

**ACUTE INTUSSUSCEPTION: SHOULD WE WORRY ABOUT CANCER?**

Abdelkrim Laalou<sup>1</sup>, Anwar Rahali<sup>1\*</sup>, Mbarek Yaka<sup>1</sup>, Mohammed Elfahssi<sup>1</sup>, Abderrahman Elhjouji<sup>1</sup>, Aziz Zentar<sup>2</sup> and Abdelmounaim Ait Ali<sup>1</sup>

<sup>1</sup>Department of Visceral Surgery II, Mohammed V Military Teaching Hospital, Rabat, Morocco.

<sup>2</sup>Visceral Surgery Center, Proctology, Obstetric-gynecology, Sterilization, Mohammed V Military Teaching Hospital, Rabat, Morocco.

\*Corresponding Author: Dr. Anwar Rahali

Department of Visceral Surgery II, Mohammed V Military Teaching Hospital, Rabat, Morocco.

Article Received on 22/02/2021

Article Revised on 14/03/2021

Article Accepted on 04/04/2021

**ABSTRACT**

Acute intussusception is a pathology of young children. Its occurrence in adults is very unusual. In the majority of cases, it is secondary to a tumor which can be malignant or benign like lipoma. We report the case of a 52-year-old patient with acute intussusception due to ileal lipoma diagnosed by abdominal CT scan and confirmed by laparotomy. The patient underwent a resection-anastomosis of the invaginated loop with a safety margin which justifies the important role of surgery in the management of this type of lesions.

**KEYWORDS:** Intussusception- lipoma -CT scan- surgery.

**INTRODUCTION**

Acute intussusception is the penetration of a segment of bowel into a more distal segment, which can cause loop obstruction or strangulation. Its incidence is higher in children while in adults represents only 1 to 5% of the intestinal obstruction etiologies.<sup>[1]</sup> In 90% of cases, an organic lesion such as the lipoma is the cause of intussusception.<sup>[2]</sup> We report the case of a patient with an acute intussusception caused by a small intestine lipoma.

**Case report**

Mr. L.M, 52 years old, with no particular pathological history, hospitalized for diffuse abdominal pain in the form of violent spasmodic colic, accentuated in the right iliac fossa evolving for 12 hours accompanied by vomiting without stopping stools and gas.

All vital parameters were normal. Examination of the abdomen revealed right iliac fossa tenderness with a normal digital rectal examination. The routine biological examinations were without abnormalities.

A CT scan with injection of contrast product was requested showing in the right iliac fossa an ileocecal intussusception coil extended over 12.5 cm in length containing an oval formation, well limited, of fat density signifying a probable lipoma measuring 18x12 mm (figure 1 and 2).

The surgical indication was definite. The patient underwent a Ileocecal resection with end-to-side ileocolic anastomosis (figure 3).

The histological analysis was in favor of a mature submucosal lipoma without histological signs of malignancy.

The postoperative surveillance was without abnormalities. Seven months after the surgery, the patient presented no complications and no signs of recurrence.

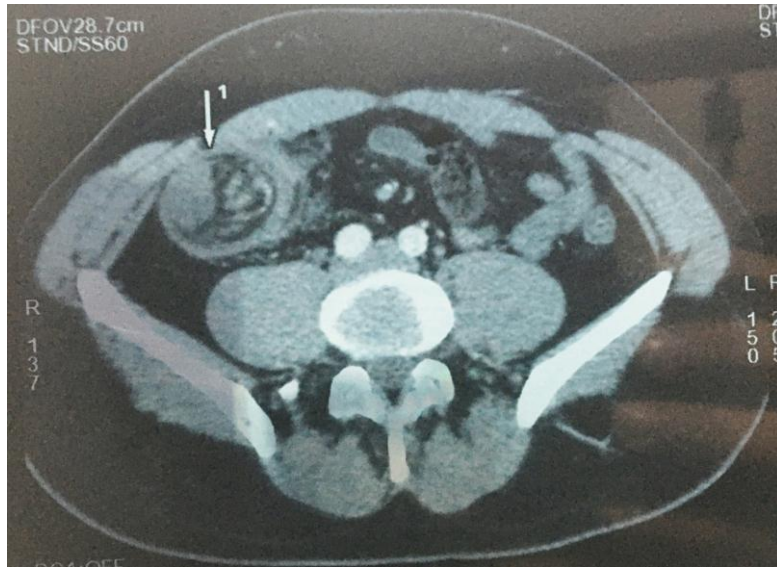


Figure 1: axial CT scan showing the cockade aspect.



