Case Reports in Gastroenterology

Case Rep Gastroenterol 2025;19:282–288
DOI: 10.1159/000545297
Received: October 20, 2024
Accepted: March 10, 2025
Published online: April 23, 2025

Single Case

Jejunal Lipoma-Induced Intussusception Mimicking Crohn's Disease: A Case Report

Naveena Luke[a] Tianyu She[b] Divya Roy[b] Toyooki Sonoda[c] Seymour Katz[d]

[a]Department of Medicine, Family Health Centers at NYU Langonel, Brooklyn, NY, USA; [b]Department of Medicine, NYU Langone Long Islandl, Mineola, NY, USA; [c]Department of Surgery, NYU Langone Long Islandl, Mineola, NY, USA; [d]Division of Gastroenterology and Hepatology, NYU Langone Medical Centerl, New York, NY, USA

Keywords
Intussusception · Small intestine · Crohn's disease · Differential diagnosis

Abstract
Introduction: Chronic gastrointestinal bleeding in patients with Crohn's disease presents diagnostic challenges. Adult intussusception is rare and typically caused by a pathological lead point, such as a tumor or inflammatory lesion. Lipomas, though benign, can lead to obstruction and bleeding, requiring differentiation from inflammatory causes for appropriate management. ***Case Presentation:*** A 70-year-old male with Crohn's disease and chronic anemia presented with recurrent obscure gastrointestinal bleeding. Initial endoscopy was unremarkable, but capsule endoscopy identified a bleeding jejunal lesion. Double-balloon enteroscopy and imaging confirmed a jejunal lipoma causing intermittent intussusception. Due to persistent anemia, the patient underwent laparoscopic resection, with pathology confirming an ulcerated lipoma. His anemia resolved postoperatively. ***Conclusion:*** This case underscores the importance of considering structural lesions like lipomas in patients with chronic bleeding and Crohn's disease. A multimodal approach, including advanced imaging and enteroscopy, is crucial for accurate diagnosis and management. Surgical resection remains the preferred treatment for symptomatic small bowel lipomas.

Introduction

Small bowel intussusception is a rare complication in the adult population and suggests an underlying gastrointestinal pathology including solid masses and chronic inflammatory conditions such as Crohn's disease. Intussusception presents in adults with

Correspondence to:
Naveena Luke, naveena.luke@nyulangone.org

Case Rep Gastroenterol 2025;19:282–288
DOI: 10.1159/000545297

sudden onset abdominal pain that can relax and remit, with or without small bowel obstruction, hematochezia, constipation, and bloating [1]. Solid tumors such as lipomas act as a lead point that is pulled forward by peristalsis, enabling a telescoping or prolapsing of the mass into nearby segments of the bowel. In Crohn's disease, lymphocytic and neutrophilic infiltrates slowly erode the alimentary tract causing aphthous ulcers to form, ultimately forming non-necrotizing granulomas that can act as the lead point [2]. Isolating the source of intussusception and guiding therapy can be challenging when patients have both underlying disorders, as described in this unique case.

Case Presentation

We present a 70-year-old male with a history of diabetes, Crohn's disease, chronic atrial fibrillation, which was managed with anticoagulation, now status post implantation of a Watchman device, and iron-deficiency anemia in the setting of chronic gastrointestinal bleeding, requiring episodic transfusions and iron infusions. He also has a surgical history of open colon resection for diverticulitis and mesh repair for ventral hernia. The patient was diagnosed in 2012 with Crohn's disease of the ileum via colonoscopy. His disease was remarkably stable for many years on mesalamine, cholestyramine, and moderate dietary restriction. The patient, however, was admitted numerous times for symptomatic anemia, whereupon labs revealed hemoglobin as low as 6.8 g/dL, hematocrit 24%, iron 18 μg/dL, saturation 5%, and ferritin 13 ng/dL. Unsaturated iron binding capacity, total iron binding capacity, platelets, prothrombin time, international normalized ratio, partial thromboplastin time remained within normal limits and stable. On presentation, the patient described occasional dark stools (guaiac positive), abdominal pain unrelated to eating, fatigue and shortness of breath, but denied hematochezia or profuse bright red blood per rectum. He also denied any focal GI symptoms or NSAID use. Given the patient's history of inflammatory bowel disease, this presentation was initially determined to likely be recurrent active Crohn's disease and initiating biologic therapy was pending complete workup of the site of bleeding.

