



The Bleeding Edge Managing GI Catastrophes Before They Spill Over

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DISCLOSURES

I have no relevant financial or personal disclosures to report.

OBJECTIVES

- **Recognize the Red Flags:** Identify critical signs and symptoms of life-threatening gastrointestinal emergencies, including GI bleeds, bowel perforations, and ischemic bowel.
- **Rapid Stabilization Strategies:** Develop effective resuscitation techniques for patients with GI emergencies, including managing hemorrhagic shock, fluid resuscitation, and the use of blood products.
- **Decision-Making in the Belly of the Beast:** Enhance clinical decision-making skills to prioritize diagnostics, imaging, and interventions in time-sensitive gastrointestinal cases

INITIAL ASSESSMENT

- Hx and Assessment
 - NSAID use? ETOH abuse? Hx of cirrhosis?
 - Exam findings of ascites or instability



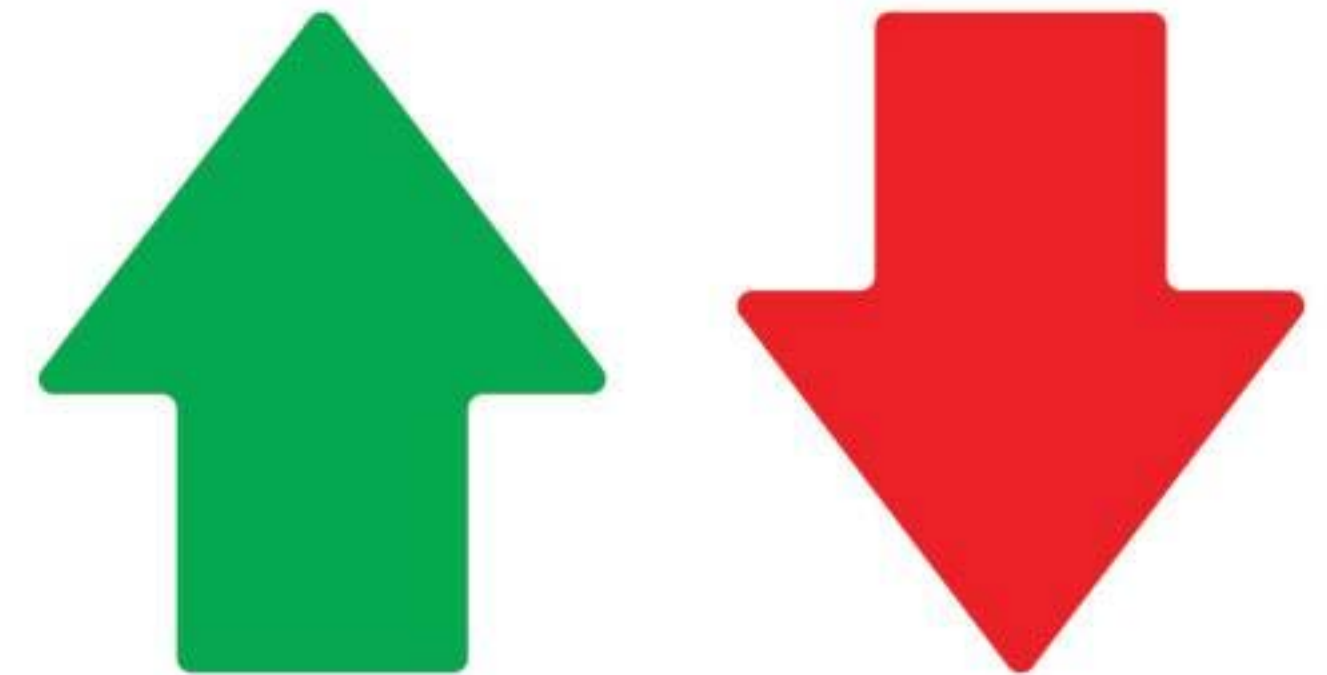
UGIB VERSUS LGIB

- **UGIB**

- Hx of UGIB, <50 y.o, epigastric pain, BUN/Cr >30, cirrhosis
- Hematemesis (100% specific for UGIB versus posterior epistaxis)
- Coffee ground emesis
- Melena

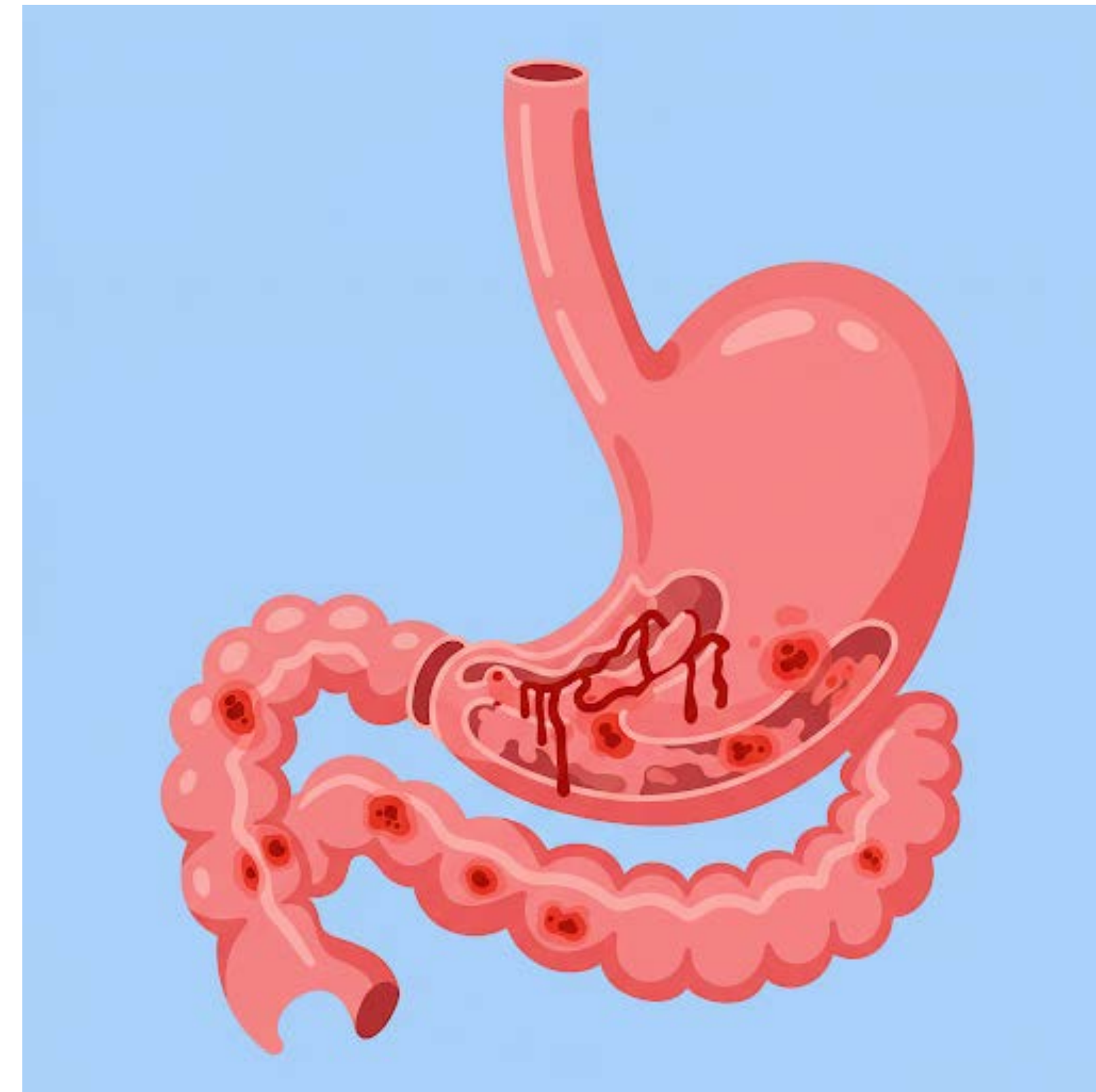
- **LGIB**

- Hx of LGIB, >50 y.o, clots per rectum
- Hematochezia



UPPER GI BLEED

- Labs
 - CBC, CMP, Coags, Teg, Type and Screen
- Differential
 - PUD, esophagitis, Mallory-Weiss, portal HTN, AE fistula, cancer, AVM



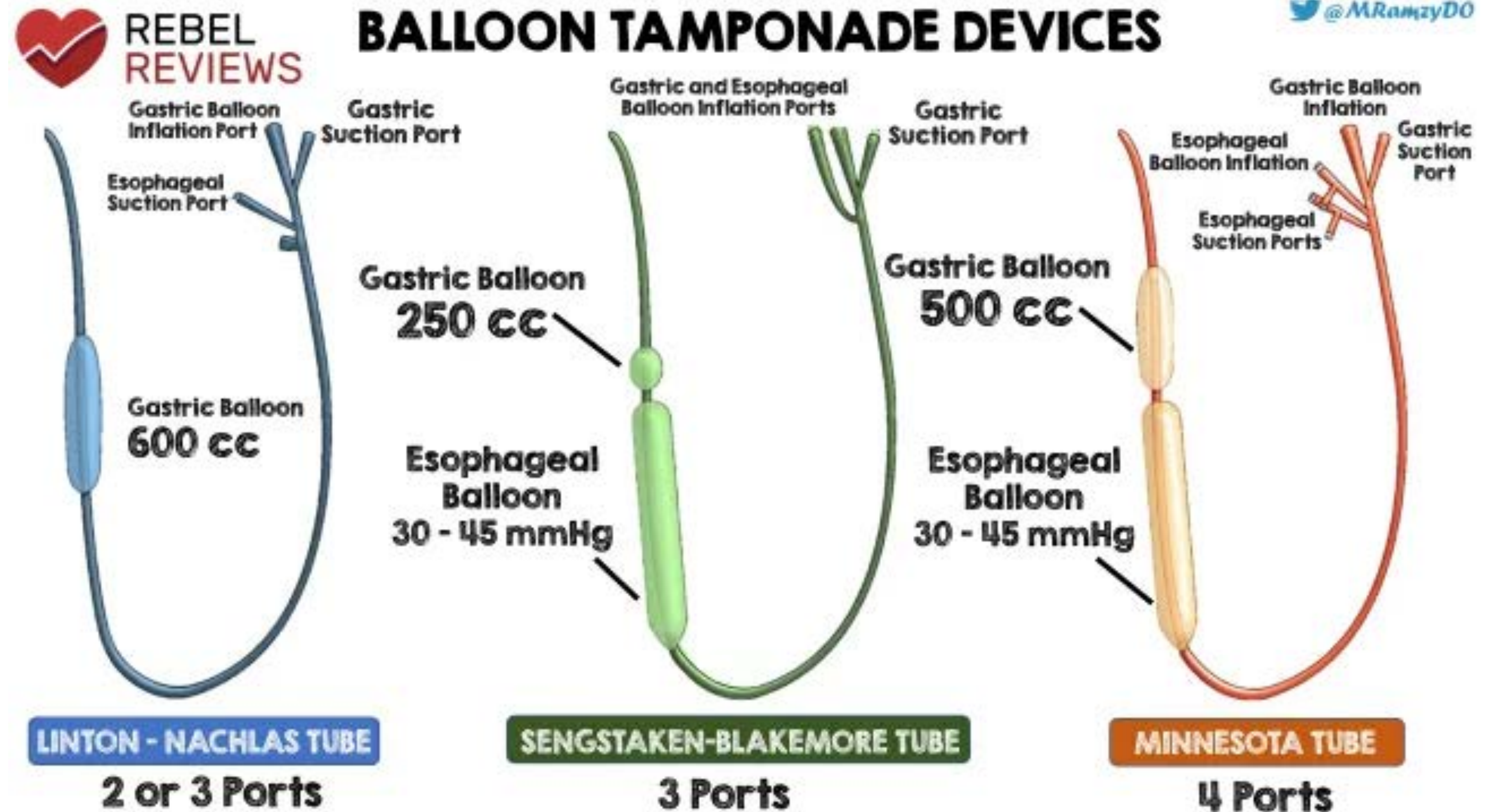
UGIB MANAGEMENT

- **Blood (goal of HbG >7)**
- **Coag optimization**
- **PPI**
- **Other meds (erythromycin, octreotide, rocephin)**
- **Intubation?**
- **Consult GI for EGD**



