SAS Journal of Surgery
Abbreviated Key Title: SAS J Surg
ISSN 2454-5104
Journal homepage: https://saspjournals.com/sasjs/

OPEN ACCESS

Volvulus of the Cecum: A Case Report

Houssam Belghali*, Tarik Souiki, Karim Ibn Majdoub Hassani, Imane Toughrai, Khalid Mazaz

Visceral Surgery Service, Hassan II, University Hospital, Faculty of Medicine and Pharmacy of Fez, Sidi Mohammed Ben Abdallah University, Fez, Morocco.

DOI: 10.21276/sasjs.2019.5.7.4 | **Received:** 15.06.2019 | **Accepted:** 26.06.2019 | **Published:** 30.07.2019

***Corresponding author:** Belghali Houssam

Abstract **Case Report**

The cecum is, in frequency, the second part of the colon concerned by the volvulus after the sigmoid and before the left angle and the transverse colon. This condition occurs on abnormally mobile caecums. The mechanism of volvulus is twisting or tilting. The clinical picture is that of an acute intestinal obstruction by strangulation. The unprepared abdomen x-ray and abdominal CT are the first imaging examinations performed for diagnosis. The treatment aims to reduce volvulus and treat complications. Ileocecal resection is the best therapeutic option. In rare cases, caecopexy may be a therapeutic alternative in elderly or debilitated patients and in the absence of necrosis.we reporting the case of a patient who is admitted to emergency in an acute bowel obstruction, the diagnosis was confirmed by an abdominopelvic CT scan and the treatment consisted of a caecal detorsion with a caecopexy, the postoperative follow up was uneventful.
Keywords: Intestinal occlusion, volvulus, cecum, caecopexy.
Copyright @ 2019: This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use (NonCommercial, or CC-BY-NC) provided the original author and source are credited.

INTRODUCTION

The first description of volvulus of the cecum was reported by Rokitanski in 1837 [1]. It is a rare cause of intestinal obstruction that accounts for about 1% to 3% of all cases of acute intestinal obstruction, and 10% to 30% of colon volvulus cases. It involves an acute or chronic and recurrent plication or torsion of the cecum, sometimes involving a portion of the ileum and ascending colon, occurring on a mobile cecum. Despite numerous publications, the symptomatology and the management of this pathology remain controversial [2,3]. We report the case of a patient who was treated in the emergency room for a cecal volvulus.

Observation

A 60-year-old woman with medical conditions including diabetes and hypertension and is undergoing medical treatment, which was admitted to the emergency department, for an acute intestinal occlusion symptomatolgy with of and, associated with vomiting, meteorism and diffuse abdominal pain. The examination noted an abdominal distension, hypertympanic with a slight diffuse abdominal tenderness, the hernia orifices were free and no stool in the rectum. Biological assessment showed predominantly PNN leukocytosis at 18,000 elements / mm3, CRP was 200, renal function slightly altered. The patient benefited from an unprepared abdomen x-ray in the standing position, demonstrating air-fluid levels. She then benefited from an injected abdominal-pelvic CT scan [figure 1], which noted a large hail distension in favour of an ileocecal volvulus, a much distended cecum located in the left hypochondrium with no signs of hail ischaemia. The patient underwent laparotomy surgery in the emergency operating room [figure2], which involves cecal detorsion with a caecopexy, with drainage of the superinfected hydatid cyst located in the segment V of liver. Postoperative follow-up was uneventful.

