Cardiac Pathology 3:
Valvular Heart Disease,
Cardiomyopathies,
and Tumors
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Cardiac Pathology Outline

- Blood Vessels
- Heart I
- Heart II
  - Valvular Heart Disease
  - Cardiomyopathies
  - Tumors
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
Infected endocarditis: vegetations on valve
Infective endocarditis: splinter hemorrhage of nail bed
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Normal

Dilated cardiomyopathy

Hypertrophic cardiomyopathy

Restrictive cardiomyopathy
Dilated cardiomyopathy

- Genetic, infectious, toxic (esp. alcohol)
- Heart is dilated and can’t contract well
- Progressive CHF
- Relatively high mortality
• Mutation in sarcomere protein gene
• Heart is hypertrophic and can’t fill well
• Atrial fib, arrhythmia, sudden death
• Variable mortality
Secondary to radiation, amyloidosis, sarcoidosis
Heart is stiff and can’t fill well
Shortness of breath, edema
Relatively high mortality
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Cardiac Tumors

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