

Ileocolonic intussusception presenting as chronic diarrhea in an elderly woman



Asad Ali, MBBS,^{1,2} Ye-Jin Lee, MD,³ Matthew Gosse, MD,⁴ Charles Meade, MD,⁵ Heather Labath, PA-C,⁵ Arvind R. Murali, MBBS^{6,7}

INTRODUCTION

Intussusception represents the telescoping of a proximal segment of the GI tract (intussusceptum) into the lumen of an adjacent distal segment (intussusciens).¹ While more common in children, it is considered one of the rare causes of mechanical large-bowel obstruction in adults accounting for 1% to 5% of cases. Malignancy accounts for nearly 65% of all cases of intussusception in adults, and surgery is considered a first-line option.^{2,3}

CASE

We report an 86-year-old Asian woman referred to our clinic with a 1-month history of intermittent and progressively worsening diarrhea and 6-lb weight loss over 4 months. She denied any nausea, vomiting, abdominal pain, or blood in stools. She denied a history of tobacco use. Her last colonoscopy in 2008 did not reveal any polyps. Her initial serological workup was unremarkable including normal hemoglobin, electrolyte panel, and renal function. Shortly thereafter, she underwent a diagnostic colonoscopy that revealed a large polypoid mass with a necrotic area on the surface just proximal to the splenic flexure. The colonoscope was able to traverse the mass with ease. Proximal to the mass, there was tight puckering of the normal-appearing mucosa through which the colonoscope could not advance further. This raised concern for a colonic intussusception (Video 1, available online at www.giejournal.org). Targeted biopsy specimens of the mass were obtained and reported at least submucosally invasive adenocarcinoma, in the background of a tubulovillous adenoma (Fig. 1). A CT scan was obtained immediately after the colonoscopy. The CT scan revealed a long-segment intussusception involving the cecum and terminal ileum within the transverse colon with the lead intussusceptum terminating near the splenic flexure (Fig. 2A). There was dilatation and wall thickening of the distal small bowel and associated cecal lymphadenopathy concerning for early malignant obstruction (Fig. 2B and C).

Colorectal surgeons were consulted, and the patient underwent an emergent laparotomy. Intraoperative findings were significant for an 8-cm cecal mass, acute on chronic intussusception with no evidence of metastatic disease.

She underwent a reduction of the intussuscepted segment, splenic flexure takedown with right hemicolectomy. Based on clinical, imaging, and histopathological staging, she was diagnosed with pT3N0M0 (stage IIA) well-differentiated cecal adenocarcinoma (Fig. 3). Her hospital course was uneventful, and she was discharged after clinical recovery. Based on the staging, a right hemicolectomy was considered curative without the need for chemoradiation therapy. At her 1-month follow-up, the patient reported a return to baseline functional status. She had no further diarrhea. A follow-up colonoscopy and CT scan of the abdomen and pelvis with intravenous contrast were performed at 6 and 12 months, respectively, and showed no evidence of residual or recurrent disease (Fig. 4).

CONCLUSION

Chronic intussusception without clinically evident intestinal obstruction is an uncommon endoscopic finding in adults. The diagnosis of intussusception is commonly missed or delayed only to be established intraoperatively through direct visualization.^{1,4}

