

Mitral stenosis: (female) (Rheumatic fever or strept.)

Symptoms (12)	"Mitral face! (Rosy cheek/bluish)", fatigue, chest pain, dyspnea on exertion, orthopnea, PND, hemoptysis, pulmonary and peripheral edema, systematic embolism, palpitation, Hoarseness	
Signs (4)	<ol style="list-style-type: none"> 1) Mitral stenosis murmur 2) A.fib 3) Sternal lift 4) Apex localized, tapping 	Loud S2(P2) "in pulmonary HTN" > (opening snap then low pitched mid-diastolic, > PSA (pre-systolic accentuation) > Loud S1
Diagnosis (4)	<ol style="list-style-type: none"> 1) ECG 2) CXR 3) Echo TEE "CD" 4) cardiac cath > elderly > check coronaries 	ECG; A.fib "RA+RV enlargement" / biphasic P wave leads V1 & V2
Complication (5)	<ol style="list-style-type: none"> 1) A.fib 2) CHF "Right side" 3) Pulmonary HTN 4) Lung congestion 5) Systematic embolism 	
Treatment (two ways)	<p>A) Medical (4)</p> <ol style="list-style-type: none"> 1) Diuretics 2) Digoxin, B-blocker, CCB 3) Anticoagulant 4) SBE prophylaxis <p>B) Surgical (3)</p> <ol style="list-style-type: none"> 1) Percutaneous ballooning valvuloplasty 2) Valve repair "open commissurotomy" 3) Mitral valve replacement 	

Mitral reg.: (most common than MS) (MVP, LV& LA enlargement, endocarditis, cardiomyopathy)

Symptoms (6)	Fatigue, weakness, Dyspnea, orthopnea, symptoms of R.HF and MVP syndrome.
Signs (6)	On palpation; 1) Apex displaced, forceful 2) Systolic thrill On Auscult.: 1) Pan-systolic murmur 2) Soft S1 3) S2 splitting "obscured by murmur" 4) S3 gallop
Diagnosis (3)	1) ECG "LA+LV enlargement" 3) Echo "CD" 2) Cardiac cath > elderly
Treatment (two ways)	A) Medical (3) 1) Diuretics 2) ACEI "vasodilators; dec afterload" 3) SBE prophylaxis B) Surgical (2) 1) Valve repair > Survive 80% 2) Valve replacement > Survive 50%

MVP: > = myxomatous degeneration,

- 1) Marfan's syndrome
- 2) Thyrotoxicosis
- 3) RHD
- 4) IHD

Symptoms (3)	1) Atypical chest pain 2) Palpitation 3) Sudden cardiac death 4) TIA
Signs (2)	1) Mid-systolic click 2) Late systolic murmur > if w. MR
Diagnosis (1)	Echo "CD"
Complication (4)	1) Progressive MR (acute or chronic) 2) Thromboembolism 3) Atrial & ventricular arrhythmias 4) Endocarditis
Treatment (3)	1) B-blocker 2) Aspirin 3) SBE prophylaxis "only w, MR"

Aortic Stenosis: (commonest) (elderly)

- 1) Calcification + degeneration of v
- 2) Congenital bicuspid AV
- 3) RHD

Symptoms (5)	<ol style="list-style-type: none"> 1) Fatigue 5 2) Chest pain "angina" 3 3) Syncope w. exertion / pre-syncope 2 4) Symptoms of CHF "dyspnea on exertion, orthopnea, PND" 5) Symptoms of Pulmonary venous congestion
Signs (7)	<ol style="list-style-type: none"> 1) Low BP 2) On palpation: <ol style="list-style-type: none"> 1) Carotid > Pulsus Parvus et Tardus "low volume & rising" 2) Pericardial > Sustained bifid LV impulse (bc LVH) 3) Systolic thrill on aortic area 3) On Auscult.: <ol style="list-style-type: none"> 1) Harsh Crescendo-decrescendo systolic murmur "low pitched" 2) Prominent S4 gallop (bc LVH) (disappears if w. MS or left atrial fib) 3) Thrill radiate to carotids
Diagnosis (3)	<ol style="list-style-type: none"> 1) ECG "LA+LV enlargement" "Bifid & wide P wave" 3) Echo "CD" 2) Cardiac cath > elderly
Treatment (2)	<ol style="list-style-type: none"> 1) Aortic valve replacement "most effective in AS", "Bio.v. >10-15y, mech. > m30y" 2) Medically treat. Symptoms.

