Pericarditis

Key Points:
- Acute pericarditis is most commonly viral/idiopathic but can be caused by infection, radiation, malignancy, autoimmune disease, drugs, and uremia.
- Classic presentation is pleuritic chest pain w/ associated friction rub.
- EKG shows diffuse ST elevation and PR depression w/ PR elevation in lead aVR.

Definition
- Inflammation of the pericardium w/ or w/o associated effusion

Etiology
- Idiopathic/Viral: 75-80% of cases
- Infection:
  - viral: coxsackie, echo, adeno, EBV, HIV, hep B
  - bacterial: Staph, Strep, pneumococcus, H. flu, TB
  - fungal: histo (most common fungus), aspergillus, cocci
  - rickettsial, parasitic
- Radiation
- Malignancy: lung, breast, lymphoma, melanoma, primary cardiac (rhabdomyosarcoma)
- Autoimmune: SLE, RA, systemic sclerosis, vasculitis, Behcet’s, sarcoid
- Drugs/toxins: procainamide, INH, hydralazine (lupus syndrome), PCN, dilantin
- Other: uremia, post-MI, post-CABG, trauma, amyloid

Clinical Presentation/Physical Exam
- Chest pain is the most common complaint
  - sharp, pleuritic, retrosternal, radiating to L shoulder, relieved by sitting up
  - can mimic angina/ischemic chest pain
- Can have fever, myalgias, fatigue
- Heart failure is rare and indicates myocarditis
- Pericardial friction rub can be heart in up to 85% of patients
  - scratchy or squeaking sound
  - classic 3 phase: atrial systole, ventricular systole, ventricular diastole
- Look for evidence of Tamponade on exam

Labs/EKG/ECHO
- Troponin I positive in up to 49% of patients
- EKG shows diffuse ST elevations and PR depression
  - Look for PR elevation in lead aVR (“knuckle sign”)
  - Can be followed by diffuse T-wave inversions
  - No Q waves or reciprocal ST-changes (unlike acute MI)
- Echo typically shows small accumulation of fluid w/o tamponade and nl LV fxn

Treatment
- For idiopathic/viral: NSAIDs (ibuprofen 800 mg TID)
- Treat other underlying etiologies

Prognosis
- For viral/idiopathic, prognosis is good
- Up to ¼ can have recurrent pericarditis that responds to NSAIDs or steroids