Cardiac Pathology 3:
Valvular Heart Disease,
Cardiomyopathies,
and Tumors
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Valvular Heart Disease
• Aortic stenosis: from wear and tear over time, can cause angina, fainting, CHF
• Mitral insufficiency: caused by valve prolapse, usually asymptomatic
• Mitral stenosis: caused by rheumatic fever (multisystem immune-mediated disease following untreated strep throat infection)

Infective Endocarditis
• Bacterial form “vegetations” on heart valves
• Fever, flu-like symptoms
• Acute endocarditis
  • highly virulent bug attacks normal valve
  • abrupt onset, 50% mortality rate (sepsis, emboli)
• Subacute endocarditis
  • low virulence bug colonizes abnormal valve
  • slow onset, most patients recover
Cardiac Pathology Outline

- Blood Vessels
- Heart I
- Heart II
  - Valvular Heart Disease
  - Cardiomyopathies

Dilated cardiomyopathy

- Genetic, infectious, toxic (esp. alcohol)
- Heart is dilated and can’t contract well
- Progressive CHF
- Relatively high mortality

Hypertrophic cardiomyopathy

- Mutation in sarcomere protein gene
- Heart is hypertrophic and can’t fill well
- Atrial fib, arrhythmia, sudden death
- Variable mortality

Restrictive cardiomyopathy

- Secondary to radiation, amyloidosis, sarcoidosis
- Heart is stiff and can’t fill well
- Shortness of breath, edema
- Relatively high mortality

Cardiac Pathology Outline

- Blood Vessels
- Heart I
- Heart II
  - Valvular Heart Disease
  - Cardiomyopathies
  - Tumors
Cardiac Tumors

- Heart tumors are rare!
- Metastatic tumors are more common than primary tumors.
- Most common primary tumor: myxoma

Cardiac myxoma