Case of Meckel's Diverticulum Causing Adult Intussusception

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Ascension

Intussusception

- Intussusception is a well-known cause of small bowel obstruction in children
- mostly presenting between 6 months to 3 years of age. It has a classic clinical triad of colicky abdominal pain, red "currant-jelly" stool, and palpable abdominal mass
- It has been shown that intussusception can occur within adult populations, however it is much more rare and is occasionally even asymptomatic when diagnosed on CT scan

Meckel's Diverticulum

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Epidemiology and Anatomy

- Most common congenital anomaly of the gastrointestinal tract, occurring in 1-3% of the general population
- Located on the antimesenteric border of the terminal ileum, typically 7-200 cm proximal to the ileocecal valve (mean 52.4 cm)
- Results from incomplete obliteration of the omphalomesenteric duct during the 7th week of gestation

Clinical Presentation

- Most cases remain asymptomatic; only 4-9% develop complications
- Male predominance in symptomatic cases (M:F ratio 1.5-4:1)

Age-specific presentations

- Children: Lower GI bleeding most common (46.7% obstruction, 25.3% hemorrhage, 19.5% inflammation)
- Adults: Diverticulitis most common (35.6% obstruction, 27.3% hemorrhage, 29.4% inflammation)
- 60% of patients present before age 10 years

Figure 1. CT of ileal intussusception

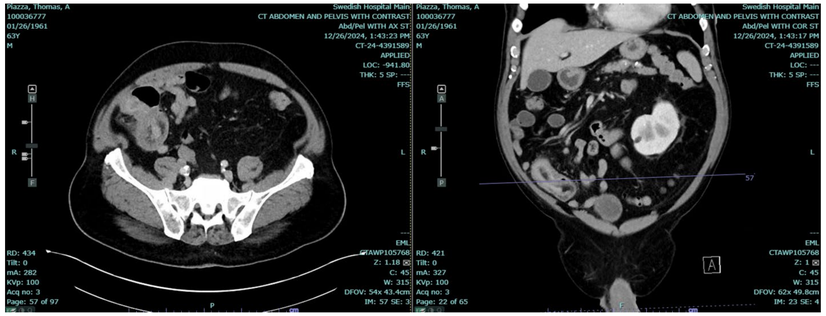
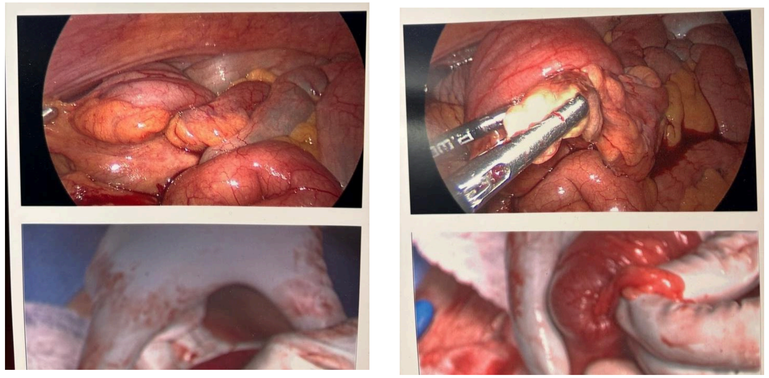


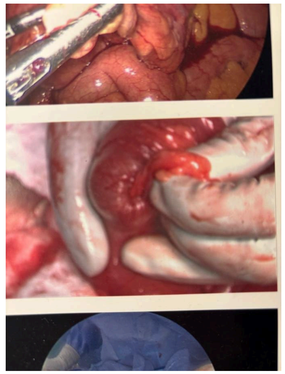
Figure 2. Diagnostic laparoscopy of intussusception



Case

- 63 year old male with PMHx of CAD with stent placement in 2020 (on aspirin and plavix), hypertension, hyperlipidemia, solitary kidney, and surgical history of laparoscopic appendectomy for perforated appendicitis in 2012 who presented to the emergency room with abdominal pain
- abdominal pain, nausea and vomiting for 5 days, and constipation for 3 days prior
- physical exam was notable for abdominal distention and tenderness, but no palpable masses or hemodynamic instability
- CT of abdomen and pelvis showed a 10 cm long small bowel intussusception, likely within the proximal ileum
- Diagnostic laparoscopy was performed. The small bowel was noted to be decompressed other than an area of thickening in the right lower quadrant. The intussusception was laparoscopically reduced (Figure 2) but the bowel was still noted to be thickened and inflamed. Therefore, the decision was made to convert to mini-laparotomy for further examination.
- Small bowel was run from proximal to distal until the area of thickening was encountered. There was an area of intussuscepted bowel that could not be reduced and a Meckel's diverticulum on the distal aspect of the bowel (Figure 3) was noted. This area of bowel was resected and primary side-to-side isoperistaltic stapled anastomosis was performed
- Patient's recovery course was as expected. He received four days of antibiotics and was restarted on his antiplatelet agents after stabilization of his hemoglobin. He was discharged to home with home health one week after surgery.

Figure 3. Meckel's Diverticulum



Discussion

- This case displays some unique qualities in that it describes the rare incidence of adult intussusception. It
- adult intussusception is due to a structural abnormality, and typically requires operation rather than air-contrast enema reduction.
- Malignancy is high on the differential in these cases, especially in colonic intussusception, and often requires surgical resection.
- This additionally notable in that it described a benign pathology normally seen in pediatric patients presenting well into adulthood.