



TAVR in Rheumatic AS

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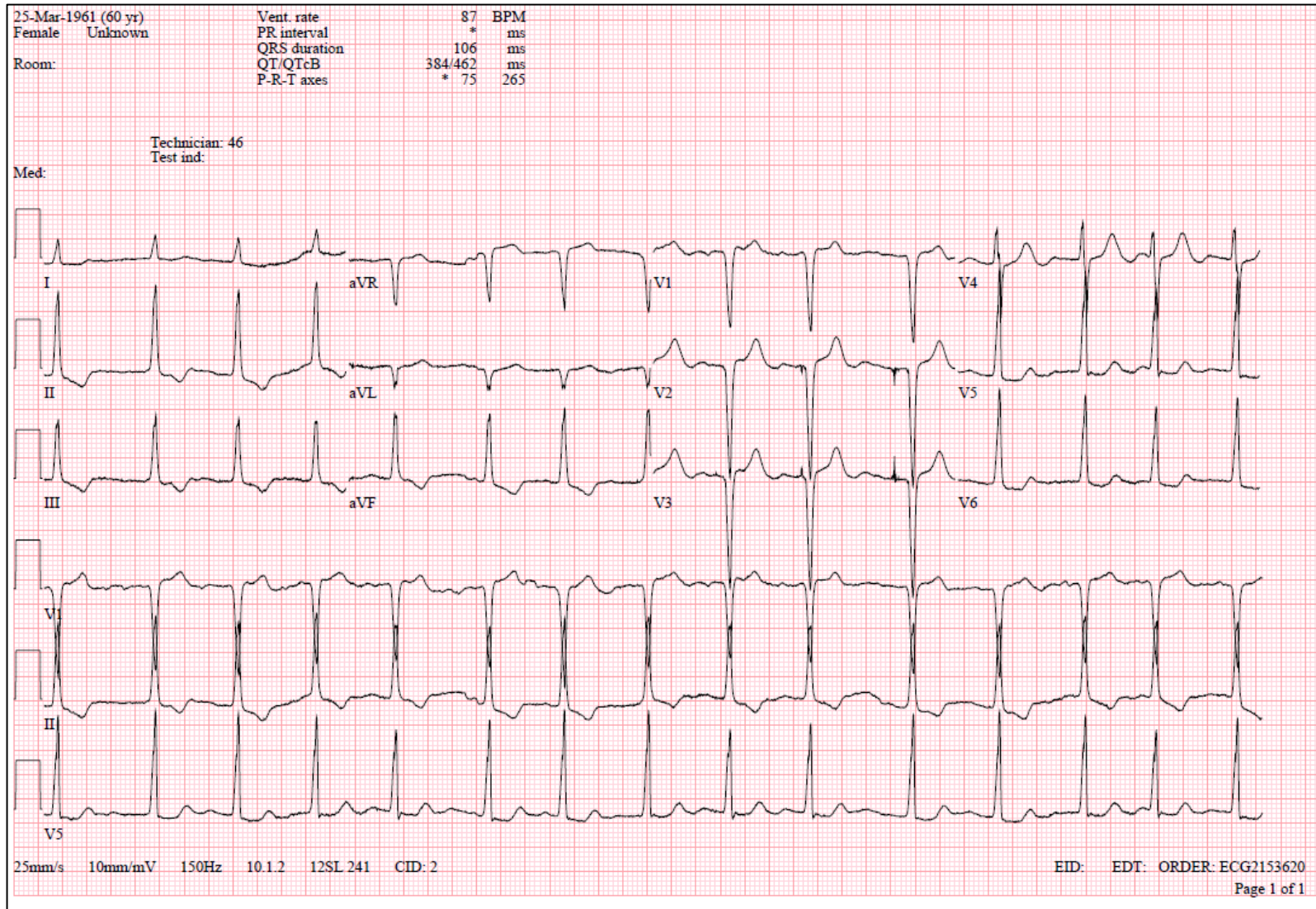
Heart Institute, São Paulo University Medical School
& Hospital Sírio-Libanês, São Paulo, Brazil

General 60 years old, female

Rheumatic valve disease with multiple interventions:

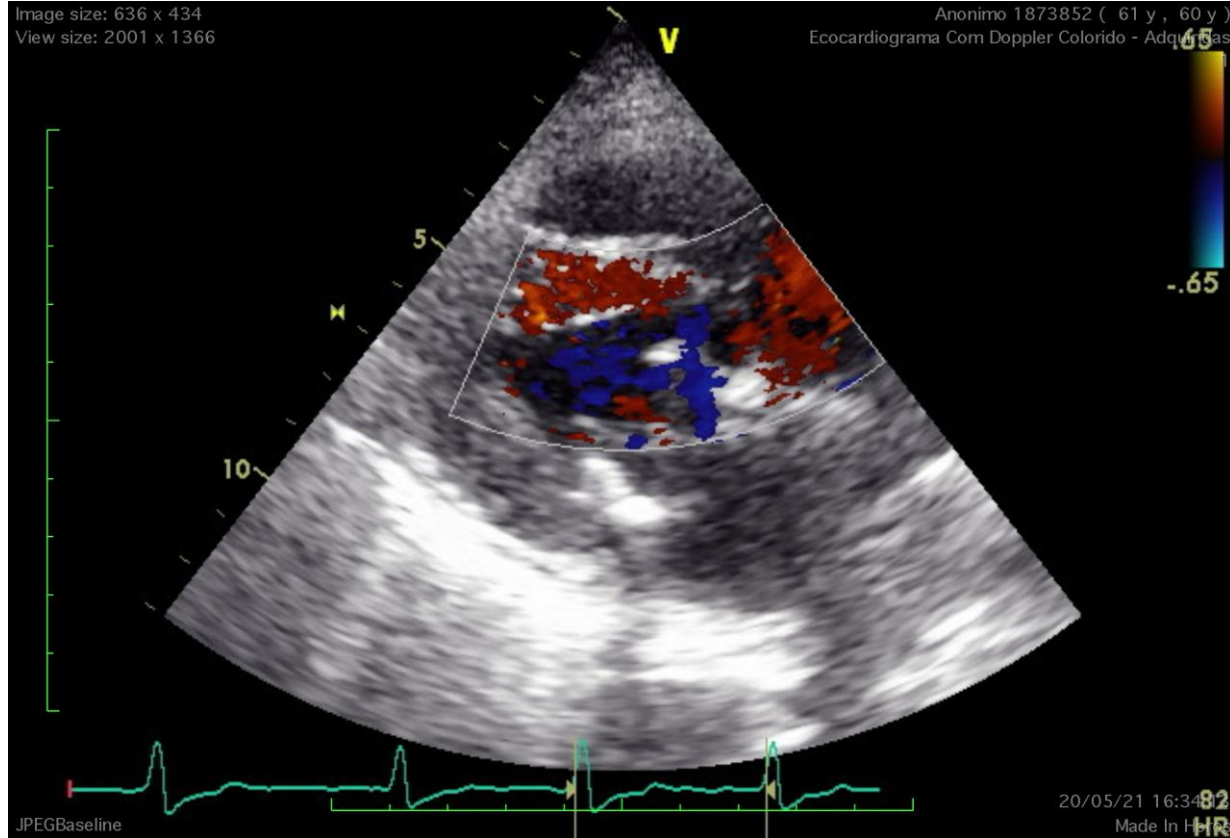
- 1980: Mitral valve repair
- April, 2015: Percutaneous balloon mitral valvuloplasty
- Dec, 2015: Mitral valve replacement (Carpentier 27)
- 2018: Infective endocarditis - 6 weeks of Atb.

