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/SOBOE)
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 (causing 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