

Challenging Case:

Successful Mitral Transcatheter Edge-to-Edge Repair in a Patient with Cor Triatriatum Sinister

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Disclosure of Relevant Financial Relationships

I, Amisha Patel, DO NOT have any relevant financial relationships to disclose.

History

77-year-old Ukrainian immigrant

- PMH: AF on apixaban

Presents with:

- New York Heart Association (NYHA) class III-IV symptoms
 - dyspnea with light housework
 - inability to ambulate one block
 - worsening lower extremity edema

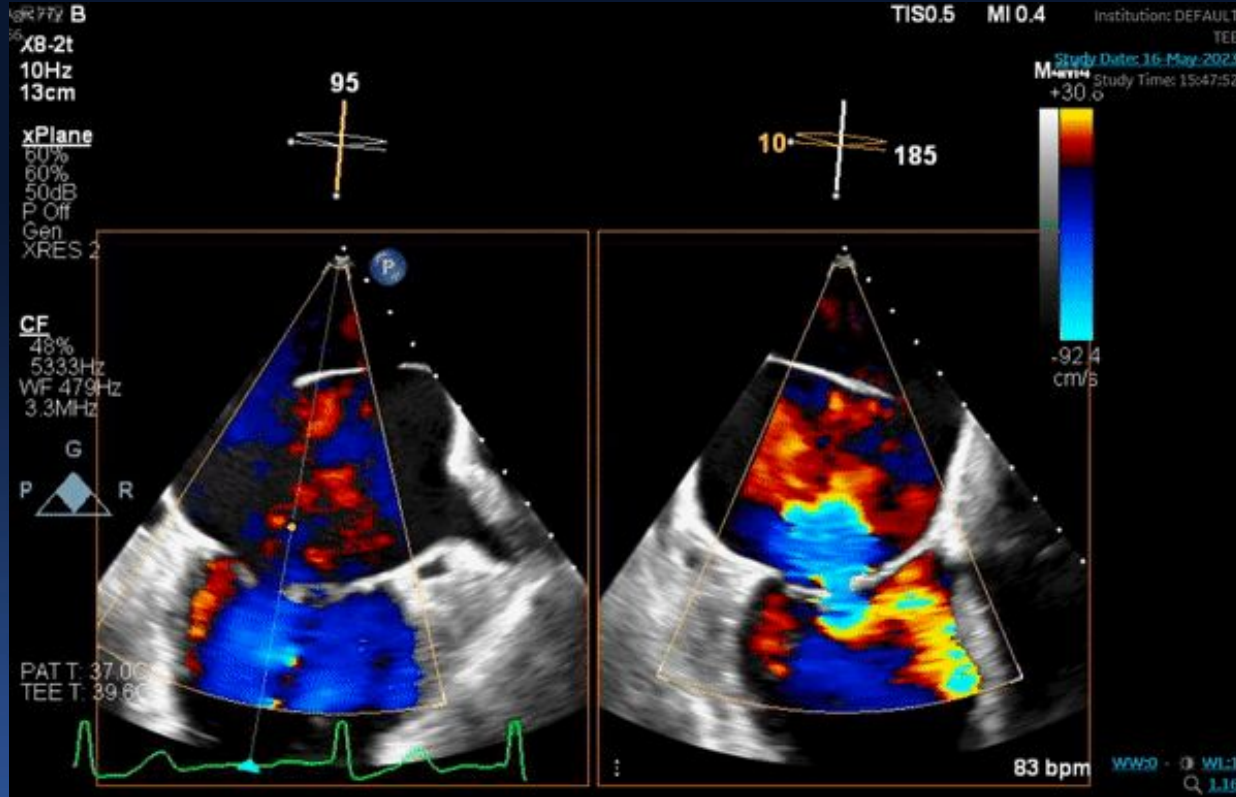
... Despite increasing diuretic doses

Pre procedural TEE showing Cor Triatriatum Defect in Left Atrium