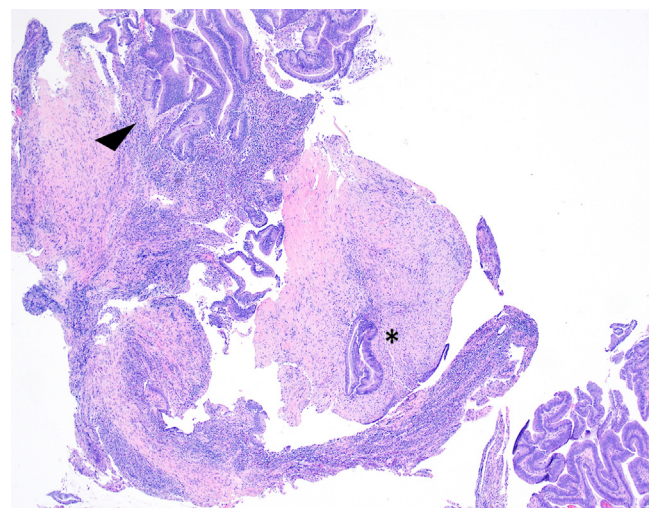


Figure 1. Photomicrograph of the biopsy (H&E, orig. mag. $\times 400$) from the original endoscopy shows at least submucosally invasive adenocarcinoma with adjacent desmoplastic submucosal stroma (*asterisk*). There is surrounding background tubulovillous adenoma (*arrowhead*).

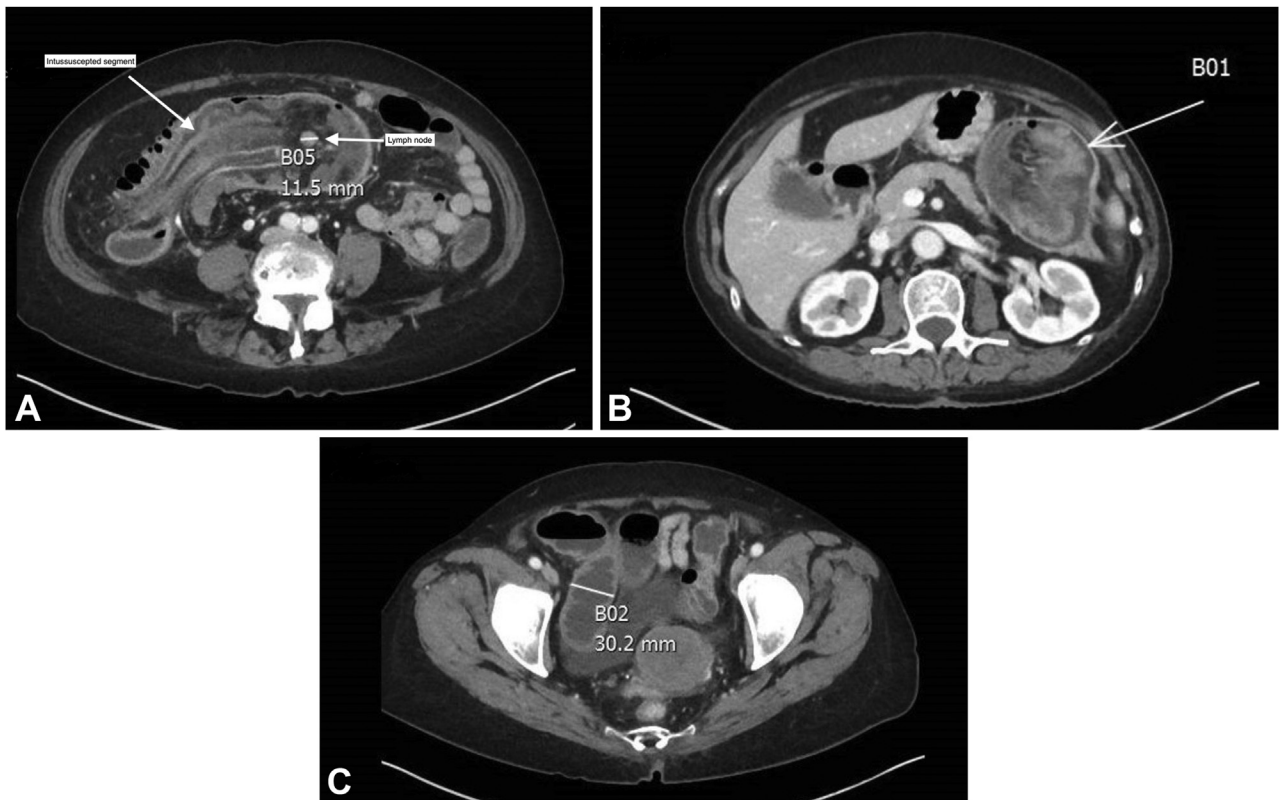


Figure 2. **A**, A 1.2-cm lymph node at the proximal end of the intussuscepted loop. **B**, A cecal mass concerning for malignancy can be seen protruding distally up to the splenic flexure. **C**, A CT scan demonstrating mildly dilated loops of distal small bowel measuring 3.0 cm.

