A Rare Cause of Abdominal Pain: Giant Omental Lipoma

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Dear Editor,

Lipoma is the most common benign tumor of mesenchymal tissue and can occur anywhere in the body that contains adipose tissue. However, an omental lipoma is extremely rare and has been reported in a limited number of cases in the literature.[1-3] Here, we present the diagnosis and treatment process of a case of omental lipoma causing abdominal pain in an adult male patient. We aimed to contribute to the differential diagnosis of patients presenting with abdominal pain and intraabdominal mass.

A 54-year-old male patient was admitted to another hospital with abdominal pain for the last few months. Abdominal ultrasonography (US) revealed cysts in both kidneys and a homogenous and solid mass in the midline of the abdomen, so the patient was referred to our hospital. He had no additional disease except hypertension, and his only complaint was diffuse and blunt abdominal pain. Physical examination revealed a non-tender, semi-mobile, soft mass filling the upper and middle parts of the abdomen.

Abdominal contrast-enhanced computerized tomography (CT) of the patient, whose all laboratory parameters are within normal ranges, showed several cysts in both kidneys and a mass of 14 × 12 × 8 cm in the right upper quadrant mesenteric fat tissue planes. It was an ovoid-shaped, well-circumscribed, fat-density lesion that displaced the adjacent bowel loops to the side (Figure 1). However, it did not cause any gastrointestinal or urinary tract obstruction. Subsequently, magnetic resonance imaging (MRI) revealed a mass of approximately 16 × 7 cm in diameter located in the right upper quadrant of the abdomen. After intravenous contrast injection, the mass did not show significant contrast retention and its radiodensity was consistent with adipose tissue. There was no septation, lobulation, cystic component, calcification, or ascites (Figure 2).

After clinical and radiological evaluation, it was decided to perform an operation for the existing mass thought to be of omental or mesenchymal origin. Initially, laparoscopy was performed with a trocar placed from the superior of the umbilicus. A well-circumscribed giant lipomatous mass with a yellowish color extending from the omentum to the pelvis was observed. Because of the size and localization of the omental mass, it was decided to switch to conventional surgery. Considering the localization of the mass, a midline incision above the umbilicus was chosen. There were no signs of local invasion, intraabdominal acid, or lymphadenopathy. The mass was resected with careful sharp dissection with regard to surgical margin negativity and capsule integrity (Figure 3). The pathological examination showed a macroscopically 18 × 14 × 4.5 cm mass with a very thin capsule and yellowish color. When the tissue was sliced, all cross-sectional surfaces were lipomatous in appearance and brown bleeding foci were observed in some places. Microscopically, homogenous mature adipocytes without cytologic atypia were observed and lipoma was diagnosed (Figure 4).

The patient was discharged on the third postoperative day. In the first week of control, the complaint of abdominal pain disappeared completely. Written informed consent was obtained from the patient for use of medical data.

Primary tumors of the greater omentum are rare and may originate from the fat, vascular or lymphatic tissue contained in the omentum. Although lipomas are the most common benign tumors in the mesenchymal tissue, they are extremely rare in the omentum.[1,2] These tumors are usually asymptomatic solid masses diagnosed during autopsies. However, when the cases presented to date

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Figure 1. Axial image of CT; large, fatty mass causing displacement of the intestines. CT, computed tomography.

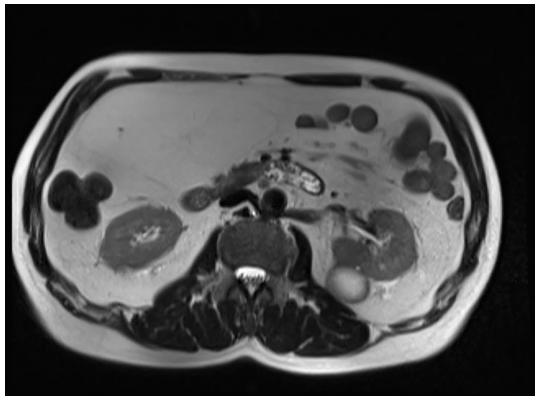


Figure 2. Axial image of MRI; well capsulated, fat-density omental mass without contrast enhancement. MRI, magnetic resonance imaging.

