

Case study

Acute intussusception ileo-ileal in adult

A case report

Abstract

We relate here the case of a patient of 47 years with no particular history, admitted in emergency for an occlusive syndrome develops gradually. The onset of symptoms was ten day hospitalization marked by the appearance of moderate abdominal pain with bilious vomiting. Taking symptomatic treatment no improvement, the pain becomes intense and diffuse to the entire abdomen accompanied by uncontrollable vomiting and stopping materials and gas. On physical examination, the condition is kept, abdomen is slightly distended, sensitive to 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

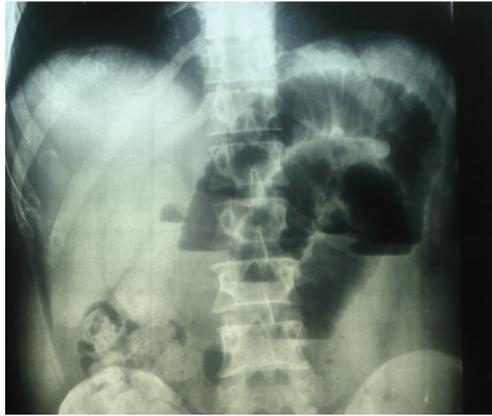
key words: Acute intussusception, ileo-ileal, adult

Introduction

Intussusception or invagination of the bowel is defined as the telescoping of one portion of the bowel into an immediately adjacent portion of the bowel. Intussusception is more common in the pediatric population than in adults. The intussusception in adults is rare accounting for 5% of all cases of intussusceptions and almost 1%-5% of bowel obstruction.[2,8,9] and has some features that make the whole point of this condition. It is an epiphenomenon revealing in 85% of cases a particular tumor organic lesion. The diagnosis and management in the pediatric population are different in the pediatric and adult populations [8].

The observation

We relate here the case of a patient of 47 years with no particular history, admitted in emergency for an occlusive syndrome develops gradually. The onset of symptoms was ten day hospitalization marked by the appearance of moderate abdominal pain with bilious vomiting. Taking symptomatic treatment no improvement, the pain becomes intense and diffuse to the entire abdomen accompanied by uncontrollable vomiting and stopping materials and gas. On physical examination, the condition is kept, abdomen is slightly distended, sensitive to 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 (Fig 1).



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

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39 Ultrasound diagnosis of intussusception poses highlighting the typical appearance of the pudding as
40 an image "roundel" or **"target signs"** in cross section and image **"sandwich"** in longitudinal section
41 which are characteristic images in intussusception(Fig 2). and in the transverse plane showed the
42 **"sandwich"** appearance »

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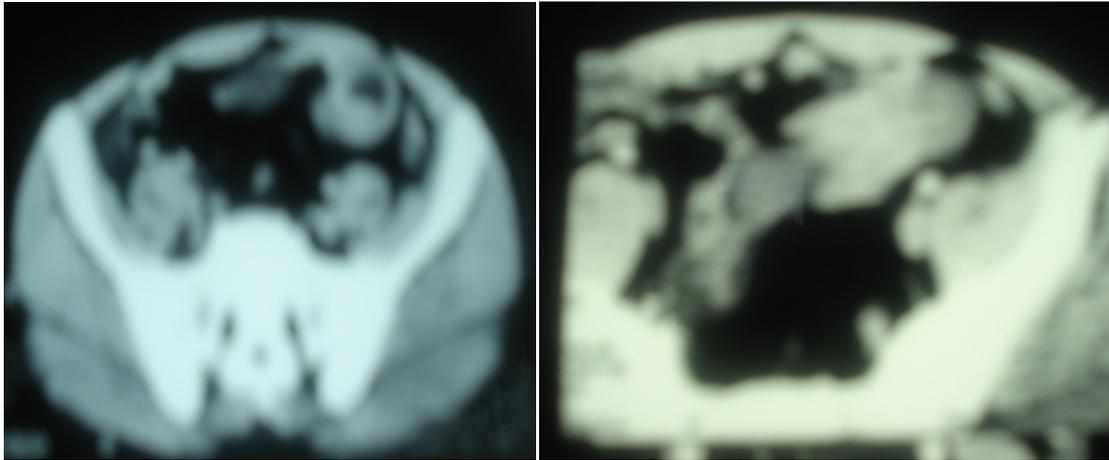
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Fig 2. Ultrasonographic image in transverse section "target" signs

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47 The diagnosis is confirmed by the abdominal computed tomography (CT) scan showing ileo-ileal
48 intussusception (fig 3).

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Fig. 3 Abdominal computed tomography in adult intussusception.

