

Severe AR after TAVI

A Unique Treatment Option

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Patient History

- ▶ 69 yr, male
- ▶ Diabetic for 20 yrs
- ▶ Post CABG (2000)
 - ▶ LIMA to LAD
 - ▶ LRA to OM
 - ▶ RSVG to RCA, D1
- ▶ CKD (2007)
- ▶ Presented with Dyspnea on minimal exertion for 1 year

2D Echo

- ▶ Thickened and calcified Aortic valve cusps with
 - ▶ Severe AS (AVA – 0.5 cm²)
 - ▶ Mild AR
- ▶ LVEF – 45%
- ▶ Dilated LA, concentric LVH



- ▶ HR CT Scan Thorax

- ▶ No retro sternal space between sternum and anterior wall of RV

- ▶ EuroSCORE

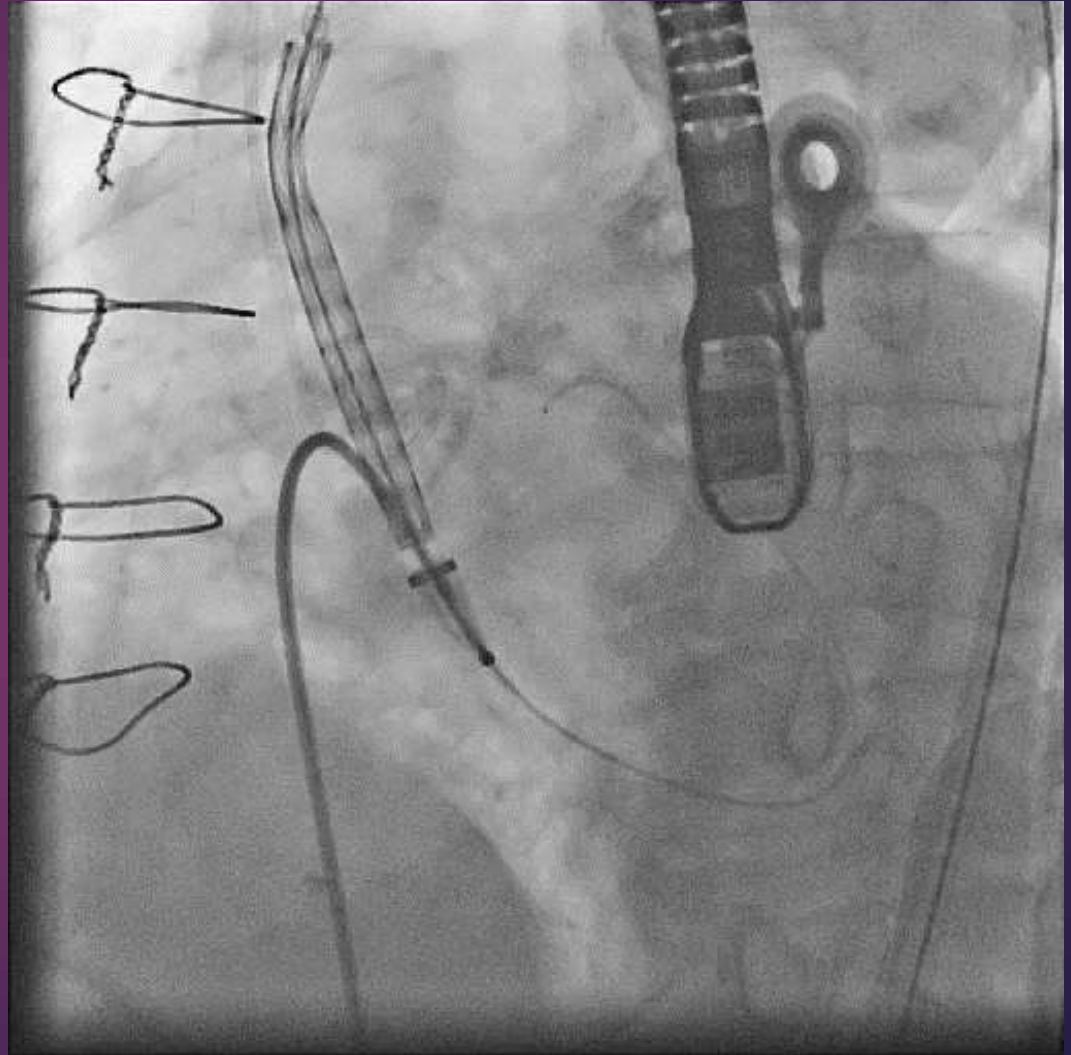
- ▶ Predicted In-hospital mortality after cardiovascular surgery – 43%

