

The Effect of Severe Aortic Stenosis on Outcome in Elderly Patients Undergoing Repair of Hip Fracture

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Background: The perioperative assessment and management of elderly patients with hip fracture and significant aortic stenosis is an increasingly common clinical problem with little data available to guide perioperative management. The objective of this study was to examine the incidence of perioperative events in an elderly population of patients with severe AS undergoing repair of hip fracture as compared to controls without severe AS.

Methods: Patients over the age of 70 with an echocardiographic diagnosis of severe AS defined as aortic valve area was less than or equal to 1.0 cm² who underwent surgery for hip fracture repair were retrospectively identified. An age matched group of patients without a history of AS who underwent surgical repair of hip fracture was the control group. The primary outcome of the incidence of postoperative cardiac events defined as death, acute coronary syndrome or pulmonary edema within 30 days was compared.

Results: 32 patients with AS (median age 84.5 yrs, range 72-94; 27F/5M) and 88 controls (median age 86 yrs; range 80-95; 67F/21M) were entered into the study. There were no significant differences between the AS group and controls in 30-day mortality (6.2% vs. 6.8%) or in total cardiac event rate (18.7% vs. 11.8%).

Conclusions: Our results demonstrate that elderly patients with severe AS can safely undergo repair of hip fractures with mortality and morbidity comparable to a control population. These patients should not be denied surgery on the basis of their aortic valve disease.