

AO REGURGITATION:

Diastolic flow of blood from aorta to LV due to incompetence of the valve or valvular apparatus.

CAUSES:

- Rheumatic Fever – fibrotic changes cause thickening and retraction of leaflets
- Congenital – VSD
- Degenerative
- Traumatic – aortic dissection

It can be either acute or chronic

CHRONIC:

Gradual compensatory changes occur in the LV

Gradual LV overload so the LV compensates by dilating (it does this by the addition of sarcomeres leading to lengthening of myocardial fibres) and LVH

In the early stages ejection fraction is normal or increased – due to Frank Starling Law

Once the LV surpasses its preload reserve ejection fraction falls to normal and then reduces
The LV end diastolic volume increases

When the LV reaches its maximum diameter pressure increases – symptoms (SOB, S₃, ROE)

Reduced coronary perfusion leads to ischaemia

ACUTE:

The LV doesn't have time to gradually compensate

Increase in blood volume during diastole, the LV doesn't have time to dilate in response to sudden volume increase

LV end diastolic pressure rapidly increases, increasing pulmonary venous pressure- this can cause pulmonary oedema

Patient will experience SOB

Heart failure may develop

Severe cases cardiogenic shock

The decrease in myocardial perfusion can lead to ischaemia (chest pain)

**** SURGICAL INTERVENTION IS INDICATED ****

TREATMENT:

Valve replacement

Surgical Valve repair