Esophagogastroduodenoscopy/colonoscopy demonstrated gastritis but otherwise did not reveal a source for the patient's persistent anemia. Capsule endoscopy identified a bleeding site in the proximal jejunum as well as extensive ulceration in the distal jejunum and ileum compatible with Crohn's disease.

A subsequent double-balloon enteroscopy (DBE) identified a 5-cm frond-like villous jejunal mass with no evidence of active inflammation related to his history of Crohn's disease. The mass was later confirmed surgically (shown in Fig. 1). Pathology of the lesions revealed multiple fragments of small bowel mucosa with focal ulceration, granulation tissue, focal acute cryptitis, focal epithelial regeneration, and focal gastric foveolar metaplasia with evidence of ulceration. Notably, no evidence of malignancy or granulomas was discovered. From here, the plan to manage the anemia was to implant a Watchman device and discontinue anticoagulation and to schedule excisional biopsy of the jejunal bleeding lesion via DBE.

After the Watchman device was placed and the anticoagulation discontinued, the patient continued to present with symptomatic iron deficiency anemia and abdominal pain. Imaging was obtained prior to excisional biopsy. Computed tomography (CT) scan revealed a fat density lesion in the left upper quadrant small bowel loop with transient intussusception without obstruction. Further evaluation with magnetic resonance enterography re-demonstrated a jejunal lipoma just distal to the site of intussusception, acting as a lead point for the intussusception without bowel obstruction (shown in Fig. 2).

Case Rep Gastroenterol 2025;19:282–288
DOI: 10.1159/000545297

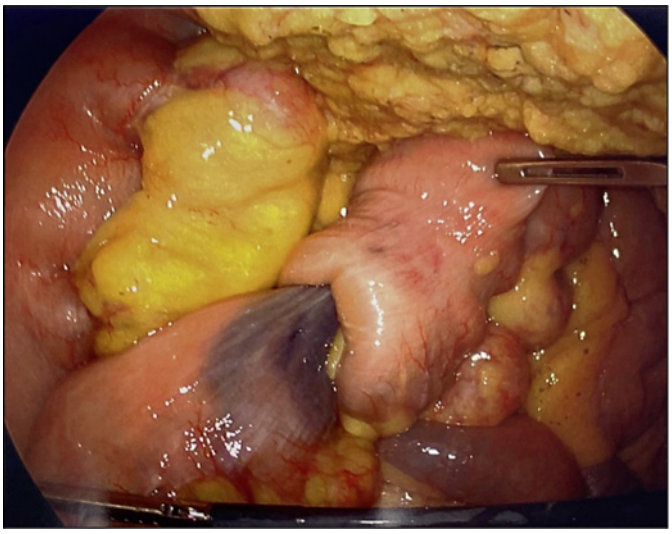

Fig. 1. 5-cm frond-like villous lesion and no evidence of active inflammation related to his history of Crohn's disease.

