

Original Article - Case Report

A Rare Presentation of Adult Ileo-ileal Intussusception with Trans-anal Protrusion Secondary to Inflammatory Fibroid Polyp: A Case Report

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ABSTRACT

Adult intussusception is an uncommon cause of intestinal obstruction, accounting for less than 5% of cases. Unlike pediatric cases, adult intussusception is usually associated with an identifiable pathological lead point. Trans-anal protrusion of intussusception (TAPI) is exceptionally rare in adults and may mimic rectal prolapse, leading to delayed diagnosis. Inflammatory fibroid polyp (IFP) is a rare benign gastrointestinal lesion and an unusual cause of small bowel intussusception.

A 50-year-old woman presented with a cyanosed pedunculated mass protruding through the anus for three hours, along with a one-month history of hypogastric pain, nausea, vomiting, and weight loss. She had recently been diagnosed with pulmonary tuberculosis and was receiving anti-tuberculous therapy. Laboratory tests revealed leukocytosis and anemia. Ultrasonography suggested intestinal obstruction, while contrast-enhanced CT showed a target sign in the right lower abdomen consistent with ileoileal intussusception. The patient underwent urgent exploratory laparotomy with reduction of the intussusception followed by right hemicolectomy due to suspected malignancy. Histopathology confirmed

a 5.7-cm inflammatory fibroid polyp of the ileum with reactive lymphadenopathy. The postoperative course was uneventful, and the patient recovered well at three-month follow-up.

Transanal protrusion of adult ileoileal intussusception secondary to inflammatory fibroid polyp is an extremely rare surgical emergency. Early recognition, appropriate imaging, and prompt surgical management are essential for favorable outcomes.

Keywords

Adult intussusception; Transanal protrusion; Inflammatory fibroid polyp; Ileoileal intussusception; Surgical management; Case report

Abbreviations

Trans-anal protrusion of intussusception (TAPI); Inflammatory fibroid polyp (IFP) tuberculosis (TB); Anti-tuberculous therapy (ATT); Digital rectal examination (DRE); Computed tomography (CT); Gastrointestinal stromal tumors (GISTs).

INTRODUCTION

Intussusception refers to the telescoping of a segment of the intestine into the lumen of an adjacent segment, most commonly occurring in the ileocecal region. It is the leading cause of intestinal obstruction in children under the age of three¹.

In contrast, intussusception in adults is rare and usually occurs secondary to an underlying pathological lesion. Transanal protrusion of intussusception (TAPI), also known as intussusception prolapse, occurs when the leading edge of the intussuscepted bowel extends through the anus. This unusual presentation accounts for 8–29% of intussusception cases, predominantly reported in children².

Rectal prolapse, a more common condition, may mimic TAPI and lead to misdiagnosis and delayed surgical management, despite the differences in underlying pathology and treatment strategies³. In adults, the diagnosis is often made intraoperatively because patients typically present with symptoms of intestinal obstruction. Possible underlying causes include polyps, malignancies, Meckel's diverticulum, colonic diverticula, and strictures⁴.

We report a rare case of adult ileoileal intussusception presenting with transanal protrusion secondary to an inflammatory fibroid polyp, highlighting the diagnostic challenges and importance of timely surgical intervention.

CASE PRESENTATION

A 50-year-old emaciated woman presented to the Accident and Emergency Department of Mayo Hospital, Lahore, with a complaint of a mass protruding through the anus for three hours. She reported a one-month history of hypogastric and suprapubic pain, gradual in onset, severe in intensity, and associated with nausea and vomiting.

The patient had recently been diagnosed with pulmonary tuberculosis (TB) and had been receiving anti-tuberculous therapy (ATT) for 20 days. She also reported significant weight loss over the previous six months.

On examination, the patient was hemodynamically stable. The abdomen appeared scaphoid, tense, and mildly tender in the hypogastric region. Digital rectal examination (DRE) revealed a 7 × 6 cm cyanosed pedunculated mass protruding through the anal canal.

Laboratory investigations showed:

- White blood cell count: $15.6 \times 10^9/L$
- Hemoglobin: 9.8 g/dL
- Hematocrit: 32.4%

Abdominal ultrasonography demonstrated prominent bowel loops in the right iliac and infraumbilical regions with sluggish peristalsis, suggestive of intestinal obstruction. Plain abdominal radiography showed no free air under the diaphragm.

CT Findings

Contrast-enhanced CT of the abdomen was performed using 5-mm contiguous axial slices from the diaphragm to the pelvic floor following intravenous contrast administration. The scan demonstrated a target-shaped lesion in the right lower abdomen involving mid-to-distal ileal loops, consistent with ileoileal intussusception (**Figure 1**).

