TAVI case in MC Medicor

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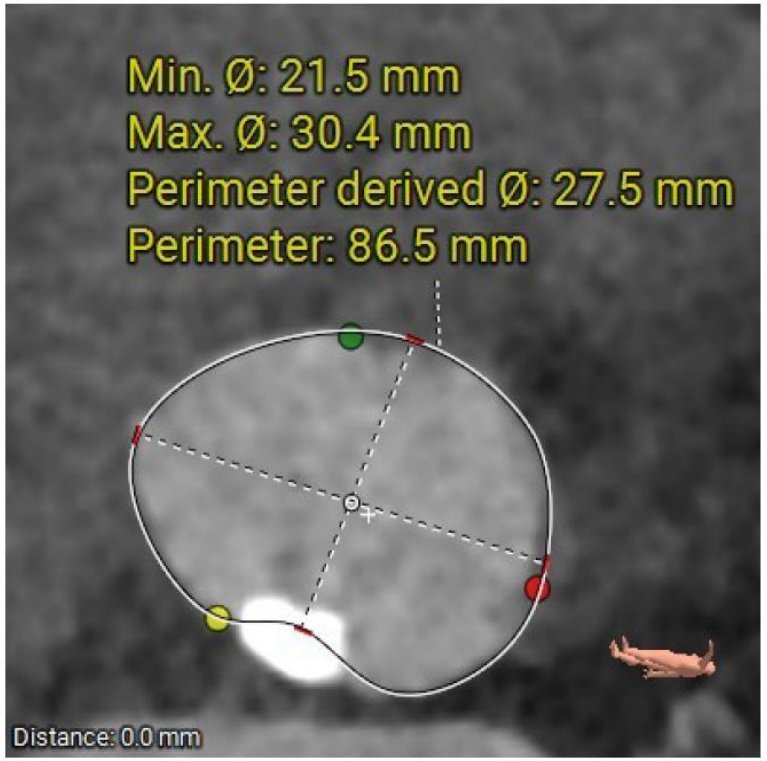
Patient

- 79 year old man
- AH
- HLP
- Without coronary artery disease
- Severe aortic stenosis (Vmax 5.1, max gr.106, AVA 0.8)

