

A Complex Case of Valve in Valve Medtronic Freestyle #19mm

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Disclosure Statement of Financial Interest

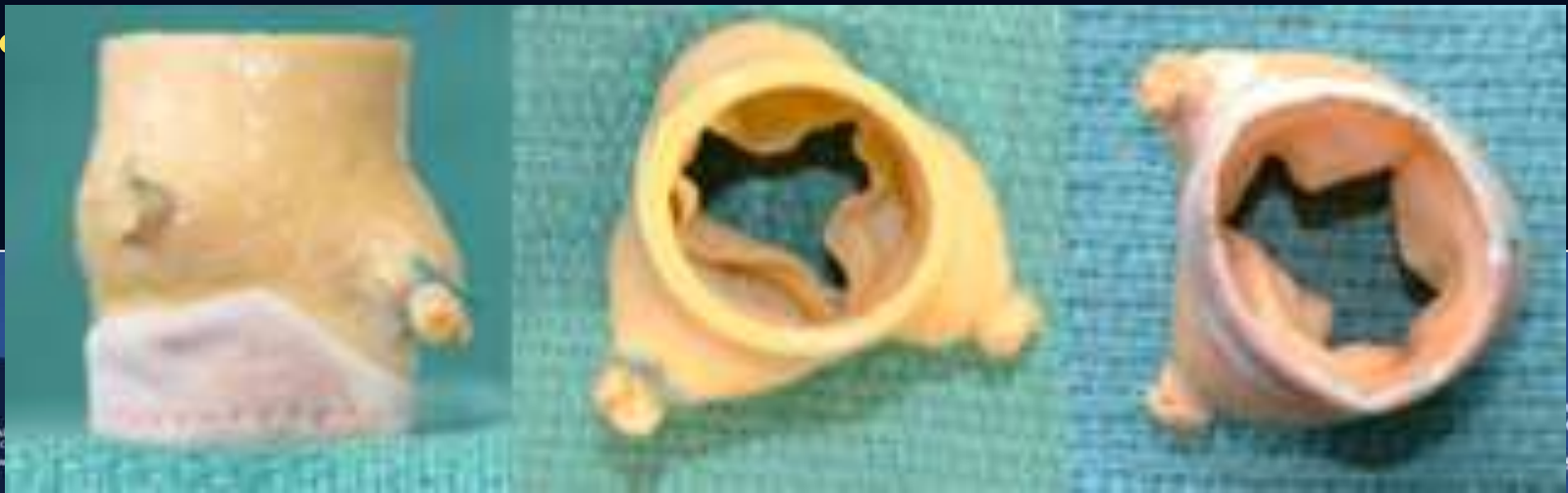
I, ***Philippe Généreux***, DO NOT have a financial interest/arrangement or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of this presentation.

Clinical presentation

- **77 year-old W**
- **Height 160 cm, weight 66kg**
- **Hypertension**
- **Dyslipidemia**

2004 (69 Y)

- LIMA to LAD and SVG to OM1 (left dominance)
- SAVR with Medtronic Freestyle n°19 (stentless) for mild AS 1.1cm² MG18 mmhg
- Post-op: MG 28mmHg



Clinical presentation

- **No follow-up since 2004**
- **New onset 1-month SOB with bilateral pleural effusion**
- **Acute pulmonary edema**
- **ECG: sinusal rhythm, narrow QRS.**
- **Creatinine 124**
- **Hb 95g/L, plt 200 /L**

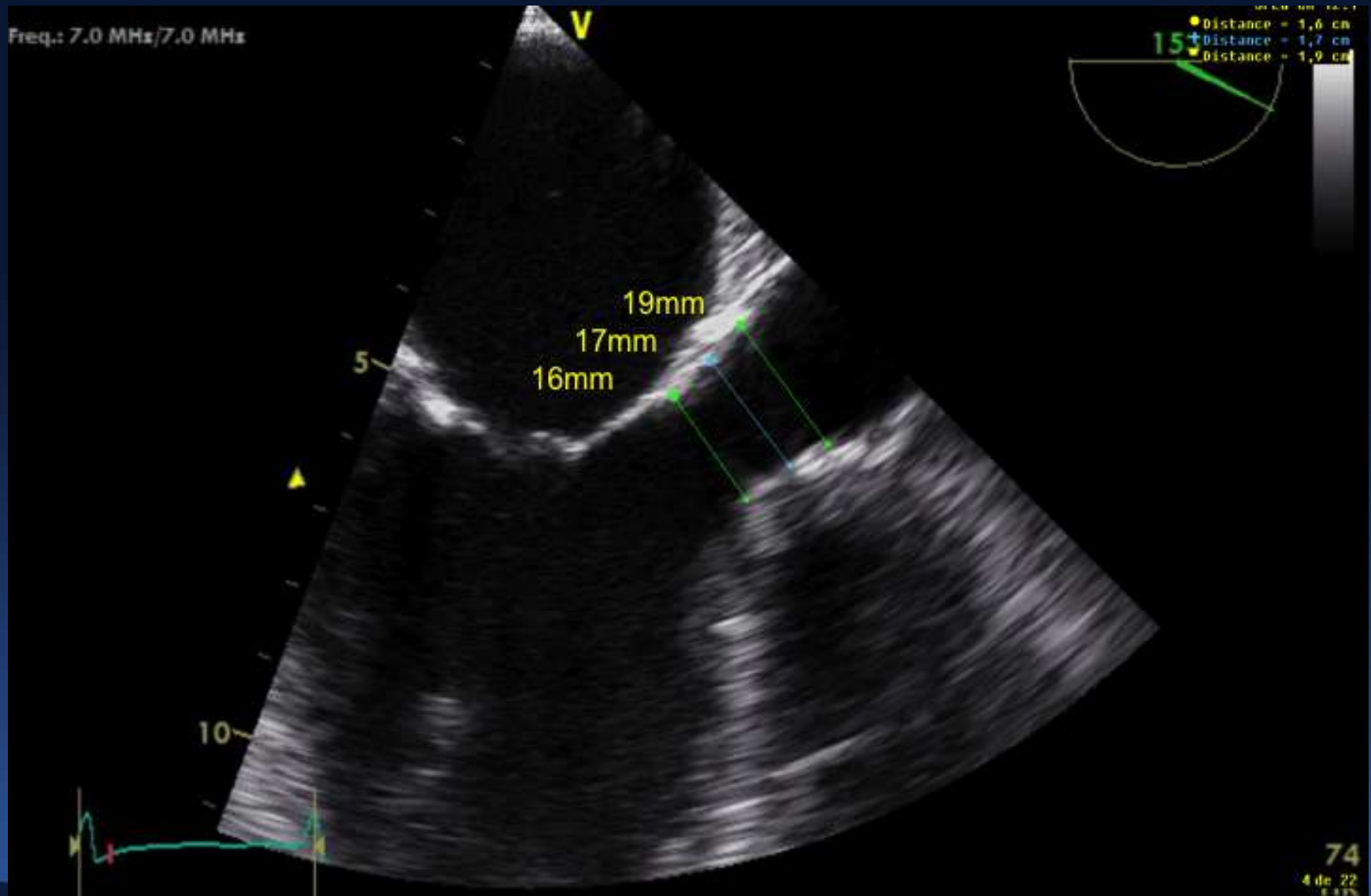
Clinical presentation

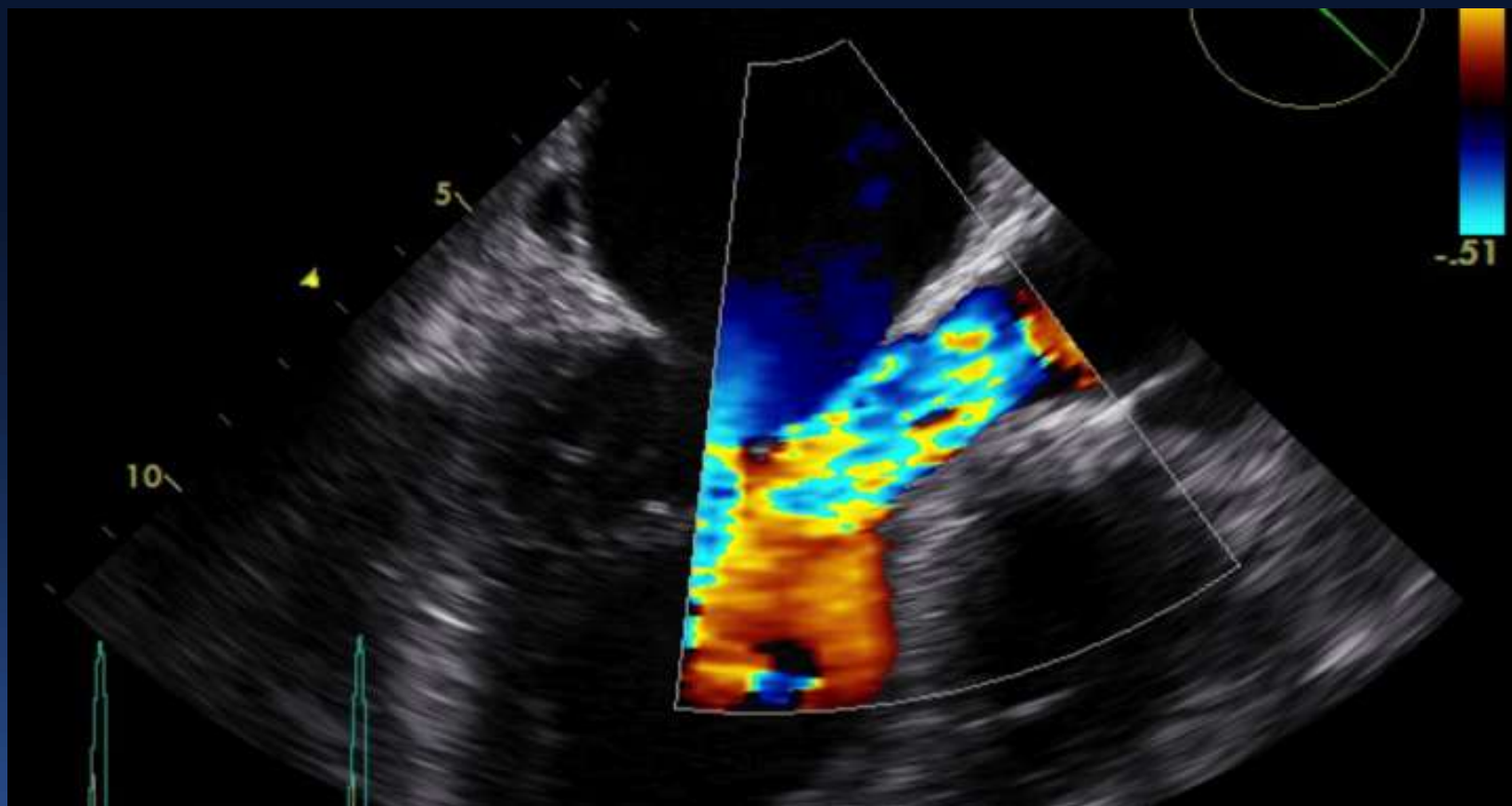
- **Many episodes unstable paroxysmic Afib**
- **Furosemide high-dose/ Non invasive respiratory support**
- **Refractory heart failure and need for inotropic support**
- **Euroscore II 20%**
- **STS score 14%**
- **Surgeons: Too high-risk for redo**