Clinical Presentation: HF NYHA III

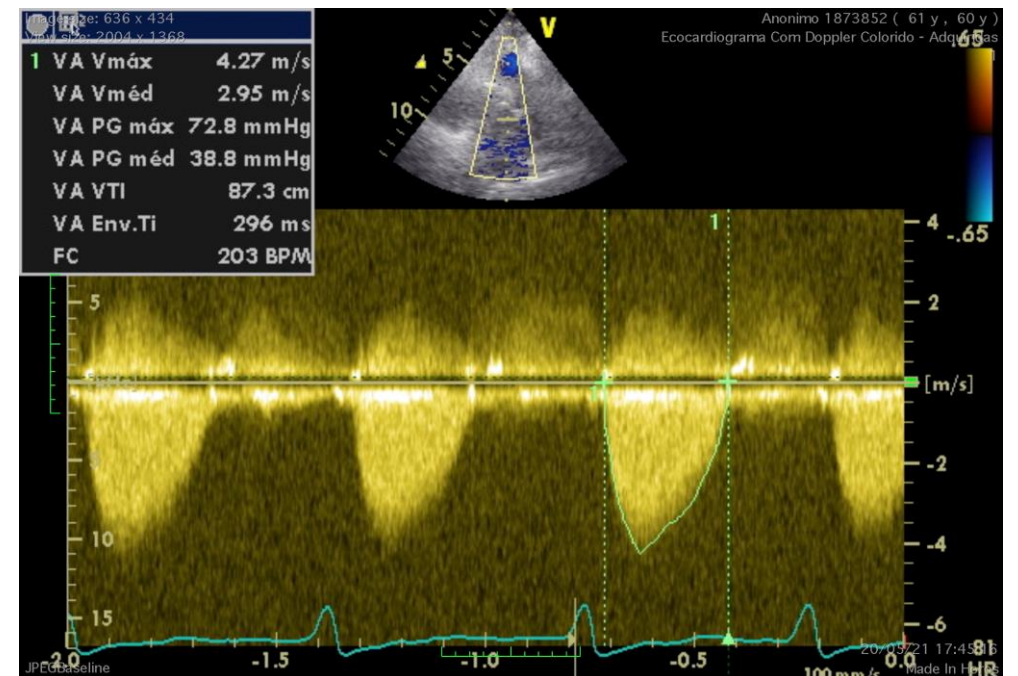
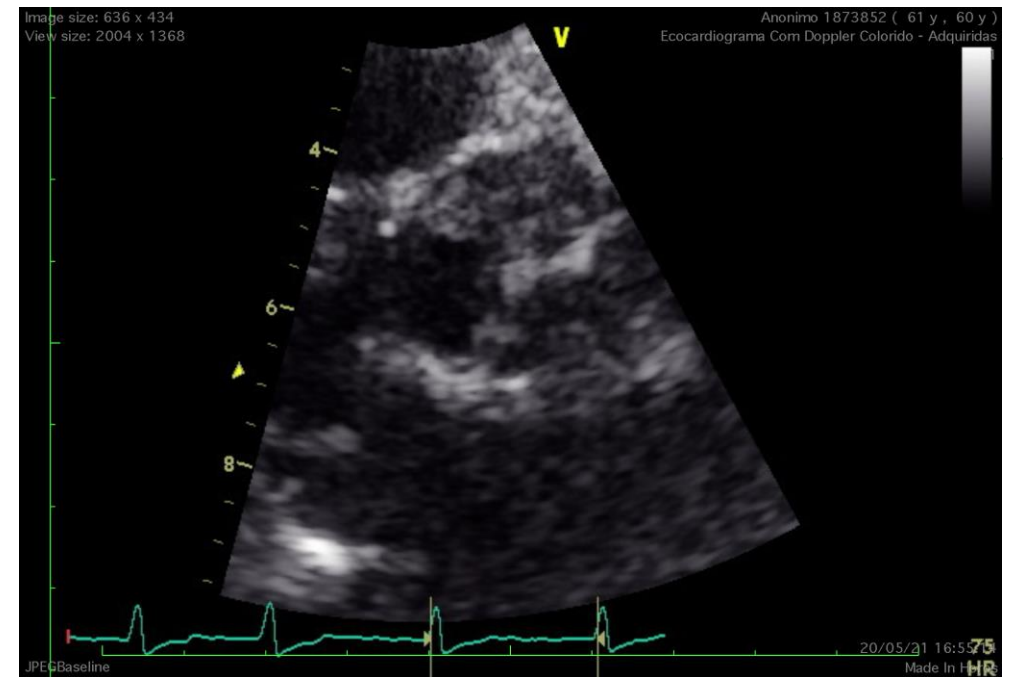


AFib, 87 bpm, QRS 106 ms

TTE

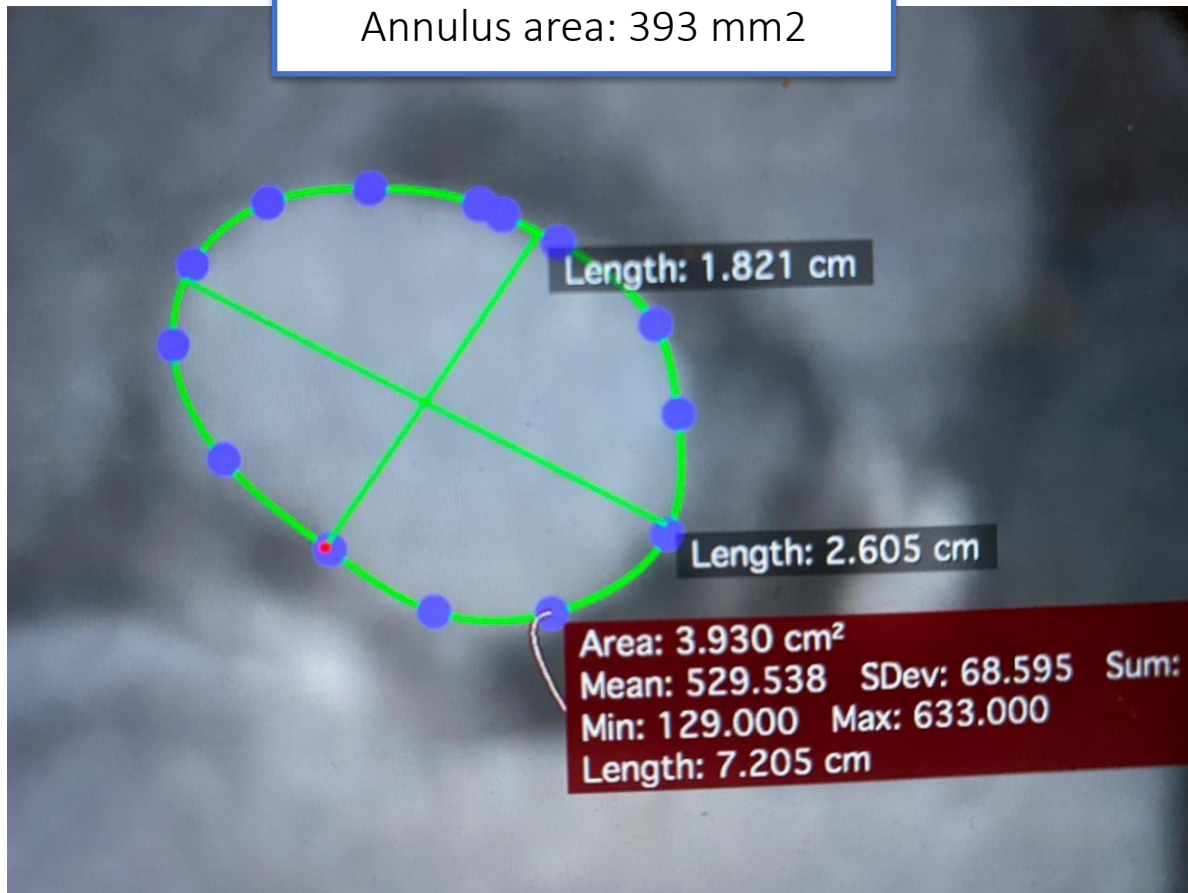


- Preserved LVEF (EF 74%)
- **Moderate/Severe AS:** Gradient 72/38mmHg; **Severe AI**
- Mitral prosthesis: trivial regurgitation, Mean Gradient: 5 mmHg