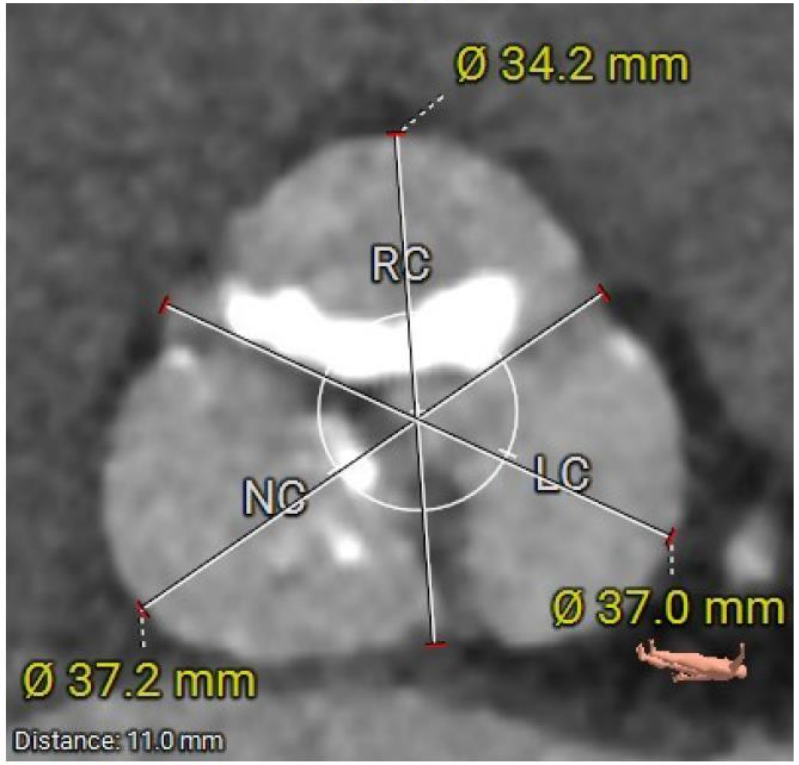
CTA thoracic aorta

Annulus



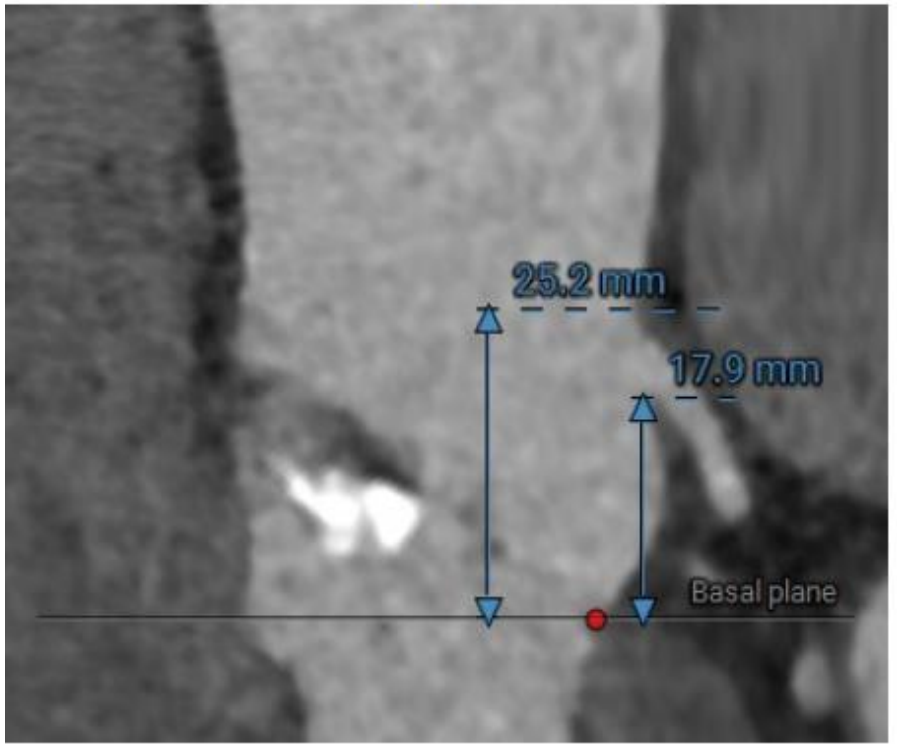
Cardiac phase 40%

Sinus of Valsalva



