

Aortic Valve Replacement in the Elderly: Is the Risk Truly Increased?

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Introduction: With the evolution of new technology for aortic valve implantation patients deemed at high risk for conventional surgery are referred for catheter based procedures. One factor believed to predict increased risk is patient age. We reviewed our data to try and determine the effects of age on surgical outcomes in elective isolated aortic valve replacement (AVR).

Methods: There were 343 patients. Pre-operative data were analyzed by univariate and multivariate analysis in order to identify predictors for operative mortality.

Results: Mean age was 66 ± 13 years. Euroscore was 6 ± 3 (predicted mortality 8%). Overall, 20 patients (6%) died. Predictors for operative mortality, by multivariate analysis were age as a continuous variable ($p=0.005$), female gender ($p=0.009$), reduced LV function ($p=0.01$) and PVD ($p=0.02$). We then compared results in patients over the age of 75 ($n=87$; 25%) to those below 75. In the older and younger group respectively, mean age was 80 ± 3 and 61 ± 12 ($p<0.0001$), and mortality was 11% and 4% ($p=0.009$). By multivariate analysis, female gender was the strongest predictor for mortality ($p=0.008$). Other predictors were age ($p=0.03$), PVD ($p=0.02$) and reduced LV function ($p=0.02$).

Conclusions: Surgical replacement of the aortic valve is safe also in elderly patients, and long term results are well established. Until such results are demonstrated with catheter based valve implantation, surgery should still be the procedure of choice, also for older patients. In elderly female patients, trans-catheter aortic valve implantation may be the preferred procedure.