BLAKEMORE

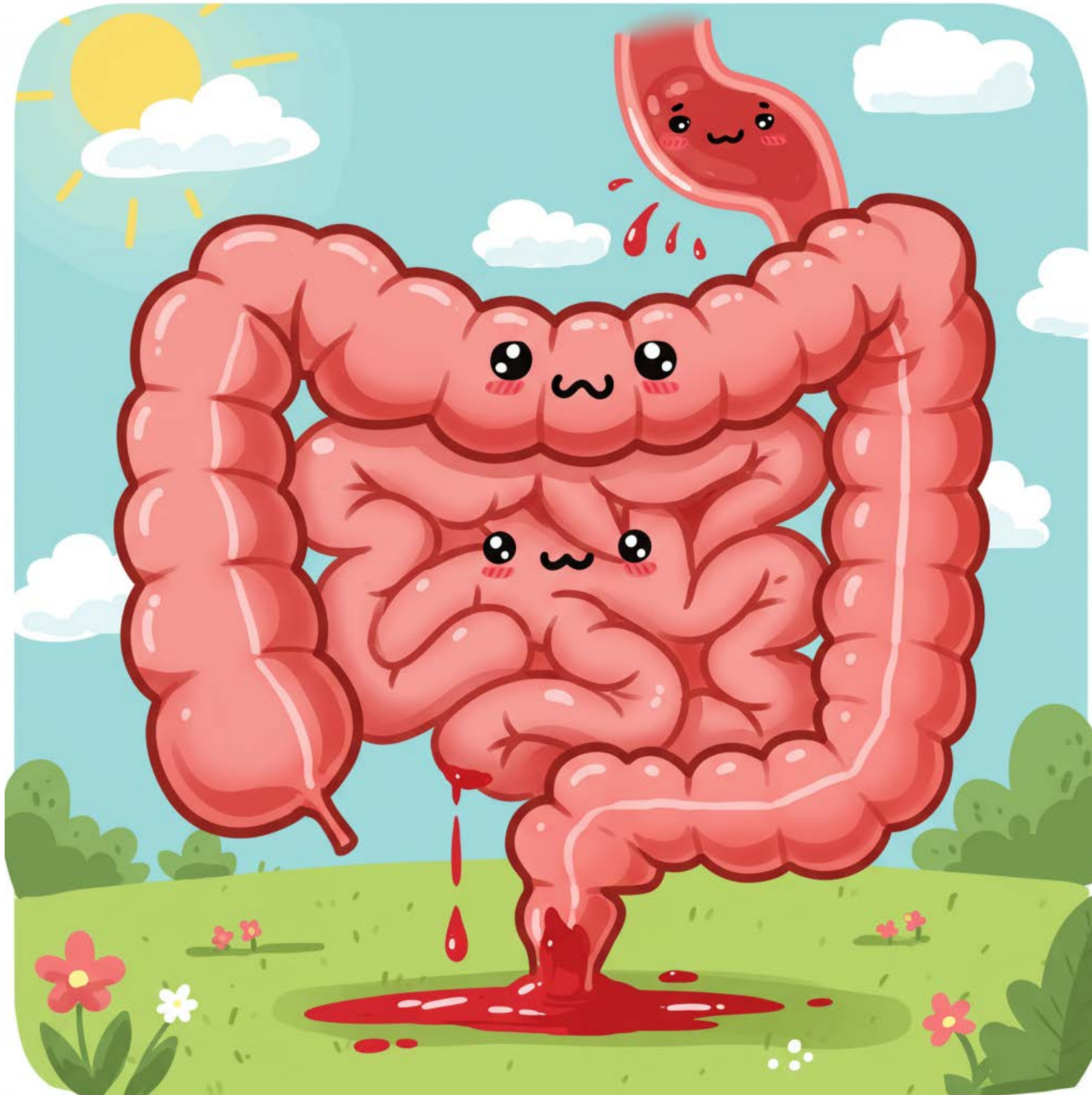
- Crashing patients
- Steps
 - Insert tube through mouth to 50 cm
 - Inflate with 50 ml of air
 - Confirm placement
 - Inflate with additional 200 ml of air
- Traction



LOWER GI BLEED

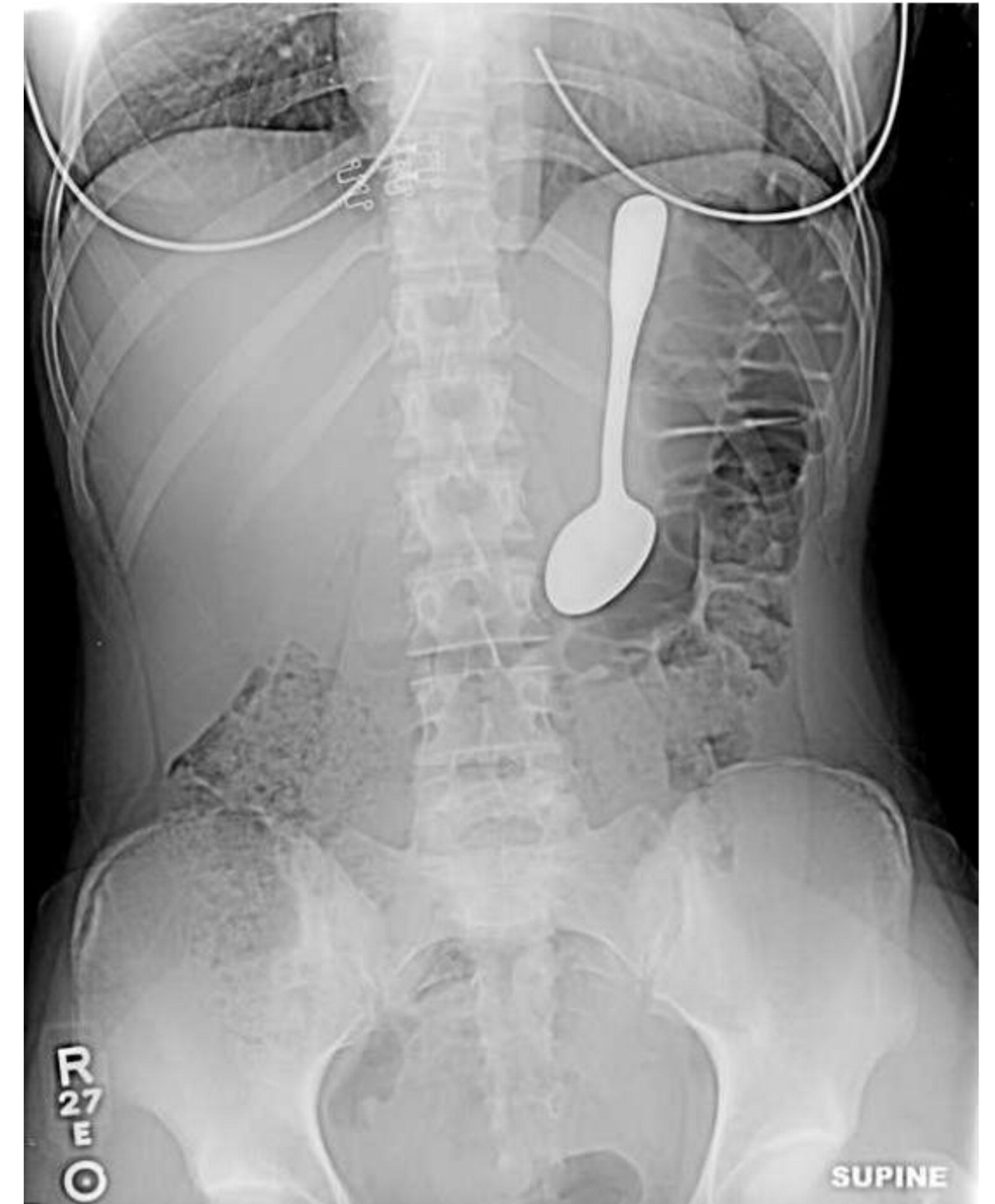
SEVERE HEMATOOCHEZIA

- **Differential: diverticular hemorrhage, AVM, colitis, cancer, hemorrhoids**
- **CT angiogram**



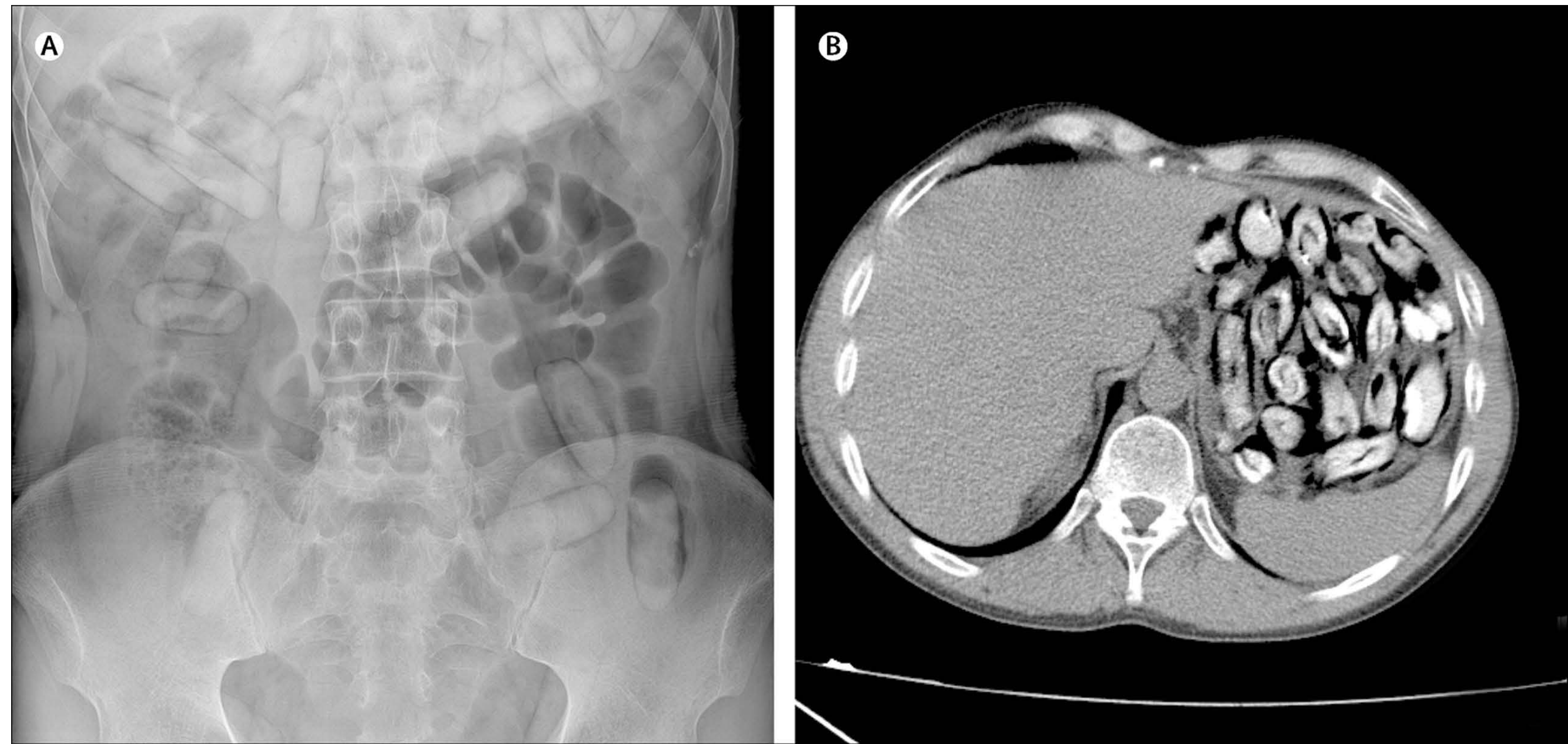
INGESTED FOREIGN BODY

- Perforation - mechanical vs chemical
- Common sites of obstruction
- Imaging choice



