

Hostile Aortic Valve Calcification: To TAVR or not to TAVR?

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Disclosure of Relevant Financial Relationships

I, Konstantinos Stathogiannis, DO NOT have any financial relationships to disclose.

Case presentation

- 84 yo ♂, BMI 29.7 kg/m²
- LOC event 1 year ago and again 1 week ago
- Fatigue
- Traumatic brain hematoma 10y ago
- Coro angio no CAD (outside facility)
- HTN, CKD (GFR 67 mL/min)

083Y
M

L



1
DX
YSIOMAX-28848
mAs:11.4ms
kVp:124.9
mA:315
PA
U



P

x_2

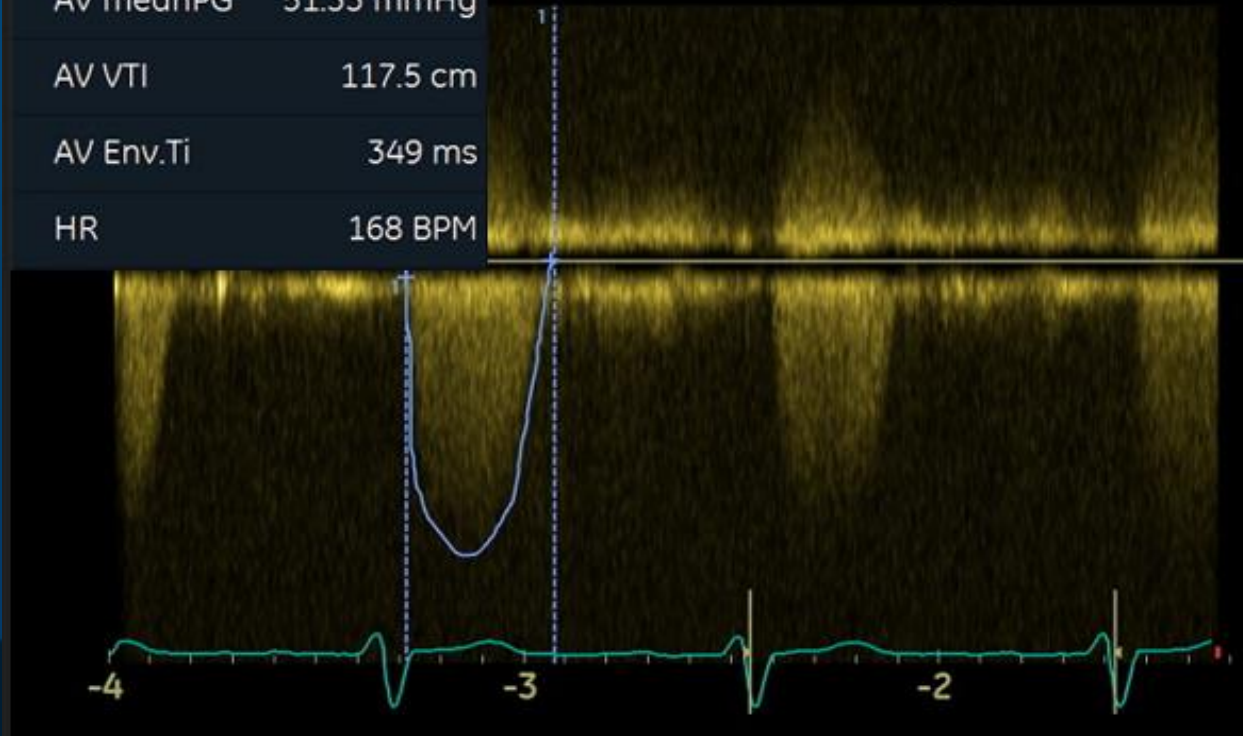
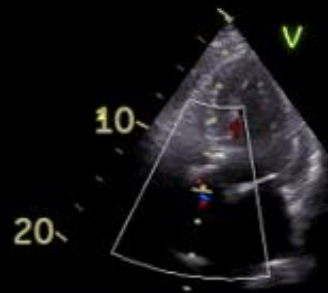


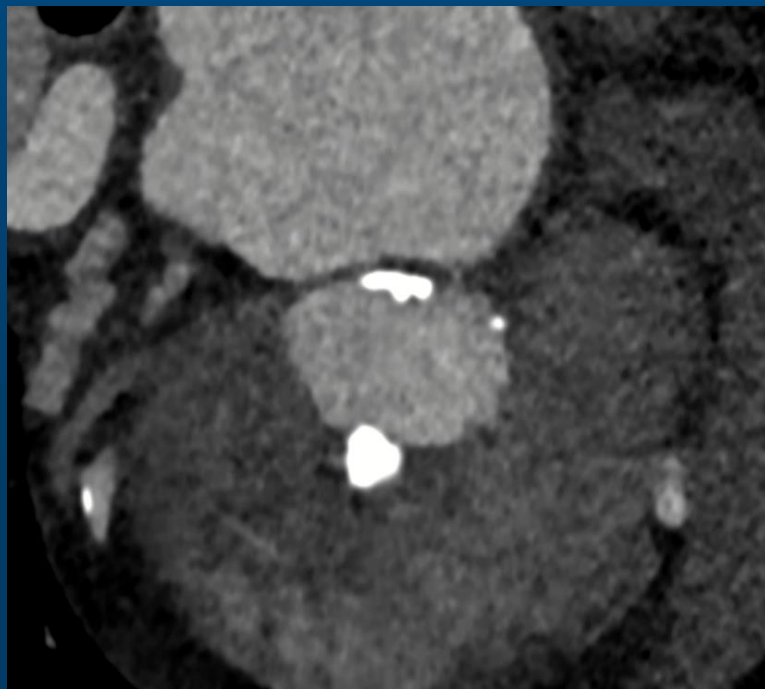
P

x2

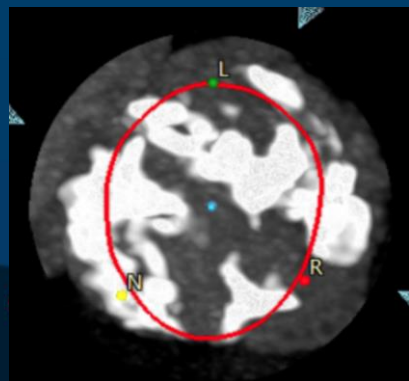
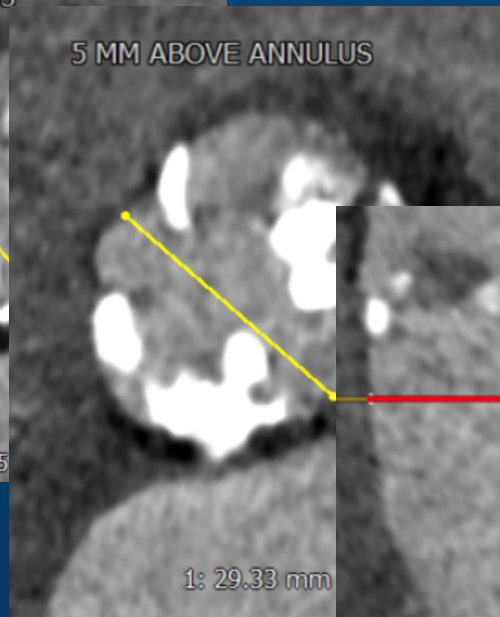
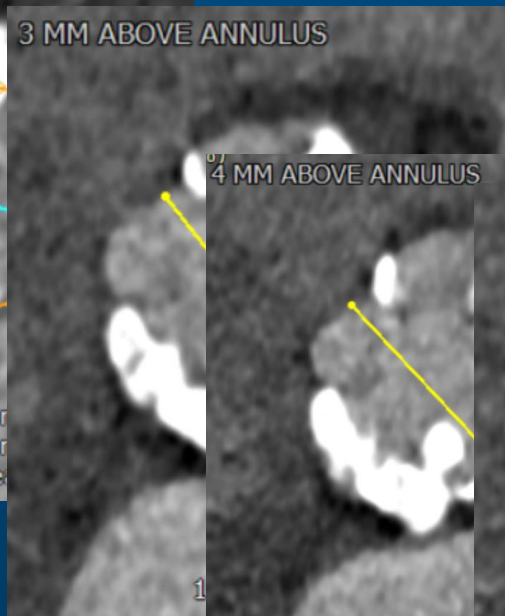
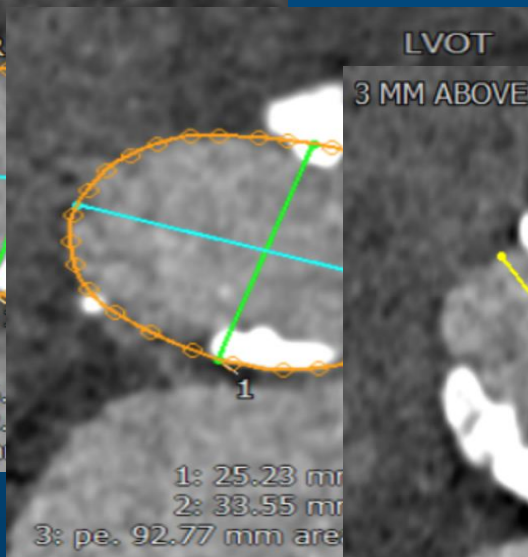
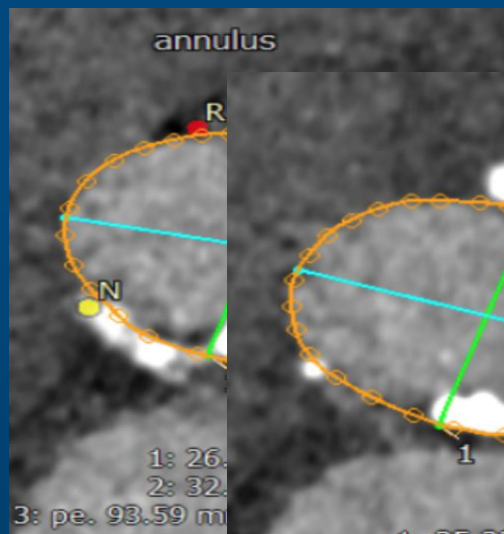