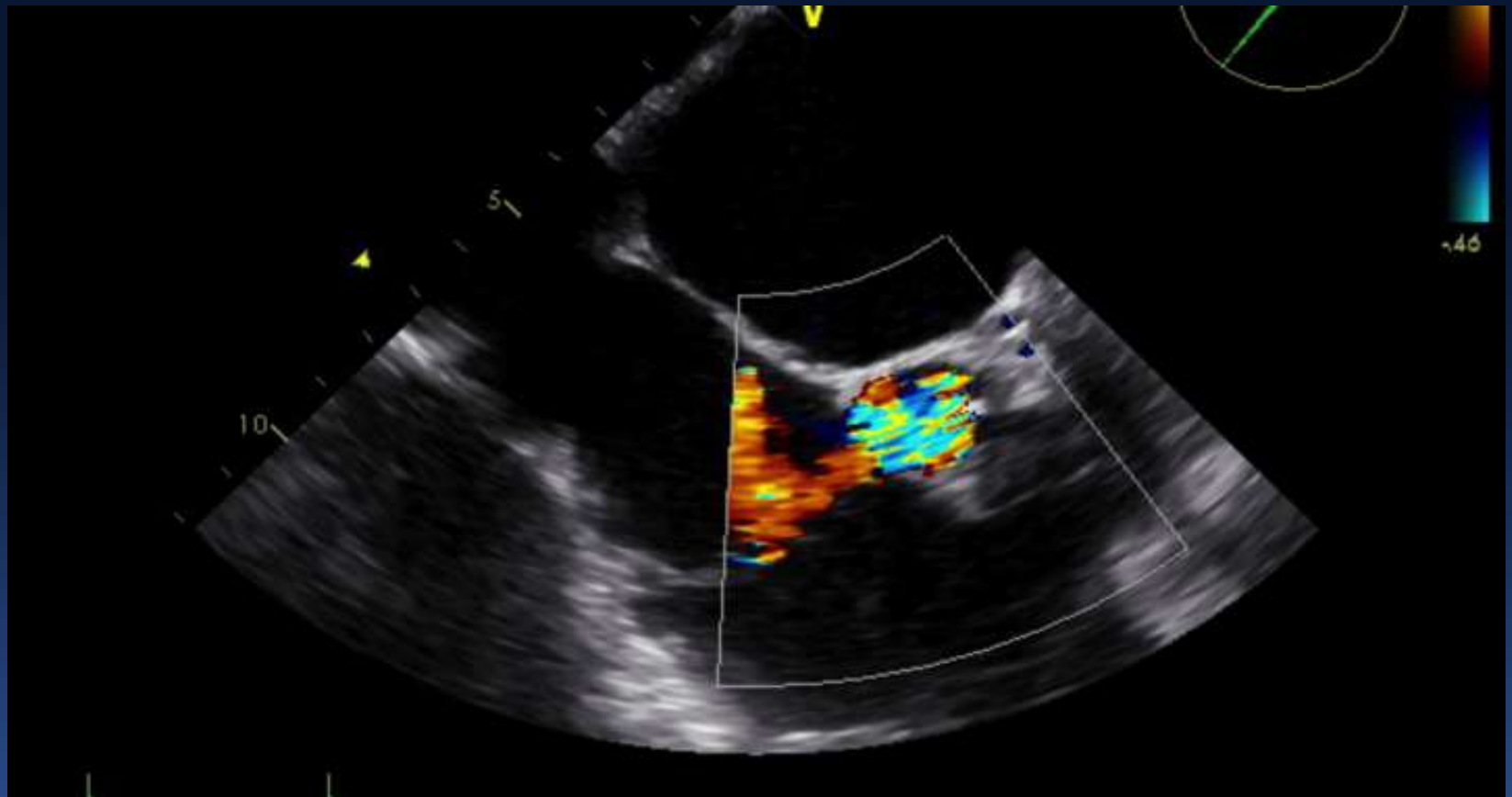
TTE

- **Severe AR, right leaflet rupture**
- **MG 30mmHg**
- **Annulus 16-17mm**
- **Sinotubular junction 18mm**
- **VTI 130cm, VTI 283cm**
- **EOA (effective orifice area) 0.82cm²**
- **EF 60%**
- **sPAP 58mmHg**
- **Mild MR**

