

Surgical pediatric emergencies

**Samuel Fabiano MD, FCS(ECSA)
General Surgeon
PAACS-CEML, Angola
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Angola: Land of Beauty.....



Bella and Juliet!



- I have nothing to disclose.

Pediatric surgical emergencies

- Acute abdomen
- Pyloric stenosis
- Intussusception
- Midgut volvulus
- Small bowel obstruction: incarcerated hernia, congenital anomaly/bands, volvulus, post-op adhesions, febrile obstruction: appendicitis, typhoid intestinal perforations
- Foreign bodies in the airway and GI tract



Not easy to get a good history!

Most common causes of abdominal pain

Non-surgical causes:

- Gastroenteritis: “the most common”. Symptoms include diarrhea, vomiting, and fever.
- Urinary tract infection (UTI)

Surgical causes:

- Appendicitis: The most common surgical cause
- Intussusception
- Incarcerated hernia
- Midgut Volvulus

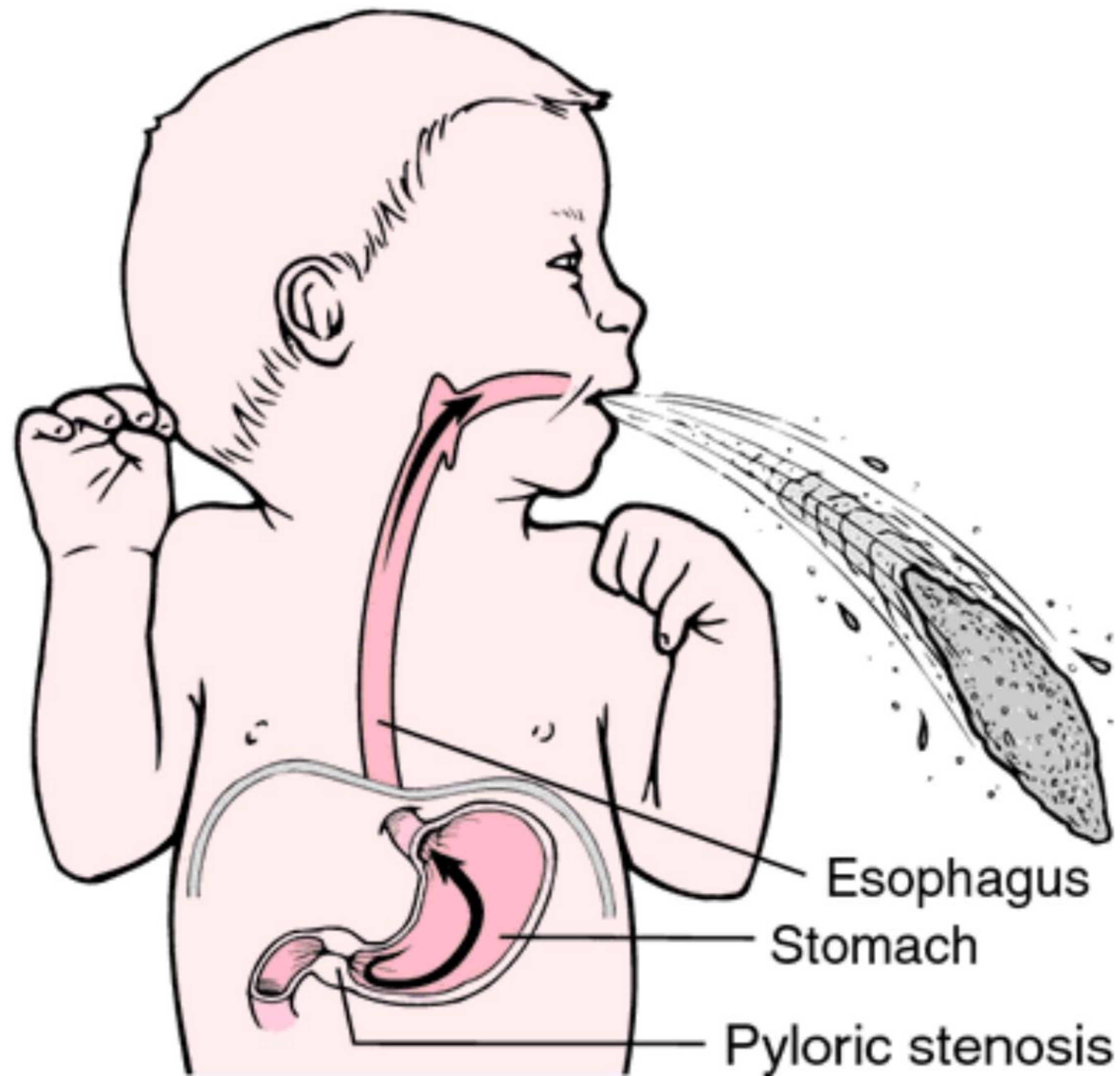
History

- Vomiting: bilious vs non-bilious
- Abdominal pain: visceral vs peritoneal
- GI bleed: color, quantity, association with pain

