

TAVR and the Left Main Challenge: Risk Stratification and Bailout Strategy

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Disclosure of Relevant Financial Relationships

I, [Enhua Wang] DO NOT have any financial relationships to disclose.

Case Presentation: 79-year-old Male

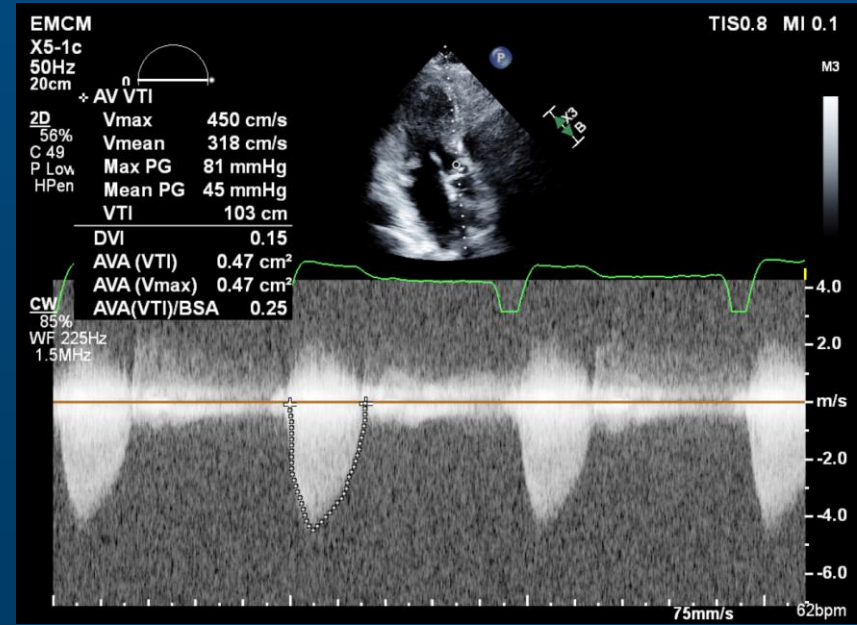
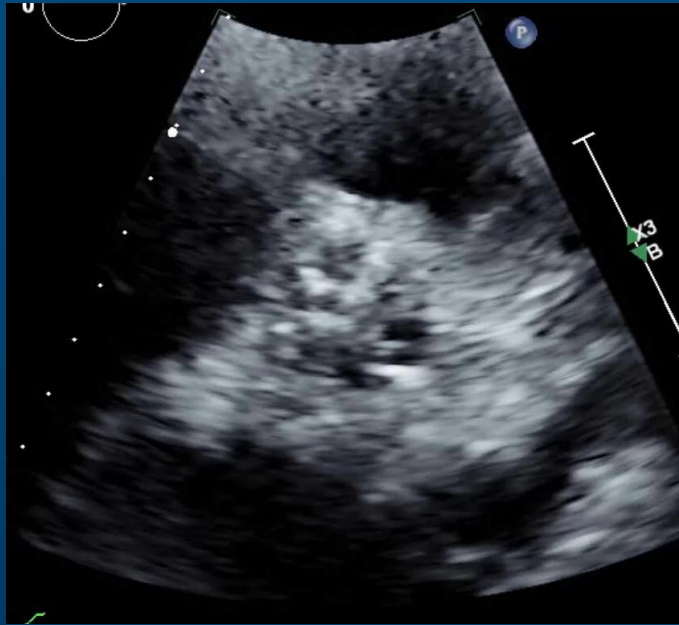
Reason for Admission:

- Worsening dyspnea on exertion x 2 weeks

Past Medical History:

- Non-obstructive CAD
- Paroxysmal atrial fibrillation
- Complete heart block s/p permanent pacemaker
- CKD3, NIDDM, COPD, OSA
- Chronic normocytic anemia
- Carotid stenosis s/p R ICA stent in 2023
- PAD s/p LLE stent

