Generalized and Upper Abdominal Pain

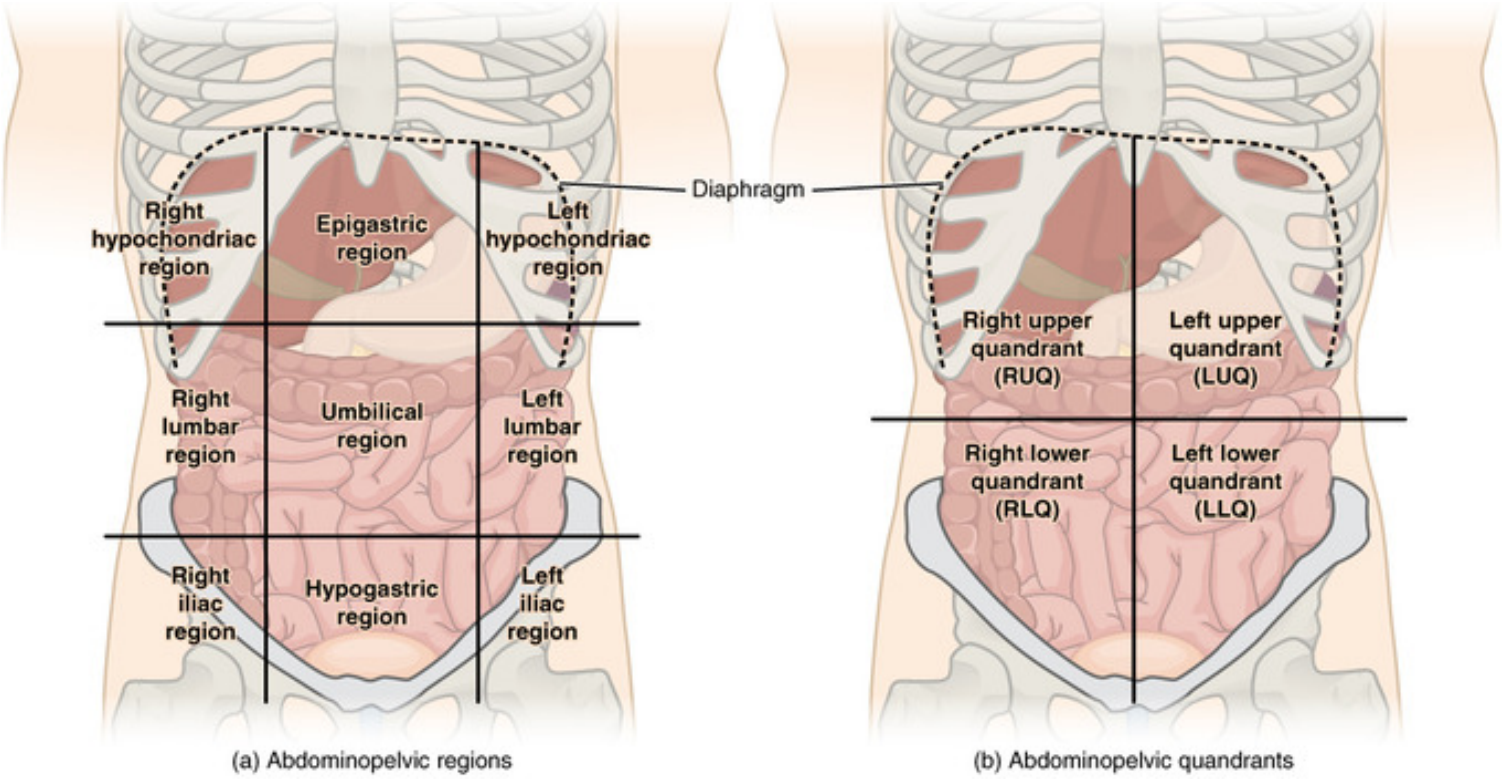
Hussam Alamri MD FRCSC

Why is this important?

- Abdominal pain is one of the most common reasons for outpatient and ER visits

So how do we organize this?