Freq.: 7.0 MHz/7.0 MHz

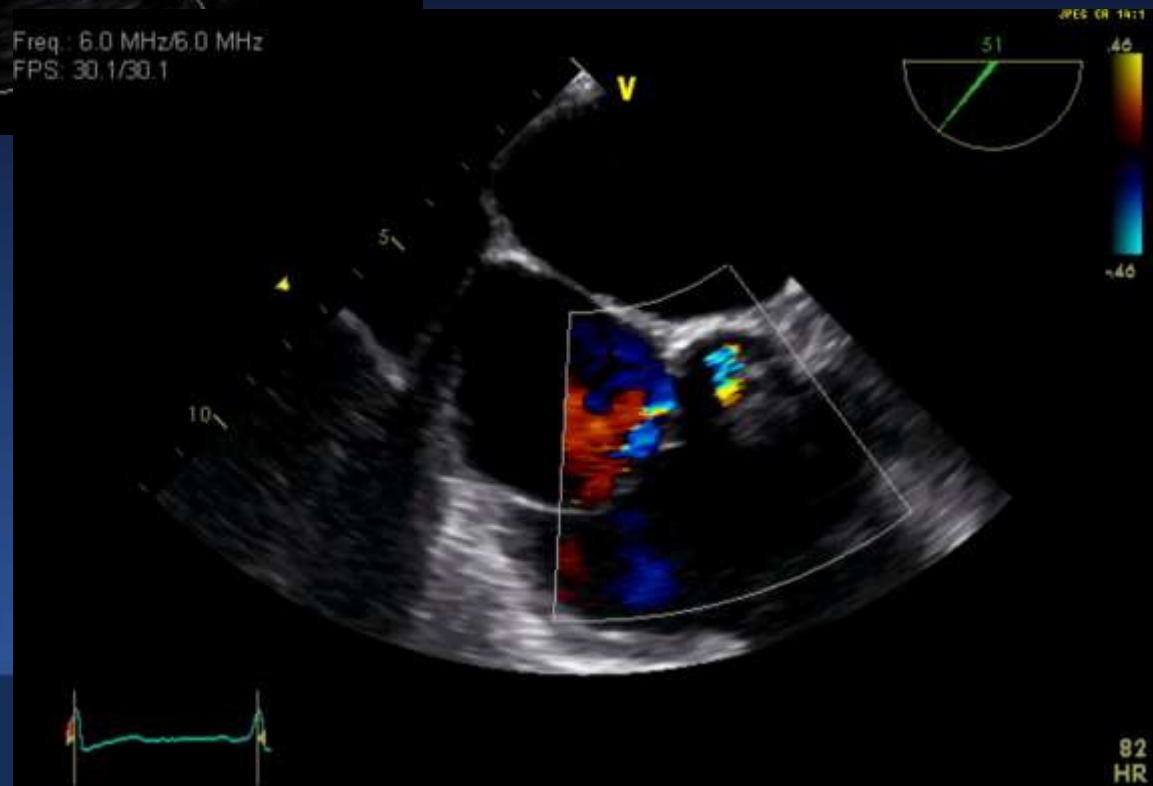


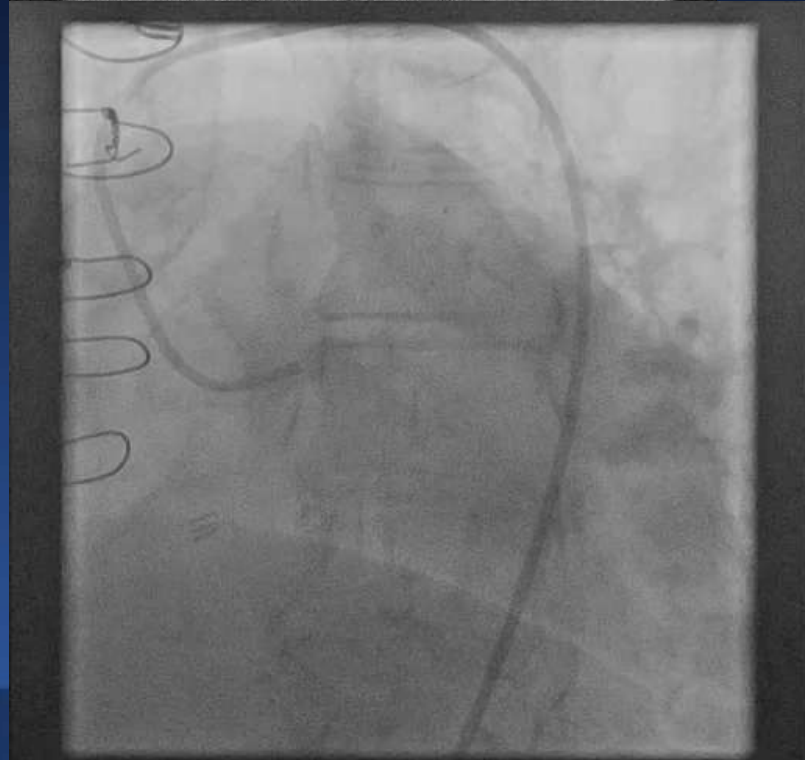
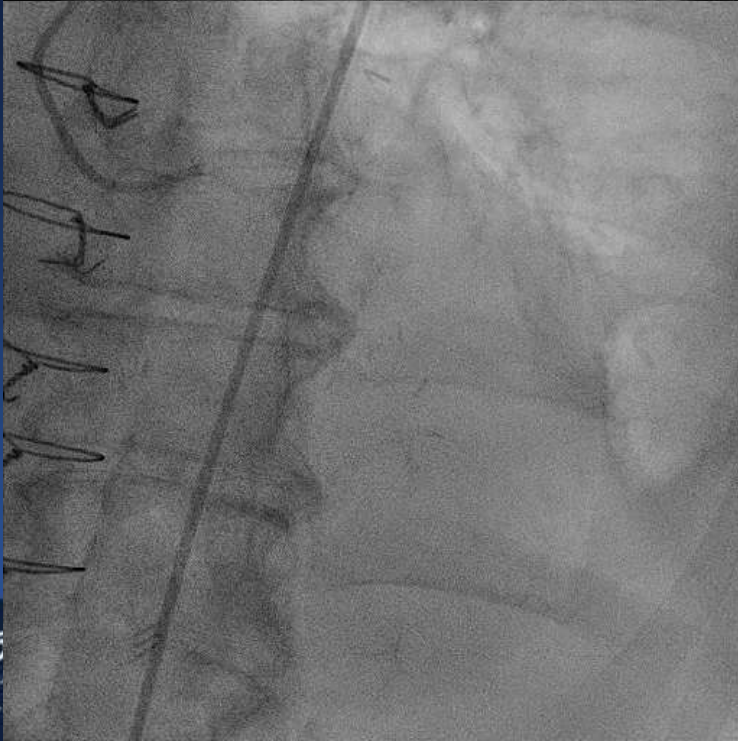
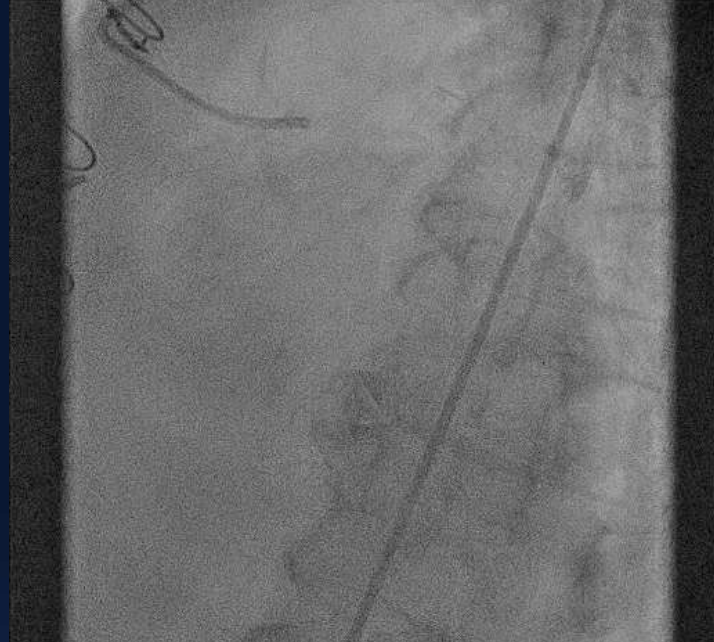
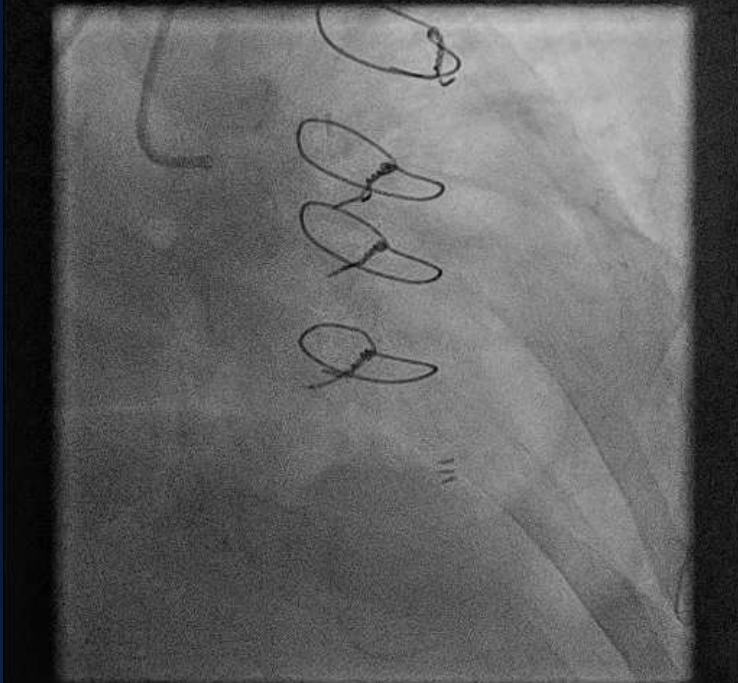


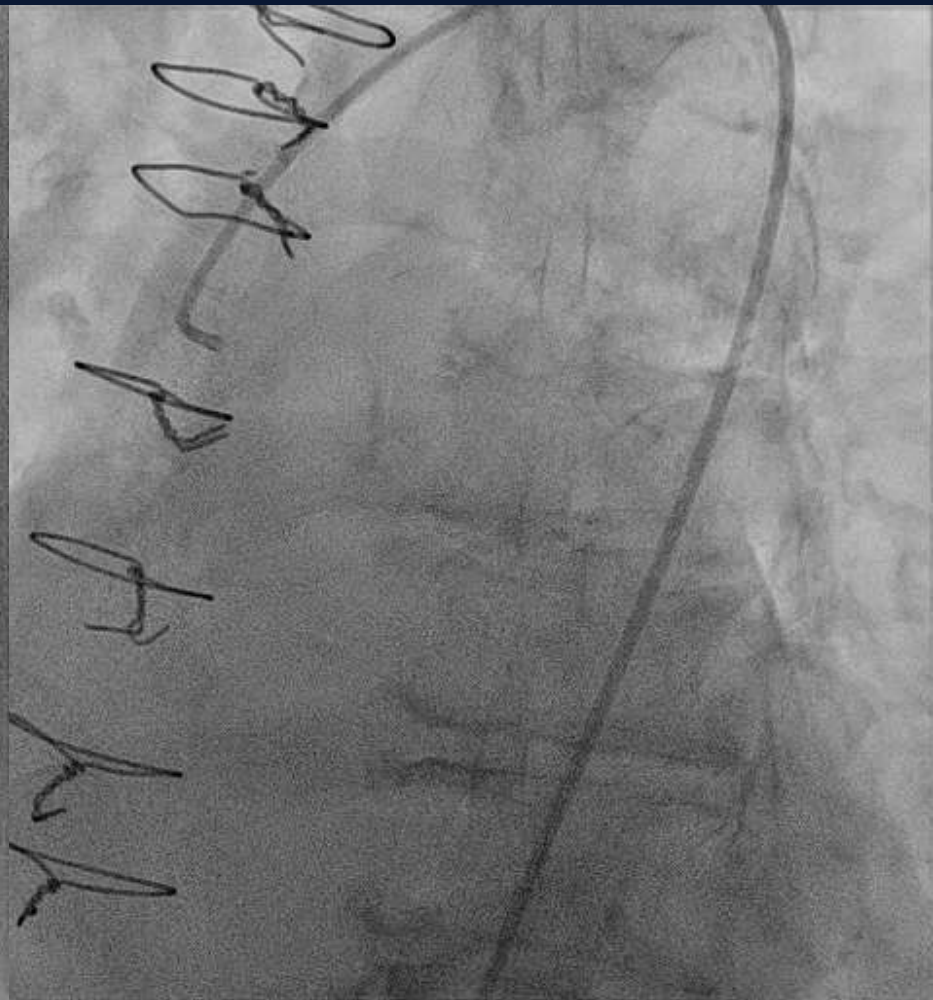
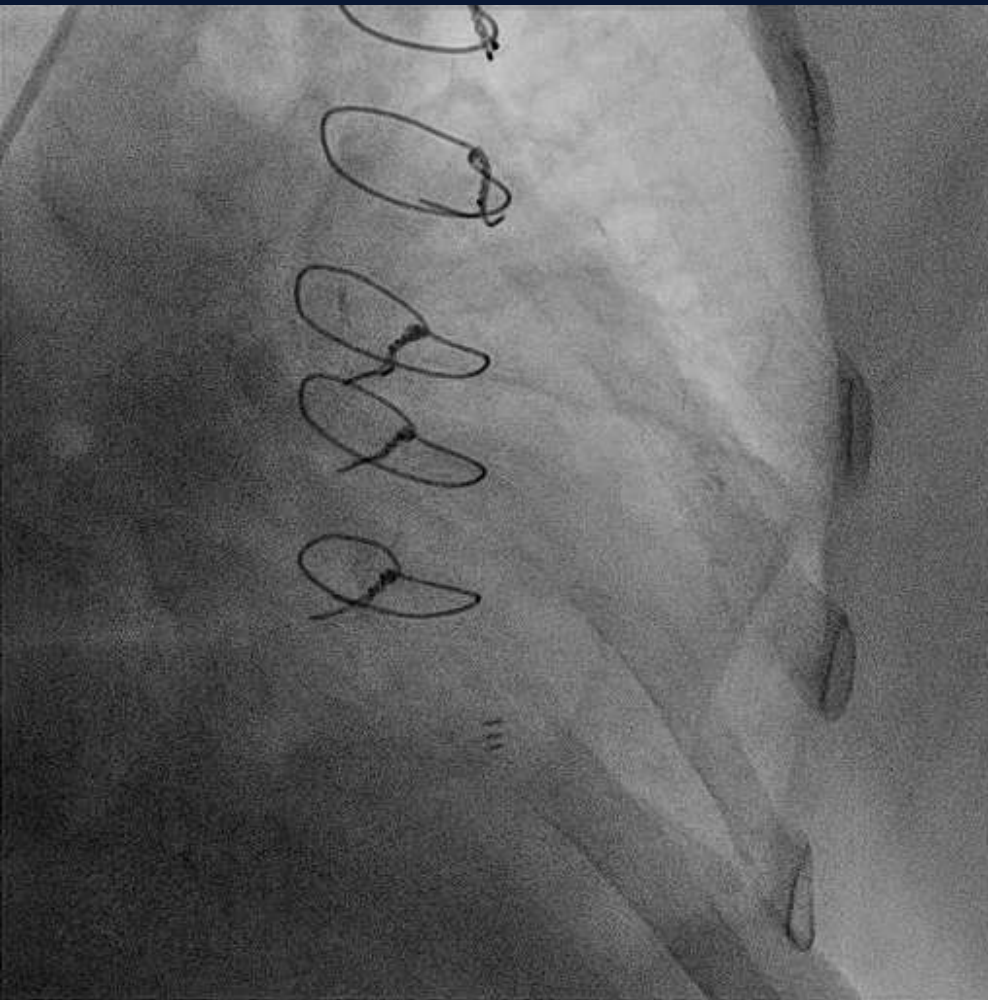