INDICATIONS FOR URGENT RETRIEVAL

- Obstruction
- Button battery
- Sharp/elongated object (toothpick)
- Evidence of perforation
- Multiple magnets (can trap bowel)
- Body packing



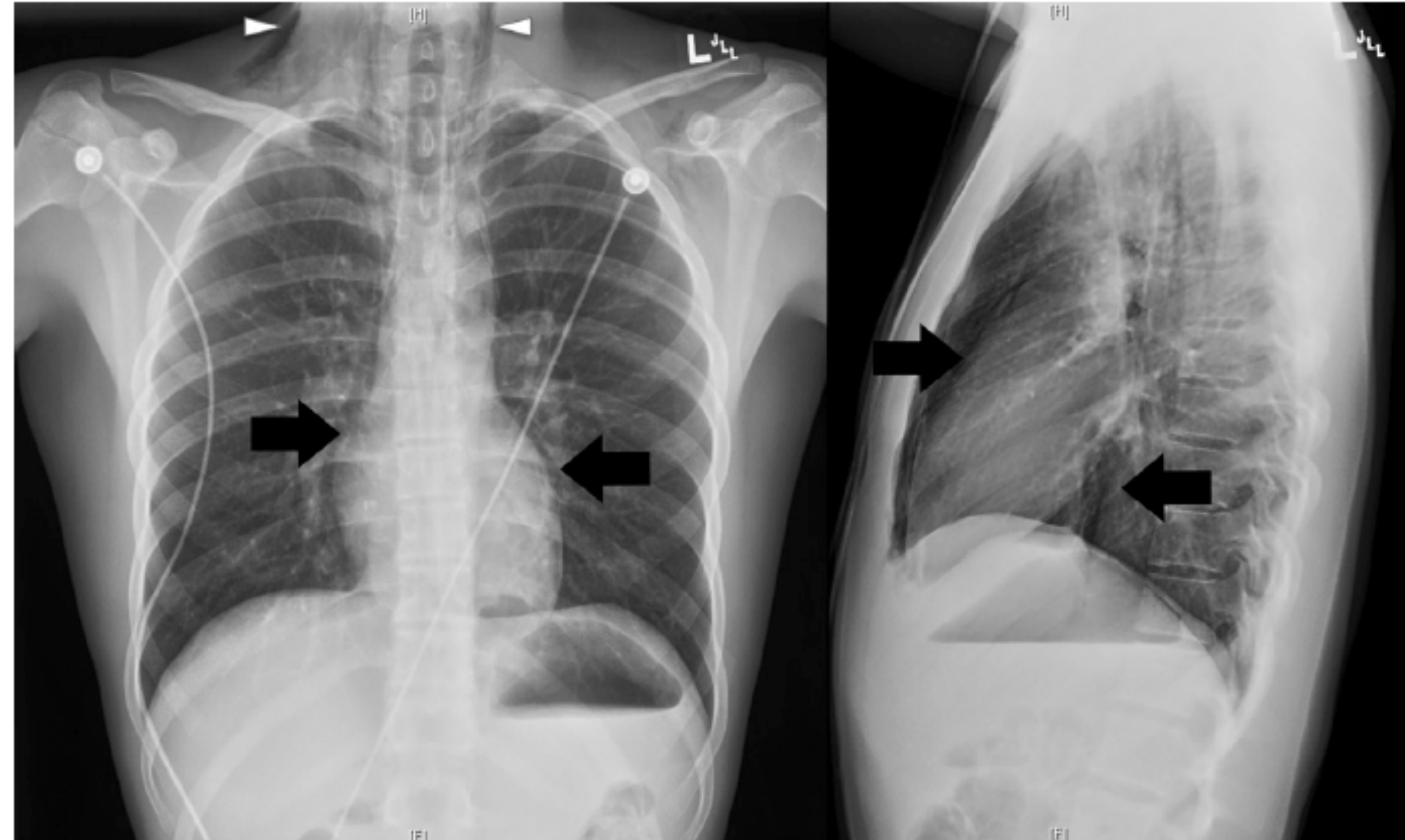
RECTAL FOREIGN BODY

- Patient's may be vague on history
- Predictors of ED extraction failure
- Evacuation methods
- Complications



ESOPHAGEAL PERFORATION

- Etiologies
- High mortality
- Presentation
- Imaging: plain film, swallow study, CT scan
- Management



PERFORATED VISCUS

- High mortality
- Risk factors, hx and physical



WORKUP OF PERFORATED VISCUS

- Consider VBG and lactic acid
- Upright X-ray
- CT



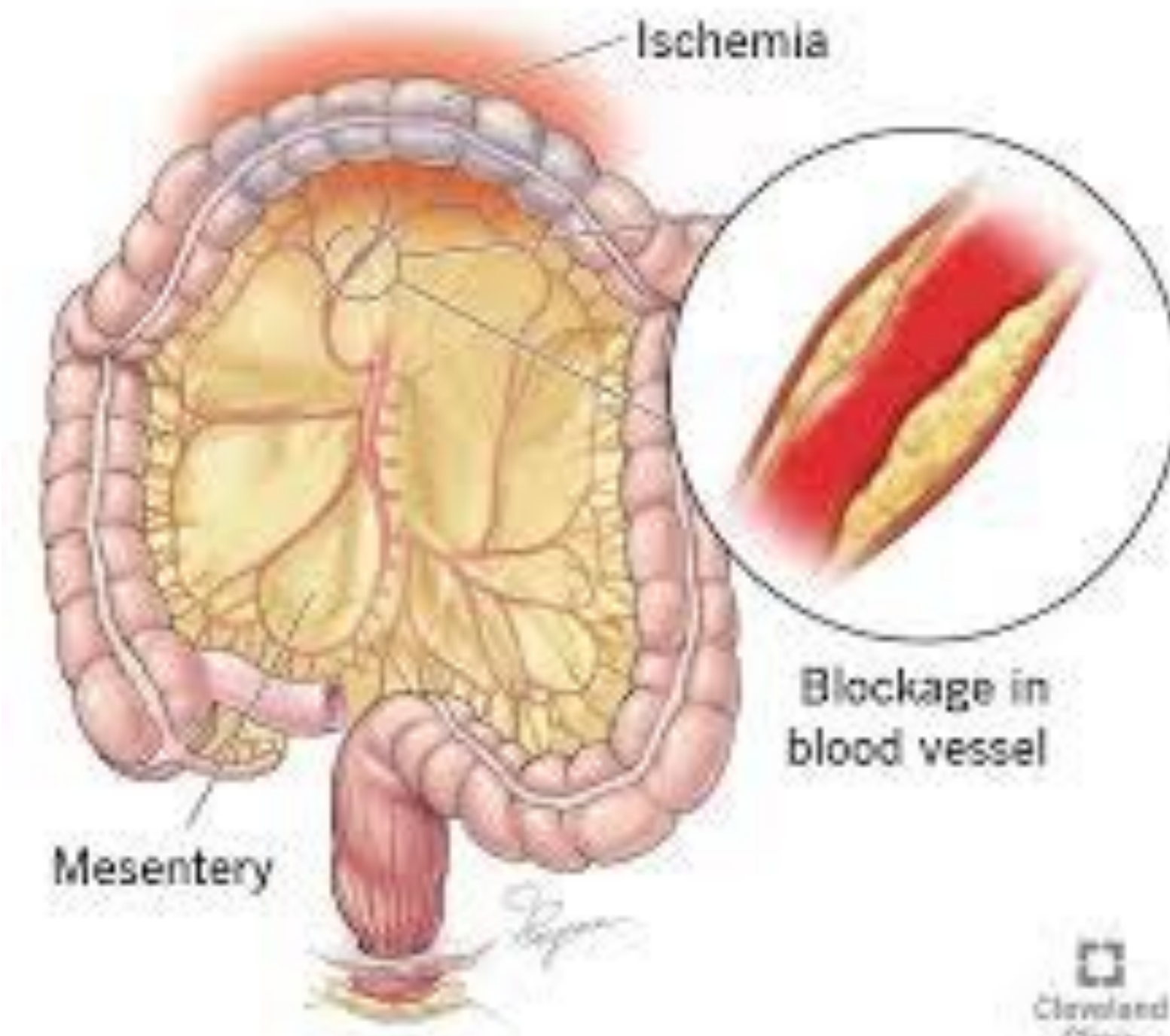
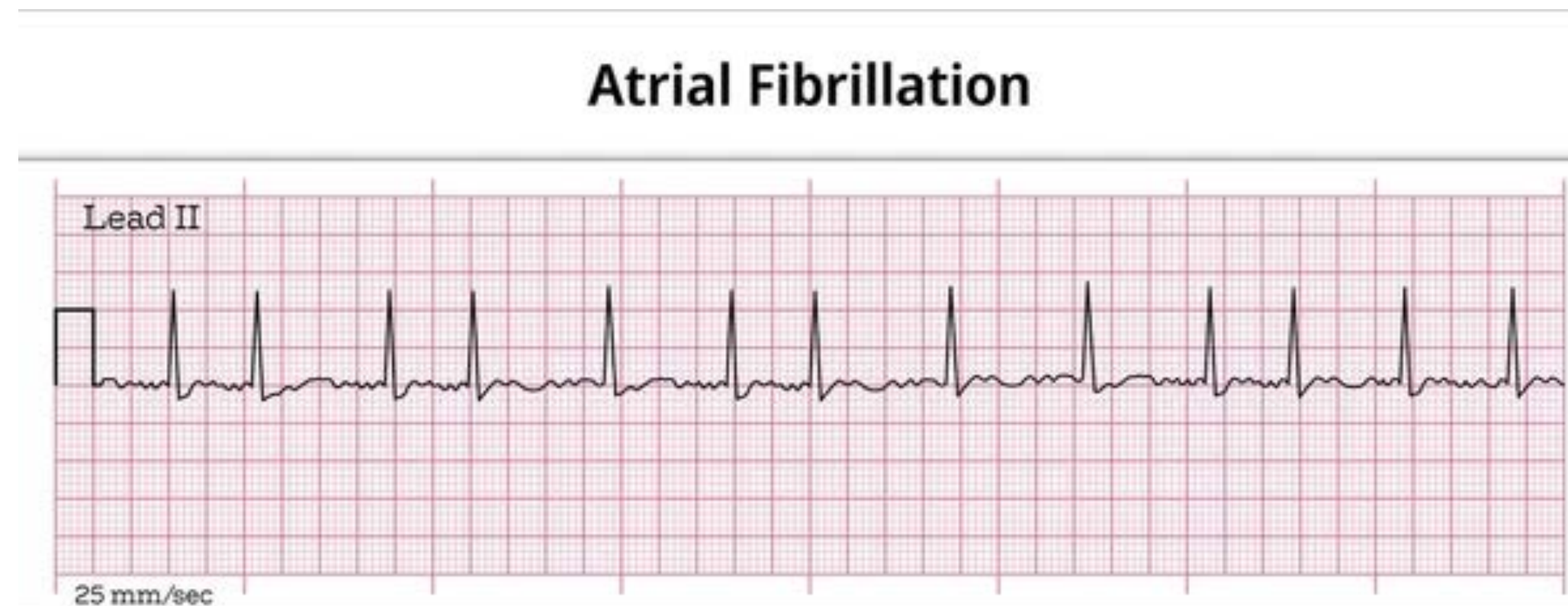
MANAGEMENT OF PERFORATED VISCUS

- Broad spectrum antibiotics
- Emergent surgical consultation



MESENTERIC ISCHEMIA

- High mortality
- RF
- Etiologies
 - arterial embolus
 - Mesenteric thrombosis
 - Mesenteric venous thrombosis
 - Non occlusive