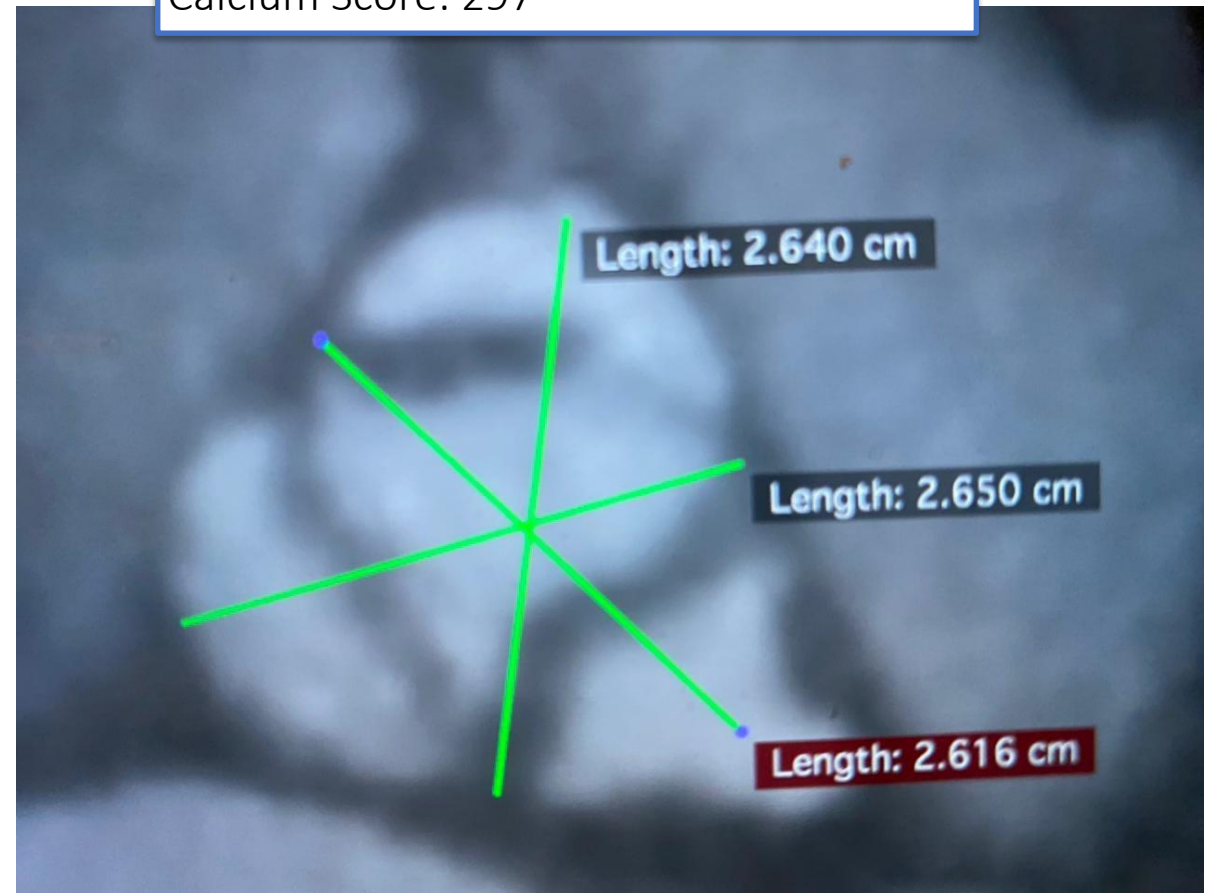


Aortic valve anatomy

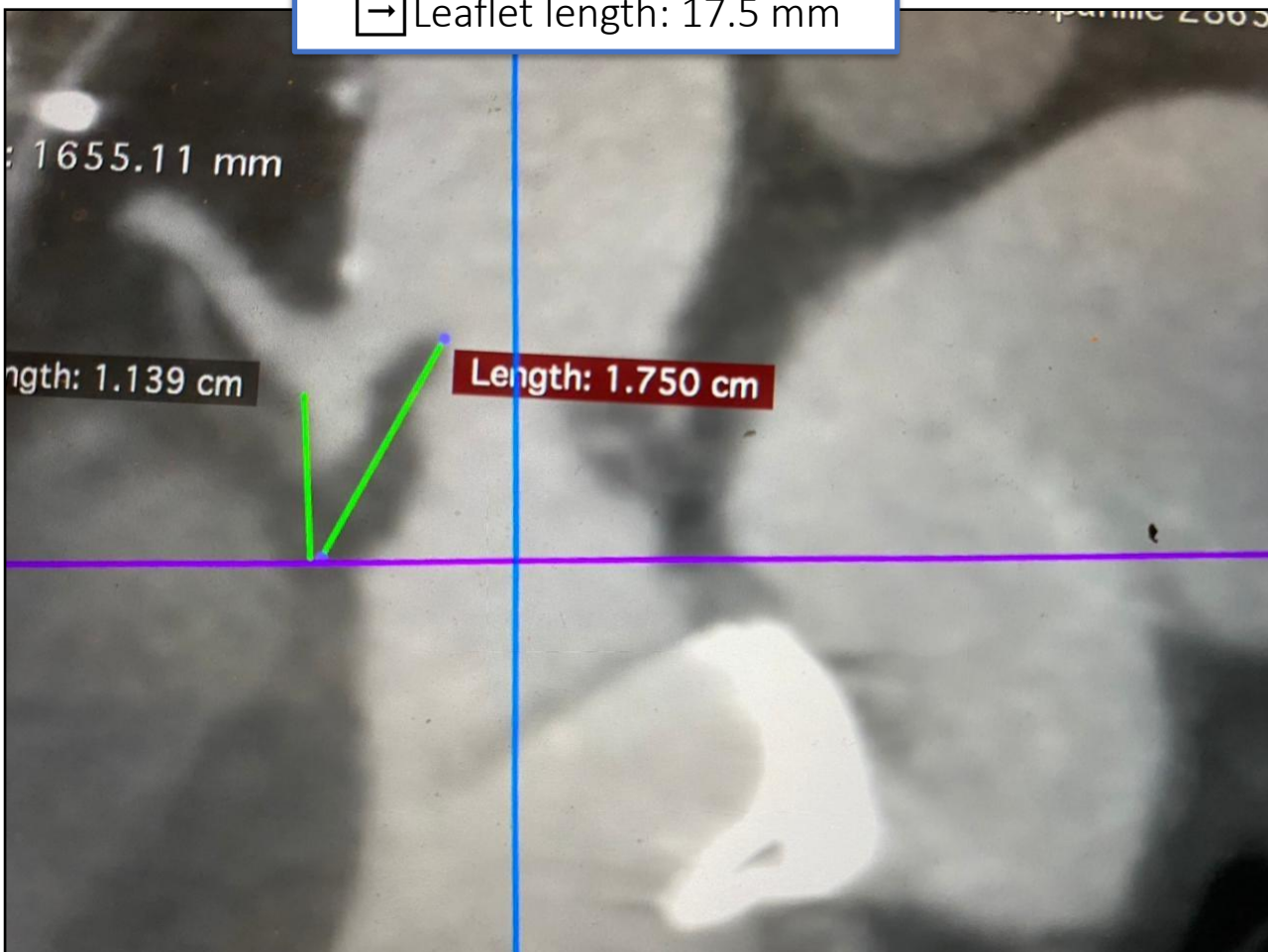
Aortic annulus: 18x26 mm
Annulus perimeter: 72 mm
Annulus area: 393 mm²



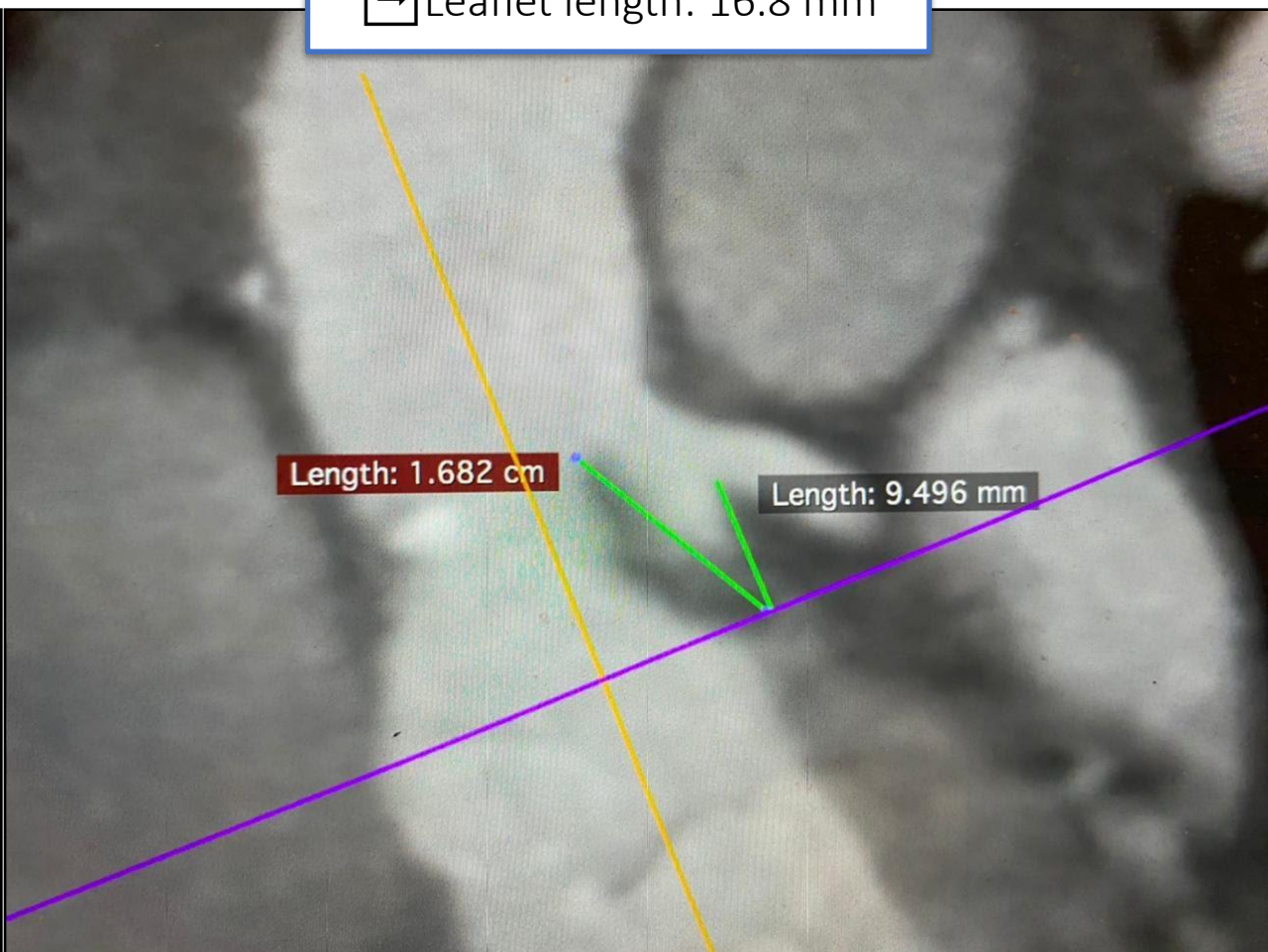
Sinus of Valsalva (SV): 26x26x26mm
Calcium Score: 297



