Approach to Abdominal Pain

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Why is this important?

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

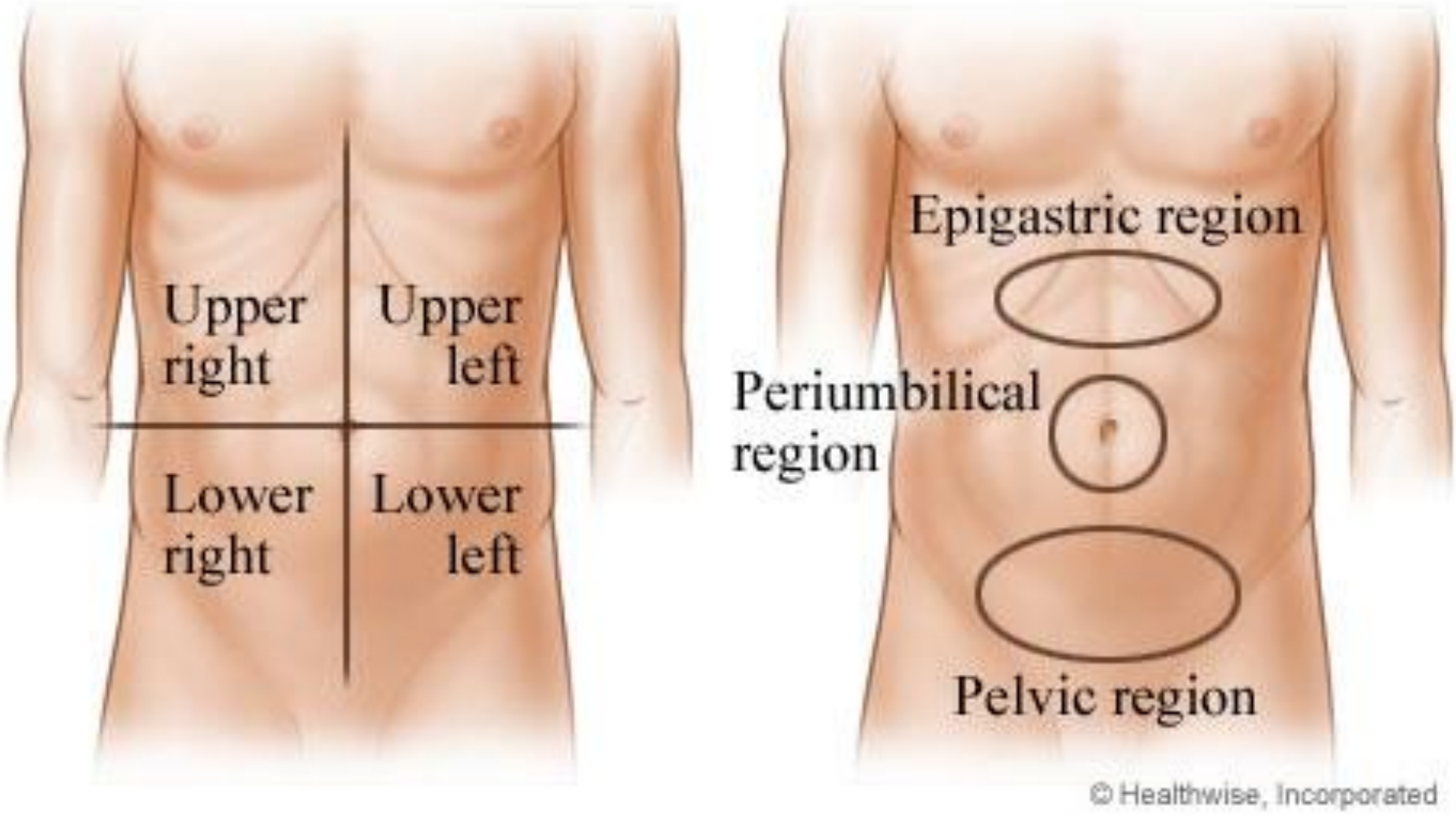
- A lot can happen in the abdomen and you need an organized approach

