

Transient Descending Colocolonic Intussusception Due to a Large Fecaloma in an Adult

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ABSTRACT

Intussusception typically occurs in infants and children, with adults representing 5% of cases. A 53-year-old African American woman presented with lower abdominal pain and tenderness. Computed tomography of the abdomen and pelvis demonstrated a 3.5 cm colocolonic intussusception in the descending colon. Emergent colonoscopy found solid stool in the mid descending colon. Water-soluble rectal enema showed a filling defect in the mid descending colon. Repeat colonoscopy demonstrated presence of a large fecaloma in left colon. Laxatives were initiated, and abdominal pain subsided. To our knowledge, this is the first report of colocolonic intussusception secondary to fecaloma.

INTRODUCTION

Although the majority of cases of intussusception occur in infants and children, intussusception in adults represents 5% of all cases, accounting for only 1–5% of intestinal obstructions and 0.003–0.02% of all hospital admissions.¹ In children, it is usually primary or idiopathic and benign. In contrast, almost 90% of intussusception cases in adults are secondary to a pathologic condition that serves as a lead point. Nausea, vomiting, gastrointestinal (GI) bleeding, change in bowel habits, or abdominal distension are nonspecific symptoms and signs of intussusception in adults.^{2,3} Transient nonobstructing intussusception without a lead point has been described in patients with celiac or Crohn's disease, but it is more frequently idiopathic and resolves spontaneously without any specific treatment.^{4,5}

CASE REPORT

A 53-year-old African American woman with a surgical history significant for laparoscopic ventral hernia repair and an appendectomy presented to the emergency department with severe progressive lower abdominal cramping pain lasting 12 hours. Abdominal pain was associated with nausea, but there was no associated vomiting or hematochezia. She had one normal bowel movement the day before presentation and was passing flatus. Review of systems was unremarkable. Her past medical history included hypertension, osteoarthritis, bronchitis, and sinusitis. A screening colonoscopy 2 years before showed a 7-mm sigmoid polyp and scattered diverticuli. She was hemodynamically stable on presentation.

Abdominal examination was significant for severe bilateral lower abdominal tenderness with deep palpation and hypoactive bowel sounds; no mass was palpated, and no rigidity or rebound tenderness was noted. The rest of the physical examination was unremarkable. Complete blood count and the comprehensive metabolic panel were normal. Computed tomography (CT) scan of the abdomen and pelvis with intravenous contrast demonstrated a colocolonic intussusception in the descending colon that extended over a length of 3.5 cm (Figure 1). A lead point was suspected but was not definitively seen on CT scan.

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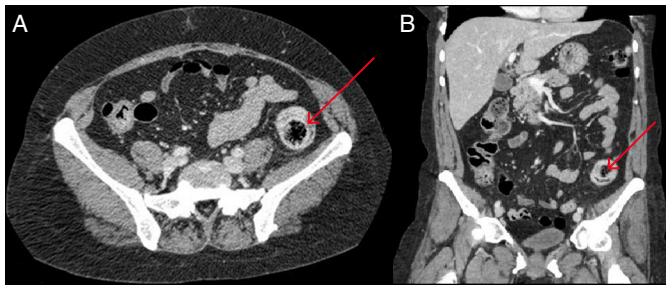


Figure 1. (A) Axial abdominal/pelvic computed tomography (CT) with intravenous contrast depicting 3.5-cm colocolonic intussusception in the descending colon. (B) Frontal abdominal/pelvic CT demonstrating colocolonic intussusception in the descending colon extending over 3.5 cm.

The patient underwent an emergent colonoscopy for possible reduction of the intussusception. The colonoscope could not be advanced beyond 60 cm from the anal verge (mid descending colon) due to solid stools packing the colonic lumen. No large polyps, mass lesions, ulcerations, or inflammation were seen in the visualized segments of the colon. The patient was managed conservatively in the absence of peritoneal signs. A water-soluble rectal enema the next day showed a filling defect in the distal descending colon with additional filling defects seen proximally (Figure 2). She was subsequently prepped for an elective colonoscopy for further evaluation of colonic mucosa.

Colonoscopy demonstrated the presence of a large stool ball (fecaloma) in left descending colon even after colonic prep with polyethylene glycol. There were no signs of ischemia.

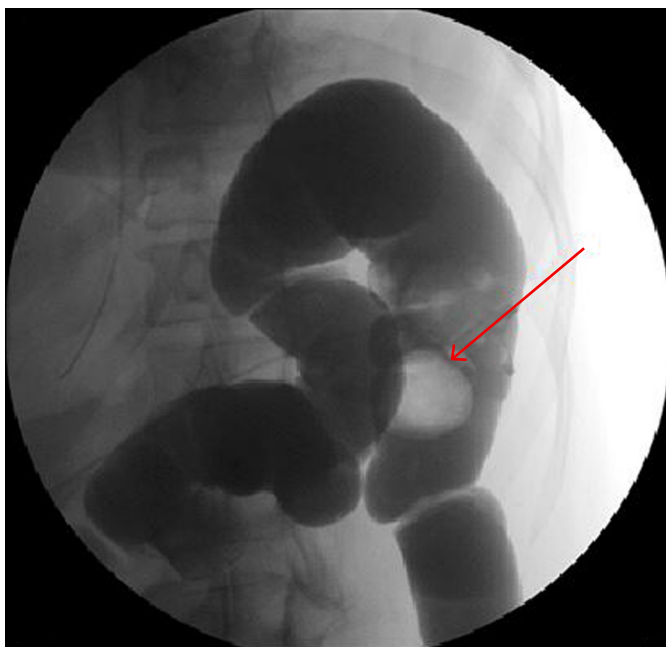


Figure 2. Water-soluble contrast enema showing a filling defect in the distal descending colon with additional filling defects seen proximally.