1	AV Vmax	4.43 m/s
	AV Vmean	3.36 m/s
	AV maxPG	78.55 mmHg
	AV meanPG	51.33 mmHg
	AV VTI	117.5 cm
	AV Env.Ti	349 ms
	HR	168 BPM









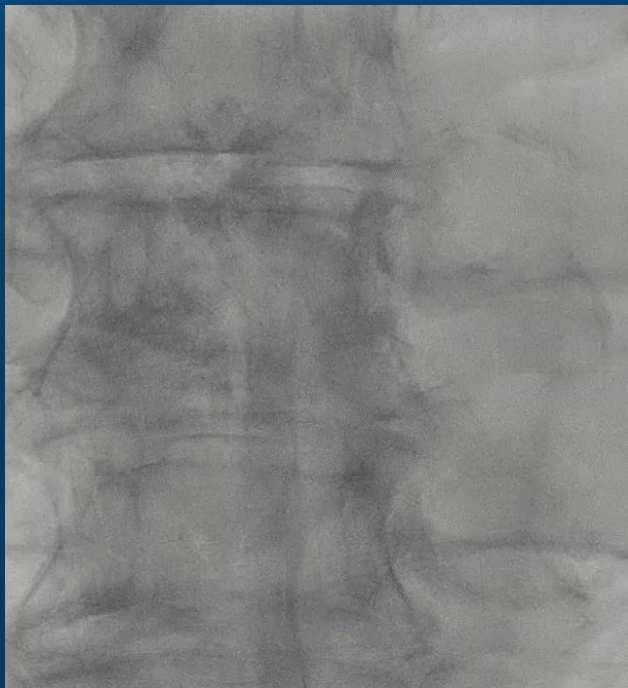
Agatston score 9850 HU

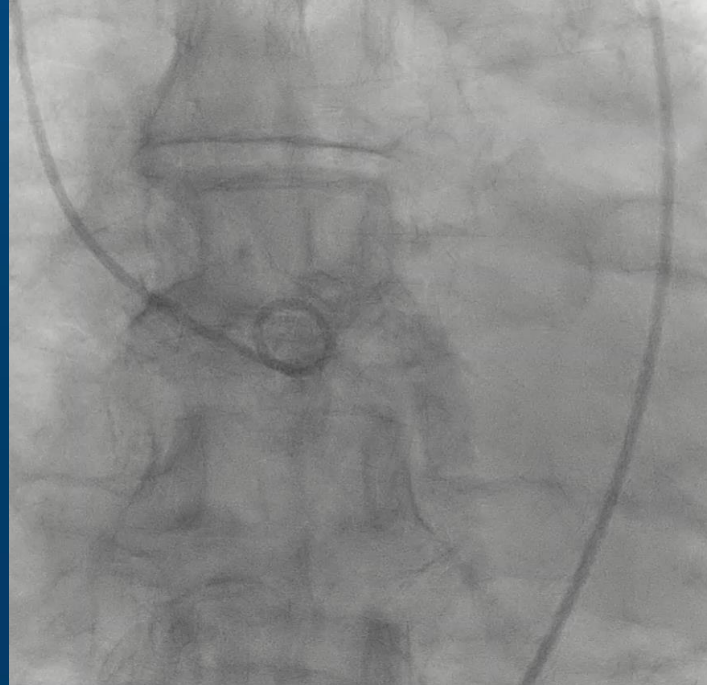
Heart Team plan?

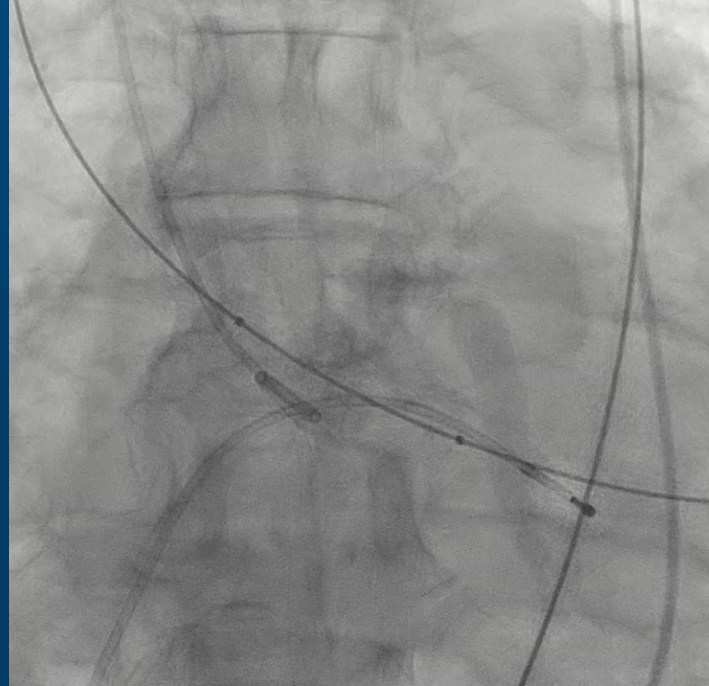
- 84 yo ♂ with bicuspid AVS (Type I, R-L)
- LOC events the main symptom
- Extreme calcification of AV and raphe, extending to LVOT
- Agatston score 9850 HU
- EuroSCORE II 3.6%, STS 2.4%, STS m/m 7%

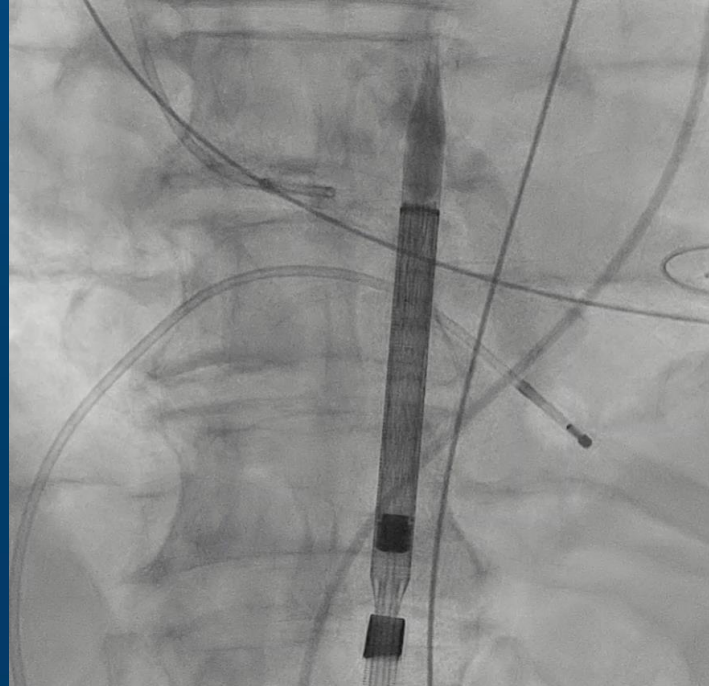
TAVI

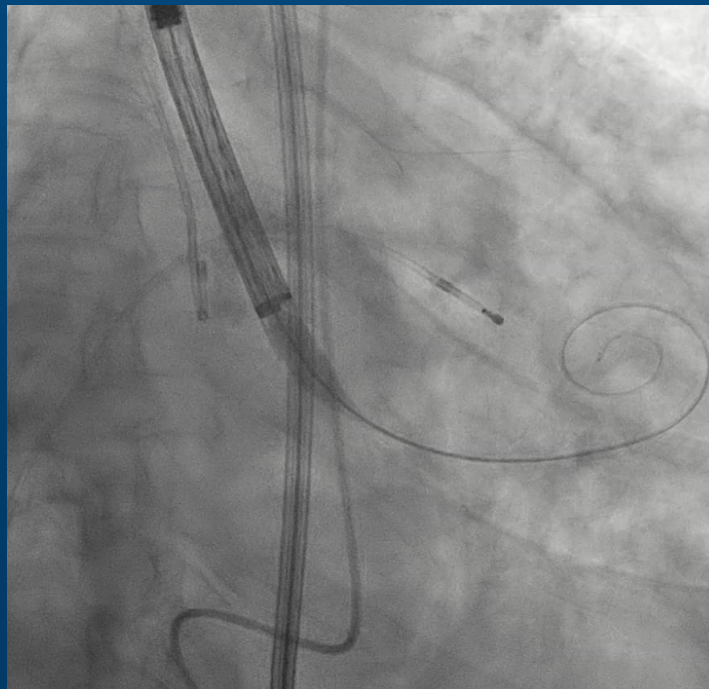
What valve?

