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Primary leiomyosarcoma of the greater omentum: a case report

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ABSTRACT

INTRODUCTION: Greater omentum leiomyosarcomas are rare tumors with only a few cases reported in literature.
PRESENTATION OF CASE: We report the case of a 68-year-old man who consulted complaining of diffuse abdominal pain without a palpable mass at physical examination. Imaging studies revealed a solid-cystic lesion in the right lower quadrant. Surgical resection was performed and the tumor was diagnosed as a leiomyosarcoma by histological and immunohistochemical examinations.
DISCUSSION: Surgical resection of all lesions seems to be a reasonable therapeutic approach if resection is feasible. Chemotherapy may be used in selected cases.
CONCLUSION: More cases are needed to define the best treatment approach of this disease.

1. Introduction

The greater omentum is a double-layered fibroadipose tissue that originates from the greater curvature of the stomach and hangs from there to cover the abdominal hollow viscera, then folding back on itself to join the transverse colon. Its main function is to protect the abdomen from any inflammatory, infectious or traumatic process by isolating the compromised organs from the rest of the abdomen. Tumors of the greater omentum are rare, being malignant tumors even rarer. To date, 23 cases of leiomyosarcoma of the greater omentum have been reported after the first case described by Sanes et al. in 1934 [1]. Here we report the case of a patient with a greater omentum leiomyosarcoma and its clinical management.

2. Presentation of case

A 68-year-old man without past medical history consulted to the outpatient clinics complaining of one month of diffuse abdominal pain. Thereafter the pain localized to the right lower quadrant. No history of nausea, vomiting, diarrhea, weight loss or fevers was documented. Physical exam revealed right lower quadrant pain, with no peritoneal signs and no evident masses. Abdominal magnetic resonance showed a solid-cystic loculated right lower quadrant mass originating from the omentum (Fig. 1). No signs of intraabdominal dissemination were observed. All laboratory tests were normal as well as upper gastrointestinal endoscopy and colonoscopy. An exploratory laparotomy was performed finding a low volume free hemoperitoneum and a ruptured hemorrhagic mass in the greater omentum. Exploration through the whole abdominal cavity did not reveal peritoneal dissemination. The mass was excised completely with 3 cm margins of normal tissue and sent to pathological study. The procedure lasted one hour and it did not present intraoperative complications. The patient was discharged at postoperative day 4 without any complications related to the surgery. Biopsy revealed a solid and cystic tumor measuring $26 \times 17 \times 6$ cm, weighting 778 g (Fig. 1). Pathological analysis showed long and fusiform cells, with necrosis and hemorrhagic zones and a mitotic index of 22 mitosis in each ten high-power fields. Immunohistochemistry analysis was positive for H-caldesmon, Actin, CD99 and BCL2, and negative for Desmin, CD34, DOG-1, CD117, S-100, EMA and total cytokeratines (Fig. 2). Based on this immunohistochemical pattern, a leiomyosarcoma of the greater omentum was established.

Six months after surgery, patient complained of fullness and abdominal pain. Imaging study showed peritoneal recurrence. An exploratory laparotomy was performed in order to evaluate potential peritoneal metastasis resection. Nevertheless, there was extensive peritoneal, bowel and liver compromise making impossible a R0 resection. Patient was discussed in a multidisciplinary team suggesting a palliative chemotherapy consisting of doxoru-

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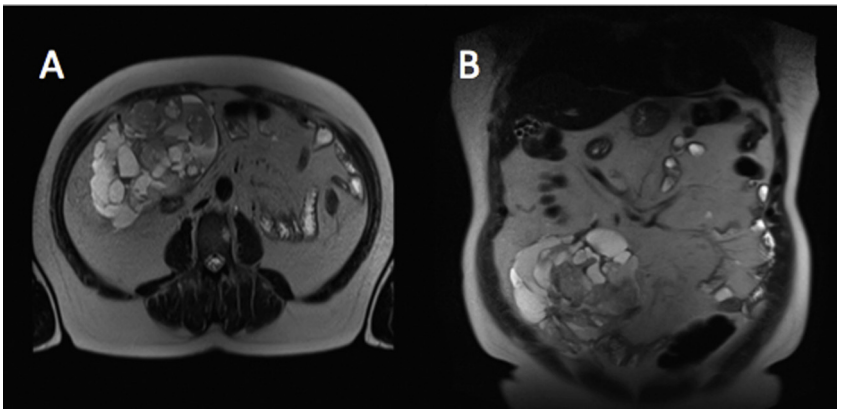

Fig. 1. Transverse (A) and coronal (B) sections of a T2-weighted magnetic resonance imaging showing a solid-cystic mass in the right lower quadrant originating from de greater omentum.

