

P4. Long-term Outcomes Of Tricuspid Valve Replacement: Twenty-years Experience Comparing Mechanical And Biological Prostheses

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OBJECTIVES: Tricuspid valve replacement (TVR) has historically been associated with high mortality and morbidity, and current knowledge in long-term results of TVR is limited. Aim of this study is to review our experience from a consecutive series at two Institutions.

METHODS: Ninety patients (65 females(72%); mean age=53.8±14.2 years; mean BSA=1.7±0.5) underwent tricuspid valve replacement between January 1985 and December 2005. The aetiology was rheumatic in 56 patients(62%), degenerative disease in 16 pts(18%), Ebstein's anomaly in 7 pts (8%), and endocarditis in 11 pts(12%). Seventy patients(78%) were in NYHA Class III or IV. Sixty patients(67%) underwent redo procedures. Tricuspid valve was replaced with a mechanical valve in 46 patients(51%) and with a biological prosthesis in 44 patients(49%).

RESULTS: The overall operative mortality was 17.7% (16 patients). Of the 74 survivors, 19 (25.6%) died during follow up. Kaplan-Meier survival at 2.5, 5, and 10 years was 78.5%, 69.8%, and 57.9% respectively. Fifteen patients (20.2%) underwent reoperation during follow-up; among them 6 patients with a mechanical valve underwent reoperation for tricuspid valve thrombosis and 6 patients with a biological prosthesis for tricuspid valve deterioration. All the 15 patients survived the reoperation. Freedom from reoperation at 5 and 10 years was 87.6% and 73.4% respectively. At multivariate analysis older age, pre-operative NYHA class, liver congestion and redo surgery were found as major determinants of long-term mortality.

CONCLUSIONS: TVR carries higher short and long-term mortality when compared to left-heart valves surgery. Timely referral before end-stage cardiac impairment develops could determine further outcomes improvement.