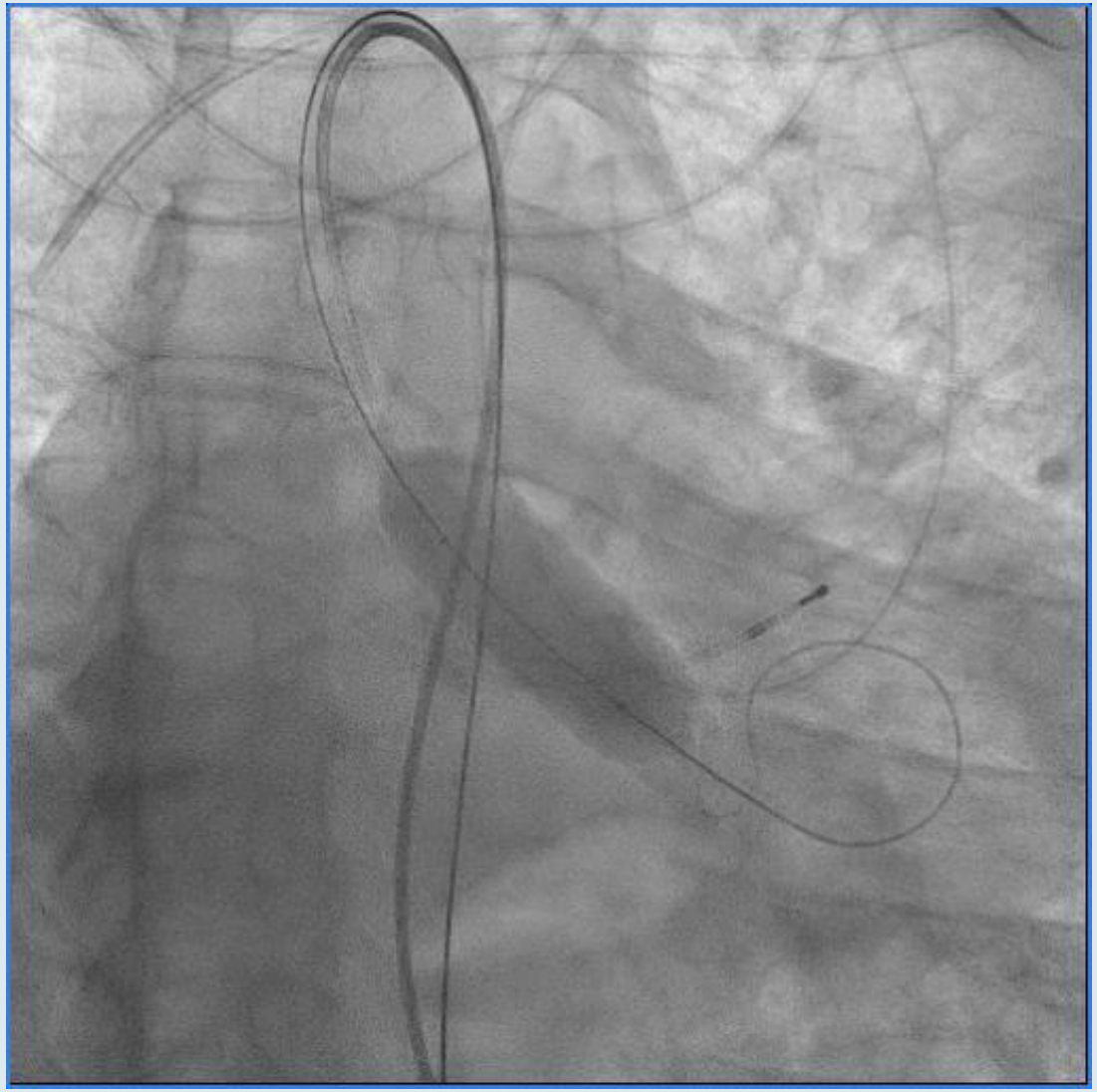
Cardiac phase 40%

Left coronary height

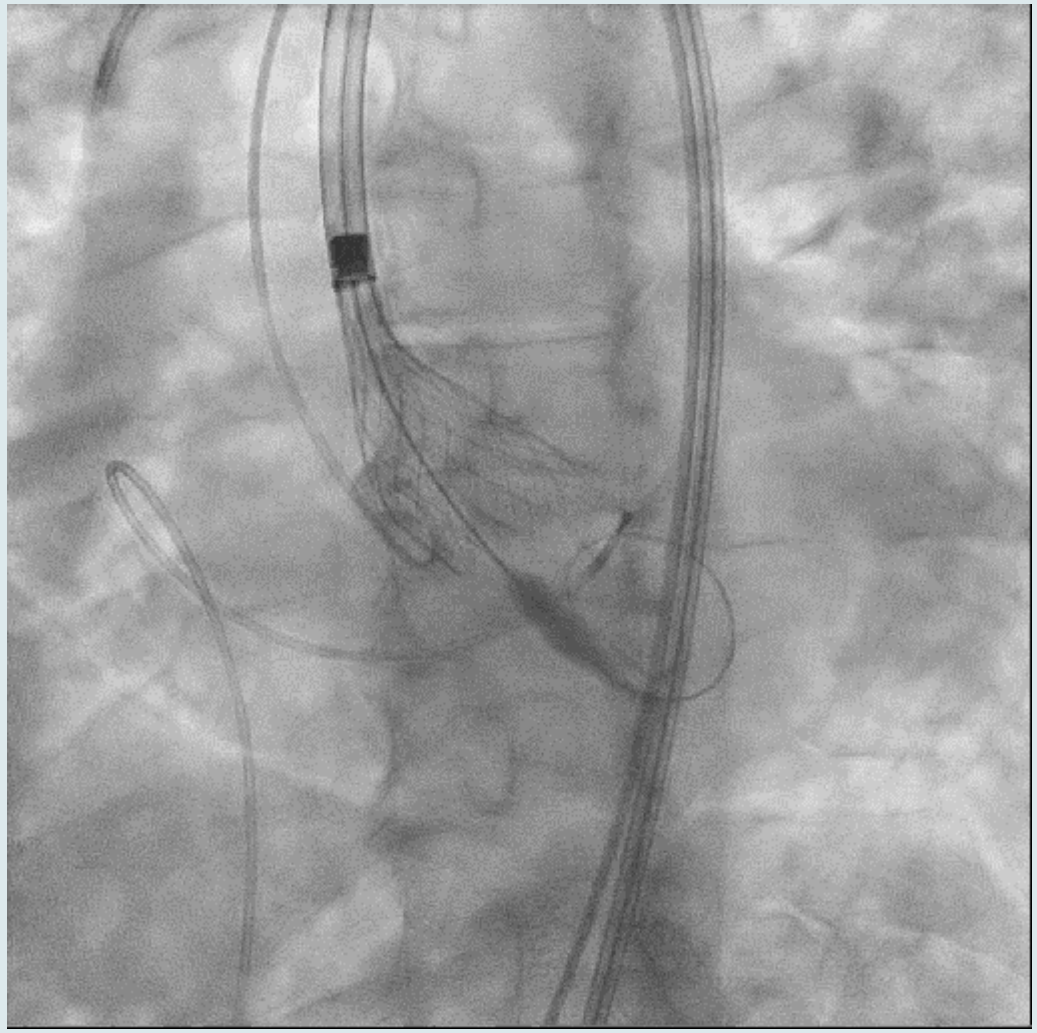


Evolut Pro+ 34

