



Acute Intestinal Invagination in Grelic Leiomyoma (Case Report)

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Authors' contributions

This work was carried out in collaboration among all authors All authors read and approved the final manuscript.

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Case Study

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ABSTRACT

Acute intussusception in adults is rare and has certain peculiarities that make this condition so interesting. It is of various etiologies. It is indicative of an underlying pathology in more than 85% of cases. We report the case of intussusception secondary to a rare etiology "small bowel leiomyoma".

Keywords: Intussusception; obstruction; leiomyoma of the small bowel.

1. INTRODUCTION

Acute intussusception was first described by Barbet in 1674 [1]. It is the leading cause of occlusion in infants, it occurs most in a benign

pathology [2,3]. It is a rare clinical entity in adults where it represents only 1% of intestinal obstructions and 5% of all intussusception [4] with an organic cause in 70% to 90% with in particular 65% of neoplastic causes [4,5].

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Consequently, in adults, treatment is surgical based on intestinal resection, although there is still an open debate regarding the need or not for a prior reduction of the intestinal tract [6-8]. We report the case of acute intussusception in grelic leiomyoma in a young patient admitted to the emergency room for acute intestinal obstruction.

2. CASE PRESENTATION

A 24-year-old, male, without any particular pathological previous, chronic smoking, admitted for generalized abdominal pain evolving for 4 days associated with a cessation of materials and gas with vomiting, without externalized digestive hemorrhages. All of this evolving in a context of apyrexia and preservation of the general condition. The admission examination revealed a conscious patient who was hemodynamically and respiratory stable, with normal stained conjunctiva. Abdominal examination showed a distended abdomen, tympanic on percussion without palpable masses, free hernial orifices. On rectal examination: empty rectal bulb. The plain abdomen radiography as revealed hailic hydro-aeric levels. Abdominal CT scan performed: presence in the periumbilical line of a slender loop which invaginates in the other producing a cockade aspect with significant distension of the

invaginated loop 58mm in diameter (Fig. 1), discreet wall thickening of 8mm without any enhancement defect. Collapsed colon.

In the balance sheet: Hb at 12.5 g/dl GB at 22,260 element/mm³ PLQ 304000 element/mm³, hydroelectrolytic balance without anomalies.

Patient was operated on urgently, having benefited from a 1m hail resection, from 1 m10 of the ADJ with end-to-end hailstones anastomosis with drainage of the CDS of Douglas by DR, the exploration showed a small intussusception on the hail mass, with intestinal necrosis (Fig. 2). The postoperative consequences were simple, patient having resumed transit on postoperative day 3, declared discharging on day 5 of the operation.

The anatomopathological study of the resection piece revealed an 8cm spindle cell tumor of submucosal development, complete excision, without vascular emboli or peri-nervous sheath.

The immunohistochemical study shows expression of AML (actine muscle lisse), desmin and absence of expression of CD34, CD117 and PS100. This immunohistochemistry aspect is compatible with a small bowel leiomyoma.