Transthoracic Echocardiography

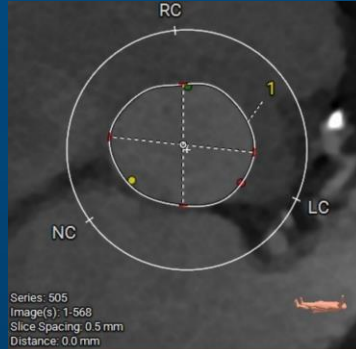
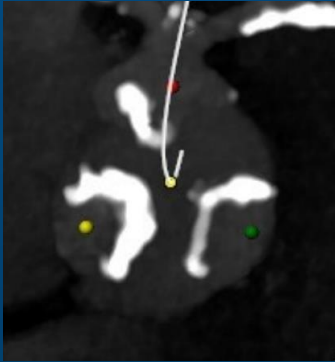


- LVEF 55%
- Peak Velocity: 4.5 m/s

- Mean gradient: 45 mmHg
- Calculated AVA: 0.47 cm²

STS Score: 9%

ECG-Gated Cardiac CT



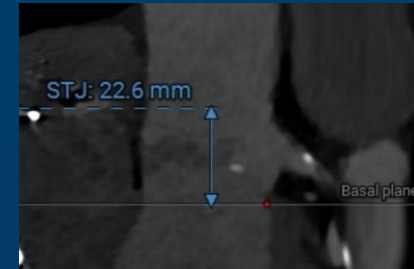
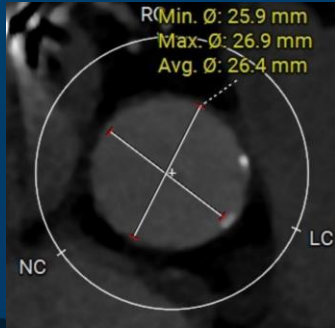
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	Max. Ø	30.3 mm
	Avg. Ø	27.8 mm
	Area derived Ø	27.9 mm
	Perimeter derived Ø	28.1 mm
	Area	611.4 mm ²
	Perimeter	88.3 mm



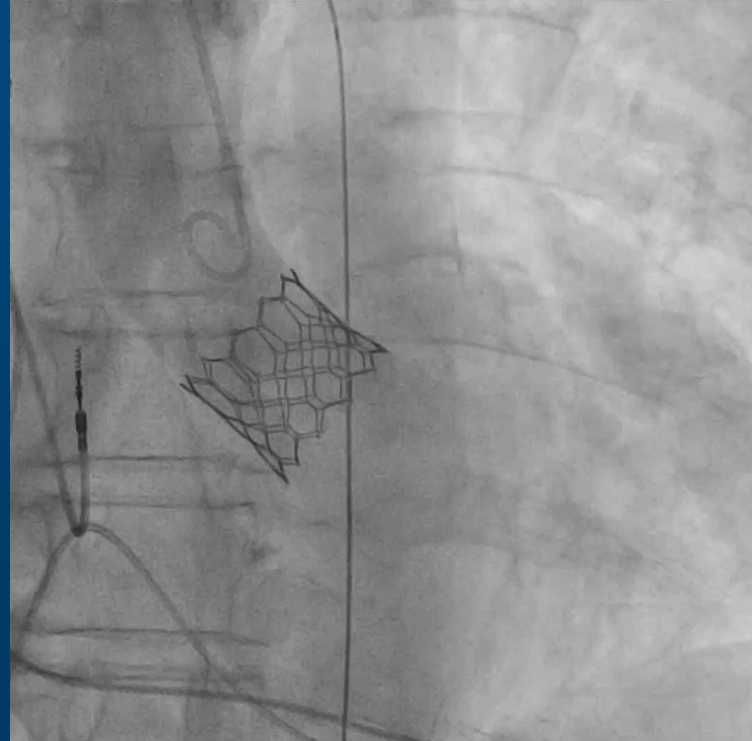
ID Type	Label	Value
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	Avg. Ø	28.4 mm
	Area derived Ø	28.7 mm
	Perimeter derived Ø	29.2 mm
	Area	645.7 mm ²
	Perimeter	91.6 mm



ID Type	Label	Value
1	Diameter Diameter	32.2 mm
2	Diameter Diameter	30.1 mm
3	Diameter Diameter	30.5 mm

