

TRI in calcified mLAD with Rotablation atherectomy

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Patient information

- 60 year-old Male
- C.C: Aggravating dyspnea and orthopnea
- Duration : 2 months

< Past history >

- **Hypertension, Dyslipidemia**
- **Current smoker of 30 pack/years**
- **COPD**
- Previous PCI (STEMI) : 2014-3
 - pRCA Endeavor 3.5/22, dRCA Endeavor 3.0/38
- 2 months ago : Failed PCI at mLAD in other hospital

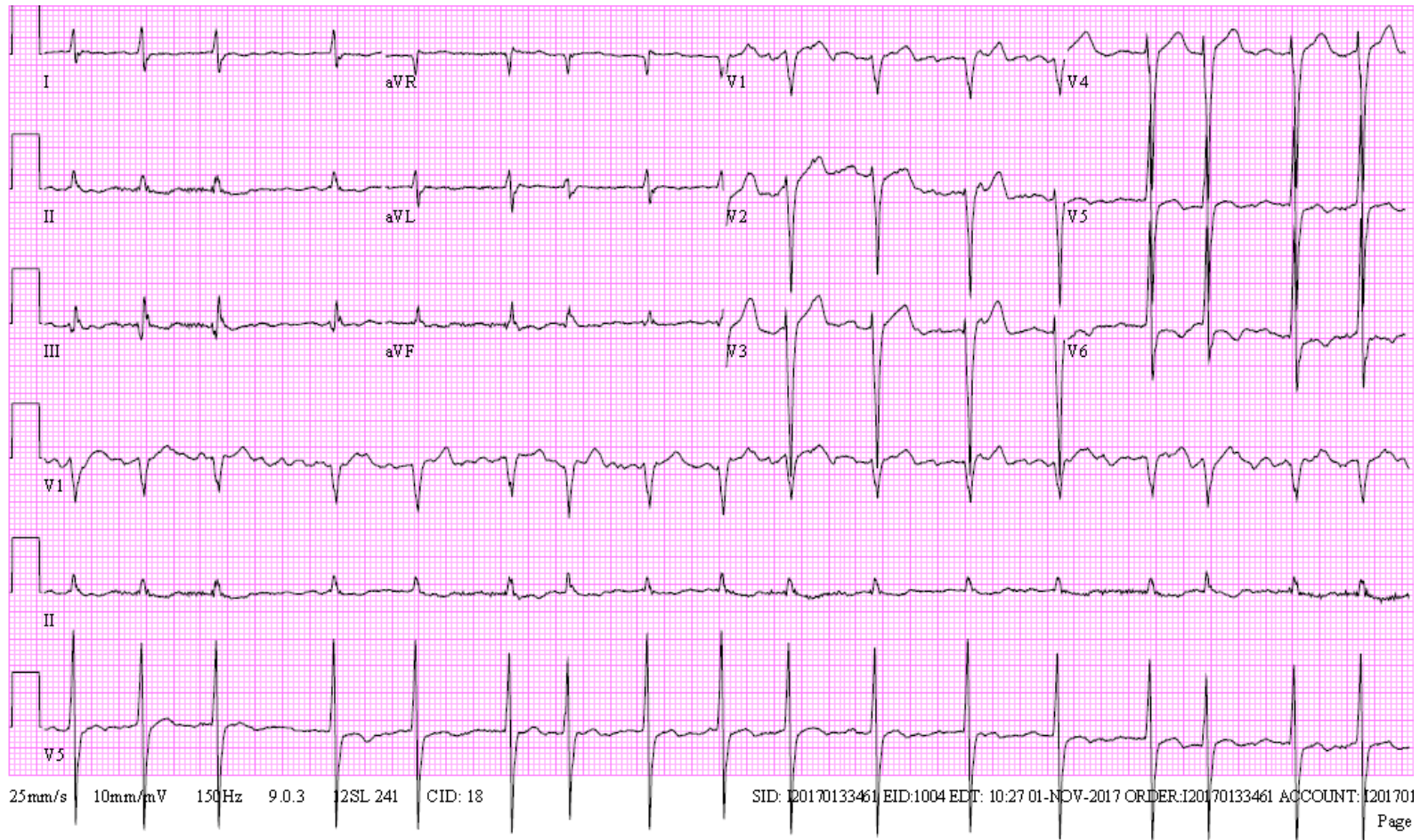
< Initial vital sign >

- BP 96/85 mmHg, HR 102 bpm
- RR 26 /min, Body temp 36.6°C

Initial chest X-ray



Initial EKG



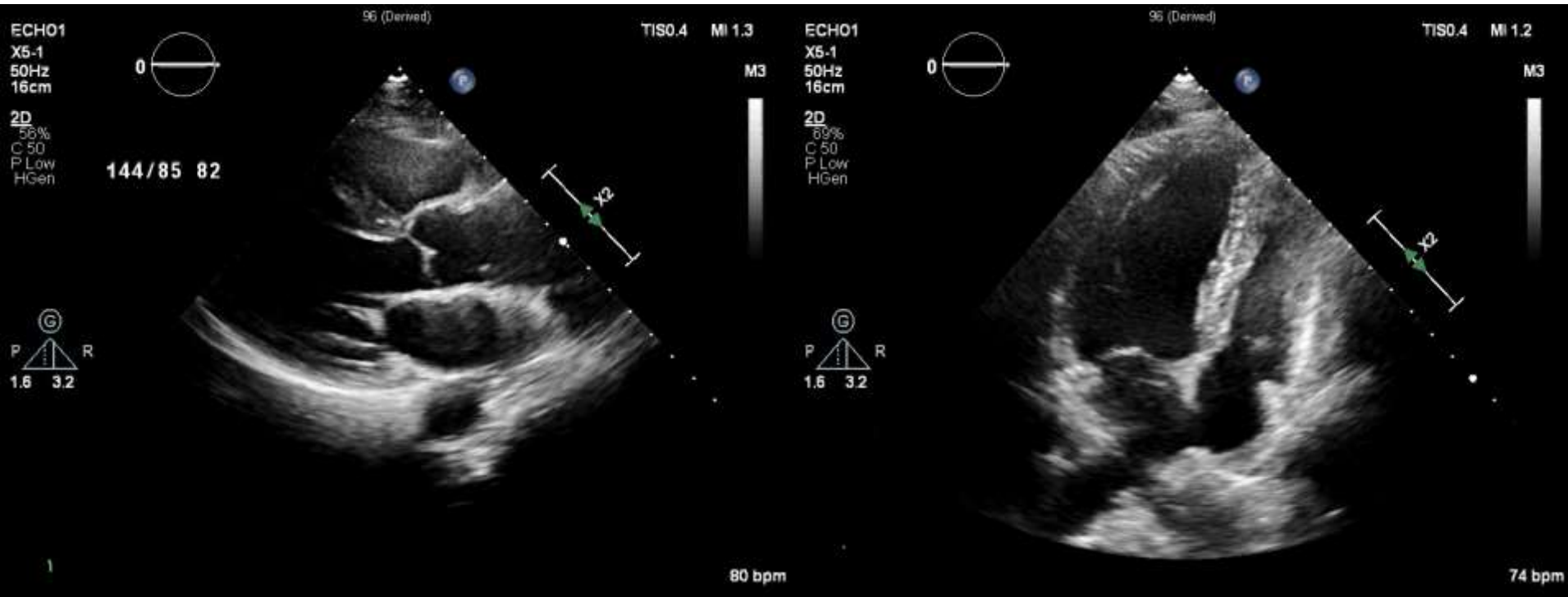
