

C2. Exercise Testing In Severe Aortic Stenosis Reveals Symptoms In One-third Of Previously Presumed 'Asymptomatic' Patients, Which Has Consequences For Treatment

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OBJECTIVES: Many (elderly) patients gradually adapt their lifestyle to slowly developing aortic stenosis and therefore deny having symptoms. Exercise testing is highly underused but could help to unmask those patients who are in fact restricted by the stenosis and have an indication for aortic valve replacement.

METHODS: 159 patients with severe aortic stenosis were recruited from the outpatient clinics of 7 hospitals in the Rotterdam region. Patients who claimed to be asymptomatic were at baseline subjected to an exercise test provided they were physically capable. An exercise test was stopped and considered positive if blood pressure failed to increase, if ST-segment changes (>2mm) or ventricular arrhythmias occurred, or when the patient experienced angina, severe dyspnea or (near-) syncope. Patients were followed to investigate their clinical status.

RESULTS: 48 patients claimed to be asymptomatic, in 8 patients the bicycle test could not be performed (logistics n=3, physical constraints n=3, patient refusal n=2). The test was positive in 13 patients (33%), negative in 21 (53%) and inconclusive in 6 (15%). After 6 months 56% of the patients with a positive test developed symptoms in daily life versus 22% of the patients with a negative test (odds ratio 4.4, p=0.08).

CONCLUSIONS: Exercise testing elicits symptoms or signs in one third of the patients with severe aortic stenosis who were previously considered asymptomatic. These newly identified patients seem to have a higher risk of short-term symptom development and have an indication for aortic valve replacement. Neglecting exercise testing as a diagnostic tool leads to undertreatment of patients.