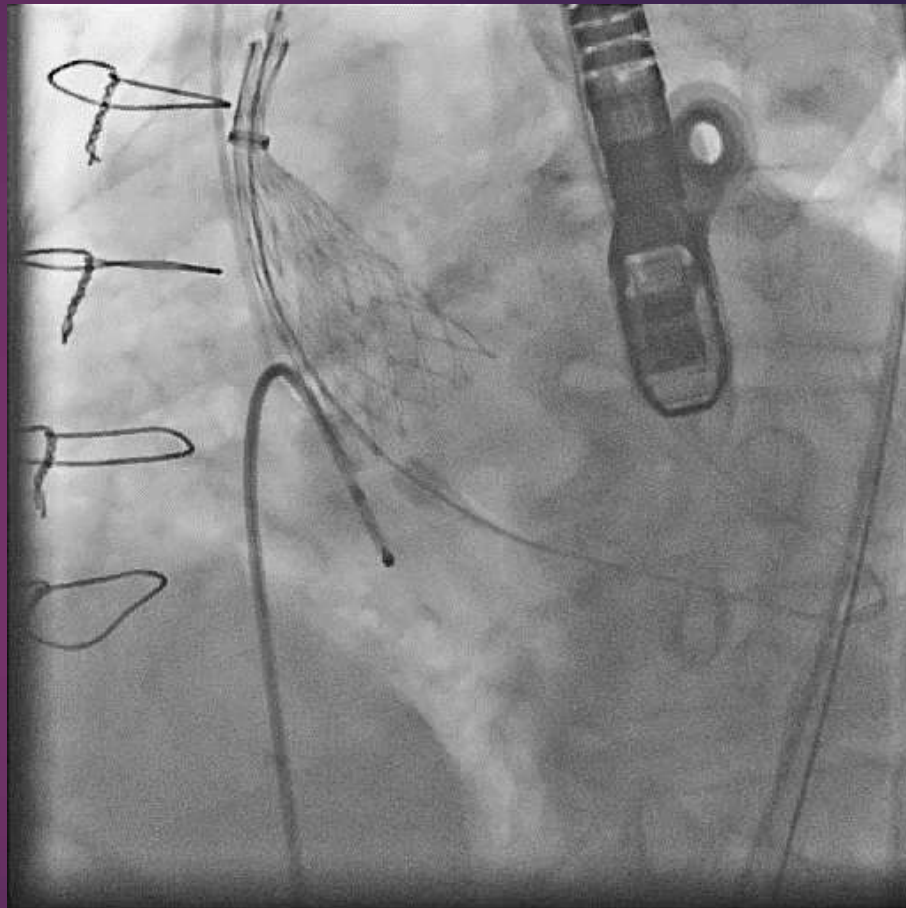
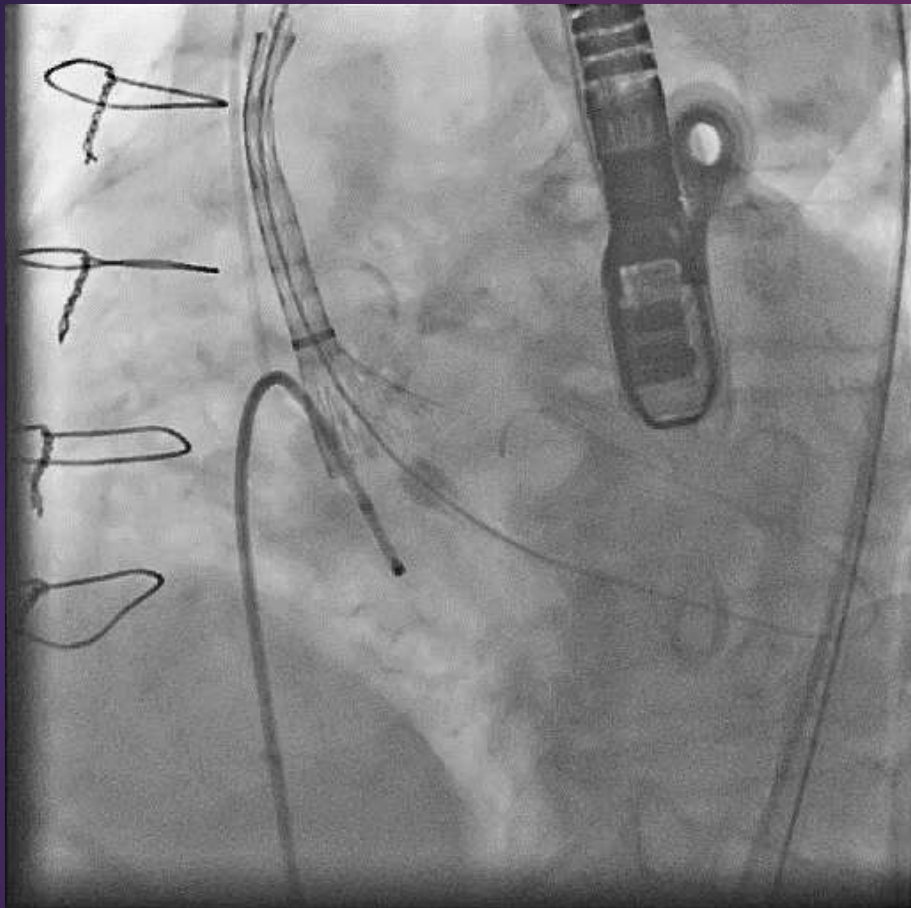
- ▶ **PLANNED FOR TAVI**

