

## Current Isolated Aortic Valve Surgery in Elderly Patients, and its impact on Prognosis and Quality of Life

ALBERTO DOMENECH <sup>MTSAC, FACC</sup>

In this issue of the Argentine Journal of Cardiology, Piccinini et al. show a retrospective analysis about a series of 87 octogenarian patients who underwent isolated aortic valve replacement in a period of 12 years. The objective of the authors was to communicate morbidity and mortality related to the procedure, establish predictors of events in the perioperative and follow-up and validate, according to what they express, the usefulness of the prediction scores more frequently used. Median follow-up was of 3.3 years (between 50 days and 10 years). About 23% of the undergoing patients showed criteria for high risk according to the EUROscore system. (2) Although the authors said they had already calculated perioperative risk using the STS score, (3) then they do not use it in the analysis. Unfortunately, the statistical methodology used was not detailed, but if we pay attention to the available information in the presentation tables, it seems that those patients in the high risk subgroup obtain that category due to a higher prevalence of an extracardiac arteriopathy, chronic obstructive pulmonary disease, re-interventions, unstable angina and impaired ventricular function. As a consequence of not knowing the statistical methodology used, we do not know the tests used in this study to compare predicted and observed mortality, but for the high risk subgroup the observed mortality was lower than the expected. This information is not surprising. Overestimation of risk of EUROscore system in patients undergoing isolated aortic valve replacement has been published in series that contain hundred and even thousands of patients (4, 5) and a meta-analysis also alerts about this fact. (6) In these studies, overestimation in mortality is shown not only in the high risk group, but also in those of low and moderate risk. Although this opposed to what authors infer in the discussion, maybe with more patients Piccinini et al. would had found the same differences in the other subgroups that researchers of international series find.

We must remember that while the prediction system developed in Europe overestimates risk, there are publications that suggest that the system of the Society of Thoracic Surgery (STS) seems to be more adequate in operative risk estimation in patients with valve diseases, (7) which is expressed in the bibliography mentioned by the authors. (8) For this reason, it is a pity that having made the calculation of the risk by the score of the STS the authors have missed the opportunity to evaluate this

point in their population.

The authors show morbidity and mortality results that can be compared to international studies, which show quality and experience of the working group.

In this study we try to find predictors of events, we found a significant association with perioperative mortality in presence of low volume postoperative minute and no predictors of late mortality were found. The wide confidence interval in the OR of the only predictor found and the absence of predictors in the follow-up suggest that the number of patients included in the study maybe low for what we are trying to evaluate.

In the follow-up, survival at 1, 3 and 5 years (98%, 77% and 64.7%) is equated and sometimes is favourably compared to international series; however, to have a more accurate estimation, hospital mortality should have been included in the calculation. Survival curve shows that only patients who survived were monitored, thus intervention benefit is overestimated.

It would be interesting to know the authors' opinion about the reasons why 28% of the patients included in this study did not get better and even get worse, since it is not a small number.

This study shows the local results of a series of patients who are treated with increasing frequency. These results show that in Argentine, and in some centers, octogenarians or high risk patients can be operated hoping the same success as in European countries or in the United States.

The message transmitted by the authors coincides and is supported by several studies made and published from 2007 to today and points to remember in first place the benefits of an established and proved procedure in patients over 80 years and, second to alert that one of the elements taken into account to select patients for an endovascular aortic valve implantation (EUROscore of high risk) is definitely inadequate.

All doctors implied in the treatment of patients with cardiovascular diseases know the difficulties at the moment of generating evidence when invasive strategies are compared. Several trials which compared angioplasty versus surgery in the treatment of the coronary disease can prove those difficulties, and on which we are still discussing.

Regarding the treatment of aortic stenosis nowadays, we should start making inferences comparing studies of patients treated with one or another method with

different realities and results that should show benefit of one or another strategy.

We will find data of records and international series that, although respectable, do not allow generalizations.

Nowadays, following the principles of the medicine based on evidence, maybe it would be adequate suggesting to wait the results of the PARTNER TRIAL (Placement of Aortic Transcatheter Valve Trial), (9) which would try to answer two important questions: year survival of patients who underwent a transcatheter aortic valve replacement versus surgical aortic valve replacement and year survival of patients who underwent transcatheter aortic valve replacement versus clinical treatment. A more detailed description of this trial is beyond the scope of this editorial.

However, in September 2010 the results a year of one of the two cohorts of the studied patients were published, the one of treatment with transcatheter aortic valve implantation versus standard therapeutics (including percutaneous valvuloplasty). (10) Both mortality due to any cause and the combined rate of death-rehospitalisation for some reason was significantly lower with the interventionist strategy. The same happened with the frequency of cardiovascular symptoms appearance after a year. Likewise, the group to which a transcatheter valve was implanted presented a frequency of complications higher and stroke significantly higher than the group with standard treatment.

We should wait for the results of two cohorts, as well as the control group (conventional valve replacement).

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