

Cecal Volvulus : case report

Sanati Yassine, Abarhous Achraf, Ait Taleb Khalid, Benjelloun Elbachir, Mouaqit Ouadii, El bouhaddouti Hicham, Bouassria Abdesslam, Marghich Omar,

Visceral surgery service, Hassan II university hospital, Faculty of medicine and pharmacy of Fez, Sidi mohammed ben abdellah university, Fez, Morocco

Corresponding author: Sanati Yassine

Visceral surgery service, Hassan II university hospital, Faculty of medicine and pharmacy of Fez, Sidi mohammed ben abdellah university, Fez, Morocco

Abstract: *The first description of cecal volvulus was reported by Rokitanski in 1837 (1). It is a torsion of the initial part of the right colon and the terminal part of the ileum around the lower right colonic vascular pedicle. It would be responsible for 1% of intestinal obstructions (2). Despite numerous publications, the symptomatology and management of this pathology remain controversial subjects (2-3).*

INTRODUCTION:

The cecum is, in frequency, the 2nd part of the colon concerned by the volvulus after the sigmoid colon. This condition occurs on abnormally mobile caecum, with 2 main mechanisms, torsion or rocking. The diagnosis is established by the CT scan, especially the abdominal CT scan for patients presenting bowel obstruction syndrome, and the treatment consists of surgical resection of the volvulated part with either restoration of digestive continuity or placement of a stoma.

CASE PRESENTATION:

We report the case of an 80-year-old patient, married father of 5 children, followed for Parkinson's disease under anti-Parkinsonian treatment, never operated on, who presents to the emergency room for signs of bowel obstruction syndrome evolving 4 days before his admission, the patient clinically was generally stable, with good vital constants, abdominal examination found a very distended tympanic abdomen with general sensibility in the palpation.

The assessment was completed by imagery based on an injected abdominal scan, showing significant distension of the small intestine loops, as well as of the cecum, with hydro-aeric content, arriving at 11 cm of maximum distension at the level of the caecum, the distension is localize before the segment of the bowel where we see the disparity of caliber, realizing the aspect of turn of whorl, with individualization of two legs, a first colic and the second of the last ileal bowel, related with a mesenteric-axial cecal volvulus.

The patient was taken directly to the operating room with the presence of a volvulus of the cecum complicated by peritonitis on perforation of the caecum which was very distended, with a distension also of the distal small bowel, the operative consisted of a resection of the terminal small bowel and the cacum with creation of an ileocolostomy, washing and drainage of the peritoneal cavity. (fig 1,2,3)

The postoperative follow-up was simple and the patient was discharged on day 4 postoperatively, reconvened after 2 months for closure of the stoma.

DISCUSSION:

The volvulus of the cecum is a twisting of the right colon around its mesenteric axis which is only possible if the proximal colon is mobile. The excessive mobility of the cecum is due to an incomplete embryological rotation of the intestine or to a lack of attachment of the ascending colon to the posterior parietal peritoneum (4-5). Two main types of volvulus are described: either by a rotation of the colon around its axis, the cecum then remaining in the right lower abdominal quadrant (2-6-7), or by a rocking of the cecum associated with a rotation of the colon which is then placed in the upper left quadrant of the abdomen. The diagnosis of volvulus of the cecum is difficult because the clinical signs are not specific and the intensity of the pain is variable (5), it is generally manifested by a more or less acute occlusive syndrome. Plain x-rays of the abdomen can be useful for diagnosis but its sensitivity is generally low (2). Abdominal CT is the reference examination, it allows the diagnosis of an associated complication such as ischemia or perforation, as was the case in our patient (6). Colonoscopy can be performed showing the volvulus and more or less deep colonic parietal ischemia (8-9). Endoscopic detorsion is feasible in the absence of severe ischemia but at the cost of a significant risk of perforation (10). The treatment has three goals, it is to remove the obstacle by detorsion, if possible, to treat evolving complications and to prevent recurrence (11). It remains a subject of controversy. Right hemicolectomy with

anastomosis is recommended by several teams even in the absence of colonic necrosis because it eliminates the risk of recurrence (12-15). Caecostomy is effective for the prevention of recurrences but carries a high risk of infection of the near skin and exposes to the risk of digestive fistula requiring closure of the stomia. Infectious complications are less frequent with caecopexies but recurrences are more frequent (16). The laparoscopic approach (17) is rarely used in an emergency because of the distension of the cecum and the difficulties of exposure. On the other hand, it is possible after detorsion and endoscopic exsufflation.

CONCLUSION:

It is a rare pathology that requires emergency intervention to reduce the risk of morbidity and mortality, the abdominal CT scan with injection remains the reference exam for diagnosing this pathology as well as the complications that can cause, several modality of treatment depending on the delay in treatment and any complications.

