

Transcatheter aortic valve implantation: the optimal alternative to cardiac reoperation also from the patient's perspective

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Article Tokarek et al., see p. 838

The spread of transcatheter aortic valve implantation (TAVI) technologies to alternative scenarios in the near future is unquestionable, but several shortcomings still exist. The so-called “TAVI fever” has often led to the use of this promising technology in clinical conditions with unproven efficacy attending to current scientific evidence. Very old [1], multi-valvular [2–4], or oncological patients [5] represent some of the challenging scenarios where the use of TAVI might be attractive but remains empirical. Tokarek et al. [6] explored one important scenario still under-investigated despite the fact that one in four TAVI recipients present this condition: the presence of prior sternotomy for cardiac surgery.

It is well-known that sternotomy is relatively safe by itself but not harmless [7]. Interestingly, the authors performed not only an assessment of prognostic outcomes, but they also gave a hint of the patient's perception of the procedure through prospective evaluation with quality-of-life scales. This has particular value in comparing conventional cardiac surgery and transcatheter technologies in a population that have experienced both kinds of procedures. Despite the relatively small sample, significant differences were found in global mortality, favouring TAVI in the long term. Also, better results in all evaluated items regarding quality of life (mobility, self-care, pain, etc.) were present, although statistical significance was not reached. The fact that ~20% of the patients were treated through transapical/transaortic approach should be taken into consideration to explain this. In the current series, this proportion is usually below 10% and, even though the authors suggest that both transapical and transfemoral approaches are reasonable in patients with previous cardiac operations, we should keep in mind that the transapical approach also requires a thoracotomy, which has been previously associated with a higher degree of discomfort for the patient, more

periprocedural complications, and higher mortality [8]. As highlighted by the authors (and this is the main message from this work, from my perspective), we need to start wondering which alternatives are preferred by well-informed patients; and this information should include the consequences in all aspects related to the quality of life post-intervention. In this regard, alternative approaches to transapical/transaortic access in poor candidates to transfemoral access should be evaluated; transaxillary approach is a very good option with fewer induced comorbidities for the patient [9], but the investigation from Tokarek et al. [6] makes us wonder if we have enough information regarding the perception of the patient with this approach as compared to others. Additionally, more than 80% of the patients with prior sternotomy had undergone coronary artery bypass grafting. Probably, left subclavian approach was not used due to the risk of compromising the left internal mammary artery, whereas the right approach is empirically avoided due to the risk of compromising the right carotid artery. Thorough research is still needed to clarify these aspects of the axillary approach in this scenario as it might represent a better alternative to transapical and transaortic ones.

It is well-known that reoperation is one of the factors that most increases the risk in cardiac interventions, only exceeded by advanced age and the need for an emergency procedure [10–12]. The growing experience in valve-in-valve procedures both in aortic and mitral positions for degenerated bioprostheses [13, 14] and the positive results — in prognosis and quality of life — in patients with previous coronary bypass grafts [6] allow room for optimism regarding the impact of transcatheter technologies in the outcomes of our patients with the presence of prior cardiac surgery as their main comorbidity.

Conflict of interest: none declared

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