Freq.: 6.0 MHz/6.0 MHz
FPS: 30.1/30.1







Patent LIMA LAD and Patent SVG to OM1 Protected Coronaries

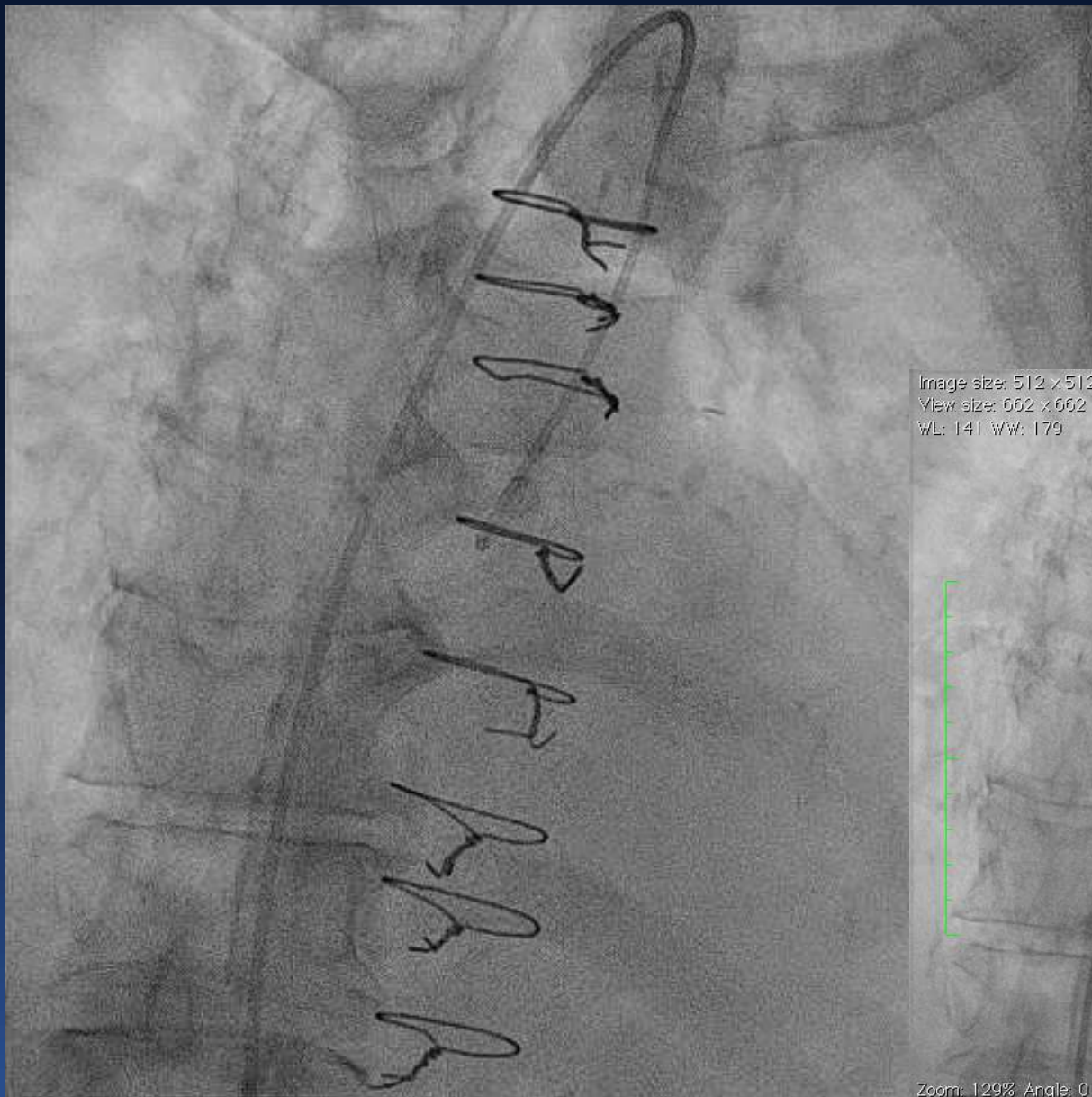
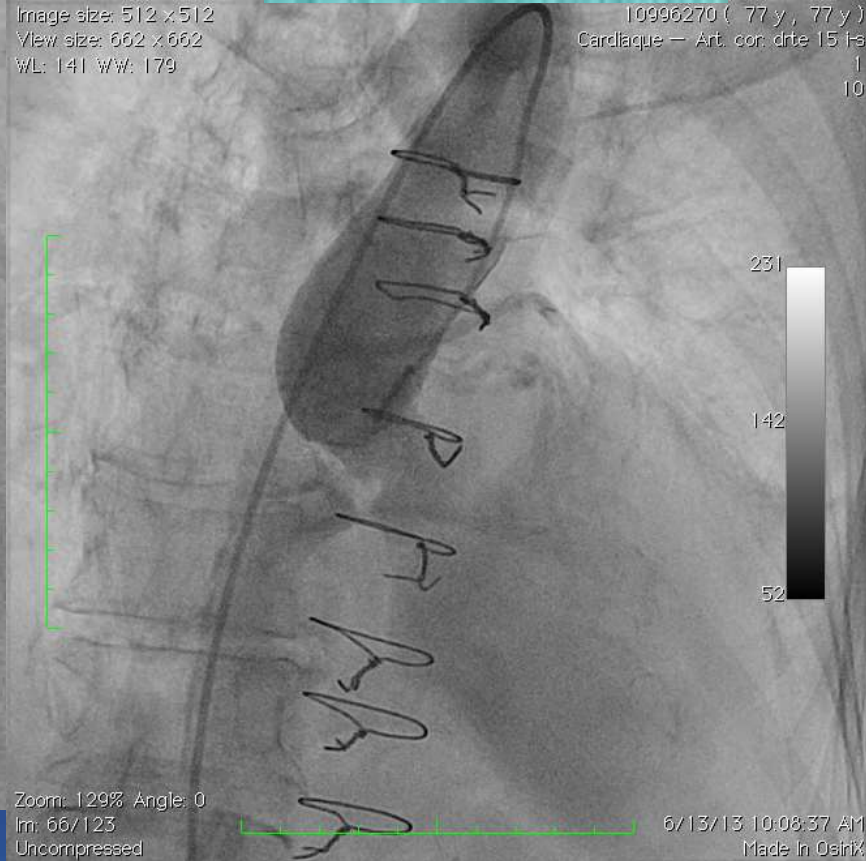