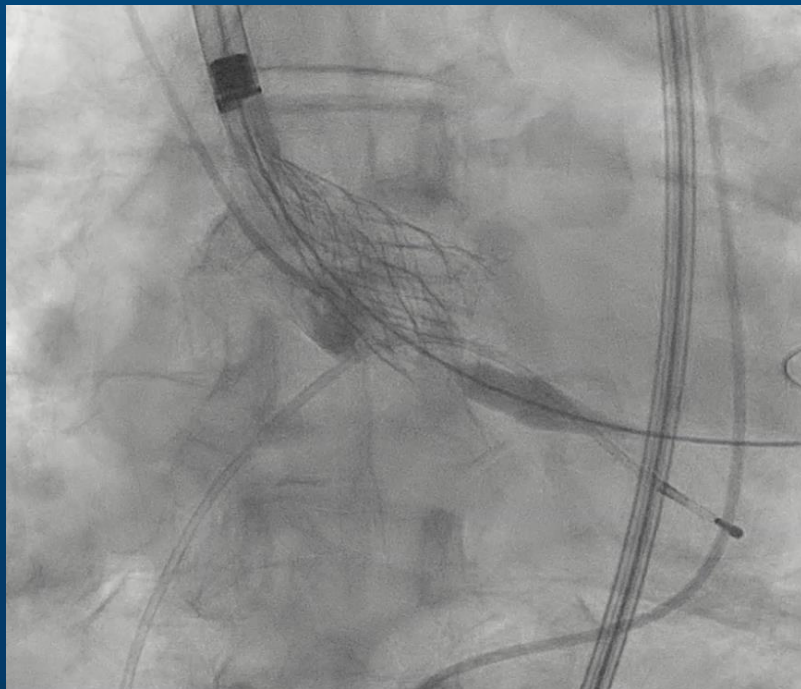


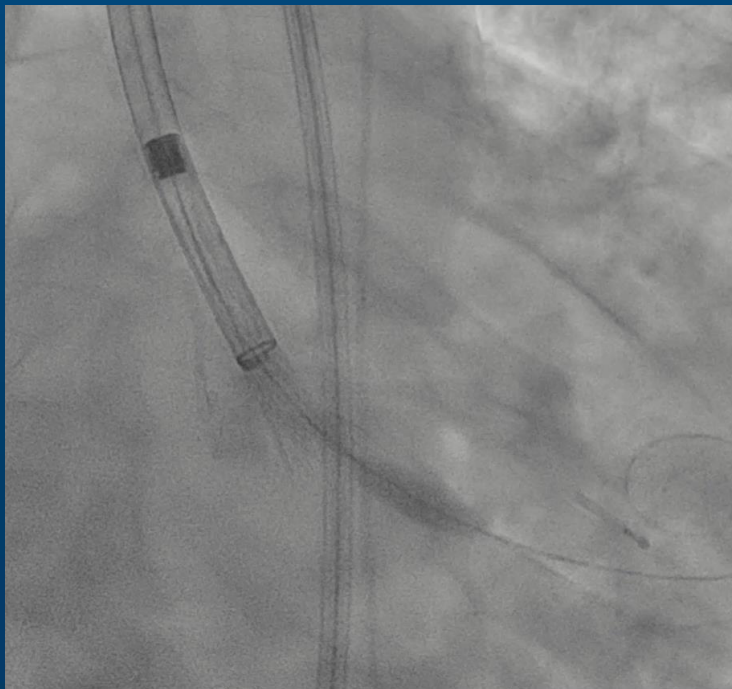


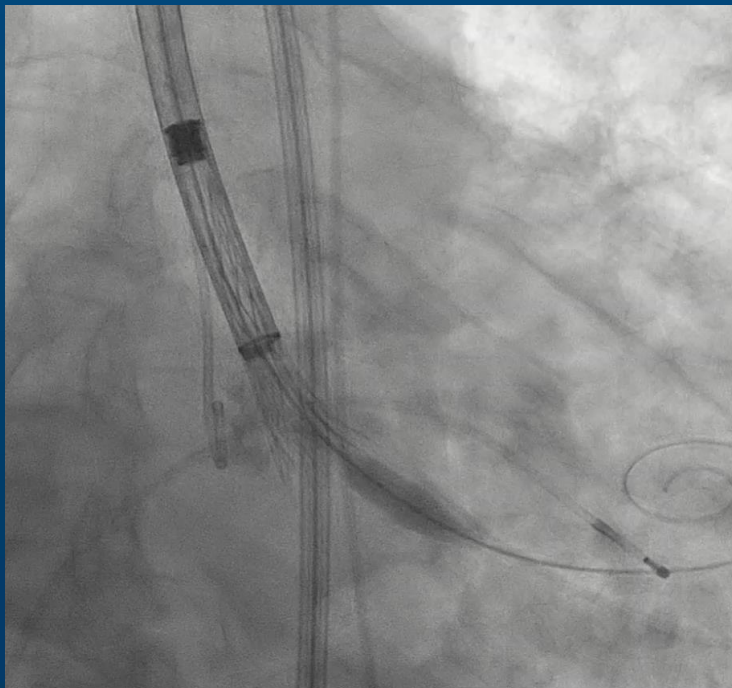


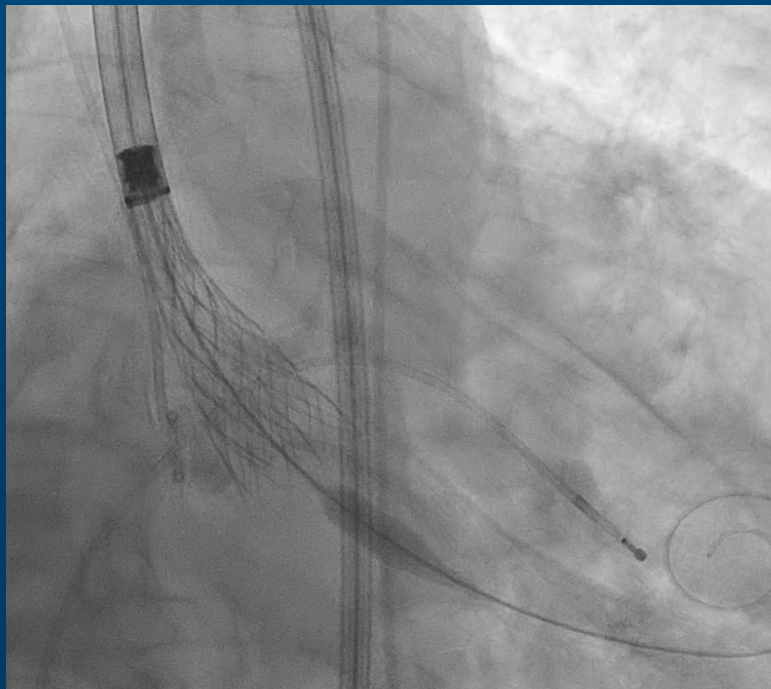


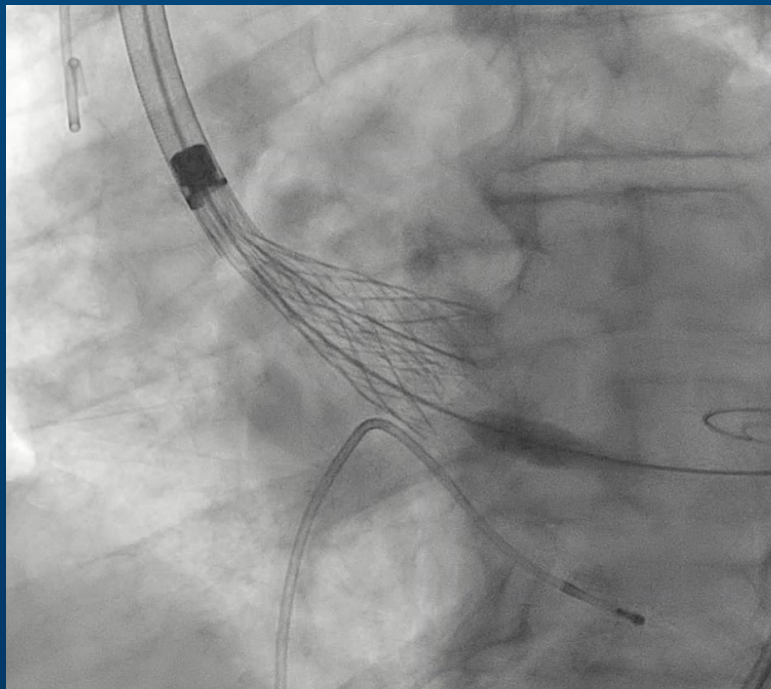