- Location
- Acute vs chronic
- Type of pain



(a) Abdominopelvic regions

(b) Abdominopelvic quandrants

Acute Abdominal Pain

- Generally present for less than a couple weeks
  - Usually days to hours old
  - Acute on chronic
- More immediate attention is required
- Surgical vs nonsurgical

Chronic abdominal pain

- Generally present for months to years
- Generally not immediately life threatening
- Outpatient work-up is prudent

Types of Abdominal Pain

- Visceral
  - Crampy, achy, diffuse
  - Poorly localized
- Somatic
  - Sharp, cutting, stabbing
  - Well localized
- Referred
  - Distant from site of generation
  - Symptoms, but no signs

Approach to the patient

History is THE MOST IMPORTANT part of the diagnostic process

- SOCRATES
- A good thorough medical history (including sexual and menstrual)
- A good thorough social history, including alcohol, drugs, domestic abuse, stressors, travel etc.
- Family history is important (IBD, cancers, etc)
- List of Medications

Approach to the patient

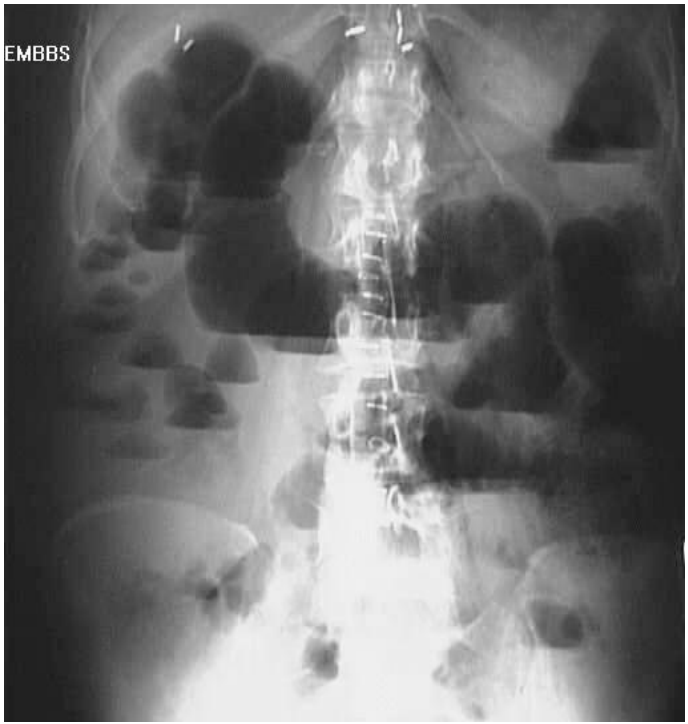
- Physical exam
- Vitals, general appearance
- Abdominal exam
- DRE
- Pelvic exam, GU
- MSK exam

Approach to the patient

- Labs
  - CBC, electrolytes, BUN, Cr, Coagulation Profile
  - Amylase and lipase, LFTs
  - UA
  - bHCG
  - Lactate
  - Tox screen
  - H. pylori serology
  - FOBT

Approach to the patient

- Imaging
  - Plain films (KUB, UGI)
  - CT
  - Ultrasound
  - MRI
- Endoscopy
  - EGD
  - Colonoscopy
  - ERCP/EUS



Surgical abdomen

- This is the first thing to be considered in acute abdominal pain
- Important to get surgeons involved early if this is even mildly suspected
- This is a **clinical** diagnosis

Surgical abdomen

- Presentation is usually bad
- Fevers, tachycardia, hypotension
- VERY tender abdomen, possibly rigid
- Presentation can vary with other demographic and medical factors
- Advanced age
- Immunosuppression

Surgical abdomen

- Peritonitis
- Often signals an intraabdominal catastrophe
- Perforation, big abscess, severe bleeding
- Patient usually appears ill
- Exam findings
- Rebound, rigidity, tender to percussion or light palpation, pain with shaking bed

Surgical abdomen

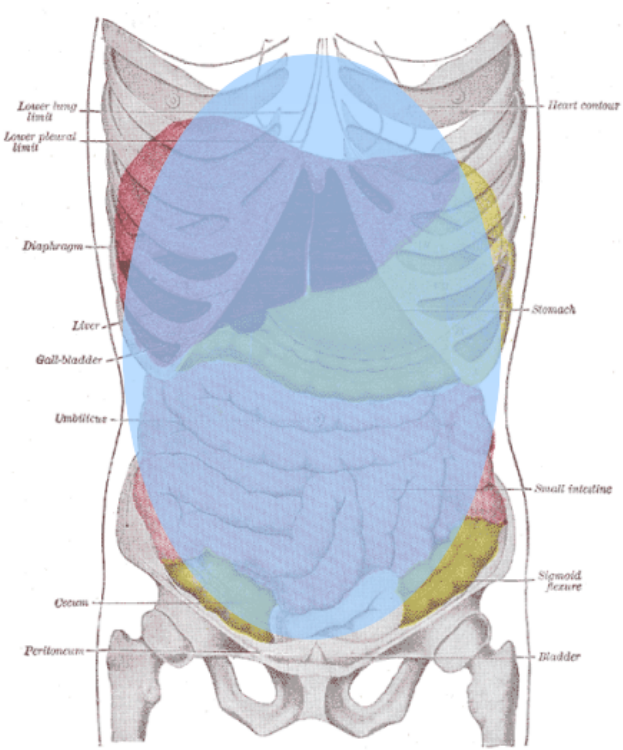
- Work-up
- Start with stat labs
- CXR, AXR
- Consider stat CT if readily available
- Sometimes patients go straight to surgery as initial step
- Again, get surgeons involved early for guidance and early intervention

