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Simultaneous Volvulus of the Caecum and Sigmoid: Case Report

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Abstract **Case Report**

Volvulus of the colon is a frequent cause of colonic occlusion, it can sit along the colonic frame when it is abnormally mobile. Sigmoid volvulus is the most common, followed by cecum, transverse colon, and left colic angle. The mechanism of volvulus is torsion or rocking. The clinical picture is nonspecific, most often with an association of abdominal pain, cessation of matter and gas, and meteorism. The reference complementary examination is currently the abdominopelvic scanner, which makes it possible to make the diagnosis and to look for possible complications. Emergency surgical management is the rule in the event of clinical and radiological severity criteria. It is exceptional to encounter two volvulated colonic segments in the same patient. In our study, we describe the case of a patient who presents to the emergency room for acute abdominal pain with cessation of matter and gas, an abdominal pelvic CT scan done in emergency found a volvulus of the sigmoid. His emergency management after failed endoscopy revealed simultaneous volvulus of the sigmoid and cecum. The extremely rare nature of this epiphenomenon leads us to discuss the causes, the clinical modalities and the management of this pathology.

Keywords: Volvulus, surgery, sigmoid , caecum.

INTRODUCTION

Colonic volvulus is a surgical emergency, it is most often a torsion or rotation of a segment of the colonic frame on its vascular axis when it is abnormally long or mobile [1, 2]. The occurrence of a volvulus involving two segments of the colonic frame is an extremely rare epiphenomenon. We report the case of a patient who consulted in the emergency room for colonic occlusion, in whom the intraoperative diagnosis revealed a simultaneous volvulus of the cecum and the sigmoid.

OBSERVATION

57-year-old patient; type two diabetic (2), intellectually deficient under neuroleptic, having benefited from a hare beak plasty in his childhood and a subdural hygroma in adulthood, who is transported to the emergency room for management of a syndrome abdominal pain accompanied by a cessation of matter and gas for 72 hours according to the patient's entourage.

According to the anamnestic elements, the initial examination found a calm patient, speaking with difficulty, in good general condition and very painful. He is eupneic and hemodynamically and respiratory stable with blood pressure at 142/98mmHg, heart rate at 93 per minute, ambient air saturation at 98% and temperature at 36°C.

The physical examination found significant abdominal distension with tympanism in all quadrants of the abdomen.

A rectal examination (TR) is done and finds a spastic and tonic anal sphincter, the progression is nevertheless easy, there is no palpable mass and the finger cot comes back stained with liquid stool with normacol residues.

The biological assessment made in emergency finds the ionic disorders but there is no biological inflammatory syndrome.

An abdomino-pelvic scanner is done urgently and finds a sigmoid volvulus with parietal pneumatosis and stercoral stasis of the rectosigmoid junction. The sigmoid measures 150mm in diameter, with a transition zone and a whorl.

Management initially consisted of performing a lower digestive endoscopy, which confirmed the presence of a volvulus of the sigmoid colon 30 cm from the anal margin. But failure of detorsion and progression beyond despite several attempts.

After endoscopy, the patient presented with a state of shock with mottling of the lower limbs, superficial polypnea with desaturation and hypotension, also abdominal contracture.

Hence the decision to explore the patient urgently. A midline laparotomy straddling the enlarged umbilical above and below the umbilical revealed simultaneous volvulus of the cecum and the sigmoid; the surgical procedure consisted of a typhlectomy with ileocolic anastomosis and a sigmoidectomy with left iliac terminal colostomy.

The evolution was marked by the resumption of transit on D+4 postoperative and the patient's discharge from the patient on D7 via a day in intensive care of 48 hours.

DISCUSSION

The term “volvulus” comes from the Latin “volvere” which means to twist. Described for the first time by Rokitansky as early as 1836 [1]. Colonic volvulus represent 10% of colonic occlusions [2]. This pathology affects all the mobile segments of the colon [3]. Sigmoid volvulus is more frequent with 70-70% of cases, followed by the cecum 25-30% and more rarely the transverse colon and the right colic angle [4]. The association of two colonic locations simultaneously is not developed in the literature.

Colon volvulus is a complication of dolichocolon and dolichomegacolon [5]. It is classically considered as a pathology of the subject aged over 70 years. But nowadays and especially in areas of high prevalence, it is observed with predilection in adults from 40 to 60 years old [6]. The etiology of colon volvulus is probably of multifactorial origin. Some factors are common to the location of the volvulus, such as chronic constipation [6, 7]. Our patient is a 57-year-old patient, on neuroleptics, who had been complaining of constipation for more than two years.

