CASE REPORT

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Primary liposarcoma of the stomach

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Sarcomas represent less than 1% of adult solid malignancies and are rarely seen in the gastrointestinal tract. Here, we report a 59-year-old female with a well-differentiated liposarcoma of the stomach. This is the first case in the literature in which endoscopic ultrasound proved to be a diagnostic tool for gastric liposarcoma.

Key words: Stomach, liposarcoma, endoscopic ultrasound

Midenin primer liposarkomu

Sarkomlar yetişkin solid malignensilerin %1'ini oluşturur ve gastrointestinal sistemde nadiren görülürler. Biz bu yazıda 59 yaşındaki kadın hastada iyi diferensiye mide liposarkomunu anlatmaktayız. Bu literatürdeki endoskopik ultrsonla tanısı koyulan ilk gastrik liposarkomadır.

Anahtar kelimeler: Mide, liposarkom, endoskopik ultrason

INTRODUCTION

Although somatic mesenchymal tissues account for more than two-thirds of total body weight, sarcomas (which are tumors of mesenchymal origin) represent less than 1% of adult solid malignancies. Liposarcoma is one of the most common mesenchymal neoplasms of the somatic soft tissue. It accounts for approximately 11.5-15% of soft tissue sarcomas. These tumors arise most commonly in deep soft tissues of the proximal extremities and retroperitoneum (1). However, they are rarely seen in the gastrointestinal tract. Primary liposarcoma of the stomach is exceptionally rare, and only 13 cases have been reported in the literature (2,3).

Herein, we report a 59-year-old female with a well-differentiated liposarcoma of the stomach.

CASE REPORT

A 59-year-old female was hospitalized in 2009 for evaluation of hematemesis, melena and dyspepsia. She had reported rare episodes of abdominal pain. Her medical history was significant for a laparoscopic cholecystectomy in 2006. Her physical examination revealed tenderness in the epigastric area and right upper quadrant. Complete blood count showed anemia (hemoglobin 10.6 g/dl). The rest of the laboratory investigations and tumor markers were normal. An upper gastrointestinal endoscopy revealed a 2 cm, hemorrhagic, submucosal mass on the gastric antrum. Gastric endoscopic ultrasound (EUS) examination revealed a hyperechogenic and well-circumscribed lesion originating from the submucosa highly suggestive of lipoma. Abdominal computerized tomography (CT) scan showed a polypoid lesion originating from the posterior wall of the antrum and protruding into the gastric lumen. No nodal involvement was detected (Figure 1). No tumor involvement in other organs was detected during the laparotomy. A distal subtotal gastrectomy and Billroth II anas-

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tomosis were performed. Histopathological examination revealed a well-differentiated liposarcoma. A polypoid mass with a central ulcer, measuring 4x3x2.5 cm, was observed in the posterior wall of the gastric antrum. On the cut surface, a whitish yellow, well-shaped solid lesion was seen in the submucosal area. No invasion was seen in the muscular layer. On microscopic examination, the tumor was located submucosally, ulcerated and composed of mature adipose cells mixed with spindle cells (Figure 2). Casual stromal cells and lipoblasts were also seen. Immunohistochemically, tumor cells were positive for S-100 and vimentin. Immunoreactivity of desmin and actin was absent (Figure 3).

The patient was discharged without any complications. She did not undergo any adjuvant treatment. She remained free of metastasis one year after surgery.

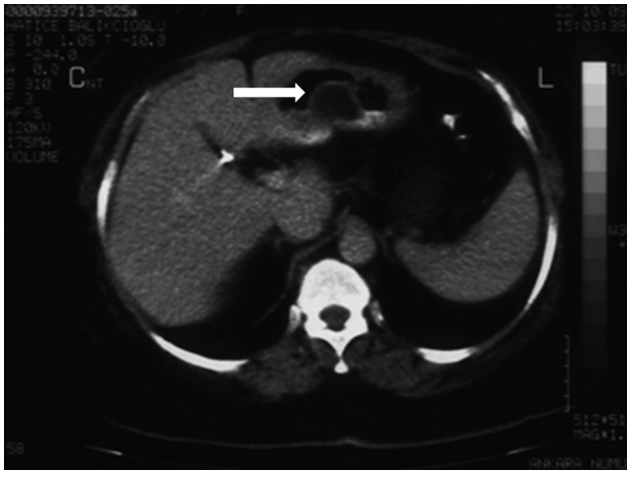

Figure 1. Abdominal computerized tomography scan shows a polypoid lesion originating from the posterior wall of the antrum and protruding into the gastric lumen (white arrow).