→ RCA: 11.4 mm
→ Leaflet length: 17.5 mm



→ LM: 9.5 mm
→ Leaflet length: 16.8 mm

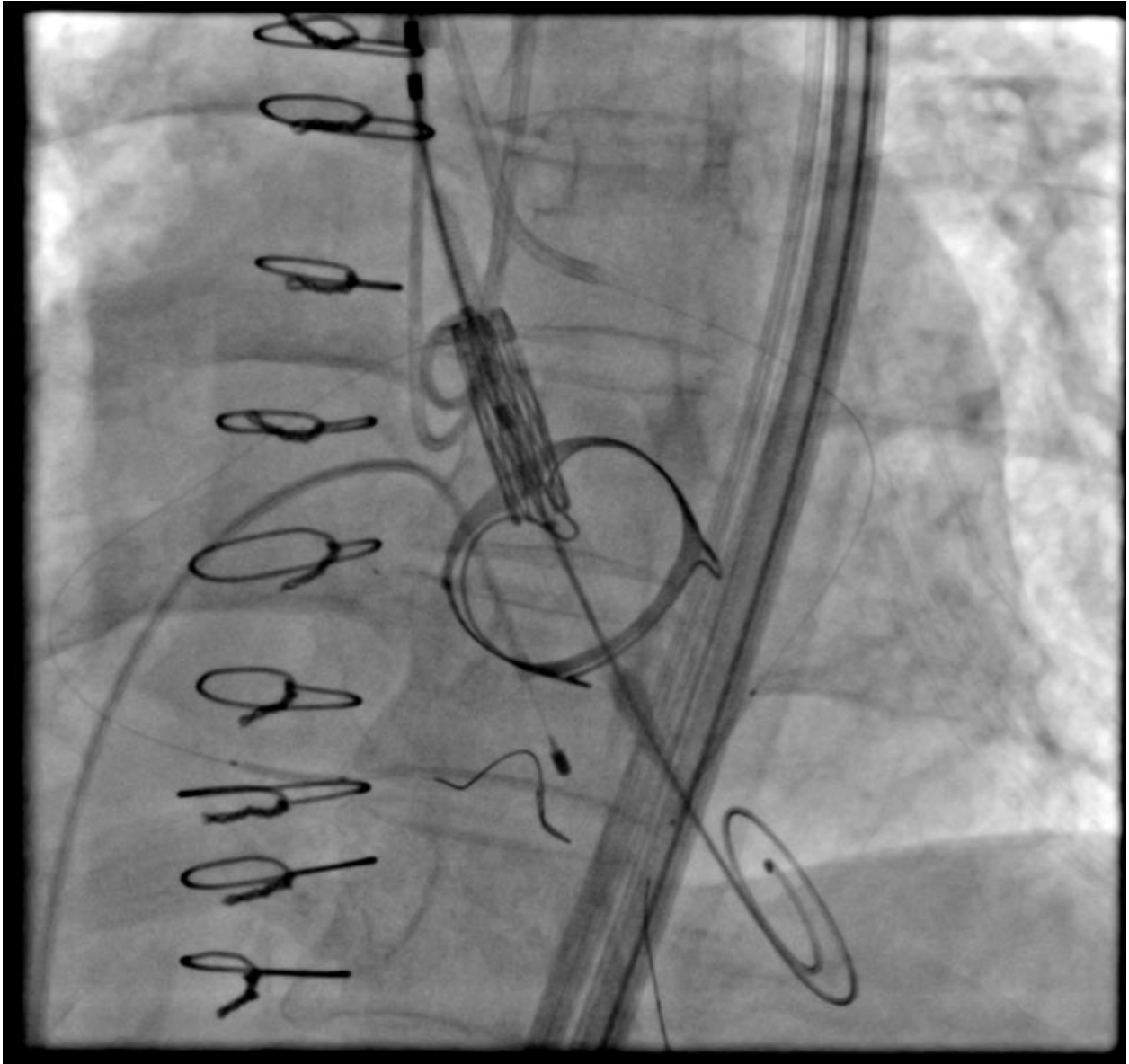
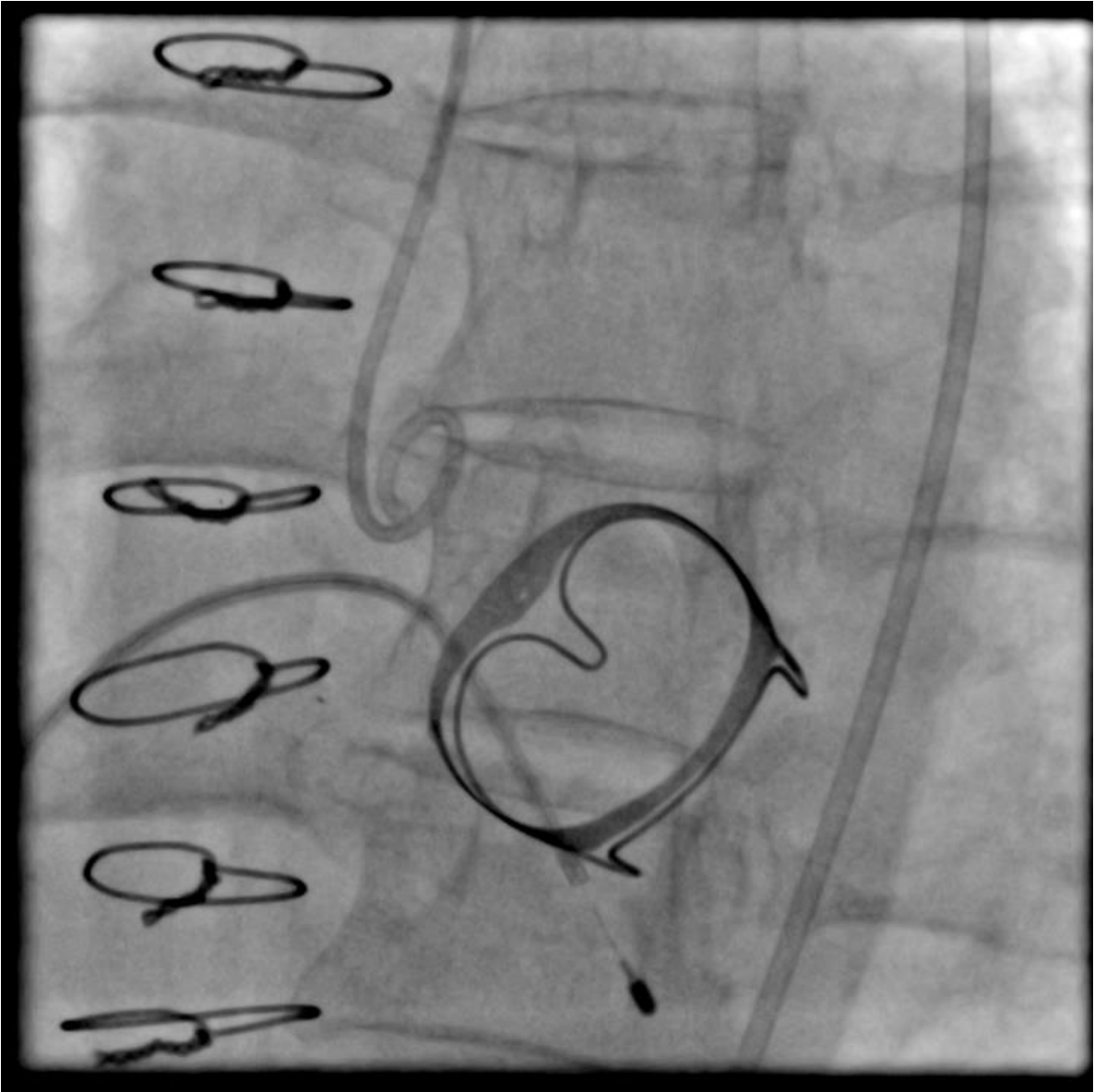


