Case study

Acute intussusception ileo-ileal in adult

**A case report

Abstract

We relate here the case of a 47 years patient with no particular history, admitted in emergency for an occlusive syndrome which developed gradually. The onset of symptoms was marked by a moderate abdominal pain with bilious vomiting. The symptomatic treatment had no effect; the pain became intense and diffuses to the entire abdomen accompanied by uncontrollable vomiting and the gas and stool passage were stopped. Ultrasonography of abdomen showed target signs in cross section and sandwich sign in longitudinal section which are characteristic of intussusceptions. The abdominal computed tomography (CT) allows diagnostic certainty discovering the possible etiology. It shows the presence of an intestinal occlusion. Laparotomy revealed an ileal-ileal intussusception whose cause was due to an ileal tumor. So, a segmental small bowel resection with anastomosis was performed. Histological study confirmed the benign nature of the tumor evoking an aspect in favor of an inflammatory pseudotumor of the small intestine.

key words: Acute intussusception, ileo-ileal, adult

Introduction

Bowel Intussusception or invagination is defined as the telescoping of one portion of the bowel into an immediately adjacent portion of the bowel. Intussusception is less frequent in the adults than in pediatric population. It account in adult for 5% of all cases and almost 1%-5% of bowel obstruction [2,8,9]. It is an epiphenomenon revealing in 80% of cases a particular tumor organic lesion [1]. In pediatric population, the diagnosis and management are different from those of adult populations

The observation

A 47 years patient with no particular history was admitted in emergency for an intestinal obstruction which had developed gradually. He presented an abdominal colic without severe pain and presented with bilious vomiting. The onset of these symptoms was marked by intestinal obstruction. The pain became intense in spite of taking symptomatic treatment and diffused to the entire abdomen accompanied by uncontrollable vomiting. The gas and stool passage were stopped. On physical examination, the abdomen is slightly distended with tenderness in the left flank. Laboratory tests are normal. The abdominal X-ray shows the image of many bright arches with air-fluid levels projecting the left flank (Figure 1).

Figure 1. The abdominal X-ray: bright arches with air-fluid levels.

Moreover, ultrasonography of abdomen showed target signs in cross section and sandwich sign in longitudinal section which are characteristic of intussusception (figure 2)

Figure 2. Ultrasonographic image in transverse section “target” signs.

The diagnosis is confirmed by the abdominal computed tomography scan showing ileo-ileal intussusception (figure 3).

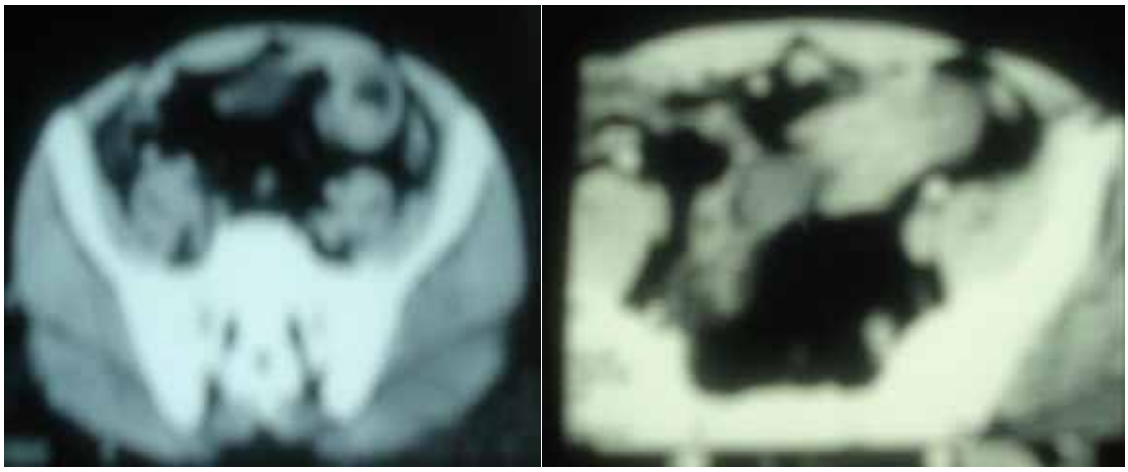

Figure 3. Abdominal computed tomography in adult intussusception.

The ileo-ileal intussusception was also revealed by laparotomy which showed a dilated proximal small intestine.

The intussusception was due to an ileal homogeneous well circumscribed solid mass with exophytic growth into intestinal lumen (figures 5,6). The mas was measuring 5 × 5 × 4.5 cm

in the location mentionned obove. It was reduced and a segmental small bowel resection was performed.

Histological study confirmed the benign nature of the tumor. Spindle-shaped cells with infiltration of plasma cells and lymphocytes proliferation was revealed evoking an aspect in favor of an inflammatory pseudotumor of the small intestine. Immunohistochemstry was not undergone

Figure 4 : Intraoperative findings **:** a solid, well-defined mass as lead point of intussusceptum.