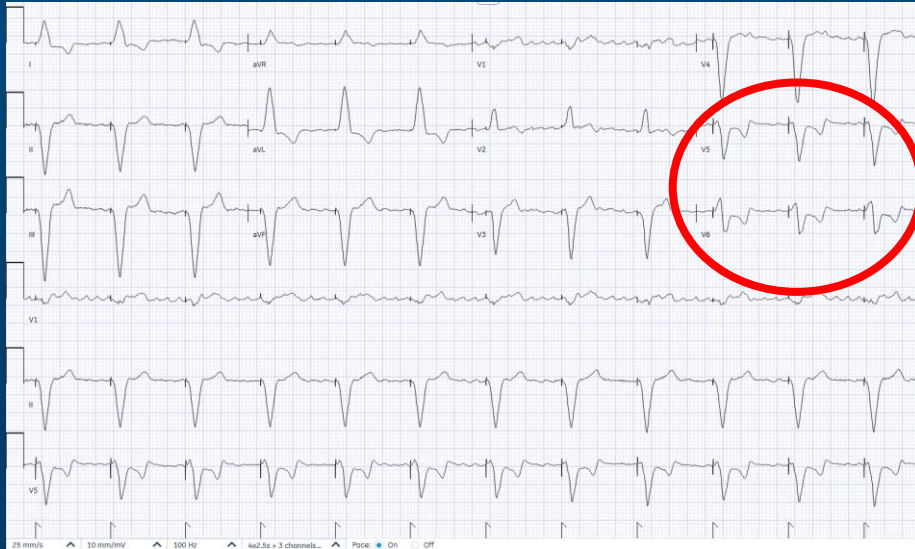


TAVR Implantation

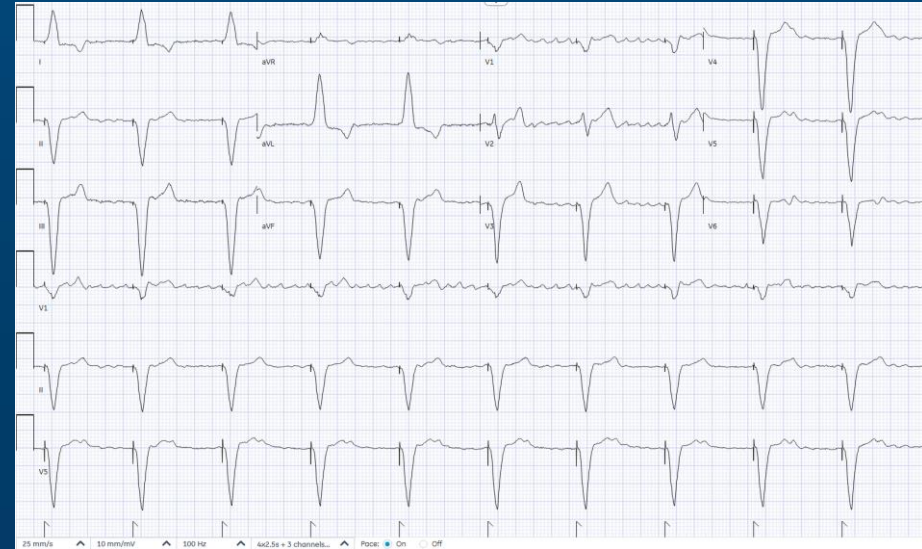


Post-TAVR Event

- Intermittent chest pain
- High sensitivity Troponin I **23,359 >> 24714 >> 32,113** ng/L in 6 hours

