

Image in cardiology

Degenerated aortic self-expanding prosthesis: percutaneous valve-in-valve implantation

Prótesis autoexpandible degenerada: implante percutáneo aórtico *valve-in-valve*

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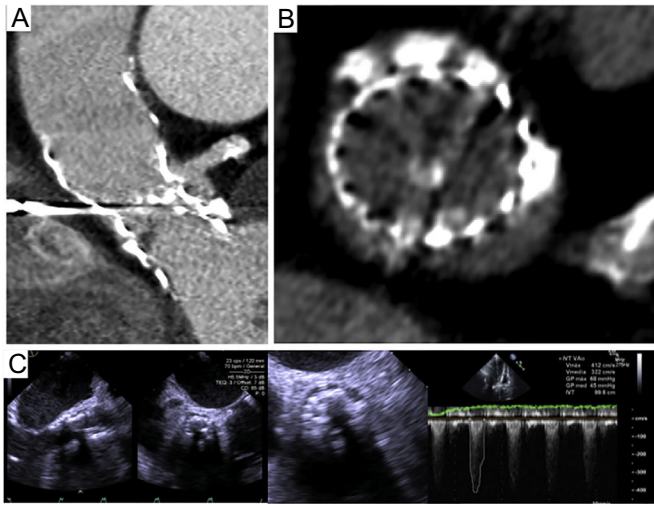


Figure 1.

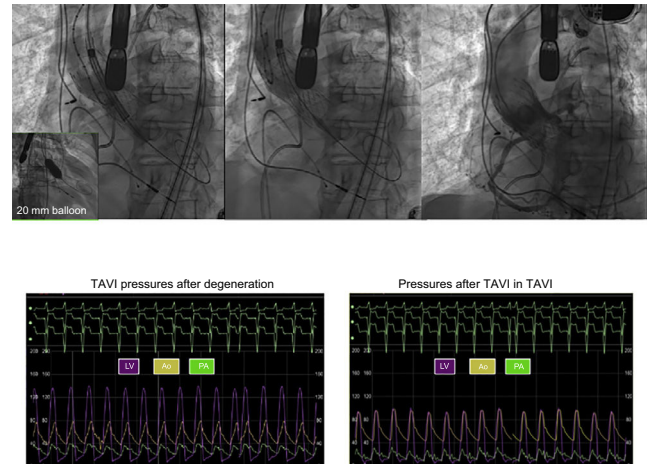


Figure 2.

The patient was a 71-year-old man with severe aortic stenosis and coronary artery disease diagnosed in 2008. At the time, he had intermediate surgical risk but nevertheless refused surgery as a therapeutic option. Percutaneous revascularization was therefore undertaken, with implantation of a 26-mm CoreValve aortic prosthesis. The patient was free of symptoms with stable gradients until 2016, when the gradients started to increase, and symptoms reappeared in November 2017. Computed tomography angiography and ultrasound study showed signs of prosthesis degeneration, leaflet calcification (Figure 1A), leaflet thickening (Figures 1B and C) and increased gradient (Figure 1C). When the patient was aged 81 years, a 26-mm CoreValve Evolute Pro was successfully implanted in the existing prosthesis. Figure 2 (TAVI, transcatheter aortic valve implantation) shows details of the procedure and the hemodynamic changes in the aorta (Ao), left ventricle (LV), and pulmonary artery (PA). It has been shown that surgical biological prostheses that have undergone degeneration can be successfully treated with percutaneous aortic prostheses. However, there is no information on percutaneous prosthesis degeneration after 10 years, given that survival in recipients of such prostheses is lower and so such events are rare. To our knowledge, this is the first published case of a self-expanding prosthesis with degeneration 10 years after implantation that was treated with another percutaneous prosthesis. It demonstrates that this is a feasible and safe approach. If outcome is confirmed, this case could help to extend the indication for percutaneous prostheses to patients with intermediate risk.

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