- ▶ Right femoral pulse feeble
- ▶ Check shot with MP1 5F after cross over
- ▶ Facilitates anterior wall puncture
- ▶ RFA punctured & hemostasis achieved with two Proglides
- ▶ 6F pacing lead through RFV
- ▶ TEE probe inserted



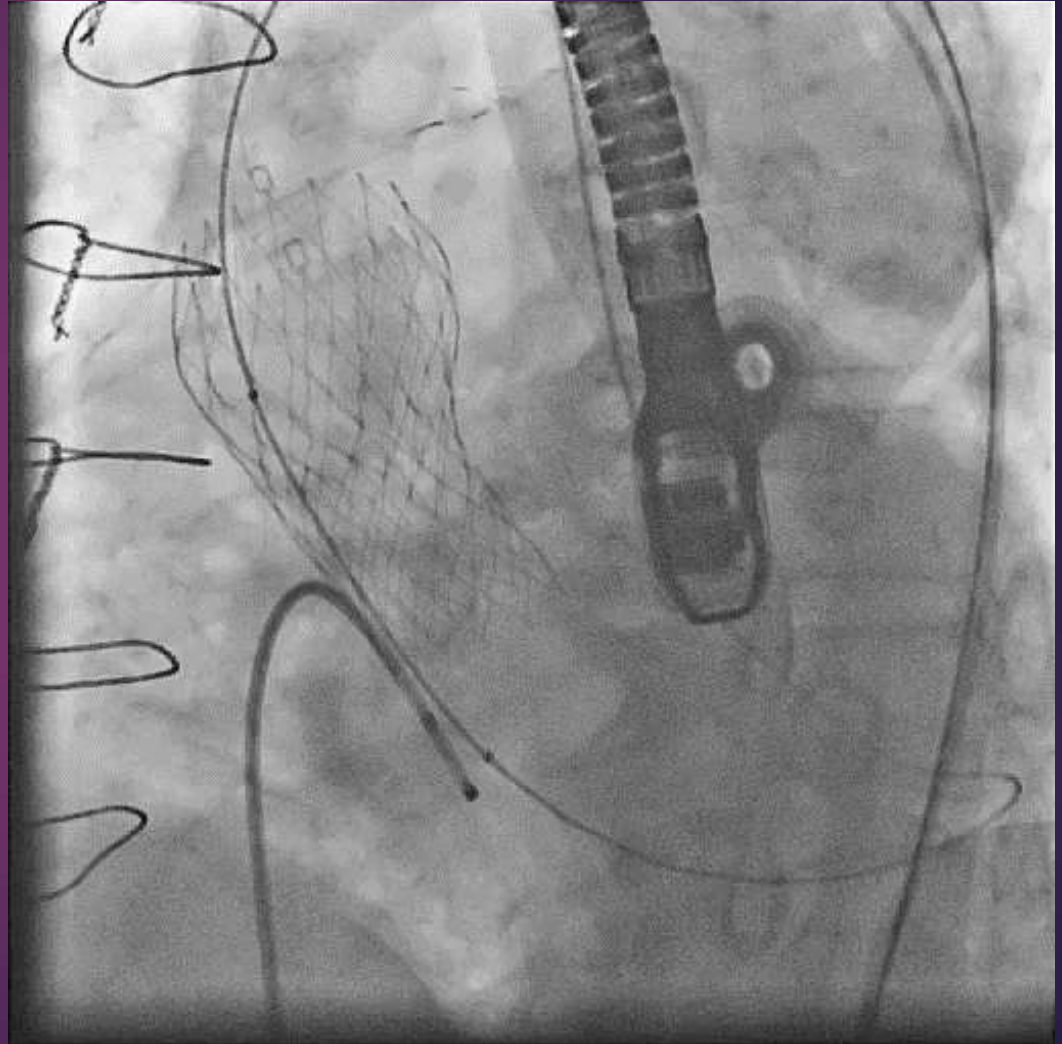
- ▶ Aortic valve crossed by Terumo straight tip exchange length wire with AL2 5F support
- ▶ Terumo wire exchanged with Amplatz super stiff wire
- ▶ BAV not planned because it doesn't make any significant difference
- ▶ 29 mm Core Valve positioned directly through 18F sheath
- ▶ Aortogram done with 5F pigtail through femoral artery