Basic principles of management

- ABC
- F+E
- NG tube
- Analgesics

Pyloric stenosis

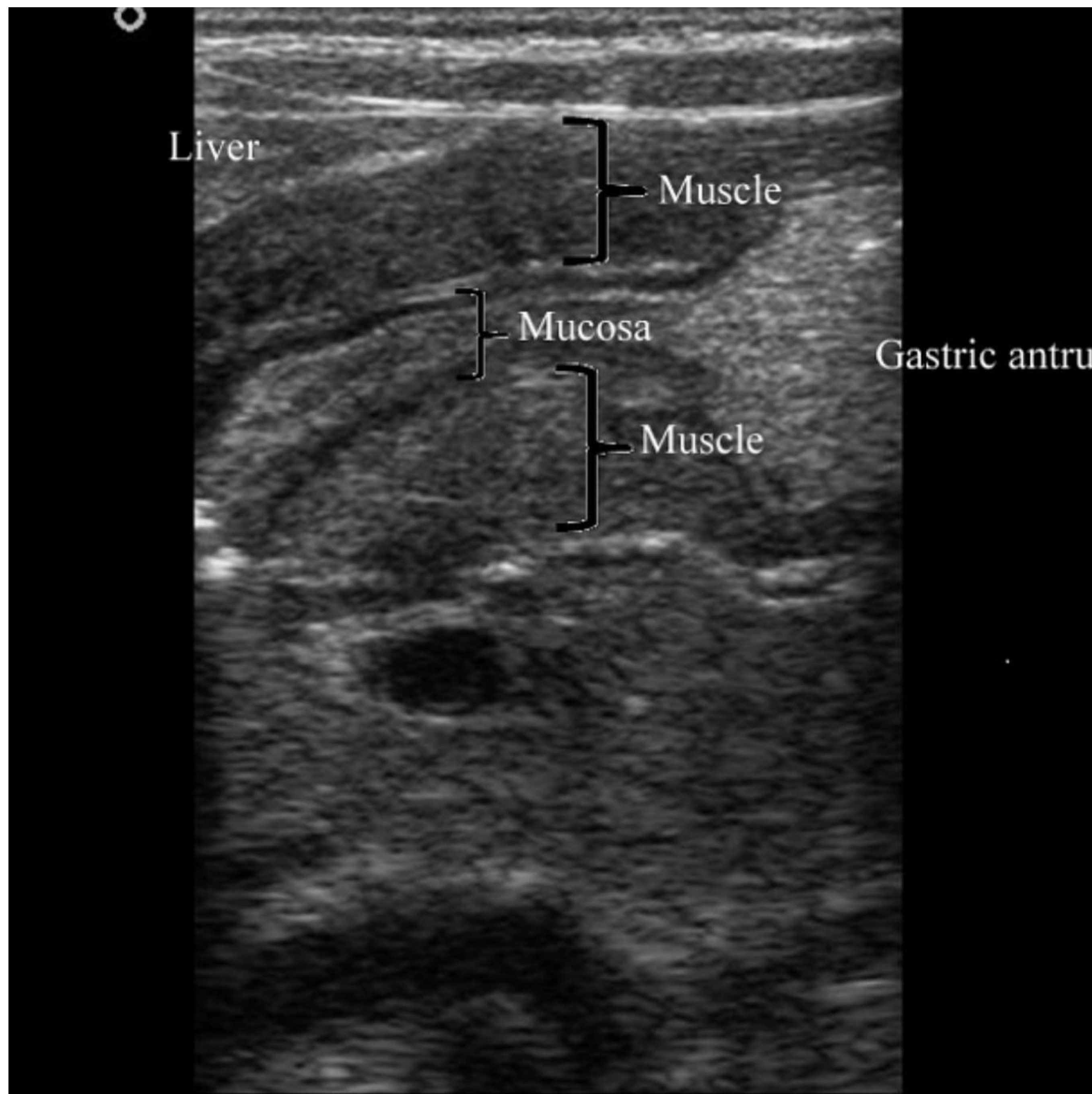


Pyloric stenosis

- Age range: 3wks- 3 mths
- Vomit: non-bilious
- Abdominal exam: feel for the olive
- Imaging: U/S (>4mm thick; >18mmlong), Xray