Figure 2: Sagittal CT scan image showing the sausage of intussusception.

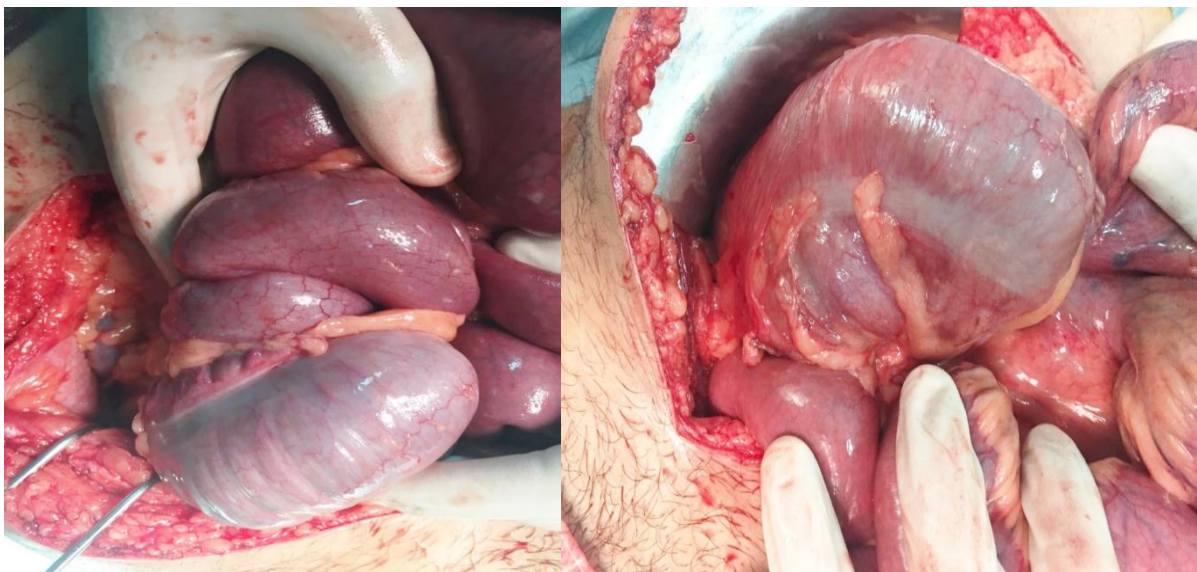


Figure 3: Intraoperative images showing the ileocecal intussusception.

## DISCUSSION

Acute intussusception is the telescoping of a proximal segment of bowel (invaginated segment) with its mesentery into the lumen of a distal segment (receiver segment). Unlike children, acute intussusception in adult is very unusual. It is often the result of an underlying lesion and it occurs only in 5% of all bowel obstructions.<sup>[1-4]</sup>

Intestinal lipoma, which often originates in the ileum, is a mesenchymal tumor, it is the second most common benign tumor of the small intestine with a tendency to invagination due to the good mobility of the tumor, its localization in the submucosa and active peristalsis of the small intestine.<sup>[2]</sup>

The clinical presentation is polymorphic and most often misleading: acute bowel obstruction, progressive and onset subocclusion, atypical digestive signs (disorder of transit, vomiting, diffuse abdominal pain, digestive bleeding).<sup>[1-3]</sup> In our case the symptomatology was a violent spasmodic colic accentuated in the right iliac fossa accompanied by vomiting. The length of the invagination determines the perception of the sausage on the digital rectal examination which is the more often normal as the case of our observation. Presence of blood or mucus is an excellent sign of digestive suffering.<sup>[4]</sup>

The differential diagnosis of acute intussusception is very large, it includes mainly: lesions of spindle cells, lymphomas, adenocarcinoma, hamartomatous polyps, adenomas.<sup>[5]</sup>

In our case, there was no diagnostic problem, since the abdominal CT scan determined the presence of fat density mass and the absence of signs of malignancies.

