Any problem is based on good history taking to diagnose.

- Excessive alcohol.
- Excessive smoking.
- Increased stress.
- Injection caustic substances.
- Poor bowel habits.

Pain is the hallmark of acute abdominal emergency, three causes of pain: Inflammation, distention, ischemia.

- Visceral pain – originated in the wall of hollow organs and capsules of solid organs or visceral peritoneum. Visceral pain is relayed back to the spinal cord via afferent neural fibers making non-localized pain.

- Somatic pain – sharp pain that travels along neural routes. Pain can be localized to a specific location. Regional pain. Bacterial or chemical irritation i.e. leaking ulcers.


Acute pain is usually perforations. Chronic is blockage of hollow organs.

If the pain lessons when knees are drawn up usually peritoneal inflammation.
Walking relieves pain may be GI or urinary systems – Gallbladder, Kidney stone.
Localized tearing is associated with rupture of the organ.
Dull pain may be obstruction.
Sharp pain, (in flank) kidney stones.
Shoulder or neck pain associated with diaphragm. IE Cholecystitis.
Any abdominal pain lasting over 6 hours considered surgical emergency.
Vomit – coffee grounds or clots.
Lower bowel smells or color indicated GI bleed, gastritis, bleeding diverticula.
Pertinent negatives: Does GI affect urinary function. Lower abdomen can be reproductive. Also inferior MI can irritate diaphragm.

Distended abdomen can be: free air due to obstruction of bowel. Hemorrhage (4 to 6 liters abdomen can hold)

- Cullen’s sign periumbilical ecchymosis.
- Grey-Turners sign ecchymosis on flank area.

Upper GI track

- Mouth, esophagus, stomach, duodenum.
- Upper GI bleed is from the duodenum up. Lower GI bleeds are jejunal intestine down.

Peptic ulcers - 50% of upper GI bleeds.

Gastritis – 25%.
variceal rupture.
Mallory-Weiss Syndrome esophageal laceration secondary to vomiting.
Esophagitis.
Duodenitis.

Hematemesis (bloody vomit) – Melena (black stool) is upper GI track exiting lower track.

Tilt-test 10 drop BP – 10 to 20 pulse rate increase.
Esophageal Varices: Variceal rupture 35% mortality.

- Portal pressure hypertension.
- Alcohol causes liver cirrhosis causes 2/3 of all cases.
- Painless bleeding with signs of shock. Dysphagia – tearing/burning sensation.
- Shock treatment with fluid replacement. ETT if needed to secure airway.

Acute Gastroenteritis

- Inflammation of stomach and intestines with acute vomit and diarrhea.
- Inflammation causes hemorrhage and erosion damages the villi.
- Alcohol and smokers are high risk.
- Aspirin breaks down the mucosal surface.

Chronic Gastroenteritis

- Contamination by microbes. E-coli, Salmonella
- H pylori – common cause of gastric and duodenal ulcers.

Peptic Ulcers

- Gastric acid erosion of mucosa.
- 4 times more likely in males.
• Aspirin, Motrin, Advil, alcohol, nicotine

• Vagus nerve removed in stomach.

• Pancreatic duct blocked.

Lower GI Bleed

• Diverticulosis – Most common in elderly.

• Cancer polyps.

• Rectal lesions – hemorrhoids.

• Inflammatory bowel disorder – Crohn’s.

Ulcerative Colitis

• Inflammatory Bowel Disorder of unknown origin.

• Affects large intestine.

• Ulcers form then heal and thicken up the tissue.

• 20 to 40 years of age.

• Unknown causes.

• Occasional bloody diarrhea or stool containing mucus.

• Colicky (cramping) colon, n/v.

Crohn’s Disease
• Inflammatory Bowel Disorder.

• Most common in females.

• Affects mouth thru anus.

• Results in possible complete intestine blockage.

• Breaks down the mucosal and submucosal layers making that section not function. Hypertrophy.

• GI bleeding, diarrhea, fever.

• Rapid onset of inflammations.

• No localized pain.

Diverticulitis

• Colon diverticula is more common in US.

• ½ of patients over 60 years of age affected.

• Diverticulitis secondary infection.

• Left lower abdominal pain. Most in sigmoid colon.

• Teniae coli nerves enter colon.

• Colicky pain with low grade fever.

Hemorrhoids
• Develop in 4th decade of life.

• Most are idiopathic.

• External are caused by lifting heavy objects.

• Straining to BM.

Bowel Obstruction

• Small intestine most common.

• Decrease apatite, fever, n/v, weight loss.

• Vomit containing a large amount of bile.

