

Mitral valve-in-valve with severe atrial septum calcification

Valve-in-valve mitral con septo interauricular gravemente calcificado

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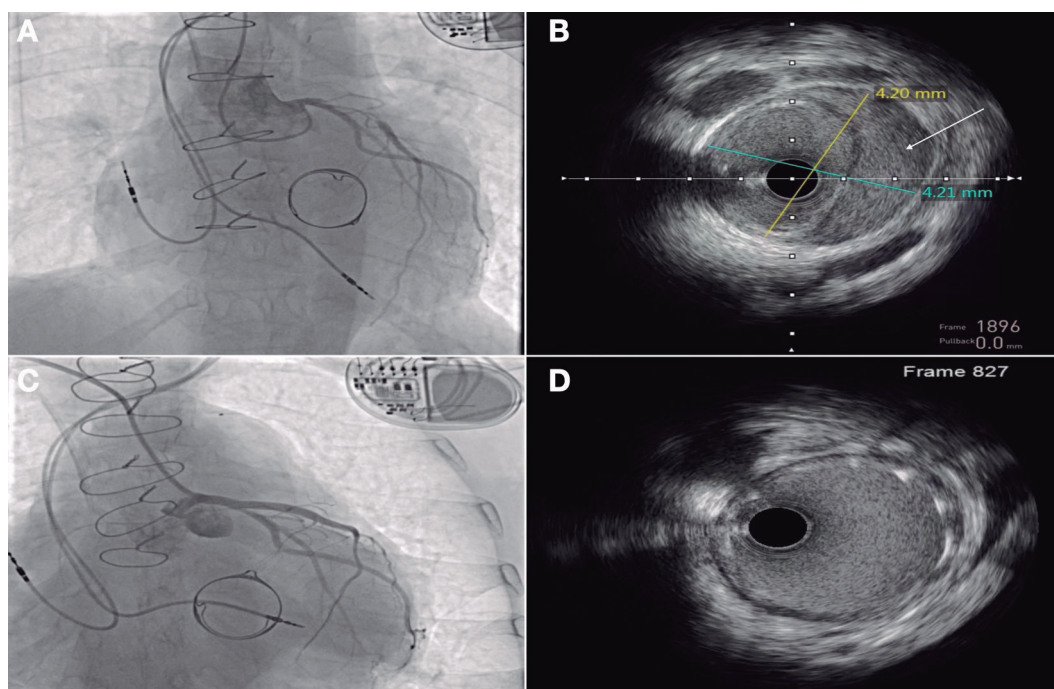


Figure 1.

A 55-year-old woman with an incomplete atrioventricular canal, who underwent repair of the mitral cleft and patch closure of the ostium primum type defect, followed by mitral bioprosthesis implantation (Carpentier PERIMOUNT 27, Edwards, United States) in adulthood. She developed episodes of left atrial flutter. Due to the inability to perform a transseptal puncture, we proceeded with retroaortic atrioventricular node ablation, resulting in iatrogenic left main coronary artery dissection, which resolved after drug-eluting stent implantation (figure 1A-D, videos 1 and 2 of the supplementary data). During follow-up, she showed signs of progressive prosthetic degeneration (figure 2A-B, videos 3 and 4 of the supplementary data), which led to transcatheter mitral valve-in-valve implantation. We performed a transseptal puncture of the severely calcified patch (figure 2C-D) using a Versacross system (Boston Scientific, United States). Then, we used a deflectable catheter to advance a high-support guidewire, which was, eventually, captured in the left ventricle, establishing a venoarterial loop. Afterwards, we performed a septostomy with an Atlas Gold 16 mm × 45 mm balloon catheter (BD, United States) and with great difficulty given the anatomical complexity, we advanced a 26-Fr DRYSEAL sheath (Gore, United States) into the left atrium through which we implanted a SAPIEN 3 Ultra 26 bioprosthesis (Edwards, United States) with a nominal +2 cm³ inflation. Good expansion was observed, with slight protrusion into the left ventricle without conflict with the outflow tract (figure 3A-D, video 5 of the supplementary data). The patient was discharged with normal prosthetic valve function, which was maintained at the 1-year follow-up (video 6 of the supplementary data). The patient signed the informed consent form.