Abdominal ultrasound shows in longitudinal section a target image with two superimposed peripheral hypoechoic rings and an echogenic central ring, and in cross section a "sandwich" image with three cylinder layers, corresponding to the sausage-shaped.<sup>[6]</sup>

However, the abdominal CT is the most specific examination to confirm the diagnosis of intussusception. It usually reveals a low density tissue mass corresponding to the invaginated segment, accompanied by a crescent and eccentric image of fat density related to the mesentery, with or without signs of concomitant intestinal obstruction.<sup>[1-7]</sup>

In the case of lipoma, it shows an intraluminal mass of fat density in the center enveloped by a digestive wall. The two classic images on the scanner are the "sandwich" image in longitudinal section showing the head of the intussusception and the "cockade" image in cross section highlighting the sausage of intussusception.<sup>[7]</sup> In our case, the scanner was of great help, it revealed the intussusception in typical cockade image form.

Currently, bowel resection is the main treatment, considering the likelihood of underlying malignant lesions, necrosis and perforation of the invaginated segment.<sup>[8]</sup> The most commonly used surgical approach in the emergency is the midline laparotomy. It offers the advantage of good exposure, especially in case of intestinal distension. This hinders vision and intestinal mobilization in the event of the laparoscopic approach, hence the need for an experienced surgeon.<sup>[1-3]</sup>

Although this is not always possible, as in our case, it there is no evidence against high-pressure disinvagination under radiological control because it can facilitate exposure to resection<sup>[8]</sup> by better appreciating its limits and reducing its extent, especially in the case of a benign tumor such as lipoma.

The histological analysis is essential for diagnostic confirmation and requires in some cases an immunohistochemical study, especially if lymphoma is suspected.

## CONCLUSION

the small intestine intussusception secondary to a lipoma is rare and directly related to the size of the fatty lesion. Imaging dominated mainly by ultrasound and CT scan allows a positive and etiological diagnosis of the lesion by showing suggestive images. Consequently in adults, the treatment is surgical based on intestinal resection with however a still open debate concerning the need or not of a preliminary reduction of the intussusception.

## REFERENCES

1. Mohamed S. Belhamidi\*, Abdelmounaim Aitali, Mohamed Tarchouli, Hicham Baba, Ahmed Bounaim, Khalid Sair. Ileo-ileal intussusception in adult caused by Vanek's tumor: a report of five cases. *International Surgery Journal*, 2015; 2(4): 595-598.
2. Mohamed Tarchouli, Abdelmounaim Ait Ali. Adult Intussusception: An Uncommon Condition and Challenging Management. *Visceral Medicine*. May, 2020. 10.1159/000507380.
3. H. Baba, A. Ait Ali, A. Damiri, M. Elfahsi, A. Elhajjouji, S.M. Bouchentouf, A. Bounaim, A. Zentar, K. Sair. Colo-colic intussusception due to a lipoma. *J. Afr. Hépatol. Gastroentérol*, 2011; 5: 255-256.
4. Costamagna D., Erra S., Zullo A., Servente G., Durando R.: Small bowel intussusception secondary to inflammatory fibroid polyp of the ileum: report of a case. *Chir Ital*, 2008; 60: 323-327.
5. Nylund K, degaard S, Hausken T, Folvik G, Lied GA, Viola I, Hauser H, Gilja OH. Sonography of the small intestine. *World J Gastroenterol*, 2009; 15: 1319-1330.
6. Namikawa T, Hokimoto N, Okabayashi T, Kumon M, Kobayashi M, Hanazaki K: *Adult ileoileal intussusceptions induced by an ileal lipoma diagnosed preoperatively: Report of a case and*

*review of the literature.* Surg Today, 2012; 42: 686-92. DOI 10.1007/s00595-011-0092-6.

7. F.J. Morera Ocón, E. Hernández Montes, J.C. Bernal. Sprekelsen Invaginación intestinal en el adulto: presentación de un caso y revisión de la literatura médica española Cir Esp, 2009 ; 86: 358-362.
8. R. Franco-Herrera, M. Burneo-Esteves, J. Martín-Gil, *et al.* Invaginación intestinal en el adulto. Una causa infrecuente de obstrucción mecánica Rev Gastroenterol Mex, 2012; 77: 153-156.