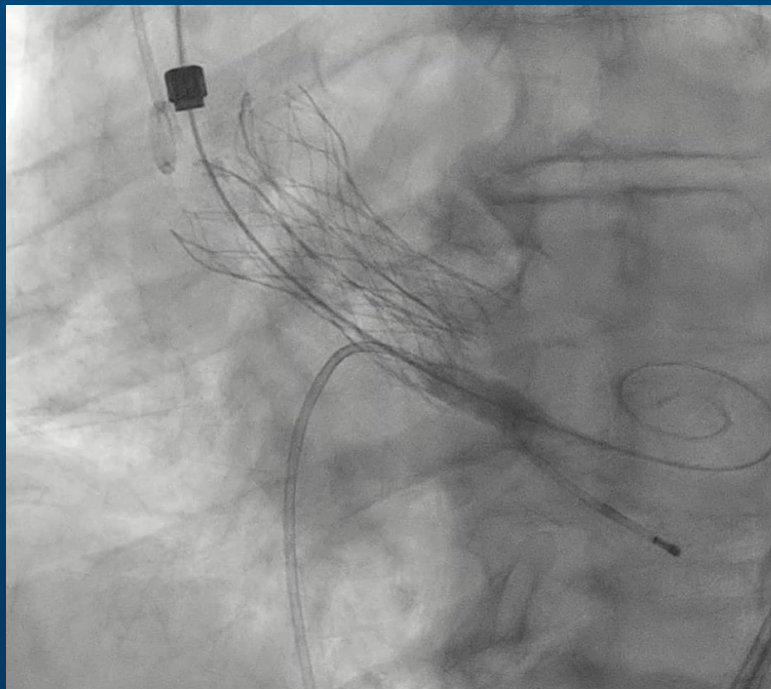


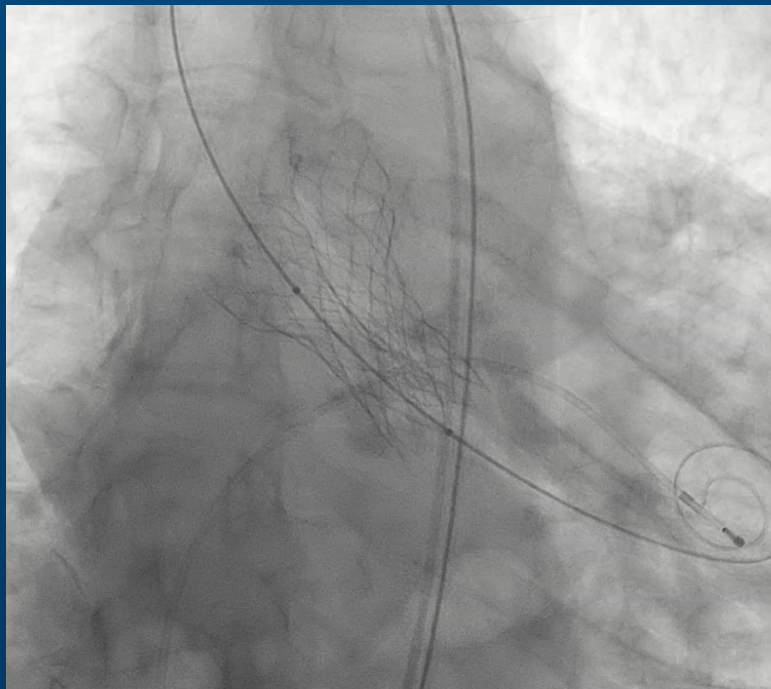


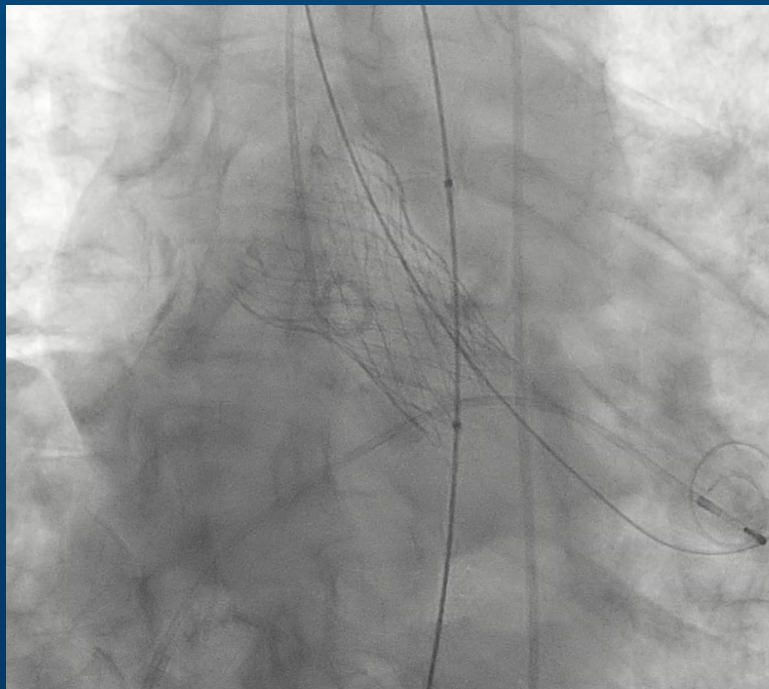


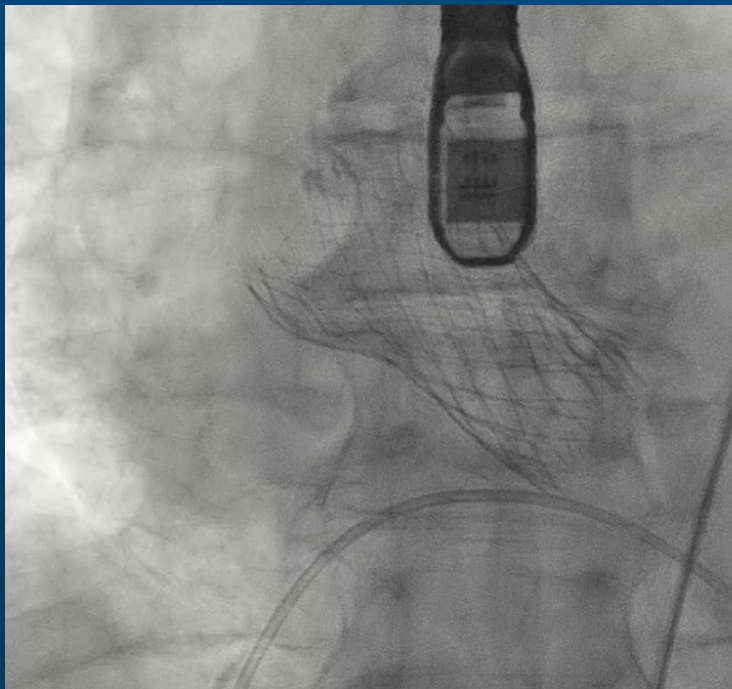








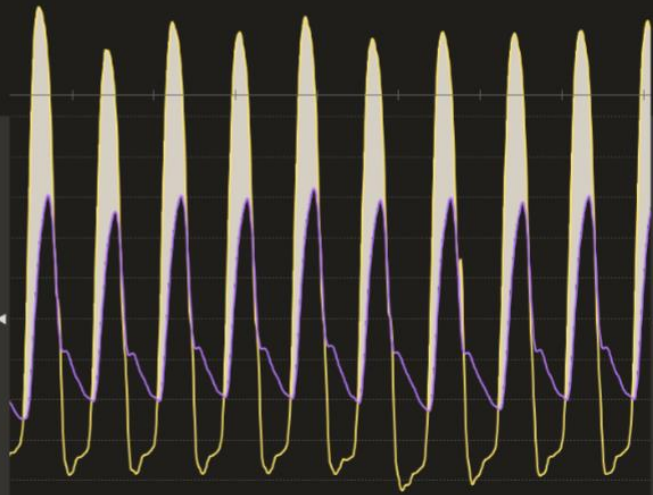




gradient

¹ AO 159/58 (96)