Just a few diagnoses to ponder…

- Esophagitis
- GERD
- Gastric ulcer
- Gastritis
- Duodenal ulcer
- Duodenitis
- Gastric outlet obstruction
- Bowel obstruction
- Intussusception
- Bowel perforation
- Cancer
- Hepatitis
- Splenic infarct
- Splenic abscess
- Mesenteric ischemia
- Somatization
- IBS
- Crohn's disease
- Ulcerative colitis
- Gastroenteritis
- Familial Mediterranean fever
- Acute intermittent porphyria
- Appendicitis
- AAA rupture
- Esophageal spasm
- Diverticulitis
- Ectopic pregnancy
- Pelvic inflammatory disease
- Fitz-Hugh-Curtis
- HSV
- Abdominal epilepsy
- Endometriosis
- Vitamin D deficiency
- Adrenal insufficiency
- Pancreatitis
- Cholangitis
- Cholecystitis
- Choledocholithiasis
- Incarcerated hernia
- UTI
- Nephrolithiasis
- Abdominal migraine
- Celiac artery compression syndrome
- Uterine pathology
- HIV
- Hemophilia
- Sickle cell disease
- Trauma
- Pneumonia
- Subdiaphragmatic abscess
- Myocardial infarction
- Pericarditis
- Prostatitis
- Idiopathic inflammatory disorders
- Epiploic appendagitis
- Hereditary angioedema
- Painful rib syndrome
- Wandering spleen syndrome
- Abdominal wall pain
- Leukemia
- HSP
- Lead poisoning

So how do we organize this?

- Location
- Acute v. chronic
- Type of pain


Upper right
Upper left
Lower right
Lower left
Epigastric region
Periumbilical region
Pelvic region
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Acute abdominal pain

- Generally present for less than a couple weeks
  - Usually days to hours old
  - Don't forget about the chronic pain that has acutely worsened
- More immediate attention is required
- Surgical v. nonsurgical

Chronic abdominal pain

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

Understanding the 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
  - Location, quality, severity, radiation, exacerbating or alleviating factors, associated symptoms
    - Visceral v. peritoneal
  - 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)
  - MEDICATION INVENTORY

Approach to the patient

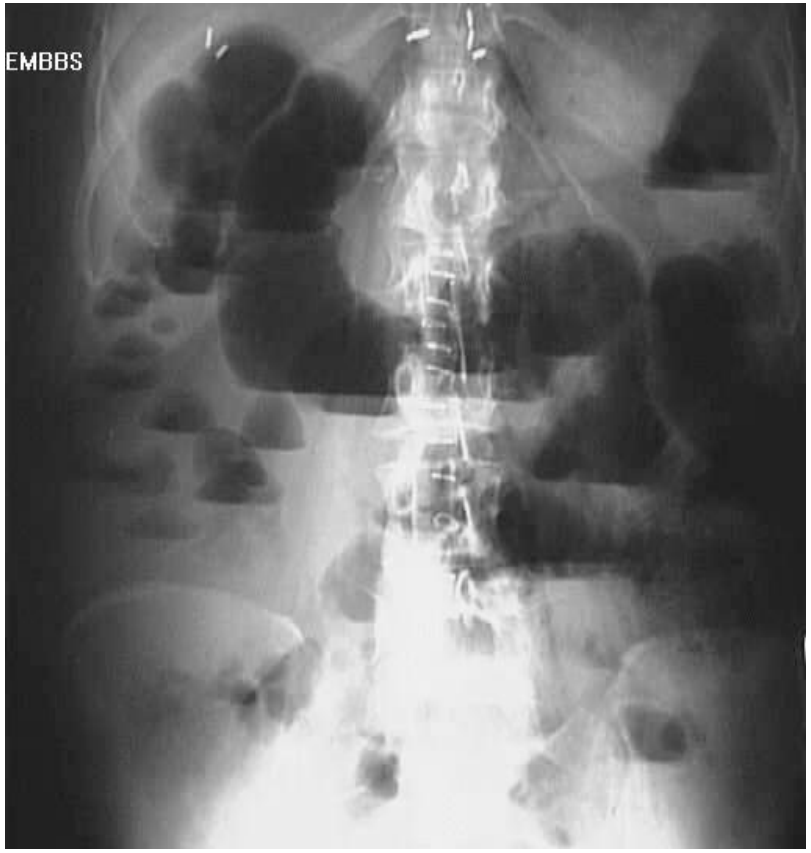
- Physical exam
  - Vitals (incl postural), general appearance
  - A good thorough medical exam
    - Jaundice, signs of chronic liver disease, CVAT
  - Abdominal exam
    - Look, listen, feel
    - Know a few tricks
  - DRE
  - Pelvic exam, GU
  - MSK exam

Approach to the patient

- Labs
  - CBC, lytes, BUN, Cr, coags
  - 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
  - Angiography
- Endoscopy
  - EGD
  - Colonoscopy
  - ERCP/EUS



Surgical abdomen

- This is the first thing to be considered in acute abdominal pain
  - Early identification is a must as prognosis worsens rapidly with delay in treatment
- 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
  - Surgical abdominal series (plain films)
  - 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