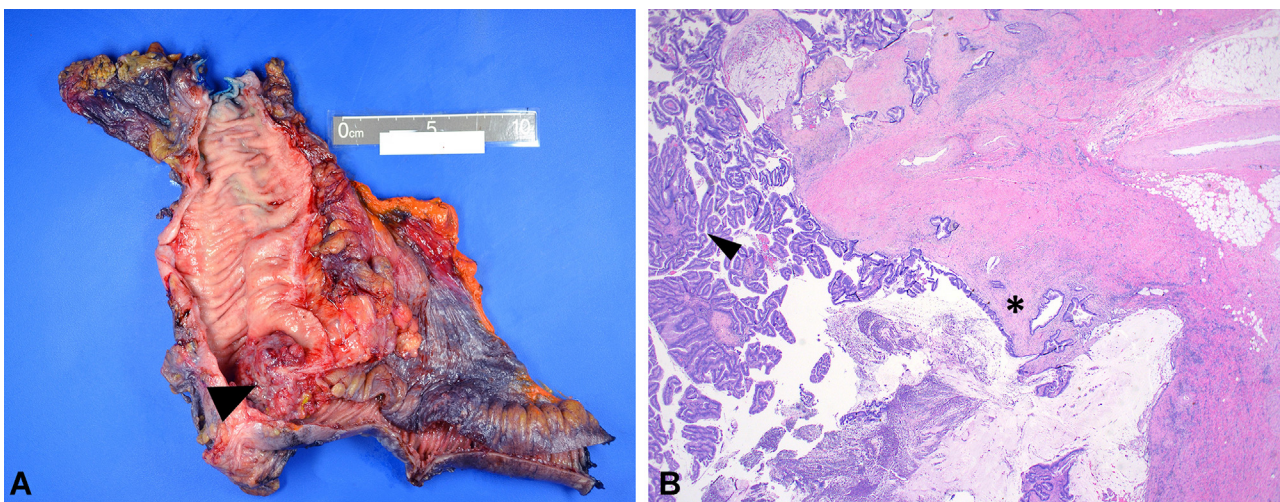


Figure 3. **A**, A macroscopic photograph of right hemicolectomy specimen shows a large, fungating, polypoid mass centered in the cecum (*arrowhead*). This photo was taken after the intussusception was reduced and the specimen was opened. **B**, Low-power photomicrograph of the cecal tumor that shows mucinous differentiation and invasive into the pericolonic soft tissue (*asterisk*) (H&E, orig. mag. $\times 20$). There is background tubulovillous adenoma (*arrowhead*). Lymph node examination was negative for regional lymph node metastasis, and the final pathology stage was pT3 N0 (stage IIA).

The primary treatment option is an intraoperative reduction of the intussuscepted loop and surgical resection of the bowel segment with a lead point. This approach differs from management in children, where

pneumatic or hydrostatic reduction is the preferred choice.

Recognition of endoscopic features of intussusception is crucial for expedited management. Early surgical

