



Case Report

**Adult Ileoileal Intussusception Secondary to Inflammatory Fibroid Polyp:
A Case Report**

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Abstract

Inflammatory fibroid polyps (IFPs) are rare benign mesenchymal tumors of the gastrointestinal tract that can act as a lead point for intussusception, particularly in adults. We report the case of a 40-year-old male with no significant past medical history who presented with abdominal pain and was found to have ileoileal intussusception due to an IFP. The patient underwent surgical resection with excellent postoperative recovery. This case highlights the diagnostic challenges and clinical approach to adult intussusception caused by IFP.

Introduction

Adult intussusception is a rare clinical entity, accounting for only 1-5% of bowel obstructions in adults (1–3). Unlike pediatric cases, which are usually idiopathic, adult intussusception typically has an underlying pathologic lead point (4). Inflammatory fibroid polyps (IFPs), also known as Vanek's tumors, are among the benign mesenchymal lesions that can serve as such lead points (5,6). First described by Josef Vanek in 1949, these polyps were initially termed eosinophilic granulomas of the gastrointestinal tract (7).

IFPs most commonly arise in the gastric antrum, followed by the ileum and colon (8,9). Although they are histologically benign, their polypoid and intraluminal nature can lead to mechanical complications, including obstruction and intussusception (6). Clinically, they are often present with nonspecific gastrointestinal symptoms, making preoperative diagnosis difficult (10).

Histologically, IFPs are characterized by spindle cells in a fibromyxoid stroma, concentric perivascular whorling, and a dense inflammatory infiltrate rich in eosinophils (11). Immunohistochemically, they usually express CD34 and are negative for CD117 (c-KIT), DOG1, and S-100, helping to differentiate them from gastrointestinal stromal tumors (GISTs)(12–14). Recognition of IFP as a cause of adult intussusception is important to avoid misdiagnosis and to ensure appropriate management.

Case Presentation

A 40-year-old male with no significant past medical or surgical history presented to the emergency department (ED) with a one-week history of intermittent lower abdominal pain and one episode of vomiting. He had no diarrhea, hematochezia, or constitutional symptoms. Initial CT scan performed on 3/9 showed a

possible intussusception, but the patient was discharged. Upon re-evaluation of the CT scan, he was called back to the ED for further assessment.

On examination, the patient was in no acute distress. Abdomen was soft, non-tender, and non-distended. Bowel sounds were present. Laboratory results were unremarkable. Repeat imaging confirmed ileoileal intussusception with a target sign and mildly dilated small bowel loops. [Figure 1]

The patient was admitted for further workup. Gastroenterology performed colonoscopy with intubation of the terminal ileum, which was grossly unremarkable. Surgical consultation was obtained, and the decision was made to proceed with laparoscopic exploration.

Intraoperative Findings and Procedure: Laparoscopic exploration was performed with ports placed in the left paraumbilical region and left lower quadrant. Upon running the bowel, intussusception was identified at a point distant from the terminal ileum. A small infraumbilical laparotomy was made, and the involved bowel segment was exteriorized.

Reduction of the intussusception revealed a 4 cm intraluminal mass, which was resected using GIA staplers. The remainder of the small bowel was inspected from the ligament of Treitz to the terminal ileum with no additional pathology identified.

Postoperative Course: The patient tolerated the procedure well and had an uneventful recovery. He was able to tolerate oral intake, ambulate independently, and had return of bowel function. He was discharged home in stable condition with instructions to follow up in two weeks.

Pathologic Findings: Grossly, the specimen consisted of two small bowel segments. One segment contained a well-circumscribed, red-tan, finger-like intraluminal mass measuring 4 x 2 x 2 cm, located 0.6 cm from the bowel margin. Serial sections showed a heterogeneous appearance with tan-red hemorrhagic areas and yellow-tan solid zones with fibrotic septa. [Figure 2]

Microscopically, the mass demonstrated spindle cell proliferation in a fibromyxoid stroma with prominent blood vessels and a mixed inflammatory infiltrate rich in eosinophils. The overlying mucosa was intact. Immunohistochemically, IFPs typically show positivity for CD34 and negativity for CD117 (c-KIT) and S-100. [Figure 3].