³ LV 242/22 33

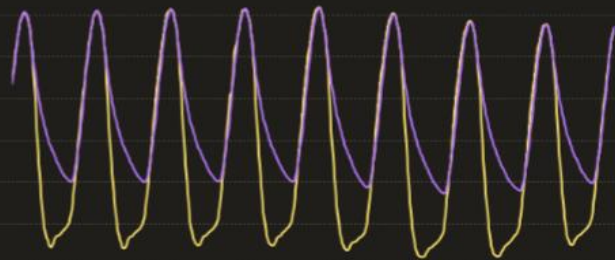


2 s 3 4 5 6 7 8 9

Aortic Valve gradient: 82.8 mmHg P-P, 71.5 mmHg mean, 377 ms, no CO

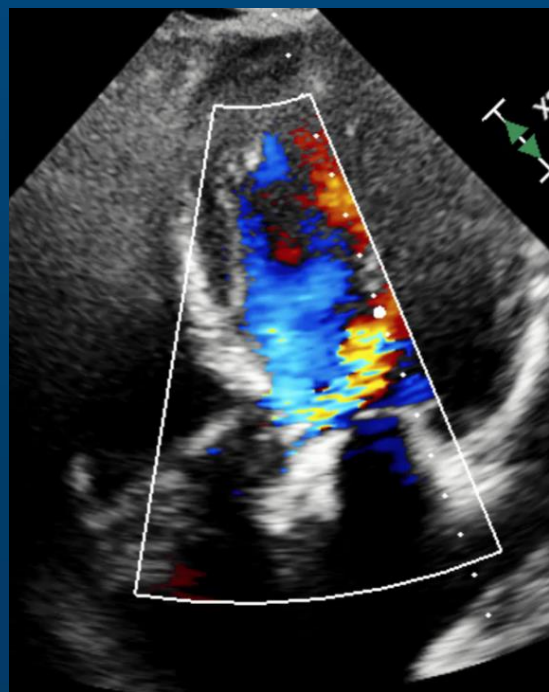
¹ AO 140/58 (92)