Core valve deployed slowly with simultaneous aortogram & TEE monitoring to check the positioning

- ▶ Severe paravalvular AR on TEE
- ▶ Post dilatation done with
 - ▶ Z MED II 23 x 5 mm balloon

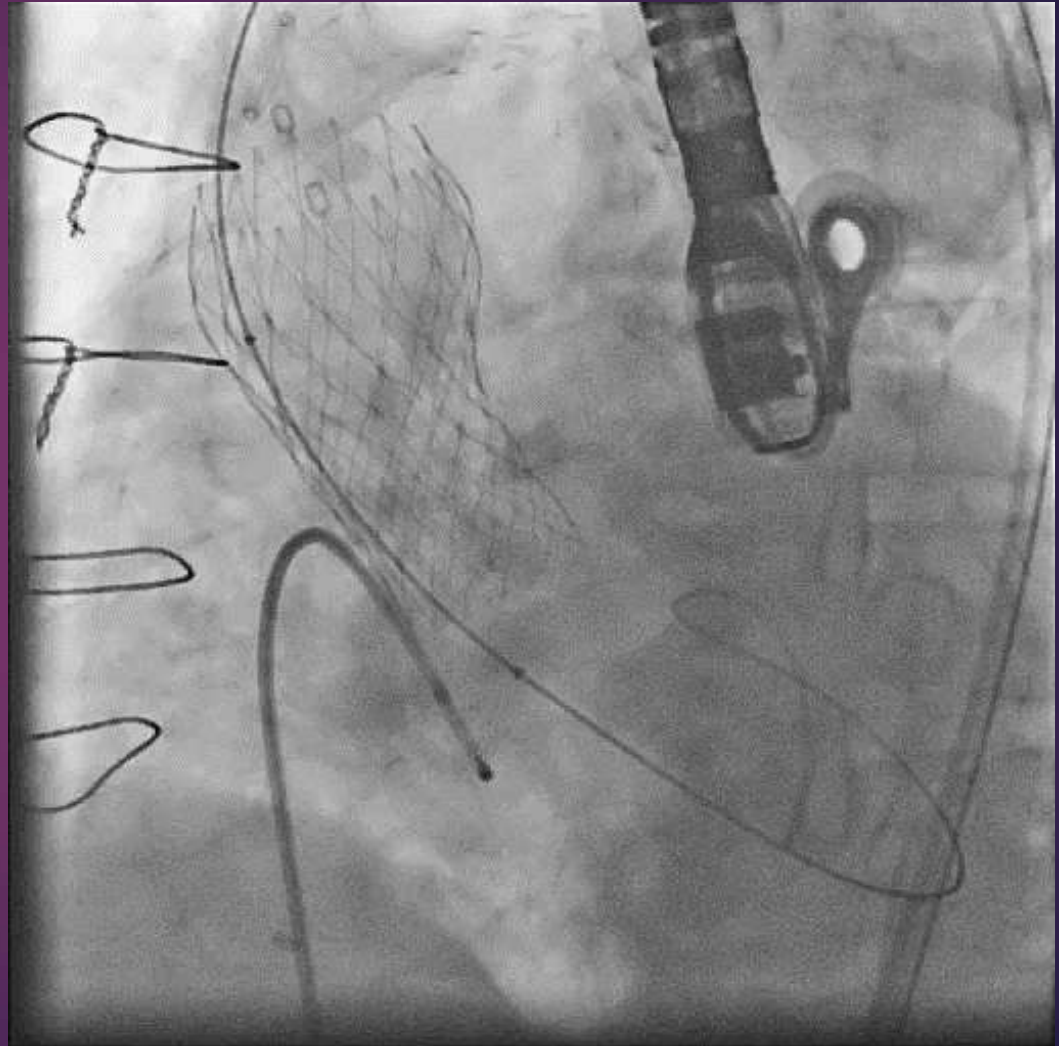


Severe paravalvular AR on TEE and aortogram...

Now what to do???