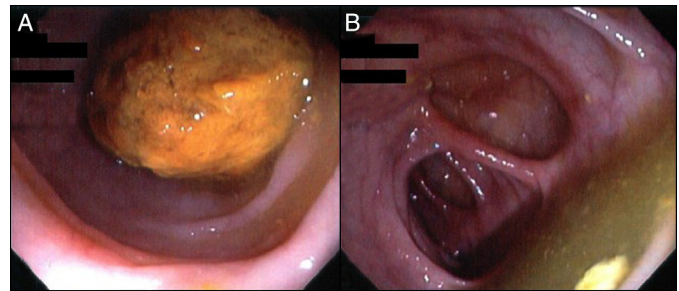


Figure 3. Colonoscopy showing (A) a large fecaloma in left descending colon and (B) a large, right-sided diverticulum proximal to the hepatic flexure.

Other findings on colonoscopy were a large right-sided diverticulum proximal to the hepatic flexure (Figure 3). She was started on round-the-clock laxatives even after her colonoscopy. She continued to have multiple bowel movements in hospital and her abdominal pain subsided. She was discharged home on laxatives.

DISCUSSION

It is estimated that approximately 90% of intussusceptions in adults are secondary to an anatomic or pathologic condition, of which more than half are malignant. Idiopathic cases, without a lead point lesion, are the exception in adults and make up 8–20% of cases.⁶ Secondary intussusception is caused by organic lesions, such as inflammatory bowel disease, postoperative adhesions, Meckel's diverticulum, benign and malignant lesions, and metastatic neoplasms, or caused iatrogenically due to the presence of intestinal tubes or jejunostomy feeding tubes after gastric surgery. Primary or idiopathic intussusception is usually transient, while secondary intussusception due to a lead point is usually permanent or recurrent. To our knowledge, this is the first reported case of transient colocolonic intussusception secondary to fecaloma that served as a lead point.

Intussusception occurs more frequently in the small bowel than in the large bowel, with 70–80% of cases involving benign lesions.⁷ The incidence of intussusception is low in adults, particularly in the descending colon, due to the anatomical attachment of the descending colon to the retroperitoneum. In our case, however, the descending colon was involved. The most common sites in the GI tract for intussusception are the junctions between freely moving segments and those fixed by adhesions or the retroperitoneum.⁸ In adults, the exact mechanism of invagination of proximal colon into the distal colon is unknown. It is believed that any lesion in the bowel wall or within the lumen that alters normal peristaltic activity is able to initiate the process of intussusception. This hypothesis, however, does not explain the idiopathic cases of intussusception without any organic cause.

Abdominal CT is currently considered the most sensitive radiologic method to confirm intussusception.⁹⁻¹² Abdominal CT is able to distinguish between intussusception without a lead point (features: no signs of proximal bowel obstruction, target-like or sausage-shaped mass, layering effect) from that with a lead point (features: signs of bowel obstruction, bowel wall edema with loss of the classic 3-layer appearance, demonstration of a lead mass). This distinction is important as it may help to reduce the number of unnecessary surgical interventions.¹³ In our patient, CT scan did not show any obvious lead point.

A barium enema examination may be useful in patients with colocolic or ileocolic intussusception. A cup-shaped filling defect and spiral or coil-spring appearances are characteristically demonstrated on barium enema examination.¹⁴⁻¹⁶ In our patient, contrast enema showed a filling defect consistent with the fecaloma in the descending colon without intussusception, thus suggesting the diagnosis of transient intussusception with the fecaloma likely to be the lead point. Flexible endoscopy of the lower GI tract is considered invaluable in evaluating cases of intussusception presenting with subacute or chronic large bowel obstruction.¹⁷ Confirmation of the intussusception, localization of the disease, and demonstration of the underlying organic lesion serving as a lead point are the main benefits of endoscopy. In our patient, we were able to visualize the presence of fecaloma in the descending colon on colonoscopy that corresponded to CT scan findings of intussusception in descending colon.

In children, intussusception is usually primary and benign, and pneumatic or hydrostatic (air contrast enemas) reduction of the intussusception is sufficient to treat the condition in 80% of patients. In adults, radiologic decompression is not advised preoperatively because approximately 65% of adult cases have associated malignancy.^{3,18}

Malignancy accounts for up to 30% of cases of intussusception occurring in the small intestine in adults.¹⁷ Intussusception occurring in the large bowel is more likely to have a malignant etiology and represents up to 66% of the cases.^{14,17,19} Therefore, 70-90% of adult cases of intussusception require definitive treatment, and surgical resection is often the treatment of choice.¹⁷ However, an isolated episode of transient nonobstructive intussusception can be managed conservatively, as for our patient.

DISCLOSURES

Author contributions: Z. Khan, U. Darr, A. Renno, and T. Alkully wrote the manuscript. E. Rafiq and T. Sodeman edited the manuscript. T. Sodeman is the article guarantor.

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