

A Case Report of Midgut Malrotation with Fecolith – A Rare Cause of Small Bowel Obstruction in an Adult

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Learning Objectives

To present a rare case of small bowel obstruction (SBO) secondary to a midgut malrotation with fecolith in an adult.

Background

- SBO secondary to midgut malrotation is rare & clinically challenging to diagnose in adults due to its non-specific presentation & low index of suspicion.
- An extreme manifestation of faecal impaction, fecolith as a cause of intestinal obstruction is a rare occurrence. It is usually localized in the rectosigmoid colon & can lead to stercoral ulcerations & perforation if untreated. Diagnosis is usually made radiologically.
- For suspected malrotation, CT is the preferred diagnostic method in adults presenting acutely. It is able to demonstrate intestinal malpositioning & extra-intestinal findings.
- Regardless of age, surgical correction in the form of Ladd's procedure is advocated for intestinal malrotation. Laparotomy is often warranted to resolve the obstruction.

Case Presentation:

Male patient aged 62 presented with a 3-day history of acute & progressive colicky epigastric pain with billous vomiting & abdominal distension. Clinically, he was pyrexial with rigors & demonstrated maximal tenderness at the epigastrium. Laboratory tests revealed raised CRP & WCC with a neutrophilic predominance.

Imaging Findings/ Procedure Details

A contrast-enhanced abdominal/ pelvic CT demonstrated:

- A fecolith impacted into an abnormal area of narrowing in the small bowel proximal to the abnormally located ileocaecal junction [Figure 1,2], twisting around the root of the mesentery, demonstrating the typical "whirlpool sign" [Figure 3].
- Caecum located on the left of the abdomen, indicative of intestinal malrotation of the midgut [Figure 4].

A laparotomy confirmed intestinal malrotation, with a small area of small bowel ischemia. Ladd's procedure was performed with untwisting of bowel and caecopexy. The patient made a good recovery.

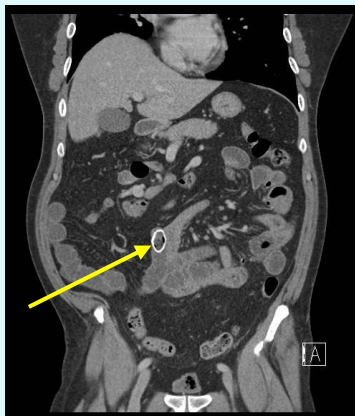


Figure 1 Coronal CT image demonstrating the location of the fecolith.

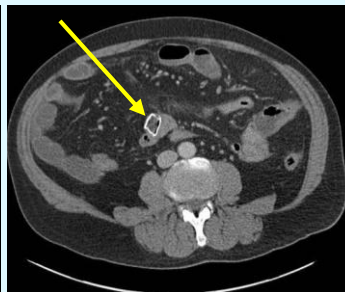


Figure 2 Axial CT abdomen showing an impacted fecolith in the small bowel proximal to the abnormally located ileocaecal junction.

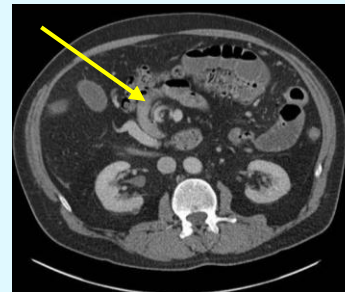


Figure 3 Axial CT abdomen demonstrating the 'whirlpool' sign.

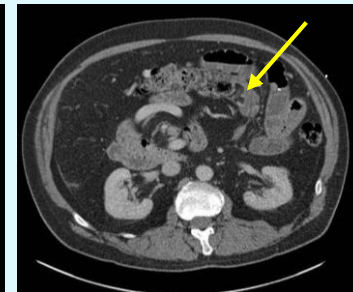


Figure 4 Axial CT abdomen demonstrating the caecum & ileocaecal junction to be abnormally located on the left side of the abdomen.

Conclusion

Although rare, intestinal malrotation & fecolith should be regarded as important causes of SBO in adults and it is important to recognize these on CT imaging. SBO is a surgical emergency that necessitates rapid radiologic imaging to allow for prompt diagnosis and directed management approach, crucial to prevent life-threatening complications.