- ▶ Post dilatation done with
 - ▶ Z MED II 25 x 6 mm balloon
- ▶ Moderate paravalvular AR on TEE
- ▶ Thought of post dilatation using INOUE balloon but will fall short of length



Doctor in a fix!



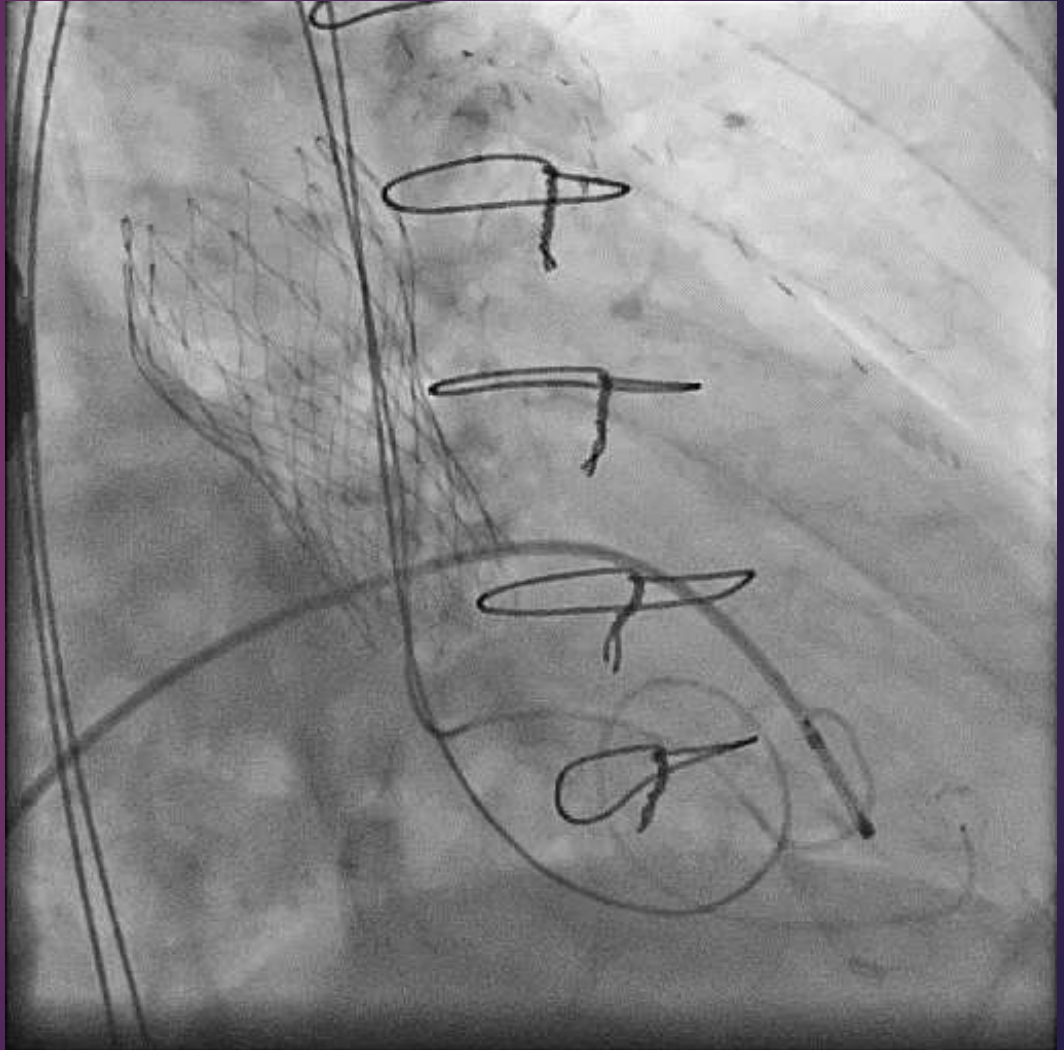
Interventional
Cardiologist is the
King....

