



Early Edwards SAPIEN Valve Degeneration After Transcatheter Aortic Valve Replacement

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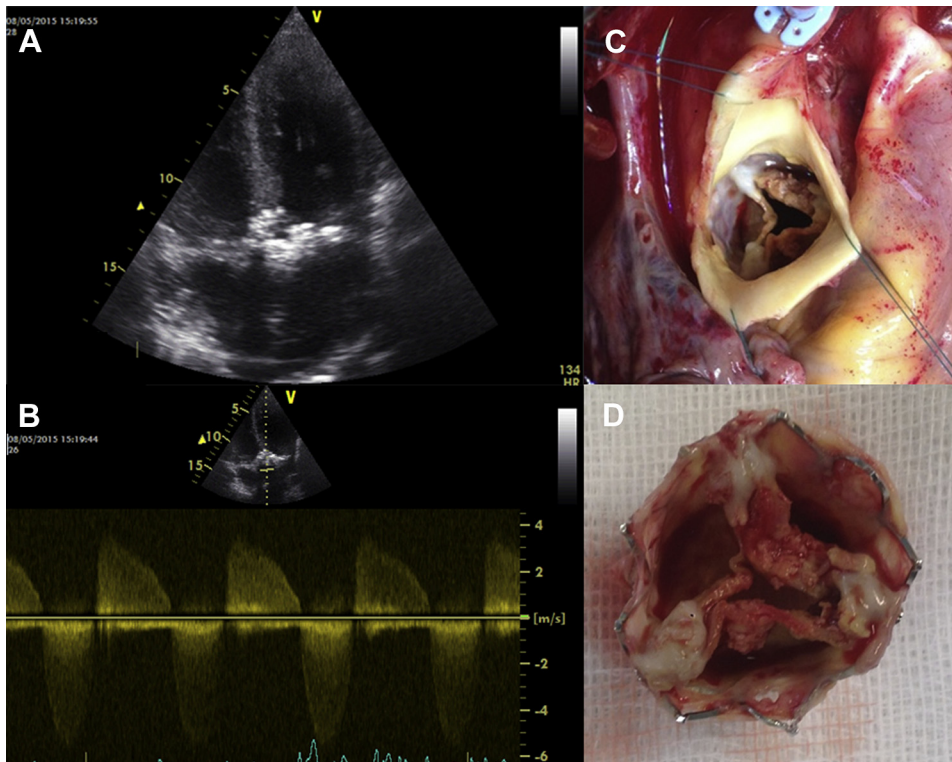
Transcatheter aortic valve replacement (TAVR) indications are rapidly increasing. We report here the case of a 64-year-old man with both severe aortic stenosis and cirrhosis. He was first managed by TAVR and then underwent liver transplantation. Two and one-half years later, he was admitted for heart failure with an echocardiogram showing a moderate intravalvular aortic leak and a high transaortic mean gradient of 38 mm Hg; the left ventricular ejection fraction was normal. Infectious endocarditis was ruled out, and the diagnosis of early valve degeneration was deemed probable. Six months later, he was again admitted for acute heart failure; a severe intravalvular leak was revealed with a mean systolic gradient of 80 mm Hg (Figures 1A and 1B). After a heart team discussion, conventional surgery was performed that allowed

confirmation of the typical aspect of aortic valve degeneration (Figures 1C and 1D). To our knowledge, this is the first time that early TAVR valve degeneration was reported. Surgery allowed valve scrutiny and confirmation of the diagnosis.

Aortic valve degeneration in TAVR is a rare complication (1). There is no indication that a specific mechanism intervened in our case; in particular, a potential harmful effect of immunosuppressive drugs seems very unlikely. One should be aware of the possibility of early valve degeneration in the context of the increasing use of TAVR.

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FIGURE 1 Echocardiogram and Surgical View of the Edwards Sapien XT Valve



(A) In an apical 4-chamber view on echocardiography, calcifications in the aortic chamber are seen. **(B)** On Doppler echocardiography, aortic leak and elevated mean aortic gradient are seen. **(C)** In situ Edwards SAPIEN valve with calcifications on the cusps. **(D)** Ex vivo Edwards SAPIEN valve with heavy calcifications and remodeling.

REFERENCE

1. Barbanti M, Petronio AS, Ettori F, et al. 5-Year outcomes after transcatheter aortic valve implantation with CoreValve prosthesis. *J Am Coll Cardiol Intv* 2015;8:1084-91.

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