A Case of Incomplete Intestinal Malrotation in an Adult

Hannah Chang, Ph.D., HMS III
Gillian Lieberman, M.D.

Beth Israel Deaconess Medical Center
Harvard Medical School
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Talk Outline

- **Introduction**: clinical case
- **Background**: gastrointestinal malrotation
- **Re-examination**: secondary radiographic findings
- **Potential diagnosis**: malrotation-associated heterotaxy
- **Take home points**
Clinical Presentation:

28-year-old female with abdominal pain

- Several months duration
- Nausea, vague abdominal pain and bloating
- Symptoms not associated with food intake
- Normal bowel movements; otherwise healthy
- ? Acute appendicitis

Imaging studies:
1. Abdominal/pelvic CT
2. Upper GI with barium and small bowel follow-through
Abdominal CT Findings
Incomplete Intestinal Malrotation
UGI with air & SBFT

Decreased duodenal sweep
Normal location: ileocecal junction
Developmental complications: omphalocele, rotational abnormalities, midgut volvulus
Findings for Intestinal Malrotation

Surgical treatment: Ladd’s procedure


Findings for Intestinal Malrotation

Inversion of SMA (a) SMV (b)

“Whirlpool sign”


Surgical Treatment of Incomplete Malrotation

- Removal of band between ascending/descending colon

PACS, BIDMC

Appendectomy
Incidental Finding #1: Polysplenia
Incidental Finding #2: Duplicated IVC
Polysplenia syndrome

- Abdominal pain
- Polysplenia
- Heterotaxy (stomach, liver, heart)
- Short pancreas
- Intestinal malrotation
- IVC abnormalities
- Azygos/hemizygosos continuation
- Preduodenal portal vein
- Situs ambiguous/inversus

Findings for Polysplenia Syndrome

Polysplenia, dilated azygos vein

Heterotaxy

Molecular Basis of Left-Right Body Axis Patterning

Take Home Points

- Intestinal malrotation should be considered in adults with vague abdominal symptoms.
- Accurate radiographic diagnosis of intestinal malrotation can prevent unnecessary complications and/or surgeries.
- Polysplenia, IVC abnormality, intestinal malrotation, and cardiac abnormalities can be syndromic in asymptomatic patients. These findings may have clinical significance in the future.
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Thank you for your attention!


References


