

Aortic Stenosis

What is it?

- Narrowing of the aortic valve restricting blood flow through valve.
- Narrowing most common at the valve (75%), can occur sub- or supra-valvular.
- Most common cause is bicuspid aortic valve (BAV) with incidence of 1 in 5.

How is it Diagnosed?

- Anginal pain, palpitations, shortness of breath with activity. loss of consciousness
- Echocardiogram
- Exercise testing
- Cardiac MRI/CT
- ECG may show left ventricular hypertrophy (LVH)

How does it affect the heart?

- Progression of stenosis varies dependant on initial severity, degree of calcification, age and atherosclerotic risk factors
- Restricts blood flow to aorta and can lead to left ventricular hypertrophy

What is the long term management?

- Symptomatic patients require urgent surgery.
- Balloon valvuloplasty considered for young adults with non-calcified valves.
- Valve replacement for calcified valves.
- Transcatheter aortic valve implantation (TAVI).
- Lifelong anticoagulation if mechanical valve is used.
- Strenuous exercise should be avoided in severe AS. Sport is allowed for mild and moderate but exercise test recommended.
- Pregnancy is contraindicated in severe symptomatic AS. Pregnancy with asymptomatic severe AS and normal exercise test may be possible but is controversial.

What is the follow up?

- Annual cardiac review after valve replacement.
- Echocardiogram to determine progression of valve stenosis and aortic dilation.
- Cardiac MRI required for BAV patients and after surgery.
- First degree relative screening in BAV