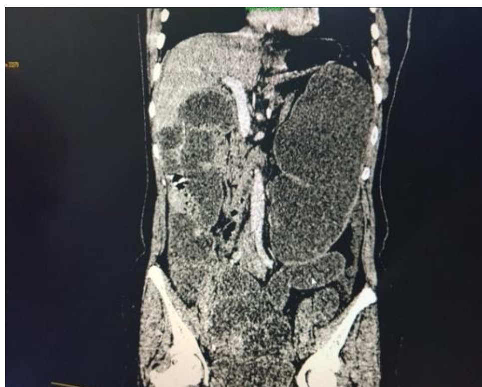

Fig-1: A Much distended caecum located in the left hypochondrium

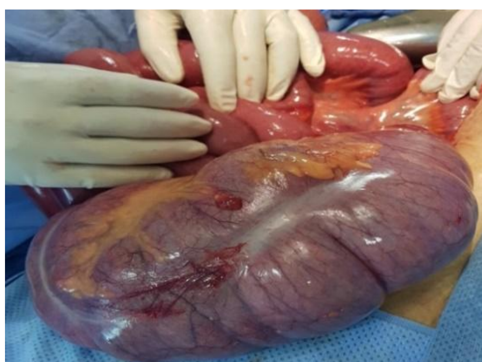

Fig-2: Volvulus of the cecum

DISCUSSION

The volvulus of the cecum is a twisting of the right colon around its mesenteric axis that is only possible if the proximal colon is mobile. The excessive mobility of the cecum is due to an incomplete embryonic rotation of the intestine or a failure to attach the ascending colon to the posterior parietal peritoneum [4,5]. Two major types of volvulus are described: either by a rotation of the colon around its axis, the cecum remaining then in the right iliac region, either by a cecal tilt associated with a rotation of the colon which is then placed in the left hypochondrium, as the case of our observation [2,6,7]. The diagnosis of cecal volvulus is difficult because the clinical signs are not specific and the intensity of the pain is extremely variable [5]. It usually manifests as a more or less acute digestive obstruction. The unprepared abdominal x-ray may be useful for diagnosis but has usually a poor sensitivity [2]. Abdominal computed tomography is a powerful test for diagnosis. It can diagnose an associated complication such as ischemia or perforation [6]. Colonoscopy can be performed showing volvulus and more or less deep colonic ischaemia [8,9]. Endoscopic detorsion is feasible in the absence of severe ischemia but has a significant risk of perforation [10]. The treatment has three goals, it is to remove the obstacle by a detorsion, if it is possible, to treat the complications and to prevent the recurrence [11]. It remains a controversial subject. Surgery is the mainstay, whether it is conservative (simple detorsion, cecopexy by fixation of the cecum to posterior peritoneum) or not (caecotomy, right hemicolectomy and ileocecal resection). Reductions in volvulus of the caecum by colonoscopy or by water-soluble enemas are rather considered "accidental" [8]. Not encouraging results have been reported in older series with a failure rate exceeding more than 75% of cases [9, 10]. A endoscopic reduction could be attempted in case of contraindication to surgery or a high risk surgery (pregnancy) to delay the use of the latter [11]. The laparoscopic approach [12] is rarely used in emergency because of the distension of the caecum and the difficulties of exposure. It could be performed after endoscopic detorsion and exsufflation.

CONCLUSION

The volvulus of the cecum is a rare affection. Caecal mobility is an essential anatomical condition but insufficient to cause volvulus. The diagnostic difficulties must not in any case delay the operation. The choice of the operative technique is conditioned by the local condition of the colon wall and the general condition of the patient.

REFERENCES

1. Rokitansky C. Intestinal strangulation. Arch Gen Med. 1837;14(1):202–210.
2. Pirró N, Merad A, Solari C, Le Coroller T, Sielezneff I, Sastre B, Di Marino V. Volvulus du cæcum. À propos de 8 cas consécutifs. Bases anatomiques et physiopathologie. Morphologie. 2006 Jun 1;90(289):113-4.

3. Abita T, Lachachi F, Durand-Fontanier S, Maisonnette F, Roudaut V, Valleix D, Descottes B. Les volvulus du cæcum. J Chir Juillet. 2005;142(4):220–224.
4. Berger JA, Leersum MV, Plaisier PW. Cecal volvulus: Case report and overview of the literature. European Journal of Radiology Extra. 2005;55(4):101–103.
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;189(6):724–731.
6. Moore CJ, Corl FM, Fishman EK. CT of cecal volvulus: unravelling the image. AJR Am J Roentgenol. 2001;177(1):95–98.
7. Perret RS, Kunberger LE. Case 4: Cecal volvulus. AJR Am J Roentgenol. 1998 Sep;171(3):855–60.
8. Montes H, Wolf J. Cecal volvulus in pregnancy. American Journal of Roentgenology. 2001;177(1):95–9.
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;69(2):283–285.
10. Friedman JD, Odland MD, Burbrick MP. Experience with colonic volvulus. Dis Colon Rectum. 1989;32(1):409–416.
11. Breda R, Mathieu L, Mlynski A, Montagliani L, Duverger V. Volvulus du cæcum. J Chir (Paris). 2006;143(1):330–2.
12. Sedik A, Bar EA, Ismail M. Cecal volvulus: Case report and review of literature. Saudi Surg J. 2015;3(2):47–9.