BIBLIOGRAPHIE :

1. Rokitansky C. Intestinal strangulation. *Arch Gen Med*.
2. Pirr6 N, Merad A, Sielezneff I, Sastre B, Di Marino V. Volvulus du cæcum, bases anatomiques et physiopathologie: à propos de 8 cas consécutifs.
3. Abita T, Lachachi F, Durand-Fontanier S, Maisonnnette F, Roudaut V, Valleix D, Descottes B. Les volvulus du cæcum. *J Chir Juillet*. 2005.
4. Berger JA, Leersum MV, Plaisier PW. Cecal volvulus: Case report and overview of the literature. *European Journal of Radiology Extra*. 2005.
5. O'Mara CS, Wilson TH, Stonesifer GL, Jr, Stonesifer GL, Cameron JL. Cecal volvulus: analysis of 50 patients with long-term follow-up. *Ann Surg*. 1979.
6. Moore CJ, Corl FM, Fishman EK. CT of cecal volvulus: unravelling the image. *AJR Am J Roentgenol*. 2001.
7. Perret RS, Kunberger LE. Case 4: Cecal volvulus. *AJR Am J Roentgenol*. 1998.
8. Montes H, Wolf J. Cecal volvulus in pregnancy. *American Journal of Roentgenology*. 2001.
9. Neil DA, Reasbeck PG, Reasbeck JC, Effeney DJ. Cecal volvulus: ten years experience in an australian teaching hospital. *Ann R Coll Surg Engl*. 1987.
10. Friedman JD, Odland MD, Burbrick MP. Experience with colonic volvulus. *Dis Colon Rectum*. 1989.
11. Breda R, Mathieu L, Mlynski A, Montagliani L, Duverger V. Volvulus du cæcum. *J Chir (Paris)*. 2006.
12. Sedik A, Bar EA, Ismail M. Cecal volvulus: Case report and review of literature. *Saudi Surg J*. 2015.
13. Katoh T, Shigemori T, Fukaya R, Suzuki H. Cecal volvulus: Report of a case and review of Japanese literature. *World J Gastroenterol*. 2009 May 28.
14. Majeski J. Operative therapy of cecal volvulus combining resection with colopexy. *Am J Surg*. 2005.
15. Meyers JR, Heifetz CJ, Baue AE. Cecal volvulus: a lesion requiring resection. *Arch Surg*. 1972.
16. Rabinovici R, Simasky DA, Kaplan O, Mavor E, Manny J. Cecal volvulus. *Dis Colon Rectum*. 1990 .
17. Shoop SA, Sackier JM. Laparoscopic cecopexy for cecal volvulus: case report and a review of the literature. *Sure Endosc*. 1993 Sep-Oct;7.



Fig 1: showing the severe distension of the cecum caused by the volvulus.

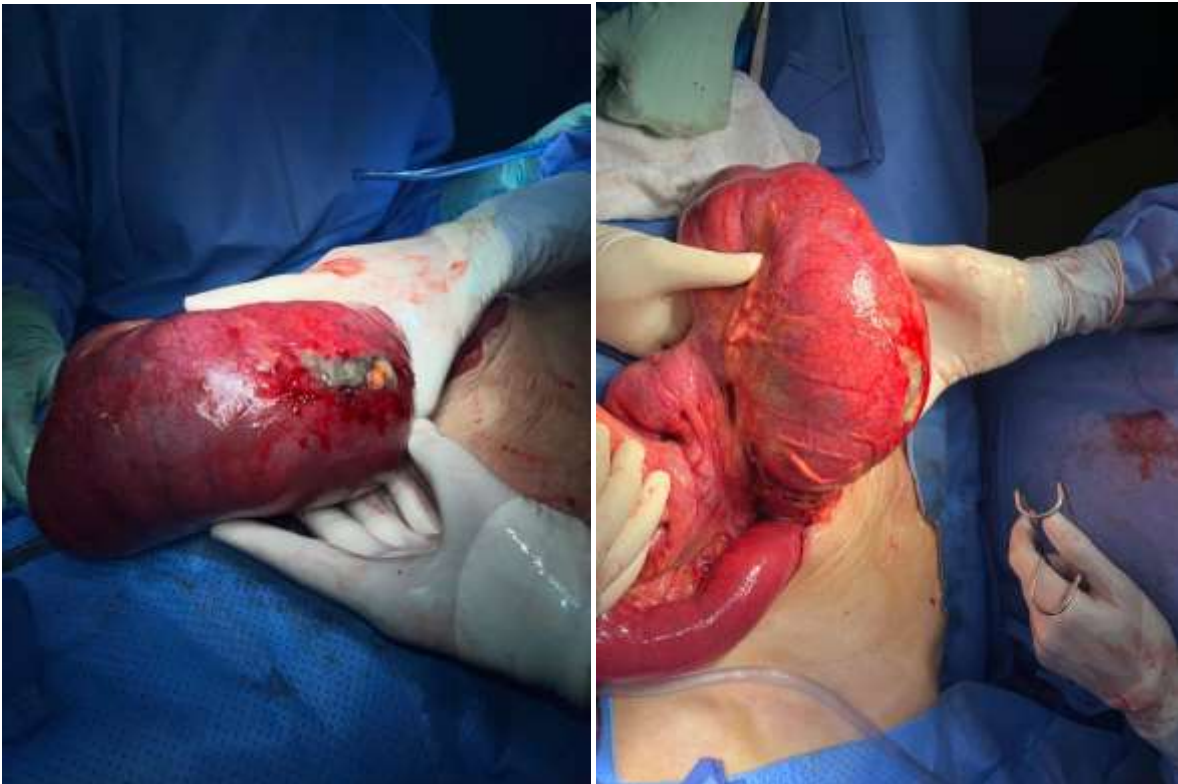


Fig 2: showing cecal perforation (complication of the obstruction bowel syndrome) .



Fig 3: ileocecal resection piece