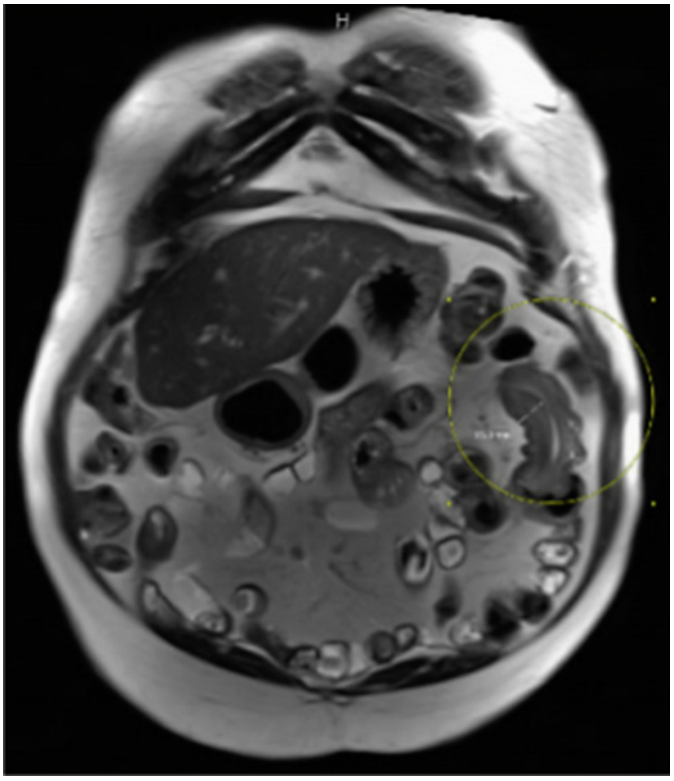

Fig. 2. MRI demonstrating enteroenteric intussusception measuring approximately 7.7 cm in length with a 4.7 cm jejunal lesion just distal to the site of intussusception. The lesion appears to lose signal, indicating the presence of fat.

Case Rep Gastroenterol 2025;19:282–288
DOI: 10.1159/000545297

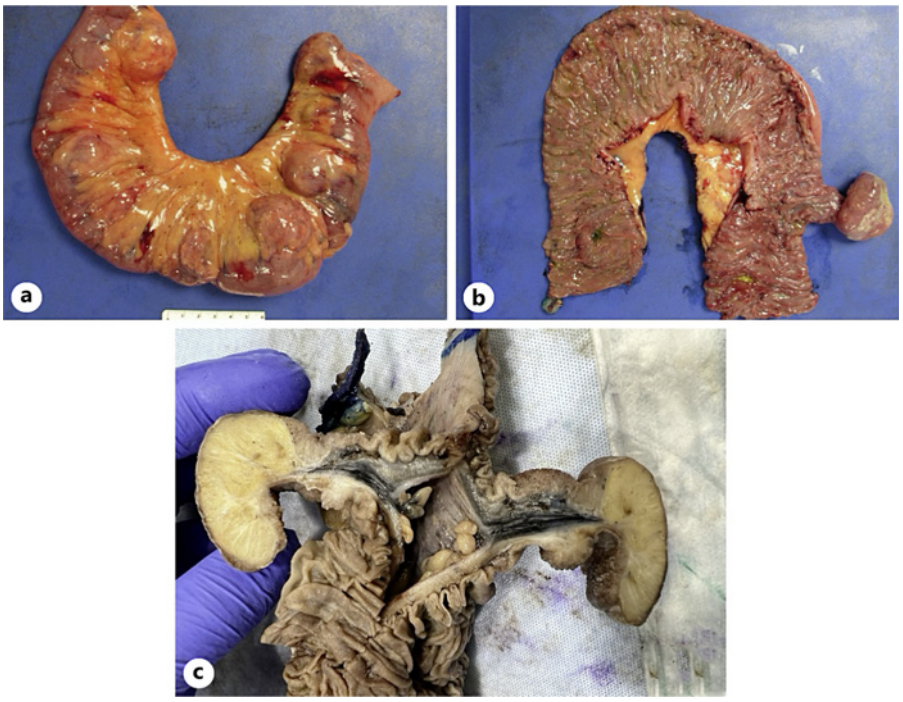

Fig. 3. a Laparoscopic removal of the small bowel mass 5-cm villous lesion. **b** No evidence of active inflammatory bowel disease. **c** Cross-section of the jejunal mass showing a lipomatous center.

Magnetic resonance enterography further corresponded this lesion to the lesion demonstrated on enteroscopy. Given these findings, it was deemed more appropriate to excise the lesion via laparoscopic surgery rather than DBE.

He underwent laparoscopic small bowel resection with jejuno-jejunal anastomosis. The surgeon noted extensive adhesions and found multiple large jejunal diverticula in the small bowel. About 60 cm distal to the ligament of Treitz, the intussuscepting mass was noted. The jejunal intussusception was exteriorized; cross section revealed a lipomatous center (shown in Fig. 3). There were no enlarged mesenteric lymph nodes. The patient tolerated the surgery well and his hemoglobin has stabilized since the resection.

