

Re: Systematic review and meta-analysis of transcatheter aortic valve implantation versus surgical aortic valve replacement for severe aortic stenosis

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When the initial results of the PARTNER trial were published, a win-win situation for cardiac surgeons arose. Not only now was it feasible and justifiable to treat formerly inoperable patients, this new treatment option also made it possible to shift patients with very high operative risk and expected poor outcome to transcatheter aortic valve implantation (TAVI). The previous unpalatable decision of performing conventional surgery in a very high risk patient or leaving him with a very bad quality of life suddenly had a third option. Because of this third option, more patients with aortic stenosis were suddenly being seen by the newly formed Heart Team.

Even though the PARTNER trial cohort A could not definitively answer the question which option is better for high risk patients in the long run, it has unfortunately remained the only randomized trial so far to compare conventional surgery and TAVI (the results of the STACCATO trial are difficult to interpret due to problems with the methodology). However, the cohort A results significantly reinforced the growing TAVI business both in its clinical numbers and scientific publications. In the European countries where TAVI is reimbursed on a rather lucrative scale, patients who were formerly left unoperated upon are now being aggressively treated, resulting in approximately one third of all aortic valve replacements being performed with this technique. With the broad acceptance of this therapy and recent advances in technology and techniques, there is now an increasing push to expand the indication to intermediate and low risk patients. Currently in its active recruiting phase, the next important study is the SURTAVI trial, which focuses on intermediate risk patients.

So the win-win situation for the cardiac surgery community and patient care has now begun to change into a competitive one, whereby cardiac surgeons and cardiologists potentially have competing interests in mind. This is why the presented systematic review of all published comparisons between TAVI and conventional surgery is necessary and important (1). Although not ideal, it is the best means we have (and probably will have for some time) to help Heart Teams decide one therapeutic option over another for each individual patient.

One has to keep in mind that many of the analysed series in the meta-analysis represent the early and growing experience for the involved centers. It is possible that enhanced devices and improved operator skill may have led to improved outcome after TAVI since these early series. However, results of the meta-analysis confirm that it is not age or risk scores alone that should guide the decision making process, but rather it is the individual risk factors of patients and clinical experience of both cardiologists and cardiac surgeons. Thus, the role of the Heart Team cannot be overemphasized in this context.

In addition, these results also show that it is far too early to automatically assign high-risk patients to TAVI. One can only agree with the authors that more long-term data from standardized registries is required before making definite conclusions as to which therapy is superior (such conclusion are even more evident for patients in lower risk groups). Here, in the interest of patients, independent randomized controlled trials with relevant long-term follow-up are a must before the indication for TAVI can be extended.

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Reference

1. Cao C, Ang SC, Indraratna P, et al. Systematic review and meta-analysis of transcatheter aortic valve implantation

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