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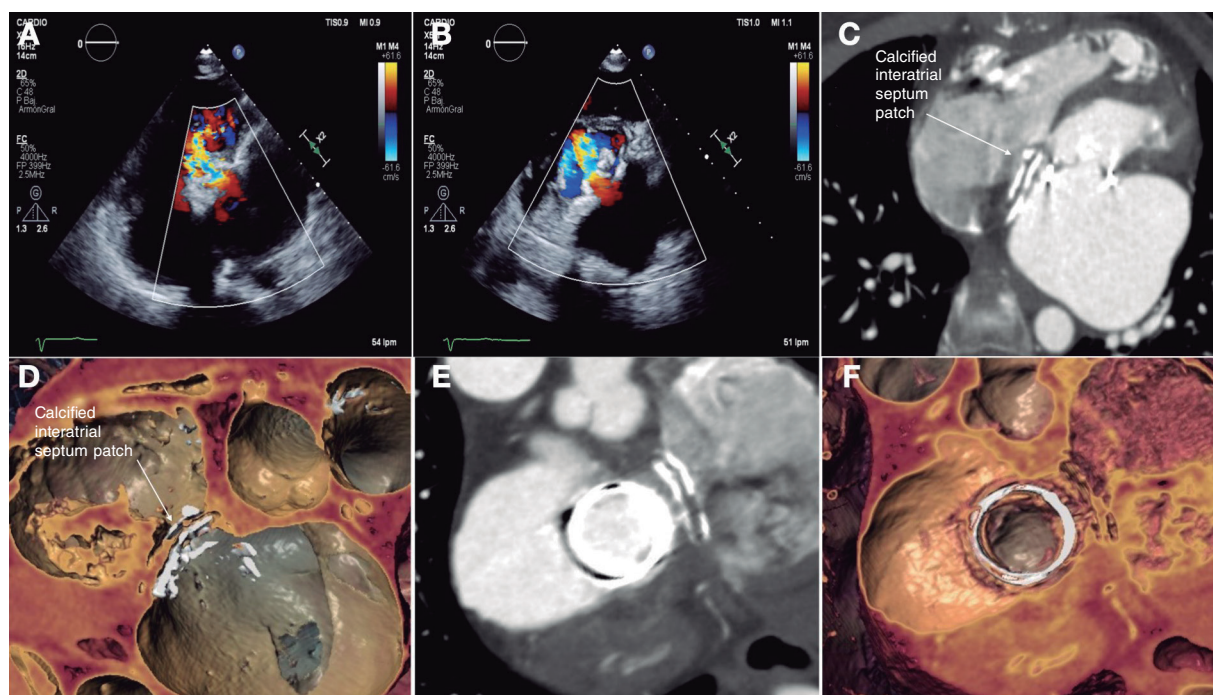


Figure 2.

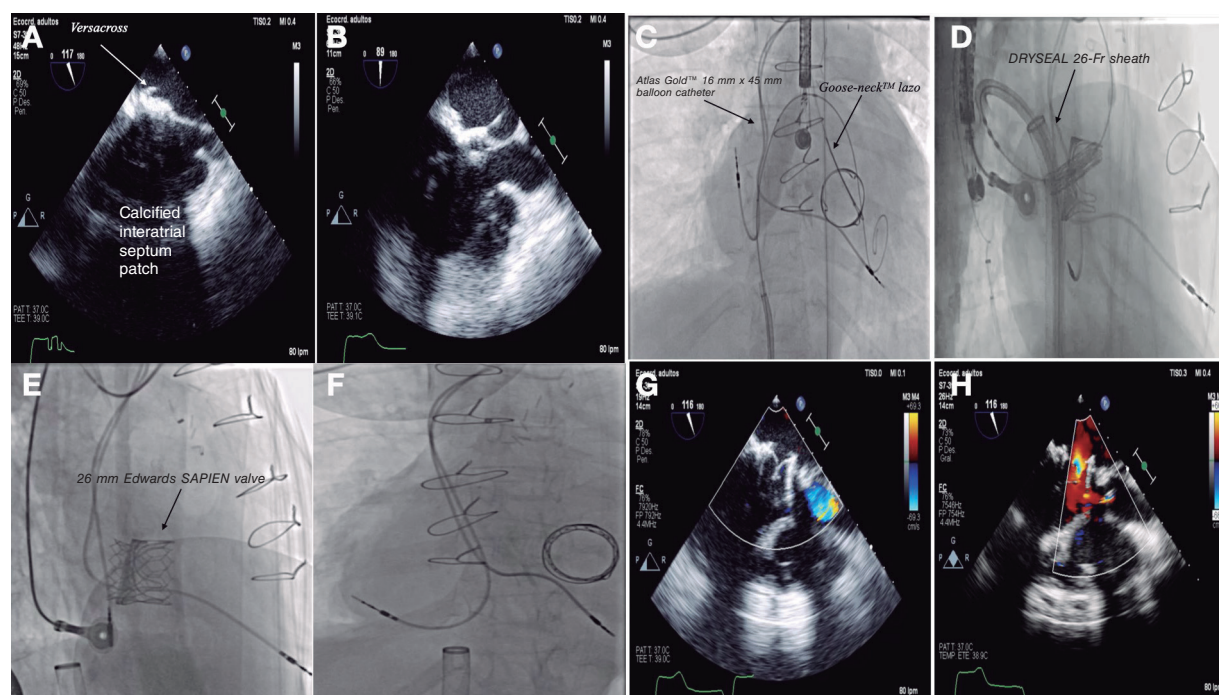


Figure 3.

FUNDING

None declared.

ETHICAL CONSIDERATIONS

This work was accepted by our center ethics committee. Informed consent for publication of this case was obtained and has been archived. SAGER guidelines regarding potential sex/gender biases have been followed.

STATEMENT ON THE USE OF ARTIFICIAL INTELLIGENCE

No artificial intelligence was used in the preparation of this work.

AUTHORS' CONTRIBUTIONS

All authors contributed equally to the preparation of the text.

CONFLICTS OF INTEREST

None declared.

SUPPLEMENTARY DATA

Supplementary data associated with this article can be found in the online version available at <https://doi.org/10.24875/RECICE.M25000530>.