Constipation

1. Presence of >= 2 of the following for at least 3 months (with symptom onset at least 6 months prior to diagnosis):
   - Straining for >25% of defecations
   - Lumpy/hard stools >25% of defecations
   - Sensation of incomplete evacuation >25% of defecations
   - Sensation of anorectal obstruction/blockage >25% of defecations
   - Manual maneuvers to facilitate >25% of defecations (eg, digital evacuation, support of the pelvic floor)
   - < 3 defecations/week

2. Loose stools are rarely present without the use of laxatives

3. There are insufficient criteria for IBS.

Etiology-Idiopathic

- Normal colonic transit (psychogenic)
- Colonic inertia
- Outlet delay
- Dyssynergic defecation
- Megacolon or megarectum

Etiology – Secondary Causes (further investigation)

Causes of secondary constipation

Cause	Example
Organic	Colorectal cancer, extraintestinal mass, postinflammatory, ischemic, or surgical stenosis
Endocrine or metabolic	Diabetes mellitus, hypothyroidism, hypercalcemia, porphyria, chronic renal insufficiency, panhypopituitarism, pregnancy
Neurological	Spinal cord injury, Parkinson's disease, paraplegia, multiple sclerosis, autonomic neuropathy, Hirschsprung disease, chronic intestinal pseudo-obstruction
Myogenic	Myotonic dystrophy, dermatomyositis, scleroderma, amyloidosis, chronic intestinal pseudo-obstruction
Anorectal	Anal fissure, anal strictures, inflammatory bowel disease, proctitis
Drugs	Opiates, antihypertensive agents, tricyclic antidepressants, iron preparations, antiepileptic drugs, anti-Parkinsonian agents (anticholinergic or dopaminergic), barium
Diet or lifestyle	Low fiber diet, dehydration, inactive lifestyle

Management

- Education
- Behaviour modification
- Dietary changes: fluids, fiber (20-35gm/d, dietary +/- supplements)
- Remove offending medications where possible
- Oral vs. suppository vs. enema
- Disimpaction (chemical, manual, surgical)

Laxatives

- Bulk forming laxatives (eg psyllium)

Absorb liquid in the intestines and swell to form a soft, bulky stool. The bowel is then stimulated normally by the presence of the bulky mass.

- Surfactants (softeners) (eg docusate)

Encourage BMs by helping liquids mix into the stool and prevent dry, hard stool masses.

- Lubricants (mineral oil)

Encourage BMs by coating the bowel and the stool mass with a waterproof film which keeps moisture in the stool. The stool remains soft and its passage is made easier.

- Osmotic agents (eg PEG 3350, lactulose, Mg, glycerin)

Encourage BMs by drawing water into the bowel from surrounding body tissues. This provides a soft stool mass and increased bowel action.

- Stimulant laxatives (eg senna, bisacodyl)

Increase the muscle contractions that move along the stool mass.

- Other (eg. Relistor)

Dyspepsia

- Rome III criteria: >=1 of the following:
- Postprandial fullness
- Early satiation (inability to finish a normal sized meal)
- Epigastric pain or burning

Differential:

- PUD, GERD, biliary, abdominal wall, malignancy, gastroparesis, pancreatitis, medications and substances, metabolic, ischemia, systemic (DM, thyroid, CTD)

Red Flags (need for endoscopy)

- Symptom onset after age 50 (esp if male, Caucasian, smoker, >10 yrs symptoms re: Barrett's)
- GI blood loss/anemia
- Weight loss
- Early satiety
- Dysphagia
- Persistent vomiting or symptoms refractory to standard therapy

Investigation and Management

- Identify and eliminate aggravating factors (etoh, tobacco, ASA/NSAIDs, steroids, stress)
- Patient education re: diet and lifestyle factors
- Bloodwork (?H. pylori [vs urea breath or fecal antigen], ?celiac), imaging (double contrast UGI), endoscopy
- Treatment (PUD/GERD): H2RA, PPI, H. pylori eradication when positive

Rectal Bleeding

- Melena vs. BRBPR
- Differential of BRBPR: hemorrhoids, anal fissures, polyps, proctitis, rectal ulcers, malignancy
- Red flags: new pain or change in nature of chronic pain, pain awakening at night, altered bowel function (frequency, caliber or consistency), constitutional symptoms, anemia, palpable lymphadenopathy, personal or family hx bowel disease

Colon Cancer Check Screening Recommendations

- Average risk: recommend FIT q2 years for asymptomatic people 50-74 without a family hx of colorectal cancer. [Abnormal FIT: c-scope within 8 weeks].
- Ages 50-74 without a family hx of colorectal cancer who choose to be screened with flex sigmoidoscopy should be screened q10 years.
- Increased risk: asymptomatic people get screened with c-scope if a family hx of colorectal cancer (1 or more first-degree relatives) beginning at 50 or 10 years earlier than the age their relative was diagnosed, whichever occurs first.