

Colo-colonic intussusception caused by a sigmoid duplication cyst in a 6-year-old child

John Hong, MD¹, J. Antonio Quiros, MD¹, John Tackett, MD², Peter Midulla MD²

¹Pediatric Gastroenterology at Mount Sinai Kravis Children's Hospital, ²Department of Surgery at Mount Sinai Hospital

Introduction

Colo-colonic Intussusception

- Prevalence of 0.2-4.4%
- Associated with colonic polyps and malignancy in adults
- Distal colo-colonic intussusception rare in children

Enteric Duplication Cyst

- Seen more commonly in children
- Most common location is ileum
- Only 6.8 – 13% occur in the hindgut
- Diagnosed with ultrasound or CT and treated with surgery for removal

Patient had an enteric duplication in an usual location, which led to a rare occurrence of colo-colonic intussusception in children.



Figure 1A. Ischemic and sessile intraluminal sigmoid colon duplication cyst measuring 2cm x 3 cm in size, visualized with flexible sigmoidoscopy

Figure 1B. EUS interrogation of duplication cyst showing loss of mucosal differentiation and hypoechoic foci without calcifications

Case Description

CC: 6 year-old female without any previous medical history who presents with abdominal pain for two days and bloody stool for one day. Abdominal pain is colicky, intermittent, and in LLQ. Vital signs stable in the ED. Physical exam only showing TTP in LLQ without signs of acute abdomen.

Evaluation

- Abdominal ultrasound: intussusception in the left lower quadrant.
- CT of the abdomen and pelvis: rectosigmoid intussusception without pneumatosis or free air. There was a round structure with a slender rim in the mid-low abdomen at the region of rectosigmoid junction with complicated fluid, suggesting possible gastrointestinal duplication cyst or a polyp
- Flexible sigmoidoscopy: 2 cm x 3 cm intraluminal sigmoid colon duplication cyst that was sessile and ischemic (Figure 1A)
- EUS: loss of mucosal differentiation, unclear involvement of muscular propria, and hypoechoic foci without calcification (Figure 1B)

Intervention

- Deemed not amenable to endoscopic intervention
- Underwent exploratory laparoscopy, which showed a ruptured duplication cyst on the mesenteric sidewall of the sigmoid colon
- Subsequently underwent laparoscopic partial sigmoidectomy with primary anastomosis

Post-intervention Course

- Pathology of resected duplication cyst: serosal fibrosis with acute to chronic inflammation
- Discharged after post-op monitoring and return of bowel function

Discussion

What makes our case unique?

- Less common location of sigmoid duplication cyst leading to rare presentation of colo-colonic intussusception in a pediatric patient
- Application of EUS for diagnosis of duplication cysts and further characterization for further treatment guidance
- Potential role of endoscopic intervention for resection of duplication cysts if amenable

Lessons from our case

- Generation of differential diagnoses is important in an acute abdominal pain
- Collaborative approach to care management is important

Contact

John Hong
Pediatric Gastroenterology at Mount Sinai Hospital
john.hong@mssm.edu / 212-241-5415