



EDITORIAL COMMENT

Editorial comment on “Aortic valve replacement for severe aortic stenosis in octogenarians: Patient outcomes and comparison of operative risk scores”[☆]



Comentário editorial ao artigo *Aortic valve replacement for severe aortic stenosis in octogenarians: patient outcomes and operative risk score comparison*

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In this issue of the *Journal*, Tralhão et al. present a single-center case series over a seven-year period (January 2003 to December 2010) of 106 octogenarians undergoing surgical implantation of a biologic prosthetic aortic valve for symptomatic severe aortic stenosis.¹ Patients with associated valvular lesions or coronary artery disease requiring concomitant coronary artery bypass grafting were excluded. The aims of the study were to analyze outcomes in this population in terms of overall mortality and some of the complications often associated with this intervention, including stroke and need for pacemaker implantation or temporary hemodialysis, and to assess the predictive value of the scores most commonly used to determine operative risk in patients undergoing cardiac surgery: the logistic European System for Cardiac Operative Risk Evaluation score (EuroSCORE) I, EuroSCORE II and the Society of Thoracic Surgeons (STS) score.^{2,3}

Rates of mortality (5.7%), stroke (1.9%) and need for pacemaker implantation (4.7%) were similar to those in some of the most important published series,^{4–9} which is unquestionably cause for satisfaction for the authors. It would be interesting to compare the results with those in a higher-

risk population with more comorbidities, such as the study based on data of over 140 000 patients in the STS Adult Cardiac Surgery Database.⁷ However, the cutoff for the low risk category in the latter study was an STS score of 4%, with no standard deviation, and thus some patients could have been at lower risk than in the present study.

The study population was at low surgical risk according to the risk scores most commonly used for this purpose. This is partly due to the exclusion of patients with associated valvular lesions or coronary artery disease requiring surgery. Moreover, the median prosthesis ring size used was 21 mm, and smaller valves are known to be associated with worse prognosis.⁷

Evaluation of the different risk scores showed good correlations for EuroSCORE II and the STS score, in both of which age is weighted less heavily than in EuroSCORE I.

However, more importantly, these scores assess risk for early surgical mortality, but in this low-risk population, 30 days is too short. Other scores should be designed that better reflect the characteristics of these patients. As Tralhão et al. point out in their Discussion, new scores should be developed that take into consideration factors that are not currently included, such as porcelain aorta, severe respiratory failure requiring prolonged oxygen therapy, liver cirrhosis, chest deformation or previous radiation, immobility, dementia or dementia-like conditions, and frailty, although these can be difficult to define.^{8,9} It would also be helpful to include longer follow-up periods rather than immediate and 30-day only; for instance, time to

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recovery of normal activity, comparable to that before the intervention, is very important in a population with a short life expectancy.¹⁰ The development of alternatives that do not require sternotomy, and thus reduce hospital stays and associated morbidity, may change practice in the future.¹¹

There is a clear need to improve the quality of risk scores for patients with aortic stenosis. The current scores accurately assess risk in most patients, but they do not cover certain situations that significantly increase risk or may actually contraindicate surgical aortic valve replacement.

Conflicts of interest

The author has no conflicts of interest to declare.

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