CASE REPORT – OPEN ACCESS

International Journal of Surgery Case Reports 2 (2011) 159–162

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.elsevier.com/locate/ijscr

Traumatic mesenteric cyst after blunt abdominal trauma

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ARTICLE INFO

Article history:
Received 1 March 2011
Accepted 28 March 2011
Available online 19 May 2011

Keywords:
Traumatic mesenteric cyst
Blunt abdominal trauma
Lymphangioma
Mesothelioma

ABSTRACT

Mesenteric cysts are rare abdominal tumors of unclear histologic origin, usually asymptomatic. Post-traumatic mesenteric cyst usually results as a consequence of a mesenteric lymphangitic rupture or a hematoma followed by absorption and cystic degeneration. The preoperative histological and radiological diagnosis is difficult. We present the case of a 45-year-old male patient with sizable, palpable abdominal tumor, the gradual swelling of which the patient himself combined with the blunt abdominal trauma he acquired from an opponent's knee in a football game 5 months ago.

1. Introduction

Mesenteric cysts are usually benign abdominal tumors originating from developmental lymphangitic abnormalities or from their traumatic rupture.[1] In adults, they are usually asymptomatic, contrary to children's cases whose symptoms can be intense. They are incidentally discovered during an image study, an exploratory laparotomy for other reasons, or for the treatment of their complications. We present the case of a 45-year-old man with sizable, palpable abdominal tumor, the swelling of which the patient combined with a blunt abdominal injury acquired by his opponent's knee in a football game 5 months ago.

2. Case presentation

A 45-year-old man arrived at the outpatient's facilities of our clinic complaining of remittent pain in the epigastrium and abdominal discomfort. He also mentioned that he was palpating a sizable abdominal mass that was gradually growing during the last 5 months. He had no medical history. He was a football player and for that reason he always followed regular medical health examinations.

The patient mentioned a collision with an opponent player during a football game 5 months ago. A strong injury on the epigastrium caused by his opponent's knee made him stop the game and quit every sport activity for a month. The post-traumatic pain decreased with an anti-inflammatory medication and it was attributed to muscle load. The pain lasted for about 20 days, however, it remained as a non specific abdominal discomfort combined with bloating.

Physical examination revealed a large, soft, palpable mass of the epigastrium extended to the right hypochondrium. Upon palpation, the mass was also transversally movable. Laboratory findings and tumor markers were within normal limits. The abdominal ultrasound (US) revealed a cystic multiloculated mass of uneven shape at the right hypochondrium (140 mm × 110 mm in diameter) extending from the liver and the pancreas towards the right kidney.Abdominal computed tomography (CT) demonstrated a cystic polylobulated lesion, 12 cm in diameter, arising from the head and from the uncinate process of the pancreas, pushing forward the mesenteric vessels and pressing the inferior vena cava (Figs. 1–3). CT findings suggested the process was rather suspicious for a mucous macrocystic neoplasm of the pancreatic parenchyma.

The magnetic resonance imaging (MRI) and the magnetic cholangiopagreatography (MRCP) demonstrated that the tumor was only in touch with the uncinate process, the inferior cava vein, the aorta, the lower pole of the right kidney and the superior mesenteric vessels and included in the differential diagnosis a mesenteric cyst, a lymphangioma, and a cystic mesothelioma (Fig. 4).

The patient underwent an exploratory laparotomy. It was ascertained a sizable, yellowish, movable cystic mass, coming out of the mesentery root 1.2–2 cm on the right side of the superior mesenteric vein (Fig. 5). A total enucleation and resection of the tumor was carried out. The paracentesis of the cyst outside the operational field demonstrated a high viscosity, milk-like material. Frozen section of the speciment excluded malignancy. The biochemical analysis revealed high levels of triglycerides (12384 mg/dl), high cholesterol levels (325 mg/dl) and absence of amylase. The patient was discharged the sixth postoperative day without postoperative complications. The pathology report revealed a mesenteric cystic

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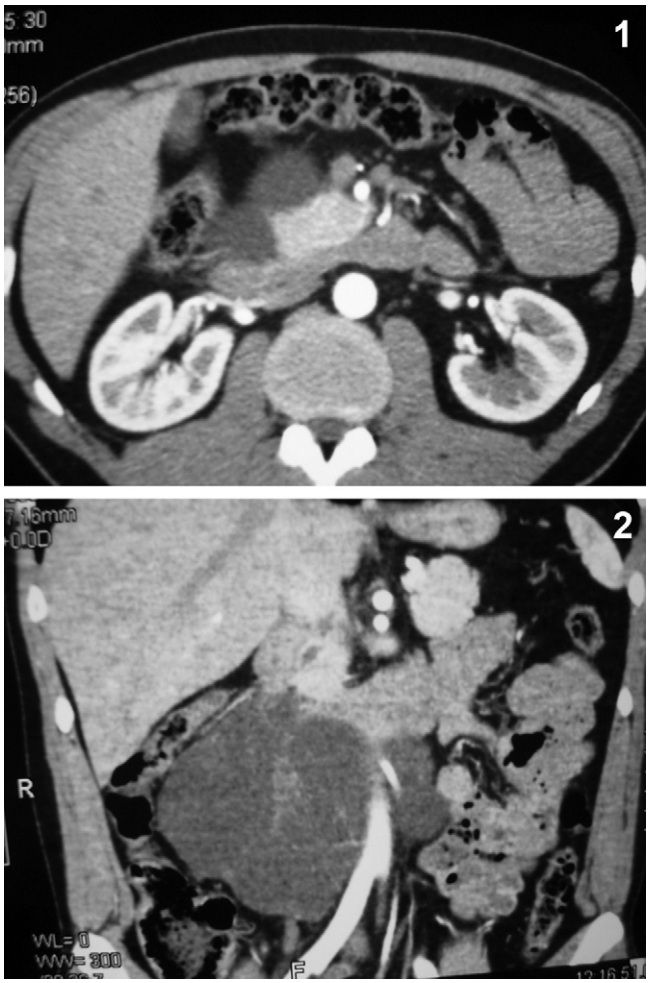
2210-2612
doi:10.1016/j.ijscr.2011.03.006



Figs. 1 and 2. Abdominal axial and coronal CT images demonstrating a large lesion originating from the anatomic region of the head of the pancreas causing mass effect.

