

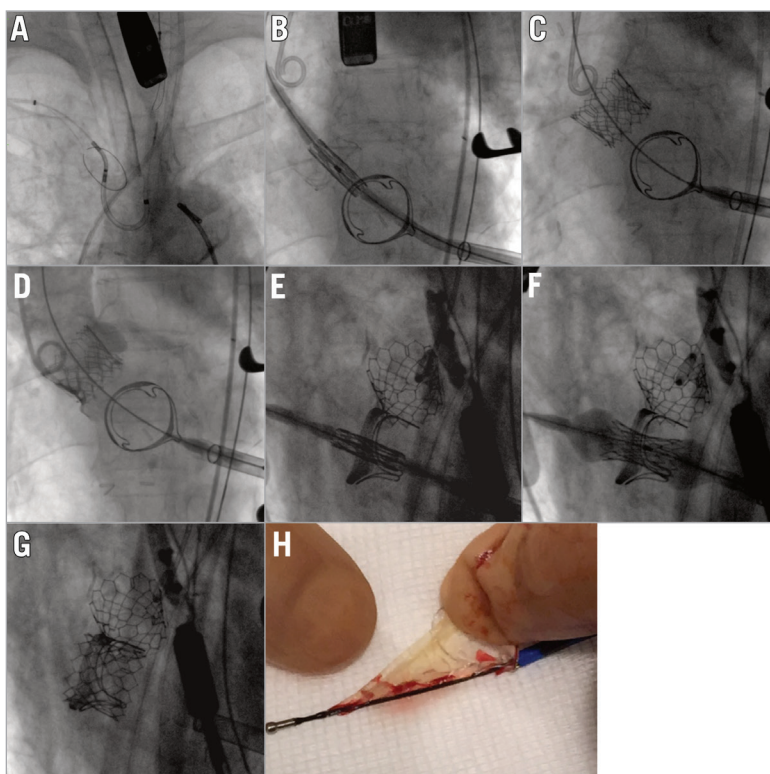
Transapical valve-in-valve TAVI in a patient with two failing surgical bioprostheses with Edwards SAPIEN 3 valves using a cerebral protection system



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This paper also includes supplementary data published online at: http://www.pcronline.com/eurointervention/95th_issue/274



A patient with degenerated aortic (Trifecta™ 23 mm; St. Jude Medical, St. Paul, MN, USA) and mitral (Edwards PERIMOUNT 25 mm; Edwards Lifesciences, Irvine, CA, USA) valve bioprostheses was referred and deemed high risk for open heart surgery (logistic EuroSCORE 17.6% and frailty). The Heart Team decided on transapical double valve-in-valve.

Due to the heavy calcification on the degenerated leaflets, a cerebral protection device (Sentinel CPS; Claret Medical, Santa Rosa, CA, USA) was used (**Panel A**). Two 23 mm Edwards SAPIEN 3 valves (Edwards Lifesciences) were directly deployed (no balloon valvuloplasty) in the failing aortic prosthesis (reduction of mean gradient from 40 mmHg to 10 mmHg, trace AR) (**Panels B-D, Moving images 1-3**) and failing mitral prosthesis (reduction of

mean transvalvular gradient from 22 mmHg to 3.5 mmHg) (**Panels E-G, Moving images 4-6**). A thrombotic mass was found in the filter retrieved from the left carotid artery (**Panel H**). There was no evidence of periprocedural stroke. The patient was discharged at day 14, and 30-day follow-up was uneventful.

Conflict of interest statement

A. Wolf and T. Schmitz work as in-house proctors for Edwards Lifesciences. The other authors have no conflicts of interest to declare.

Supplementary data

The legends of the **Moving images** can be found in the online version of the paper.

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Supplementary data

Moving image 1. Positioning of 23 mm Edwards SAPIEN 3 valve in degenerated aortic bioprosthesis.

Moving image 2. Implantation in aortic position.

Moving image 3. Aortography.

Moving image 4. Positioning of 23 mm Edwards SAPIEN 3 valve in degenerated mitral bioprosthesis.

Moving image 5. Implantation in mitral position.

Moving image 6. Rotational view of implanted valves.