Repair versus replacement of the aortic valve for the treatment of active infective endocarditis: is Sorin Solo the aortic bioprosthesis Columbus’s egg?

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We read with interest the paper from Mayer et al. [1] regarding the best treatment for aortic valve endocarditis and would like to present our personal approach in such a challenging situation. Active infective endocarditis (AIE) remains a challenging situation, particularly when associated with annular infection and the presence of root abscesses [2, 3]. Such a condition, due to the fragility of the aortic annulus, is related to unfavourable postoperative mortality and high incidence of paravalvular leakage. The best treatment for abscesses is still a matter of debate, and the treatments proposed so far vary from the toilette and exclusion using mattress sutures to the more demanding technique of exclusion with a pericardium patch [4]. Mayer et al. claim better survival using valve repair compared with aortic valve replacement (AVR) particularly in patients with a tricuspid aortic valve and limited cusp defect. In his editorial comment, however, David [5] underlined the relatively poor prognosis in terms of freedom from reoperation (and from persisting endocarditis) in the group receiving valve repair. The ideal surgical procedure for AIE is still debated, and we would like to stress that a key factor for the final outcome is surely represented by the presence of a paravalvular abscess. In the Mayer experience, the presence of root abscesses (32% of patients) did not influence the choice between valve and replacement. AVR following abscess treatment, however, could cause additional technical difficulties due to the conjunction of the upper margin of the patch with the suture line of the prosthesis. We have recently considered AVR to be the treatment of choice for AIE using the Solo stentless pericardial bioprosthesis (SFS), recently introduced by Sorin, according to the standard reported technique [6]. A peculiar characteristic of SFS is the supra-annular implantation within the sinuses of Valsalva, which, therefore, does not require annular sutures. This technique enables one to avoid anchoring the suture of the prosthesis on the pericardial patch used for the abscess and, therefore, the use of SFS could be the best option in case of AIE with root abscesses. In our series, perioperative mortality was 0%, with no major early complications. At cumulative follow-up of 172 months, there were no cases of late death, no persistent or recurrent endocarditis and no case of ‘failed treatment’ (i.e. sterile paravalvular leakage and/or patch dehiscence).

Our preliminary results, in a cohort of haemodynamically stable patients, seem to confirm therefore that SFS is safe and effective in this clinical subset, allowing for a complete treatment of infection in all cases, without late reoperations either for sterile or for infective paravalvular leakage.

REFERENCES