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Acute Intussusception Secondary to a Lipoma of The Small Intestin: a case report

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Abstract: *Acute intussusception is an uncommon finding in adults. Specific features are of great importance in identifying the cause because of the wide spectrum of etiologies in adults. In over 85 % of cases, an organic disorder is involved. We report a case of intussusception in adults and summarize the diagnostic and therapeutic management.*

INTRODUCTION:

Acute ileal intussusception (AII) in adults, unlike in children, is a rare occurrence, typically associated with malignant small bowel tumors. It accounts for 1 to 5% of the causes of intestinal obstruction in adults [1]. Its usual course is chronic or subacute [2–4]. It is seldom diagnosed as an acute intestinal obstruction or peritonitis [5]. In adults, an organic cause is identified in 70 to 90% of cases, whereas in children, intestinal intussusception is often idiopathic [2, 6]. Consequently, the treatment for adults is typically surgical, involving intestinal resection, although there is still ongoing debate regarding the necessity of prior reduction of the intussusception mass [1, 6]. Through the examination of this new case and a review of the literature, we discuss the clinical, diagnostic characteristics, and therapeutic options for this rare condition.

CASE PRESENTATION:

The case involves a 70-year-old female patient with a history of hypertension treated with amlodipine and diabetes under oral antidiabetic medication. She presented to the emergency department with abdominal pain that had been ongoing for a week before admission, complicated by a cessation of bowel movements and gas for the past 2 days.

Clinical examination revealed a conscious and stable patient with normal vital signs, a distended and tympanic abdomen sensitive to palpation, and a rectal examination that revealed an empty rectal ampulla. Abdominal X-ray without preparation showed levels of air-fluid in the small bowel, and abdominal CT scan confirmed the etiology as ileal obstruction due to distal ileal intussusception caused by a lipoma, with no signs of digestive ischemia.

The patient was taken to the operating room, where a midline laparotomy was performed. Exploration revealed distension of the small bowel without digestive ischemia (fig 1), and a distal ileal intussusception. The surgical procedure involved resection of the intussuscepted area and the creation of a termino-terminale ileoileal anastomosis. (Fig 2-3)

Postoperative recovery was uneventful, and the patient was discharged from the hospital on the 5th day after surgery. Pathological examination confirmed the lipoma as the cause of the intussusception.

DISCUSSION:

Intestinal intussusception is defined by the telescoping and penetration of one segment of the intestine into the downstream segment. It leads to an obstructive condition, potentially serious due to the risk of intestinal ischemia. This condition predominantly occurs in infants (80% between 6 months and 2 years) [1]. Adult onset, as in our case, is rare [1]. According to publications, only 1 to 5% of cases of Adult Intussusception (IIA) are reported, compared to more than 95% in children. The differences extend further, as in children, IIA often occurs in the context of a benign condition (mesenteric adenolymphitis) and typically does not require surgical intervention. However, in adults, IIA is most often associated with malignant (up to 64% of cases) or benign tumors. Malignant tumors are the primary etiology. The lipomatous etiology, as in our case, is exceptional. Lipomas are rare lesions in the digestive tract, typically affecting the ileum near the ileocecal valve and the proximal jejunum. Initially submucosal, these tumors grow toward the lumen, displacing the mucosa. They are generally asymptomatic, with clinical manifestations correlated to their size (typically starting from 4 cm), leading to acute pain, occult bleeding from mucosal ulceration, and intestinal intussusception [4].

Abdominal ultrasound is a reliable and promising diagnostic tool for intestinal intussusception [4, 5]. In longitudinal sections, it typically shows a target-like image with two hypoechoic outer rings and a central hyperechoic ring, while in transverse sections [4, 5], a "sandwich" image with three superimposed cylinders corresponds to the intussusception. Emergency computed tomography (CT) enhances diagnostic sensitivity and is more effective than ultrasound. It aids in diagnosing obstructive syndromes, their mechanisms, including intussusception, precise localization, signs of intestinal ischemia [4, 6], and identifying the cause [4]. In the case of a lipoma, it reveals an intraluminal lesion with fatty density at the center surrounded by a digestive wall. It can detect an organic cause in 71% of cases [6, 7]. Classic CT images include the "sandwich" image in longitudinal sections depicting the head of IIA and the "rosette" image in transverse sections showing the intussusception mass. When the diagnosis is suspected, urgent or semi-urgent surgical intervention should be performed based on the patient's condition to confirm the diagnosis through pathological analysis of the operative specimen [5, 7]. In this observation, abdominal CT scan and laparotomy confirmed the diagnosis.

The treatment is always surgical in adults, leaving no room for reduction by hyperpressure under radiological control, given the frequency of underlying organic causes. More or less extensive resection may be necessary [8]. Resorting to simple invagination is permissible in idiopathic forms. Intestinal resection following oncological principles is necessary when a clearly malignant tumor is discovered. The choice of surgical intervention depends on the presence or absence of a tumor and intestinal necrosis. Manual expression of the intussusception is the exclusive procedure for ileo-ileal intussusception in the absence of necrosis and tumor. Intestinal resection should be performed in other cases. It should be done without prior disinvagination in cases of intussusception with either bowel necrosis or tight invagination (as in our case). In such cases, attempting disinvagination poses a risk of intestinal perforation. However, when disinvagination is possible, it allows for a better assessment of resection limits and can sometimes reduce its extent, especially in the case of a benign tumor [3]. This highlights the difficulty in choosing an appropriate therapeutic approach, considering the operative findings and the expected functional outcome after resection. Thus, when the length of the segment to be resected may lead to a short bowel syndrome, prior disinvagination should be attempted [9].