- Rare in African and African American population

**Caterpillar sign of
active gastric
hyperperistalsis**



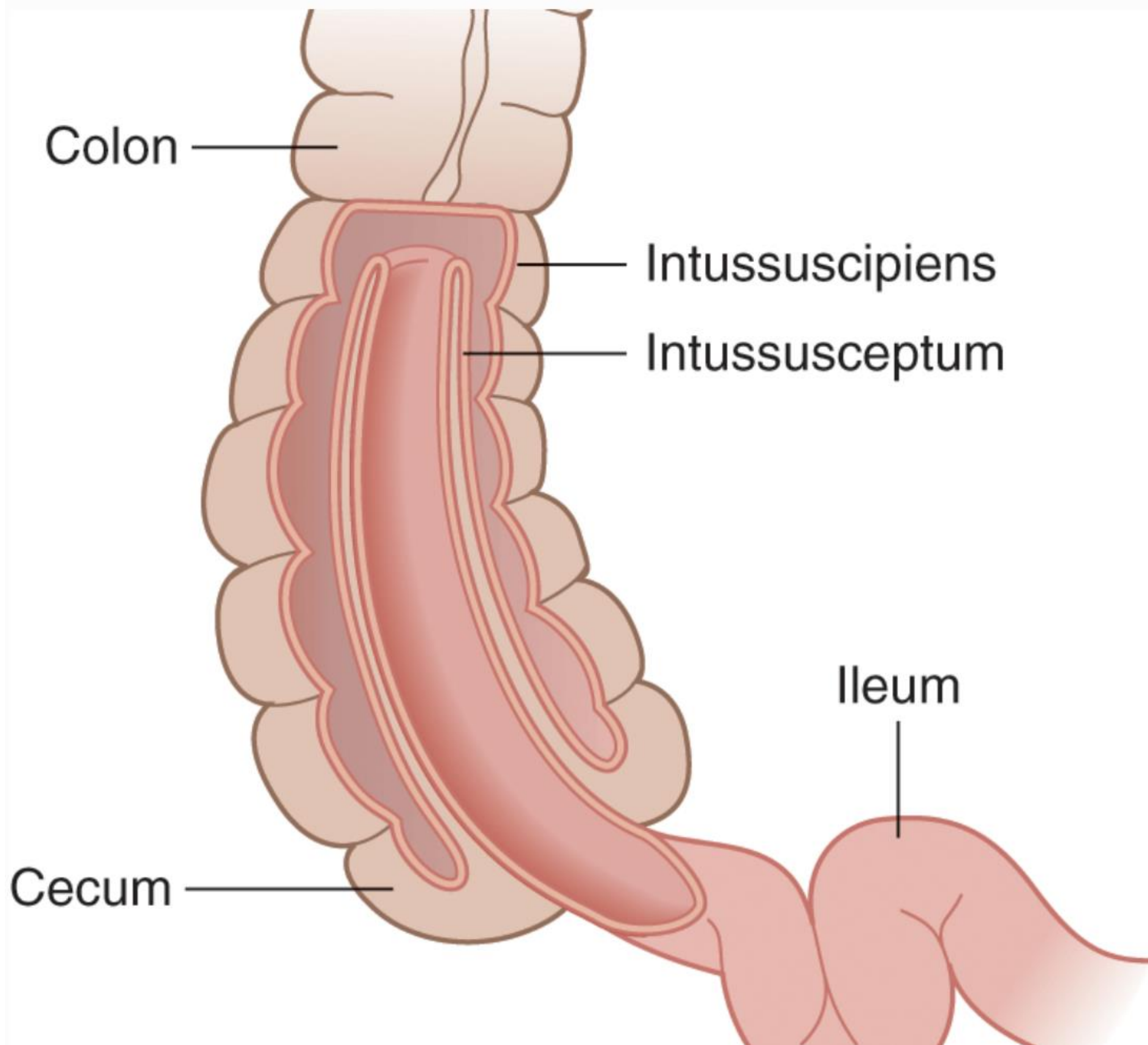




Management

- IV fluids pre-op
- Correct any electrolyte imbalances
- Surgery: Ramstedt pyloromyotomy

