

Obscure gastrointestinal bleeding caused by intestinal lipomatosis: double-balloon endoscopic and laparoscopic views



Fig. 1 Double-balloon endoscopy showed small-bowel lipomatosis, with twisted pedunculated lesions located in the distal jejunum.



Fig. 2 Pedunculated lesions with signs of ischemia (redness, edema, and apical erosions).

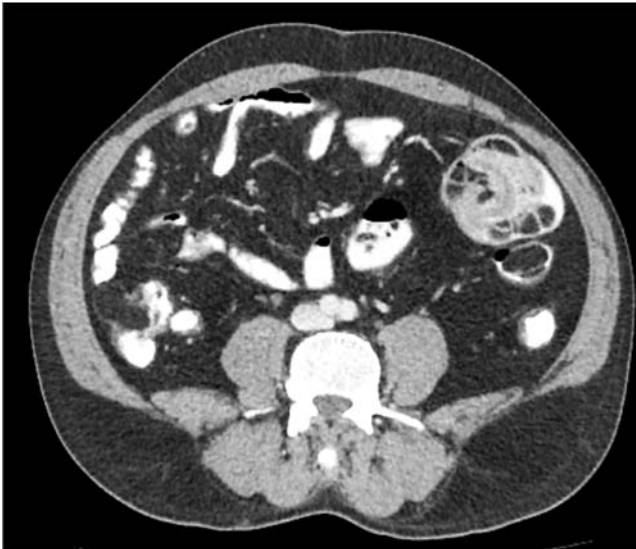
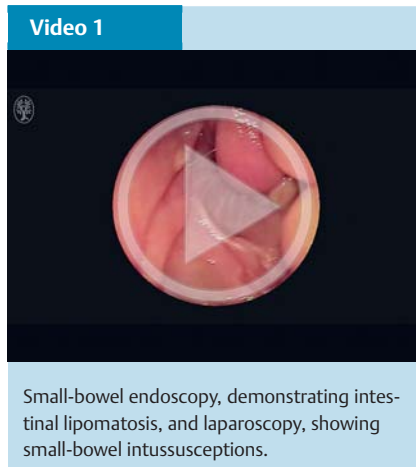


Fig. 3 Abdominal computed tomography scan showing intussusception.



Fig. 4 At laparoscopy, an area of small-bowel intussusception was seen.



Small-bowel endoscopy, demonstrating intestinal lipomatosis, and laparoscopy, showing small-bowel intussusceptions.

A 52-year-old white man without co-morbidities presented with a 6-year history of recurrent abdominal pain and episodes of melena twice a week for the past year. He was started on oral iron sulfate supplements and had already received a blood transfusion.

Findings from physical examination were normal. The hemoglobin level was 10.8 g/dL. Gastroduodenoscopy and colonoscopy revealed several smooth sessile and pedunculated lesions covered by normal mucosa, which are characteristics of lipomas, and with no signs of bleeding. Double-balloon endoscopy (DBE) revealed innumerable similar subepithelial lesions, measuring 1–4 cm in diameter, throughout the entire small bowel (▶ **Video 1**). In the distal jejunum, multiple pedunculated lesions were seen, with twisted pedicles, superficial erosion, and covered by fibrin, suggestive of vascular damage (▶ **Fig. 1**, ▶ **Fig. 2**).

Abdominal computed tomography scan showed multiple hypodense lesions compatible with lipomas, and areas of intussusception with mild proximal small-bowel dilation (▶ **Fig. 3**). The patient underwent laparoscopy, which confirmed irreducible intussusception, and led to minilaparotomy with four enterotomies and resection of multiple lipomas (▶ **Fig. 4**, ▶ **Fig. 5**). A total of 26 lesions were resected, including some with signs of bleeding. Histopathology confirmed the diagnosis of lipomatosis (▶ **Fig. 6**). The patient was discharged 3 days after surgery, and at the 5-month follow-up visit he remained asymptomatic with a hemoglobin level of 12.9 g/dL.

Lipomas of the gastrointestinal (GI) tract are benign tumors and are usually solitary; however, they can rarely present as GI lipomatosis [1]. Although mostly asymptomatic, GI lipomas may cause symptoms, including obstruction as a result of intussusceptions, and GI bleeding [2,3]. Treatment consists of surgical or endoscopic resection. Endoscopic options include mucosal or submucosal resection, unroofing technique, and application of an endoloop or endoclip [4,5].

This case demonstrated the endoscopic and laparoscopic characteristics of diffuse GI lipomatosis. DBE was essential to the diagnosis, and surgical resection resolved the intussusception and obscure GI bleeding.

Endoscopy_UCTN_Code_CCL_1AC_2AC

Competing interests: None



Fig. 5 At laparotomy, an area of intussusception was observed.

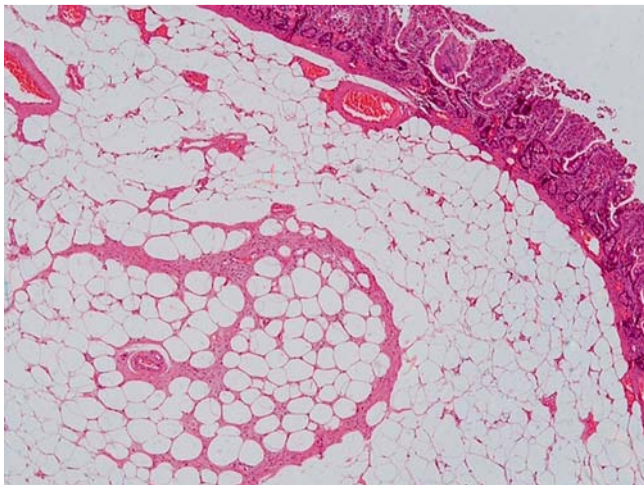


Fig. 6 Histological analysis of the surgical specimens revealed lipomatosis (hematoxylin and eosin, $\times 10$).

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