Histopathological examination is necessary for diagnostic confirmation and should be complemented, in some cases, by immunohistochemical studies (as in the case of lymphomas).

CONCLUSSION :

Acute intussusception secondary to an intestinal lipoma is rare and directly related to the size of the lipoma. Imaging, primarily dominated by ultrasound and CT scan, enables a positive and especially etiological diagnosis of the condition by revealing characteristic images. Computed tomography (CT) confirms the fatty nature of the lipoma.

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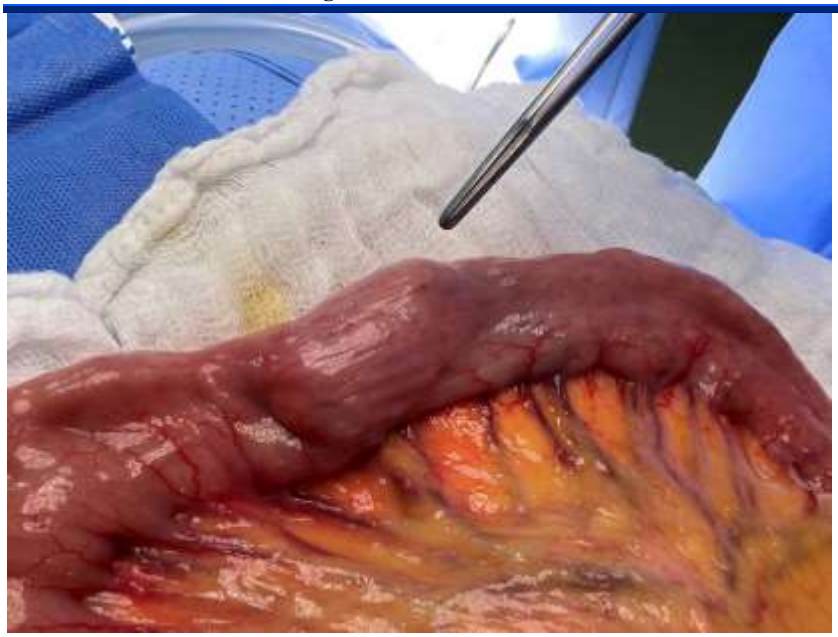
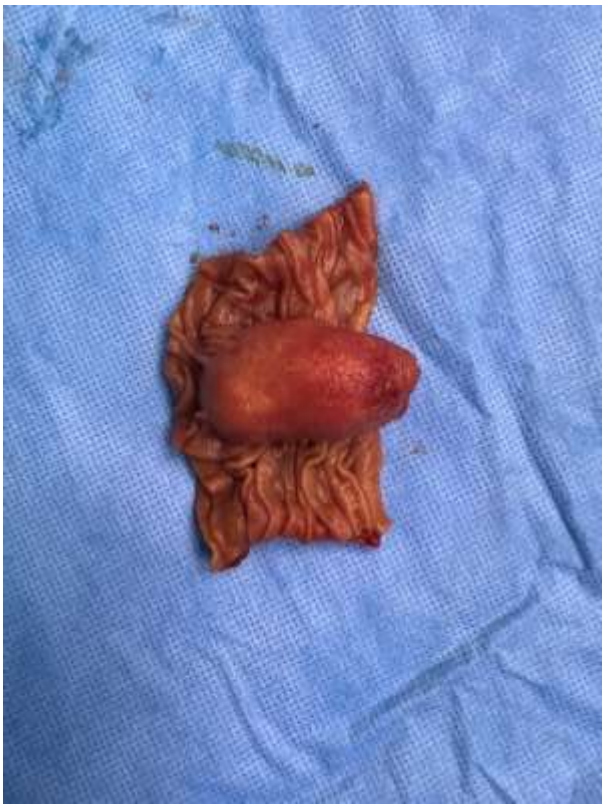


Fig 1 : showing the intussusception before resection



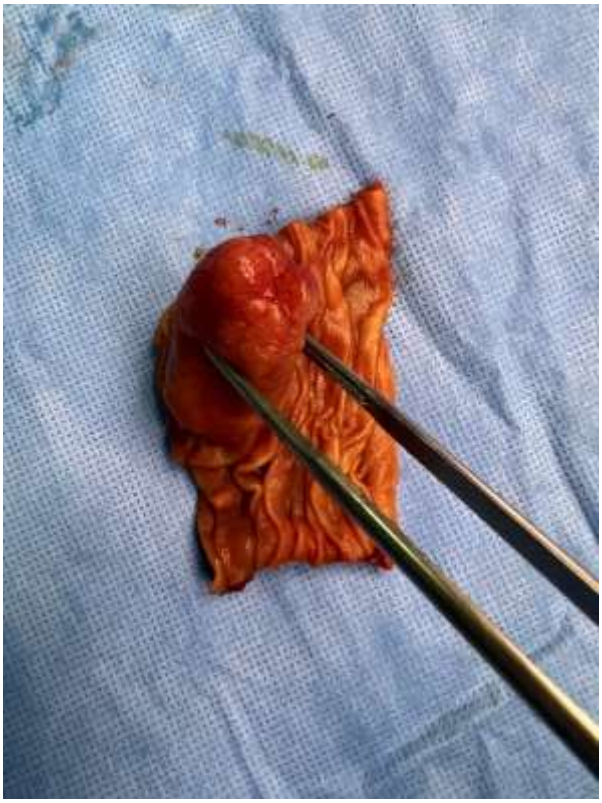


Fig 2-3 : after the resection