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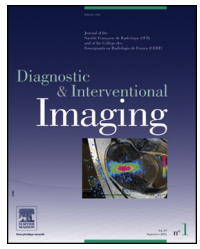

E-QUID / *Digestive*

An atypical acute small-bowel obstruction

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Observation

A 54-year-old woman presented to the emergency department with a sudden onset of severe abdominal pain. The patient had been vomiting for the preceding 24 hours. She had no particular past surgical or medical history, except for a long history of chronic abdominal pain that was partially relieved by oral administration of antispasmodic drug (phloroglucinol). Clinically, the abdomen was distended, with abdominal guarding during palpation but abdominal sounds were present. The results of biological tests were within the normal range. MDCT of the abdomen and pelvis was performed after intravenous administration of an iodinated contrast material during the portal phase (Figs. 1—3).

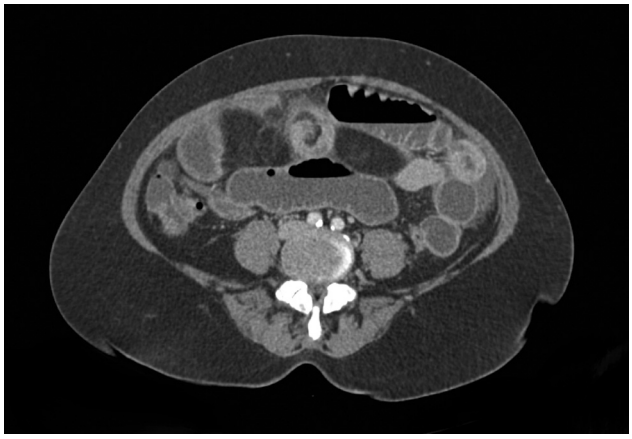

Figure 1. Abdominopelvic MDCT in the axial plane.

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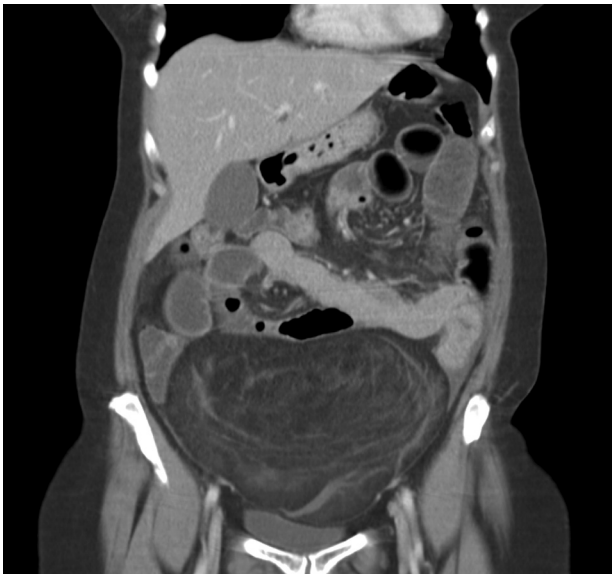

Figure 2. Abdominopelvic MDCT in the coronal plane.

Figure 3. Abdominopelvic MDCT in the sagittal plane.

What is your diagnosis?

Based on the clinical and MDCT imaging findings, which of the following items is the most plausible diagnosis?

- Small bowel obstruction by volvulus caused by Meckel's diverticulum;
- small bowel obstruction due to external compression from a lipoma of the rectus abdominus muscle;
- small bowel obstruction secondary to epiploïc appendigitis;
- small bowel obstruction by volvulus of a mesenteric lipoma;
- small bowel obstruction due to external compression by a dermoid cyst.

Diagnosis

Small bowel obstruction by volvulus of a mesenteric lipoma.

Results

MDCT shows distension of small bowel loops, with a flat-dilated junction segment indicating mechanical obstruction. The ileal loops along with mesenteric vessels are twisted. This ''whirl sign'' (Fig. 4) is characteristic of obstruction due to volvulus, with the twisted vessels converging towards the site of torsion, where a homogenous, well circumscribed large fatty mass attached to the ileum can be seen (Figs. 5 and 6).

During laparotomy a yellowish encapsulated lesion, with a pedicle attached to the antimesenteric border of the ileum was found. It seemed to be twisted on itself (Fig. 7). Surgical treatment included complete resection of the lesion and adjacent segments of the small bowel. Histopathological analysis of surgical specimen showed mature adipocytes with no nuclear atypia, as well as a hemorrhagic component confirming the final diagnosis of a giant mesenteric lipoma. The ileal loop was necrotic with no signs of malignancy.

Discussion

A lipoma is a common benign mesenchymatous tumor, composed of mature adipocytes, which cannot be histologically differentiated from normal fat, but whose biochemical and ultrastructural features are different. It can be located in any part of the body that contains adipose tissue with a predominance in subcutaneous and muscular soft tissue [1,2].

On MDCT scan, lipoma usually presents as a mass with negative attenuation values ranging between −20 and

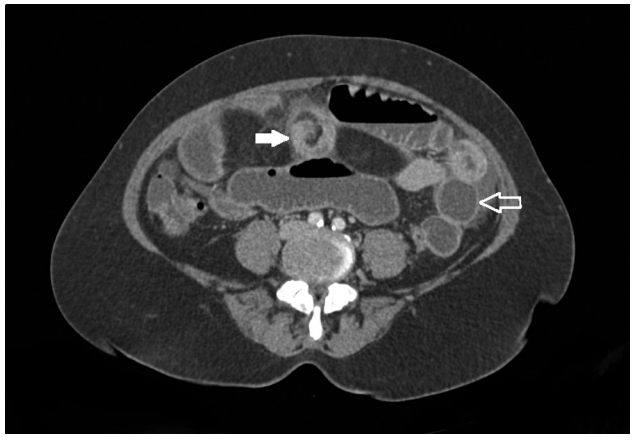

Figure 4. Abdominopelvic MDCT in the axial plane shows the whirl sign (dark arrow) and small bowel distension (light arrow).