The anamnesis describes abdominal pain, an occlusive syndrome made of stopping of matter and gas for more than 24 hours. Signs found on physical examination; represented by very significant abdominal distension, meteorism and tympanism, constitutes VON WALL's triad [8]. Our patient described material and gas arrest for 72 hours, accompanied by abdominal pain, his very revealing clinical examination showed meteorism, distention and very significant tympanism. The examination of the hernial orifices was negative and the digital rectal examination showed an empty rectal ampulla.

Despite blatant and specific symptoms, the scanner confirms the diagnosis with a sensitivity close to 100% and a specificity of 90% [9]. The scannographic diagnosis of a sigmoid volvulus will be made on the demonstration of a voluminous sigmoid loop enclosing its meso and whose two legs approach to end in a bird's beak [10]. The scannographic diagnosis of a volvulus of the cecum is made on the demonstration of a dilated ectopic cecum in a situation left pelvis or in a high abdominal position, the left and right colon not distended and with a bird's beak sign [11, 12]. The scanner also describes the signs of necrosis, pain or colonic perforation. Our patient underwent an emergency abdominopelvic CT scan which found sigmoid volvulus with parietal pneumatosis and stercoral stasis of the rectosigmoid junction. The sigmoid measures 150mm in diameter, with a transition zone and a turn of the whorl (Figure 1).

Colonic volvulus is a medical-surgical emergency. Resuscitation measures, which should in no way delay surgical or endoscopic management, aim to correct hydroelectrolytic disorders, relieve the patient's pain and ensure the patient's conditioning for a surgical operation. The therapeutic strategy depends on the topography of the volvulus, the terrain and the initial paraclinical findings. Complicated forms must be diagnosed quickly from the outset, synonymous with surgical emergency, whatever the location [9, 13]. Endoscopic treatment has diagnostic and therapeutic interest. It is carried out in first intention in the volvulus of the sigmoid colon. In case of failure, the surgical treatment allows detorsion of the colonic segment concerned and makes it possible to resect said segment. In case of sigmoid volvulus; surgical detorsion with sigmoid resection and anastomosis immediately or Hartman type resection. In case of volvulus of the cecum, a typhlectomy with immediate anastomosis [9, 14]. Our patient underwent a colonoscopy which confirmed the presence of a volvulus of the sigmoid colon 30cm from the anal margin. Failure to untwist and progress beyond despite several attempts. During the colonoscopy, the patient deteriorates in his general condition and goes into a state of shock with marbling of the lower limbs, superficial polypnea with desaturation and hypotension at 90/52 mmHg. He was rushed to the operating room. He underwent a midline laparotomy straddling the umbilicus (Figure 2). The exploration found a volvulus of the sigmoid (Figure 3) associated with a volvulus of the cecum (Figure 4). The surgical gesture consisted of a typhlectomy with ileocolic anastomosis, a sigmoidectomy with Hartman-type left iliac colostomy.

The evolution was favorable, after a stay of seventy-two hours in intensive care, the patient resumed transit after five days. He came out on D7 postoperatively.