Don't want to refer to
CTVS

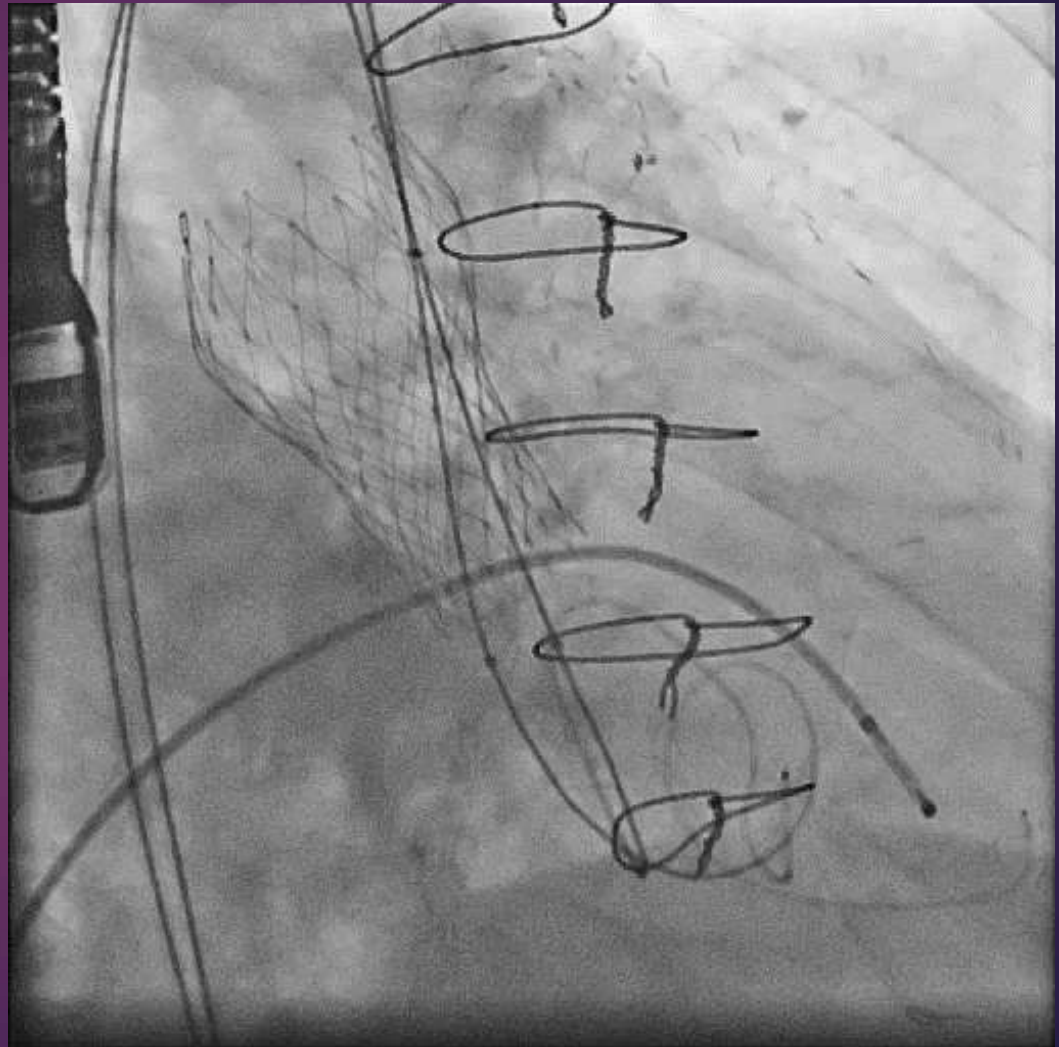
Percutaneous
Paravalvular leak
closure not possible