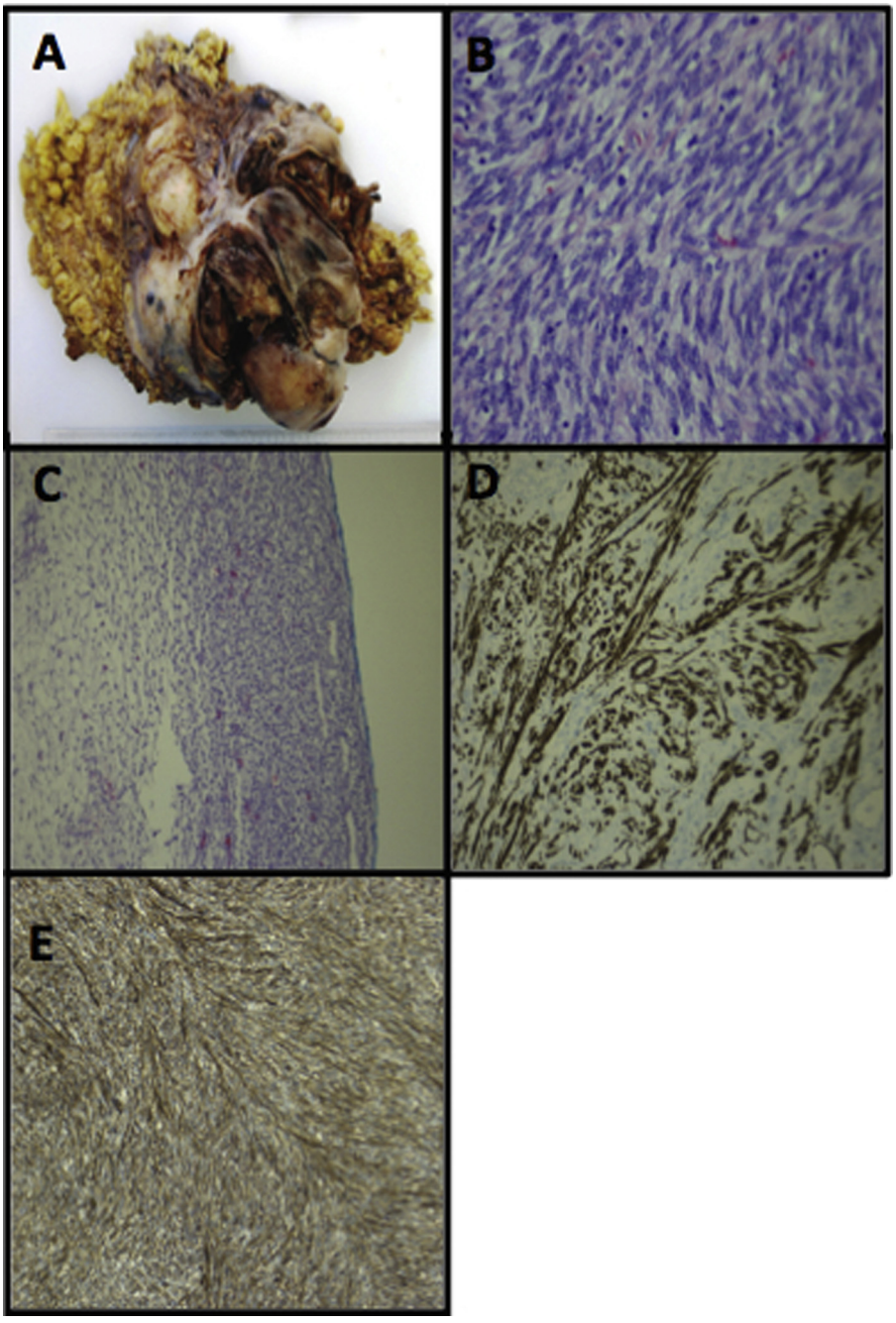

Fig. 2. Multiloculated tumor with solid and cystic component and hemorrhagic areas, partially surrounded by adipose tissue (A). Ovoid cells with vesicular nucleus and eosinophilic cytoplasm showing numerous mitosis (H&E, ×40) (B). Moderately cellular area with fusiform cells arranged in a reticular pattern in fibromixoid stroma (H&E, ×4) (C). Immunohistochemistry study showing fusiform cells positive for H-caldesmon (×10) (D). Tumor cells positive for Actin (×10) (E).