PROGNOSTIC IMPACT AND LATE EVOLUTION OF UNTREATED MODERATE FUNCTIONAL TRICUSPID REGURGITATION IN PATIENTS UNDERGOING AORTIC VALVE REPLACEMENT

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Objectives: Moderate functional tricuspid regurgitation (TR) is found not infrequently in patients undergoing aortic valve replacement (AVR). The aim of the present study was to evaluate the prognostic impact and late evolution of associated TR 2/4+ after AVR.

Methods: We evaluated 61 patients who underwent AVR between 2003 and 2012 [35 for aortic stenosis (AS), 26 for aortic regurgitation (AR)] with associated moderate TR (2/4+), which was left untreated. Patients with concomitant mitral regurgitation or stenosis were excluded. The median follow-up duration was 3.2 years (IQR 2; 5.6 years; maximum 11 years). The serial echocardiographic and clinical data were collected and analysed.

Results: Mean age was 65 ± 13 years, 26% of the patients (16/61) were in NYHA class III–IV. Left ventricular ejection fraction (LVEF) was 53 ± 11%; systolic pulmonary artery pressure (sPAP) was 45 ± 13 mmHg. Comorbidity included: diabetes in 8%, chronic obstructive pulmonary disease (COPD) in 5%, chronic renal failure in 13%, previous cardiac operation in 16%, coronary artery disease in 20%, history of stroke/TIA in 8%. In patients with AR a previous cardiac operation was more frequent. Thirty-day mortality was 1.6%. Median length-of-stay was 6 days. Overall actuarial survival was 83 ± 6% at 6.5 years, with a freedom from cardiac death of 90 ± 5%. Freedom from TR ≥3+ was 87 ± 6% at 6.5 years, without differences between AS and AR. At last follow-up, 83% of the patients had TR 0–1/4+, 9% had TR 2/4+, 4% had TR 3/4+ and 4% had TR 4/4+. Occurrence of TR ≥3+ at follow-up was associated with increased cardiac mortality (HR 1.5; P = 0.009).

Conclusion: Preoperative untreated TR 2/4+ improves or remains stable in the majority of the cases. However, occurrence of TR ≥3+ of 8% at last follow-up is not reassuring, suggesting the need for a better characterisation of patients with preoperative TR 2/4+ undergoing AVR, in order to identify subjects at risk for TR progression.