CASE REPORT – OPEN ACCESS

International Journal of Surgery Case Reports 5 (2014) 8–11

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.casereports.com

An unusual case of primary colonic dedifferentiated liposarcoma

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ARTICLE INFO

Article history:
Received 20 August 2013
Received in revised form 25 October 2013
Accepted 28 October 2013
Available online 14 November 2013

Keywords:
Colonic dedifferentiated liposarcoma
Intraabdominal mass
Dedifferentiation

ABSTRACT

INTRODUCTION: İn this paper, we present a rare case of primary dedifferantiated liposarcoma (DDLS) of the colon, management of which is unclear and difficult to cope with.
PRESENTATION OF CASE: 71 year old female patient with complaints of abdominal pain and swelling was referred to our clinic with the diagnosis of intraabdominal mass. 23 cm × 19 cm × 18 cm tumor starting from the neighborhood of left liver lobe and extending toward pelvic floor was detected on computed tomography. At laparotomy, a multilobulated, soft and yellowish mass was arising from transvers colon and invading greater curvature of stomach. En-bloc removal of the tumor including segmental colon and gastric wedge resection was performed. Postoperative histopathological diagnosis was consistent with dedifferentiated liposarcoma.
DISCUSSION: Liposarcomas are rarely encountered in the gastrointestinal tract. Previously, only ten cases of primary liposarcoma of the colon have been reported worldwide and to our knowledge DDLS of transverse colon is the first case reported in the literature. DDLS is a high-grade aggressive tumor carrying the ability to metastasize. Despite complete removal of tumor recurrence is common in DDLS.
CONCLUSION: The constellation of findings in our patient demonstrates that liposarcomas which histologically exhibit dedifferentiation are associated with a poor clinical prognosis and advocating surgery alone is not recommended.

1. Introduction

Liposarcoma is one of the most common types of soft tissue tumors in adults. The incidence of liposarcoma peaks between 40 and 60 years.[1] Liposarcomas are usually reported in the extremities and retroperitoneum whereas it has been rarely seen in the gastrointestinal tract, and colon is extremely uncommon site.[2,3] Here, a case of DDLS which arising from transverse colon is presented, and the literature is reviewed.

2. Presentation of case

71 year old female patient was admitted to outside hospital with complaints of abdominal pain and swelling lasting for three months was referred to our clinic with the diagnosis of intraabdominal mass. There was no change in bowel movements, no sign for bowel obstruction and no weight loss. Triphasic computed tomography (CT) revealed a large macrolobulated peripherally enhancing mass compatible with gastrointestinal stromal tumor, approximately 23 cm × 19 cm × 18 cm in size starting from the neighborhood of left liver lobe and extending toward pelvic floor (Fig. 1). While not invading main vascular structures it was occupying most of the area adjacent to bowel loops and the tumor was invading gastric wall in a small portion at the greater curvature. There was no radiologic hint of colonic invasion or obstruction reported. Patient had a notably distended abdomen on physical examination. Tumor markers were normal. These findings were accepted as sufficient for preoperative diagnosis and no additional investigation was performed in order not to delay surgery. Since neoadjuvant therapy has been found to be inefficacious in such cases, patient was booked for operation. At laparotomy, a multilobulated, soft and yellowish mass approximately 25 cm × 18 cm × 18 cm in size was encountered (Fig. 2). It was arising from transvers colon and invading greater curvature of stomach. After a thorough exploration of abdominal cavity neither peritoneal implants nor ascites was noticed. The mass underwent en-bloc resection including segmental colon and gastric wedge resection. Patient was discharged on day 7 without any complications.

The cut section showed a large grayish yellow nodular mass with few mucoid areas, along with a variegated appearance. At places, it appeared to be fleshy with focal areas of hemorrhage and necrosis (Fig. 3). The tumor center was located in the colon

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2210-2612
http://dx.doi.org/10.1016/j.ijscr.2013.10.013

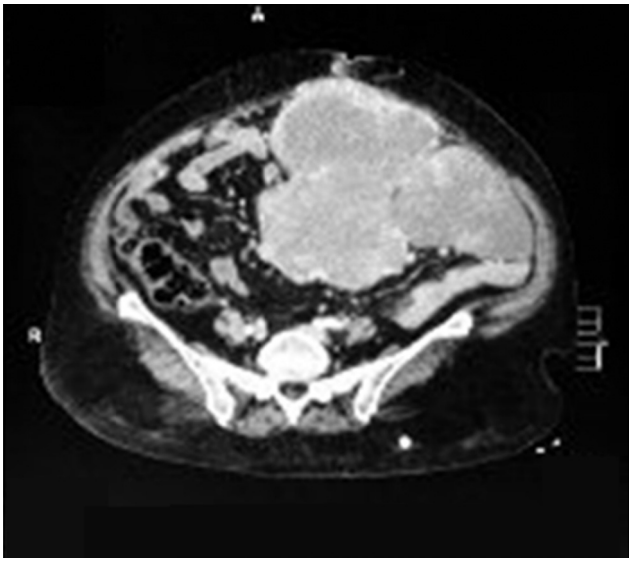

Fig. 1. Axial computed tomography scan shows irregularly mass which is occupying most of the abdomen.

