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Case Report / Olgu Sunumu

SOLITARY FIBROUS TUMOR OF INGUINAL REGION: REPORT OF A CASE

İNGUINAL BÖLGENIN SOLİTER FİBRÖZ TÜMÖRÜ: OLGU SUNUMU

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ABSTRACT

Solitary fibrous tumor (SFT), previously known as hemangiopericytoma, is a fibroblastic mesenchymal neoplasm and constitutes a very small proportion of soft tissue sarcomas. It is usually recognised as a painless mass. The site of localisation is mostly the thorax. However, it can also be seen in the central nervous system, peritoneal cavity and retroperitoneal region. Inguinal region is a very rare site for SFT. In imaging computed tomography and magnetic resonance imaging are the diagnostic modalities of choice. Fine needle biopsy after radiological imaging helps histopathological diagnosis. It is characterised by STAT6/CD34 positivity immunohistochemically. En-block excision of the lesion is the main treatment due to the potential for recurrence and metastasis. Inguinal SFTs are rare lesions and should be included in the differential diagnosis of inguinal masses. In this study, we report a 46-year-old female patient with an inguinal SFT lesion who underwent total excision.

Keywords: General surgery, Inguinal region, Soft tissue sarcoma, Solitary fibrous tumor

ÖZET

Daha önce hemanjioperisitom olarak da bilinen soliter fibröz tümör (SFT), fibroblastik mezenkimal bir neoplazmdır ve yumuşak doku sarkomlarının çok küçük bir bölümünü oluşturur. Genellikle ağrısız bir kitle olarak fark edilir. Yerleşim yeri çoğunlukla toraks bölgesidir. Ancak santral sinir sistemi, periton boşluğu ve retroperitoneal bölgede de görülebilir. İnguinal bölge SFT için çok nadir bir bölgedir. Görüntülemede bilgisayarlı tomografi ve manyetik rezonans görüntüleme tercih edilen tanı yöntemleridir. Radyolojik görüntüleme sonrası ince iğne biyopsisi histopatolojik tanıya yardımcı olur. İmmünohistokimyasal olarak STAT6/CD34 pozitifliği ile karakterizedir. Rekürrens ve metastaz potansiyeli nedeniyle lezyonun blok eksizyonu ana tedavidir. İnguinal SFT'ler nadir görülen lezyonlardır ve inguinal kitlelerin ayırıcı tanısında yer almalıdır. Bu çalışmada, inguinal SFT lezyonu olan ve total eksizyon uygulanan 46 yaşında bir kadın hasta sunuldu.

Anahtar Kelimeler: Genel cerrahi, İnguinal bölge, Soliter fibröz tümör, Yumuşak doku sarkomu

INTRODUCTION

Solitary fibrous tumors (SFTs) are rare fibroblastic mesenchymal neoplasms, historically referred to as hemangiopericytomas (1). While they predominantly occur in the thoracic region, up to 70% of cases are extrapleural, with the central nervous system being the second most common site (2). SFTs are generally painless, slow-growing tumors, typically presenting in the fifth to seventh decades of life. Imaging modalities such as computerized tomography (CT) and magnetic resonance imaging (MRI) provide crucial information about tumor characteristics and relationships to surrounding structures. Histopathological diagnosis is facilitated by various biopsy techniques. The cornerstone of treatment is complete surgical resection with negative margins. Given the rarity of SFTs, case reports are vital for expanding the knowledge base. This case is particularly unique due to its inguinal localization being a rare site for SFTs, and its clinical presentation as a painless mass without systemic symptoms. Such characteristics add to the understanding of the diverse presentations of SFTs and highlight diagnostic challenges in atypical locations.

CASE REPORT

A 46 year-old female patient with no medical history presented to our general surgery outpatient clinic with a painless mass on left groin that has been slowly growing for the past two years. Patient denies any associating syptoms including pain, tenderness, weight loss, loss of range of movement or instestinal passage obstruction. All vital signs were normal. Physical examination revealed a painless, mobile, non-reducible mass in the left inguinal region. No palpable lymphadenopathy in inguinal region and other possible lymph node areas has been noted.

The laboratory parameters were unremarkable. An ordered CT scan, lesion revealed that there was an irregular defined, lobulated 6.5x5cm solid tumor with necrotic components in the center (Figure 1). No specific vessel supply has been noted. Regional lymph nodes showed no

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signs of metastasis. The patient was evaluated in the multidisciplinary surgical council and thick needle biopsy was not recommended due to the vascularity density of the mass. It was advised that the lesion be completely removed.

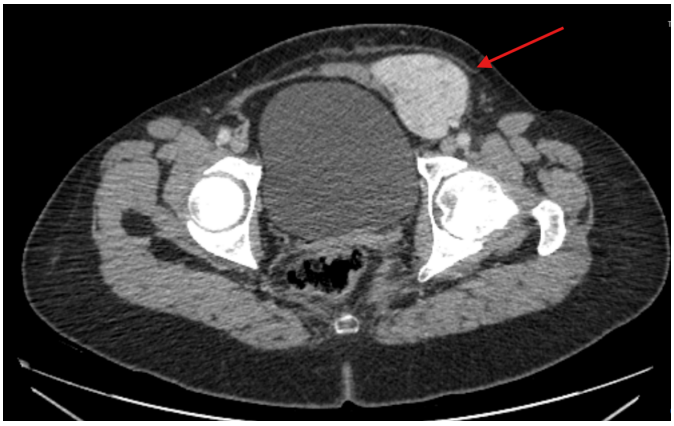

Figure 1. Axial view computerized tomography scan showing a lesion on the left groin marked with red arrow.

