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## Images in Cardiology

# Valve in valve implantation to prevent acute prosthetic valve migration in Transcatheter Aortic Valve Implantation (TAVI)



Refai Showkathali <sup>a,\*</sup>, Rafal Dworakowski <sup>b</sup>, Philip MacCarthy <sup>b</sup>

<sup>a</sup> Consultant Interventional Cardiologist, MIOT International Hospital, Chennai, India

<sup>b</sup> King's College Hospital, London, United Kingdom

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### ABSTRACT

This case demonstrates the importance of accurate sizing of aortic annulus prior to TAVI. There was migration of first valve after deployment and therefore to prevent further migration to the left ventricle, a new TAVI valve was deployed jailing the first valve.

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A 79-year-old female with symptomatic severe aortic stenosis (mean pressure gradient – 56 mmHg) underwent TAVI, as she was considered too high risk for surgical AVR (logistic EuroSCORE – 30%). Trans-esophageal echocardiography (3D-TEE) showed aortic annulus of 21 mm, with mild annular calcification. Therefore a 23 mm balloon expandable Sapien XT valve (Edwards Lifescience, California) was deployed via transfemoral approach. Soon after deployment, there was moderate paravalvular aortic regurgitation and therefore

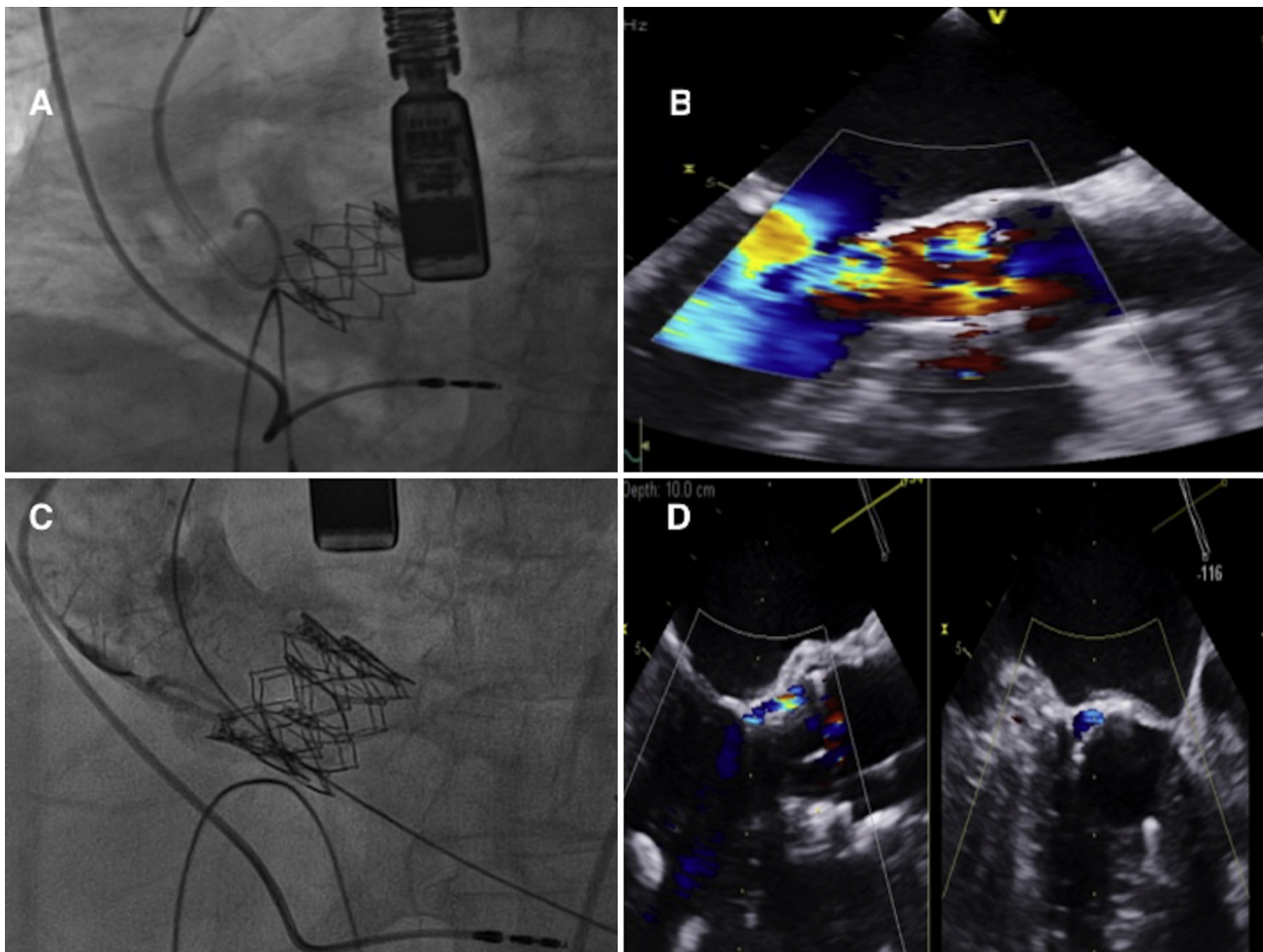
underwent post-dilatation with 24 mm balloon. However, there was slow migration of valve towards the left ventricle, and therefore another 26 mm Sapien XT valve was deployed jailing the first valve superiorly to prevent migration. There was no significant aortic regurgitation, and the patient was discharged in 3 days. Valve migration can occur due to smaller prosthesis and mild annular calcification. Accurate assessment of aortic annulus is essential with both TEE and CTaortogram before deciding the valve size.

\* Corresponding author.

E-mail address: [refais@gmail.com](mailto:refais@gmail.com) (R. Showkathali).

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**Fig. 1 – (A)** Cine image after post dilatation of first valve. Note the valve is lower in position. Pigtail catheter, TEE probe, permanent pacemaker lead, and temporary pacemaker wire (for fast pacing) can be seen. **(B)** TEE (long axis view) post dilatation showed severe aortic regurgitation (AR). **(C)** Cine image after second valve deployment jailing the first valve to prevent further migration. **(D)** TEE- X plane image (both long axis and short axis views) showing trivial AR.

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### Conflicts of interest

The authors have none to declare.