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Case Report

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Intraabdominal Dedifferentiated Giant Liposarcoma; A Rare Case Report

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Introductıon

Liposarcomas, deriving from adipocyte differentiation, are the most prevalent soft tissue sarcomas [1]. However, they can manifest in various anatomical locations (including the esophagus, intra-abdominal region, and popliteal fossa), their most frequent sites of occurrence are the retroperitoneum and thigh. The incidence rate of occurrence is 1% among all malignancies [2]. The average age of diagnosis is 50, and there is no significant association with race or gender[3]. Liposarcomas are classified into 5 main subtypes: well-differentiated, dedifferentiated, myxoid, pleomorphic, and myxoid pleomorphic liposarcoma [4]. The most common type of liposarcoma is well-differentiated liposarcoma, which, although it carries a risk of local recurrence, does not metastasize distantly and rarely undergoes transformation into dedifferentiated type [5].

In this case report, giant dedifferentiated liposarcoma that developed from the contralateral inguinal region of a patient who was previously operated with the diagnosis of malignant mesenchymal tumor originating from the left inguinal region 9 years ago will be presented.

Case

A 72-year-old male patient was evaluated in the general surgery outpatient clinic with complaints of abdominal distension, abdominal and inguinal pain that had persisted for about three months. In the history of the patient It was learned that the patient had a history of being operated on nine years ago with the diagnosis of malignant mesenchymal tumor originating from soft tissue around the cord, which resulted in a right orchiectomy and the patient has chronic renal failure and undergoes hemodialysis treatment.

During the physical examination, a firm mass lesion that was precise at the left lower quadrant during inspection. was palpated starting from the lower left umbilical region and extending to the inguinal area. It was learned that the patient has a weight loss of approximately 8 kilograms in the last year.

At the time of admission, the patient's complete blood count was evaluated hemoglobin 10 g/dl, leukocyte 9610/µl, neutrophil 6990/µl, and creatine 4.42 mg/dL.

In the abdominal ultrasonography of the patient, it was seen that there was a mass with central necrosis of approximately 28 cm in diameter extending from the epigastric region to the pelvis, and the mass continued in the left inguinal canal in the contrast-enhanced abdominal magnetic resonance (MR) imaging (Figure 1). It was seen that there was not distant organ involvement at preoperative PET/CT imaging of the patient. In the PET/CT imaging of the patient performed 21 months ago, no involvement is observed in the same region.

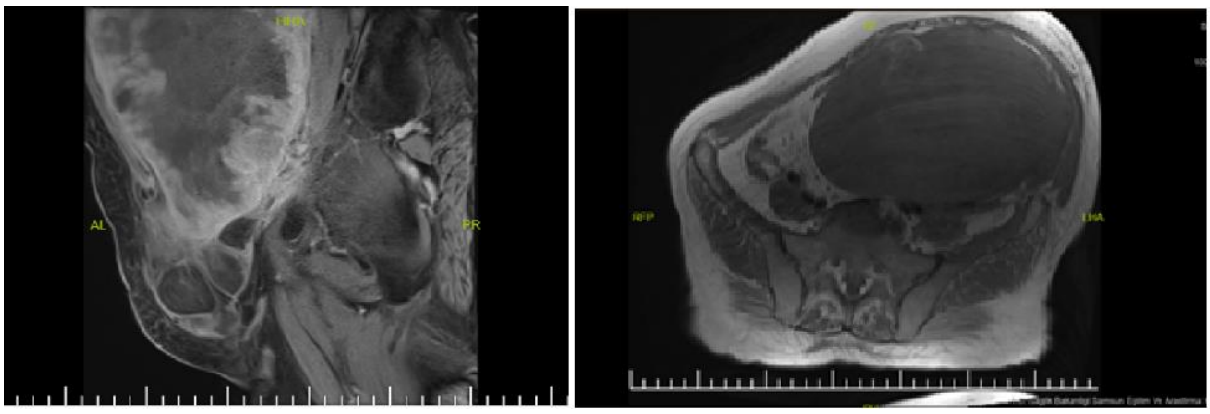

Figure 1: A mass of approximately 28 cm in diameter extending into the inguinal canal in the abdominal MR imaging of the patient.

