“Edge to edge” transcatheter tricuspid repair for isolated posterior prolapse

Reparación tricuspídea percutánea de «borde a borde» en prolapso posterior aislado

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The adoption of transcatheter tricuspid valve repair (TTVR) with the edge to edge technique has rapidly grown. Functional tricuspid regurgitation (TR) is the most common indication, and the most common approaches are to grasp either the septal and anterior (SL-AL) or septal and posterior leaflets (SL-PL).

A 78-year-old man presented with signs of right heart failure. Transesophageal echocardiography (TEE) revealed severe functional mitral regurgitation (MR) and torrential organic TR due to severe PL prolapse (figure 1A-C, arrows videos 1 and 2 of the supplementary data) in a tricuspid IIIA valve morphology (figure 1D, video 3 of the supplementary data). After heart team discussion, the patient was scheduled for TTVR.

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After successful transcatheter mitral valve repair, TTVR was performed. Grasping both the tricuspid PL and SL did not significantly reduce the TR after several attempts. Consequently, to stabilize the posterior prolapse, we decided to perform a PL-AL grasping strategy. An XTW TriClip (Abbott Vascular, California, United States) was implanted between the PL and the A2 scallop, with a vertical orientation at the transgastric TEE view (figure 2A, video 4 of the supplementary data). Residual moderate TR from PL-SL coaptation was then observed (figure 2A, video 5 of the supplementary data). Therefore, a second XT TriClip oriented perpendicularly to the first device was aimed between the PL and SL (figure 2B). A triple-orifice tricuspid valve result showed trace residual TR and no significant stenosis, with a mean gradient of 1 mmHg (figure 2, videos 6 and 7 of the supplementary data). At 3 months of follow-up, residual TR was trivial (video 8 of the supplementary data) and the patient remained symptom free. In certain scenarios like this, an alternative strategy such as PL-AL grasping using TG X-Plane views could be a useful approach.

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ETHICAL CONSIDERATIONS

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STATEMENT ON THE USE OF ARTIFICIAL INTELLIGENCE

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AUTHORS’ CONTRIBUTIONS

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CONFLICTS OF INTEREST

The authors have no conflicts of interest to report.

SUPPLEMENTARY DATA

Supplementary data associated with this article can be found in the online version available at https://doi.org/10.24875/RECICE.M24000454.