Abdominal Distension

Fluid
- Free (Ascites)
  - Exudate
    - Low SAAG (<11g/L)
      - 97% due to carcinomatosis (extensive cancer metastasis throughout abdo cavity)
      - infection (PMN > 250/cc) – i.e. SBP!
      - Pancreatitis
      - Serositis
      - Nephrosis
      - Perforated viscous
    - Transudate
      - High SAAG (>11g/L)
      - 97% due to Portal hypertension (cirrhosis – 80%, alcoholic hepatitis, Budd-chiari)
      - Cardiac: CHF, constrictive pericarditis

Flatus (Bowel Dilatation)
- Localized
  - Abscess
  - pseudocyst
- Mechanical Obstruction
  - Adhesions
  - Hernias
  - Malignancy
  - Volvulus (sigmoid, cecal)
  - IBD
- Intestinal Pseudo-obstruction (↓ motility)
  - Acute colonic obstruction
    - Toxic megacolon (due to IBD, ischemia, infection, or C-diff)
    - Ogilvie’s syndrome (colonic distension in bedridden pt after trauma)
    - Trauma, surgery, drugs (opioids, anti-cholinergics), medical illness (MI, CHF)
    - Retroperitoneal hemorrhage
    - malignancy
  - Chronic intestinal obstruction
    - Other: paralytic ileus
      - C. diff (toxic megacolon)
      - Peritonitis
      - Post-op - (usually a few days after operation)
      - Hypokalemia
      - Hypothyroidism

Feces
- Constipation
- Carb. malabsorption
- IBS
- Fetus
- Fat
- Fibroids
- Bladder (hydronephrosis/ cysts)
- Other: paralytic ileus
  - C. diff (toxic megacolon)
  - Peritonitis
  - Post-op - (usually a few days after operation)
  - Hypokalemia
  - Hypothyroidism

Fatty
- Feces
- Constipation
- Carb. malabsorption
- IBS
- Fetus
- Fat
- Fibroids
- Bladder (hydronephrosis/ cysts)

Other
- Fatal Tumor
  - hepato/splenomegaly
  - Ovarian/ Uterine mass
  - other malignancies

6 F’s of abdominal distension: Fluid, Flatus, Feces, Fetus, Fat, Fatal Tumor!
Approach to Abdominal Distension

6 F’s of abdominal distension: Fluid, Flatus, Feces, Fetus, Fat, Fatal Tumor!

Imaging of Abdomen
→ Abdominal X-rays (3 views: upright, supine, and CXR)
→ Abdominal/pelvic Ultrasound (differentiates between fluid or gas distension)
→ CT (ascites shows up as grey fluid surrounding internal organs)
→ MRI (if necessary)
→ Contrast studies (barium swallow, small bowel follow-through, water-soluble contrast for obstructions)

Sigmoid volvulus – 8% of all intestinal obstructions, more common in elderly; coffee-bean on X-ray = diagnostic!

Cecal volvulus – dilated cecum in LUQ n X-ray = diagnostic! (1-2% of all intest. obstruction)
(also, bird’s beak on contrast enema – tapering off at end of cecum near IC valve!)

Ascites with normal liver

Yan Yu, 2012 (www.yanyu.ca)