PRESENTATION AND EVALUATION OF MESENTERIC ISCHEMIA

- SXs include abdominal pain, GI bleeding, n/v/d, tachycardia, hypotension
- Pain out of proportion to exam
- Lactate, D dimer, troponin
- Imaging: US and CT angio



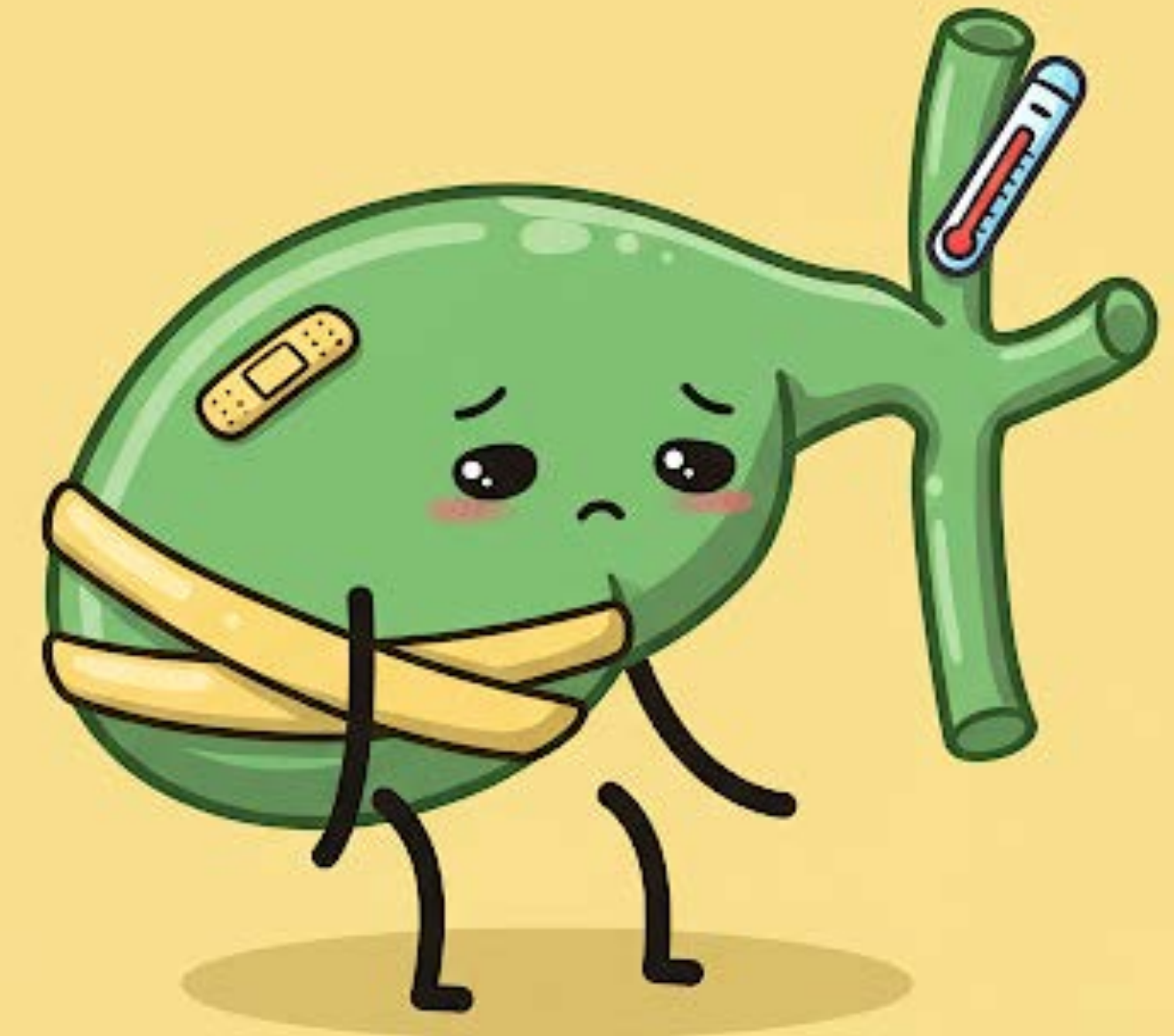
MANAGEMENT OF MESENTERIC ISCHEMIA

- NPO, Fluid resuscitation
- Broad spectrum antibiotics
- Early surgical consultation



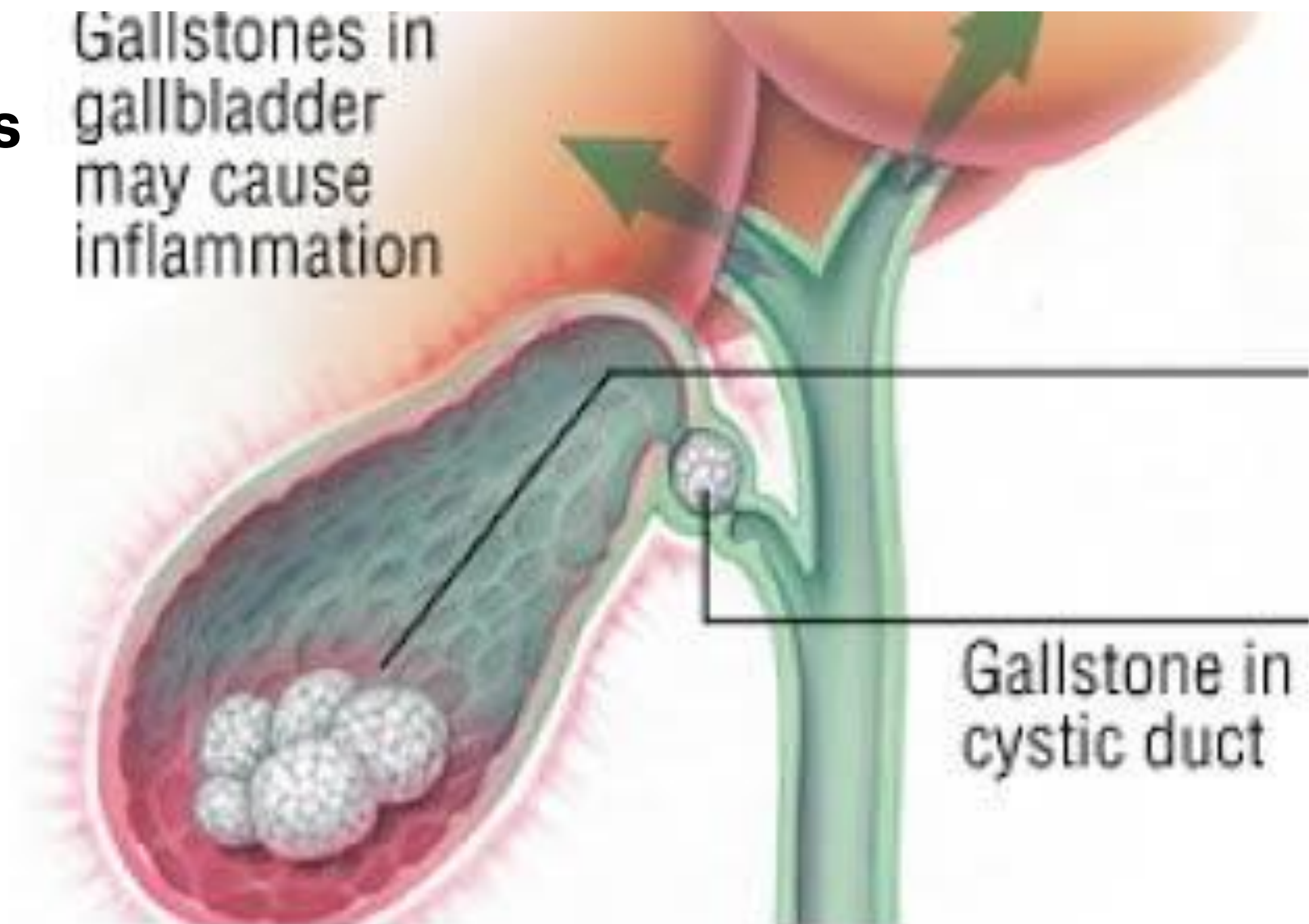
BILIARY EMERGENCIES

- Acute calculus cholecystitis and ascending cholangitis
- Acalculous cholecystitis



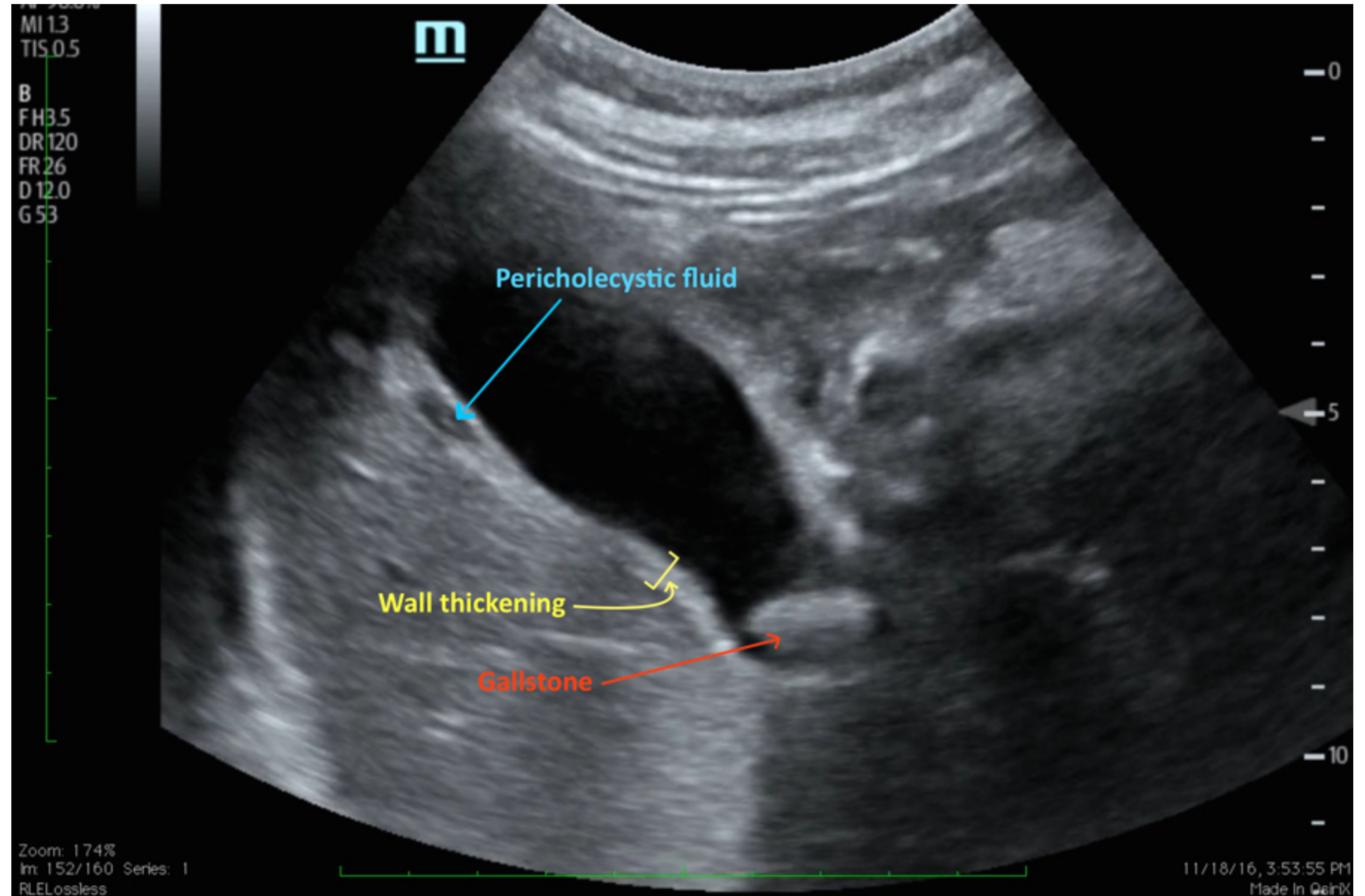
CHOLECYSTITIS

- Self contained infection
- Gradual, smoldering disease course
- Small increase in bilirubin and transaminases