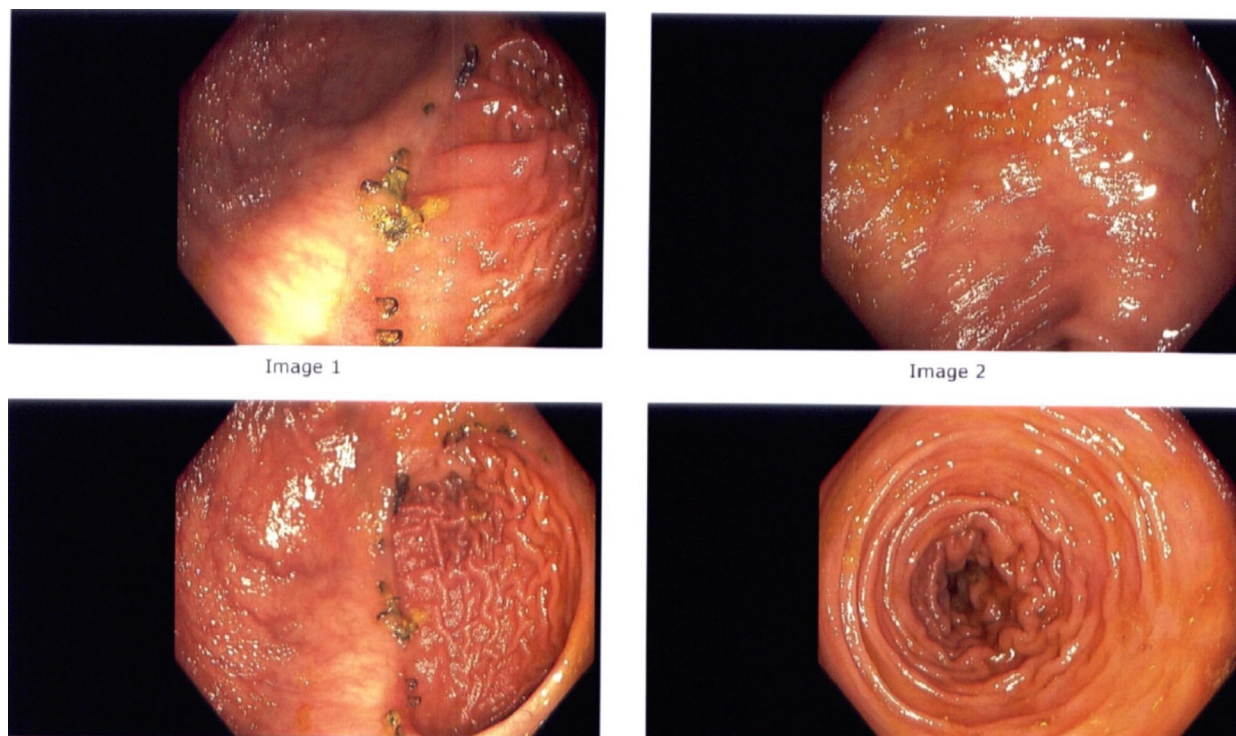


Figure 4. Follow-up colonoscopy 6 months after curative right hemicolectomy shows no residual or recurrent lesions.

intervention is important for good outcomes. Attempts to reduce the intussuscepted segments may cause adverse events like perforation and should be avoided.

DISCLOSURE

All authors disclosed no financial relationships.

REFERENCES

1. Marinis A, Yiallourou A, Samanides L, et al. Intussusception of the bowel in adults: a review. *World J Gastroenterol* 2009;15:407-11.
2. Nagorney DM, Sarr MG, McIlrath DC. Surgical management of intussusception in the adult. *Ann Surg* 1981;193:230-6.
3. Haas EM, Etter EL, Ellis S, et al. Adult intussusception. *Am J Surg* 2003;186:75-6.
4. Begos DG, Sandor A, Modlin IM. The diagnosis and management of adult intussusception. *Am J Surg* 1997;173:88-94.

Division of Gastroenterology & Hepatology, University of Iowa Hospitals and Clinics, Iowa City, Iowa (1), Division of Gastroenterology & Hepatology, Veterans Affairs Medical Center, Syracuse, New York (2), Division of Gastroenterology & Hepatology, University of Iowa Hospitals and Clinics, Iowa City, Iowa (3), Department of Pathology, University of Iowa Hospitals and Clinics, Iowa City, Iowa (4), Division of Gastroenterology & Hepatology, University of Iowa Hospitals and Clinics, Iowa City, Iowa (5), Division of Gastroenterology & Hepatology, University of Iowa Hospitals and Clinics, Iowa City, Iowa (6), Orlando Health Digestive Health Institute, Orlando, Florida (7).

Copyright © 2023 American Society for Gastrointestinal Endoscopy. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

<https://doi.org/10.1016/j.vgje.2022.10.008>