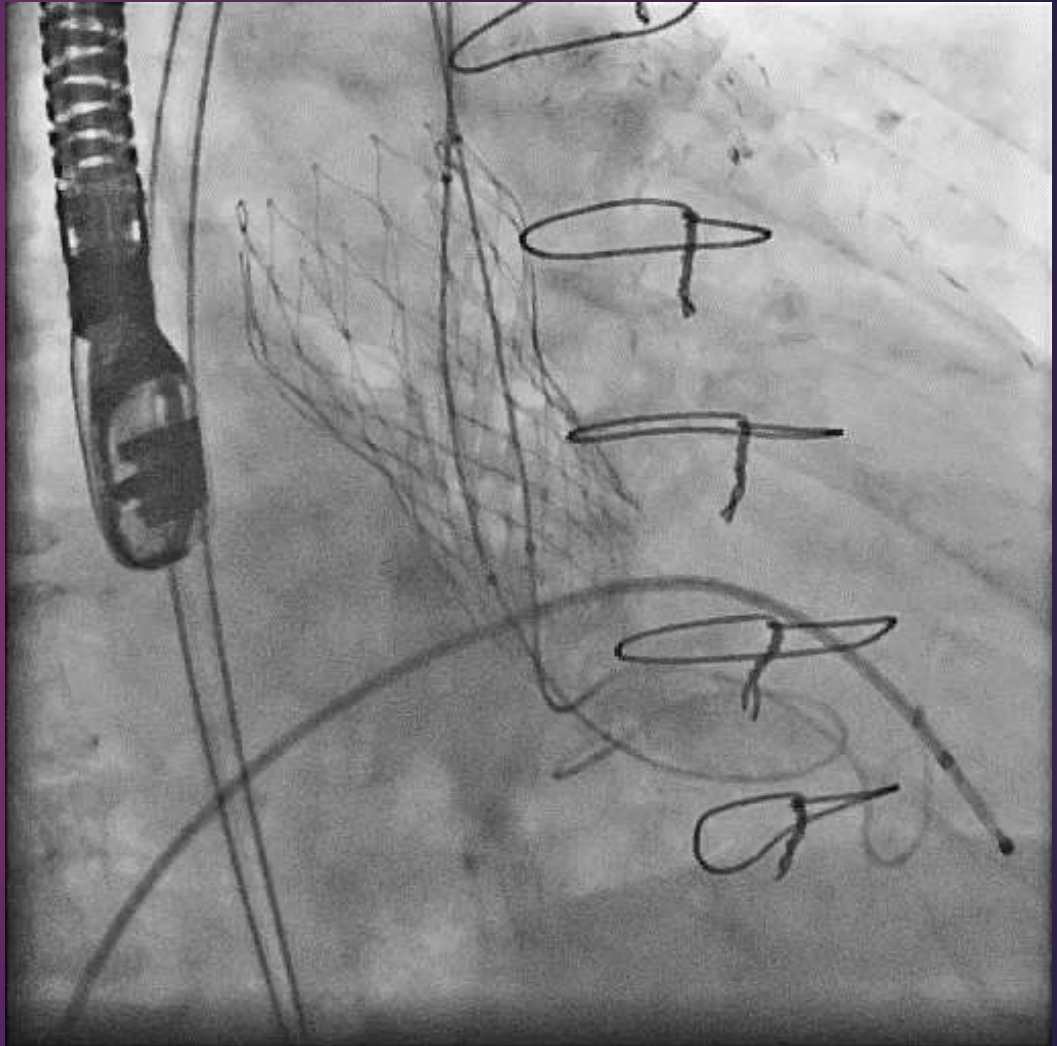
- ▶ Planned for simultaneous two balloon dilatation
- ▶ Second Amplatz super stiff wire passed through Left Femoral Artery after upgrading the sheath and hemostasis achieved with single proglide suture



