## **Murmurs and fevers**

Murmur due to high cardiac output in fever, anaemia, pregnancy etc

Soft systolic flow murmur at upper sternal edge.

Also fever & pericarditis post MI (Dresslers syndrome)-murmur of mitral regurgitation (ruptured papillary muscle) and pericardial rub.

Myocarditis fever in 20%, may have mitral/tricuspid regurgitation from dilatation

#### Acute rheumatic fever

Duckett-Jones criteria (2 major or 1 major and 2 minor )

# Major criteria

- •Carditis Characteristic murmurs are mitral regurgitation; the low-pitched, apical, mid diastolic, Carey-Coombs murmur; aortic regurgitation heard at the aortic area. Murmurs of mitral and aortic stenosis are observed in chronic valvular heart disease. Isolated aortic disease would be distinctly unusual
- Polyarthritis
- Chorea
- Erythema marginatum
- Subcutaneous nodules

### Minor criteria

- •Arthralgia
- •Fever
- •Elevated ESR or CRP
- Prolonged PR interval
- •Evidence of preceding group A streptococcal infection
- Elevated or rising ASOT

### Sub-acute bacterial endocarditis

Modified Duke Criteria; (Definite=2 major criteria, or 1 major and 3 minor criteria, or 5 minor criteria; Possible: 1 major and 1 minor criteria, or 3 minor criteria):

# Major criteria:

- •Positive blood cultures:
- •Single positive blood culture for C. burnetii or anti-phase-1 IgG antibody titer >1:800
- •Positive echocardiogram (transoesophageal echocardiogram recommended) (a) Oscillating mass on valve or supporting structures, or in the path of regurgitant jets, or on implanted material or (b) periannularabscess, or (c) new partial dehiscence of prosthetic valve
- •New valvular regurgitation (change in pre-existing murmur not sufficient)

# Minor criteria

- •Predisposing heart condition or intravenous drug use
- •Fever 38.0°C (100.4°F)
- •Vascular phenomena: Major arterial emboli, septic pulmonary infarcts, mycotic aneurysm, intracranial hemorrhage, conjunctival hemorrhage, Janeway lesions
- •Immunologic phenomena: Glomerulonephritis, Osler nodes, Roth spots, rheumatoid factor

•Microbiologic evidence: Positive blood culture, but not of major criterion (excluding single positive cultures for coagulase-negative staphylococci and organisms that do not cause endocarditis) or serologic evidence of infection with organism consistent with infective endocarditis

Also fever & pericarditis post MI (Dresslers syndrome)-murmur of mitral regurgitation (ruptured papillary muscle)

Myocarditis fever in 20%, may have mitral/tricuspid regurgitation from dilatation