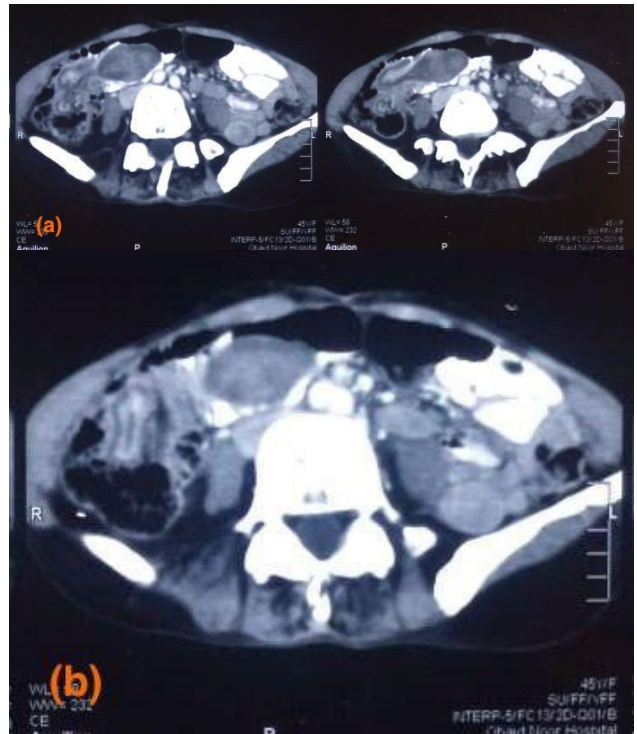


Figure 1. CT Findings. (A) A transverse section of CT scan showing telescoping of bowel into adjacent distal bowel (ileoileal intussusception) in the right lower quadrant of the abdomen. (B) CT scan demonstrating the “Target Sign”, a classic radiological sign of intussusception.

After stabilization and initial investigations, the patient was prepared for urgent exploratory laparotomy. Intravenous ceftriaxone (1g) was administered 20 minutes before incision. The prolapsed mass was gently reduced into the rectum prior to abdominal exploration.

Intraoperatively, ileoileal intussusception extending toward the ileocecal junction was identified. The intussusception was carefully reduced from distal to proximal without excessive manipulation to avoid perforation. Due to suspicion of underlying malignancy, a formal right hemicolectomy was performed.

The specimen was sent for histopathological examination.

Postoperative Course

The postoperative period was uneventful, and the patient was discharged one week after surgery.

Histopathological examination revealed (**Figure 2**):

- A completely resected 5.7-cm inflammatory fibroid polyp in the ileum.
- Five reactive lymph nodes showing chronic nonspecific inflammation.

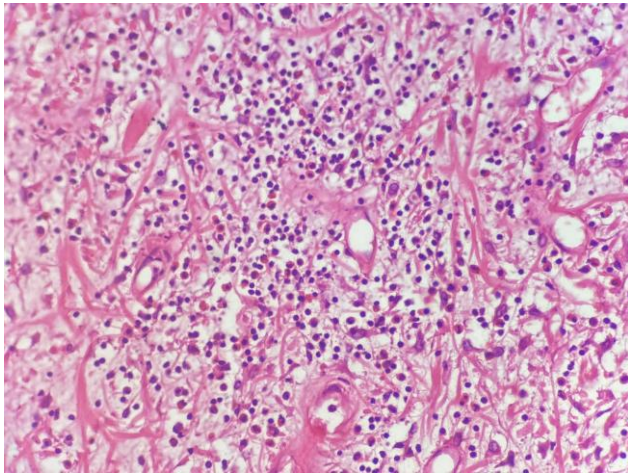


Figure 2. Section from polyp showing a lesion composed of spindle and stellate stromal cells with edematous stroma. Inflammatory infiltrate with predominance of eosinophils is also present. No atypical mitosis.

At three-month follow-up, the patient had gained 5 kg of weight and showed significant clinical improvement.

DISCUSSION

Adult intussusception presents with nonspecific clinical features, including abdominal pain, nausea, vomiting, gastrointestinal bleeding, and changes in bowel habits⁵. These symptoms often lead to delayed diagnosis. In one study, although typical symptoms were present in 78% of patients, only 33% were correctly diagnosed preoperatively⁶.

Our case is particularly unusual because the patient presented with transanal protrusion of intussusception (TAPI), a phenomenon rarely reported in adults. This presentation may easily be mistaken for rectal prolapse, leading to potential misdiagnosis and delay in treatment.

Clinically, rectal prolapse typically appears as a concentric circumferential protrusion of rectal mucosa, often associated with chronic constipation and straining. In contrast, TAPI represents prolapsed intussuscepted bowel, sometimes accompanied by ischemic changes and frequently associated with an underlying pathological lead point^{2,3}.

