Dear Editor,

Cecal volvulus (CV) is defined as the rotation or torsion of a flexible cecum and ascending colon around its mesentery. It frequently progresses to bowel obstruction, ischemia, necrosis, and perforation (1). The definitive management requires surgical intervention but the gold-standard procedure is still undefined. The introduction of minimally invasive surgery represents a breakthrough, providing significant advantages for patients. We present a case where decompressive colonoscopy followed by laparoscopic cecopexy became a useful tactic to manage an acute case of CV.

Case report

A 36-year-old woman without previous medical history presented at the emergency room with recent onset of diffuse, continuous abdominal pain associated to nausea without vomiting. On examination, her abdomen was soft, very distended and tender with guarding over the left iliac fossa.

Her blood tests were normal apart from a white cell count of 17,2x10⁹/L. Abdominal radiograph findings showed suggestive images of CV, confirmed on computerized tomography (CT) (Fig. 1). We decided to perform a colonoscopy to decompress the colon before surgery. After that, her abdomen became non-distended and was taken to the operating room. Under laparoscopic approach (three 5 mm trocars), we found a soft but not dilated ascending colon that lacked retroperitoneal fixation. It was fixed in its proper place with three running sutures (Fig. 2).

The patient had an uneventful recovery and she was discharged on postoperative day 2. At 12-month follow-up, she refers having improved significantly her quality of life and has normalized her constipation.

Discussion

The CV clinical presentation usually is indistinguishable from acute small bowel obstruction; therefore, despite clearly dilated cecum would be palpable, early radiological evaluation is recommended (2).

Literature reveals diverse options regarding surgical treatments of CV by open or laparoscopic approaches. When gangrenous changes and perforations are found, the non-viable bowel should be resected, but also anastomoses should be avoided. An extensive review of 63,749 colonic volvulus (3) determined that the most common treatment in the acute setting of CV was open resective surgery. Cecopexy as well as laparoscopic techniques were used in younger populations with lower comorbidity scores and mortality rates than their corresponding open counterparts. Endoscopic decompression is possible, but not as a single maneuver, as its success rate is not superior to 30 % (4). Nevertheless, the advent of laparoscopic surgery should make us consider the role of decompressive colonoscopy in CV. The volume of the distended cecum and ascendent colon usually precludes a laparoscopic approach and patients are condemned to an open procedure and a longer postoperative course. Although only one previous publication described endoscopic reduction before elective surgery (5), we claim that in selected cases, decompressive colonoscopy can be used as a bridge to definitive laparoscopic surgery.
Fig. 1. CT images demonstrating a cecal volvulus.

Fig. 2. Laparoscopic cecopexy. A. Cecal torsion site after colonoscopic decompression. B y C. The posterior and anterior taenias were fixed to the posterior and lateral peritoneum respectively. The third running suture fixed the mesentery to the retroperitoneum along the ileoceacopendicolic vessels. D. Final result and complete fixation of the cecum.
A final point related to this case is that we made our therapeutic decision based on two remarkable circumstances: The recent onset of the symptoms and the CT findings that showed a CV without pneumatosis intestinalis or free gas, both specific signs for ischemia and bowel damage. These favorable features allowed us to design and perform the minimal invasive possible strategy.

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References