

FEops HEARTguide™ Case Report: TAVI

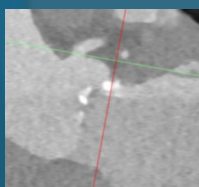
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An 86-year-old male patient presented during the COVID-19 pandemic with decompensated heart failure and rapid reduction in left ventricular systolic function with EF of 25%. Urgent treatment was required.

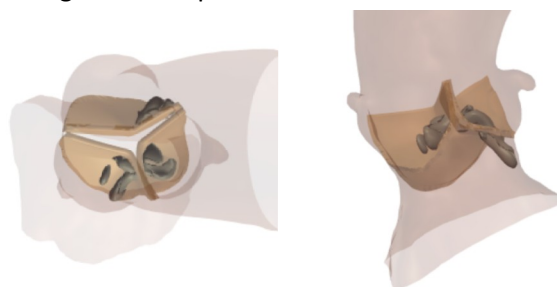
Challenge

- 1) TAVI CT shows Sievers Type 1 BAV – at risk for paravalvular regurgitation if transcatheter heart valve not correctly sized
- 2) Sub annular calcification (SAC) spur protruding from left coronary leaflet

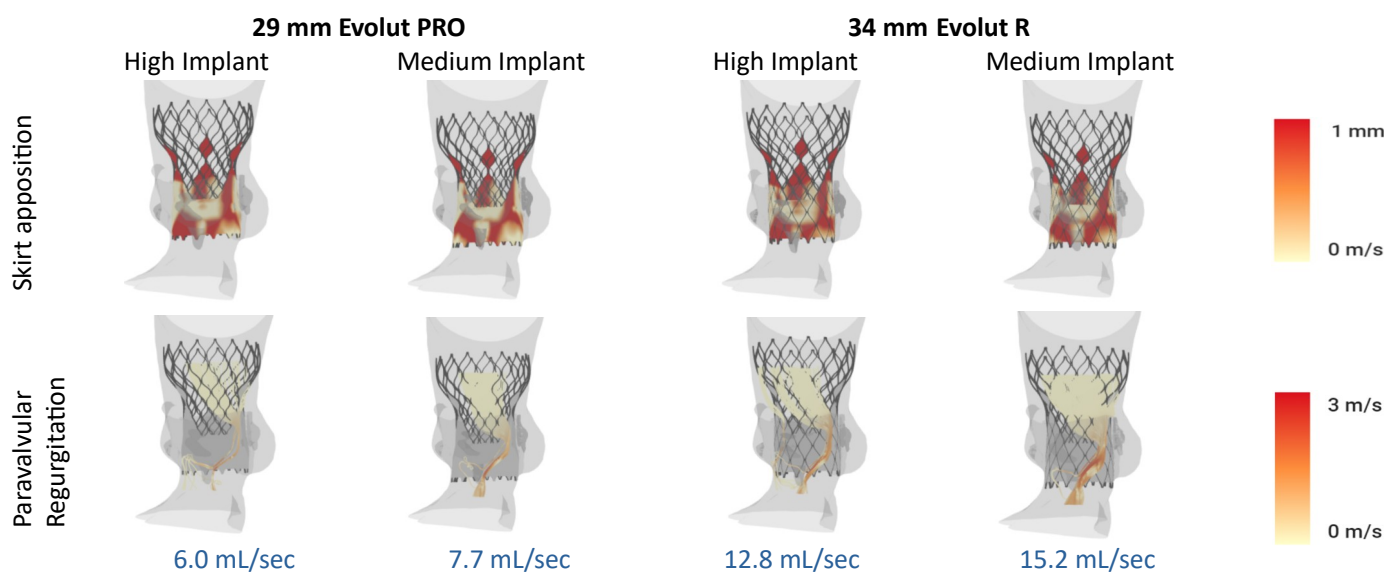


Solution

In this case the IFU of the valve implant did not provide clear guidance to select one device size and the potential impact of the sub annular calcification. FEops HEARTguide™ performs patient-specific computer simulations. This helps to assess the impact of different TAVI sizing and positioning strategies on the predicted PVL.

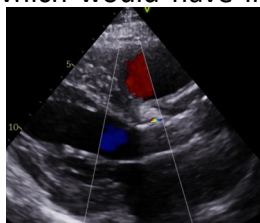


FEops HEARTguide™ simulations



Result

With the support of FEops HEARTguide™ simulations, a 29 mm Evolut PRO Transcatheter valve was implanted high. There was a good sealing and so no PVL. Annular sizing suggested a 34mm device which would have likely resulted in higher PVL.



“FEops HEARTguide™ helped enormously and correctly predicted a perfect implant result despite the challenging anatomy.”

- Prof Stephen Brecker