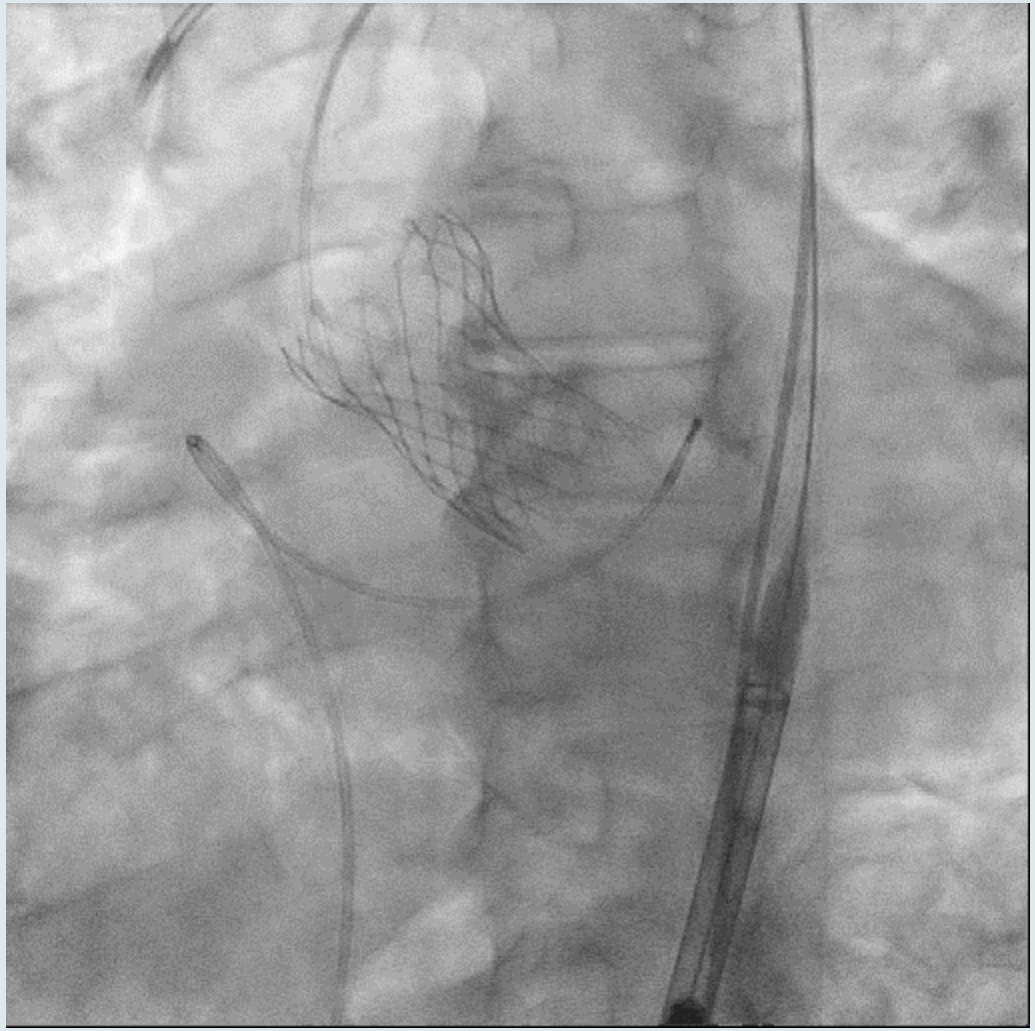
Baloon dilatation



Before valve deployment



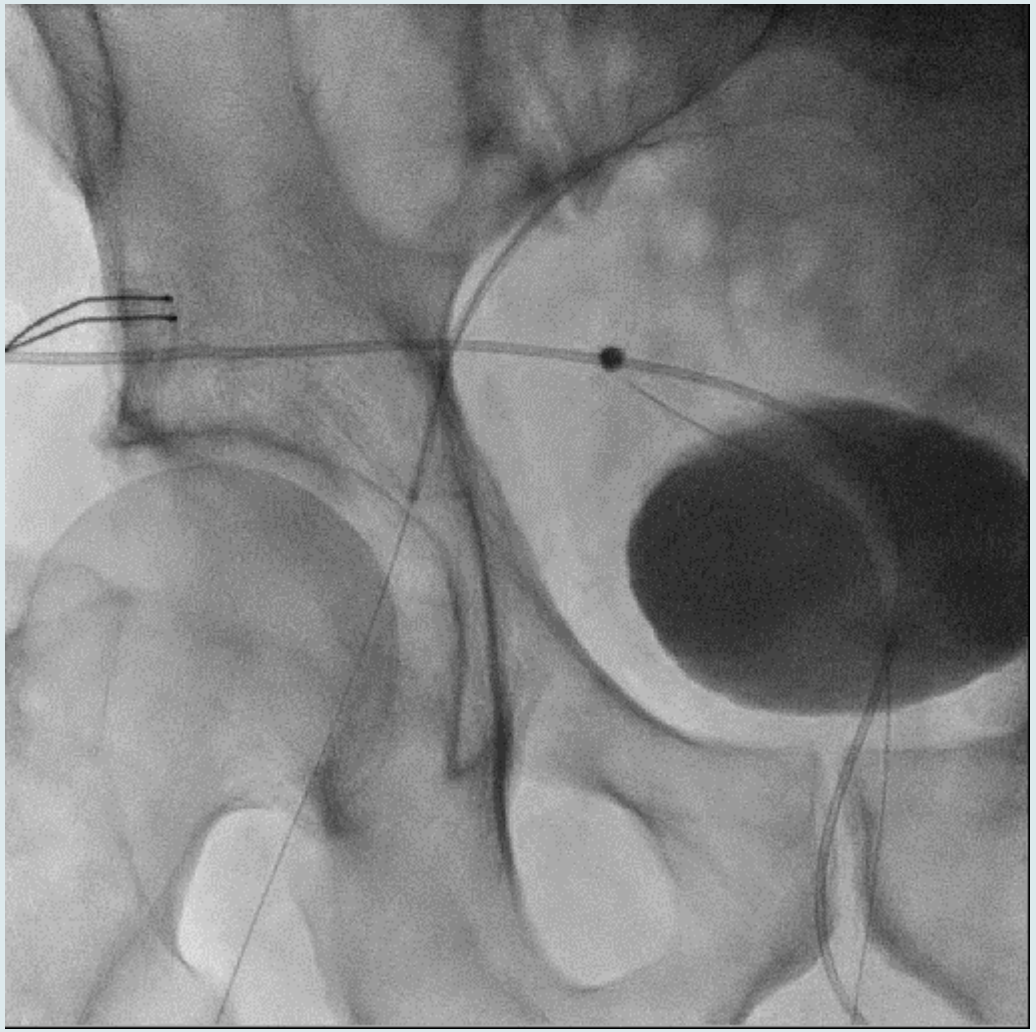
Aortogram after valve deployment



Echocardiography

- No pericardial effusion
- Normal contractility
- Minimal aortic regurgitation
- Mean transaortic gradient of 6 mmHg

