Lecture: Aortic Valve Disease Combined with Ischemic or Mitral Disease: When to operate on the aortic valve
Fausto Pinto, MD

Natural History of Aortic Stenosis

Effect of Concomitant CAD

Survival Following AVR

Asymptomatic AS

Natural history of aortic stenosis

\[ \Delta 0.1 - 0.3 \text{ cm}^2/\text{yr} \]

10-15 mmHg/yr
Asymptomatic AS

- Incidence of angina, syncope and dyspnea if V Max >4 m/s:
  2 yrs: 38%
  3 yrs: 79%

- Probability of sudden death in the asymptomatic pt:
  <1% / yr

Event Free Survival
According to Ao jet velocity

AS Progression More Rapid

- Elderly pts
- Presence of CAD
- Calcific degenerative etiology

Prognosis of AS and Age

Calcification and Prognosis in AS

![Graph showing survival rates for different types of calcification](image1)


Calcification and Rapid Increase in Ao Jet Velocity

![Graph showing event-free survival](image2)


Aortic Stenosis with LV Dysfunction

![Graph showing survival rates for LV dysfunction](image3)

Connolly N et al. Circulation 1997;96:2393

Recommendations for the use of AVR in pts with AS undergoing other procedures

- AVR indicated
  - Pts with severe AS undergoing CABG or MVR
- AVR possibly indicated
  - Pts with only moderate AS who require CABG or other heart surgery

ACC/AHA Task Force on Practice Guidelines
Concomitant AVR (Yes or No?)

Variables

- Severity of leaflet calcification
- Leaflet mobility
- Etiology of aortic valve disease
- Rate of progression of AS
- Patient's life expectancy
- General condition

Concomitant AVR (Yes or No?)

- If mild AS
  tailored approach
  use all information you can get
  intra op TEE
  valve inspection (calcification, etc)