DDx

- > 1000 causes exist
- Non Specific AP (34%)
- Acute appendicitis (28%)
- Acute cholecystitis (10%)
- Small Bowel Obstruction (4%)
- Perforated PU (3%)
- Pancreatitis (3%)
- Diverticular disease (2%)
- Others (13%)

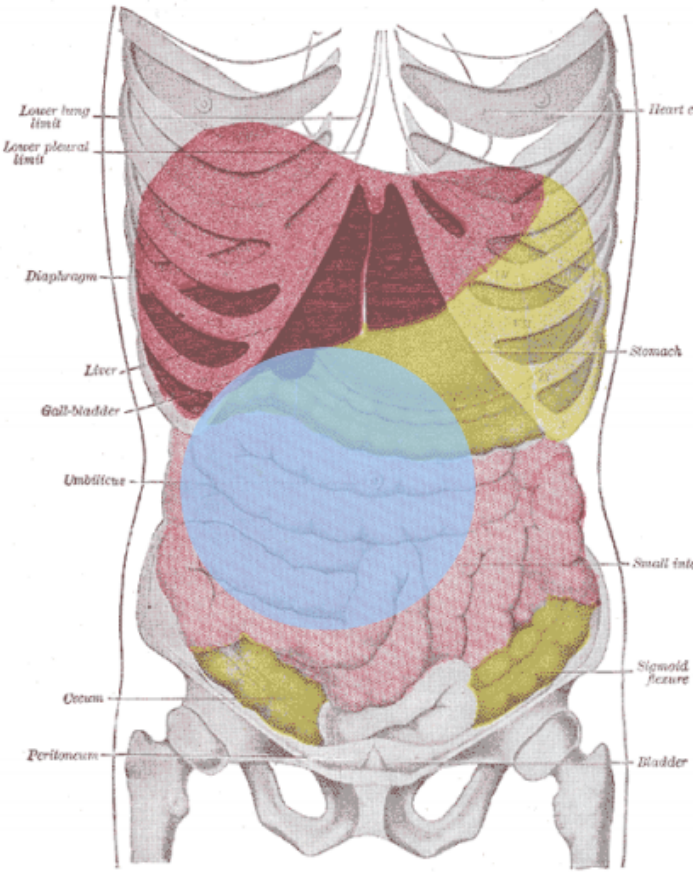
Generalized AP

- Perforation
- Abdominal Aortic Aneurysm
- Acute pancreatitis
- DM: DKA



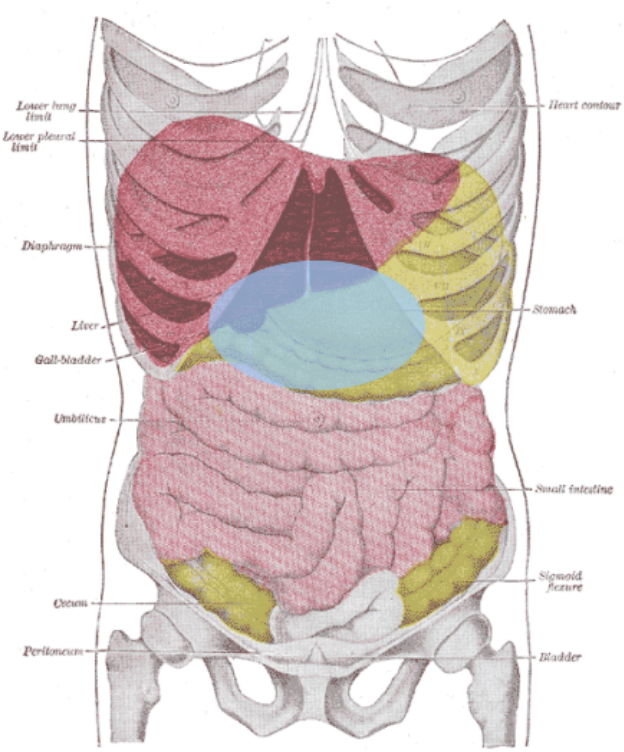
Central AP

- Early appendicitis
- Small Bowel Obstruction
- Acute gastritis
- Acute pancreatitis
- Ruptured AAA
- Acute mesenteric thrombosis