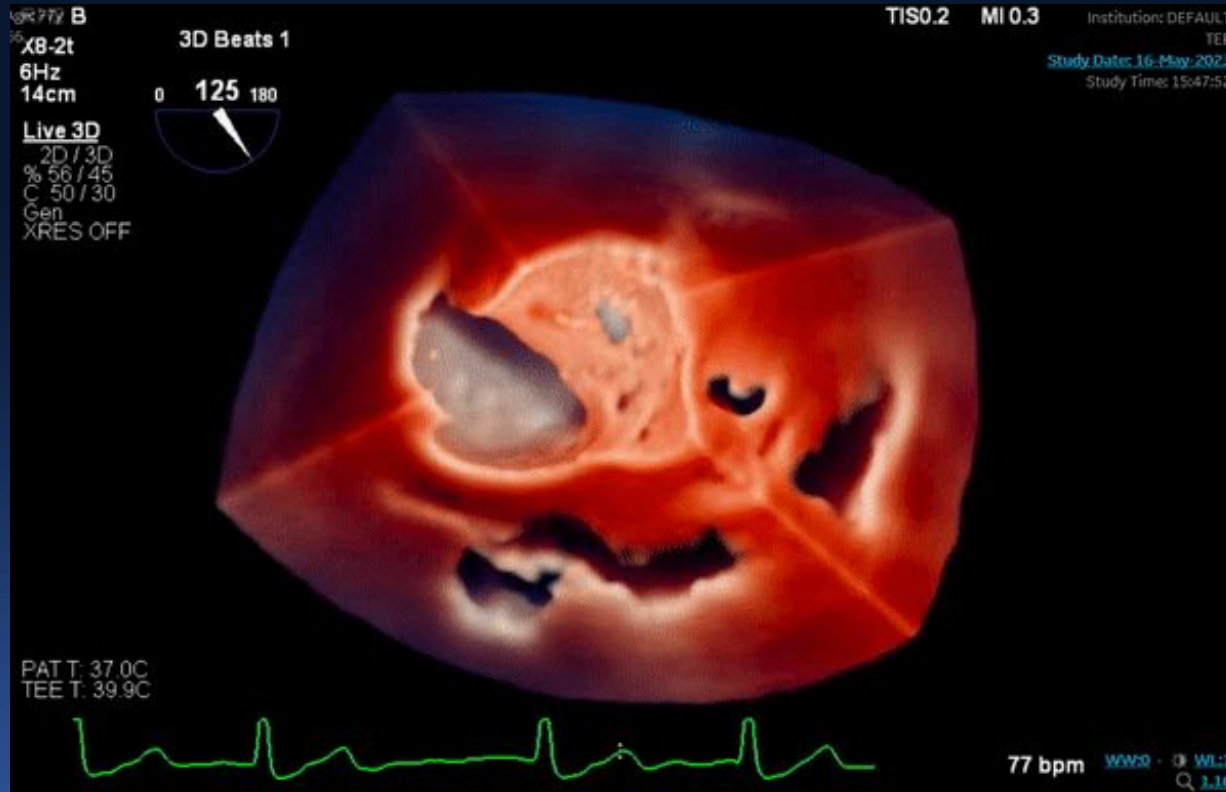


Pre-procedural TEE

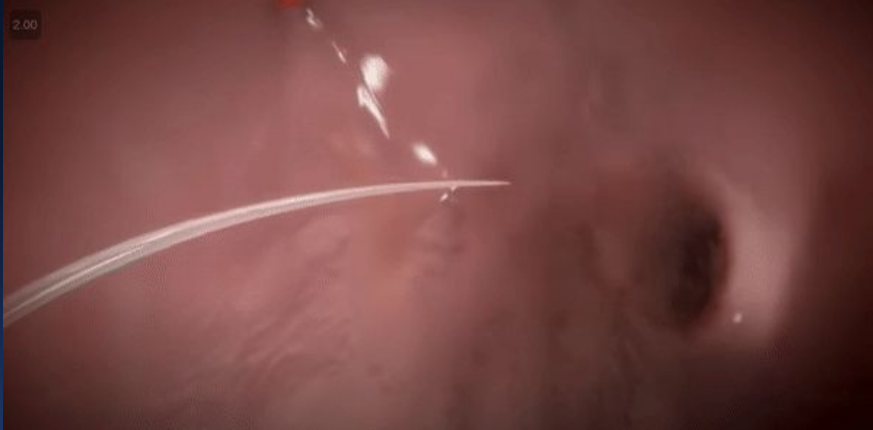
Cor Triatriatum membrane in left atrium with severe mitral regurgitation



Pre procedural TEE 3D reconstruction of cor triatriatum defect



Procedure



<https://www.youtube.com/watch?v=FVSzWP77nNo>

- The PASCAL Precision system was chosen due to enhanced maneuverability and versatile implant configuration compared to TEER device alternatives.
- Using TEE guidance, transseptal puncture was performed 5.0cm above the mitral valve annulus with a Baylis steerable Versacross system, taking care to navigate around the cor triatriatum membrane.