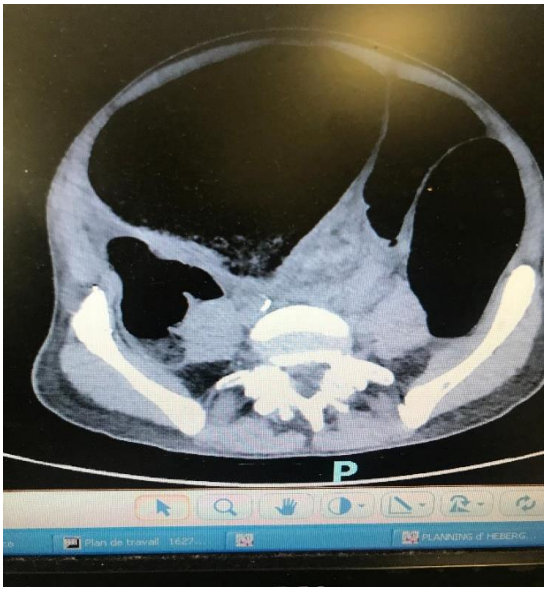

Figure1:abdominal scan showing a turn of the spiral with dilation of the sigmoid

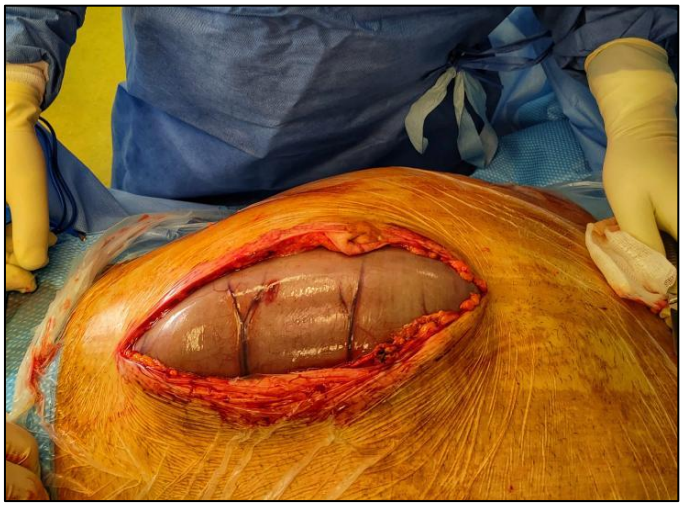

Figure2: Midline abdominal incision stadding the umbilicus

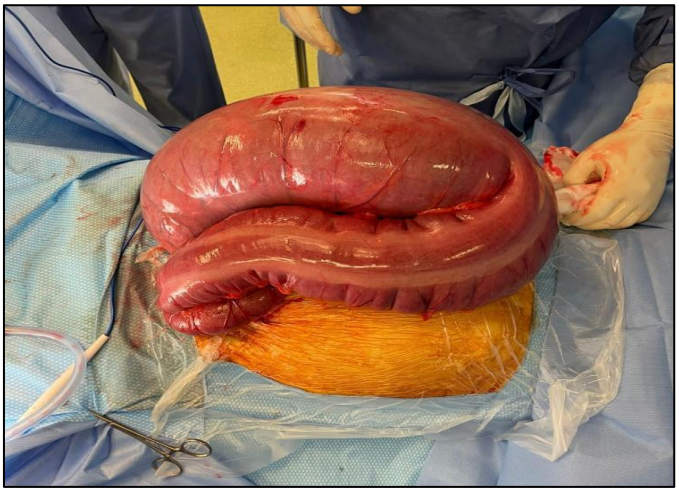

Figure 3: Volvulus of the sigmoïde

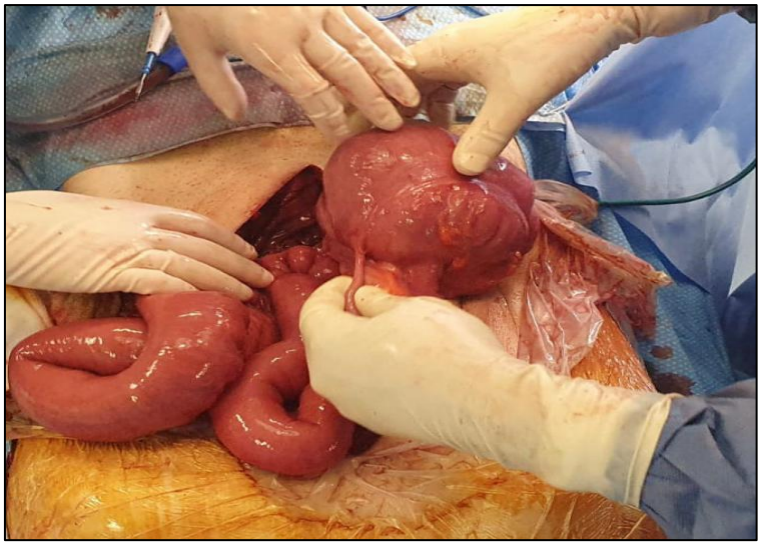

Figure 4: Volvulus of the caecum

CONCLUSION

Colonic volvulus is a frequent cause of colonic occlusion, its management is a medico-surgical emergency, it is potentially fatal in the absence of appropriate treatment. A simultaneous volvulus of two colonic segments is very rare and little described in the literature.

Conflict of Interest: The authors declare no conflicts of interest.

Authers' Contributions: All authers have contributed to the development of the work and endorse the document. They have also read and approved the final version of this manuscript.

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