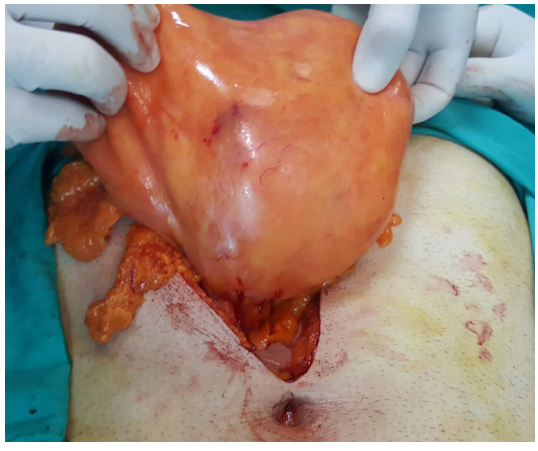


Figure 3. Intraoperative appearance of the mass.

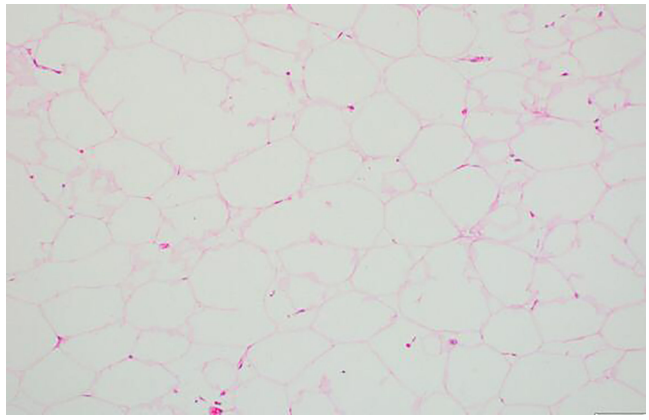


Figure 4. Mature adipocytes are relatively uniform in size and lack cytologic atypia (hematoxylin and eosin; original magnification, ×100).

are examined, it can be seen that they may cause various symptoms and may even lead to clinical conditions requiring urgent treatment.[1,3]

There is a close relationship between the size of lipoma and whether it is symptomatic or not. The largest known omental lipoma was 12.3 kg and was resected from a 13-year-old girl.[2] Smaller masses are often asymptomatic, while larger masses cause acute or choronic abdominal pain, abdominal fullness, distension, nausea, painless mass, easy satiety, or palpable intraabdominal mass. Acute abdomen caused by torsion or intraabdominal bleeding is the most intimidating complication.[1,3] The most common physical examination finding in uncomplicated patients is palpation of a large, soft, non-tender, and mobile mass.

Although US is useful in the diagnosis, tomography is more definitive in the differential diagnosis of other malignant or invasive tumors.[4,5] Computerized tomography allows characterization of the fat component in the mass by density measurement. The presence of other components in the mass, septation, irregular margins, or local invasion are the signs indicating liposarcoma.[4,5] Magnetic resonance imaging, due to its efficacy in tissue identification, has an excellent success both in diagnosing lipoma and distinguishing it from other pathologies.[5] Computerized tomography and MRI are also useful in demonstrating torsion or bleeding that may develop in symptomatic patients.

Surgical resection is the only curative treatment of omental lipomas. Surgery can be performed by conventional or

laparoscopic technique.[1,2] The diameter, localization of the mass, its relationship with surrounding tissues, and other patient-related factors may affect the preferred surgical method. The known advantages of laparoscopy also apply to the treatment of omental lipomas.[1] Even if laparoscopic surgery cannot be continued, as in our case, laparoscopy can be used to clarify the diagnosis and determine the surgical strategy from the incision to the degree of resection. The rate of recurrence after surgery is less than 5%.[1] To reduce recurrence, it is important to maintain capsule integrity during resection and resect with the vascular pedicle.

In conclusion, the omental lipoma is a pathology that should be kept in mind in patients presenting with abdominal pain and an abdominal mass on physical examination. In these patients, starting surgery with laparoscopy will contribute to the determination of intraoperative strategy.

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