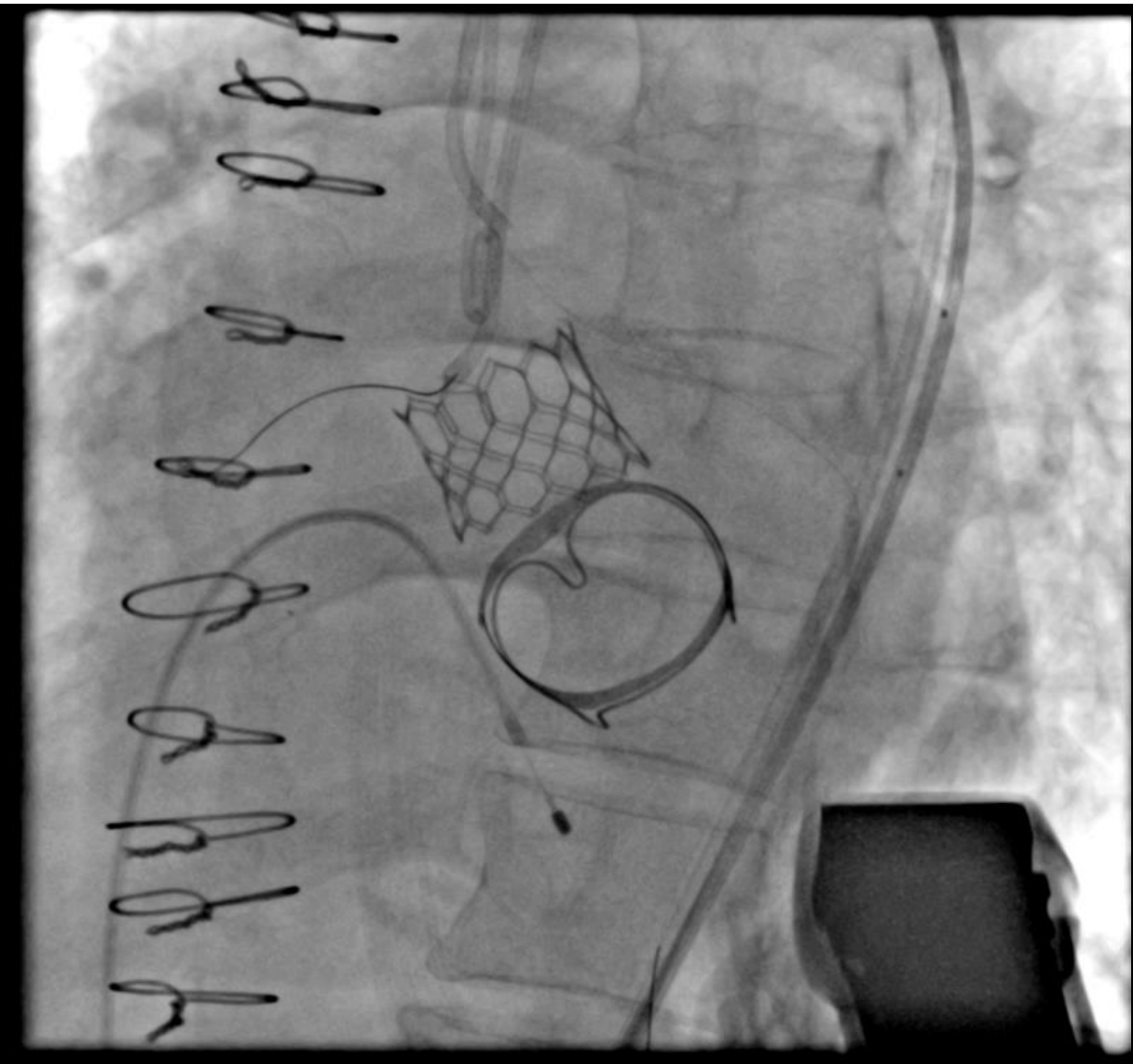
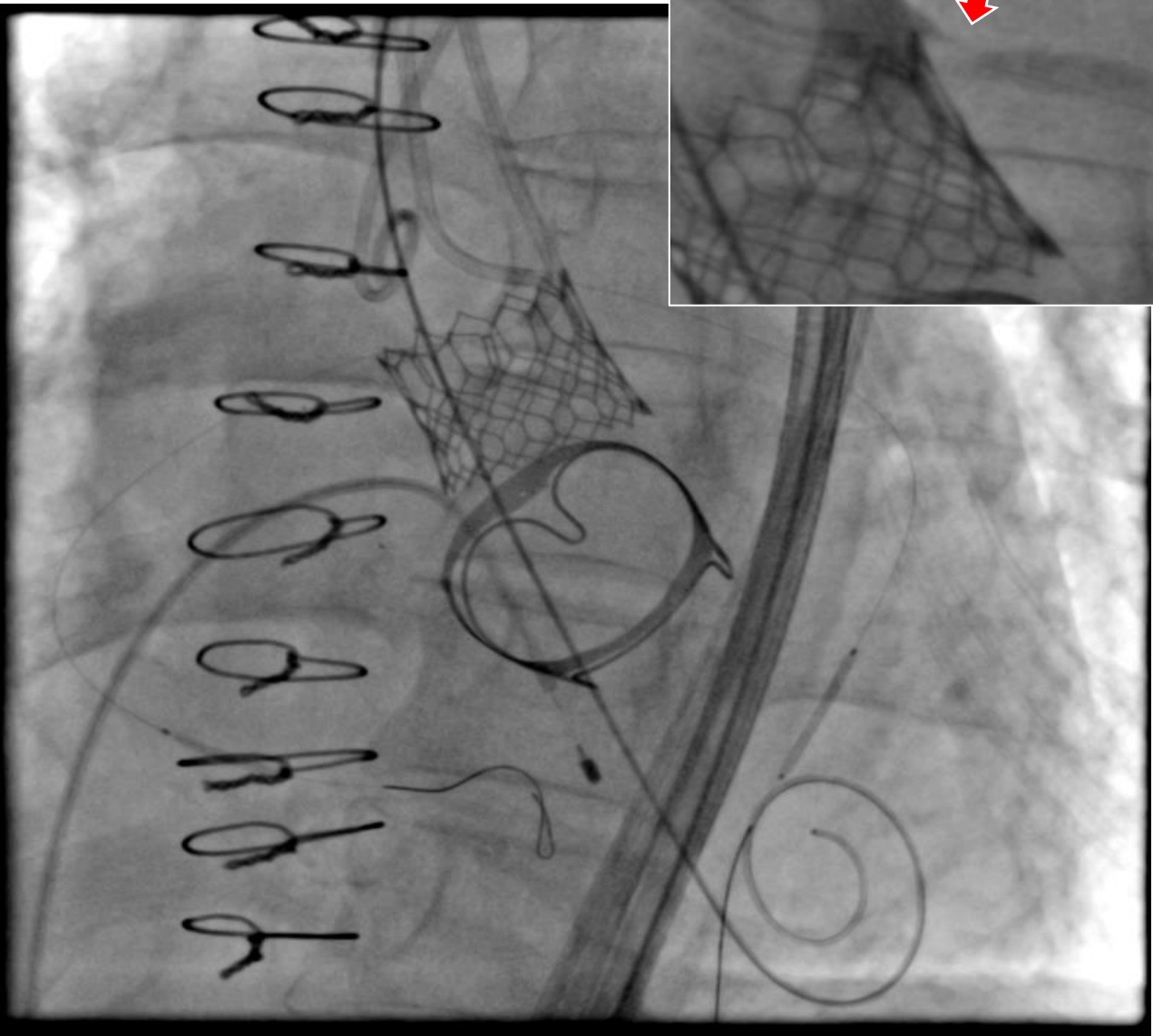
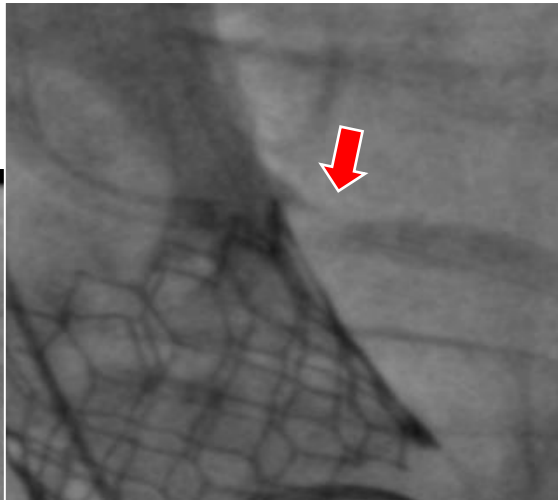
Key Points:

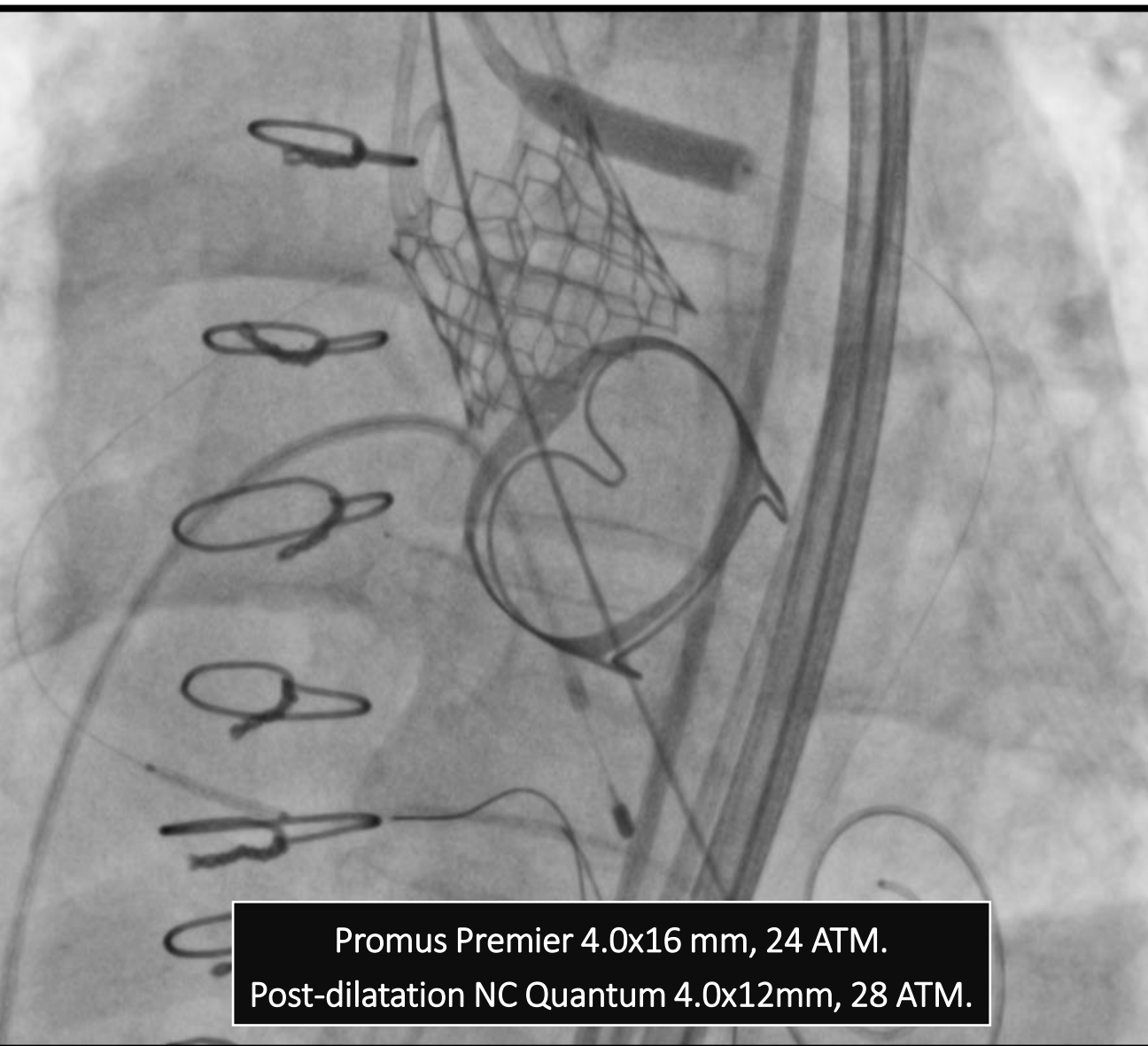
- SAVR or TAVR? (60yo female, 2 previous surgeries, STS-PROM 3%)
- Thickened leaflets with minimal calcification. Risk of THV embolization?
- Long and thickened leaflets, narrow SOV, relatively low take off of LCA:
 - ✓ Risk of coronary occlusion? Coronary protection?
- SE vs BE THV?

Procedural Plan:

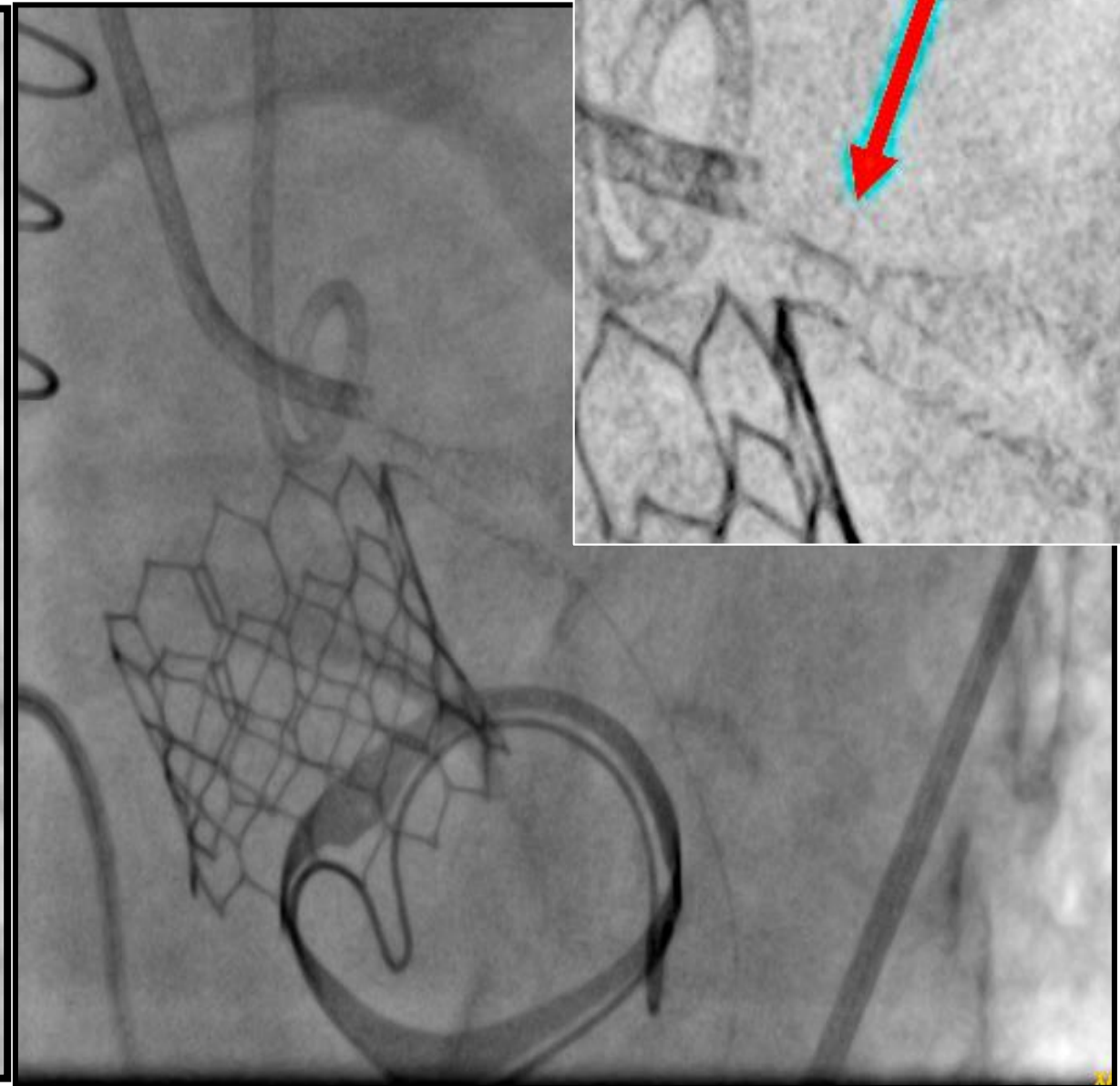
- RCA & LCA protection
- Sapien 3 23 mm + 1cc (15% oversize)