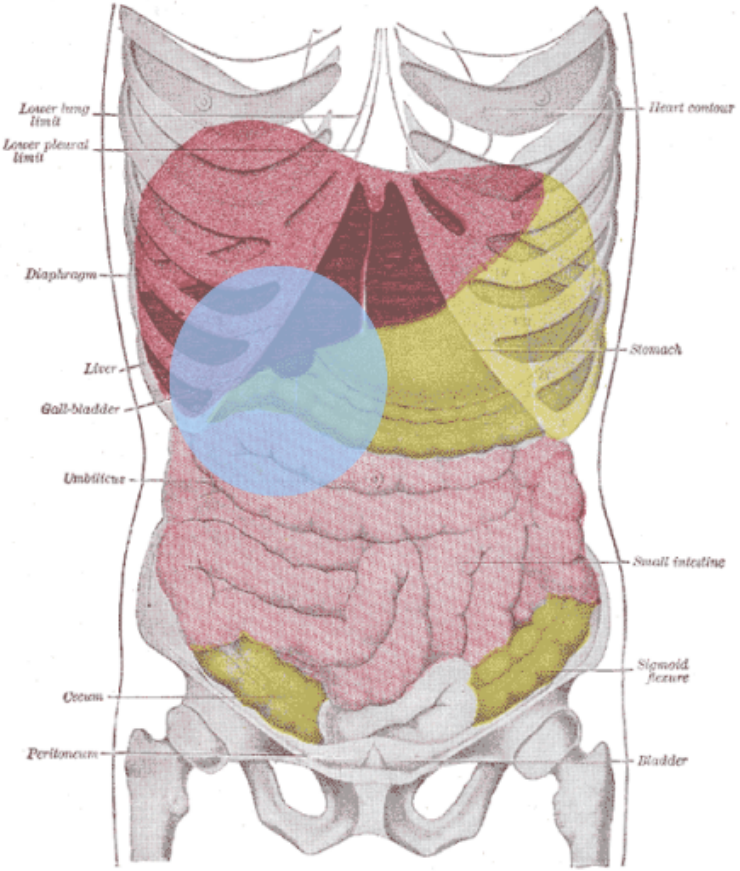
Epigastric pain

- Duodenal / gastric ulcer
- Esophagitis
- Biliary colic
- Acute pancreatitis
- AAA



