Isolated aortic valve replacement: results from a contemporary series of 3178 patients.

Di Eusanio M, Fortuna D, De Palma R, Dell'amore A, Lamarra M, Contini GA, Gherli T, Gabbieri D, Ghidoni I, Cristell D, Zussa C, Barattoni M., Pigini F, Pugliese P, Pacini D, Di Bartolomeo R.

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Abstract

Objective. To evaluate outcome and to identify predictors of hospital and mid-term mortality after primary isolated aortic valve replacement. To compare early and mid-term survival of patients older and younger than 80 years and to assess the effectiveness of Logistic EuroSCORE in predicting the risk for hospital mortality in octogenarians with Logistic EuroSCORE>15% undergoing aortic valve replacement.

Methods. Data from 3178 patients undergoing primary isolated aortic valve replacement between January 2003 and December 2009 were prospectively collected in a Regional Registry (RERIC) and analysed to estimate hospital and mid-term results.

Results. Overall hospital mortality was 2.5%. By multivariate analysis, age, NYHA III-IV, CCS III-IV, pulmonary artery pressure > 60 mmHg, dialysis, infective endocarditis and severe chronic obstructive pulmonary disease emerged as independent predictors of hospital mortality. At 6 years the survival rate was 79.9%. Age > 80, NYHA III-IV, pulmonary artery pressure > 60 mmHg, EF 30%-50%, cerebrovascular disease, creatinine >2mg/dl and chronic obstructive pulmonary disease emerged as independent risk factors for 3-years mortality. As compared to younger patients, octogenarians had higher hospital mortality rate (3.72% vs 1.81%; p=0.0143) and a reduced 6-years survival rate (81.7% vs 67.5%; p<0.001). The observed mortality rate in octogenarians with logistic EuroSCORE > 15% (mean: 23.1%) was 8.2% (p<0.001).

Conclusions. This study provides contemporary data on characteristics and outcome of patients undergoing first-time isolated aortic valve replacement.