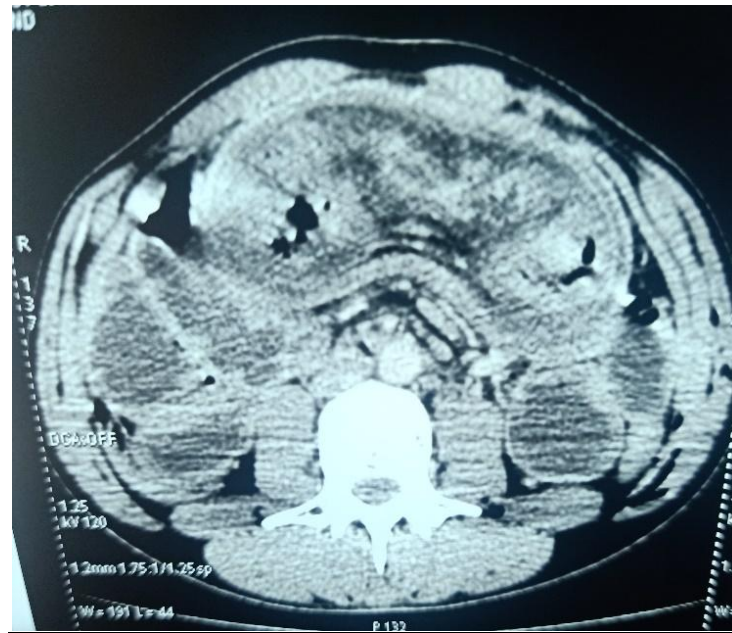


Fig. 1. Axial CT of the abdomen shows the presence of a bowel-within-bowel, characteristic for intussusception

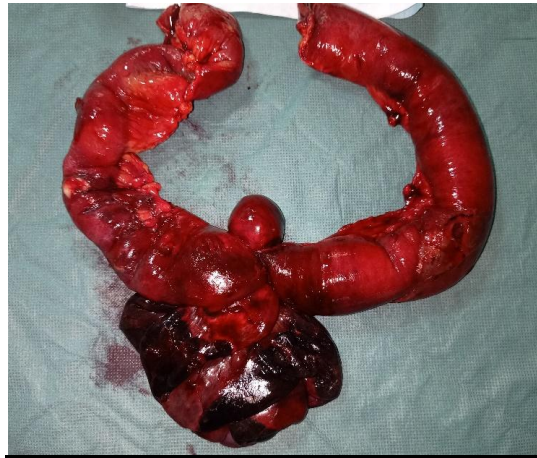


Fig. 2. Bowel mass causing intussusception, with bowel necrosis

3. DISCUSSION

Intussusception is defined as the telescoping of an intestinal segment into the underlying segment. It is much more common in children but rare in adults. It is often secondary either to a benign or malignant tumor (50 to 90% of cases), or to inflammatory lesions (appendicitis, Meckel's diverticulitis), or to cicatricial adhesions. In the small intestine, these are most frequently benign tumors, unlike the colonic site, where most often they are malignant tumors. Leiomyomas preferentially sit on the stomach (40%), jejunum (20%), ileum and rectum (14.3% each), duodenum (8.9%) and esophagus (2.86 %) [9]. Their development can be done extraluminal (65%), intramural (16%), dumbbell (11%) and intraluminal (8%) [10]. The age of the patients is around the fifth decade with no gender predominance (1). In our case, it was a 24-year-old, but it can occur at any age [11,12]. The way in which this tumor is revealed is variable, sometimes creating a surgical abdomen picture straight away. Gastrointestinal bleeding and abdominal pain are the most common symptoms in more than 40% of cases [13-15]. Bowel obstruction may be the mode of disclosure [16,17]. The diagnosis is difficult and most often done intraoperatively, favoring diagnostic delay; emergency computed tomography is the test of choice in adults [18]. It helps distinguish intussusception from other causes of intestinal obstruction. Sometimes it helps identify the causative lesion.

The surgical intervention must be systematic in adults, by performing an intestinal resection removing the cause without attempting to

disinvaginate in the case where the presence of a malignant tumor is suspected [3,4], where the resection must be large, for carcinological purposes or in the event of irreversible intestinal necrosis. In cases where the diagnosis is made early, at a stage without intestinal ischemia or necrosis, the first reduction is warranted.

The laparoscopic approach of a hail intussusception can be performed immediately if the preoperative imaging suggests the existence of a benign cause and if the patient is seen early [19].

The pathological study is necessary for diagnostic confirmation and must be supplemented by immunohistochemical study.

The prognosis is related to the length of time, the extent of the lesions and the nature of the cause [20].

4. CONCLUSION

Intussusception can support any segment of the digestive tract. Rare in adults, often due to a secondary cause which remains difficult to diagnose. The CT scan is the ideal test to make the diagnosis. The treatment is surgical. Intussusception in the small intestine is most often of a benign cause. If the diagnosis is made early, the intussusception can be treated laparoscopically.

CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline patients consent and ethical

approval has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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