Slow femoral flow

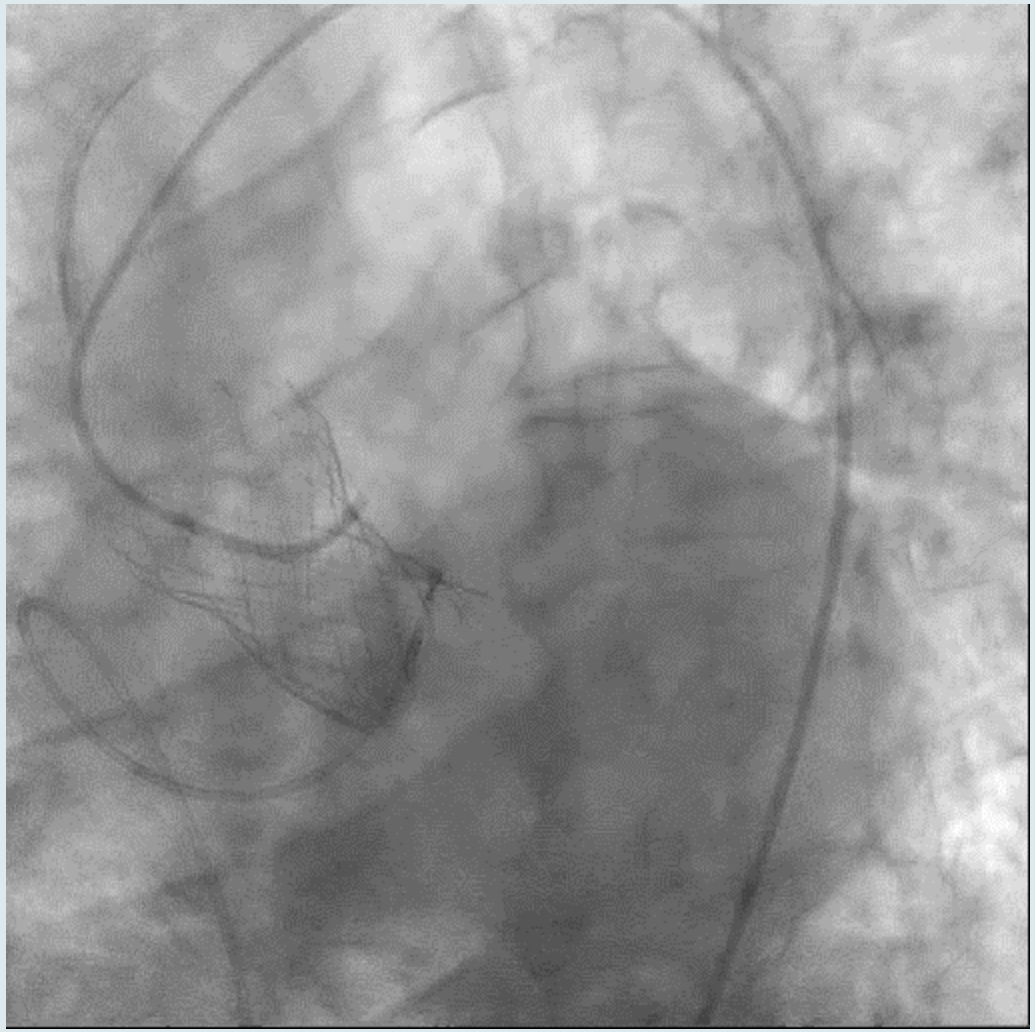


- Following successful femoral closure, the patient suddenly developed profound hypotension with bradycardia requiring transvenous pacing.

