

Introduction

- Chilaiditi's Sign is an incidental radiographic finding of the interposition of the bowel loop between the liver and the diaphragm.
- Estimated worldwide prevalence of 0.028 - 0.25 %.
- More commonly associated with older age and men.
- In this case report, we describe an unusual and a unique case of Chilaiditi's Sign incidentally found during routine colonoscopy in a female patient.

Case Presentation

- 73-year-old asymptomatic woman was referred to our Endoscopy Unit for a surveillance colonoscopy.
- On physical exam, she had no abdominal pain or distension
- Routine laboratory tests (blood count & metabolic panel) were normal.
- A pediatric colonoscope inserted via the rectum reached the hepatic flexure and would not advance further due to acute angulation.
- A CT scan of the abdomen and pelvis performed the same day for the evaluation of the bowel identified interposition of the distal transverse colon and proximal ascending colon between the liver and the anterior abdominal wall.
- This imaging finding explains why the colonoscope would not advance beyond the hepatic flexure.
- She is being rescheduled for repeat colonoscopy.



Image 1: CT scan of the abdomen pointing to the interposition of the distal transverse colon and proximal ascending colon between the liver and anterior abdominal wall.

Discussion

- Acute angulation of the bowel and difficulty in completing a colonoscopy may be indicative of Chilaiditi's Sign. Predisposing factors include cirrhosis, chronic obstructive lung disease, or presence of ascites.
- The transposition typically involves the transverse colon and less commonly, may involve the distended small bowel.
- It can be confirmed with CT imaging, which demonstrates an interposition of the colon between the liver and the abdominal wall.

Discussion Cont.

- When this anatomical distortion becomes symptomatic, it is referred to as Chilaiditi's Syndrome.
- Symptoms occur secondary to elevation of the diaphragm, bowel obstruction, perforation, and/or ischemia.
- While no intervention is usually required for asymptomatic patients with Chilaiditi's Sign, awareness of the condition is extremely important for treating physicians.
- Persistence against the interposed bowel can trap air in the colon segment and increase the intraluminal pressure, potentially causing perforation.
- Limited case reports are available on the management protocol of Chilaiditi's Sign; However, according to a previous case report, carbon dioxide is safe to use, rapidly absorbed in the GI tract, and increases colon blood flow.

Conclusion

- Chilaiditi sign is a rare, incidental finding that can cause acute colonic angulation and compression making a colonoscopy procedure difficult.
- Endoscopists should be aware of this condition and exercise extreme caution while performing a difficult colonoscopy.
- Appropriate bowel therapy should be considered in such patients and repeating colonoscopy at later date should be attempted.

Contact

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