

Concurrent Midgut Volvulus and Intussusception in a Pediatric Patient: An Unusual Case

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Background

- Waugh syndrome is an association of intussusception and intestinal malrotation previously but rarely reported in the literature. Intussusception is a common etiology for bowel obstruction in young children between 3 months and 3 years, with 90% of pediatric intussusceptions found to be ileocolic.
- Conversely, midgut malrotation is seen in only 1 in 6000 live births. Bowel volvulus is the most severe presentation with 60% of cases occurring within the first year of age.

Methods

We present a pediatric patient with no significant medical history who presented with both bilious emesis and blood per rectum. Imaging concerning for malrotation with midgut volvulus. Patient taken for emergent exploratory laparotomy and discovered to have both intestinal malrotation with volvulus as well as intussusception. We discuss presentation, management and incidence.



Fig 1: UGI obtained on patient presentation

Case Presentation

- A 3-month-old male born at 37 weeks gestational age presented with a two-day history of bilious emesis and single day history of bloody bowel movements with episodes of both witnessed in emergency room.
- Patient was hemodynamically stable on evaluation with normal hematologic lab work and lactate.
- A fluoroscopic upper gastrointestinal study was performed and concerning for malrotation. Given bilious emesis and concurrent bloody bowel movements, concern for intestinal malrotation with midgut volvulus and possible bowel ischemia. Patient taken emergently to operating room for exploration.
- Intra-operatively, the patient had expected intestinal malrotation but additional intussusception of the distal cecum and ileum into the proximal ascending colon. The segment was reduced with gross ischemia and non-viable bowel noted.
- At that time, the patient then underwent Ladd's procedure and ileocecectomy with ileocolic anastomosis. Patient post-operative course was uncomplicated with gradual return of bowel function and tolerance of feeds.

Conclusion

- Waugh syndrome is limitedly reported in the literature. Retrospective reviews of case incidence primarily address intussusception with later discovery of malrotation; these case series caution consideration of malrotation without volvulus as an unrecognized risk factor for recurrence of intussusception especially when reduced pneumatically rather than surgically.
- In this case, the patient has an unusual primary complaint of bilious emesis with subsequent development of bloody stools while undergoing evaluation in the emergency department.
- Imaging was concerning for malrotation with midgut volvulus with the incidental finding of intussusception after proceeding with surgical exploration.
- Additional studies are needed to determine the incidence of and possible association between these pathologic findings.
- A broad differential should be considered when pediatric patients present with both bilious emesis and bloody bowel movements.

References

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