The patient was operated under general anesthesia. General anesthesia was preferred because of the possibility of intraabdominal or vascular intervention. A left inguinal incision has been made. On exploration, a 10x5x3 cm solid lesion with a smoothly circumscribed cystic component arising from the external inguinal ring and adjacent to the femoral vein was observed. The lesion had minimal adhesion to the surrounding tissues, and multiple vessels originating from the femoral veins supplied the lesion. The tumor was totaly removed in consideration with safe surgical margins (Figure 2). In the removed specimen, the lesion was marked with sutures in the superior and lateral directions.

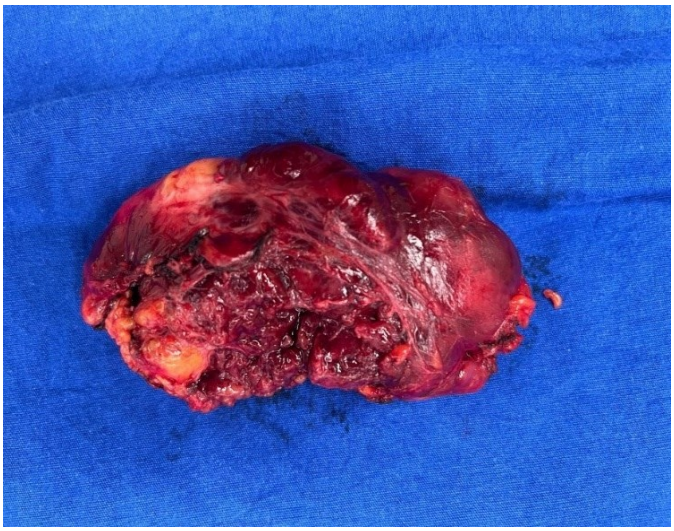

Figure 2. Macroscopic view of tumor

No complications such as surgical site infection and hemorrhage were observed in the postoperative follow-up period and the patient was discharged on postoperative day 1. The lesion was also examined pathologically. Gross examination of the lesion revealed a tumor size of 10x5x3 cm with one irregular border. Cream colored solid nodule was seen in sections. Multiple sections were examined. It was revealed that the surgical margins of the lesion were safe on pathological examination. The lesion was histopathologically reported as solitary fibrous tumor. On immunohistochemical examination was positive for signal transducer and activator of transcription 6 (STAT6) and CD34. ETS-related gene (ERG) was positive in vessels. Ki67 was 4%. Metastatic/recurrence risk scoring was 3/7 (Mitosis 1/2, size 2/3). No necrotic tissue was reported.

The patient was evaluated by the surgical-oncology-pathology board of our institution together with the pathology results. No additional treatment was recommended. The patient was scheduled with laboratory and CT scans at 3, 6 and 12 months. The third and sixth month follow-ups revealed no evidence of local recurrence

Informed consent was obtained from the patient and legal representative for the collection and publication of the patient's clinical information.

DISCUSSION

Initially known as fibrous mesothelioma in the 1930s and later as hemangiopericytoma, tumors involving fibroblastic mesenchymal tumors were defined as SFT in the 2002 World Health Organization Classification (3). They account for 3.7% of all soft tissue sarcomas and mesenchymal tumors. The majority of SFTs are located intrathoracic; however, they can also be found in various locations outside of the thorax. The fifth to seventh decades are the age group in which the disease is more common. Our patient was also in the fifth decade. SFTs of intraabdominal origin are more common in the young population, whereas pleural SFTs are more common in the elderly population. The male to female ratio is similar (4, 5). Studies have shown also that another 30% of SFTs originate from the peritoneal cavity, retroperitoneal tissue or pelvis (6). Another 20% of cases originate from the head and neck region. The remaining cases originate from the soft tissues of the trunk and extremities. SFTs originating from superficial tissues are rare (3, 7). In our case, the site of the tumor was the inguinal region as an atypical localization.

The most common presenting symptom of SFTs is a painless mass. These types have a tendency to grow slowly, sometimes for decades. Our patient presented with a slow-growing painless mass in the inguinal region.

Imaging options for diagnosis are CT and MRI, which are useful in determining tumor size, margins, vascular relationships and cystic/solid differentiation. SFTs are usually homogeneous but may contain cystic components or haemorrhagic areas. Invasion to surrounding tissues is rare (6, 8). In our patient, radiological diagnosis was made with CT. The recommended treatment for SFT is surgical excision with negative surgical margins (R0).

Adjuvant therapy in the postoperative period is not recommended because it is generally ineffective and the metastatic potential of SFTs is low. Adjuvant radiation therapy can be used on a case-by-case basis. Local recurrent cases should be treated with reresection and adjuvant radiotherapy (9). As a result of the evaluations of the surgical-oncology-pathology board of our institution, no additional treatment was recommended to our case.

Although the prognosis is excellent in patients with SFT in whom the mass is completely excised, local recurrences and metastases have been reported. Therefore, follow-up after treatment should be continued. Previous studies have shown that recurrence can be seen in the early period at 4-6 months CT imaging (10). Appropriate interval imaging contributes to early detection of possible recurrence. The post-treatment follow-up program for soft tissue SFTs is the same as the National Comprehensive Cancer Network (NCCN) soft tissue sarcoma guidelines (11).

CONCLUSION

Inguinal SFTs are rare and should be considered in the differential diagnosis of inguinal masses. Imaging modalities like CT and MRI are valuable diagnostic tools, but definitive diagnosis relies on histopathological and immunohistochemical findings. Complete surgical excision with negative margins is the treatment of choice. Long-term follow-up is essential to monitor for recurrence or metastasis.

Informed Consent: Since the patient died after clinical follow-up, consent for the case presentation was obtained from his family.

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