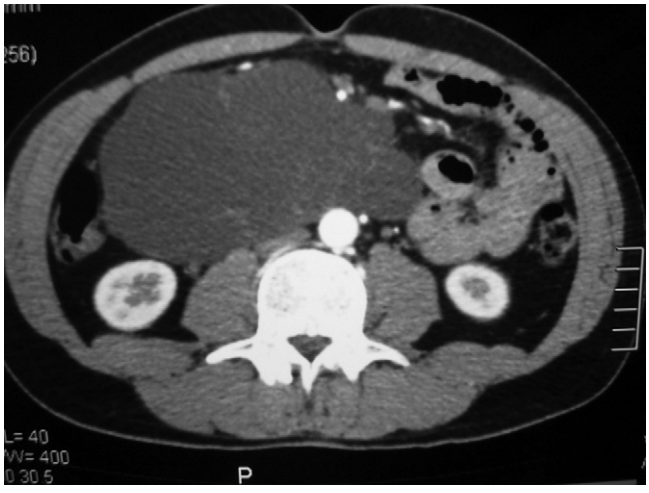


Fig. 3. Large intraabdominal, multilobulated (probably cystic) mass with fine septations.

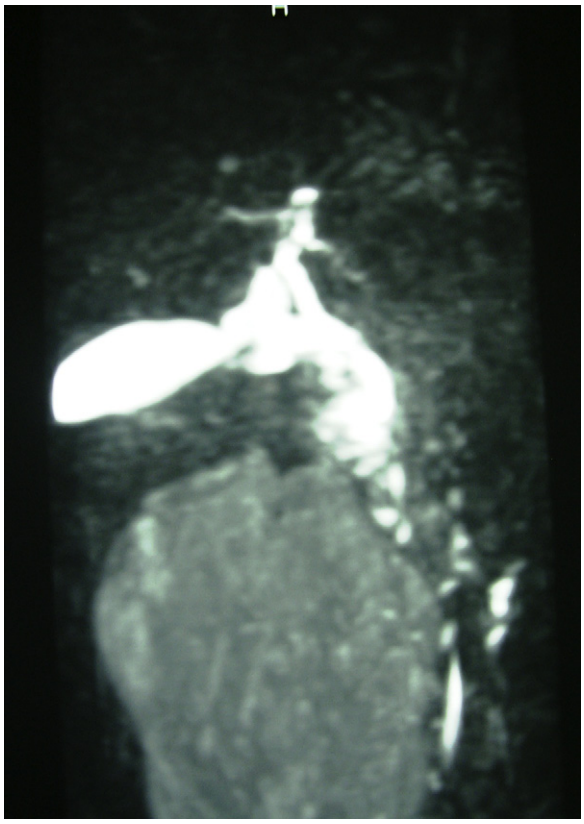


Fig. 4. Abdominal MRI–MRCP demonstrating no filling or dilatation of the common hepatic, cystic, common bile and pancreatic duct.

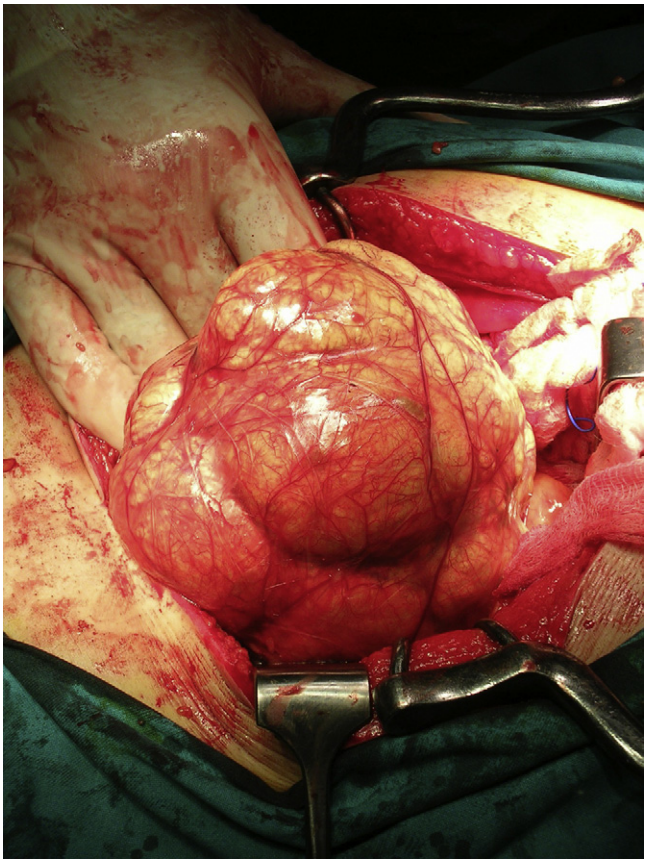


Fig. 5. Intraoperative findings. Mesenteric multiloculated chylous cyst.