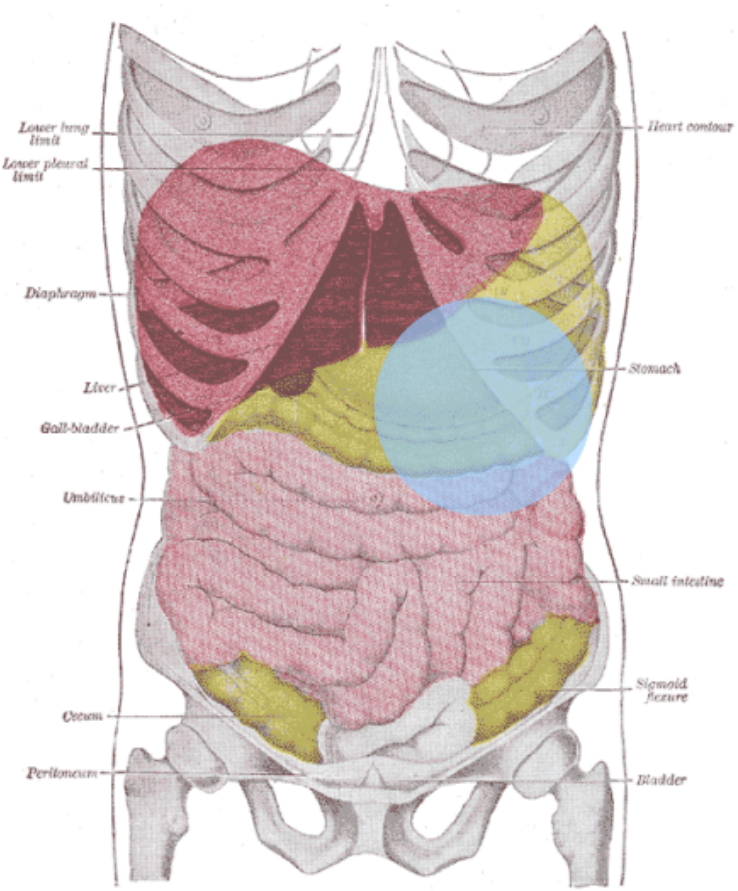
RUQ pain

- Gallbladder disease
- DU
- Acute pancreatitis
- Pneumonia
- Subphrenic abscess



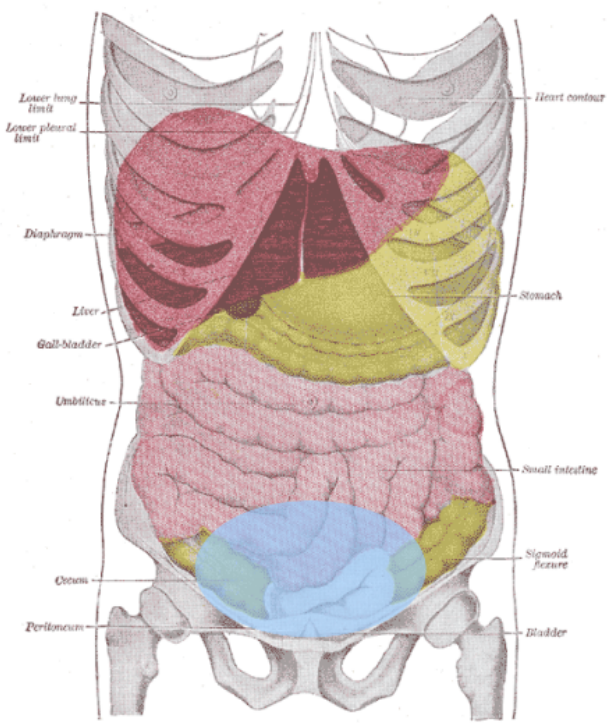
LUQ pain

- Gastric Ulcer
- Pneumonia
- Acute pancreatitis
- Subphrenic abscess



Suprapubic pain

- Acute urinary retention
- UTIs
- Cystitis
- PID
- Ectopic pregnancy
- Diverticulitis



Case #1

24 yo healthy M with one day hx of abdominal pain.

Pain was generalized at first, now worse in right lower abd & radiates to his right groin.

He has vomited twice today.

Denies any diarrhea, fever, dysuria or other complaints.

Case #1

T: 37.8, HR: 95, BP 118/76,

Uncomfortable appearing, slightly pale

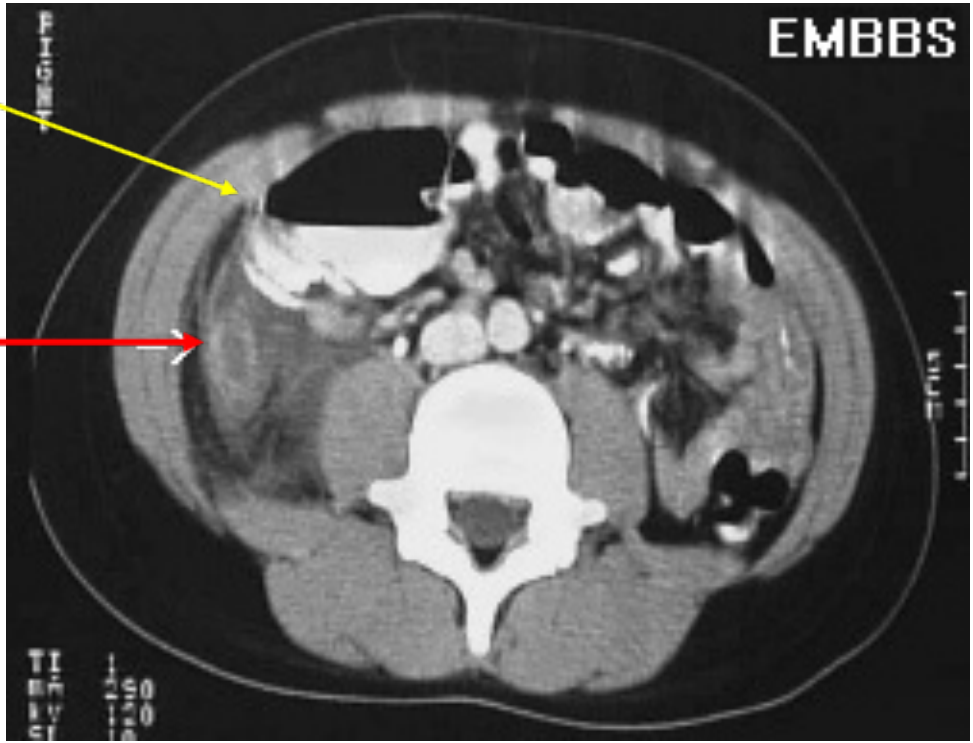
Abdomen: soft, non-distended, tender to palpation in RLQ with mild guarding; hypoactive bowel sounds