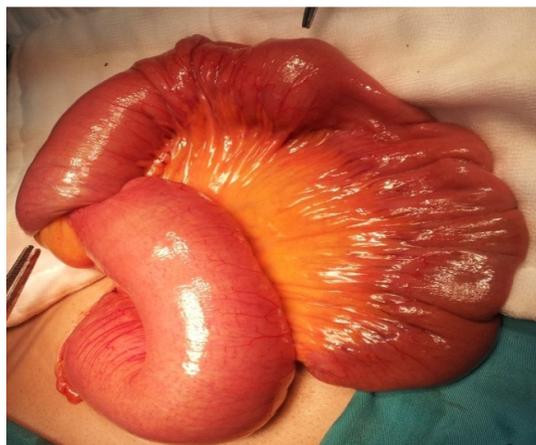
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54 Laparotomy revealed an ileo-ileal intussusception (Fig-4) with a dilated proximal small
 55 intestine. The intussusception was found to be caused by an ileal tumor located 70 cm from
 56 Bauhin's valve. Intussusception was reduced and a small bowel tumor was noted as lead
 57 point of intussusceptum. We performed a segmental small bowel resection with
 58 anastomosis.

59 **Histopathological examination of the tumor:**

60 The tumor was a homogeneous solid mass, measuring $5 \times 5 \times 4.5$ cm,, and was well-
 61 circumscribed (fig.5,6).with exophytic growth into intestinal lumen.

62 Histological study confirmed the benign nature of the tumor evoking an aspect in favor of an
 63 inflammatory pseudotumor of the small intestine.



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

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Figure 5 : The surgical specimen after the en bloc resection of the small bowel

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Fig-6: Specimen showed a firm, circumscribed endoluminal tumor.

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73 Discussion

74 The Acute intussusception is a rare cause of abdominal pain and represents 1-5% of
75 intestinal obstruction in adults. It is most often small bowel (48% -70%). Unlike the
76 child where it is often idéopathique in adults, it is often secondary to an organic
77 lesion and this in 85% [5]. In 90% of adult cases, predisposing lesions can be found,
78 but in the paediatric population, organic lesions are found in only 10% of the cases
79 [1] , whereas in 58% of cases of large bowel intussusceptions, a malignant aetiology
80 has to be expected [2,13]. Some studies showed that approximately 30% of all small
81 bowel intussusceptions are caused by malignancy, whereas the remainder are
82 caused by benign lesions (60%) or are idiopathic (10%) [9,11,16].

83 The classic pediatric presentation of acute intussusception (a triad of cramping
84 abdominal pain, bloody diarrhea and a palpable tender mass) is rare in adults [2] .
85 The diagnosis is often difficult as the symptomatology evolves spontaneously resolve
86 by pushing at least at the beginning and is usually manifested as chronic abdominal

87 pain[16]. Nausea, vomiting, abdominal fullness sensation, diarrhea, constipation or
88 bowel obstruction outset can also be observed. As for the small bowel tumor, its
89 diagnosis is difficult outside the complications of intussusception or bowel
90 obstruction. More rarely, gastrointestinal bleeding form or Melena can dominate the
91 table in case of tumor ulceration.

92 Plain abdominal films are typically the first diagnostic tool, since in most cases the
93 obstructive symptoms dominate the clinical picture demonstrate signs of intestinal
94 obstruction and may provide information regarding the site of obstruction.

95 Ultrasonography is considered a useful tool for the diagnosis of intussusception, both
96 in children and in adults though variable appreciation for dependent operator
97 [5,26,27]. The classic appearance of an intussuscepted bowel in a transverse plane
98 is called the 'target sign' and in the longitudinal appearance it is usually viewed as
99 multiple parallel lines, which is termed as the 'sandwich appearance'. [9,12,16,17].

100 In the adult ,Abdominal computed tomography (CT) is the reference imaging
101 technique, it allows to conduct indisputably diagnostic certainty and discover the
102 possible etiology. It shows the presence of an intestinal occlusion, the topography of
103 the condition and the morphological characteristics of any causal lesion. [14,15]. The
104 CT sensitivity is between 58 and 100%. It is currently considered as the most
105 sensitive radiologic method to confirm intussusception and distinguishes the
106 presence or absence of a lead point [4,6,9,14,15].

107 Adult intussusception secondary to inflammatory tumor can be demonstrated by MRI
108 [15]

109 Also laparoscopy has been used successfully in selected cases [7].

110 In the adult 70 to 90% of cases of intussusception require definite treatment, of
111 which surgical resection is, most often, the treatment of choice [2].

112 The term inflammatory pseudotumor has been used for any clinically, macroscopic
113 or microscopic tumor [1]. Different terms have been used : Inflammatory
114 myofibroblastic tumor(IMFT) inflammatory fibroid polyps (IFPs) plasma cell
115 pseudotumour, inflammatory myofibrohistiocytic proliferation, omental mesenteric
116 myxoid hamartoma. [3,12,13].

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118 **Conclusion**

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

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126 **References**

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