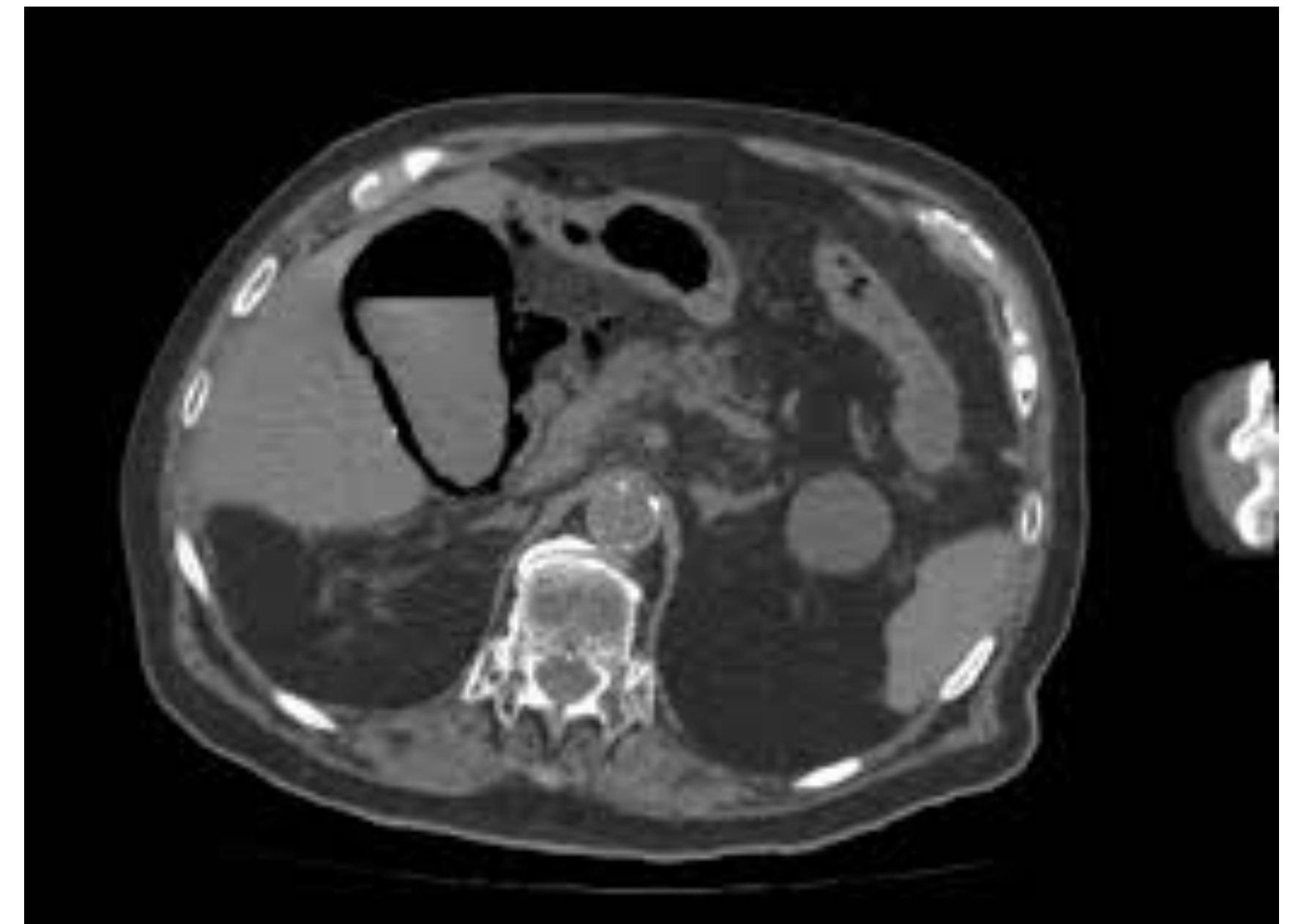
US FINDINGS OF ACUTE CHOLECYSTITIS

- Gallstones
- Sonographic Murphy
- Distended Gallbladder
- Thickened Gallbladder wall
- Pericholecystic fluid



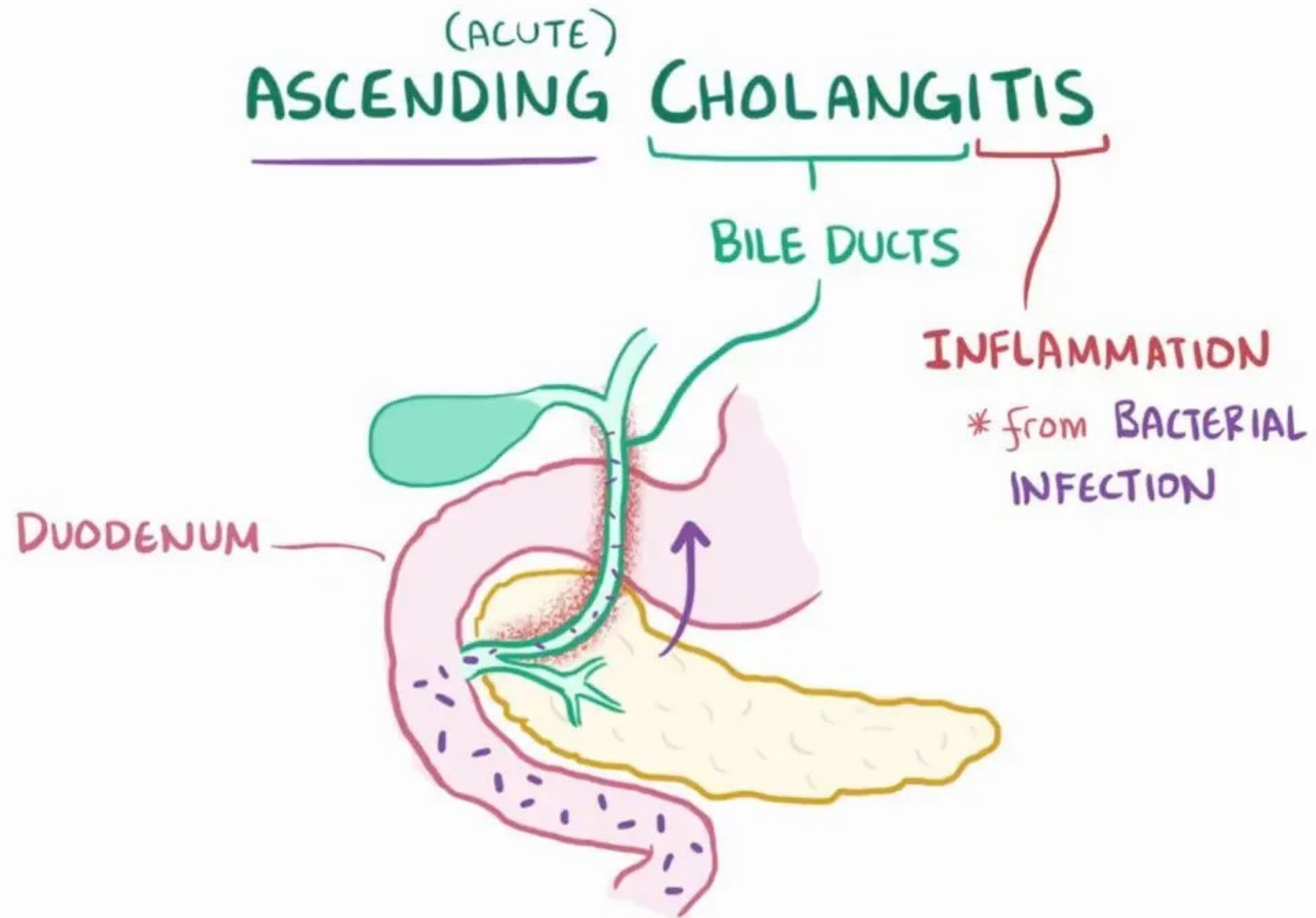
CHOLECYSTITIS

- **Gangrenous cholecystitis**
 - Negative murphy sign
 - Intraluminal membranes or perforation
- **Emphysematous cholecystitis**
 - Gas inside gallbladder wall



ASCENDING CHOLANGITIS

- Never self contained
- Evolve rapidly
- US with dilated CBD
- Source control



ACUTE PANCREATITIS

- Presentation
- Labs: lipase, amylase, TG
- Imaging: CT, RUQ US
- Etiologies

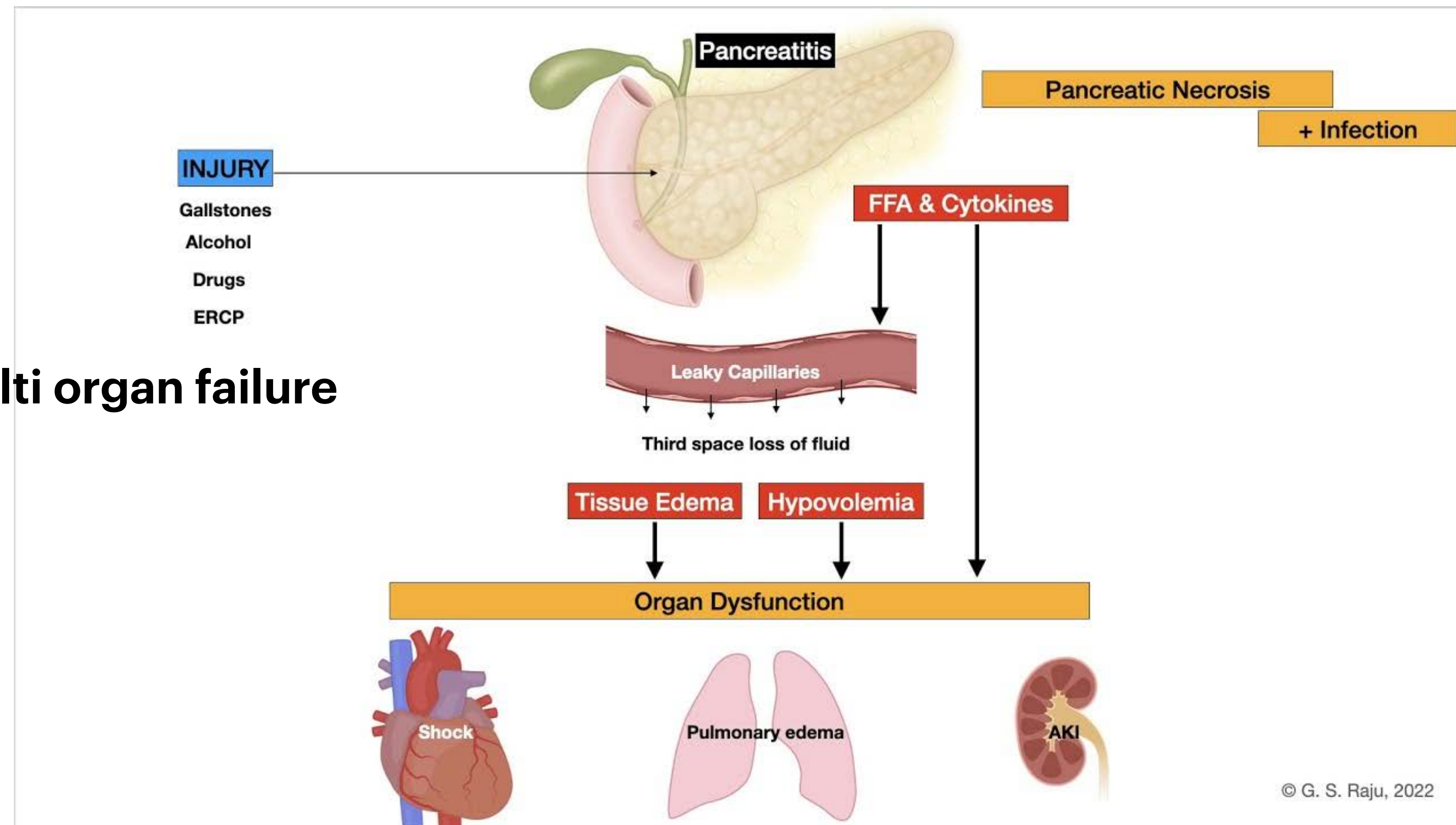


Several signs of pancreatitis are shown here. Most obvious are ecchymosis of the umbilicus (Cullen sign) and flanks (Grey Turner Sign) due to retroperitoneal bleeding. Jaundice (corresponding to a bilirubin of 4.2 mg/dL here) and abdominal distension can also be seen.