What is your differential diagnosis and what do you do next?

Appendicitis: CT findings

Cecum

Abscess, fat stranding

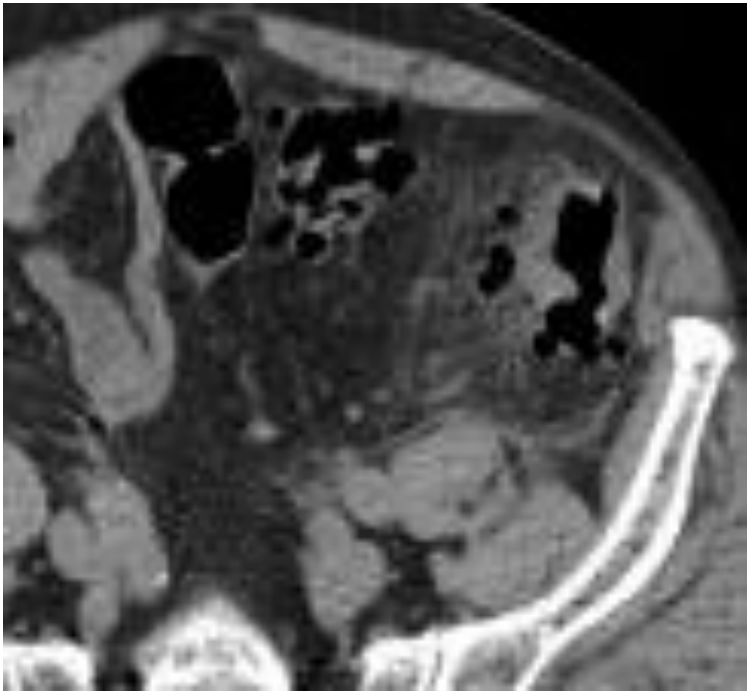


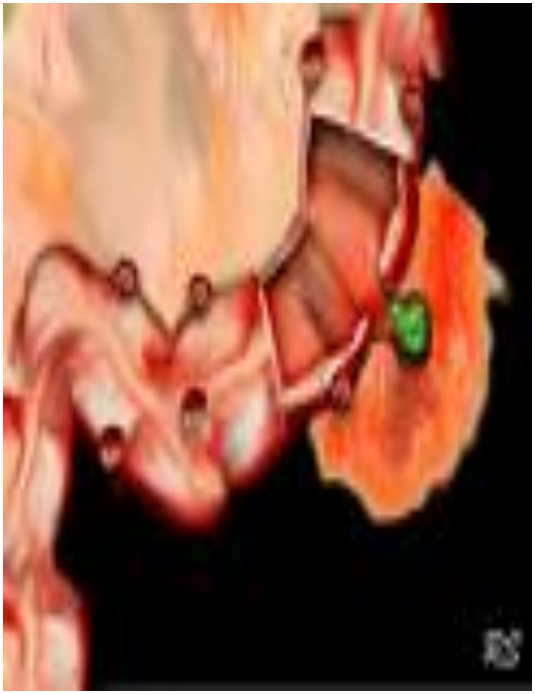
Case #2

- 68 yo F with 2 days of LLQ abd pain, diarrhea, fevers/chills, nausea; vomited once at home.
- PMHx: HTN on HCTZ
- T: 37.6, HR: 100, BP: 145/90, R: 19
- Abd: soft, moderately LLQ tenderness

- **What is your differential diagnosis & what next?**

Diverticulitis





Case #3

46 yo M with hx of alcohol abuse with 3 days of severe upper abd pain, vomiting, subjective fevers.