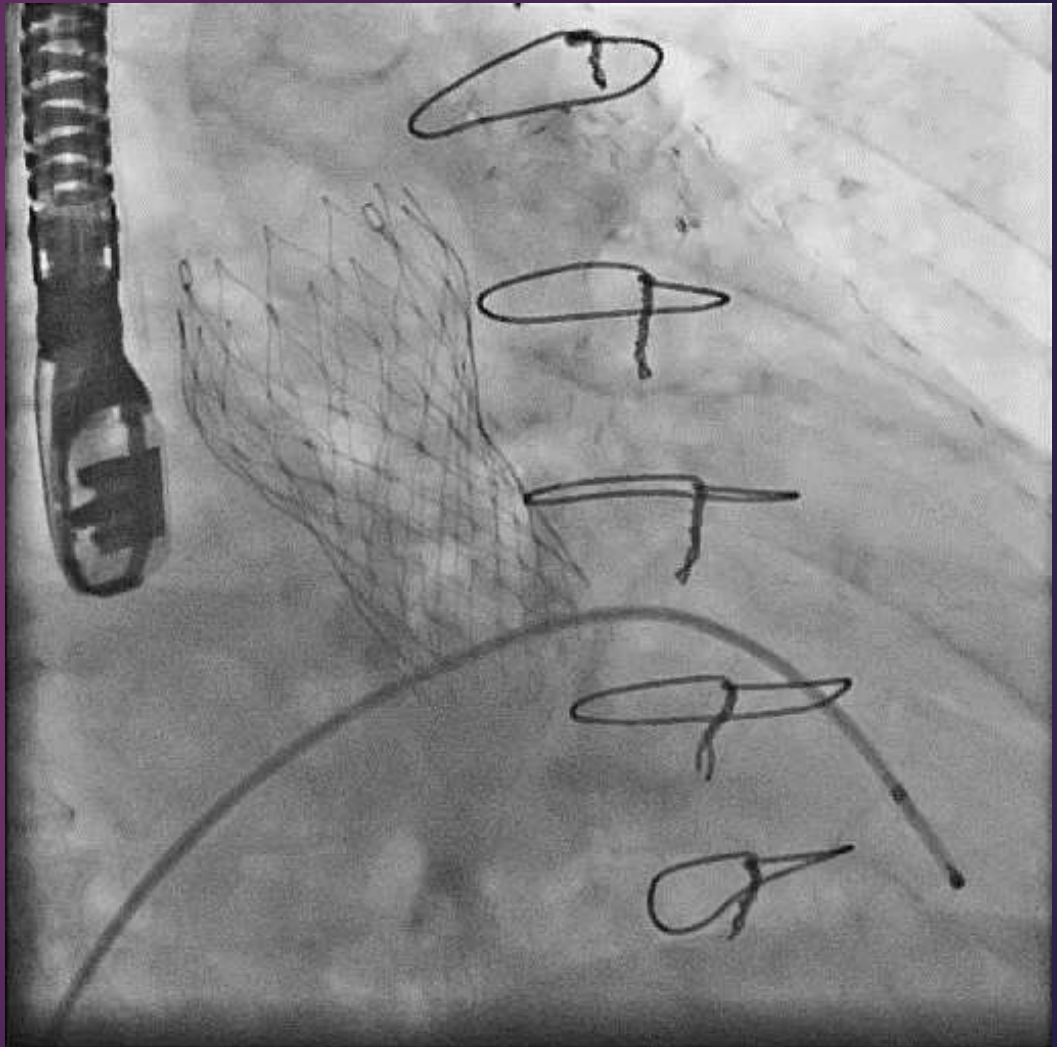
- ▶ Simultaneous two balloon dilatation with
 - ▶ Z MED II 23 x 5 mm balloon
 - ▶ Z MED II 16 x 5 mm balloon
- ▶ TEE – moderate paravalvular AR



- ▶ Again post dilatation at high pressures
- ▶ TEE – mild paravalvular AR





- ▶ 30 mins post procedure
 - ▶ Mild paravalvular AR
- ▶ Due to self expanding nature of Core Valve AR should decrease



- ▶ Check shot after hemostasis achieved to rule out any vascular complication



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- ▶ Serial post procedure 2D echo evaluation
 - ▶ Trivial paravalvular AR
 - ▶ Normal LV function
 - ▶ Patient in NYHA Class II

Thank You

