Simultaneous volvulus of the transverse and sigmoid colon. Case report

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Introduction

Colonic volvulus is the axial twisting of the colon on its vascular pedicle. The most common site is the sigmoid colon (75%) followed by the cecum (22%). Rare sites of colonic volvulus include the transverse colon (about 2%) and the splenic flexure (1-2%) (1-3). A double transverse and sigmoid colon volvulus is an extremely rare situation (4-6). To our knowledge, few reports on simultaneous sigmoid and transverse colon have been published to date. We share our experience in successful treatment of such a unique case.

Case report

A 82-year-old Caucasian woman was admitted to the emergency department of the University Hospital of Ioannina due to abdominal pain, absolute constipation and abdominal distention of 8 days duration.

Clinical examination revealed no pyrexia, heart rate at 80 per minute and normal blood pressure. Upon physical examination, a grossly distended abdomen with no rebound was revealed. On auscultation abdominal sounds were absent. Rectal examination showed an empty rectum. The emergent laboratory tests revealed as follow: WBC: 6910/mm³, hemoglobin at 13,5 g/dl, e-reactive protein was at 1 mg/l, creatinine, electrolytes and liver function test results were normal. The abdominal plain X-ray showed massively diluted loops of large bowel (Fig. 1). The admission chest radiography showed elevation of both hemidiaphragm (Fig. 2). The urgent CT showed massively dilated large bowel (Fig. 3).

Laparotomy was performed in general anesthesia on the day of surgery. The transverse colon was massively dilated and contorted at the attachment to the mesocolon. The sigmoid colon was also dilated and volvulated at the spleno-renal flexure. The volvulus was reduced and the transverse and sigmoid colon were sutured to the mesocolon (Fig. 4). The postoperative course was uneventful. The patient was discharged on the 7th postoperative day without complications.
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the admission. Intraoperative findings revealed transverse colon volvulus and sigmoid volvulus associated with megacolon. The volvuluses were untwisted. The entire colon appeared massively dilated and total colectomy was performed (Fig. 4). The resection with one time anastomosis revealed hazardous and terminal ileostomy was preferred. The postoperative period was uneventful and the patient was discharged 8 days later.

Discussion

It is reported that approximately 3%-5% of all cases of intestinal obstruction are caused by colonic volvulus (7). It seems that, of all tracts of colon, only 2% of volvulus involve the transverse colon. The anatomy of the transverse colon prohibits volvulus in this area. In other words, the volvulus of the transverse colon is rare because the transverse mesocolon is short and the colo-
nic flexures act to fix the transverse colon in position. The chronic constipation is a common condition which predisposes to volvulus because of the elongation and the redundancy of the colon. This situation permits volvulus even in the presence of a normal mesentery (8). The presence of simultaneous volvulus in the transverse colon and in another colonic area is an extremely rare situation. It seems that dolichocolon is a clinical condition involving elongation and dilatation of the colon, most commonly seen in elderly patients, as in our case (9). Resection with or without primary anastomosis is the treatment of choice for these cases in order to prevent recurrence (10).

Conclusion

In conclusion, the diagnosis of single tract colonic volvulus or in association with another colonic segment can be difficult and requires a high suspicion on the part of the surgeon. These conditions must be considered in the differential diagnosis when dealing with recurrent intermittent abdominal pain or acute intestinal obstruction because any misinterpretation may result in unfavorable outcomes.

Competing interests

The authors declare that they have no competing interests.

Author’s contributions

LG and IE performed the surgery researched sources for the reference and drafted the manuscript. LE and AZ took the photographs and draft the manuscript. FM helped draft the final version of the manuscript. All authors were actively involved in the preoperative and postoperative care of the patient, read and approved also the final manuscript form.

References