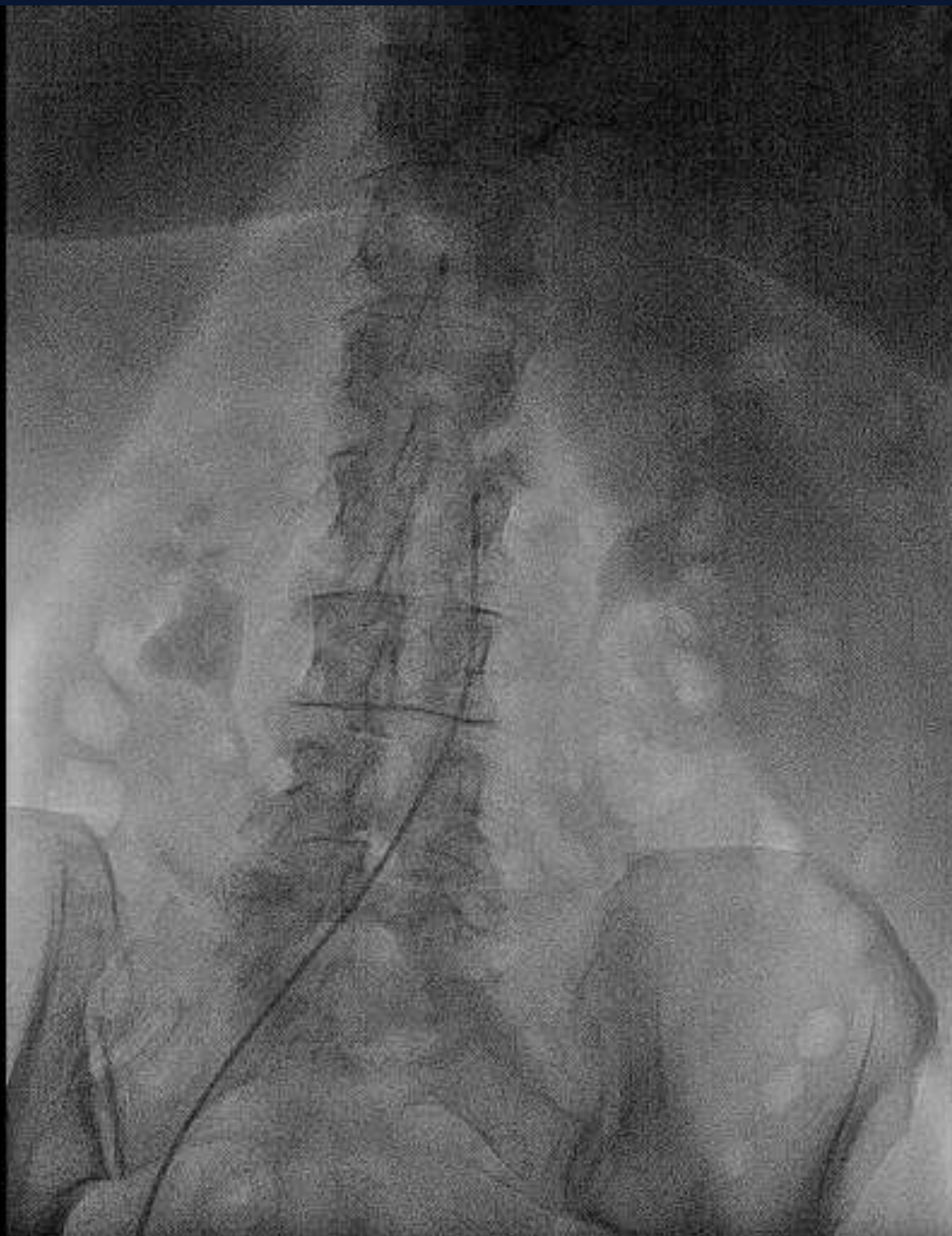
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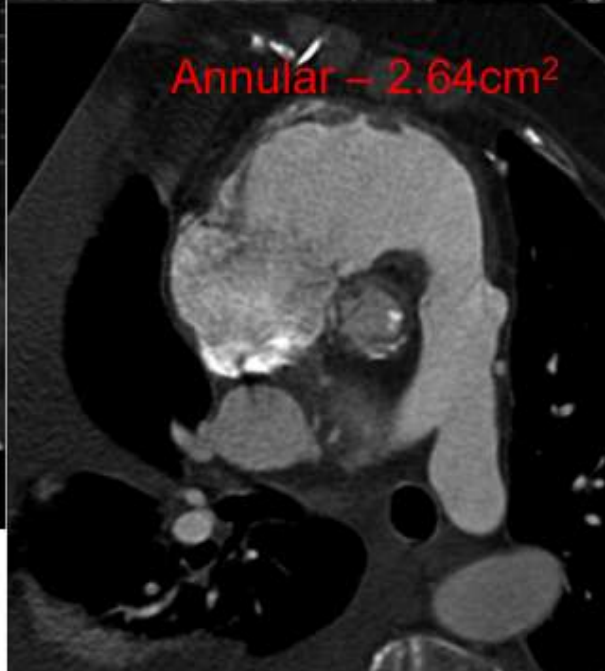
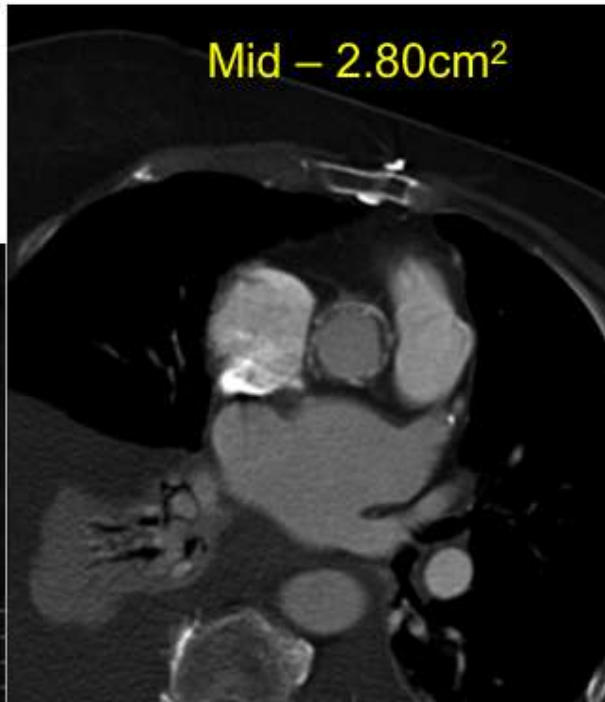
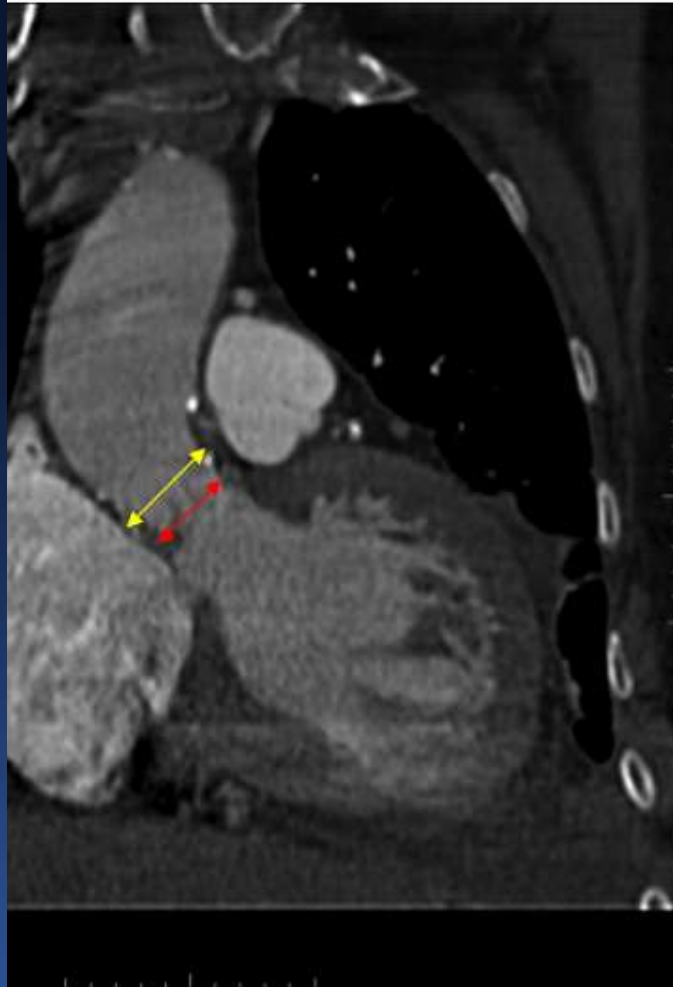
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Cardlaque — Art. cor. drte 15 fs
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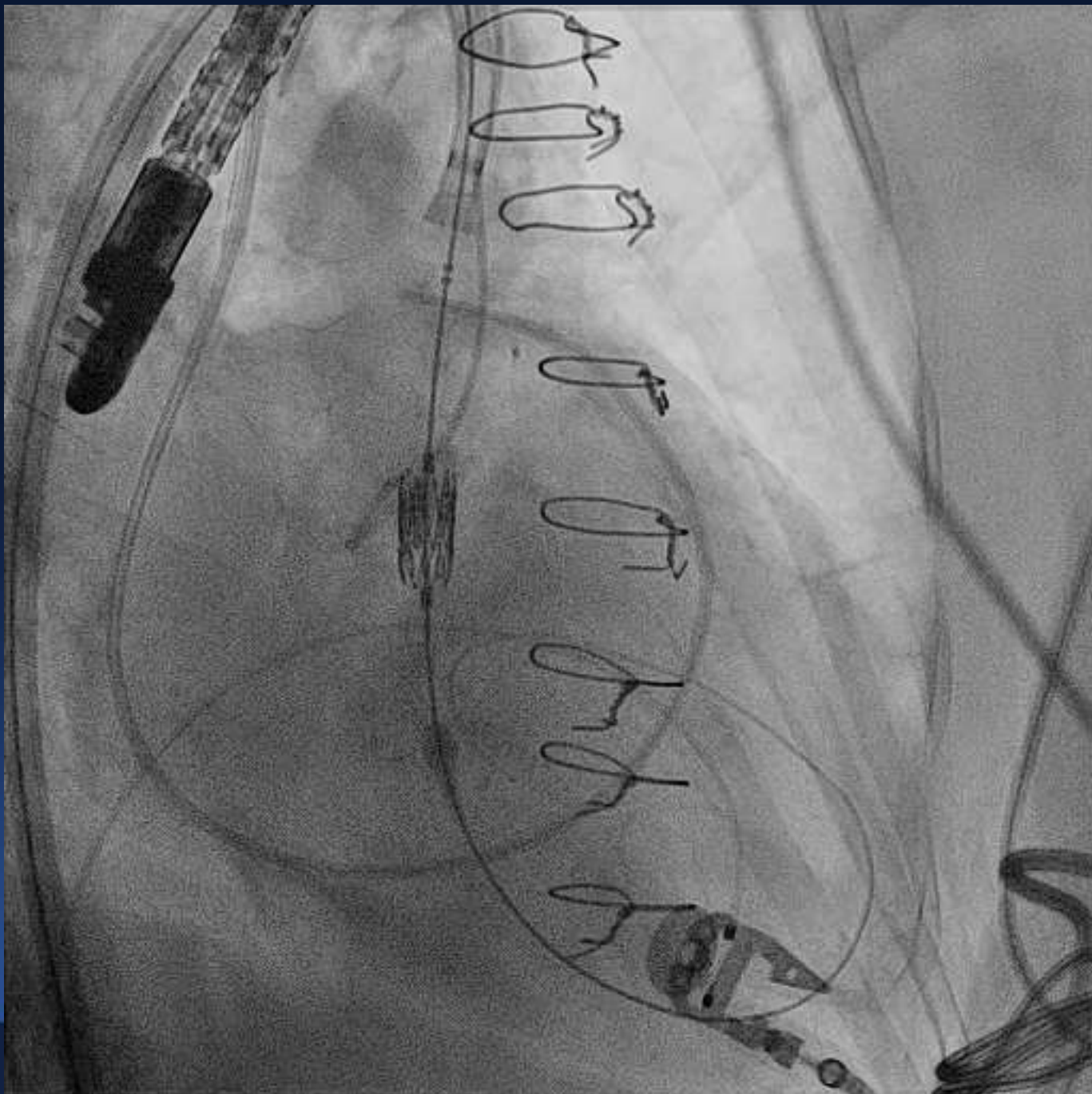
Discussion