Initial Lab and Echocardiography

- BNP 1039 pg/mL
- Hgb 13.7 g/dL
- Troponin I 0.087 → 0.131 ng/mL (<0.046)
- Cr 1.19 mg/dL

< Echocardiography >

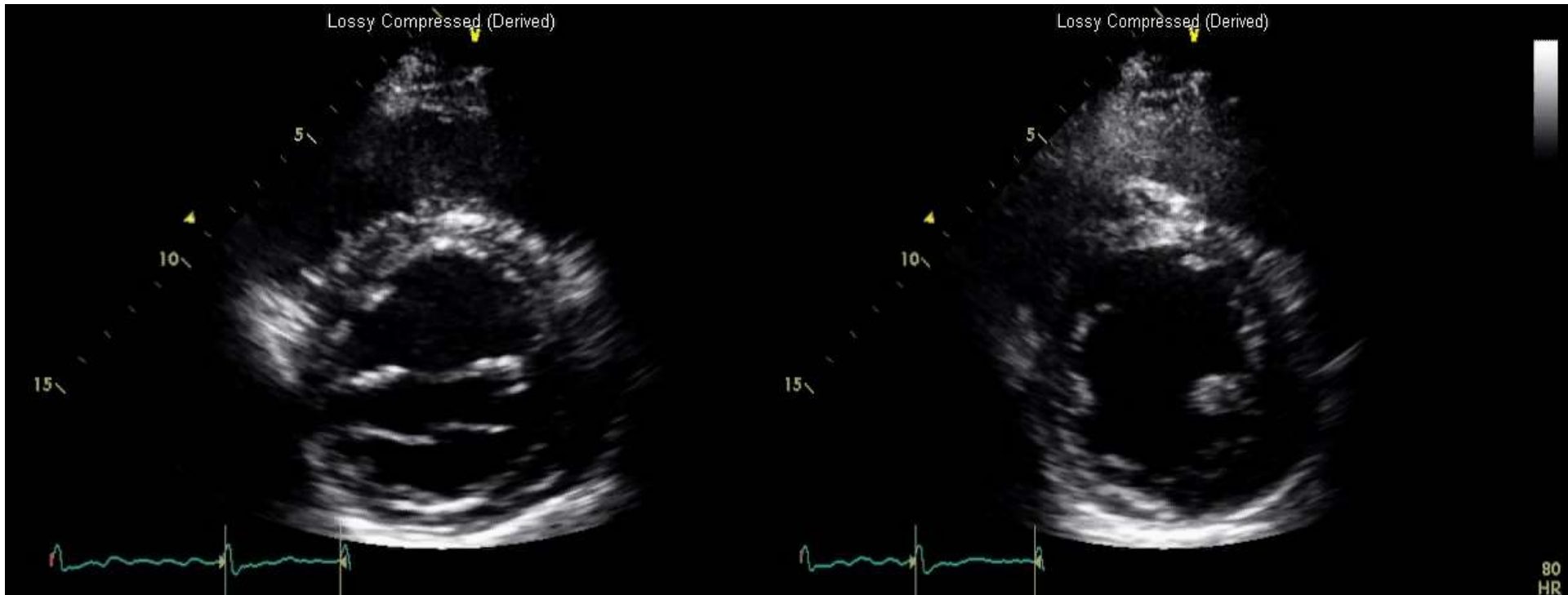
1. Severe ischemic MR d/t tethering (ERO:0.46cm², RV:54ml)
2. Severe TR d/t degenerative change & dilated TV annulus (3.8cm).
3. **RWMA: compatible with RCA territory.**
4. Enlarged 4 chambers(LAVi:82ml/m², LVEDD:7.4cm, LVEDD/BSA:3.87cm/m²) with reduced global LV systolic function (EF:32% by biplane).
5. Loss of A-wave d/t A-fib with elevated LV filling pressure (E/E':45).
6. Severe pulmonary HTN (RVSP:71mmHg, PVR:4.76WU).
7. Tiny pericardial effusion.