Valette X & du Cheyron D 2015 NEJM PMID 26650175

EDEMATOUS AND NECROTIZING PANCREATITIS

- Edematous
 - Tissue still viable
- Necrotizing
 - High risk for developing multi organ failure



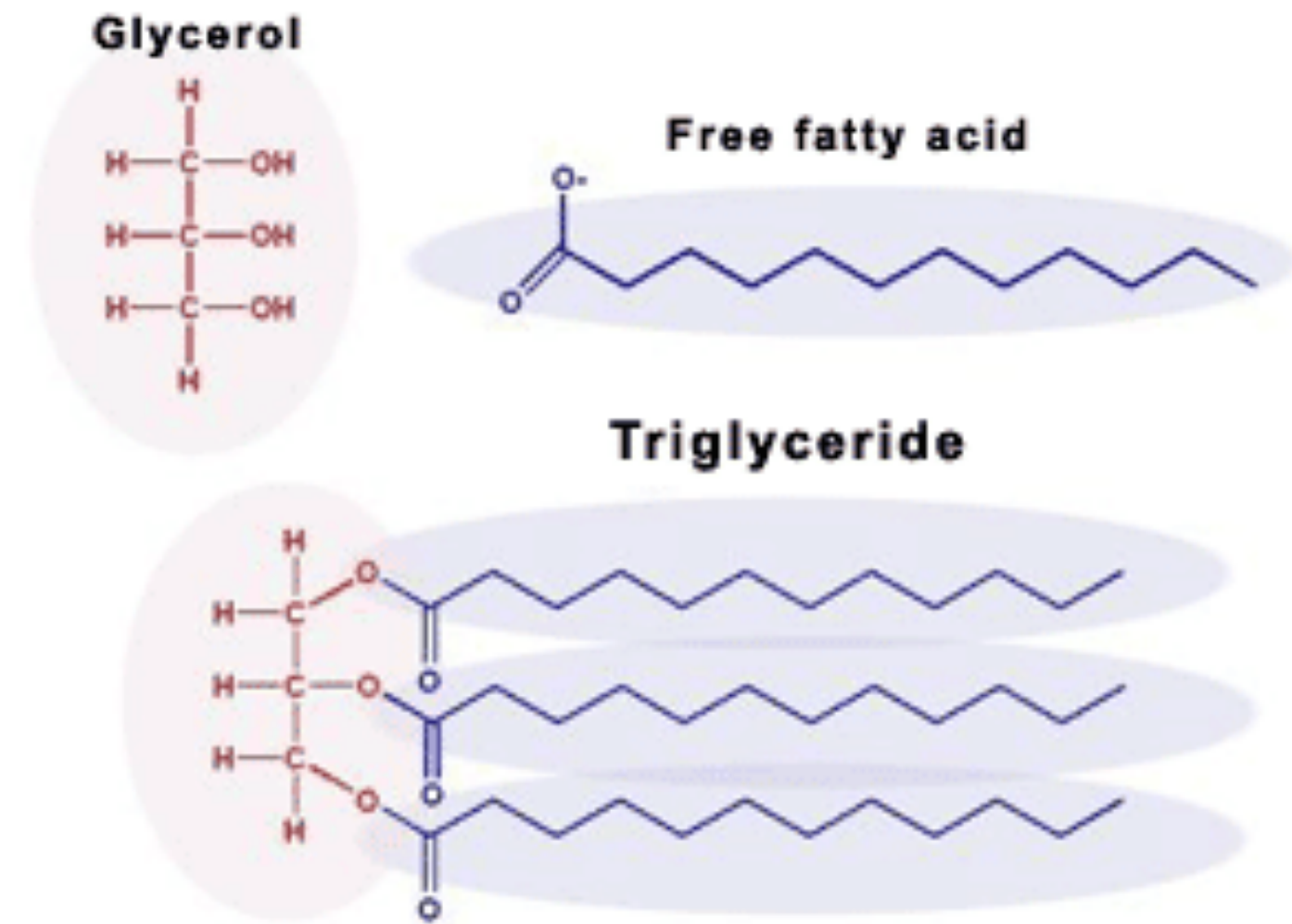
MANAGEMENT PANCREATITIS

- Indications for ICU admission
 - AKI, reduce UOP
 - Marked delirium
 - Hemodynamically unstable
 - Hypertriglyceridemic



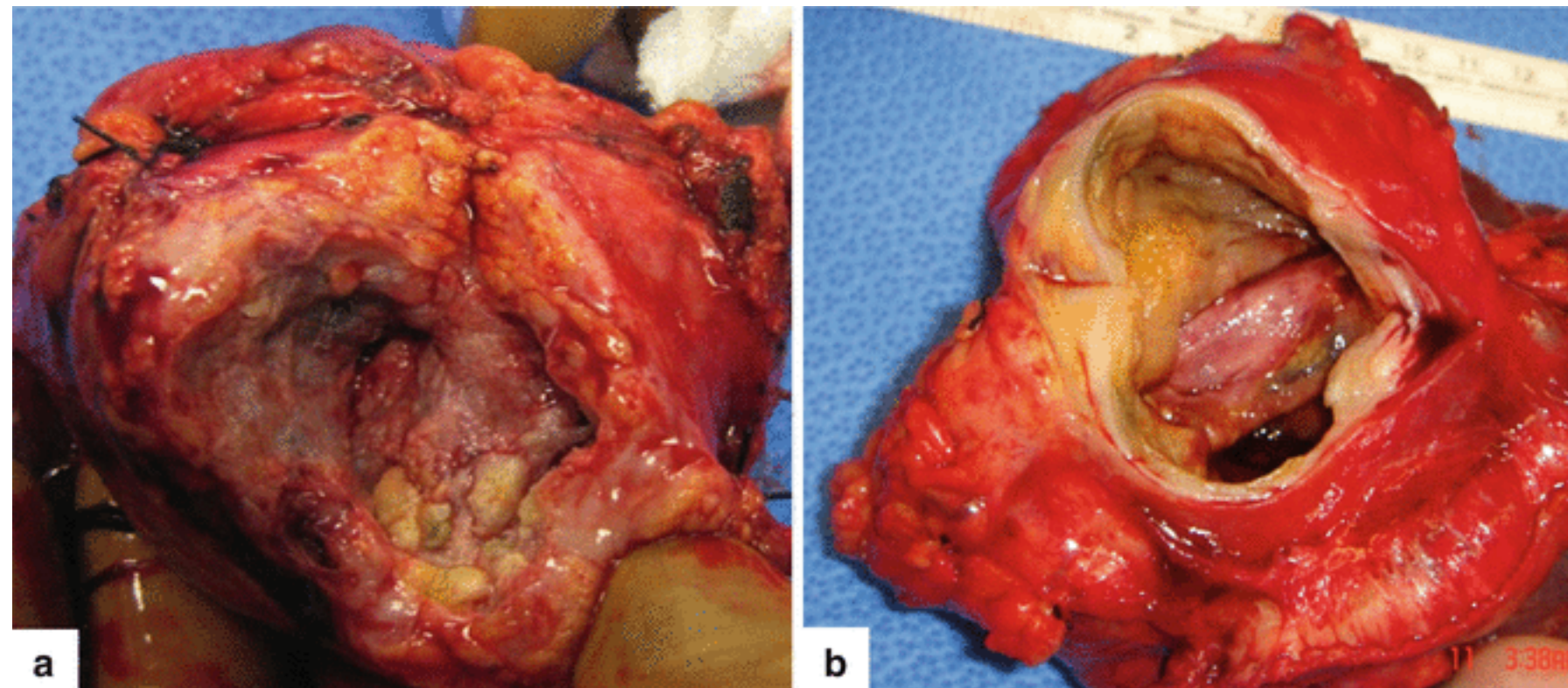
MANAGEMENT CONT

- ERCP
- Hypercalcemia
 - Bisphosphanates, calcitonin
- Hypertriglyceridemic
- ABX?



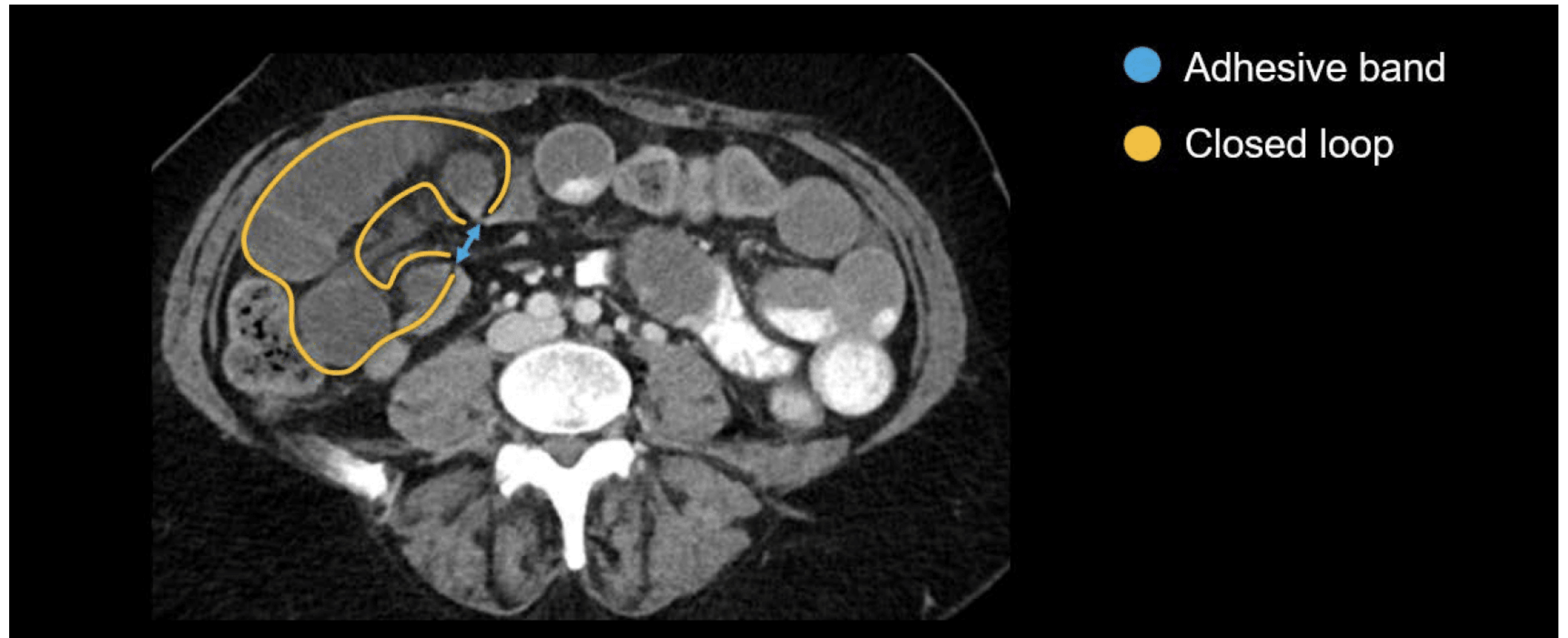
COMPLICATIONS OF PANCREATITIS

- Acute peripancreatic fluid collection
- Pseudocyst
- Acute necrotic collection
- Infected necrosis
- Walled off necrosis
- Hemorrhage