Aortic reg.: 5 acute &

- 1) Aortic dissection
 - 2) Rupture of sinus valsalva aneurysm
 - 3) Failure of prosthetic valve
 - 4) Acute RHD
 - 5) Infective endocarditis
- > p. will have acute pulmonary edema immed.

7 Chronic

- 1) Marfan's syndrome
- 2) Osteogenesis imperfecta
- 3) Bicuspid aorta
- 4) RHD
- 5) Aortic endocarditis
- 6) Syphilis arthritides (Reiter syndrome, ankylosing spondylitis, Rheumatic arthritis)
- 7) Severe HTN

Symptoms (3)	<ol style="list-style-type: none"> 1) Symptoms of pulmonary venous congestion ex, Dyspnea 2) Chest pain "angina" 3) Diminished exercise tolerance
Signs (7)	<ol style="list-style-type: none"> 1) High systolic & Low diastolic BP "wide pulse pressure" 2) On palpation: <ol style="list-style-type: none"> 1) Pericardial > Hyperdynamic LV apical impulse 2) Arm > Water hammer pulse "large volume, collapsing" 3) Apex displaced, diffused, forceful. 3) On Auscult.: <ol style="list-style-type: none"> 1) Decrescendo diastolic murmur "high pitched" "ejection click" 2) S3 & S4 gallop if it advanced AR 3) Austin Flint murmur = mid-to-late diastolic apical rumble
Diagnosis (3)	<ol style="list-style-type: none"> 1) ECG "LA+LV enlargement" "Bifid & wide P wave" 3) Echo "CD" 2) Cardiac cath > elderly
Treatment	Aortic valve replacement , or SBE proph. Vasodilators(ACEI, Nifedipine), Diuretics, Check up w. echo

Right side; "change intensity w. inspiration"

Pulmonary: 1) Stenosis > Pediatrics

2) Reg. > RHD

P reg. > Graham Steel Murmur (early diastolic murmur)

Tricuspid: generally in IV drug abuse (endocarditis)

1) Stenosis > Carcinoid hear dis

2) Reg. > 2ry to pulmonary HTN or 2ry to other dis "pansystolic"

Pathophysiology	
MS	<ol style="list-style-type: none"> 1) Thickening 2) LA HTN 3) Limited LV filling 4) Dec. Cardiac output
MR	<ol style="list-style-type: none"> 1) Partial of stroke volume is pumped to left atrium 2) Inc. left atrium pressure 3) Volume overload occurs, bc inc. preload 4) Dec. Cardiac output (Dec. afterload) 5) Compensate by augmenting ejection fraction 6) Prolong compensation leads to Left ventricular dysfunction
MVP	<p>Abnormal mitral apparatus;</p> <ol style="list-style-type: none"> 1) Prolapse of mitral leaflet 2) Traction of papillary muscle 3) Activation of stretch receptors 4) Ischemia of papillary muscle & sub-endocardium <p>p. will have pain & V. arrhythmia</p>
AS	<ol style="list-style-type: none"> 1) Obstructed emptying 2) Inc. Left ventricular pressure 3) Left Vent. Hypertrophy bc of compensation by; <ol style="list-style-type: none"> 1) Reduce wall stress 2) Reduce vent. Compliance 3) Inc. Left vent. End-diastolic pressure 4) Inc. Left atrium pressure 4) Forceful atrium contraction 5) Left vent. Hypertrophy & high intra-myocardial tension >= angina
AR	<ol style="list-style-type: none"> 1) Inc. stroke volume 2) Inc. reg. volume = volume overload > compensated by increase LVED volume this called "Frank-Starling mechanism" 3) Dec. supply & Inc. demand > angina