

Image in cardiology

Supra-annular Transcatheter Aortic Valve-in-valve Implantation for a Degenerative Bioprosthesis

Prótesis aórtica percutánea supraanular *valve-in-valve* sobre bioprótesis degenerada

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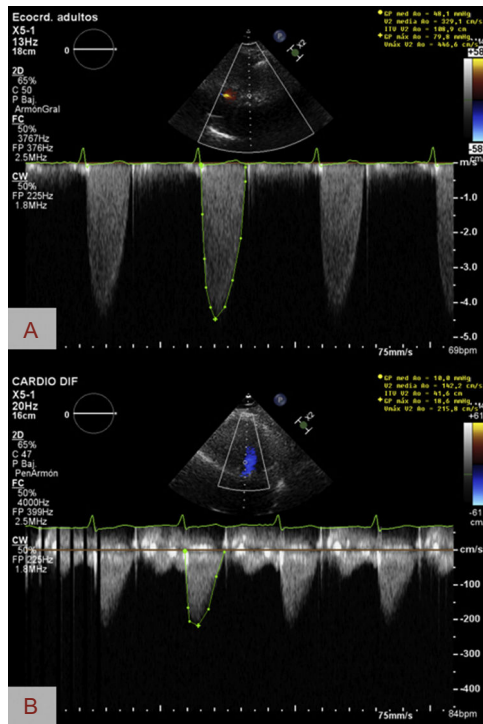


Figure 1.

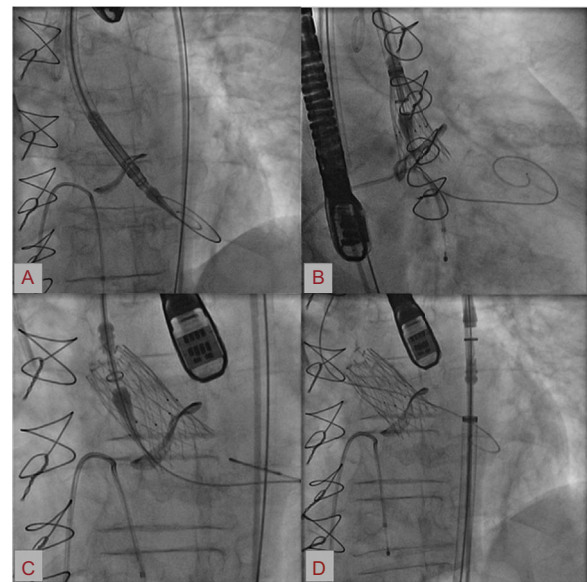


Figure 2.

We present the first case in Spain with a valve-in-valve technique and a new self-expanding repositionable supra-annular prosthesis in a 78-year-old woman with a degenerative aortic bioprosthesis implanted 6 years prior (Mitroflow 23 mm) with severe stenosis (maximum and mean gradients of 79.8 and 48 mmHg) (Figure 1A).

Due to the high surgical risk, it was decided to perform transcatheter implantation of the aortic valve prosthesis (valve-in-valve). We used the new Allegra valve (NVT, Germany) with 3 bovine pericardial leaflets and a nitinol stent which has 6 gold radiopaque markers via which it is sutured to the valve. The main justification for this choice was the supra-annular position of the leaflets. With less material at the level of the annulus, the postprocedure valve-in-valve gradients could be minimized, which is especially important in small degenerative bioprostheses, such as that in this patient.

The procedure was performed via percutaneous transfemoral access, under general anesthetic. The 23-mm bioprosthesis was successfully implanted without predilatation according to the usual technique (Figure 2). Transesophageal echocardiography showed a significant reduction in the transaortic valve gradients, which was confirmed during the hospital stay on transthoracic echocardiography (Figure 1B); mild paravalvular aortic regurgitation persisted but did not require postdilatation.

In view of the above, transcatheter valve-in-valve implantation of an Allegra aortic valve over a degenerative bioprosthesis could be an interesting treatment option in cases such as this. Further registries with more patients are needed to support this indication.

CONFLICTS OF INTEREST

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