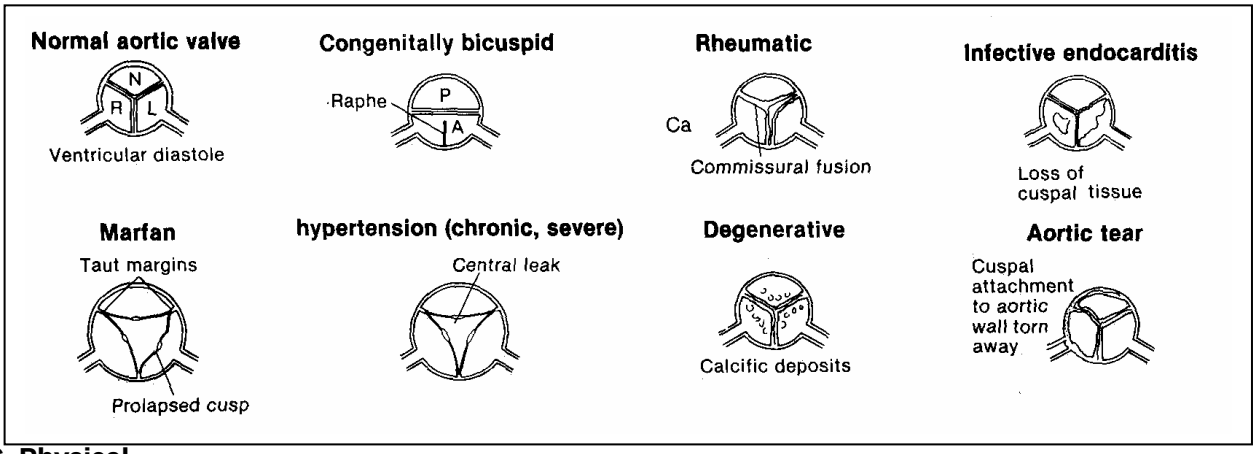
33. Aortic Insufficiency

A. Murmurs

1. Decrescendo early diastolic murmur
2. Chronic = Long murmur, Severe Acute = Short murmur
3. Austin Flint-Murmur of mitral stenosis due to AI jet across anterior mitral leaflet.

B. Etiologies

1. Congenital - bicuspid valve
2. Infection - Endocarditis & Rheumatic Heart Disease
3. Aortic Root Dilatation (± Aneurysm)
    a. Hypertension, atherosclerosis are most common in older persons
    b. Congenital often with bicuspid valves cause in younger persons
4. Aortitis
    a. Vasculitis - Takayasu, Giant Cell (Temporal), Behcet's Syndrome, Cogan's Syndrome
    b. Infectious Aortitis - syphilis
    c. HLA-B27 associated disease
5. Abnormal Collagen
    a. Marfan's Syndrome, Ehlers-Danlos syndrome, with bicuspid valves
6. Rupture, spontaneous or traumatic
7. Subvalvular Disease: aneurysm of sinus of Valsalva, high ventricular septal defect



C. Physical

1. Corrigan's Pulse-"Waterhammer" pulse - rapid rise with sudden collapse
2. Duroziez's Sign - to and fro murmur over femoral artery on light stethoscope compression
3. Quincke's Pulse - capillary pulsations (apply pressure to nail, get flushing then paling)
4. Muller's Sign-Uvula pulsation, de Musset's Sign-Head bobbing, Hill's Sign- Leg BP >20 mmHg, Becker's Sign-Retinal pulsations, Traube Sign-systolic murmur over femoral artery.
5. Bisferiens Pulse-Two systolic peaks.
6. Widened pulse pressures: systolic >160; diastolic <40 mmHg

D. Imaging Studies

Echocardiography is the mainstay of monitoring progression

E. Treatment

1. Lower blood pressure to decrease regurgitant flow
2. Nifedipine-XL 30 to 90 mg has been shown to delay time to valve replacement
3. Enalapril appears to be superior to hydralazine in reducing LV dilatation at 12 months
4. Beta blockers decreases dysfunctional remodeling

F. Indications for Surgery

1. Earlier intervention has been advocated to improve survival and functional outcomes in 2003
2. Asymptomatic any LV enlargement in the young
3. Asymptomatic patients with subnormal LVEF