Imaging plays a crucial role in diagnosis. Computed tomography (CT) is considered the most sensitive imaging modality for detecting adult intussusception. CT findings typically include the “target” or “sausage-shaped” mass, which represents telescoped bowel loops^{7,8}. CT imaging also helps identify the location of the intussusception and possible lead points, which is particularly important in adults because of the higher likelihood of malignancy.

Ultrasonography may also demonstrate characteristic “doughnut” or “target” signs on transverse imaging and pseudo-kidney appearance on longitudinal views⁷. Although more commonly used in pediatric cases, ultrasound remains useful in resource-limited settings.

Inflammatory fibroid polyps (IFPs) are rare benign mesenchymal lesions of the gastrointestinal tract and can occasionally act as lead points for intussusception. Although they most commonly arise in the stomach and ileum, small bowel obstruction secondary to IFP-induced intussusception is rare in adults^{9,10}.

Histologically, IFPs are characterized by spindle cell proliferation, eosinophilic inflammatory infiltrate, and prominent vascular structures. These features may mimic other tumors such as gastrointestinal stromal tumors (GISTs), highlighting the importance of histopathological confirmation.

- Adult intussusception is rare and usually associated with a pathological lead point.
- Transanal protrusion of intussusception is extremely uncommon and may mimic rectal prolapse.
- Contrast-enhanced CT plays a critical role in preoperative diagnosis.
- Surgical resection remains the definitive treatment due to the high risk of underlying pathology.
- Benign inflammatory fibroid polyps can serve as lead points for small bowel intussusception.

Surgical management remains the gold standard for adult intussusception, given the high probability of an underlying pathological lesion^{6,11}. Unlike pediatric cases where non-operative reduction is often attempted, adults usually require bowel resection to prevent recurrence and exclude malignancy¹². In our patient, careful intraoperative reduction followed by formal right hemicolectomy allowed complete removal of the lesion and resulted in excellent postoperative recovery.

Conflict of Interest

The authors declare that they have no competing interests.

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Authors' contribution

DT, SS: Conceptualization, methodology, data curation, writing-original draft preparation; **MB:** Visualization, investigation, supervision; **MBA:** Writing, reviewing and editing.

References

1. Umar M, Stephen Y, Aminu U, Adogu I. Prolapsed ileocolic intussusception in an adult: A bizarre presentation leading to delayed diagnosis in a low resource setting. *Research Journal of Health Sciences*. 2021 Apr 13;9(2):115-20.
2. Kalani A, Alvandipour M. Ileorectal intussusception in an adult: a case report of an anal mass. *Gastroenterology Report*. 2023 Jan 1;11:goad067.

3. Obiora EU, Okwuchukwu ES, Ogundu II. Transanal protrusion of intussusceptions in children. *African Journal of Paediatric Surgery*. 2014 Jul 1;11(3):229-32.
4. Frydman J, Ben-Ishay O, Kluger Y. Total ileocolic intussusception with rectal prolapse presenting in an adult: a case report and review of the literature. *World Journal of Emergency Surgery*. 2013 Sep 23;8(1):37.
5. Hong KD, Kim J, Ji W, Wexner SD. Adult intussusception: a systematic review and meta-analysis. *Techniques in coloproctology*. 2019 Apr 1;23(4):315-24.
6. Marsicovetere P, Ivatury SJ, White B, Holubar SD. Intestinal intussusception: etiology, diagnosis, and treatment. *Clinics in colon and rectal surgery*. 2017 Feb;30(01):030-9.
7. Basu S. Trans-anal protrusion of intussusception (TAPI) revisited: managed successfully in a resource limited hospital setting. *International Surgery Journal*. 2019;6(1):310-3.
8. Yalamarthi S, Smith RC. Adult intussusception: case reports and review of literature. *Postgraduate Medical Journal*. 2005 Mar;81(953):174-7.
9. Zubaidi A, Al-Saif F, Silverman R. Adult intussusception: a retrospective review. *Diseases of the colon & rectum*. 2006 Oct 1;49(10):1546-51.
10. Garpis N, Damaskos C, Garpis A, Georgakopoulou VE, Sakellariou S, Liakea A, Schizas D, Diamantis E, Farmaki P, Voutyritsa E, Syllaios A. Inflammatory fibroid polyp of the gastrointestinal tract: a systematic review for a benign tumor. *in vivo*. 2021 Jan 1;35(1):81-93.
11. T. Chand J, R R, Ganesh MS. Adult intussusception: a systematic review of current literature. *Langenbeck's Archives of Surgery*. 2024 Jul 31;409(1):235.
12. Panzera F, Di Venere B, Rizzi M, Biscaglia A, Praticò CA, Nasti G, Mardighian A, Nunes TF, Inchingolo R. Bowel intussusception in adult: prevalence, diagnostic tools and therapy. *World Journal of Methodology*. 2021 May 20;11(3):81.

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