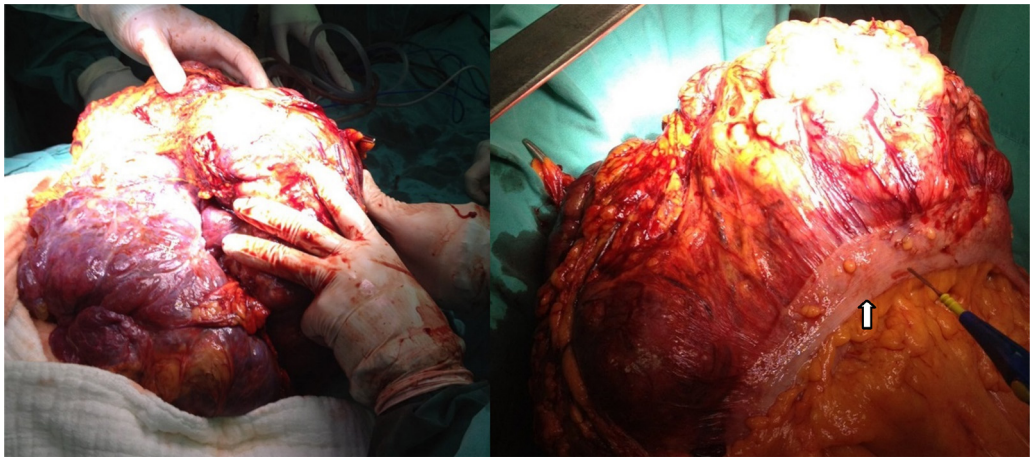

Fig. 2. Intraoperative images of the tumor. (Arrow:Transverse colon).

wall and invasion to stomach was minimal. Thus macroscopic image had a significant role in identifying the primary origin of the tumor which was accepted as colon. On microscopic examination there were areas with fibrosarcomatous, myxofibrosarcomatous, hemangioperistomatous, gastrointestinal stromal tumor like appearance adjacent to a lipogenic component that was composed of fat cells of varying sizes, which were separated by slender connective tissue septae. In these areas the neoplastic cells were uni or multivacuolated (lipoblasts) with moderately pleomorphic hyperchromatic nuclei, with a multivacuolated, clear cytoplasm (Fig. 4). Immunohistochemical staining revealed that tumor cells were positive with vimentin, CDK4 and S-100. EMA, C-kit, CD34, CD31, CD1A, SMA, S-100, NF, GFAP, HMB-45, NSE, ALK, CD99, BCL-2, Caldesmon, β-cathenin, myosin, desmin and FXIII was negative. On basis of these findings, the histopathological diagnosis was consistent with dedifferentiated liposarcoma.

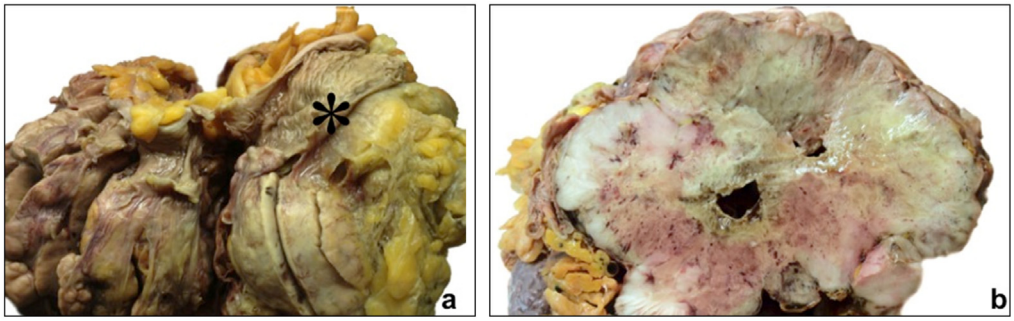

Fig. 3. (a) Tumor mass located in the bowel wall beneath the mucosa (asterisk) and (b) the cut section of the tumor showing hemorrhage and necrosis.