Figure 5. The surgical specimen after resection of the small bowel

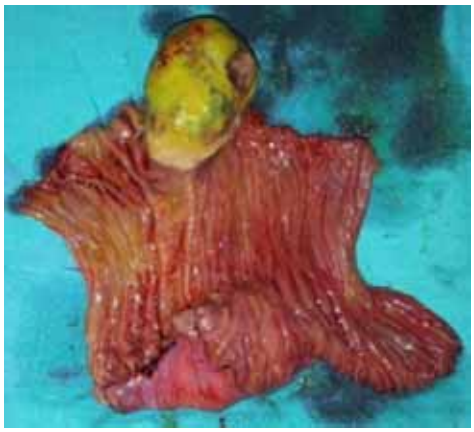

Figure 6. Specimen showed a firm, circumscribed endoluminal tumor.

Discussion

The Acute intussusception is a rare cause of abdominal pain and represents 1-5% of intestinal obstruction in adults. It is most often small bowel (48% -70%). Unlike the child where it is often idiopathic in adults, it is often secondary to an organic lesion in 85% of all cases [5]. Predisposing lesions can be found in almost all the adult cases, however, organic lesions are found in only 10% of the pediatric cases [1]. About 58% of cases of large bowel intussusceptions will have a malignant etiology [2,10,13]. Of all small bowel intussusceptions approximately 30% cases resulted from tumors, whereas 60% of cases were caused by so called benign lesions. The idiopathic cases represent approximately 10% [9,11,16].

The classic acute intussusception in pediatric population (bloody diarrhea, cramping abdominal pain, and a palpable mass) is rare in adults [2]. The diagnosis is often difficult as the symptomatology evolves spontaneously resolve by pushing at least at the beginning and is usually manifested as chronic abdominal pain [10,16]. Nausea, vomiting, abdominal fullness sensation, diarrhea, constipation occur usually. Bowel obstruction outset can also be observed. As for the small bowel tumor diagnosis is difficult outside the complications of intussusception or bowel obstruction. More rarely, gastrointestinal bleeding form or Melena can dominate in case of tumor ulceration.

Typically, the first diagnostic tool is a plain abdominal film, since the obstructive symptoms dominate the clinical picture in most cases demonstrating signs of intestinal obstruction. This may provide information about the obstruction site.

Both in adults and in children the ultrasonography is a useful tool for intussusception diagnosis, though variable appreciation depending on the operator [5,16,17]. The classic view of an intussuscepted bowel in a transverse plane is called the 'target sign' and in the lengthwise view it is viewed usually as multiple parallel lines termed the "sandwich appearance" [9,12,16,17].

Computed tomography for adult Abdominal is the reference imaging technique. It allows conducting indisputably diagnostic certainty and discovering the possible etiology. It shows the presence of an intestinal occlusion, the topography and the morphological characteristics of any causal lesion [14,15]. The computed tomography sensitivity varies between 58 and 100%. To confirm intussusception and distinguishes the presence or absence of a lead point, this test is considered as the most sensitive radiologic method [4,6,9,14,15]. Adult intussusception secondary to inflammatory tumor can be demonstrated by magnetic resonance imaging [15]. But the laparoscopy is also useful in certain cases [7]. Definite treatment is required in 70 to 90% of adult intussusception. Surgical resection is, most often, the treatment of choice in these cases [2].

The term "inflammatory pseudotumor" has been used for any macroscopic or microscopic tumor [1]. Different terms have been used: Vanek's tumour, Inflammatory myofibroblastic tumor (IMFT), inflammatory fibroid polyps, plasma cell pseudotumour, inflammatory myofibrohistiocytic proliferation, and omental mesenteric myxoidhamartoma [3,12,13]. It was first described as polypoid fibroma by Konjetzny in 1920, then by Vanek in 1949. It was so called Vanek's Tumour. Finally it was named as inflammatory fibroid polyps in 1953 by Helwig and Rainer, indicating that its nature was probably inflammatory [13]. The etiology is still unknown. Authors think that development of this tumor occurs after trauma surgery or infection, such as Epstein-Barr virus and human herpesvirus, related with reactive cytokine production. Histologically, it is characterized by a cellular spindle cell proliferation in a myxoid tocollagenous stroma with a prominent inflammatory infiltrate composed primarily of plasma cells and lymphocytes, with occasional admixed eosinophils and neutrophils [12].

Conclusion

The acute intestinal obstruction by intussusception secondary to a small tumor is rarely seen in adults. Its symptoms are not specific. His diagnosis is facilitated by the COMPUTED TOMOGRAPHYscan. Surgical excision is the treatment of choice.

Consent Disclaimer:

As per international standard or university standard, patient's consent has been collected and preserved by the authors.

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