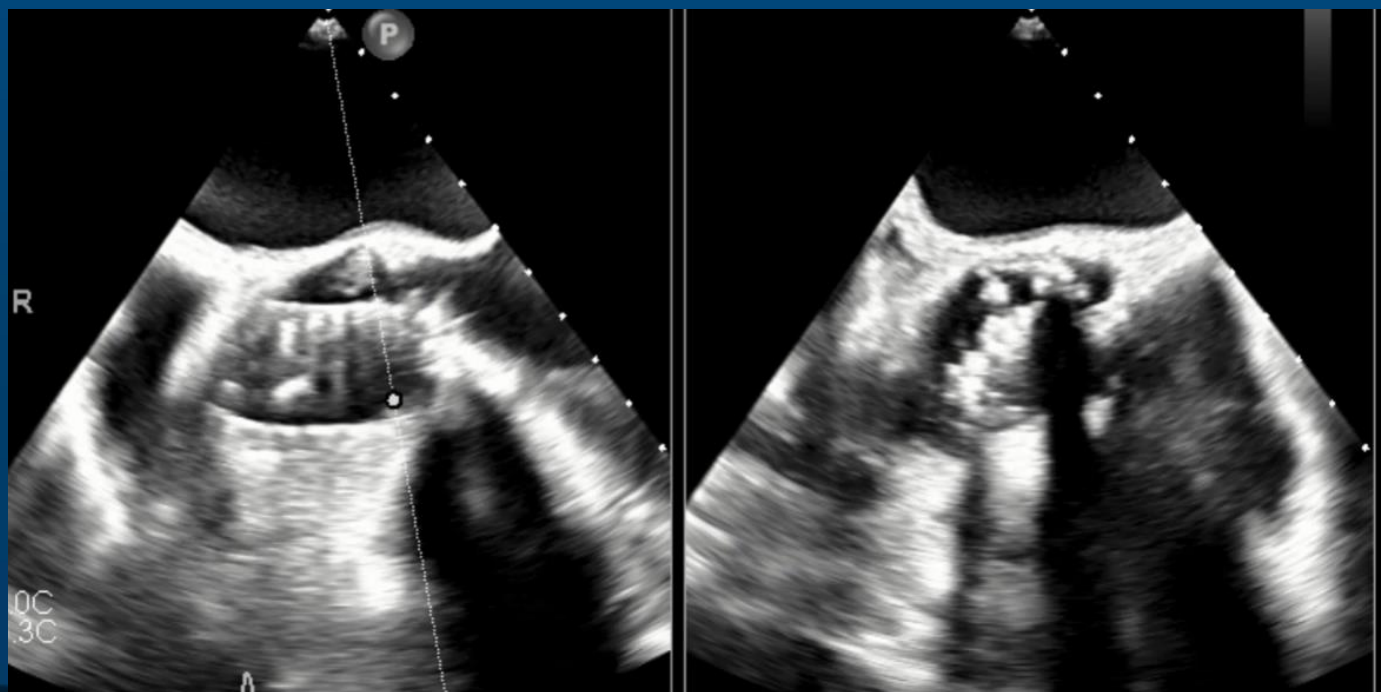
³ LV 141/27 35

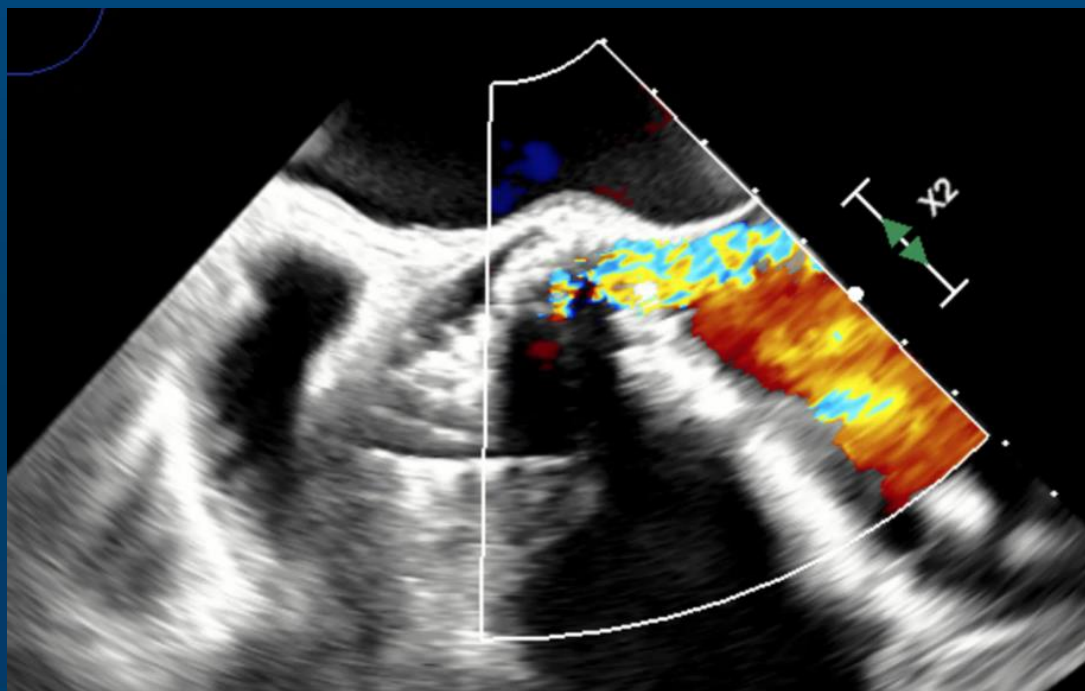


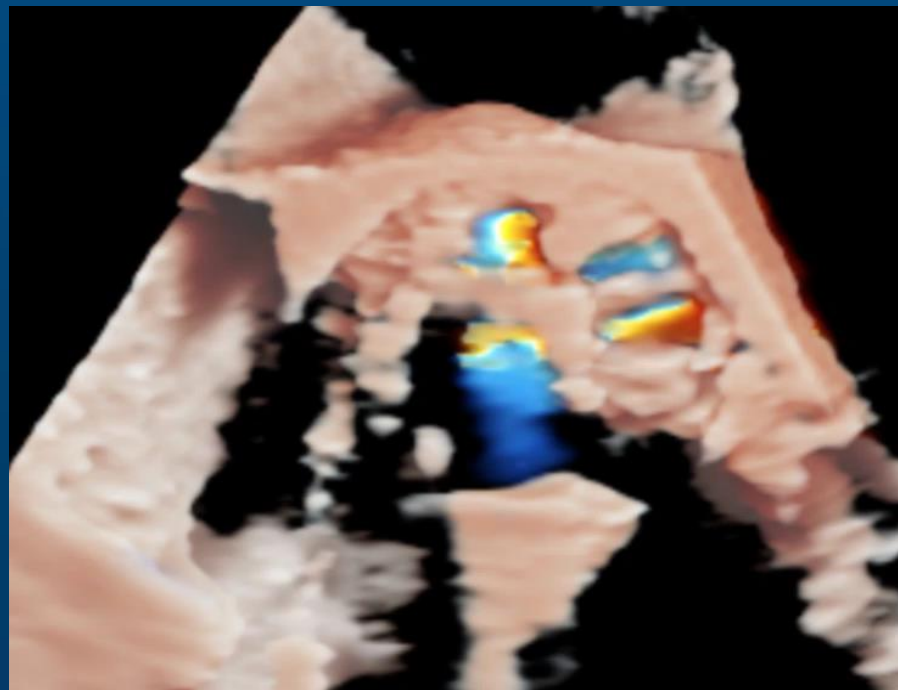
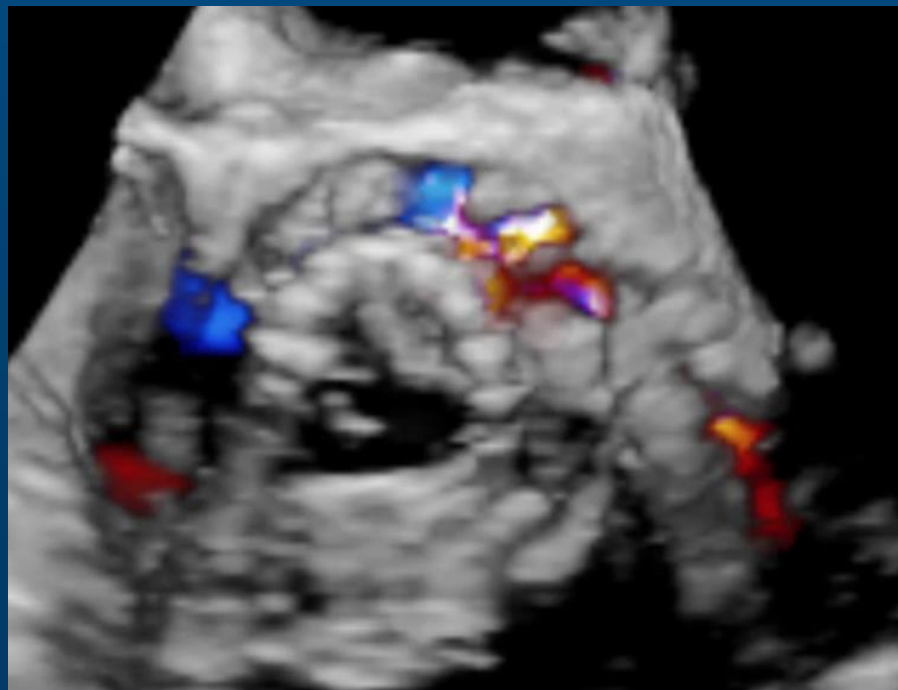
0 s 1 2 3 4 5 6

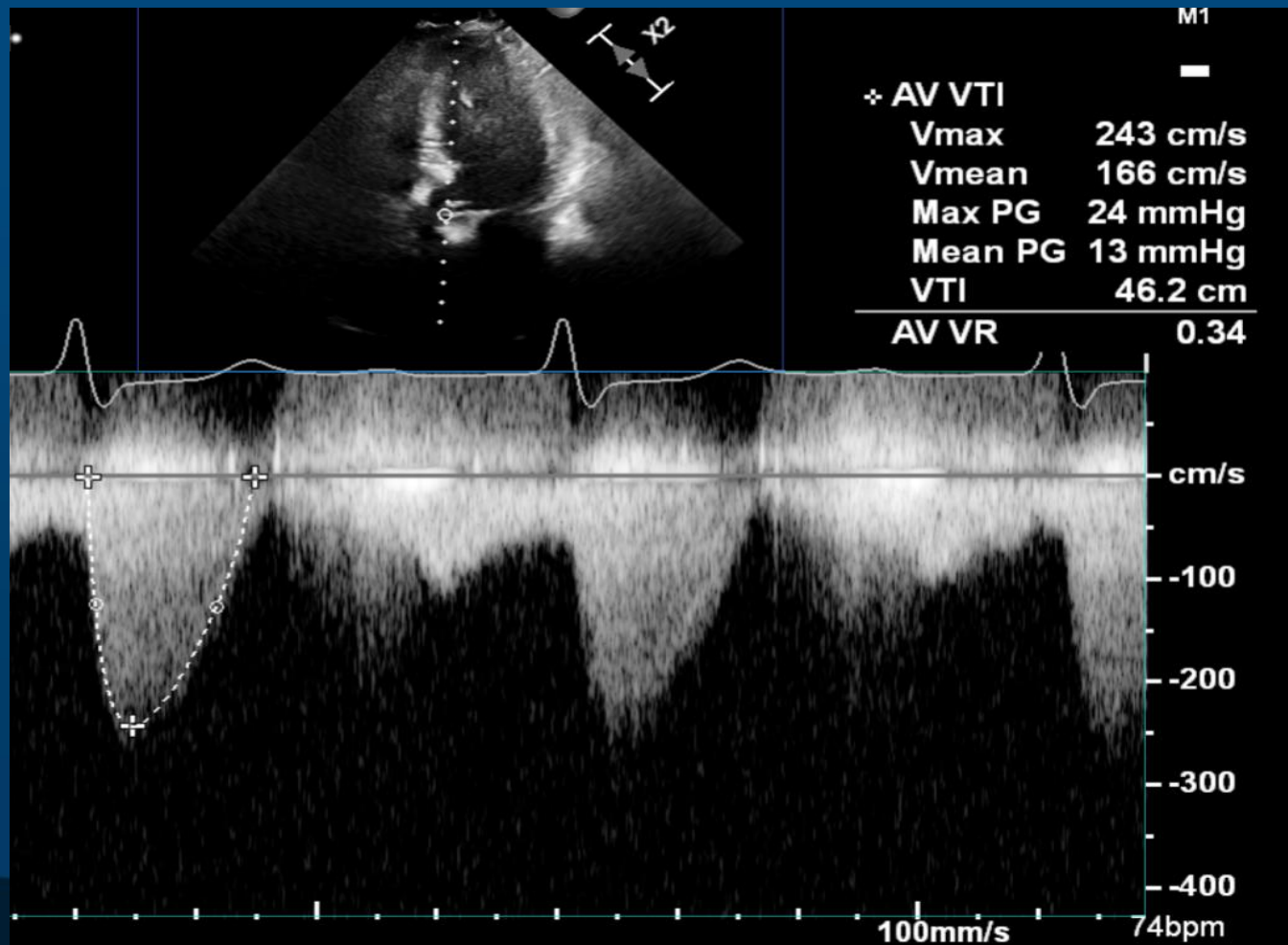
Aortic Valve gradient: < 2.0 mmHg P-P, 3.9 mmHg mean, 254 ms, no CO