Vital signs: T: 37.4, HR: 115, BP: 98/65, Abdomen: mildly distended, moderately epigastric tenderness, +voluntary guarding

What is your differential diagnosis & what next?

Pancreatitis

Risk Factors

- Alcohol
- Gallstones
- Drugs
- diuretics, NSAIDs
- Severe hyperlipidemia

Clinical Features

- Epigastric pain
- Radiates to back
- Severe
- N/V

Case #4

72 yo M with hx of CAD on aspirin and Plavix with several days of dull upper abd pain and now with worsening pain “in entire abdomen” today. Some relief with food until today, now worse after eating lunch.

T: 99.1, HR: 70, BP: 90/45, R: 22

Abd: mildly distended and diffusely tender to palpation, +rebound and guarding

What is your differential diagnosis & what next?

Peptic Ulcer Disease

Risk Factors

- H. pylori
- NSAIDs

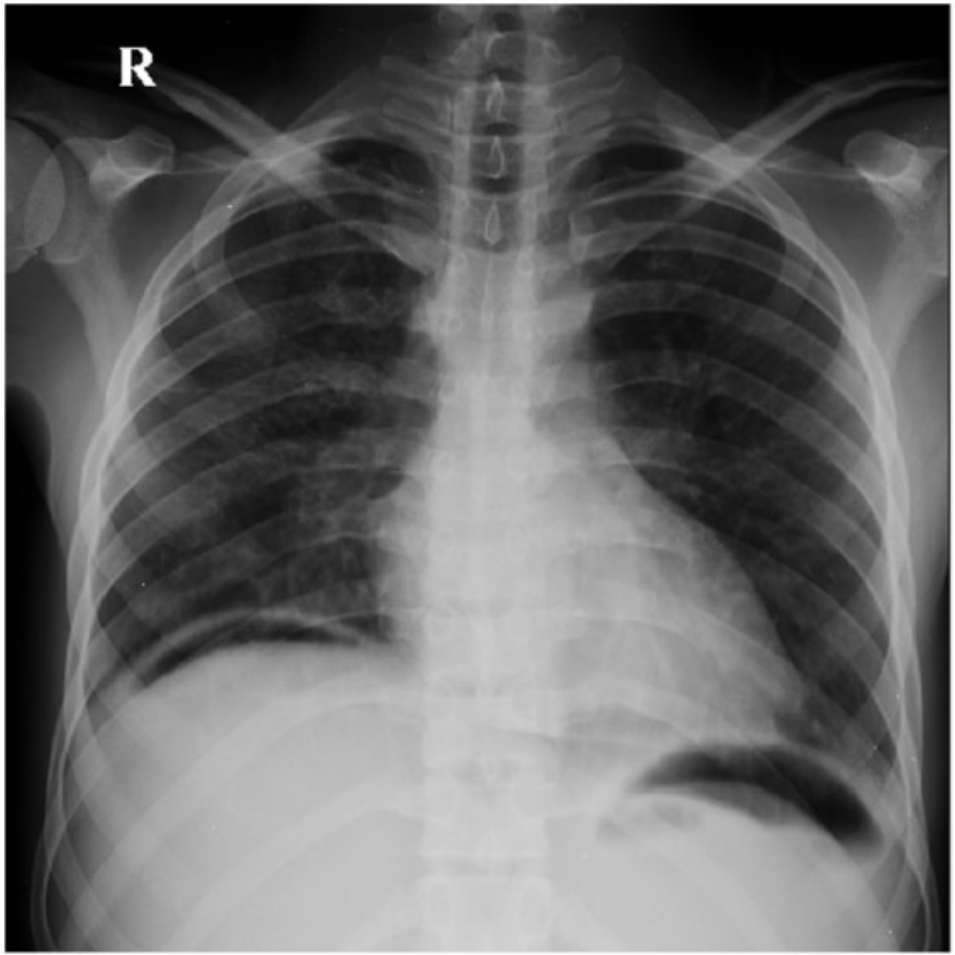
Physical Findings

- Epigastric tenderness
- Severe, generalized pain may indicate perforation with peritonitis

Clinical Features

- Burning epigastric pain
- Sharp, dull, achy, or “empty” or “hungry” feeling
- Relieved by milk, food, or antacids
- Awakens the patient at night

CXR



PUD

- The sudden development of severe, diffuse abdominal pain may indicate perforation.
- Vomiting is the cardinal feature present in most cases of pyloric outlet obstruction.
- Hemorrhage may be heralded by nausea, hematemesis, melena, or dizziness.

