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A rare case of ileo-ileal intussusception due to a bleeding lipomatous mass treated by laparoscopic ileal resection

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A rare case of ileo-ileal intussusception due to a bleeding lipomatous mass treated by laparoscopic ileal resection.

INTRODUCTION: Adult intussusception is a rare cause of bowel obstruction with atypical presentation. It can be associated with primary or secondary intestinal tumors and, rarely, with lipomatous masses.

CASE REPORT: We report the case of a 69-year old man presenting with a history of gastrointestinal bleeding and anemia. Upper and lower endoscopies were negative for bleeding. On abdominal contrast enhanced computerized tomography (CT) scan, a trans-omental hernia in the right lower abdominal quadrant was diagnosed with no active bleeding or evidence of tumor. On exploratory laparoscopy we detected an ileo-ileal intussusception caused by a submucosal mass in the distal ileum, which was reduced and we then performed a segmental resection of the involved small bowel tract. The patient fully recovered by postoperative day 3 when he was discharged home. Final pathology confirmed an ileal lipoma.

CONCLUSION: Ileal intussusception caused by lipoma is a rare condition, which can be diagnosed with endoscopy, barium enema, and abdominal ultrasound or CT scanning, but preoperative diagnosis may be difficult. The treatment of choice is the reduction of the intussusception and the resection (laparoscopic or open) of the involved tract.

KEY WORDS: Intussusception, Lipoma, Ileum, Laparoscopy, Bleeding.

Introduction

Intestinal intussusception is quite common in children under 5 years, but it is uncommon among adults^{1,2}. Although the exact mechanism of intussusception is still unknown, it is probably associated with abnormal bowel movements, lesions or irritants of the intestinal wall

causing abnormal relaxation and stimulus and, finally, obstruction¹. Intussusception is often due to tumors or post-operative adhesions, but it may be idiopathic¹⁻³ and it can affect the ileum (ileo-ileal), the ileum and colon (ileo-colonic) or the colon (colo-colonic). Signs and symptoms are non-specific and the treatment of choice is a surgical operation³. We report the case of a 69 year-old man with ileo-ileal intussusception presenting with gastrointestinal bleeding.

Case Report

A 69 year-old man presented to our institution with a history of a single episode of rectorrhagia with hypotension. He was a former 30-pack year smoker with aller-

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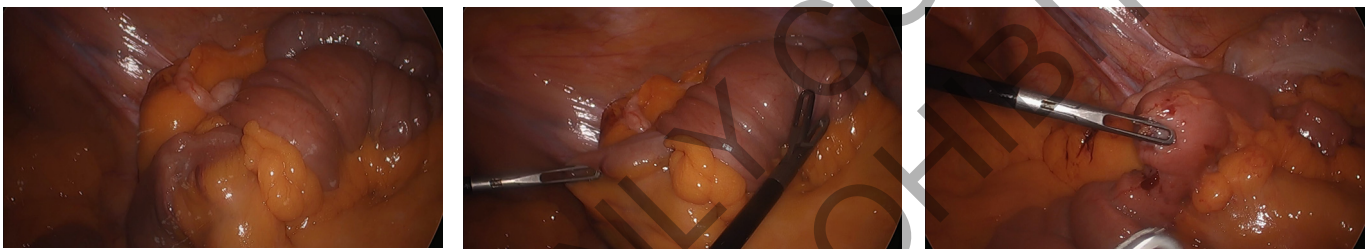
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Fig. 1: Axial view of abdominal computed tomography scan demonstrated a hypodense mass in the right lower quadrant with fat tissue attenuation.



Fig. 2: Ileal intussusceptions at surgery



Online video: ileal intussusception at surgery

gy to penicillin and acetylsalicylic acid. The past medical history revealed a pre-syncope episode with negative cardiac workup, he was then started on antiplatelet agent until the episode of bright red blood per rectum. Physical examination was unremarkable and laboratory findings were within normal limit except for a hemoglobin of 11 g/dl. Upper and lower endoscopy had been performed and revealed antral gastritis and diverticular disease, respectively, with no sign of bleeding. A contrast-enhanced computed tomography (CT) scan of the abdomen and pelvis showed an image in the right lower quadrant of the abdomen interpreted by the radiologist as trans-omental hernia (Fig. 1) and the patient was referred to our institution. The patient underwent an elective explorative laparoscopy which revealed an ileo-ileal intussusception induced by a 3-cm submucosal distal ileal mass, likely a lipoma. The intussusception was reduced (Online video) and followed by laparoscopic segmental resection of the ileum. We elected a segmental ileal resection for histological examination of the lesion, also to exclude the presence of a GastroIntestinal Stromal Tumor (GIST) requiring post-operative treatment (Fig. 2). The postoperative course was uneventful; the patient fully recovered from the operation and he was discharged home three days after the surgical procedure.

The final pathology report confirmed a 2 cm x 1.5 cm submucosal lipocytic lipoma in the terminal ileum with no evidence of malignancy.

