

Eur J Cardiothorac Surg. 2012 Jun;41(6):1247-52; discussion 1252-3. Epub 2012 Jan 12.

Contemporary outcomes of conventional aortic valve replacement in 638 octogenarians: insights from an Italian Regional Cardiac Surgery Registry (RERIC)

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Source

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Abstract

OBJECTIVES:

Few data exist on contemporary outcomes after conventional aortic valve replacement (AVR) in the elderly. Accordingly, we evaluated contemporary outcomes and identified predictors of reduced survival in a large series of octogenarians undergoing AVR.

METHODS:

The Regione Emilia Romagna Cardiac Surgery registry (RERIC) database (n = 2 6938) was queried for clinical features, hospital and mid-term outcomes of octogenarians undergoing AVR between 2003 and 2009. Predictors of hospital and mid-term mortality were identified.

RESULTS:

The study population consisted of 638 patients. NYHA class III-IV, congestive heart failure, cerebrovascular disease, extra-cardiac arteriopathy, mostly exacerbated patients' clinical profile. Mean log-EuroSCORE was 13.0%. Overall hospital mortality and stroke rates were 4.5% and 1.3%, respectively. Other post-operative complications included renal failure (4.9%), intubation time >48 h (3.4%), complete atrio-ventricular block (4.4%). NYHA III-IV (OR = 2.7; CI 95%:1.2-6.7) and CCS III-IV (OR = 3.1; CI 95%:1.1-9.4) emerged as independent predictors of hospital mortality on multivariate analysis. At 6 years, octogenarians' survival rate was similar to the expected survival of the age- and sex-matched regional population. CCS III-IV (HR = 2.1; CI 95%:1.2-4), preoperative creatinine > 2.1 (HR = 2.8; CI 95%:1.4-5.9), extra-cardiac arteriopathy (HR = 1.5; CI 95%:1.1-2.1) and peripheral neurological dysfunction (HR = 3.8; CI 95%:1.4-10.4) emerged as independent risk factors for decreased 6 years' survival.

CONCLUSIONS:

This study, showing that contemporary outcomes after AVR are excellent, may help to improve treatment decision-making in elderly patients with aortic valve disease.