Exercise testing to stratify risk in asymptomatic moderate and severe aortic stenosis

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Introduction: The literature contains various data regarding the value of the exercise testing in patients with asymptomatic aortic stenosis (AS). The aim: To determine the importance of exercise testing in cardiovascular risk stratification in patients with moderate severe to severe aortic stenosis.

Methods and Results: Out of a total 33 patients with moderate severe to severe asymptomatic aortic stenosis (mean aortic area EOA 0.9±0.34 cm²) we followed up 31 patients (two were excluded) during the 12 months period by clinical, transthoracic echocardiogram and treadmill stress testing. 18 (58%) patients discontinued the test due to limiting symptoms, and had severe aortic stenosis (EOA ≤0.8 cm²).

During the follow-up, 11 patients spontaneously developed severe symptoms within 12 months period, of whom 8 underwent aortic valve replacement, one patient died (sudden cardiac death), and two patients had a stroke. A total of 20 patients remained free of any symptoms. The highest predictive value is EOA ≤0.8 cm² for the provoked symptom test and it is 85%. ST depression had the highest negative predictive value.

Conclusion: Only limiting symptoms with critical aortic of area (EOA ≤0.8 cm²) have a positive predictive value.

KEYWORDS: asymptomatic aortic stenosis, treadmill stress testing, prognosis.

CITATION: Cardiol Croat. 2014;9(3-4):86.