

## Short Communication

# Early Structural Valve Deterioration (SVD) in a Bicuspid Valve Secondary to Transcatheter Aortic Valve Replacement: Hissing Red Flags

Veulemans V\*, Klein K, Polzin A and Zeus T

Division of Cardiology, Heinrich Heine University, Germany

\*Corresponding author: Verena Veulemans, Division of Cardiology, Pulmonology and Vascular Medicine, Heinrich Heine University, Medical Faculty, Moorenstr. 5, Düsseldorf 40225, Germany

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## Description

Current data confirm excellent durability in Transcatheter Aortic Valve Replacement (TAVR) with low incidence of Structural Valve Deterioration (SVD) [1]. Bicuspid valves may pose a risk for SVD [2].

A patient with severe calcific aortic stenosis was assigned to TAVR. MSCT showed a bicuspid valve type I with leaflet calcification (Figure 1A). TAVR with a selfexpanding prosthesis was performed successfully (Figure 1B-C). 5 years following, the patient was transferred with pulmonary congestion. Transesophageal echocardiography confirmed SVD with leaflet thickening compromising the prosthesis right leaflet (Figure 1D). The heart-team decided for valve-in-valve procedure using a balloon-expandable prosthesis. Leading to successful SVD control (Figure 1E-F) the patient was able to leave after 8 days.

The case points to limitations of TAVR in bicuspid valves:

Convincing short-term results should not raise expansion of TAVR in bicuspid valves due to possibly limited long-term results.

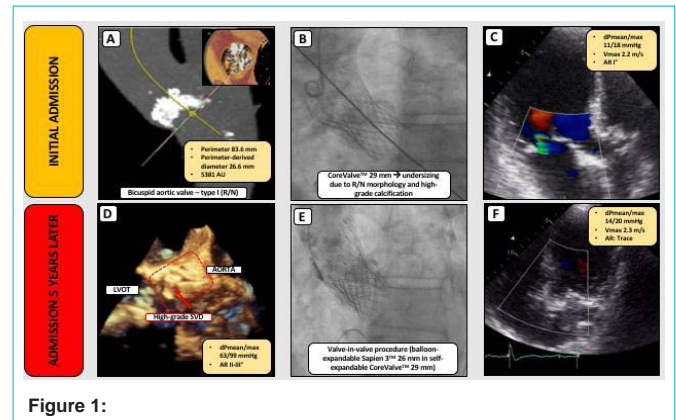


Figure 1:

Routine echocardiographic controls are warranted in patients with risk for early SVD including bicuspid anatomy.

## References

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- Yoon SH, Sharma R, Chakravarty T, Miyasaka M, Ochiai T, Nomura T, et al. Transcatheter aortic valve replacement in bicuspid aortic valve stenosis: where do we stand? *J Cardiovasc Surg (Torino).* 2018; 59: 381-391.