Procedure

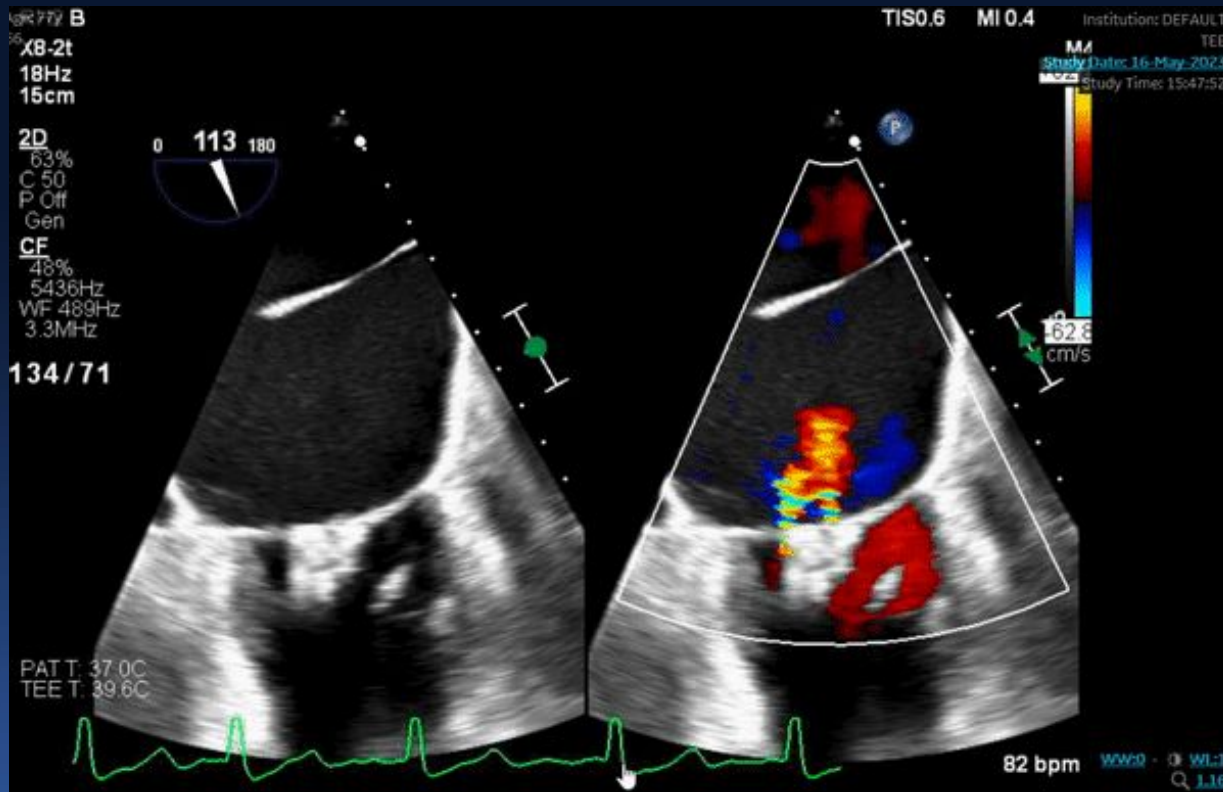


- With 2D and 3D echo guidance, two PASCAL Precision devices were positioned orthogonal to the commissural plane, one medially to target the predominant jet, and the second lateral to the initial device. Anterior and posterior leaflet grasp was imaged with adequate tissue bridge formation. Final residual MR jets were mild and total mitral valve orifice area by planimetry was 3.2cm².

