent was obtained from the patient for treatment, surgery and publication.

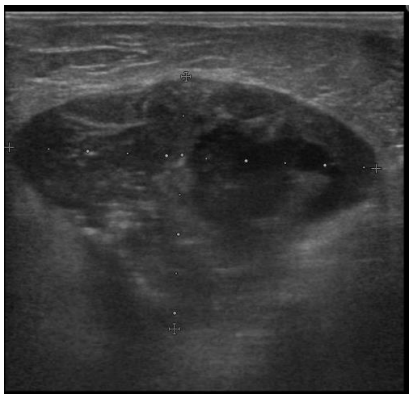

Figure 1: Superficial tissue ultrasonography shows; A lesion consistent with necrotic lymphadenopathy in the right axillary lobule with a diameter of 4 cm

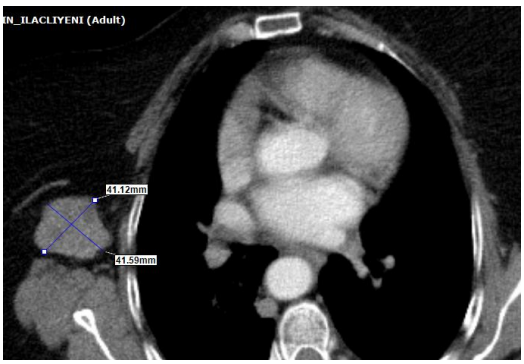

Figure 2: Thorax computerized tomography scan showed a 4x4 cm measured mass which localized right axillary region

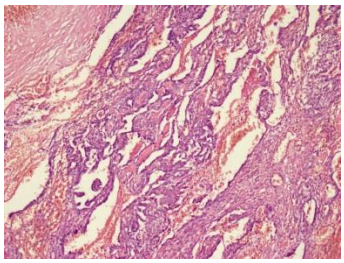

Figure 3: Biphasic synovial sarcoma H&E x100

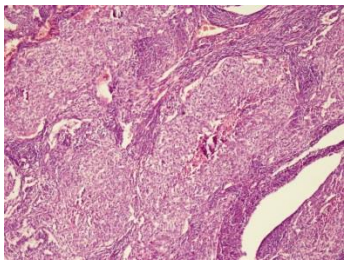

Figure 4: Epithelioid and spindle cell areas H&E x100

Discussion

SS is a rarely seen subtype of soft tissue tumor which has epithelial and mesenchymal differentiation [1]. Mostly presents between the ages of 15 and 40 years [4], but our patient was out of this age range. The most common tumor localization is the lower extremity, especially around the knee area. Upper extremities are rarely affected. In the studies conducted on malignant soft tissue tumors [1,2], 6-8% were reported as SS. But, in literature, only five cases of SS were reported to be located in the axillary region [5].

Prognosis of synovial sarcoma is mostly poor, and the 5-year and 10-years survival rates change between 38-76% and 20-63% respectively [6]. Prognostic features of synovial sarcoma are the size of the tumor, high-grade histology, surgical margin positivity, and metastases at the time of diagnosis. In addition to that, the prognosis is worse in elderly patients [3].

Removal of the tumor with clear surgical margins is vital in the prognosis and essential in preventing local recurrence. Studies are indicating that preoperative neoadjuvant chemoradiotherapy should be given in synovial sarcoma treatment according to grade, size, and localization and consequently, performing surgery and giving postoperative adjuvant chemotherapy treatment have a positive contribution on survival [1].

The treatment strategy of synovial sarcoma is multidisciplinary. Patients undergo surgical resection, which is combined with adjuvant/neoadjuvant radiotherapy. However, in advanced tumors, a combination of surgery, radiotherapy, and chemotherapy is given. Among the soft-tissue tumors; synovial sarcoma is more chemo-sensitive compared to the other types. However, for adult synovial sarcoma, the use of chemotherapeutic agents is controversial. Tyrosine kinases receptor, interferon alfa, radio-immuno-therapeutic agents, AKT-mTOR pathway drugs are being examined for the treatment of SS [7].

Herein we reported an elderly female patient who had an axillary mass due to synovial sarcoma, which was diagnosed with surgical resection.

In conclusion, patients presenting with axillary mass, atypical, rare synovial sarcoma should be considered. Biphasic synovial sarcoma of the axilla is a rare type with unclear pathogenesis, and the number of studies is limited. With more extensive case series, a better understanding of pathogenesis and management of this disease may be better addressed.

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