

# Carditis

Dr. Fares

- Carditis: inflammation of the heart
  - Pericarditis: inflammation of the pericardium
  - Myocarditis: inflammation of the myocardium
  - Endocarditis: inflammation of the endocardium

# Causes of pericarditis

- Acute, nonspecific (idiopathic)
- Infective: a) bacterial, b) viral, c) other infections
- Immunologic: a) Rheumatic fever, b) other
- Traumatic: a) uremic, b) myxedema, c) neoplastic
- Neoplastic
- Myocardial infarction
- Connective tissue disorder

# Infectious Pericarditis

- Acute , chronic
- Etiology:
  - Most common viruses: enteroviruses
  - Most common bacteria: staphylococcus, strep, and Neisseria

# Pathogenesis

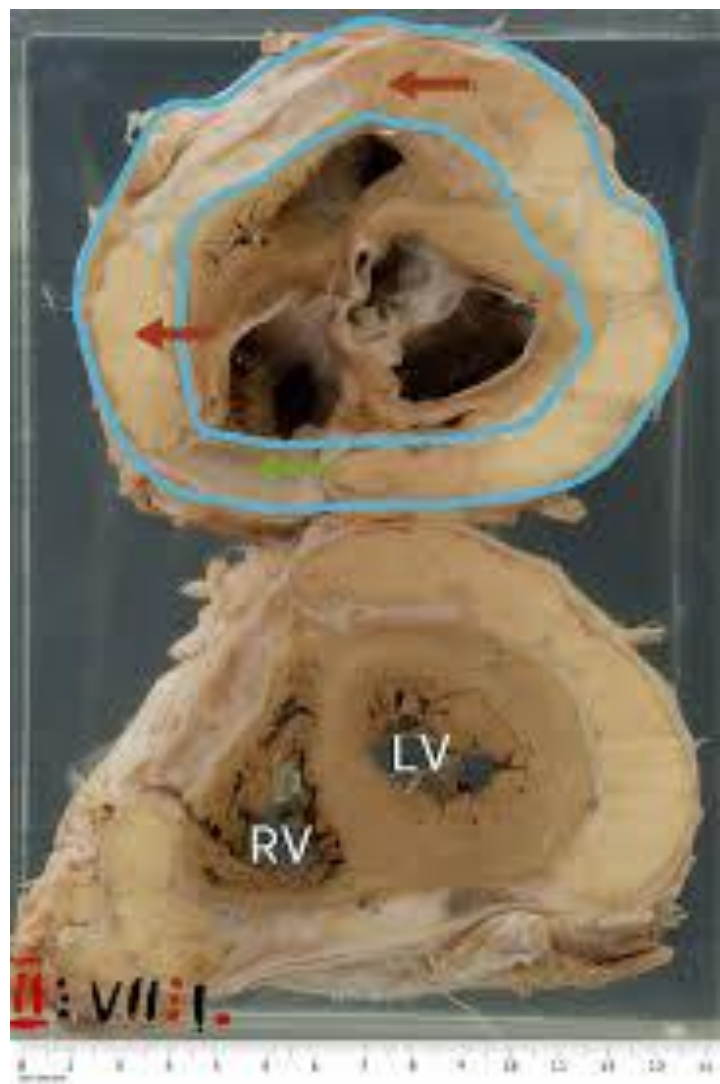
- Micro organisms reach the pericardium by:
  - Blood
  - Direct extension from lung (pneumococci)
  - Direct inoculation during surgery or trauma

# Pathology

- Acute serous or serofibrous pericarditis (usually viral) mild inflammatory reaction associated with focal damage to the adjacent myocardium
  - The response varies: small amount of serous fluid with mononuclear cells and fibrinogen to large neutrophil rich, bloody effusions
  - Mild fibrosis and adhesion between visceral and parietal surfaces
  - Constrictive pericarditis (rare)
  - Usually self limiting and rarely fatal
- Acute purulent pericarditis (usually bacterial)
  - The purulent material contains large number of neutrophil in a large volume of effusion
  - Healing is associated with extensive fibrosis that may progress to chronic constrictive pericarditis
  - The mortality rate is 50%

# Pathology

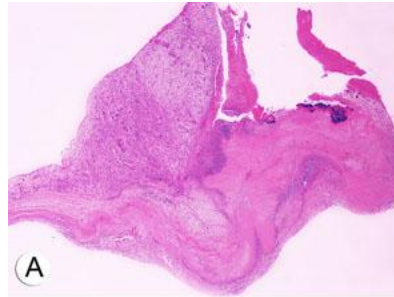
- M. tuberculosis
- 5% of cases with pulmonary TB will have pericardial involvement
- Early granulomatous stage: large pericardial effusions (>300ml), serosanguinous, mononuclear cells
- As the disease evolves the inflammatory process become chronic– fusion of parietal and visceral pericardium– consecutive pericarditis and circulatory failure



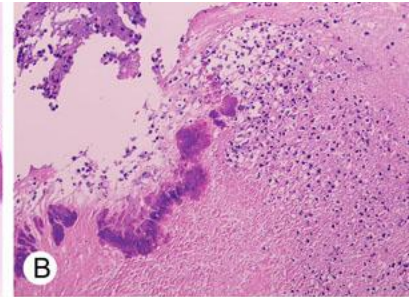


??

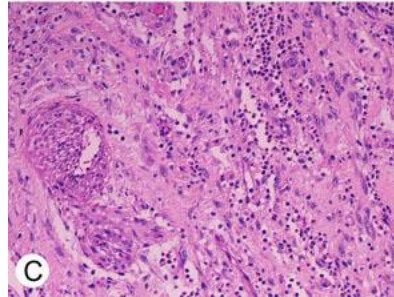
- Acute serofibrous pericarditis
  - Chest pain
  - Rapid in onset, persistent : hours to days
  - Worse during inspiration and recumbency but improves with leaning forward
  - In the upper abdomen over the stomach and maybe sharp, dull constriction and/or crushing making clinical differentiation from mi difficult
  - Fever not prominent
  - Malaise
  - ...
- Acute purulent pericarditis
  - little , chest pain
  - Fever/chills from underlying infection
  - cardiac tamponade:
    1. dyspnea
    2. agitation
    - 3.orthopnea
    - 4.cough
  - Pericardial friction rub- less than 50% of patients
  - Pericardial friction rub triphasic sound that resembles scratches or...



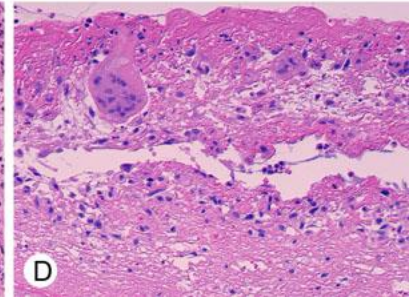
(A)



(B)



(C)



(D)



?

# Treatment

- Bed rest
- Pain control with NSAIDs
- Abx based on the infecting agent and its sensitivity pattern
- +/- surgery

?