Figure 1. CT abdomen imaging shows a "target sign" signifying an ileo-ileal intussusception with mildly dilated small bowel loops.



Figure 2. Gross photograph of IFP. It is a well-circumscribed red-tan finger-like firm solid mass measuring 4 x 2 x 2 cm located within the small bowel lumen.

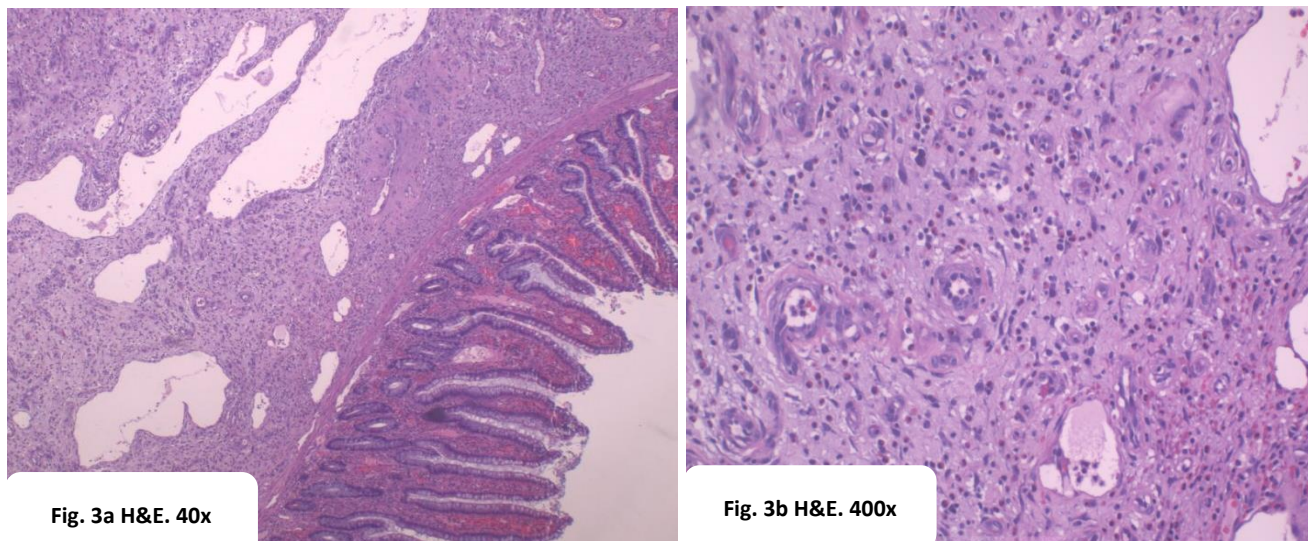


Figure 3. H&E photomicrograph. Low power view (3a) showing proliferation of spindle cells in a fibromyxoid stroma with intact overlying normal small bowel mucosa. Higher power shows (3b) the spindle cells with tapering ends with prominent vascular proliferation in a fibromyxoid background with mixed inflammatory cells, rich with eosinophils.

Discussion

This case exemplifies a rare cause of adult small bowel intussusception due to an inflammatory fibroid polyp. The preoperative diagnosis of IFP is challenging and often not made until surgical resection and histopathological evaluation. The etiology of IFPs remains unclear, although some propose a reactive process. The standard treatment is complete surgical resection, especially in symptomatic patients or when malignancy cannot be ruled out.

Histologically, IFPs are composed of spindle-shaped fibroblasts, vascular proliferation, and eosinophilic infiltration in a fibromyxoid background. Grossly, they appear as well-circumscribed intraluminal polyps that may be pedunculated. While benign, their location in the small bowel can lead to complications such as obstruction or intussusception.

Conclusion

Adult intussusception warrants thorough evaluation due to the high likelihood of an underlying pathology. IFP, although rare, should be considered in the differential diagnosis of small bowel intussusception. Surgical resection remains both diagnostic and therapeutic.

Patient Consent: Informed consent was obtained from the patient for publication of this case report and accompanying images.

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