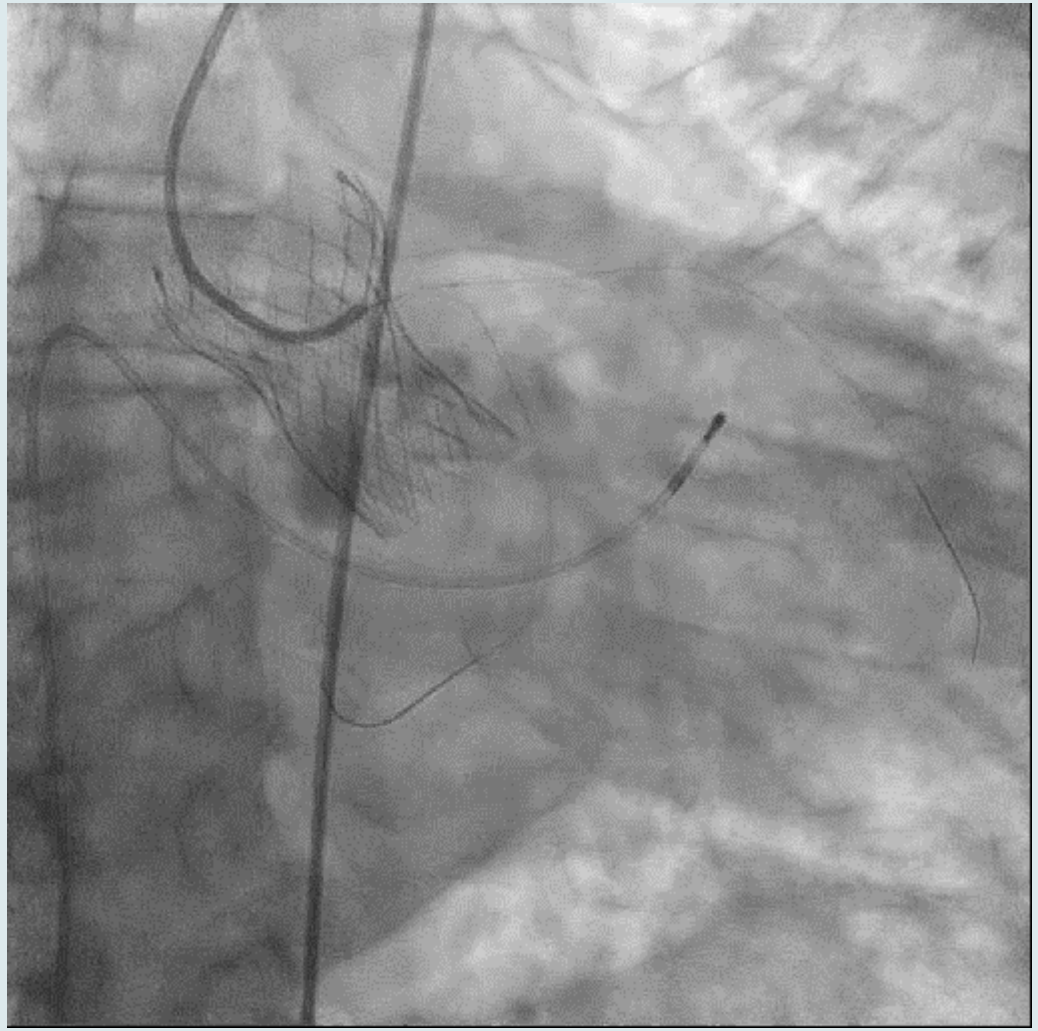
Echocardiography

- revealed no pericardial effusion
- reduced global left ventricular ejection fraction, with akinesia of anterior and severe hypokinesia of inferolateral walls
- minimal aortic regurgitation