Intussusception

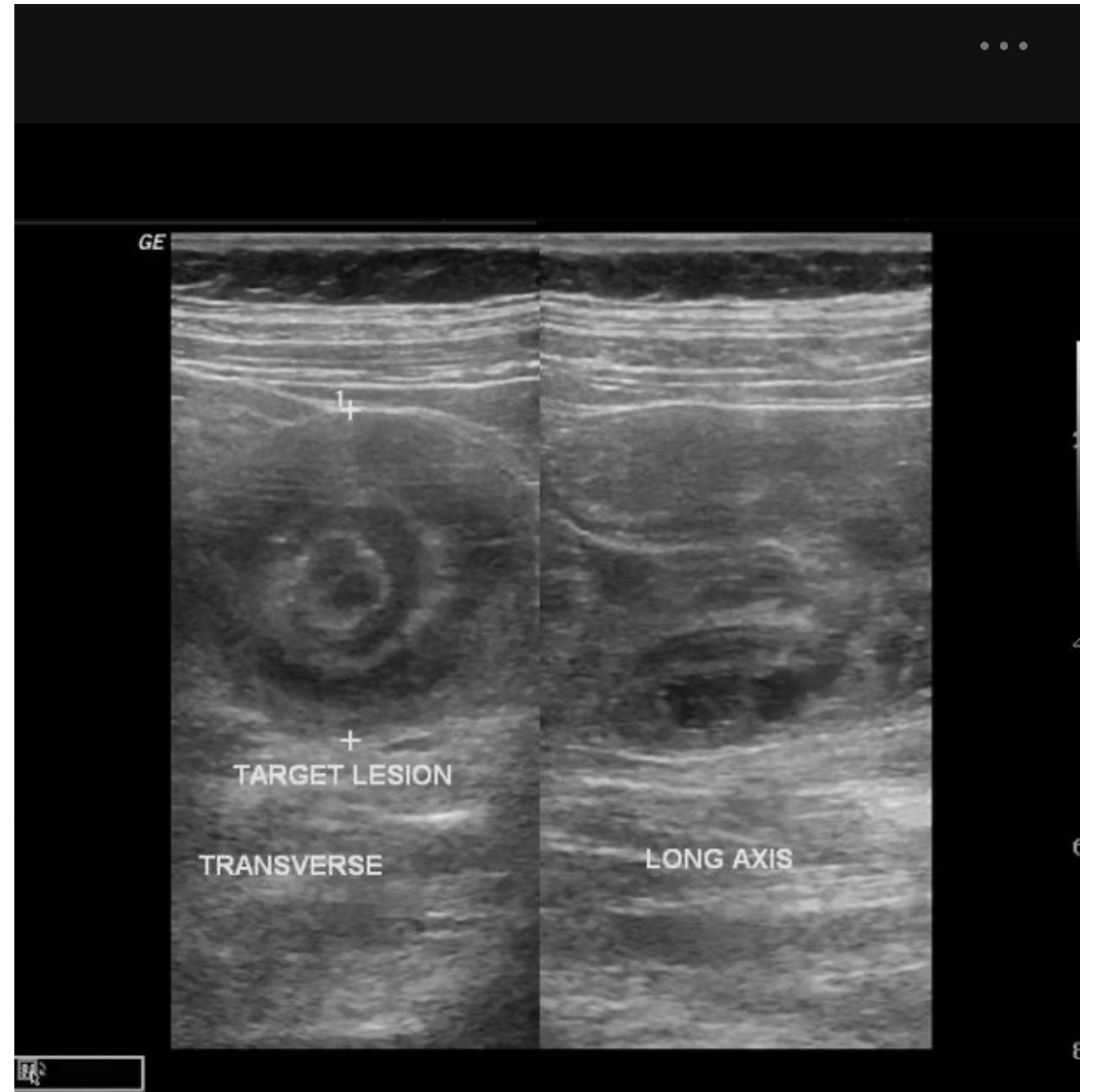


- Age range: 3 mths- 3 yrs
- Complain: abdominal pain (crampy), vomiting
- Red currant jelly stool
- Palpable mass
- Imaging: Xray,
- Leading cause of intestinal obstruction in children (SSA)