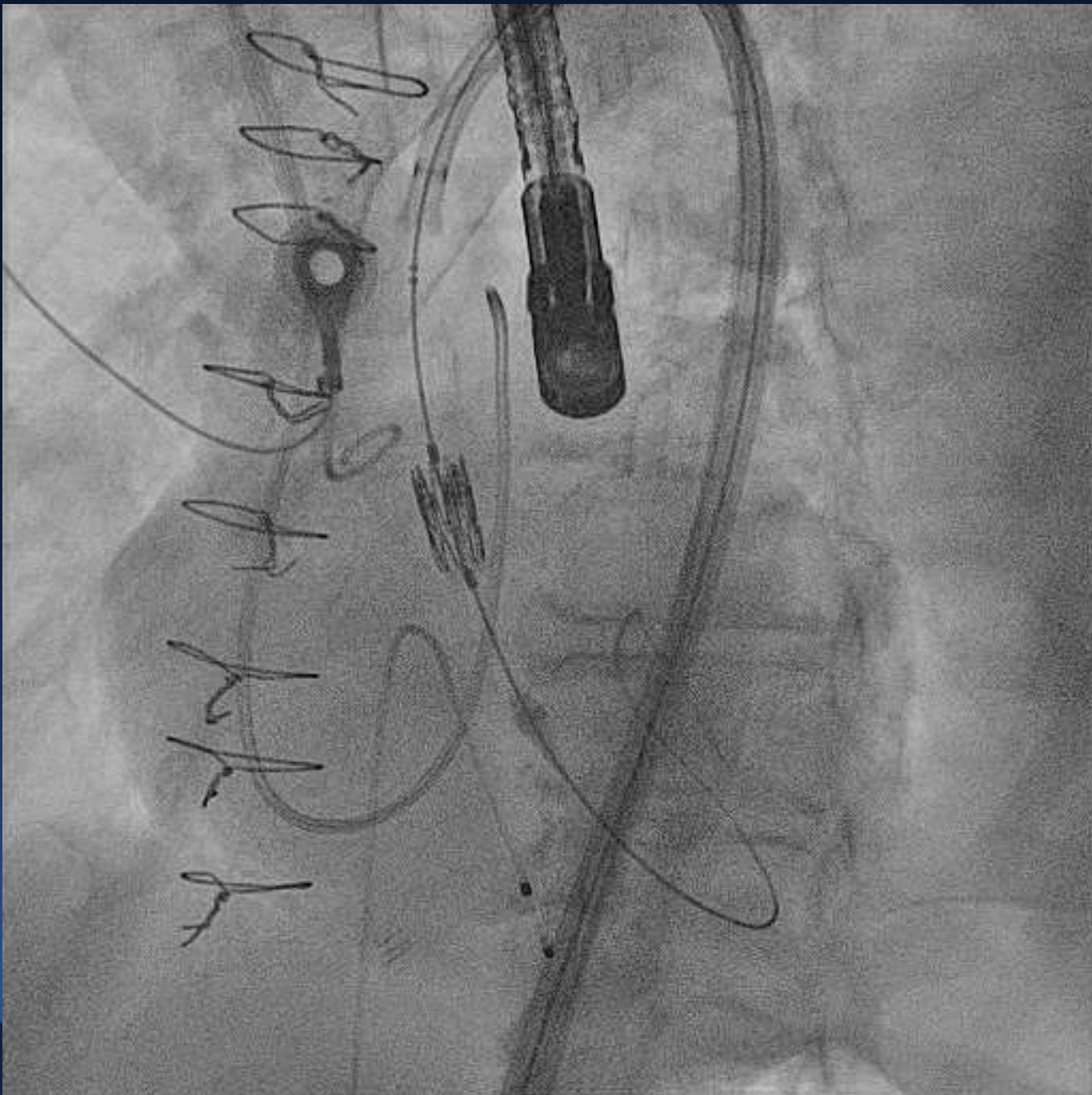
- TAVR or not?
- THV type?
 - Medtronic CoreValve?
 - Edwards 20mm vs. 23mm?
- Pre-dilatation or not?

TAVR Strategy

- **General anesthesia**
- **LFA**
- **« Gentle » Predilatation with 20x30mm Balloon @ 180bpm**
- **Deployment 23mm Edwards SAPIEN XT (underfilling: -3cc).**







