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A Rare Case of Stercoral Peritonitis Due to Colonic Perforation on Chronic Constipation in a Young Subject

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Abstract **Case Report**

Peritonitis is a frequent surgical emergency of various etiologies, but colonic perforation on chronic constipation is an exceptional etiology. We report the medical observation of a young subject who has a long history of constipation from childhood complicated at the age of 25 with peritonitis and this to discuss the clinical, radiological and therapeutic aspects of this rare etiology.

Keywords: Stercoral, Colonic Perforation, Chronic.

INTRODUCTION

Constipation is a fairly common symptom in the general population, the occurrence of perforation on fecal impaction is a very rare complication is seen in the elderly, multitarose with concept of prolonged bed rest. We report a case of stercoral peritonitis by sigmoid perforation on a fecal impaction considered to be exceptional taking into account the young age of our patient, in good physical activity, who suffers from chronic constipation since childhood.

CLINICAL OBSERVATION

We report the case of a 25-year-old patient, consultant to the surgical emergency department for a sub-occlusive syndrome for 3 weeks, accompanied by abdominal pain which worsened 3 days ago.

Upon questioning, in his history we find that the patient presents with chronic constipation from childhood age for which he uses laxatives, associated with the diet, the evolution is marked by the persistence of constipation with recourse often evacuating enemas and sometimes digital evacuations.

The patient reports that he presented a similar episode 6 months before, with an X-ray assessment made of abdominal scanner which speaks of a megacolon filled with hard faeces, medically treated, with good evolution.

The clinical examination on admission found a temperature of 38.5 c, distended abdomen, with defense and diffuse sensitivity to palpation predominantly in the left flank. As for the digital rectal examination is painful and finds a hard fecal impaction in the rectal bulb.

Biologically, there is an inflammatory syndrome with 19,000 leukocytes / ml and a C-reactive protein at 220 mg / L. The abdomen without preparation shows a much distended colon (15cm), full of feces (Figure 1). The abdominal CT scan showed rectal, sigmoid, and left colic related to a huge fecal impaction, with medium abundance peritoneal effusion and pneumoperitoneum evoking peritonitis by digestive perforation (Figure 2).

In front of this peritonitis table, we decide to operate the patient without hesitation: by median laparotomy straddling the umbilicus, aspiration of approximately 2 L of purulent liquid, on exploration we find a very distended sigmoid and left colon with a perforation of the sigmoid on its anti-mesenteric edge (Figure 3) with the presence of several false membranes, an opening at the level of the perforation was made with emptying of the colic content (very hard faeces), then a sigmoid ostomy was made on stick from the perforation (figure 4). The postoperative follow-ups were marked by an infection of the wall treated by local

twice-daily care with good progress and discharge from the patient on the seventh postoperative day.

The patient was summoned 6 months later with a rectal manometry which eliminated a sphincteric cause of constipation, so we decided to restore digestive continuity electively with good progress.

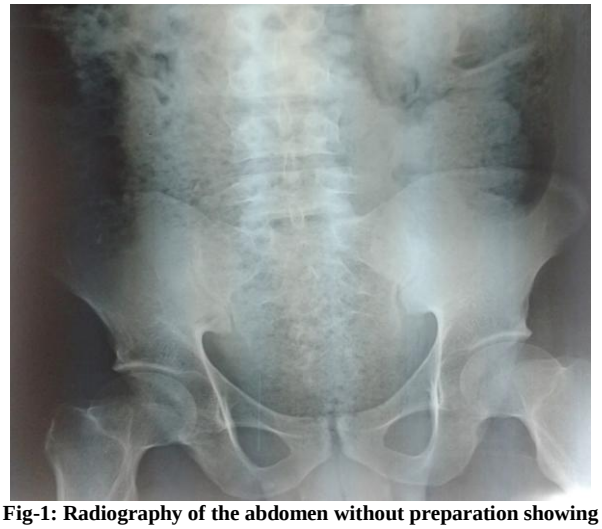

Fig-1: Radiography of the abdomen without preparation showing a colon very distended by feces

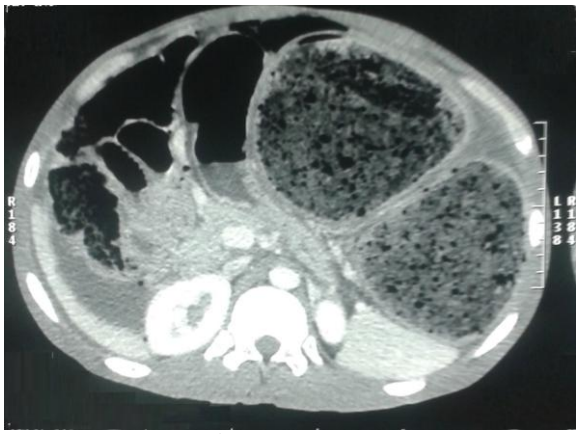

Fig-2: axial section of abdominal CT showing a colon very distended by the faeces

