Aortic Valve Replacement in Patients 70 Years and Older

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Summary

Background: Aortic valvular disease is the most common valvular lesion among elderly patients. Because of changing demographics, it has become increasingly frequent. Aortic valve replacement (AVR) is the only effective treatment for aortic valvular disease.

Hypothesis: This study was undertaken to evaluate the results of AVR in an elderly population.

Methods: Data were retrospectively analyzed in 117 consecutive patients (mean age 73.8 years) who underwent AVR between 1991 and 2002.

Results: Pure or predominant severe aortic stenosis was present in 108 patients. Nine patients had severe aortic regurgitation. Before valve replacement, 62.4% of the patients were in New York Heart Association (NYHA) functional class III–IV. A bioprosthesis was implanted in 62.4% of the patients, and 37.6% received a mechanical valve. Concomitant cardiac surgical procedures were performed in 25 patients (coronary artery bypass graft in 22, mitral valve replacement in 3). There were 17 deaths, giving a perioperative mortality rate of 14.5%. Multivariate logistic regression showed that repeat surgery for bleeding, prolonged cardiopulmonary bypass time, postoperative respiratory failure, and postoperative acute renal insufficiency were significant independent predictors of operative mortality. Of the 100 hospital survivors, 78 were followed for a mean of 42.9 months. There were six deaths during follow-up; only two of these were cardiac related. Five-year actuarial survival for all patients and for hospital survivors were 70 and 91.1%, respectively. One year post surgery, all patients were in NYHA functional class I–II.

Conclusion: In a selected patient population, AVR in the elderly is associated with acceptable mortality and morbidity. The outlook for hospital operative survivors is excellent with improved quality of life and an expected survival normal for this particular age.

Key words: elderly, aortic stenosis, aortic valve replacement