<https://www.youtube.com/watch?v=FVSzWP77nNo>

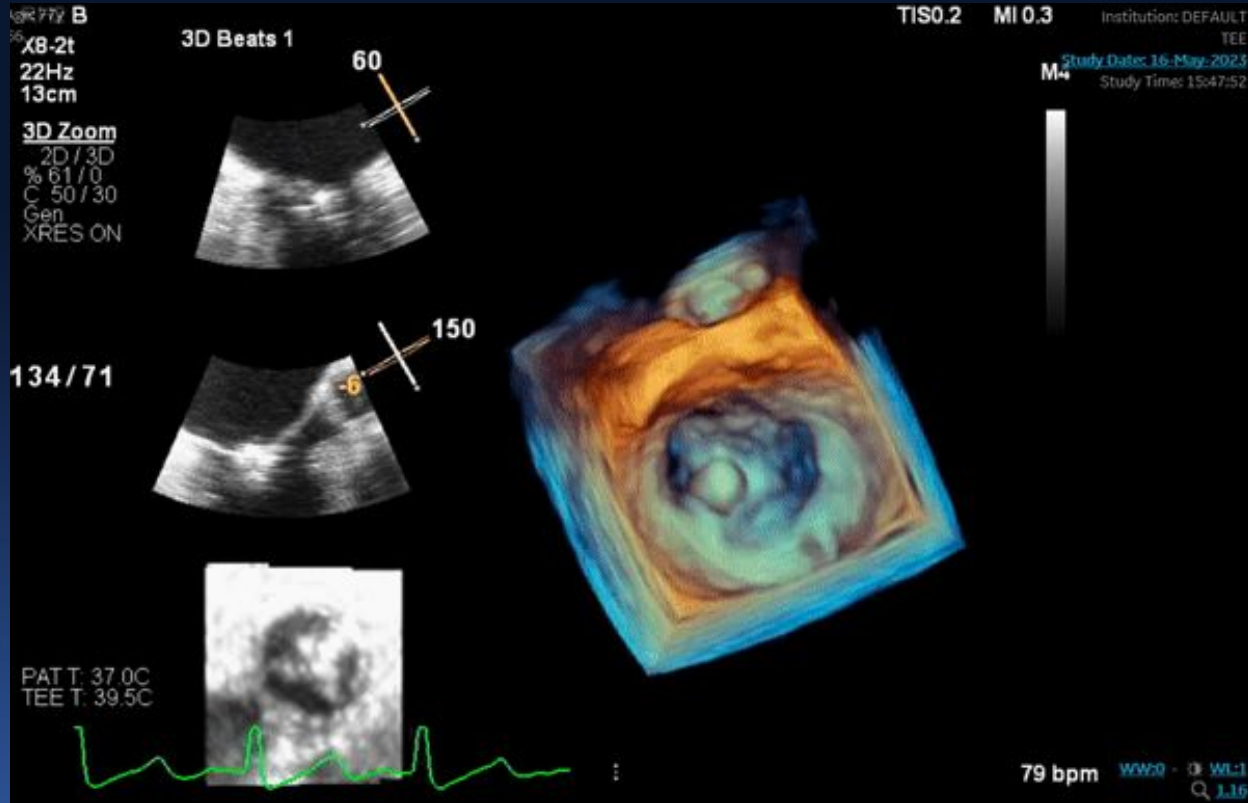
Post-procedural TEE Clip 4

Residual mild mitral regurgitation after placement of PASCAL device.

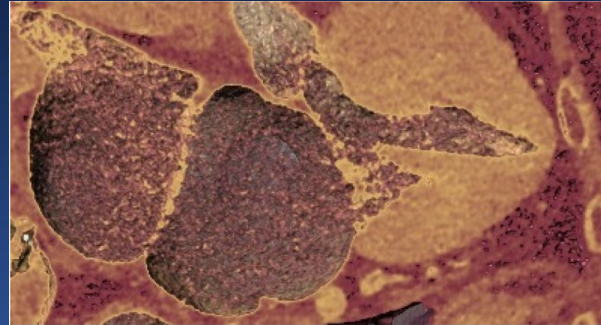
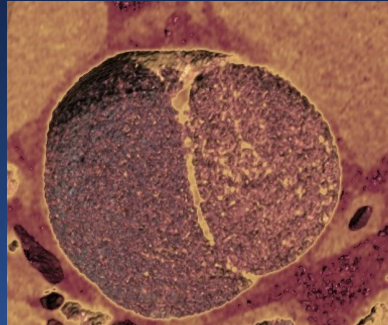
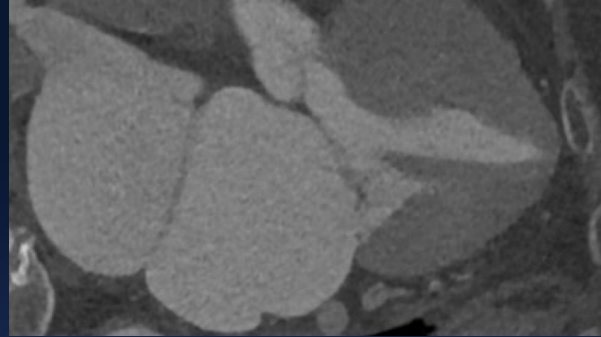
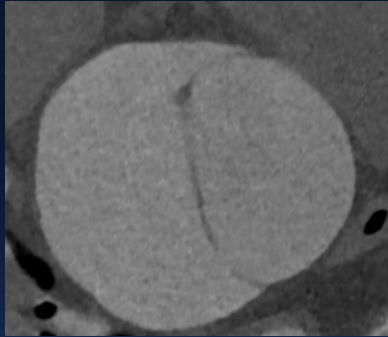


Post procedural TEE Clip 5

3D echo showing double orifice mitral valve after TEER with two PASCAL devices



Cor Triatriatum Sinister defect visualized on CT angiogram with volume rendering



Conclusion

- This case demonstrates **successful TEER** using the **PASCAL** system in a high-risk patient with severe symptomatic **MR** and **cor triatriatum sinister**. Newer-generation devices for TEER, with improved maneuverability and precision, provide **valuable alternatives** for patients who are not candidates for conventional therapies due to anatomic complexity.

THANK YOU!

