

Image in cardiology

Percutaneous treatment of prosthetic mitral valve thrombosis

Tratamiento percutáneo de trombosis mitral protésica

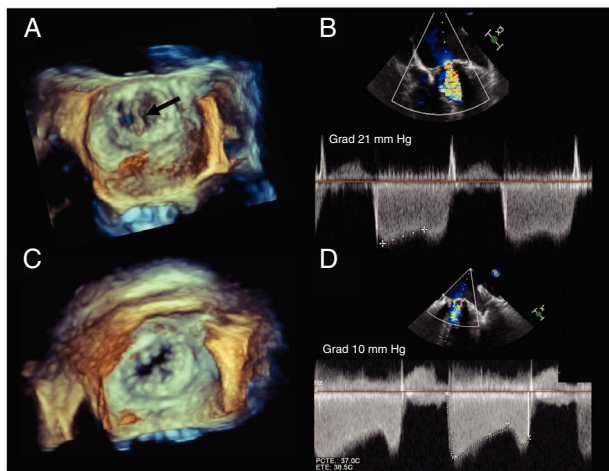
Leire Unzué,^{a,*} Eulogio García,^a and Francisco José Rodríguez Rodrigo^b^a Unidad de Hemodinámica y Cardiología Intervencionista, HM Hospitales-Hospital Universitario HM Montepríncipe, Boadilla del Monte, Madrid, Spain^b Departamento de Cardiología Clínica, HM Hospitales-Centro Integral de Enfermedades Cardiovasculares HM CIEC, Hospital Universitario HM Montepríncipe, Boadilla del Monte, Madrid, Spain

Figure 1.

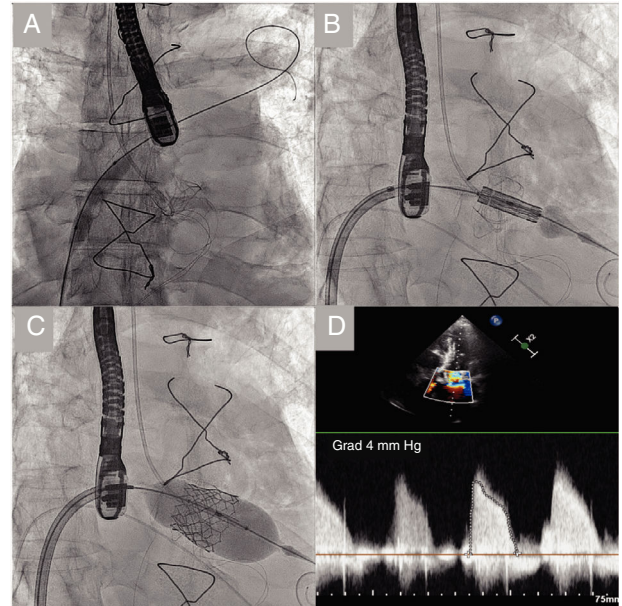


Figure 2.

Recently, off-label use of dabigatran was reported as treatment of thrombosis in a mitral bioprosthesis in an 80-year-old man with polyvalvular disease who had received aortic and mitral bioprostheses. Eighteen months after the intervention, an increase in the transmitral gradient was observed. Transesophageal echocardiography revealed diffuse leaflet thickening with restricted mobility and a filamentous mass adhered to the posterior leaflet suggesting a thrombotic formation (arrow, [figure 1A](#), [figure 1B](#), and [video 1 of the supplementary data](#)). After infection was excluded, anticoagulation with acenocoumarol was prescribed but was refused by the patient. It was therefore decided to start treatment with dabigatran. Imaging suggested the thrombosis had resolved, although elevated gradients persisted ([figure 1C](#), [figure 1D](#)).

Subsequently, a progressive increase in the gradients was observed with dyspnea and left atrial dilatation. After consultation between clinicians and surgeons, the approach decided was percutaneous implantation of a prosthesis inside the degenerated mitral bioprosthesis with transseptal access. The atrial septum was dilated and the mitral prosthesis passed from the atrial side to implant an Edwards SAPIEN 3 valve ([figure 2A-C](#) and [video 2 of the supplementary data](#)). No residual perivalvular insufficiency was observed and the transmitral gradient was 4 mmHg ([figure 2D](#)).

Although treatment with dabigatran effectively resolved the valvular thrombosis in this patient, a pannus component was probably present, given the subsequent progressive degeneration of the bioprosthesis, and percutaneous intervention was ultimately necessary.

APPENDIX. SUPPLEMENTARY DATA

Supplementary data associated with this article can be found in the online version at <https://doi.org/10.1016/j.rec.2019.09.020>

* Corresponding author:

E-mail address: leireunzue@yahoo.es (L. Unzué).