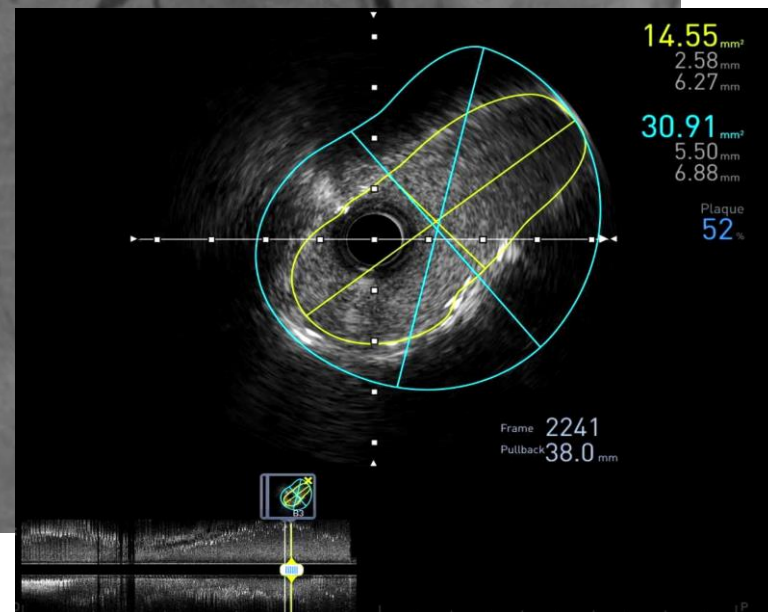
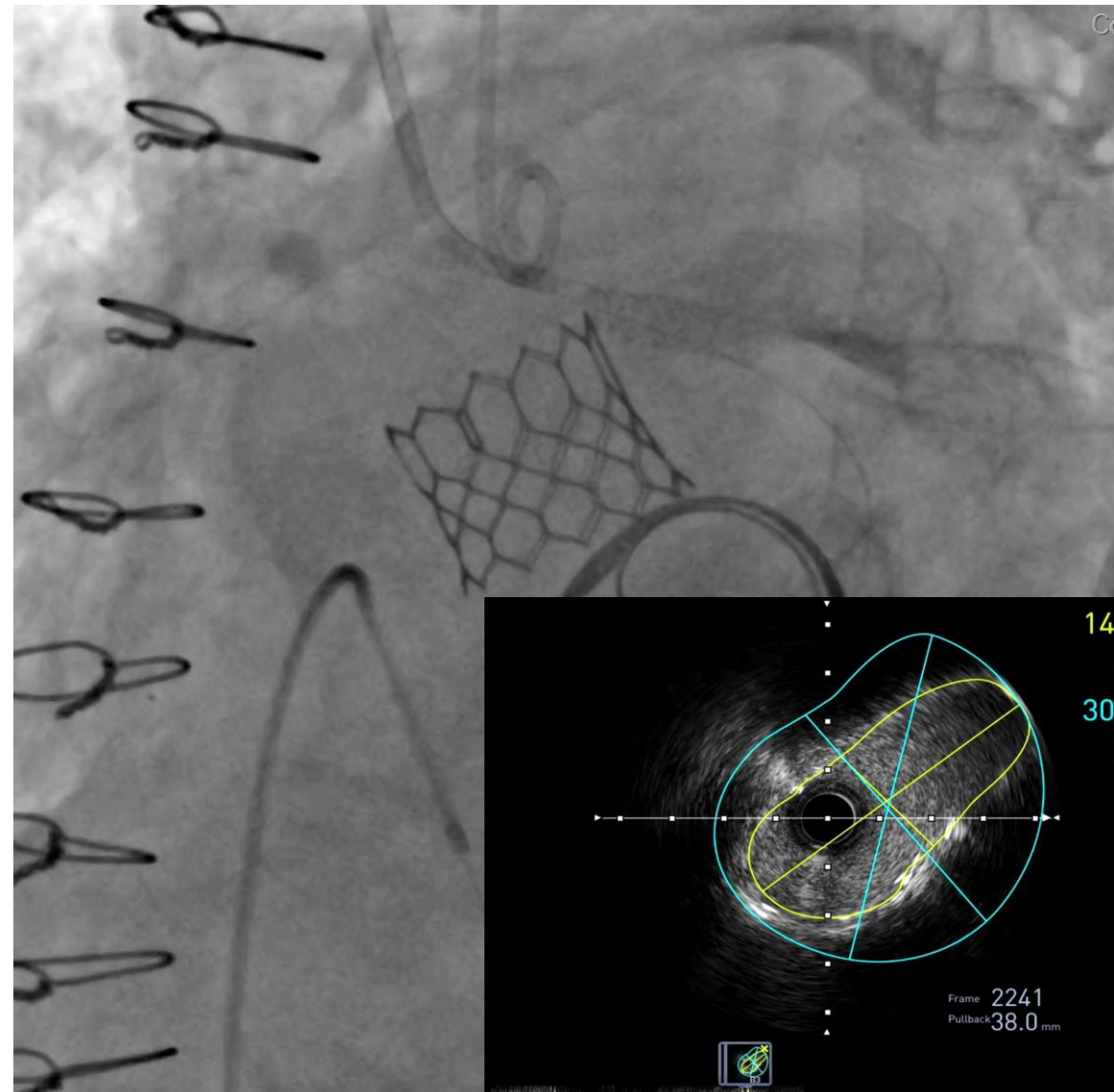
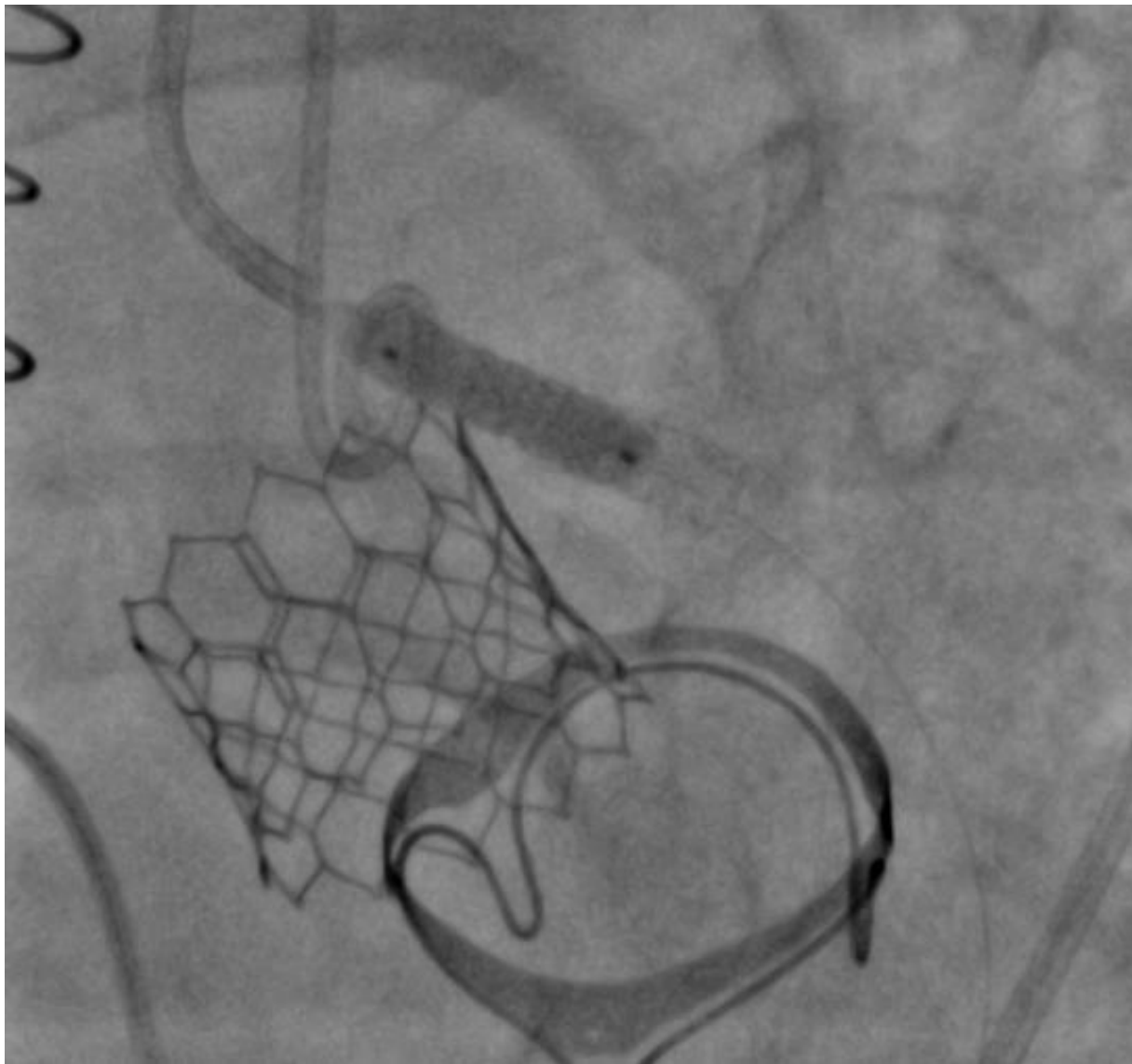