Appendicitis

• Ileocelecal junction.

• Appendix located in the retro, pelvis or abdominal cavity.

• Loss of appetite.

• McBurney’s Point – 2 inches above the anterior iliac crest with referred pain to the navel.

Cholecystitis
- Inflammation of gall bladder.

Gall stones cause 90% of all cases

- Two types of gall stones –

1. cholesterol more common – obese, women, 5 “f”

2. bilirubin

- Murphy’s sign – right costal margin pain

- Right upper quadrant referred pain to shoulder.

Pancreatitis

- Metabolic – alcoholism 80% of cases. Acinar tissue destroyed

- Mechanical – stones
Hepatitis

- Injury to the liver cells
- A oral fecal – self limiting 2 to 8 weeks
- B serum (blood) hepatitis – 310 million carriers in the world.
- C – blood transfusions
- D – Is dormant until activated by Hepatitis B
- E – waterborn infection
- Upper right quadrant pain not relieved by antacids.
- Become anorexic
- Decrease in bile production changes stool to a clay color
- Increase bilirubin cause jaundice.
DEFINITIONS

• Acute Abdomen - sudden abdominal pain

• Peritoneum - sac that holds the GI organs

• Peritonitis - inflammation of abdominal sac.

• Referred pain - travels from the origin of problem

• Rebound tenderness - spillage into sac. Hurts most when you release pressure.

• Fetal Position - curled up into ball to relax abdominal muscles.

Solid Organs

• Solid organ spill

• Solid organ filter

• Liver, spleen, kidneys, pancreas

Hollow Organs

• Hollow organ spill

• Hollow organ hold thing

• Gall bladder, colon, small intestine, stomach, bladder

Appendicitis
• Appendix become clogged with stool and becomes infected.

• Pain in right lower quadrant with referred pain to navel.

Ulcers

• An ulcer is when the lining of the organ is irritated or worn through

• Epigastric pain.

• GI ulcers happen in esophagus, stomach and duodenum

• History of alcohol and/or aspirin

• Doesn't hurt as bad after eating. The food dilutes the stomach acids.

Pancreatitis

• Epigastric pain

• Hurts more after the patient eats.

• Can affect digestion and insulin production.

Cholecystitis

• Gall Bladder infection

• Gall bladder holds bile from liver. Bile is green in color

• Bile breaks down fats.
• Hurts in right upper quadrant with referred pain to right shoulder.

• Hurts more after eating fatty foods.

• The 5 "F"er is a gall bladder every time - fat, farts, female, fertile, forty

Pelvic Inflammatory Disease

• Female has an infection in pelvis area.

• Most commonly from a sexually transmitted disease

• The do the pelvis shuffle. Hurts to move pelvis to walk.

• Hurts with intercourse, urination possible, etc....

Ectopic (tubal) pregnancy

• Any female of childbearing age with abdominal pain even if they say they are on birth control and have had no sex is tubal until proven otherwise.

• Embryo develops in fallopian tubes and as it grows rupture them. Major bleeding. Fetal bleeding possible.

Abdominal Aortic Aneurism

• Triple "A"

• A weakened blood vessel ruptures and blood leaks out. Death if no surgery to fix in minutes.
• Death does depend on size of leak.

• Pulsating masses in abdominal area matching the pulse.

• Distended abdomen.

• Decreased lower extremity pulses.

• BP drop/ shock

• This is kind of what John Ritter had. Not exactly the same but the same outcome.

Cystitis

• Bladder infection

• Hurts to urinate.

• Cannot start and stop.

• Fever possible.

Kidney Stones or Kidney Infection

• Flank pain radiating to groin.

• Blood in urine

• Doesn't want to drink because they have to urinate.

• High calcium intake for stones.

Hepatitis-----Liver infection
• Dull right upper quadrant pain

• Yellow skins, eyes.

• Weight loss possible.

Dehydration

• Can happen for any fluid loss. Burns, bleeding, vomiting, not eating, etc.

• No tears when crying.

• Dry mucosa in mouth.

• Positive tilt test.

• Diarrhea

• Vomiting

• DKA – diabetics

• Skin Turgor - pinch skin and it stays standing for more than 3 seconds.

• Care: Give nothing PO unless medical control tells you to.

Review Tilt (orthostatic) test

• Indicated hypotension / volume problems.

• Take BP or Pulse or Both at same time. Take lying down, sitting up and standing.
• If pulse increases by more than 10 to 15 BPM or BP falls by more than 10 to 15 mmHg it is a positive test.

• Let them adjust for 1 to 2 minutes before taking vitals.

• The test is over immediately if you sit them up and they become light headed.