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CE - MEDICAL ILLUSTRATION

Retroperitoneal dedifferentiated liposarcoma

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A 55-year-old man presented to the primary care clinic complaining of foot pain, apparently secondary to plantar fasciitis. Incidentally, physical examination revealed an extensive nontender and firm well-delimited mass covering the entire right side of the abdomen. The patient was referred to our department, where he described a 9-month history of early satiety, and a weight loss of 20 kg. Abdominal radiograph showed a large hyperdense right-sided mass effect displacing bowel to the left quadrants and pelvis (Fig. 1a). Chest and abdominopelvic computed tomography showed an enormous retroperitoneal well-circumscribed tumor with some hypodense compounds and peripheral fat, compressing the organs around it (Fig. 1b). Complete surgical resection was performed obtaining a $48 \times 40 \times 30$ cm and 16.8 kg tumor (Fig. 1c), dependent on perirenal fat. Radical ipsilateral nephrectomy was included in the same surgical procedure. Upon histological examination, a diagnosis of dedifferentiated liposarcoma (DDLPS) was confirmed, with no effect on renal tissue and negative margins.

Retroperitoneal sarcomas are rare malignant tumors that account for 15% of all sarcomas [1]. Liposarcomas (LPS) represent approximately 40% of these, and their maximum incidence arises in the sixth and seventh decades, although they can occur in any age group [1]. They can be indolent, achieving extreme dimensions before they produce symptoms because of the large potential spaces of the retroperitoneum [1, 2]. Thus, the incidental finding of an asymptomatic abdominal mass on physical examination is the most common presentation, and symptoms are nonspecific when they occur [1–3]. Abdominal radiograph usually shows bowel displacement and altered intestinal aeration, but contrast-enhanced computed tomography and magnetic resonance are the imaging techniques of choice for the evaluation of retroperitoneal LPS [2]. They can demonstrate a characteristic appearance with a predominantly fatty component suggesting the diagnosis, and consequently, pretreatment biopsy may be unnecessary [2].

Complete surgical resection remains the mainstay of therapy in non-metastatic retroperitoneal LPS, when feasible [2, 3]. The roles of radiotherapy and chemotherapy remain controversial, but they can be useful in cases of unresectable tumors, incomplete resections with positive margins and metastatic disease [1]. Important prognostic factors are completeness of the surgical resection with negative margins, tumor grade and histologic subtypes. Thus, DDLPS confers a worse prognosis when compared to well-differentiated LPS [1, 4]. Local recurrence causing death is common, ranging from 40 to 80% in cases of DDLPS [4]. Distant metastasis rates range from 15 to 20% in this setting, with the lungs being the most common metastatic site [4]. The 5-year overall survival rates for retroperitoneal DDLPS have been reported to range from 44 to 53% [4]. Radical nephrectomy for unilateral primary retroperitoneal LPS near the kidney may increase disease-free survival [5]. Although radical nephrectomy and complete surgical resection with negative margins were performed in this patient, local recurrence was documented after 20 months of follow-up.

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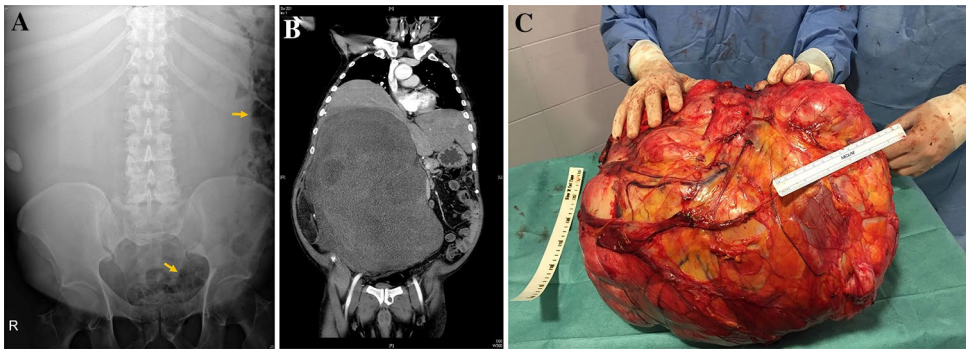

Fig. 1 **a** Abdominal radiograph shows a large hyperdense right-sided mass effect displacing bowel to the left quadrants and pelvis (arrows). **b** Chest and abdominopelvic computed tomography shows a huge retroperitoneal well-circumscribed tumor with some hypodense compounds and peripheral fat, compressing the organs around it. **c** A 48×40×30 cm and 16.8 kg tumor was obtained by surgical resection

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical standards The manuscript does not contain clinical studies or identifying patient data.

Statement of human and animal rights This article does not contain any studies with human participants or animals performed by any of the authors.

Informed consent Given the absence of identifying patient data, informed consent was deferred.

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