Discussion

Small bowel intussusception causes about 5 to 10% of intestinal obstructions in the adult population⁷, which is triggered by cancer in 65% of cases⁵. Ileo-ileal intussusception due to lipoma is a rare cause of obstruction which can be encountered in every part of the bowel, although the colonic tract is more frequently involved⁴. Clinical presentation is variable and includes abdominal pain, vomiting, melena, hematochezia, tenesmus or diarrhea⁴⁻⁶. Sometimes symptoms can be chronic, abdominal pain and change in bowel habits being the most frequent complaints². Upper and lower endoscopies, barium enema, and abdominal ultrasound (US) and CT scans are useful to determine the diagnosis of intussusception and to identify a possible intestinal tumor as its cause⁶⁻⁷. Usually, abdominal US shows a sausage-shaped mass of concentric rings in patients with intestinal intussusception. Abdominal CT-scan, however, is the most accurate diagnostic imaging modality to confirm the

diagnosis of intussusception and usually reveals a mass of low-density tissue with or without signs of concomitant intestinal obstruction⁴⁻⁷. Surgical intervention is mandatory to resolve the obstruction by reducing the intussusception and to resect the involved intestinal tract in order to treat any possible associated tumor. The bowel involved in the intussusception can be reduced before the surgical operation or intraoperatively². In the presented case, the patient had an obscure gastrointestinal bleeding due to ileo-ileal intussusception by a distal ileal lipoma. The diagnosis was not made by preoperative contrast enhanced abdominal CT-scan which showed an image in the right lower quadrant interpreted as intestinal omental hernia. Consequently, a video capsule endoscopy was contraindicated and we elected a diagnostic laparoscopy which revealed the ileo-ileal intussusception and allowed the reduction and resection of the affected bowel segment.

In conclusion, ileal intussusceptions caused by a lipomatous mass and associated with intestinal bleeding is a rare condition which should be included in the differential diagnosis in adults.

Riassunto

INTRODUZIONE: L'intussuscezione intestinale dell'adulto è una rara condizione di occlusione intestinale che spesso ha una presentazione atipica. Può essere associato a tumori intestinali primitivi o secondari e, raramente, a masse lipomatose. Anche se l'esatto meccanismo per cui avviene l'intussuscezione non è conosciuto, si ritiene che sia associato a movimenti anomali della parete intestinale, che causerebbero l'ostruzione.

CASO CLINICO: Riportiamo il caso clinico di un uomo di 69 anni che si presenta alla nostra osservazione con una storia di sanguinamento gastrointestinale e anemizzazione. Gli esami endoscopici (EGDS e coloscopia) erano entrambi negativi per sanguinamento. La Tc addome con mezzo di contrasto evidenziava un'ernia transommentale nel quadrante addominale inferiore destro senza segni di sanguinamento attivo o evidenza di tumore.

La successiva laparoscopia esplorativa ha rilevato una intussuscezione ileo-ileale causata da una massa sottomucosa nell'ileo distale; pertanto è stata eseguita la riduzione laparoscopica e resezione segmentale del tratto ileale coinvolto. Il paziente è stato dimesso in III giornata post-operatoria in buone condizioni cliniche generali. L'esame istologico ha confermato l'origine lipomatosa della lesione.

CONCLUSIONE: l'intussuscezione ileale causata da lipoma è una condizione rara, che può essere diagnosticata con metodiche di imaging, ma spesso la diagnosi preoperatoria è difficile. Il trattamento di scelta è la riduzione chirurgica dell'intussuscezione e la resezione (laparoscopica o laparotomica) del tratto in questione.

References

1. Weilbaecher D, Bolin J A, Hearn D, Ogden W: *Intussusception in adults. Review of 160 cases.* Am J Surg, 1971; 121(5).
2. Feo CV, Marcello D, Feo CF: *Laparoscopic treatment of colocolic intussusception secondary to a lipomatous polyp.* Ann Ital Chir, 2017; 6. pii: S2239253X17027189.
3. Honjo H, Mike M, Kusanagi H, Kan N: *Adult Intussusception: A Retrospective Review.* World J Surg, 2015; 39:134-38. DOI 10.1007/s00268-014-2759-9,
4. Eun Lee D, Young Choe J: *Ileocolic intussusception caused by a lipoma in an adult.* World J Clin Cases, 2017; 5(6): 254-57. DOI: 10.12998/wjcc.v5.i6.254.
5. Silva S, Tenreiro N, Melo A, Lage J, Moreira H, Pròspero F, Avelar P: *Metastatic melanoma: An unusual cause of gastrointestinal bleeding and intussusception. A case report.* International Journal of Surgery Case Reports, 2018; 53:144-46.
6. Nagorney D M, Sarr M, McIlrath D C: *Surgical Management of Intussusception in the Adult.* Ann Surg, 1981; DOI: 0003-4932/81/0200/0230.
7. Namikawa T, Hokimoto N, Okabayashi T, Kumon M, Kobayashi M, Hanazaki K: *Adult ileoileal intussusception 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.