Case #5

35 yo healthy F to ED c/o nausea and vomiting for 1 day along with generalized abdominal pain.

T: 36.9, HR: 100, BP: 130/85, R: 22

Abd: moderately distended, mild TTP diffusely, hypoactive bowel sounds, no rebound or guarding

What is your differential and what next?


AJMAN

Bowel Obstruction

Mechanical or non-mechanical causes

- Adhesions from previous surgery
- Inguinal hernia incarceration

Clinical Features

- Crampy, intermittent pain
- Periumbilical or diffuse
- Inability to have BM or flatus
- N/V
- Abdominal distension

Case #6

48 yo obese F with one day hx of upper abd pain after eating, +N/V, no diarrhea, subjective fevers.

T: 100.4, HR: 96, BP: 135/76, R: 18

Abd: moderately TTP RUQ, +Murphy's sign, non-distended, normal bowel sounds

What is your differential and what next?

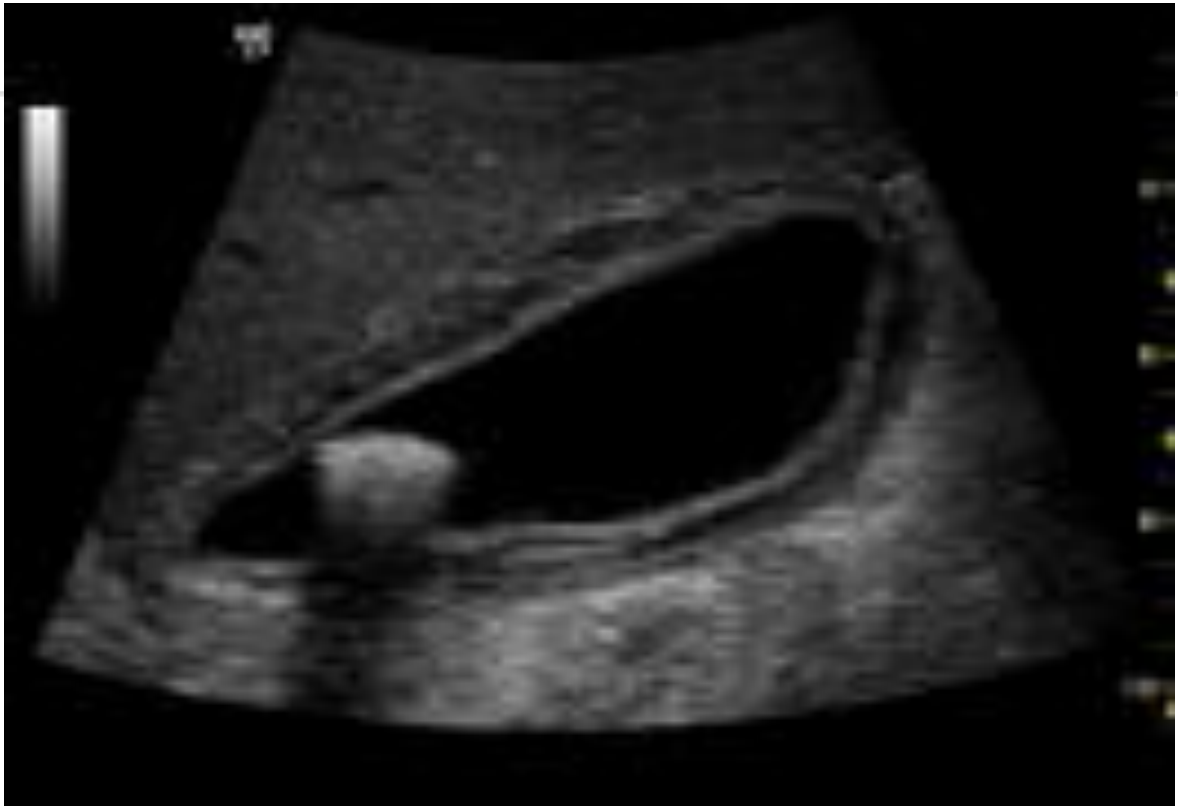
Cholecystitis

Clinical Features

- RUQ or epigastric pain
- Radiation to the back or shoulders
- Dull and achy → sharp and localized
- Pain lasting longer than 6 hours
- N/V/anorexia
- Fever, chills

Physical Findings

- Epigastric or RUQ pain
- Murphy's sign
- Patient appears ill
- Peritoneal signs suggest perforation



Thank you