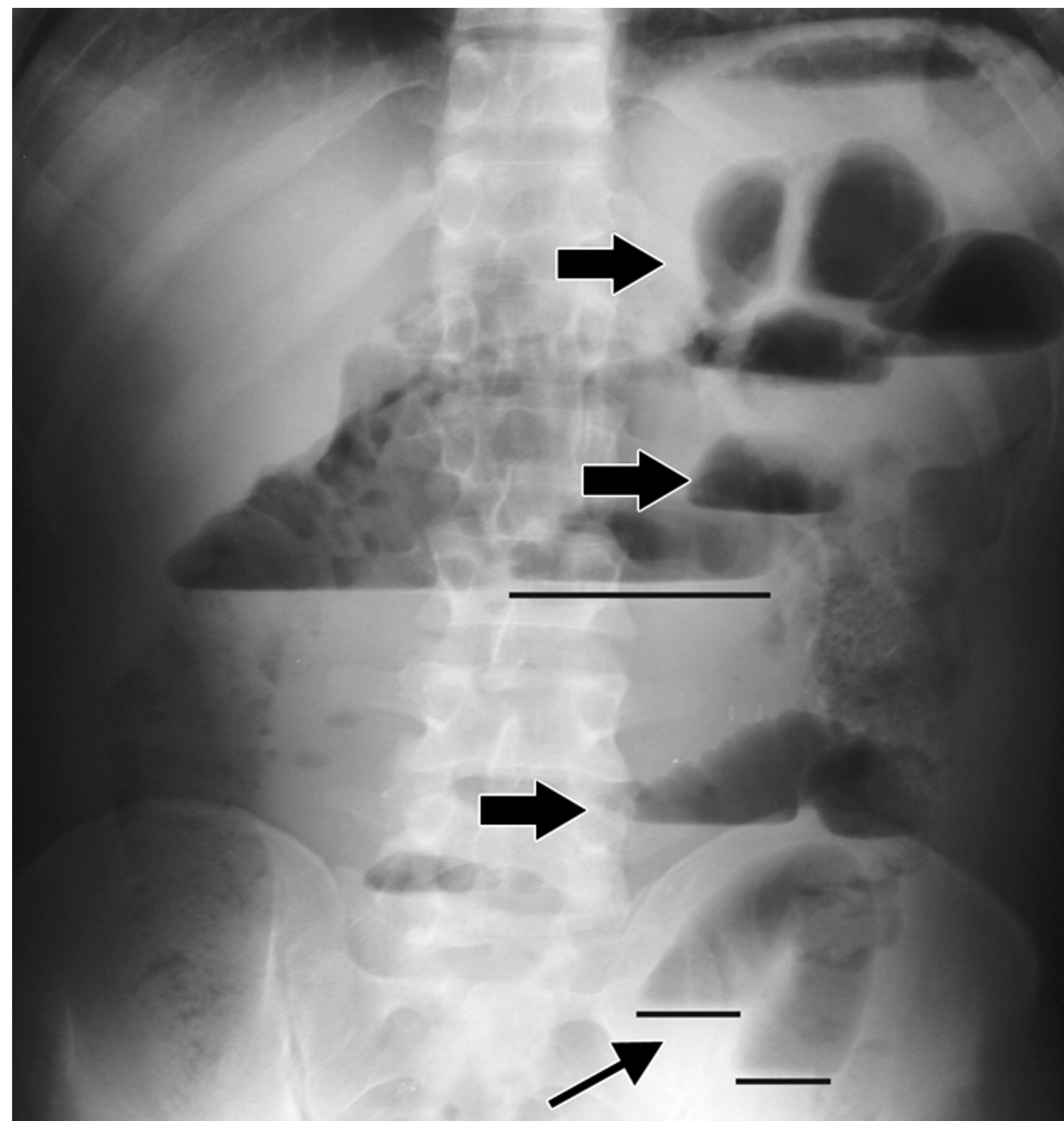
BOWEL OBSTRUCTION

- Most common cause if mechanical
- Small bowel > large bowel
- Early/low grade
- Closed loop obstruction
- RF



SMALL BOWEL IMAGING

- **Diagnosis**
 - Plain film
 - CT (PO contrast?)
 - US



LARGE BOWEL IMAGING

Sigmoid



Cecal



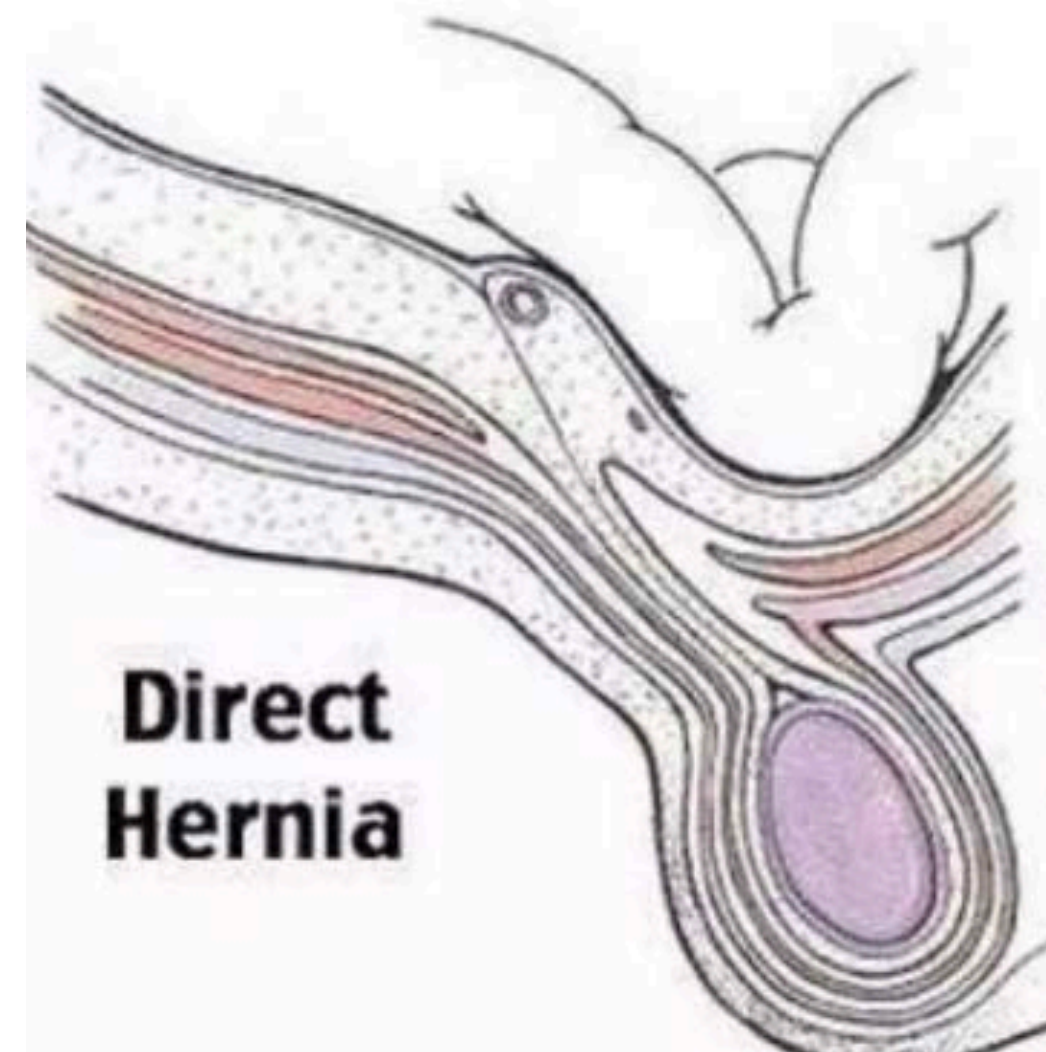
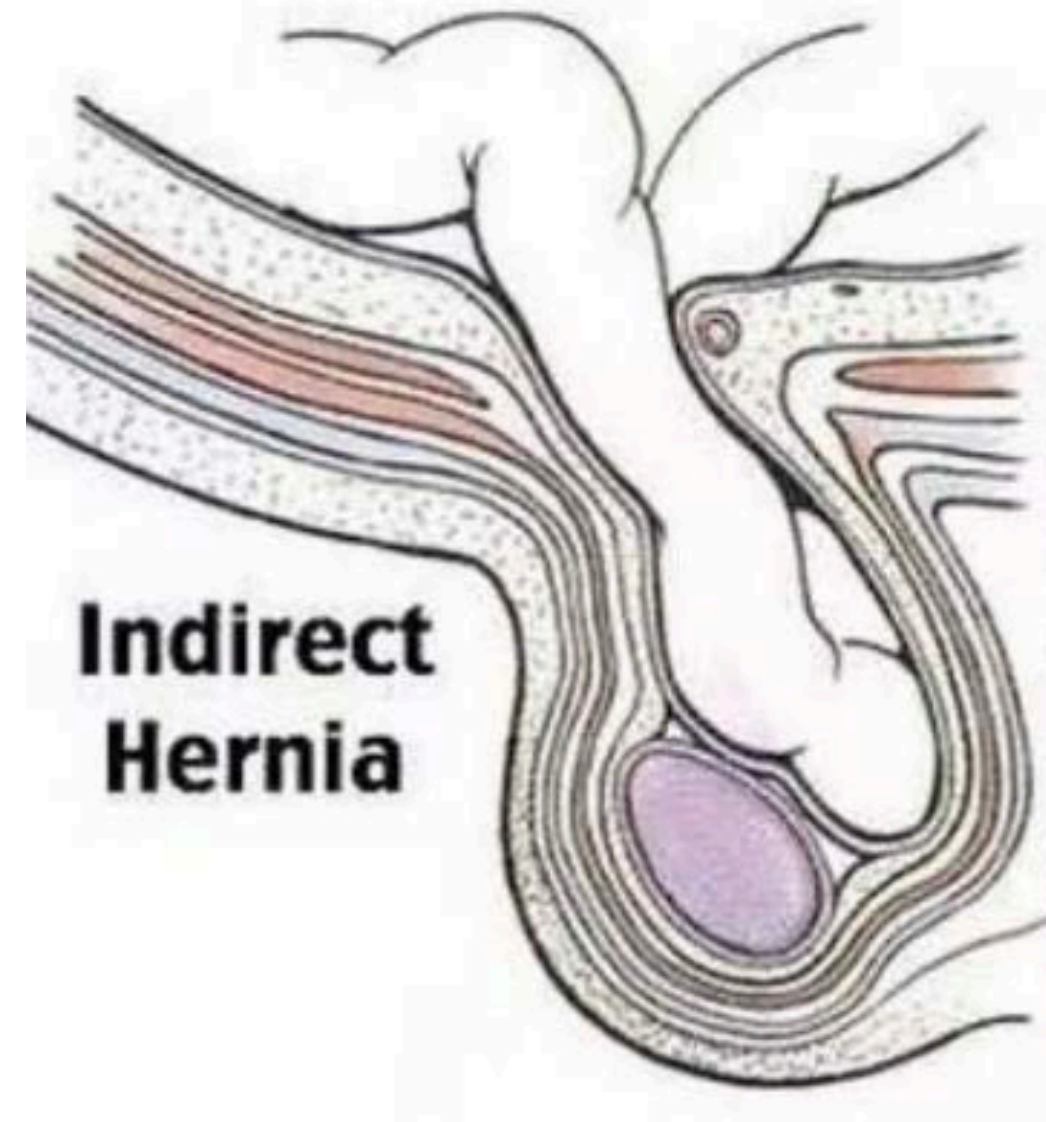
MANAGEMENT

- Unstable-> exploratory laparotomy
- Serum lactate
- NG tube
- LBO-> flexible sigmoidoscopy



HERNIAS

- What is a hernia?
- Risk factors
- Types
 - Inguinal
 - Femoral
 - Ventral
 - Internal



