

Image in cardiology

SAPIEN XT Valve-in-valve Implantation in Stenotic Valve



Prótesis SAPIEN XT sobre SAPIEN XT estenótica

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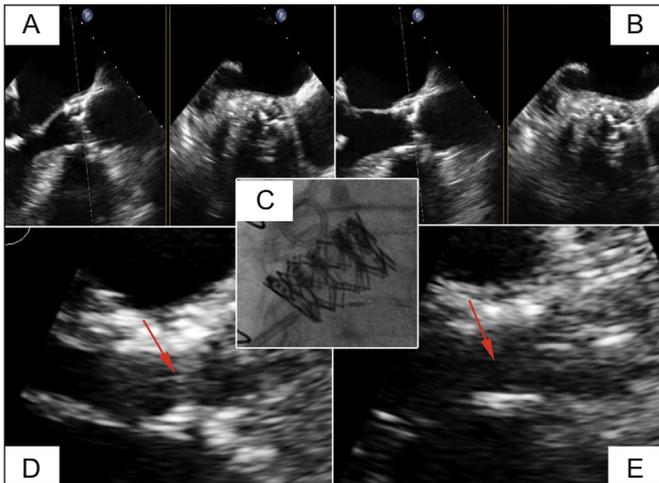


Figure 1.

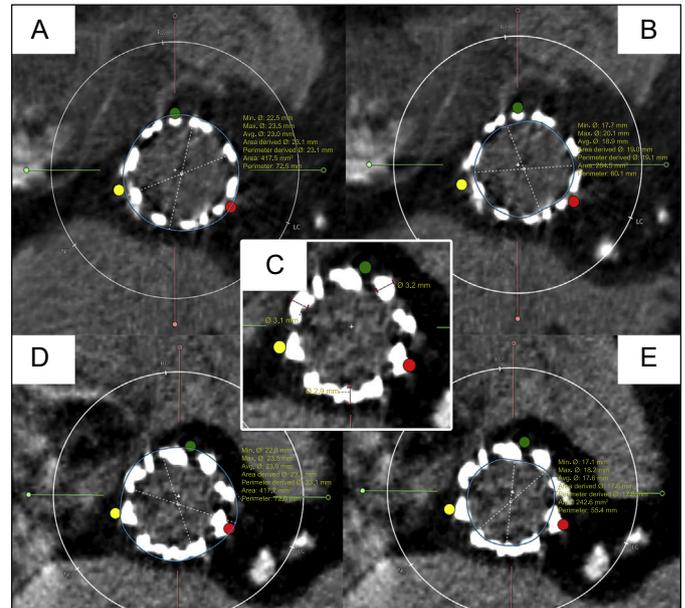


Figure 2.

We present the case of a 77-year-old woman with heart failure who had undergone percutaneous aortic valve implantation in 2011 with a satisfactory initial outcome (maximum gradient [G_{\max}] and mean gradient [G_{mean}] of 19 and 11 mmHg, respectively). Her Edwards SAPIEN XT 23 mm prosthetic valve had deteriorated (Figure 1A) and was severely stenotic (Figure 1B) (G_{\max} and G_{mean} of 74 and 38 mmHg, respectively). The risk of postoperative death at 30 days was 15.4% in 2011 and 17.9% in 2015 according to the Society of Thoracic Surgeons scale. Our multidisciplinary team decided to perform a valve-in-valve percutaneous implantation under fluoroscopic guidance (Figure 1C and video 1 of the supplementary material).

This case demonstrates that successful Edwards SAPIEN XT valve-in-valve implantation is possible. Such a procedure is risky due to the possibility of mismatch and, to our knowledge, no similar cases have been reported in the literature. Nevertheless, the strut thickness (1.2 mm) and valve thickness (0.4 mm) were known and mismatch was considered unlikely. The lack of mismatch was confirmed after implantation (G_{\max} and G_{mean} of 20 and 9 mmHg, respectively) with satisfactory valve opening (Figure 1D) and closure (Figure 1E) (video 2 of the supplementary material). The prosthesis initially had an internal diameter of 19 mm (Figures 2A and B), which, given the adequate strut compression (Figure 2C), decreased to 17.6 mm after the valve-in-valve procedure (Figures 2D-E). The patient was discharged and prescribed aspirin and clopidogrel.

In view of the above, we would even consider a third valve-in-valve transaortic valve implantation if necessary in the future, using a 20-mm Edwards SAPIEN XT valve.

SUPPLEMENTARY MATERIAL



Supplementary material associated with this article can found in the online version available at [doi:10.1016/j.rec.2016.04.001](https://doi.org/10.1016/j.rec.2016.04.001).

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