

Paravalvular leak after transcatheter aortic valve implantation

To the Editor,

We read the study of Duran Karaduman et al. (1) with interest. The number of highly satisfactory patients and successful results for a single-center study is truly admirable. When evaluating transcatheter aortic valve implantation (TAVI) applications as the treatment of severe aortic stenosis, there are undoubtedly 2 basic issues to be evaluated. The first is clinical parameters such as postoperative survival and neurological complications. The other is the postoperative high valve gradients and paravalvular leak (PVL) incidence rates that show the durability of the valve. Different rates of PVL can be detected in both surgical aortic valve replacements (SAVR) and TAVI procedures. It has been reported in many studies that there is mild or severe PVL at the rate of 0% to 20% in surgical aortic valve replacements (2-4). In TAVI, this rate is somewhat higher owing to the nature of the procedure. In various studies, this rate has been reported to be as high as 60% for post-TAVI mild PVL (5, 6). However, the point we want to mention here is not to compare or interpret the 2 techniques in terms of this parameter. Another point regarding PVL in the study of Duran Karaduman et al. (1) attracted our attention. It has been reported that mild

PVL incidence has not decreased over time (over a 1-year period), or that it has even increased, although not statistically significant. However, in patients with SAVR, both in daily practice and the literature, mild PVLs appear to improve or even disappear over time (3). In the study of Matteucci et al. (3), which includes a large number of patients in whom post-SAVR-PVLs were examined, it was stated that PVL disappeared during the follow-up period in half of the patients with early postoperative PVL (3). The causes of severe PVLs seen in both the early and late periods are mostly infective endocarditis or failure of the procedure, as the authors stated in their study. Even the mild PVLs progress to severe PVLs in longer term follow-ups. This situation makes sense considering the ongoing calcifications. However, we wonder how the authors interpreted the continued existence of mild PVL over a 1-year period.

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