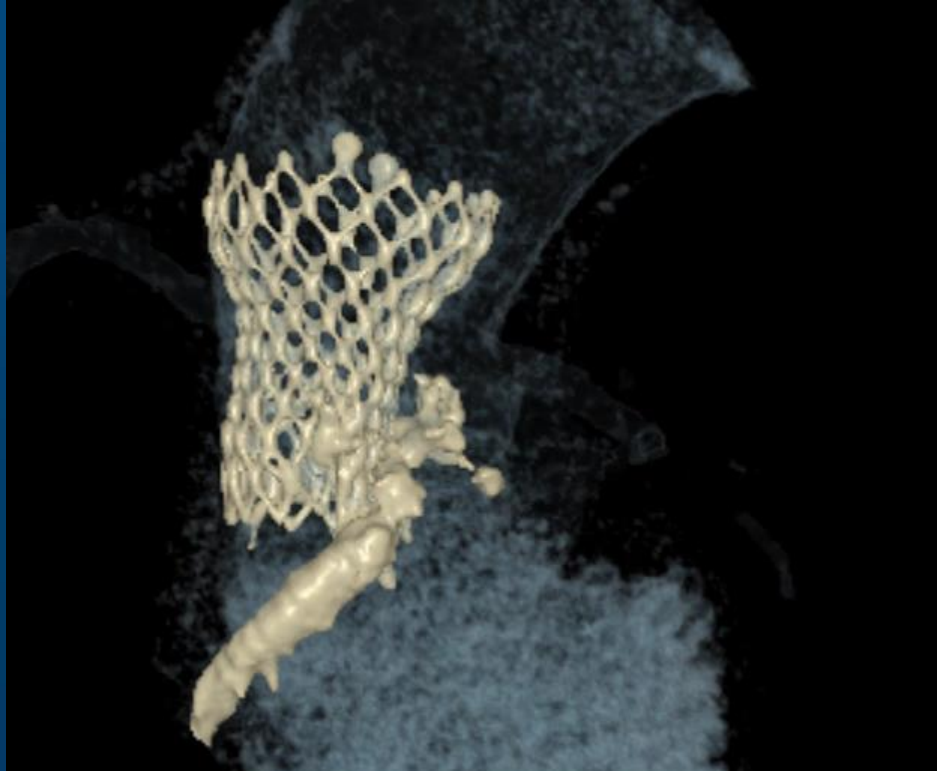


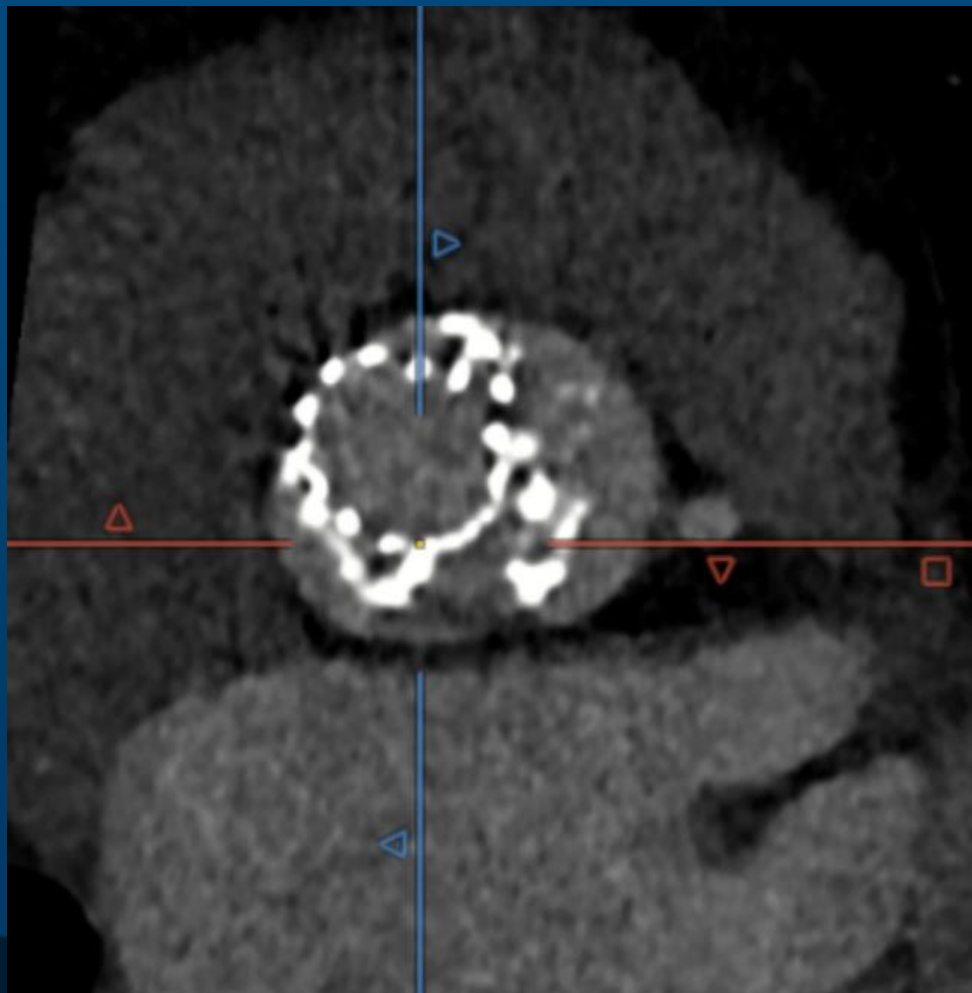


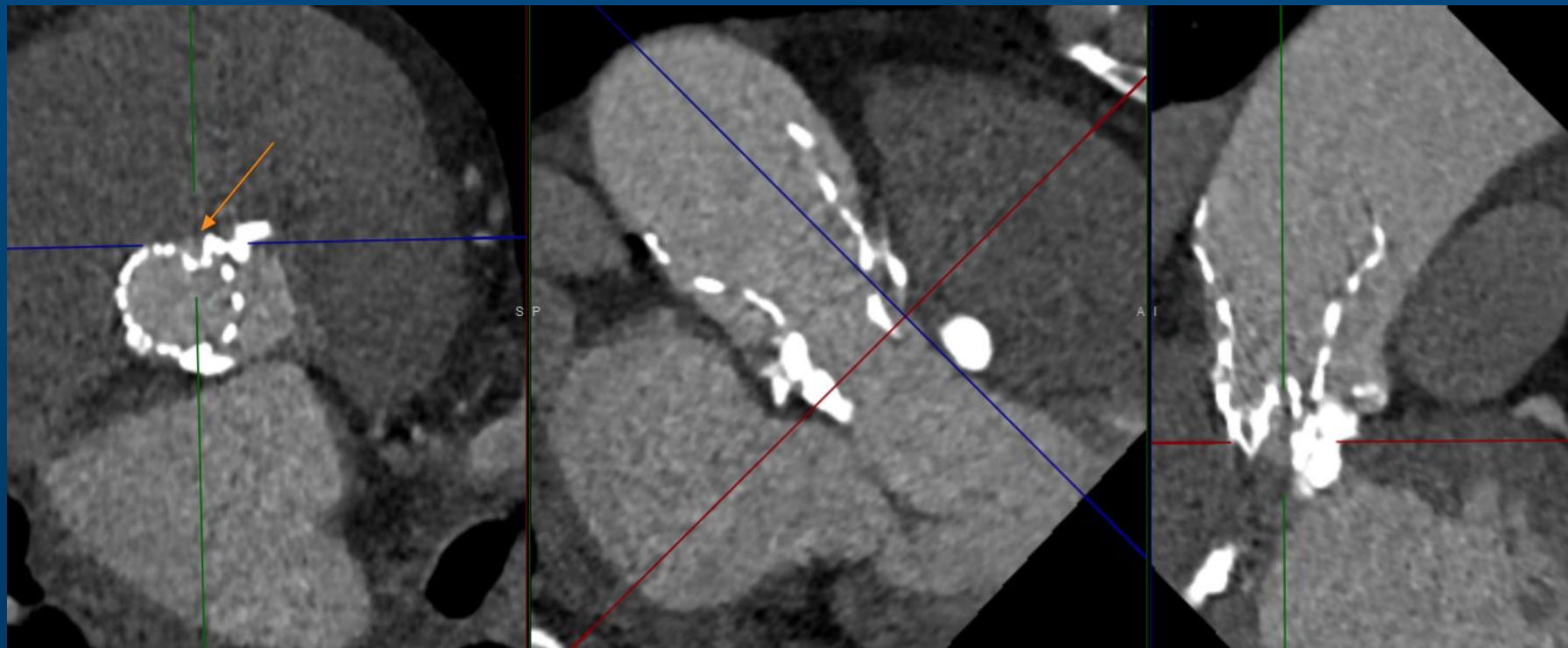


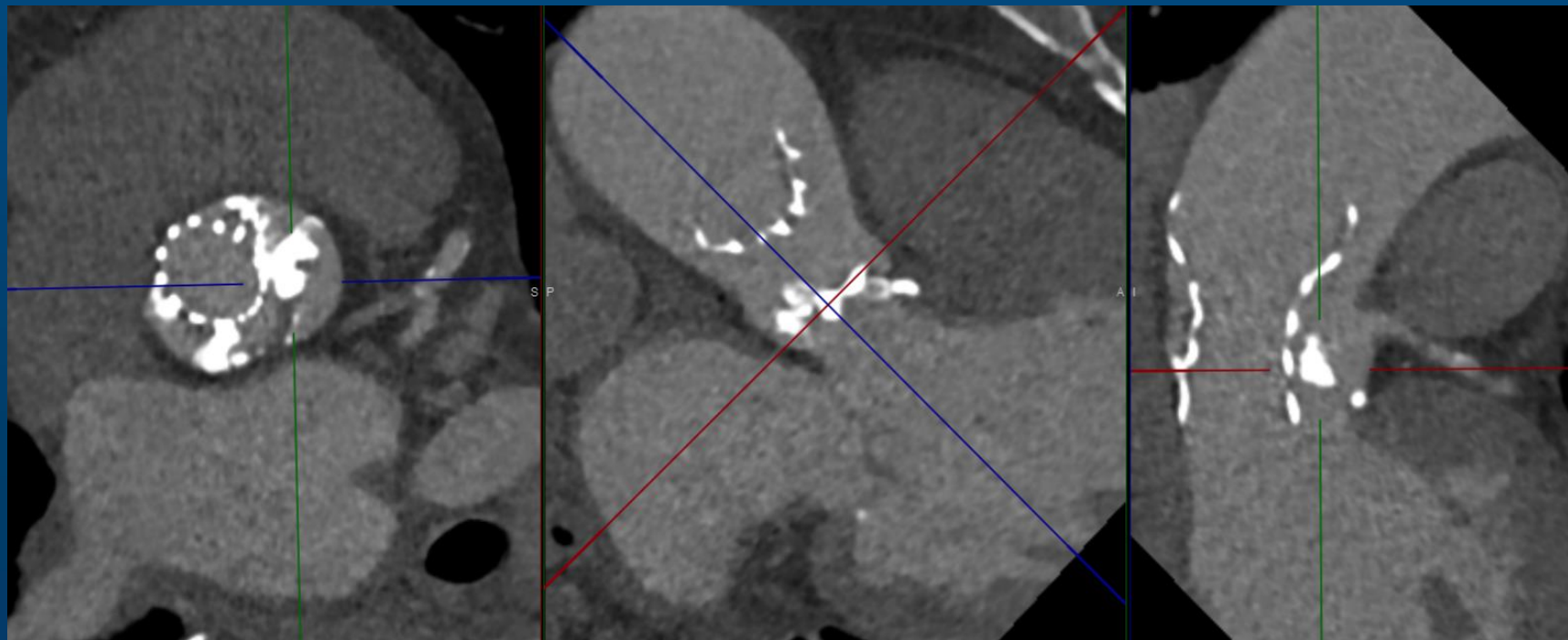
Post TAVI CT

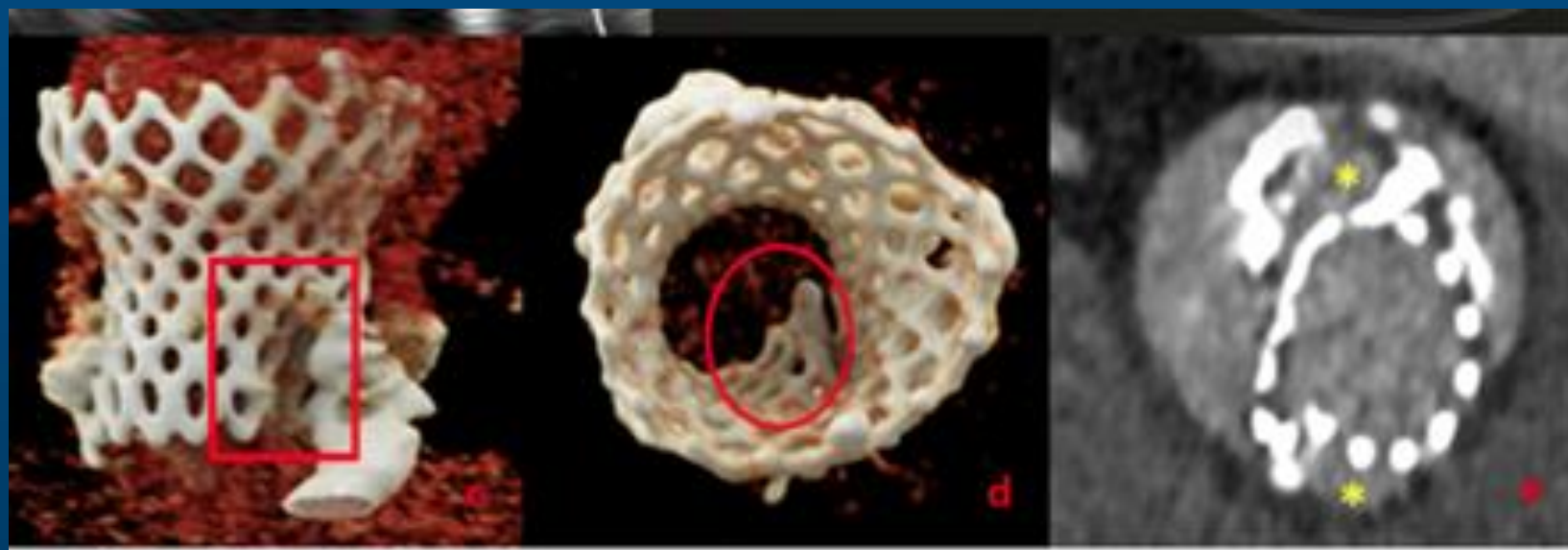
Post TAVI CT

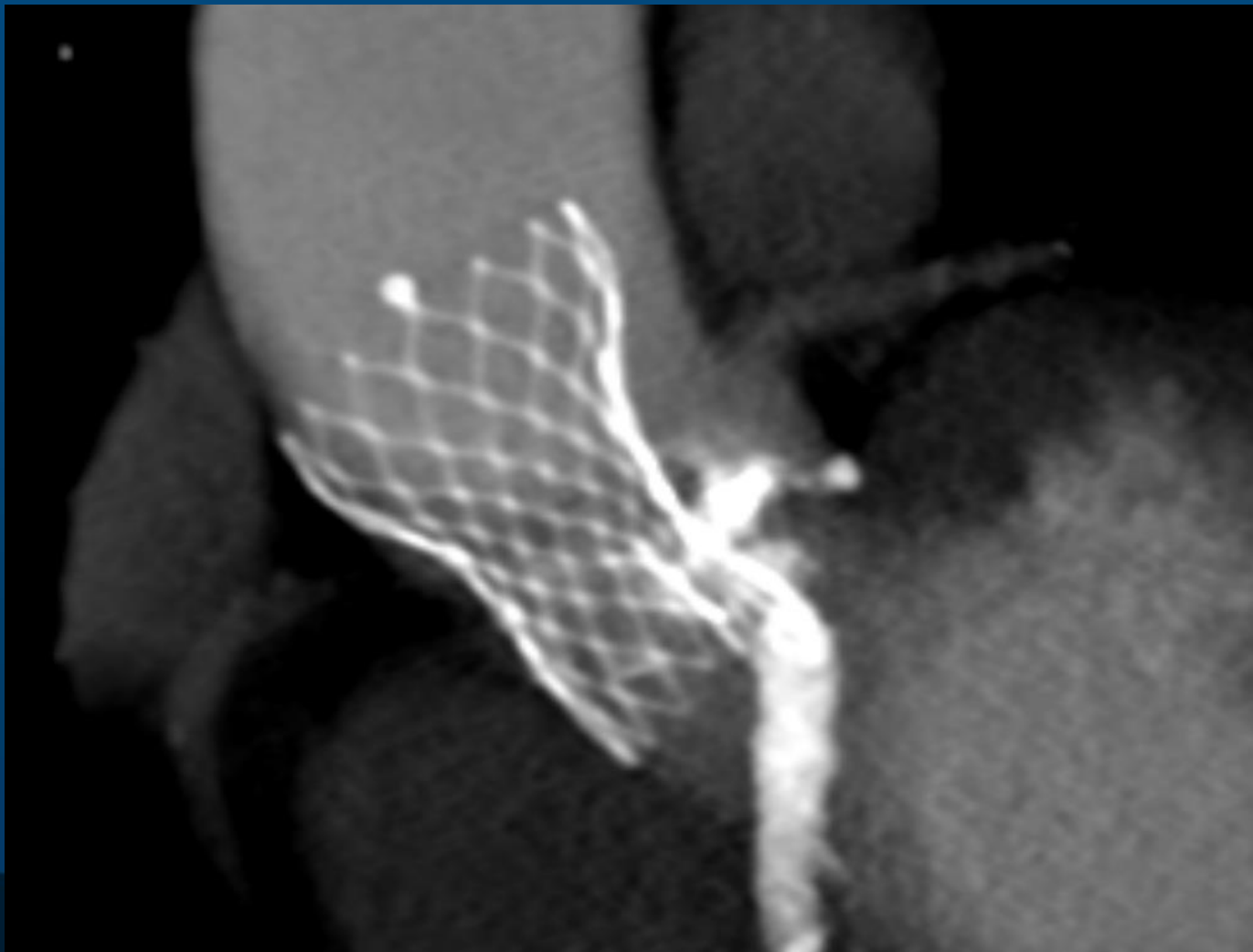












Conclusion

- Heavy, asymmetric calcium = procedural challenge
- Frequent in **bicuspid and bulky annulus** cases
- **CT morphology** drives valve choice & planning
- **TAVR feasible** with new-generation devices
- **Imaging-guided strategy** turns “no-go” anatomy into success