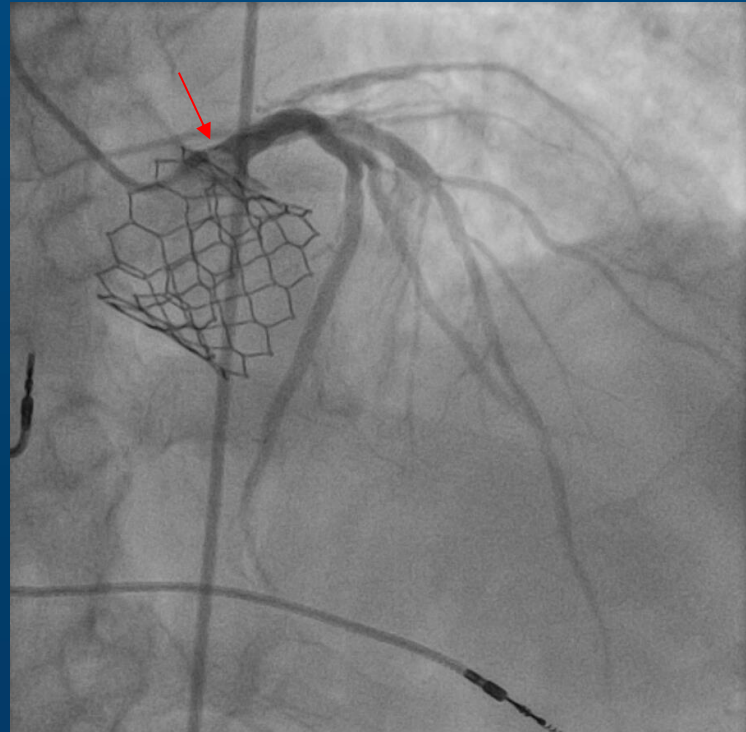


ECG at 03:40 AM and 10:12 AM



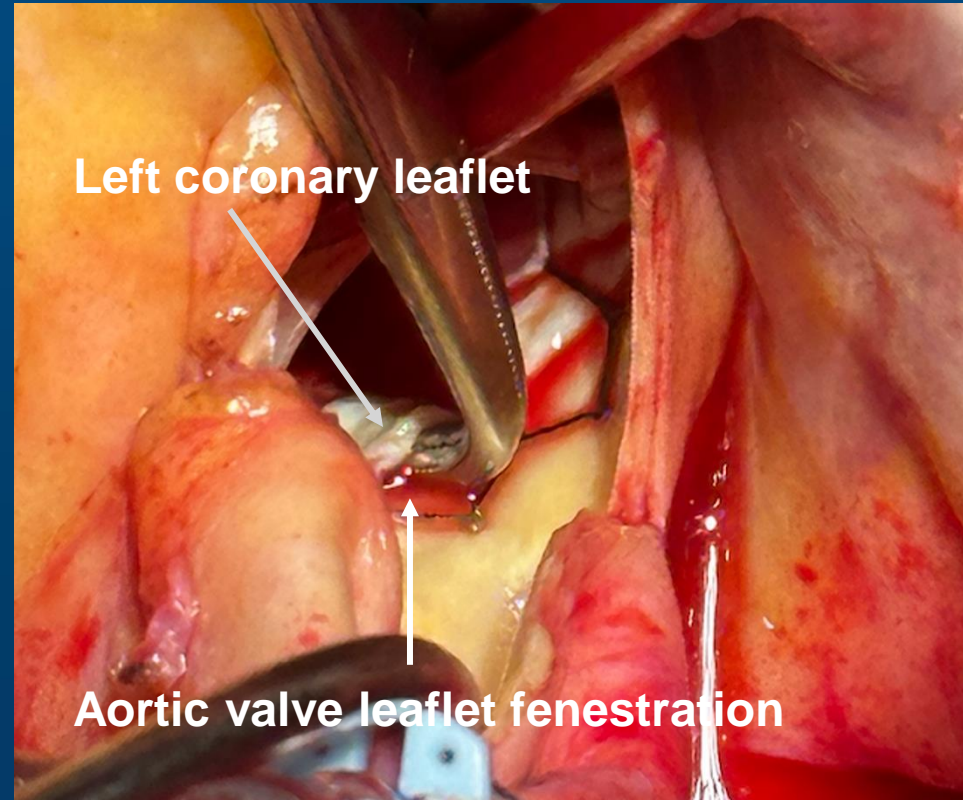
ECG at 06:10 AM

Coronary Angiography



Emergent SAVR

- Native aortic leaflets occluding left main coronary orifice. Flow only through a small portion of the leaflet from the fenestration at the commissure
- Emergent TAVR explantation
- SAVR was performed with 25 mm INSPIRIS valve
- Physio Tricuspid Annuloplasty Ring (for severe TR from ICE)



Take-home Message

- Prevention of coronary artery obstruction during TAVR is critical and depends on meticulous pre-procedural CT assessment.
- Prophylactic strategies such as the BASILICA procedure or coronary protection techniques may be employed.
- Early recognition and prompt intervention are essential for optimal outcomes.