Acute left main obstruction with impaired anterograde flow

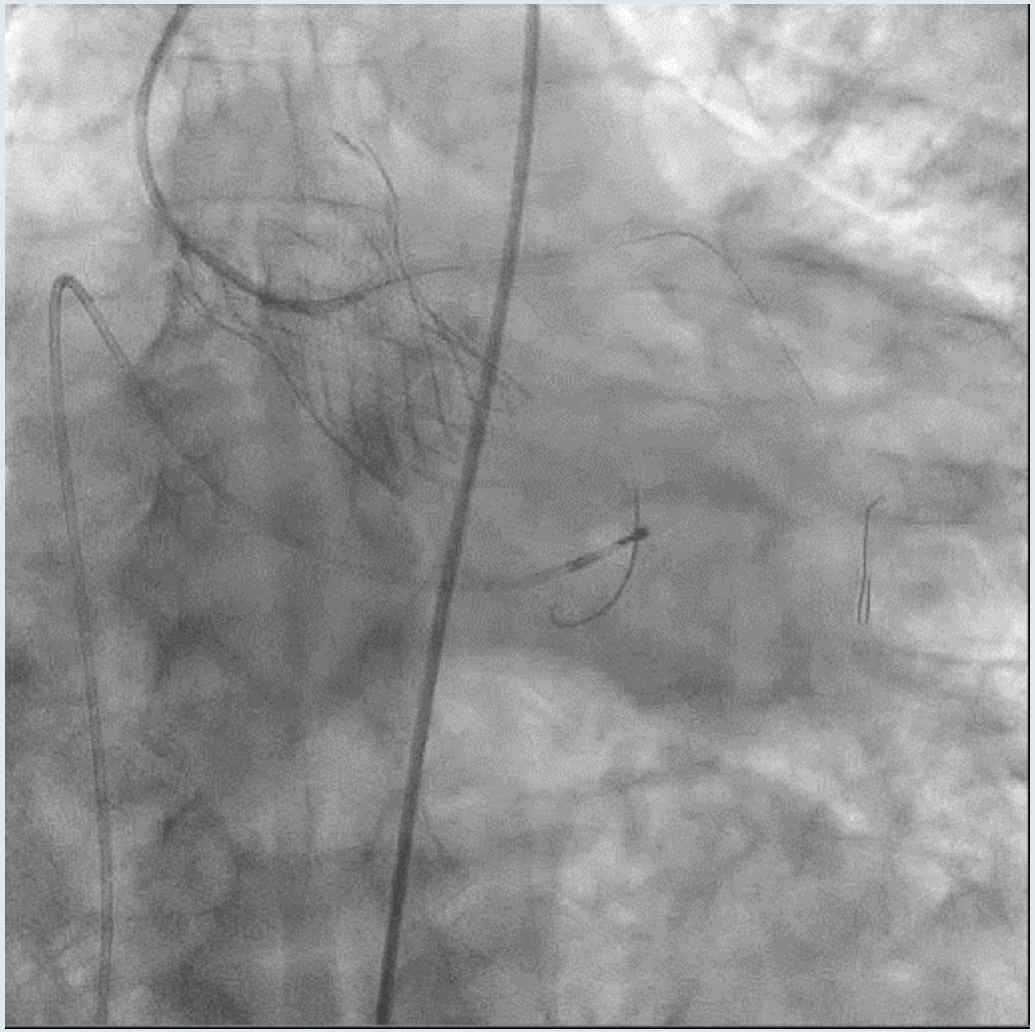


LM after balloon dilatation, aspiration and intracoronary bolus of eptifibatide



- Two guidewires were passed into LAD and LCX. LM predilatation (2.5 mm), catheter aspiration (no aspirate) and intracoronary bolus of eptifibatide improved anterograde LAD/LCX flow and hemodynamics but the mass within the LM remained unchanged

LM after provisional stenting



- 3.5x25 drug eluting stent was deployed from proximal LAD to LM ostium following by proximal optimization with 4.5 non-compliant balloon with good angiographic result
- The patient immediately stabilized and was discharged with normal left ventricular function.

Conclusions

- Acute left main occlusion after TAVR is rare complication occurring particularly during valve-in-valve intervention or in cases of shallow SOV and/or low LM exit, which was not a case in our patient.
- Because advanced intracoronary imaging could not have been performed in such emergency situation, and no aspirate was obtained by catheter aspiration, histological composition of LM mass remains speculative.
- We believe it was probably a combination of native valve debris and thrombus which may have been favoured by postprocedural heparin reversal by protamine.