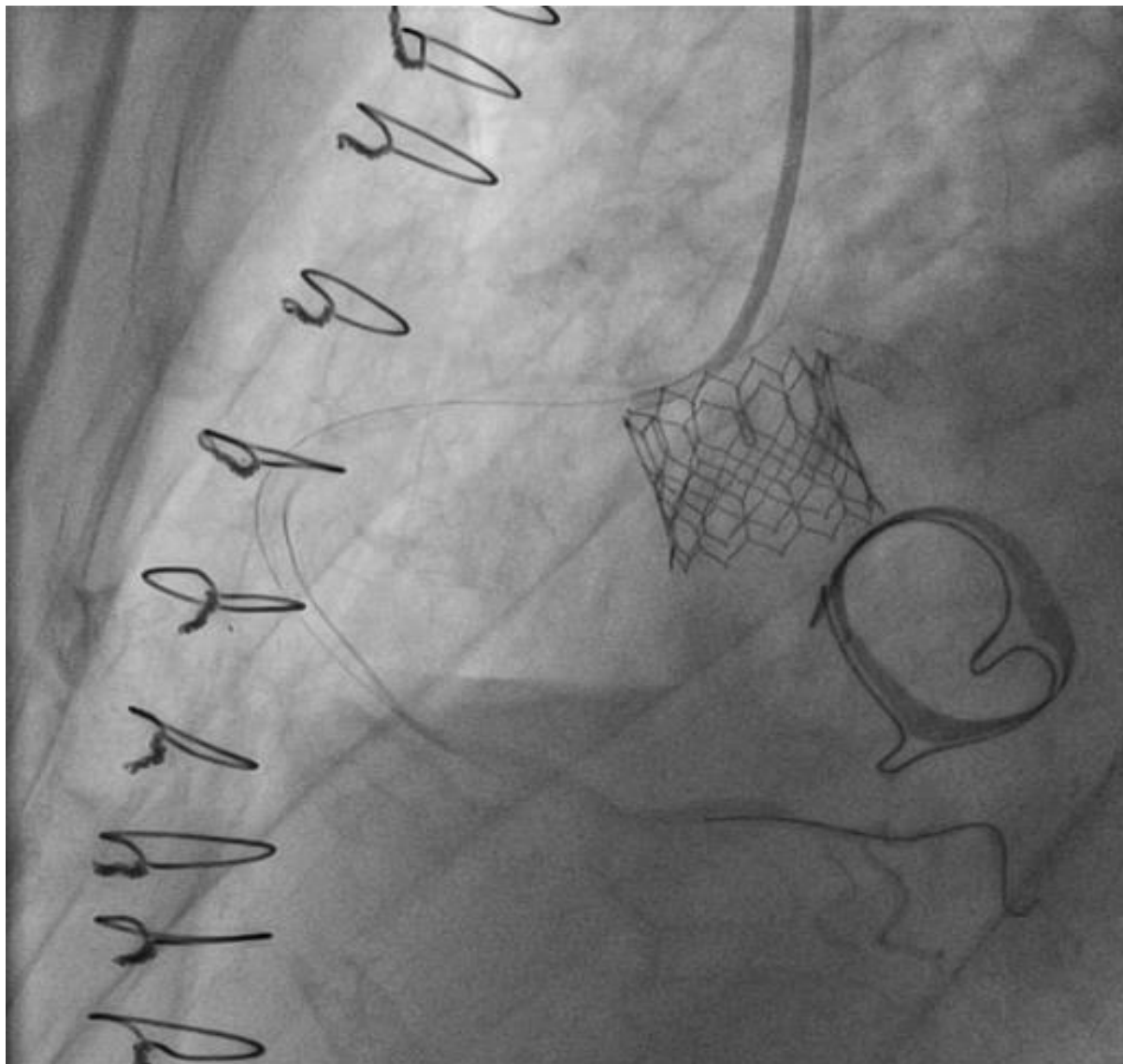
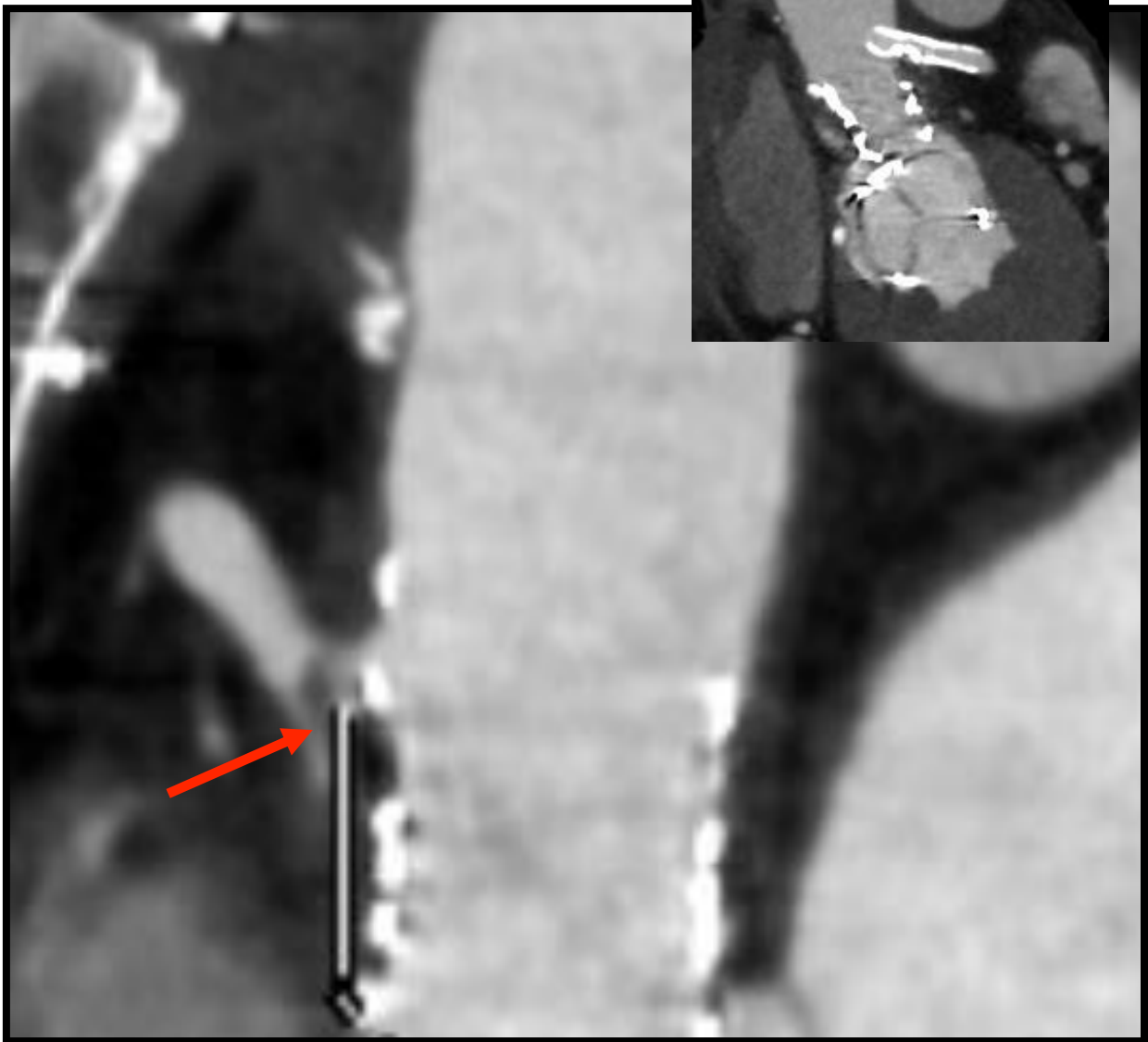


Promus Premier 4.0x16 mm, 24 ATM.
Post-dilatation NC Quantum 4.0x12mm, 28 ATM.

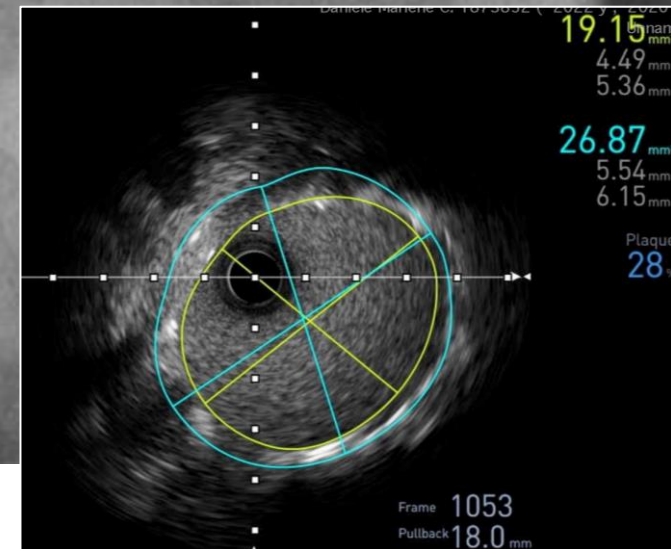
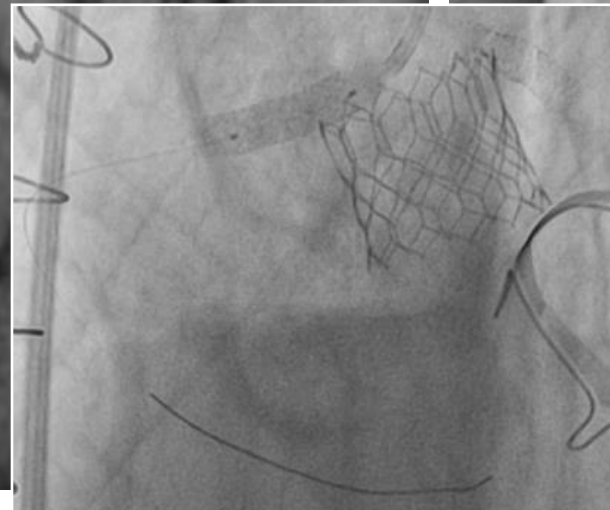
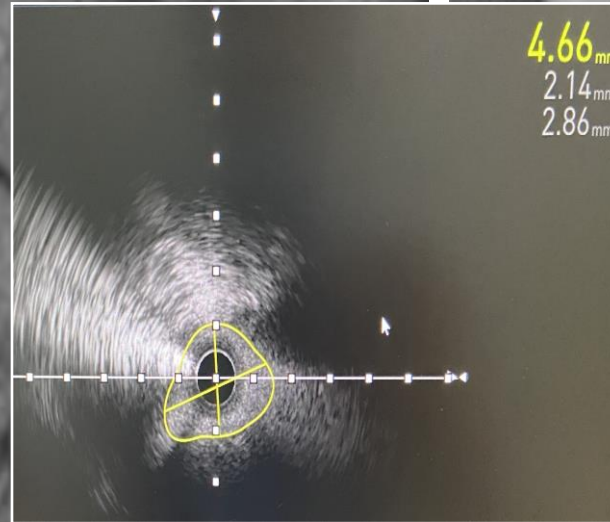


Need for second stent implantation: Promus Premier 4.0x12 mm, 24 ATM





Promus Premier 4.0x16 mm, 16 ATM
Post-dilatation NC Quantum 4.5x12mm, 18 ATM



Dynamic renal 5.0x12, 20 ATM



Clinical follow-up

◆ Pre-discharge echocardiogram:

→ Preserved LVEF; Mitral prosthesis: trivial regurgitation;

→ Aortic prosthesis: no regurgitation, mean Gradient 7 mmHg.

◆ Patient was discharged 2 days later, totally asymptomatic.

◆ Planned dual antiplatelet therapy with aspirin and clopidogrel for 6-12 months

◆ Asymptomatic at 12 month FU