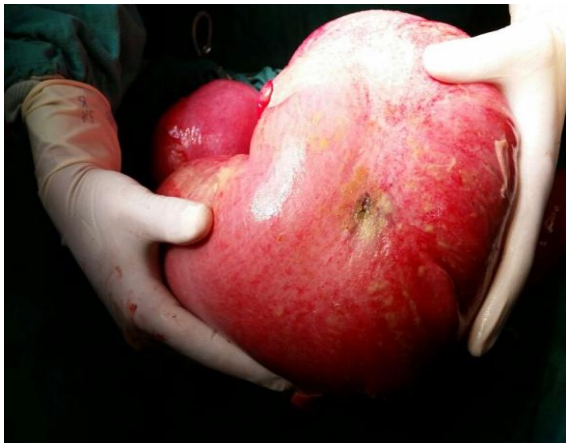

Fig-3: intraoperative image showing the much distended sigmoid colon with a diastatic perforation

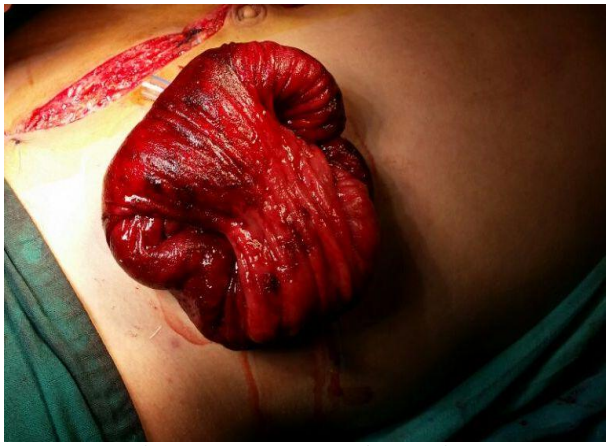

Fig-4: End of the intervention by confection of a stoma which seems very large

DISCUSSION

Colon perforation is rare, and is usually caused by diverticulitis, trauma, malignancy, amoebic colitis, ischemic colitis, or ulcerative hemorrhagic colitis. Stercoral perforation, or on fecal impaction, is a very rare complication since its first description by Berry in 1894 [1]. It mainly affects the elderly bedridden subject, but can exceptionally be found in the young patient as in the case of our patient. While constipation is a very frequent, benign condition and most often subject to medical treatment, the common point of all the cases described in the literature is chronic constipation, very old, severe and responding poorly to medical treatment [2, 3].

If the operative indication was asked by the urgency of peritonitis, the etiological diagnosis of chronic constipation remained a question that had to be answered to consider treatment after resolution of the state of emergency. The long history of constipation since childhood reminded us of late-onset hirschsprung disease at the complication stage as the most likely diagnosis, but the result of the manometry has ruled out this diagnosis.

Physiopathologically, a mucosal ulceration is created by mechanical phenomena in contact with petrified fecalomas. There is then a colonic parietal suffering by ischemia, resulting from the compression between the fecaloma and the pelvis during long efforts of defecation [2]. In most cases, the stercoral perforations are located on the distal colon and the recto-sigmoid hinge [4]. This area is characterized by significant intra-luminal pressure exerting pressure on the submucosal capillaries and thus causing parietal ischemia.

Nical presentation of stercoral perforations is highly variable, with classic forms of hollow organ perforation combining abdominal defense, biological inflammatory syndrome and radiological pneumoperitoneum [5-7]. The frequency of mildly symptomatic and misleading forms, since the long

history of chronic constipation can cause complaints of abdominal pain to be overlooked, and the absence of radiological pneumoperitoneum make positive diagnosis often very difficult [1, 8, 2, 9]. The most useful examination for the diagnosis of stercoral perforation of the colon is the abdominopelvic scanner which can show a discontinuity of the intestinal wall compared to a fecal distension of the colic lumen [10]. The differential diagnosis of stercoral perforation of the colon arises with the other causes of colonic perforation, namely neoplastic, diverticular, inflammatory, infectious, ischemic or traumatic lesions [2, 11].

The treatment is obviously a surgical emergency and its speed influences the prognosis. The gesture most often performed is a Hartmann intervention with drainage of the abdominal cavity and antibiotic therapy [5, 6]. A simple externalization on a rod of the perforated colon is possible [7], but a biopsy must be systematic in order to rule out other diagnoses, mainly that of neoplastic lesion. In case of low peritoneal contamination, a colorectal anastomosis can be performed immediately [4].

CONCLUSION

Stercoral colonic perforation on fecal impaction is a difficult diagnostic emergency due to the long history of constipation and abdominal pain, and imaging tests may not show pneumoperitoneum, this delay and the general condition of the patients explain in partly variable mortality depending on the series, going up to more than 50% [7].

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