- Young infants may have atypical presentations: lethargy
- If unsure, do an ultrasound
- Older children- suspect a lead point: polyps, lymphoma, Meckel's diverticulum, etc

Target sign



Barium enema



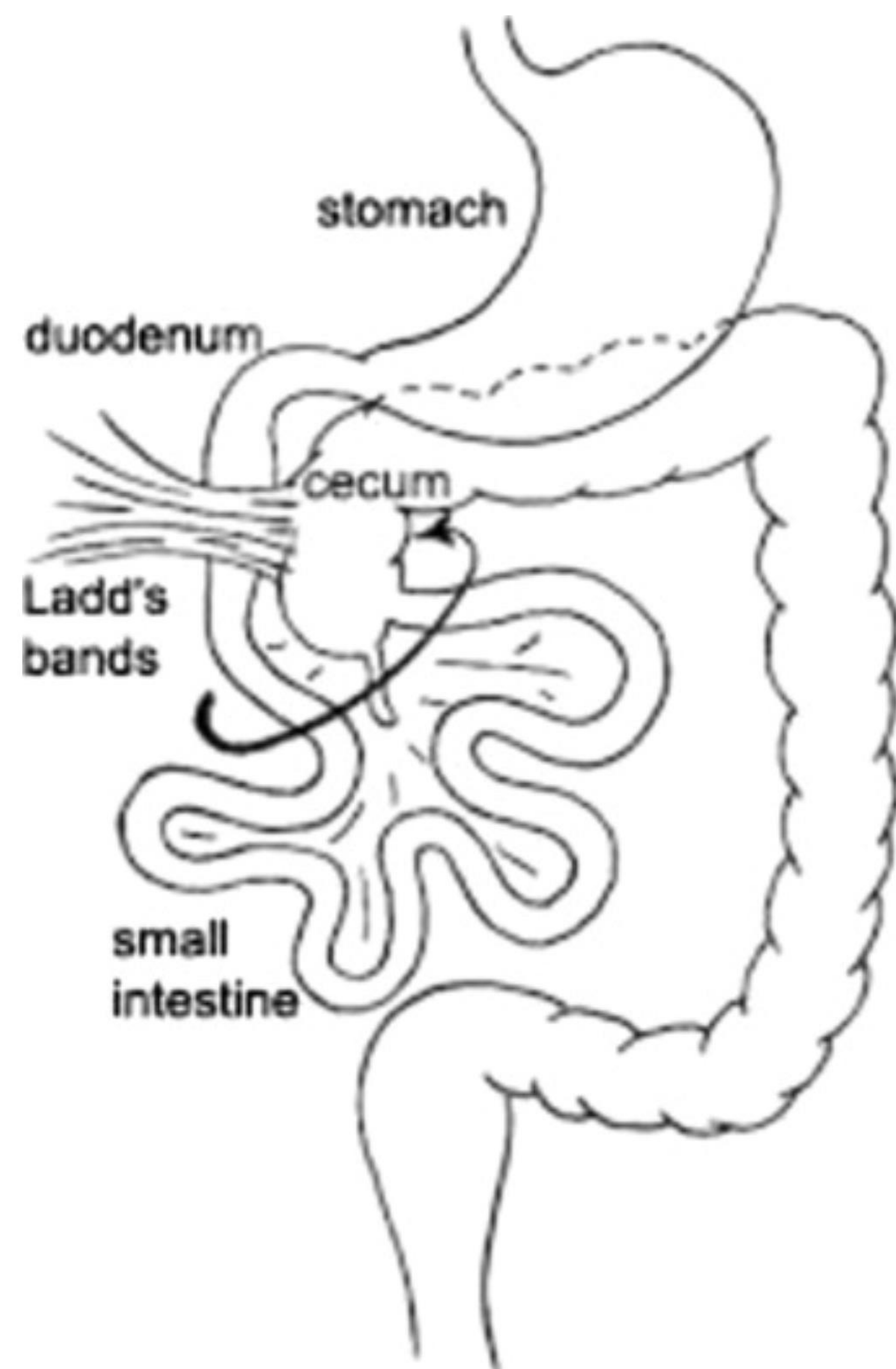
Treatment

- Enema reduction (80%)
- Laparoscopic reduction
- Difficult to reduce if lead point present
- Surgical resection with primary anastomosis