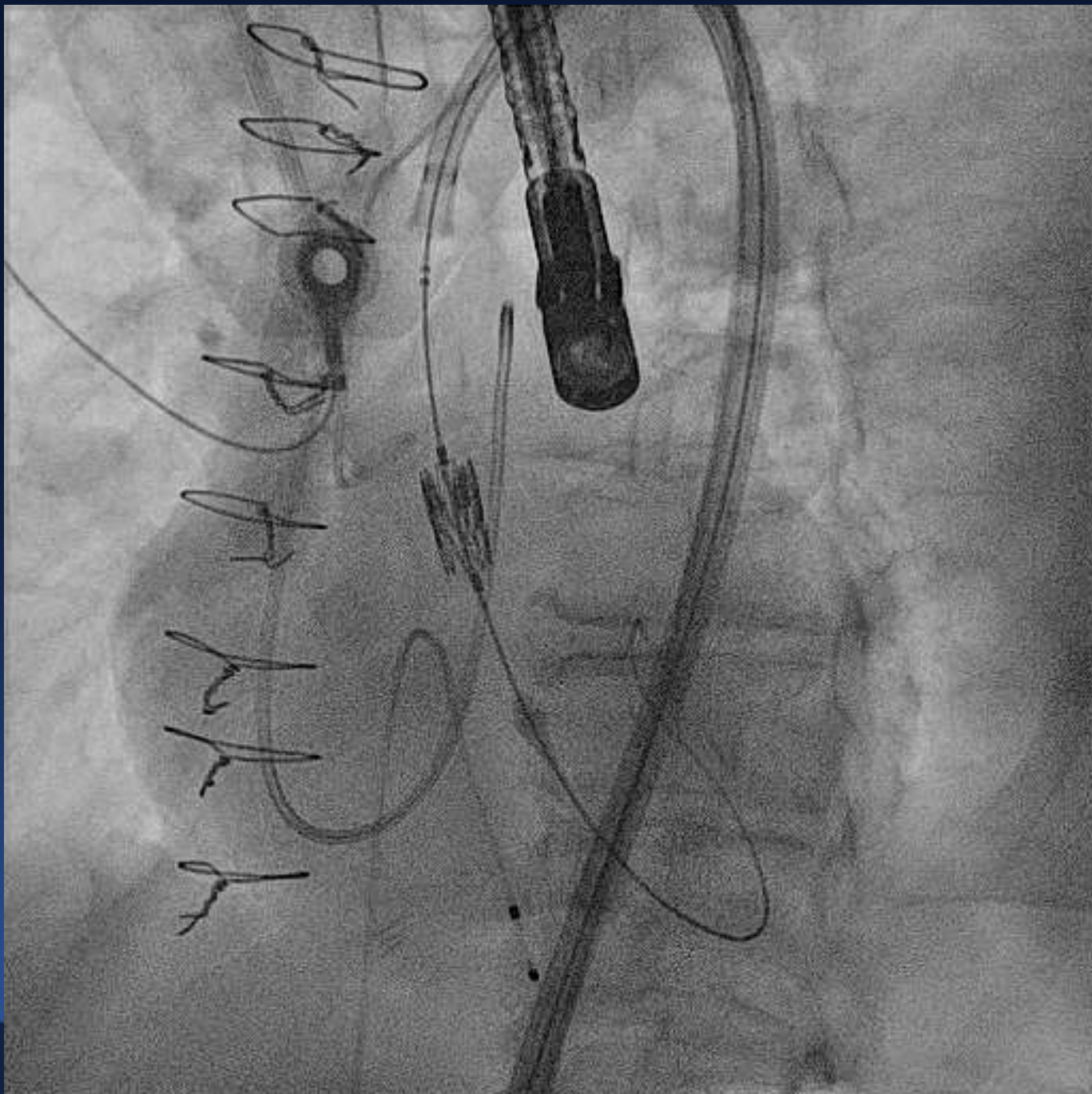
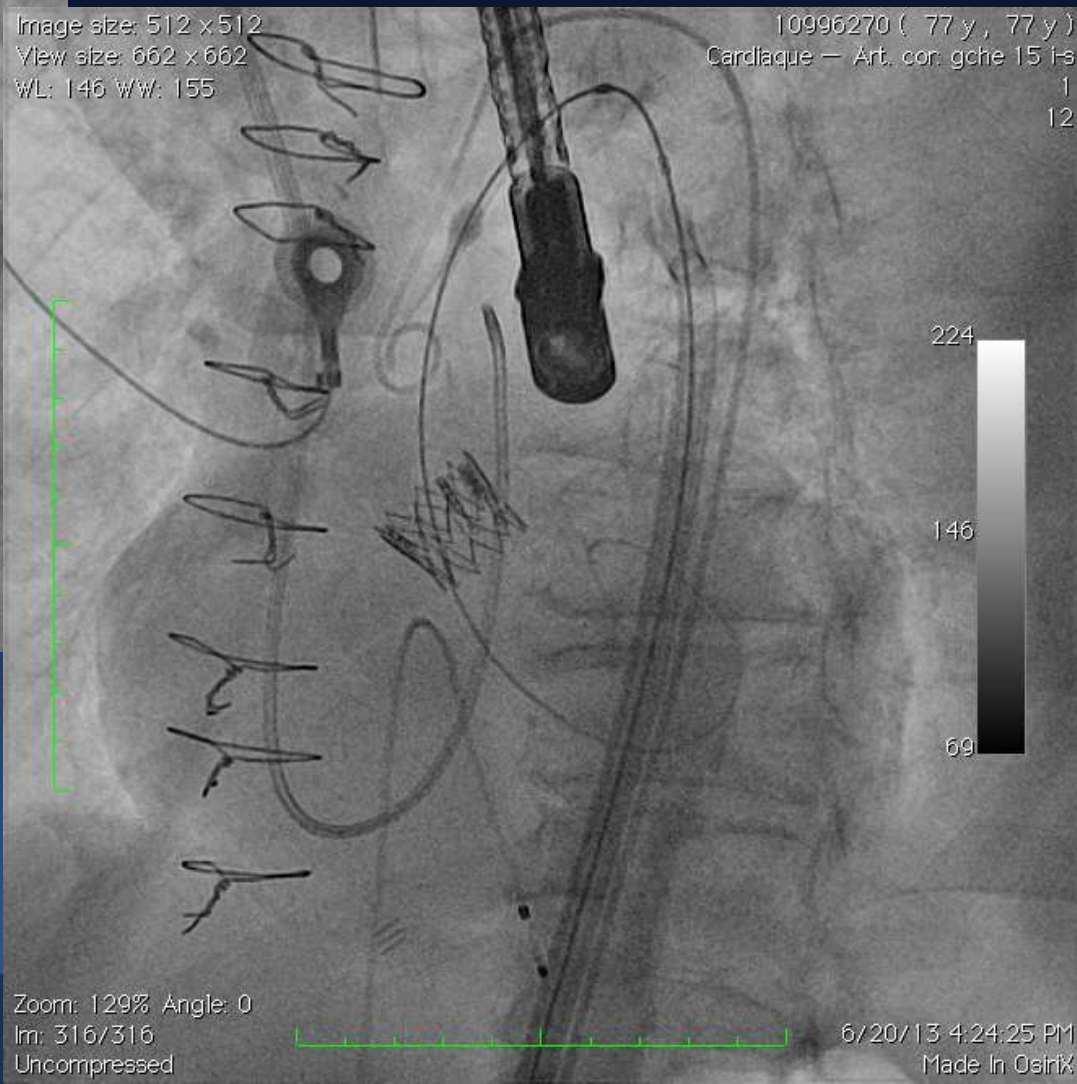




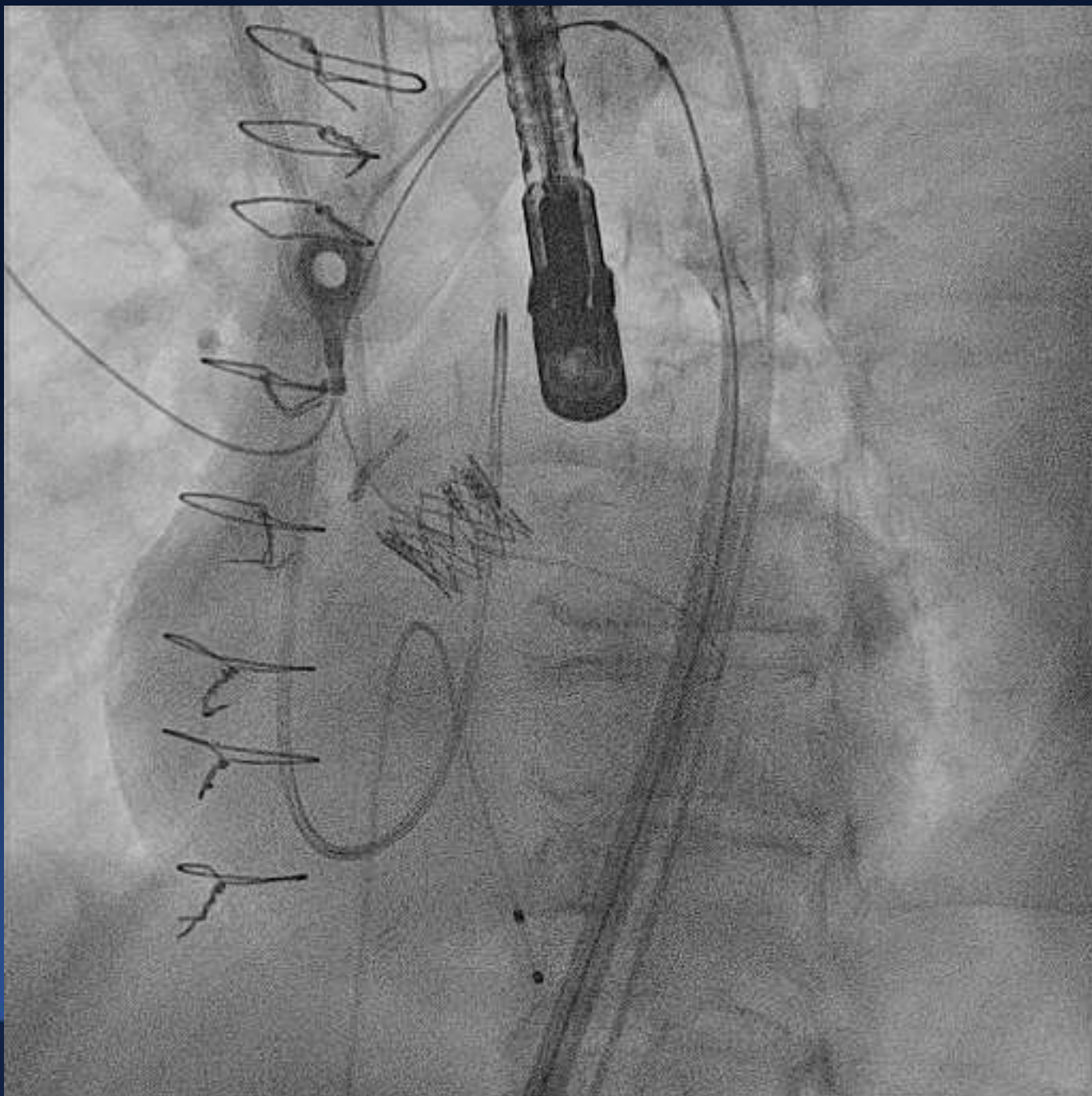
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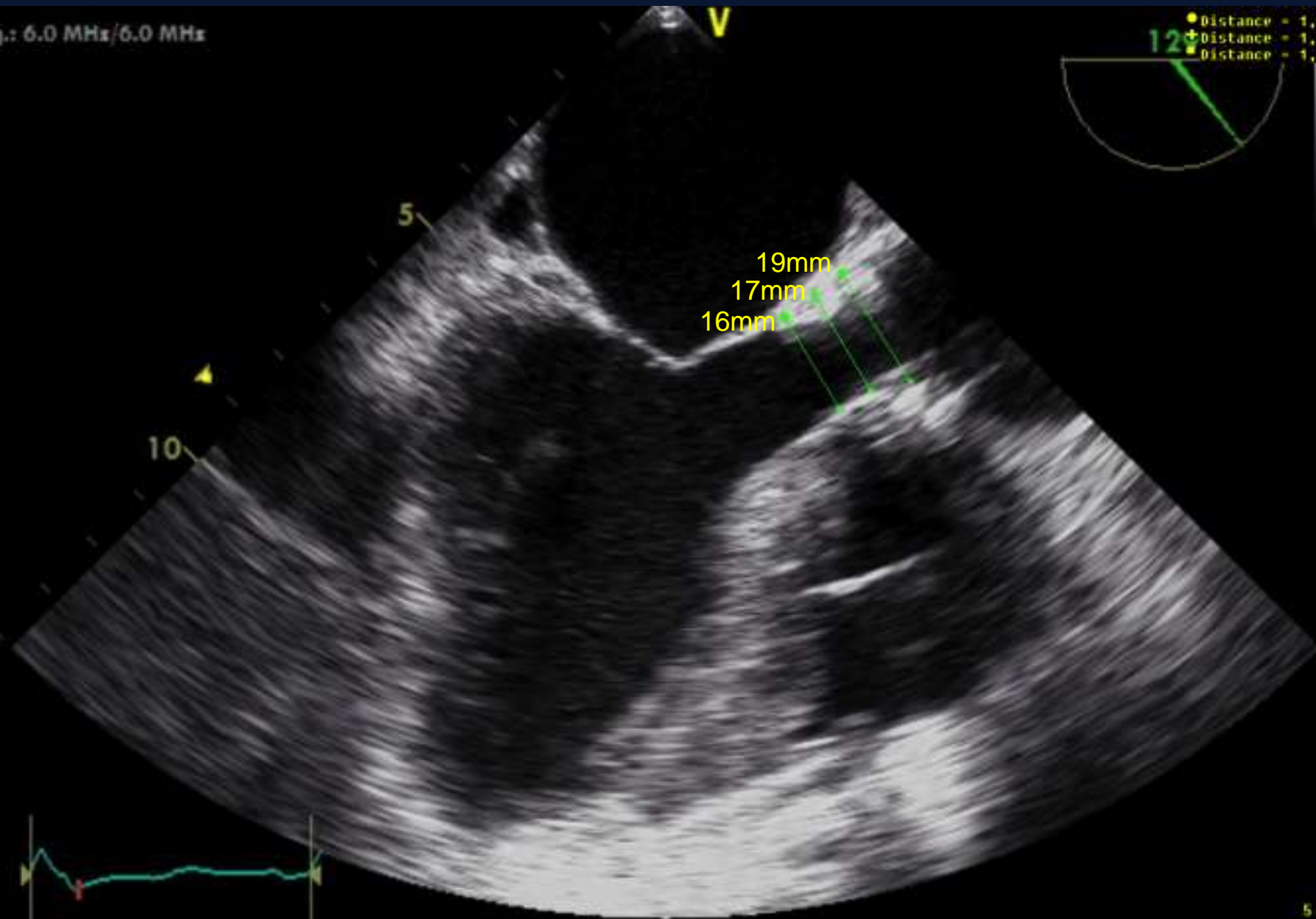