Conclusion

Most intussusception cases occur in children, with only about 5% occurring in adults [3]. Adult intestinal intussusceptions are a rare cause of small bowel obstructions accounting for 1–5% of all causes [4]. While usually benign in children, in adults approximately 90% of intussusceptions are due to a pathologic condition that serves as a lead point. Examples of such are diverticula, strictures, inflammatory bowel disease, and benign or malignant masses [5]. Intussusception is considered primary if there is no identifiable lead point, whereas a lead point is identified in secondary intussusceptions [6]. Small bowel intussusception occurs in only approximately 15% of cases, with the majority being ileocolic [7].

Neoplasia has been associated with colonic intussusception in 69% of cases and in 57% of intussusception cases in the small bowel [8]. In a study of 150 adult patients with intussusception, 139 pathological causes were identified. Among these, 100 were attributed to tumors and polyps, while 18 were lipomas, with 9 in the enteric region and 9 in

the colonic region [9]. Approximately a quarter of all gastrointestinal lipomas are found in the small bowel, primarily as stromal tumors. The ileum is the most common location followed by the jejunum [10]. Small lipomas are typically asymptomatic and are often detected during routine screenings. Symptoms usually occur only when lipomas exceed 2 cm in size [11]. These symptoms are usually nonspecific, ranging from nausea, vomiting, constipation, and abdominal distention [12]. Gastrointestinal bleeding can also occur with larger lipomas due to pressure necrosis and ulceration [12]. Lipomas can also act as lead points for intussusception, which can lead to compromised blood flow and subsequent ischemia of the affected bowel segment. The ischemic tissue can ulcerate and bleed, leading to significant blood loss [11, 12].

Crohn's disease is another rare cause of intussusception. The lead point can be a segment of thickened, inflamed bowel wall or bowel edema and can interrupt peristalsis, resulting in dysrhythmic contractions and leading to intussusception [13]. A lead point is not always identified because of a flare's transient nature. Of 19 reported intussusceptions associated with Crohn's disease cases, 10 were postoperative, 5 were secondary to giant pseudo-polyps, and the rest were attributed to stenosis or fibrotic adhesions [14].

It was initially thought that our patient's symptoms were related to active Crohn's as his capsule endoscopy showed small bowel ulcerations compatible with Crohn's disease. The pathology obtained from DBE of the jejunal mass revealed no evidence of active inflammation indicative of Crohn's disease. Imaging demonstrated a jejunal lipoma acting as a lead point for the intussusception without bowel obstruction. The jejunal intussusception was removed surgically and his hemoglobin has stabilized since the resection.

Due to the rarity of symptomatic small bowel lipomas, there is no consensus on their management. However, surgical intervention is typically the primary approach, as excluding malignancy or other pathologies is challenging. Guidelines for colonic lipomas are often used in these cases [15]. There is limited data on the role of other treatment modalities such as endoscopic mucosal resection during a DBE [12]. Mortality from intussusception in adults is estimated at 8.7% for benign lesions and 52.4% for lesions of malignant etiology [12].

Diagnosing Crohn's disease can be challenging as it may mimic other diseases [14, 15]. In our patient, the lipoma grew over years, disguising itself behind a diagnosis of Crohn's disease. Due to its rarity, associated diagnoses, intermittent symptoms, and other medical comorbidities, closer examination is crucial for such complex cases. Further studies are needed to establish a guideline-directed approach as new data and treatment modalities emerge.

Statement of Ethics

Ethical approval is not required for this study in accordance with local or national guidelines. Written informed consent was obtained from the patient for publication of the details of their medical case and any accompanying images.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Funding Sources

This study was not supported by any sponsor or funder.

Author Contributions

Naveena Luke MD, Tianyu She DO, and Divya Roy DO: substantial contributions to the design of the work, drafting the work and reviewing it critically for important intellectual content, final approval of the version to be published, and agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Toyooki Sonoda MD: substantial contributions to the acquisition of data for the work, reviewing the work critically for important intellectual content, final approval of the version to be published, and agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Seymour Katz MD: substantial contributions to the conception and design of the work and the acquisition of data for the work. Drafting the work and reviewing it critically for important intellectual content, final approval of the version to be published, and agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Data Availability Statement

All data generated or analyzed during this study are included in this article and its online supplementary material (for all online suppl. material, see https://doi.org/10.1159/000545297). Further inquiries can be directed to the corresponding author.