Midgut Volvulus



- Age: <12 months
- Secondary to malrotation
- Sudden onset of bilious vomiting
- Older children may present with failure to thrive, and chronic recurrent abdominal pain.
- Diagnostic test of choice: upper GI series



Treatment

- Ladd's procedure: reduction of volvulus-> division of Ladd's bands -> widening of mesenteric base -> appendectomy

Small bowel obstruction

Causes:

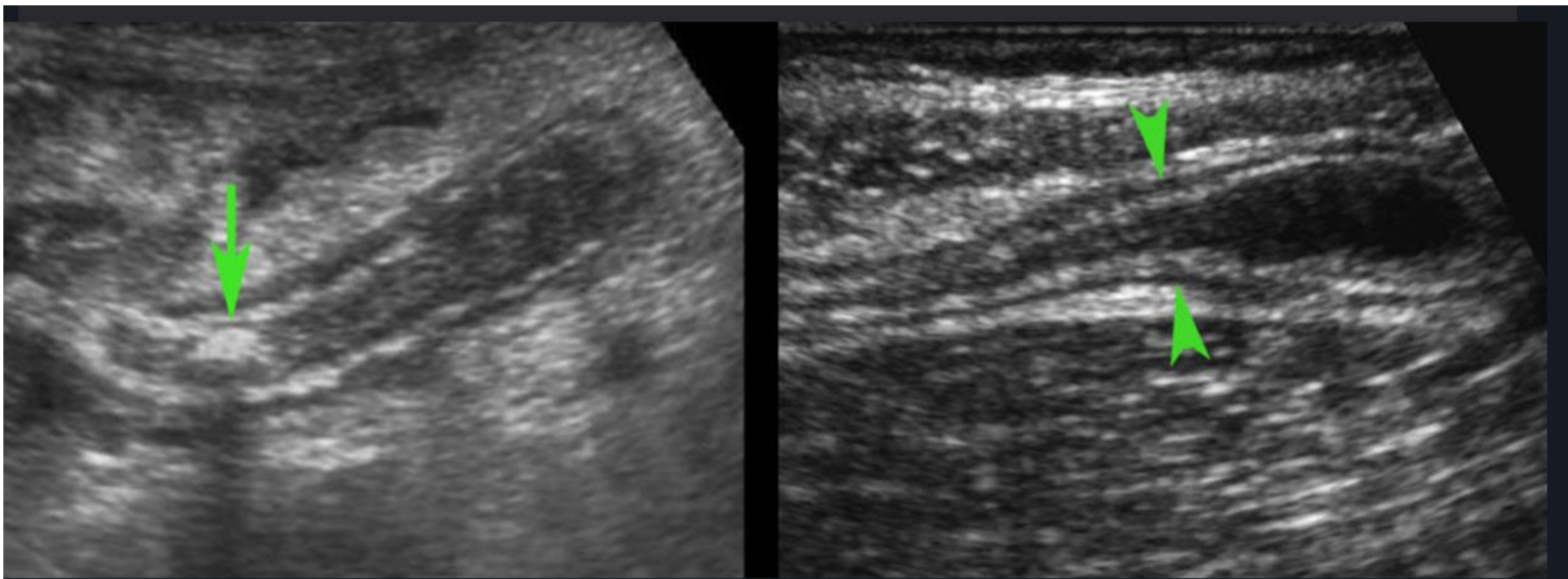
- Incarcerated hernia
- Volvulus
- Previous surgery: adhesions
- Ruptured appendix, typhoid perforations
- Congenital anomalies