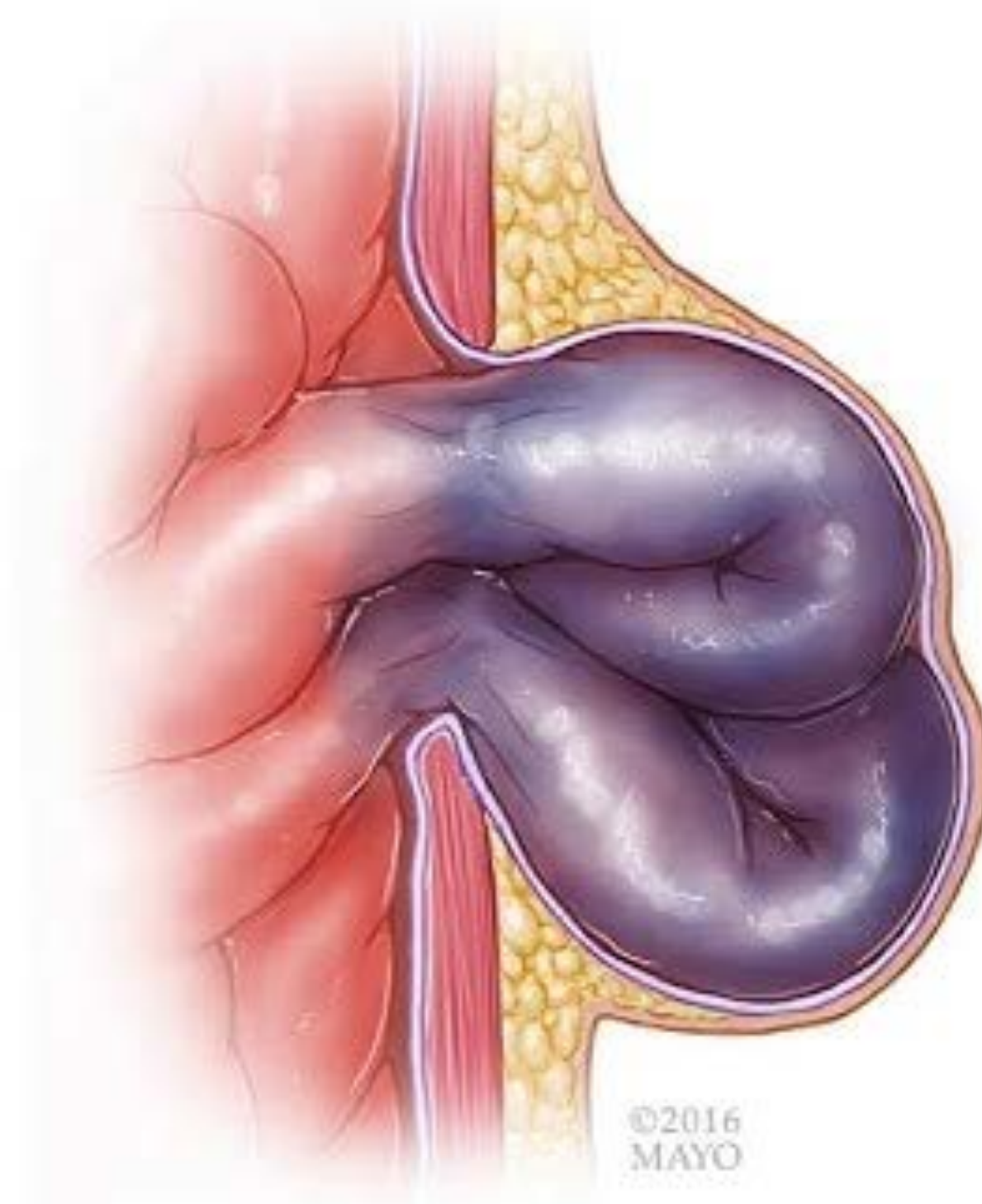
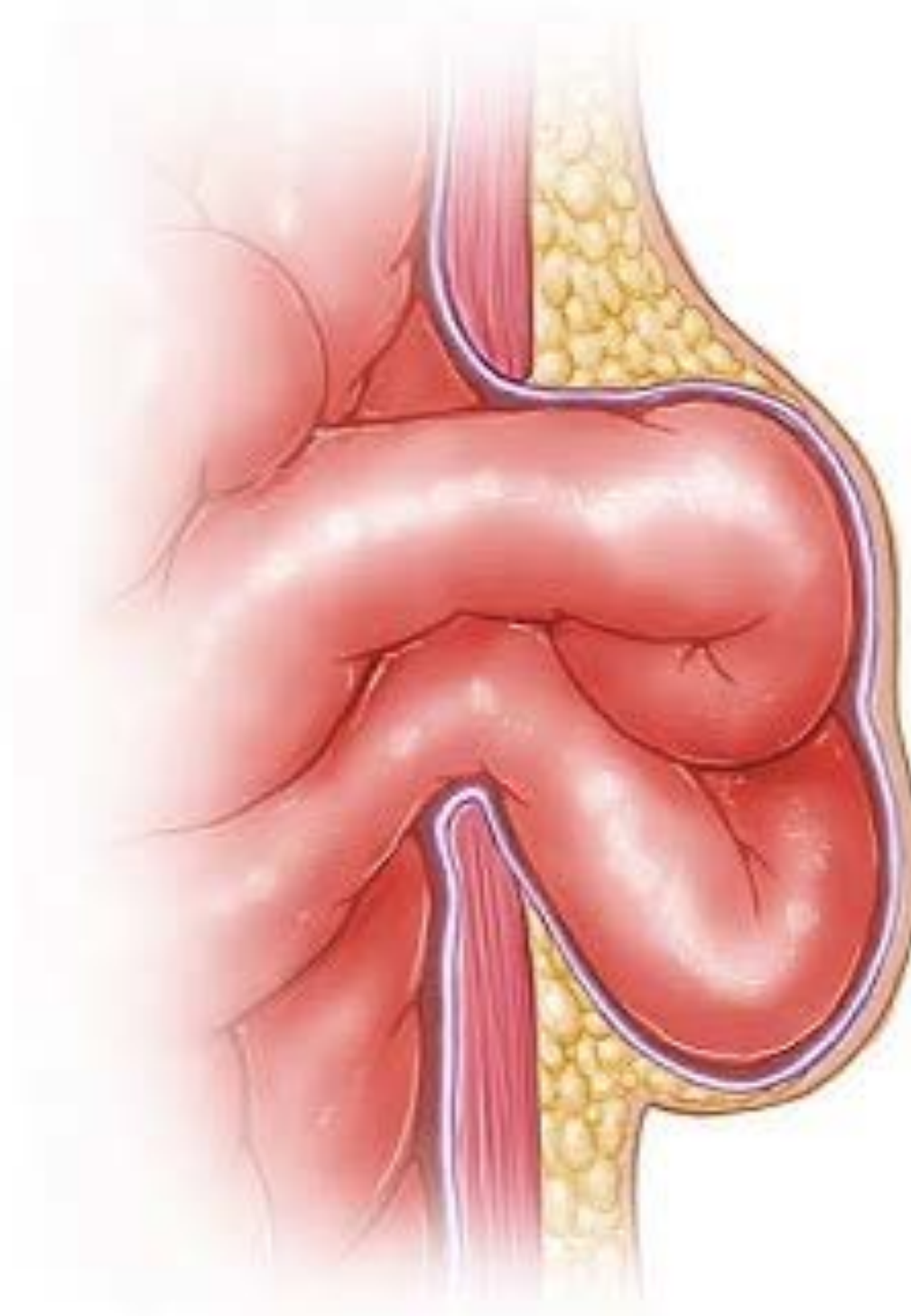
REDUCTION OF HERNIAS

- Ideal positioning- tredelenburg
- Adequate analgesia
- Steady pressure
- Patience



COMPLICATIONS OF HERNIAS

- Incarceration
- Strangulation
- Bowel obstruction
- Reduction en masse



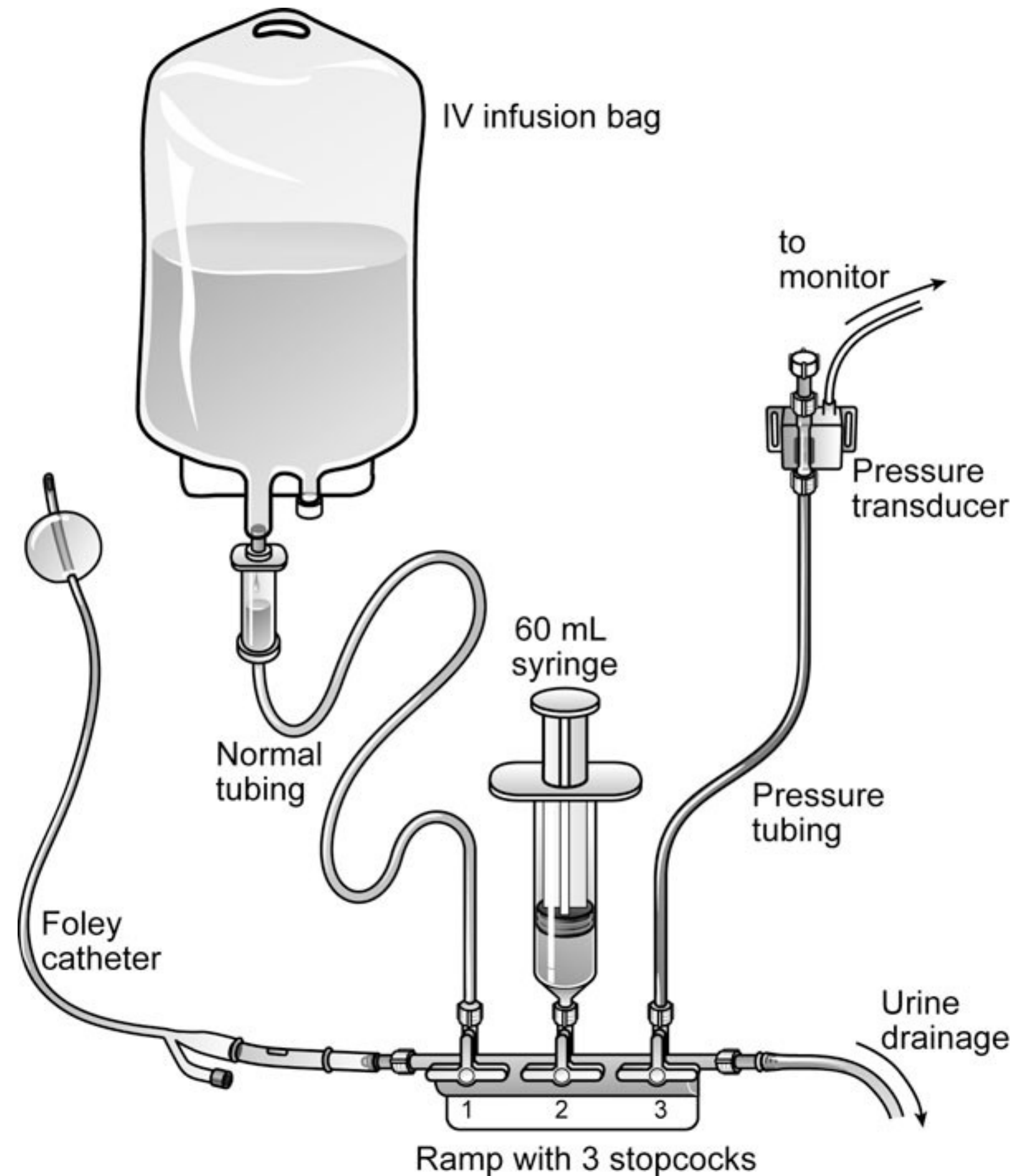
ABDOMINAL COMPARTMENT SYNDROME

- What is it?
- RF
- Underlying pathophysiology
- History/exam



ABDOMINAL COMPARTMENT SYNDROME

- Role of imaging and labs
- IAP



MANAGEMENT OF ACS

- Improve end organ perfusion and reduce pressure
- Treat pain
- intubated patient
- Abdominal compartment decompression



SPECIAL POPULATIONS



ELDERLY

- Physiologic changes
- CT imaging is the mainstay



PREGNANT PATIENTS

- Physiologic change
- Anatomical changes
- Appendicitis
- Gallbladder pathology



SOURCES

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