References

1 Roy J, Sall K, Megaris A, DiRoma F, Mukherjee I. Submucosal lipoma causing small bowel intussusception. Cureus. 2021;13(8):e17367. https://doi.org/10.7759/cureus.17367
2 López-Tomassetti Fernández EM, Lorenzo Rocha N, Arteaga González I, Carrillo Pallarés A. Ileoileal intussusception as initial manifestation of Crohn's disease. Mcgill J Med. 2006;9(1):34–7.
3 Stubenbord WT, Thorbjarnarson B. Intussusception in adults. Ann Surg. 1970;172(2):306–10. https://doi.org/10.1097/00000658-197008000-00019
4 Marinis A, Yiallourou A, Samanides L, Dafnios N, Anastasopoulos G, Vassiliou I, et al. Intussusception of the bowel in adults: a review. World J Gastroenterol. 2009;15(4):407–11. https://doi.org/10.3748/wjg.15.407
5 Tarchouli M, Ait Ali A. Adult intussusception: an uncommon condition and challenging management. Visc Med. 2021;37(2):120–7. https://doi.org/10.1159/000507380
6 Cordeiro J, Cordeiro L, Pôssa P, Candido P, Oliveira A. Intestinal intussusception related to colonic pedunculated lipoma: a case report and review of the literature. Int J Surg Case Rep. 2019;55:206–9. https://doi.org/10.1016/j.ijscr.2019.01.042
7 Cohen DM, Conard FU, Treem WR, Hyams JS. Jejunojejunal intussusception in Crohn's disease. J Pediatr Gastroenterol Nutr. 1992;14(1):101–3. https://doi.org/10.1097/00005176-199201000-00019
8 Felix EL, Cohen MH, Bernstein AD, Schwartz JH. Adult intussusception; case report of recurrent intussusception and review of the literature. Am J Surg. 1976;131(6):758–61. https://doi.org/10.1016/0002-9610(76)90196-3
9 Su T, He L, Zhou T, Wu M, Guo Y, Wang Q, et al. Most adult intussusceptions are caused by tumors: a single-centre analysis. Cancer Manag Res. 2020;12:10011–5. https://doi.org/10.2147/CMAR.S268921
10 Taylor AJ, Stewart ET, Dodds WJ. Gastrointestinal lipomas: a radiologic and pathologic review. AJR Am J Roentgenol. 1990;155(6):1205–10. https://doi.org/10.2214/ajr.155.6.2122666
11 Minaya Bravo AM, Vera Mansilla C, Noguerales Fraguas F, Granell Vicent FJ. Ileocolic intussusception due to giant ileal lipoma: review of literature and report of a case. Int J Surg Case Rep. 2012;3(8):382–4. https://doi.org/10.1016/j.ijscr.2012.03.035

Case Rep Gastroenterol 2025;19:282–288
DOI: 10.1159/000545297

12 Farkas N, Wong J, Bethel J, Monib S, Frampton A, Thomson S. A systematic review of symptomatic small bowel lipomas of the jejunum and ileum. Ann Med Surg. 2020;58:52–67. https://doi.org/10.1016/j.amsu.2020.08.028
13 Knowles MC, Fishman EK, Kuhlman JE, Bayless TM. Transient intussusception in Crohn disease: CT evaluation. Radiology. 1989;170(3 Pt 1):814. https://doi.org/10.1148/radiology.170.3.2916035
14 Bouguen G, Brunet T, Bergeat D, Desfourneaux V, Bouguen G. Colonic intussusception revealing a cecal adenocarcinoma associated with silent Crohn's disease. Surg Case Rep. 2020:1–3. https://doi.org/10.31487/j.scr.2020.09.17
15 Mehdi D, Skander T, Racem T, Fatma N, Ahmed G, Adnen C. Solitary lipoma of ileocaecal valve mimicking Crohn's disease: a case report of a challenging diagnosis for a rare benign tumor of the intestinal tract. Int J Surg Case Rep. 2023;110:108696. https://doi.org/10.1016/j.ijscr.2023.108696