Appendicitis

- Pain
- Vomiting
- Urinary symptoms
- Diarrhea

U/S and appendicitis

- Not compressible
- Size > 6mm
- Presence of a fecalith
- Localized tenderness



Treatment

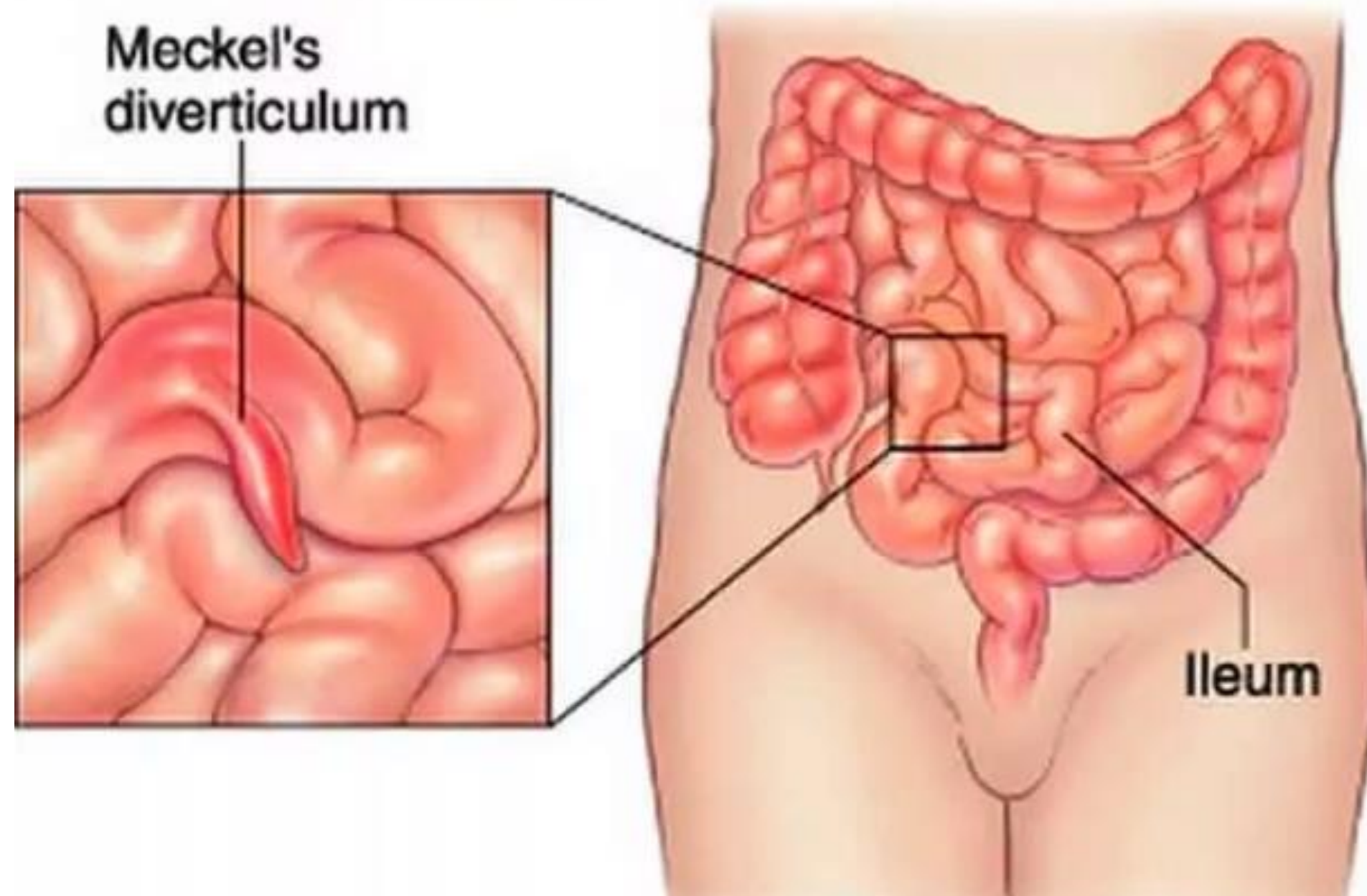
- Appendectomy
- The role of antibiotics

Upper GI Bleeding

- Lower GI: clot, red blood
- Upper GI: melena
- Injury to mucosa: blood and mucous

- Upper GI causes: viral, varices, ulcers, meds
- Lower GI causes: polyp, fissure, IBD, Meckel's diverticulum, intestinal duplication

MECKEL'S DIVERTICULUM



Meckel's diverticulum

Rule of 2's

- 2 Percent of the population
- 2 feet from ileocecal valve
- 2 inches long
- 2 types of mucosa: pancreatic vs gastric
- < 2 years of age
- 2% of males