In the patient who underwent laparotomy, a mass measuring 28 cm macroscopically, deviating the intra-abdominal organs to the right, was excised together with a mass of 10 cm in diameter in the inguinal canal (Figure 2). Vimentin, CDK4 and p16 were observed diffusely and strongly positive in the microscopic examination of the mass, and the Ki67 proliferation index was determined as approximately 70%. Findings were evaluated as dedifferentiated liposarcoma developing from well-differentiated liposarcoma. The pathology of the mass excised from the inguinal canal was evaluated as well-differentiated liposarcoma.

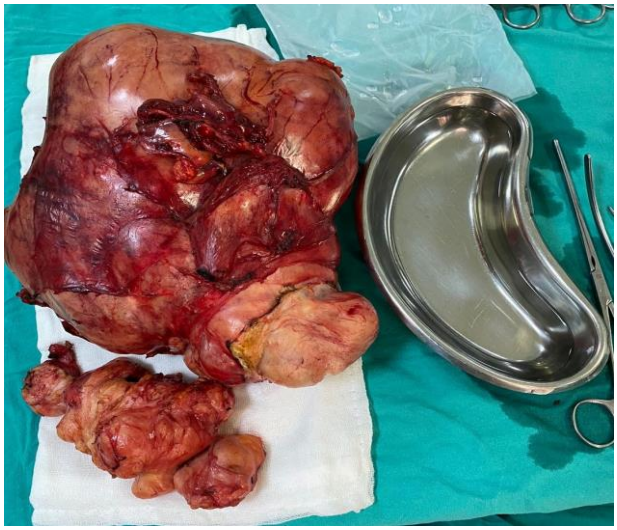

Figure 2: Intraoperative macroscopic view. Giant liposarcoma excised from the intraabdominal and inguinal canal.

Conclusion

According to the classification of soft tissue tumors of the World Health Organization (WHO), dedifferentiated liposarcoma, one of the subtypes of liposarcoma, typically shows a high-grade morphology and metastasizes in 15-20% of all cases [6]. Although most dedifferentiated liposarcomas occur as primary tumors, they may rarely occur as recurrences of well-differentiated liposarcomas [7].

Liposarcomas are most commonly located in the retroperitoneum and extremities. Dedifferentiated liposarcomas, unlike well-differentiated liposarcomas, are more commonly seen at older ages, (7th decade) [8]. Our patient was 72 years old and was compatible with the literature. Liposarcomas originating from the intraperitoneal region are indeed considered rare according to the literature. 40 cases have been described in the literature, and 18 of them have the dedifferentiated subtype [6]. The clinical symptoms of intra-abdominal liposarcoma are mainly painless, palpable masses.

Although dedifferentiated liposarcomas have a high-grade histology, they demonstrate a less aggressive clinical course compared to other high-grade sarcoma types. Approximately 40% of these tumors experience local recurrence, 17% have metastasis, and 28% are associated with mortality [9]. 80% of local recurrences occur within the first five years after resection [10].

In these patients, surgical resection remains the preferred treatment, with a focus on achieving complete resection with negative margins being of utmost importance. It is not uncommon for patients with dedifferentiated liposarcoma to undergo multiple surgeries throughout their lives. In patients with tumors exhibiting a high local recurrence growth rate (1 cm or more per month) despite aggressive resection, the disease-specific survival is poor [11].

Indeed, systemic treatment should be considered in these patients. In this case report, the intraabdominal localization of dedifferentiated liposarcoma, which is typically encountered in the retroperitoneal area, has been discussed as a rare presentation and due to the high recurrence rates, careful long-term follow-up of these patients is essential.

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