Mean gradient=25mmHg
 No AR.
 Normal EF.

Freq.: 6.0 MHz/6.0 MHz

Distance = 1.6 cm
Distance = 1.7 cm
Distance = 1.9 cm



Discharged 3 days after TAVR

- **Significant clinical improvement**
- **New LBBB**
- **Creatinine 95 μ mol/L**
- **TTE:**
 - **Mean gradient 28mmHg**
 - **No AR**

At 6 months

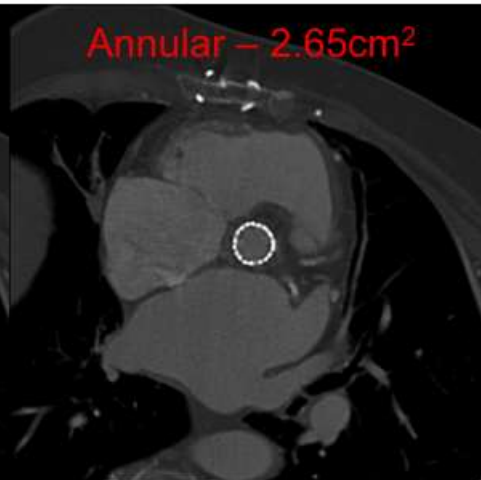
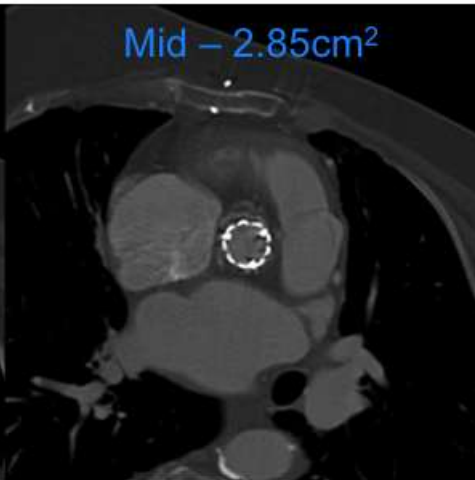
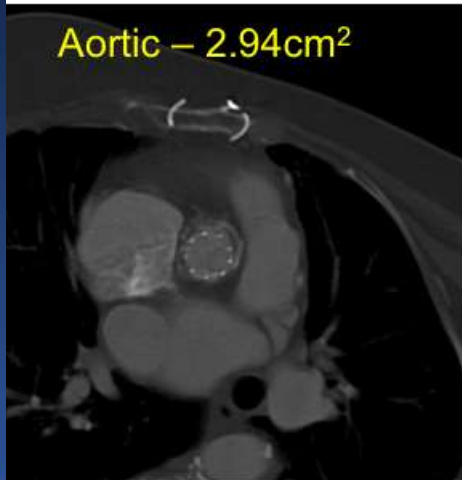
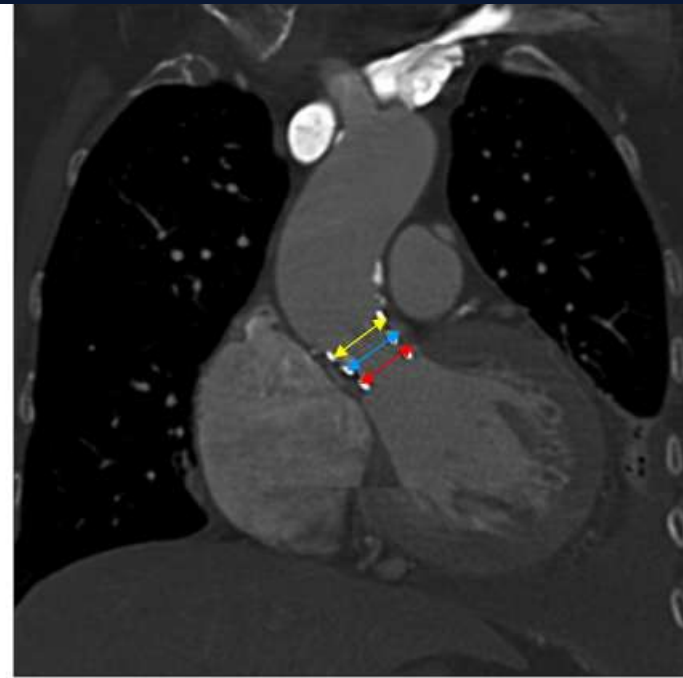
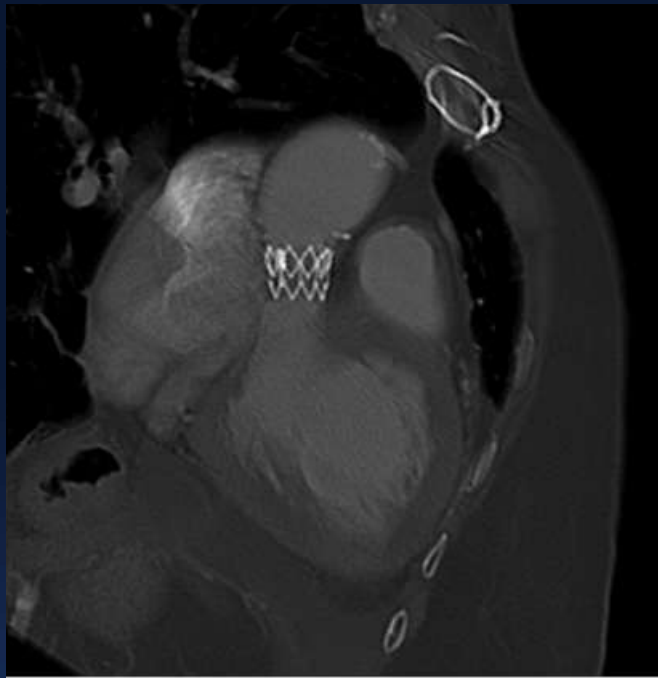
- **NYHA 1**
- **1-month TTE:**
 - **No AR**
 - **Mean gradient 28mmHg**



Case Report

Valve-in-Valve Implantation With a 23-mm Balloon-Expandable Transcatheter Heart Valve for the Treatment of a 19-mm Stentless Bioprosthesis Severe Aortic Regurgitation Using a Strategy of “Extreme” Underfilling

Florent Chevalier,¹ MD, Jonathon Leipsic,² MD, and Philippe Généreux,^{1,3*} MD



Discussion

- 20 mm vs. 23 mm?
- Landmark for THV deployment?
 - Pig tail
 - LM
 - TEE
- Risk of coronaries occlusion
- Hemodynamic consequence of under-expanded THV?
 - Accelerated leaflet degeneration?

Acknowledgment



- Phil
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- Christi
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