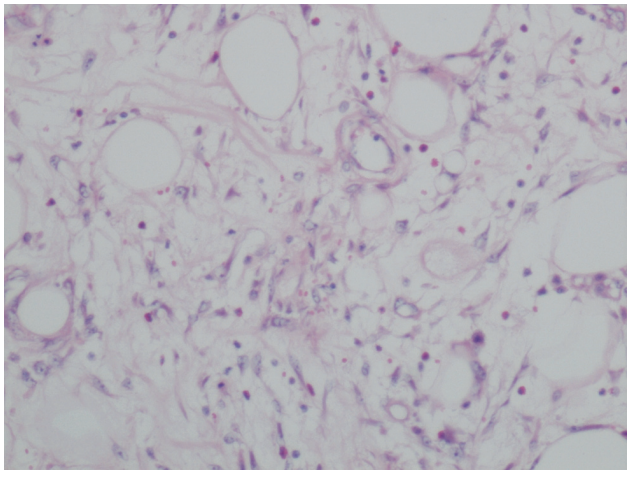

Figure 2. Microscopic appearance of the tumor with mature adipose cells mixed with spindle cells (hematoxylin & eosin [HE] stain).

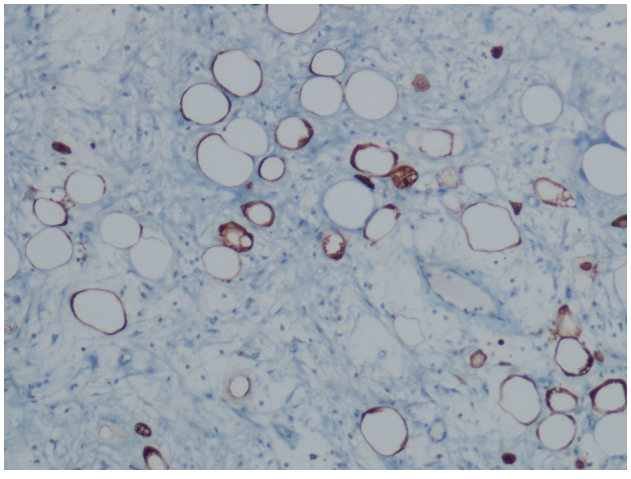

Figure 3. Microscopic appearance of the tumor showing casual stromal cells and lipoblasts (S-100 stain).

DISCUSSION

Liposarcoma is one of the most common soft tissue sarcomas, appearing anywhere in the body. Gastric liposarcomas are extremely rare, and only 13 cases have been reported in the literature to date. This case series comprised eight male and five female patients, with a mean age of 58.9 years (2,3).

Gastric liposarcoma originates from undifferentiated mesenchymal cells present within the submucosa and muscular layer of the stomach (4). Clinical symptoms are generally those of space-occupying lesions of the stomach or abdominal cavity. Only three patients presented with hematemesis related to the ulcer (2). Our case presented with hematemesis and melena.

Liposarcomas have a predilection for the gastric antrum, like in our case. In the above- mentioned case series, four tumors arose in the gastric antrum, two in the body, and two in the fundus. Three tumors originated from the greater curvature and two from the lesser curvature. Six tumors showed exophytic growth from the gastric wall (2).

In a case series with 13 liposarcoma patients, the most commonly used imaging was CT. In two reports, a close relationship between the tomographic appearance and histological type was accurately defined (5,6). It is quite obvious that CT is especially diagnostic in exophytic- growing gastric liposarcomas. However, we consider EUS to be the most useful diagnostic tool in these neoplasias that originate from the submucosa. EUS detected

a submucosally located hyperechogenic and homogeneous mass as lipoma in our case. This is actually the first case in which EUS was shown to be diagnostic for gastric liposarcomas.

Histologically, there are several types of liposarcomas: well-differentiated/dedifferentiated, myxoid/round cell and pleomorphic liposarcoma. Well and dedifferentiated liposarcomas are related. Similarly, myxoid and round cell liposarcomas are two biologic and clinical ends of a spectrum. Well-differentiated liposarcoma is the most common subtype of liposarcomas. It has a risk for local recurrence but no potential for metastasis (7).

In conclusion, we state that the presence of an exophytic gastric mass without distant metastasis or peritoneal involvement should raise suspicion of a possible liposarcoma. EUS can be used as an effective diagnostic tool, and the treatment is surgery.

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