Indications for surgery

- Painless bleeding
- Bowel obstruction
- Meckel diverticulitis
- Umbilical drainage

Foreign bodies

Airway vs GI tract

- Xrays: neck, chest, abdomen
- GI tract: most foreign bodies will pass through eventually
- Always remove: button batteries and long sharp objects

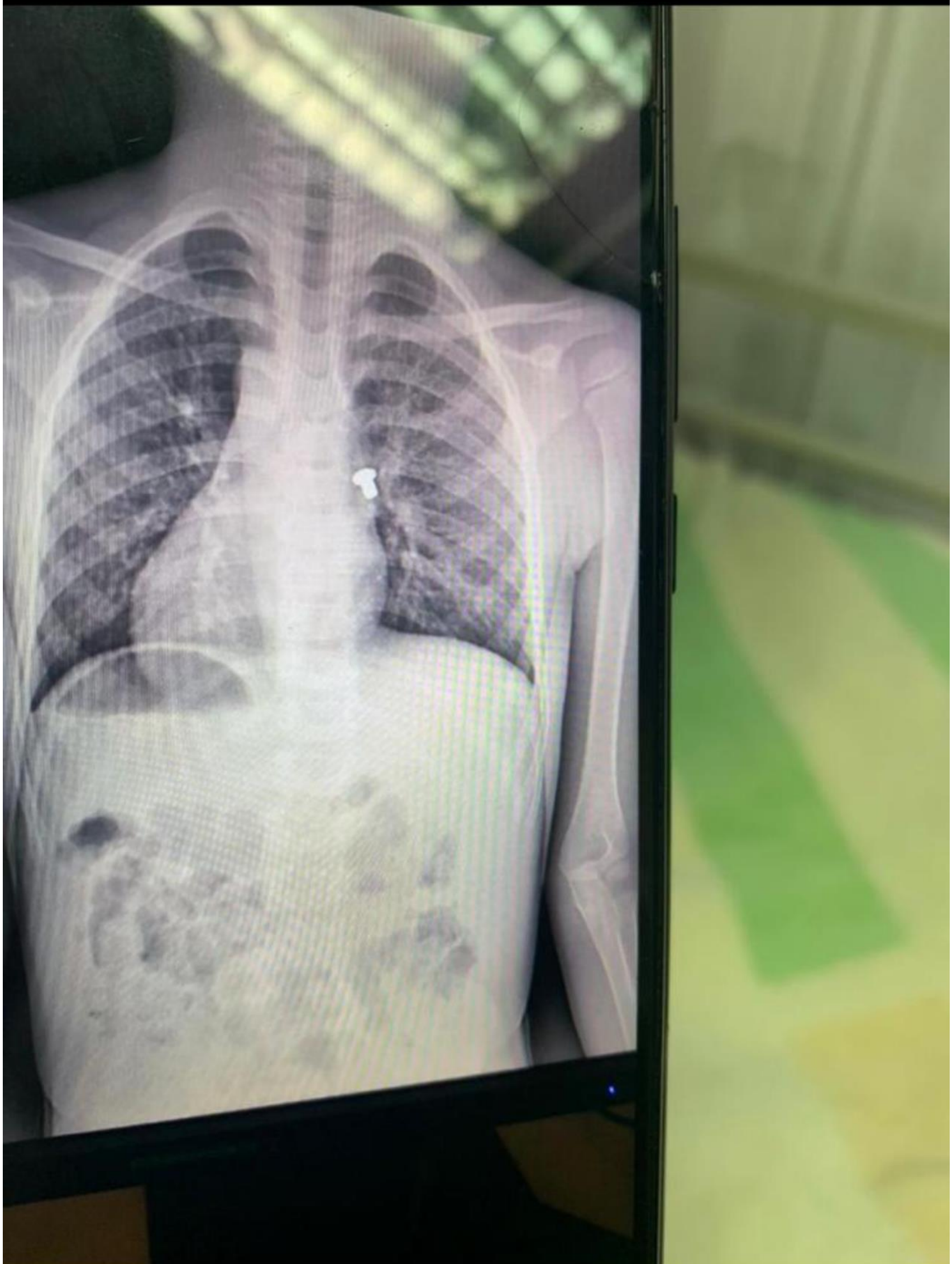






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Thank you for your attention!

sam.fabiano@sim.org
samfabio@gmail.com

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