Acta Scientific Gastrointestinal Disorders (ISSN: 2582-1091)

Volume 8 Issue 8 August 2025

Research Article

Intussusception – To Resect or Not to Resect?

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Received: July 07, 2025

Published: July 30, 2025

Abstract

Adult intussusception is a rare entity, accounting for only 1–5% of all intestinal obstructions and 5% of all intussusceptions [1]. Unlike the pediatric population where intussusception is commonly idiopathic and managed conservatively, adult cases are typically secondary to a pathological lead point. This case report presents a 43-year-old female with mid ileo-ileal intussusception in the setting of dengue seropositivity and systemic sepsis. Surgical intervention revealed a benign inflammatory fibroid polyp (IFP), a rare non-neoplastic lesion. This report revisits the surgical dilemma of whether resection is always warranted in adult intussusception or if a more conservative, selective approach can be justified in specific contexts supported by radiologic and intra-operative features. The case is supplemented with a review of contemporary literature and evolving practices.

Keywords: Intussusception; Adult

Abbreviations

Intussusception refers to the invagination of one segment of the gastrointestinal tract into another, leading to obstruction and potentially ischemia of the affected segment. While it is common in children, often presenting with acute pain and managed by air or barium enema, its presentation in adults is distinct — typically chronic, intermittent, and with a pathological lead point in up to 90% of cases [2].

Adult intussusception is further classified based on location into enteric (small bowel), colonic, or ileocolic types. While colonic cases raise significant concerns for malignancy (up to 65% of cases), enteric cases are more frequently benign, often due to lipomas, Meckel's diverticulum, or inflammatory polyps [3].

Inflammatory fibroid polyps (IFPs), first described by Vanek in 1949, are rare, benign mesenchymal tumors composed of spindle cells, collagen, and a dense eosinophilic inflammatory infiltrate [4]. These polyps are often submucosal and asymptomatic but can lead to complications such as intussusception when they grow large enough to act as a lead point.

This case raises the ongoing debate — should all adult intussusceptions be resected? While resection provides both diagnosis and definitive treatment, it may not always be necessary, particularly in resource-adequate settings where intraoperative frozen section or laparoscopic assessment may permit a more conservative approach.

Materials and Methods

Patient background and clinical presentation

A 43-year-old female presented to the emergency department with a 1-month history of dull, intermittent abdominal pain. In the preceding 48 hours, her pain had intensified, accompanied by nausea and multiple episodes of bilious vomiting. She had been unable to pass stool or flatus for 3 days. A recent history of dilation

and curettage (D&C) was noted 4 days prior to admission. She had no prior history of gastrointestinal disease or abdominal surgery. Clinical signs of dehydration and systemic toxicity raised concern for sepsis.

Clinical examination

On admission, the patient was conscious and oriented with stable vitals.

- **Abdominal examination:** Mildly distended, epigastric tenderness, guarding without rigidity, and exaggerated bowel sounds.
- **Digital rectal examination (DRE):** Normal tone, fecal staining, no palpable mass or fissure.
- **General systemic examination:** Lungs clear, heart sounds normal, no murmurs or added sounds.

Radiological findings

CECT abdomen (22/05/2025):

- Clear evidence of mid ileo-ileal intussusception (~7.8 cm segment) with mesenteric vessels pulled into the lumen, forming a characteristic "bowel-in-bowel" appearance.
- Proximal small bowel loops were dilated (up to 3.7 cm), with multiple air-fluid levels.
- Mesenteric fat stranding and subcentimetric lymph nodes were observed.
- No free intraperitoneal air or signs of bowel ischemia.
- Other findings: mild fatty liver, Phrygian cap gallbladder, splenunculi, Schmorl's nodes (degenerative spine), and gluteal post-injection granulomas.

Surgical treatment

Given signs of obstruction and systemic inflammation, the patient underwent emergency exploratory laparotomy on 24/05/2025.

Intra-operative findings:

- ~10 cm of intussuscepted ileum
- A smooth, globular, intraluminal lesion palpable within the intussusceptum
- Multiple mesenteric lymph nodes
- No evidence of perforation, necrosis, or gross malignant features

A segmental resection with end-to-end ileo-ileal anastomosis was performed under general anesthesia.

Pathological findings

Histopathology Report No.: H/3266/25

- **Gross:** 17.2 cm segment of ileum
- **Polyp:** Submucosal, firm, 2.6 × 2.8 × 2.0 cm, grey-white, homogeneous
- **Microscopy:** Bland spindle cells, fibrous stroma, abundant eosinophils, no atypia or mitosis
- **Margins:** Free of tumor
- **Diagnosis**: Benign inflammatory fibroid polyp
- **Reported by**: Department of Pathology, SMIH

Results

Postoperatively, the patient was managed in ICU with IV fluids, broad-spectrum antibiotics, and single-unit PRBC transfusion for anemia (Hb: 7.9 g/dL pre-op). Her hemodynamic parameters remained stable. Ryle's tube and Foley's catheter were removed on POD 6. The patient resumed oral feeds, passed stool and flatus, and was shifted to the general ward. She was discharged in stable condition on 02/06/2025 with follow-up scheduled for histopathology review.

Discussion

The management of adult intussusception remains controversial. While most surgeons favor resection due to the risk of malig-

nancy, increasing evidence suggests that a subset — particularly small bowel intussusceptions with benign characteristics — may be managed with reduction or limited resection.

- **Azar and Berger [2]:** Up to 65% of colonic and 30% of small bowel adult intussusceptions are malignant.
- **Wang., *et al.* [3]:** Selective reduction feasible when benign lesion suspected based on intra-op and radiologic cues.
- **Nagorney., *et al.* [4]:** In cases without ischemia or perforation, reduction is acceptable especially in young patients.

In this case, absence of ischemia, well-circumscribed lesion, and benign radiologic features supported a low suspicion of malignancy. However, due to lack of frozen section and intraoperative histology, resection was performed both for diagnosis and definitive treatment.

With rising accessibility to intraoperative imaging, laparoscopy, and frozen section, selective resection vs. reduction may become the future standard for managing adult small bowel intussusception, particularly in low-risk patients [5-8].

Conclusion

Adult small bowel intussusception should be assessed on a case-by-case basis. While resection remains the gold standard due to malignancy risk, benign conditions like IFP can safely undergo conservative management in ideal settings. This case supports the growing call for individualized surgical decision-making based on pre-op imaging, intra-op findings, and institutional resources.

Acknowledgments

We thank Dr. A.V. Mathur for overall surgical supervision, Surgery Unit IV for operative care, and Dr. Pritika Mehra (Pathology) for histological evaluation.

Author Contributions

- **Conceptualization and Oversight:** Dr. A.V. Mathur
- **Surgical Execution:** Surgery Unit IV
- **Histopathological Reporting:** Dr. Pritika Mehra
- **Writing and Literature Review:** Dr. Ankit Kr. Singh

Conflict of Interest

None declared.

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