Echocardiography



Enlarged four chambers(LAVi:82ml/m², LVEDD:7.4cm, LVEDD/BSA:3.87cm/m²)
with reduced global LV systolic function(EF:32% by biplane).

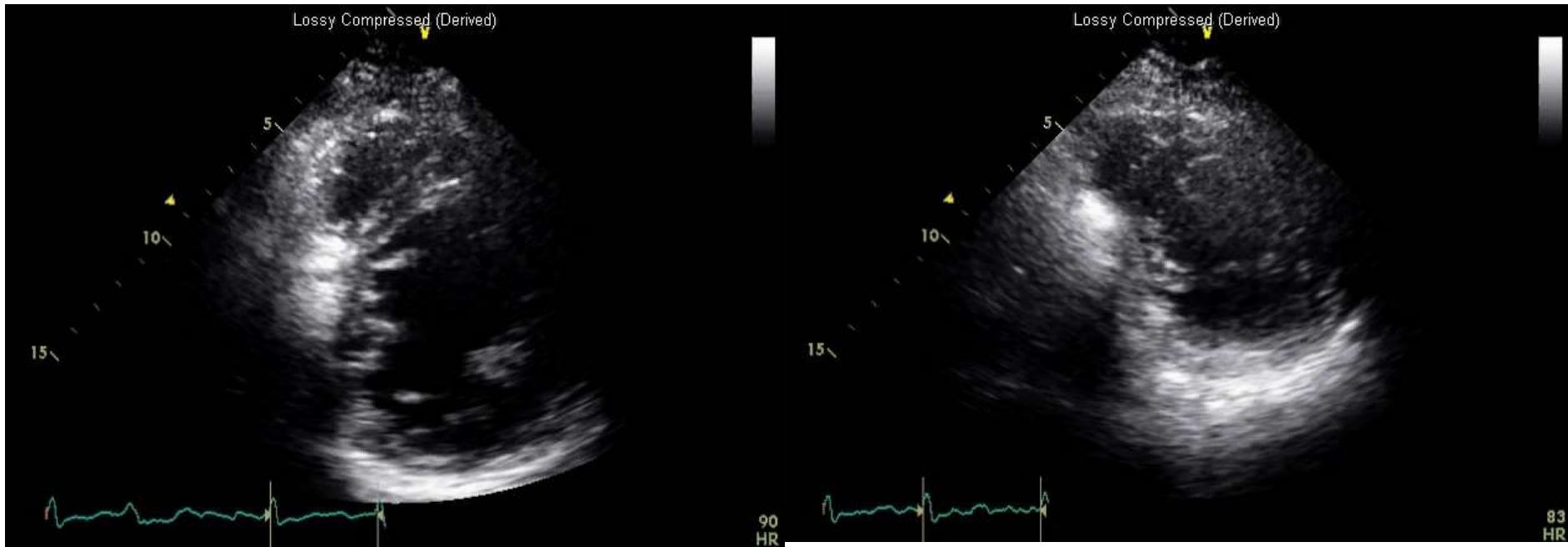
Echocardiography



<Parasternal short axis base>

<Parasternal short axis mid>

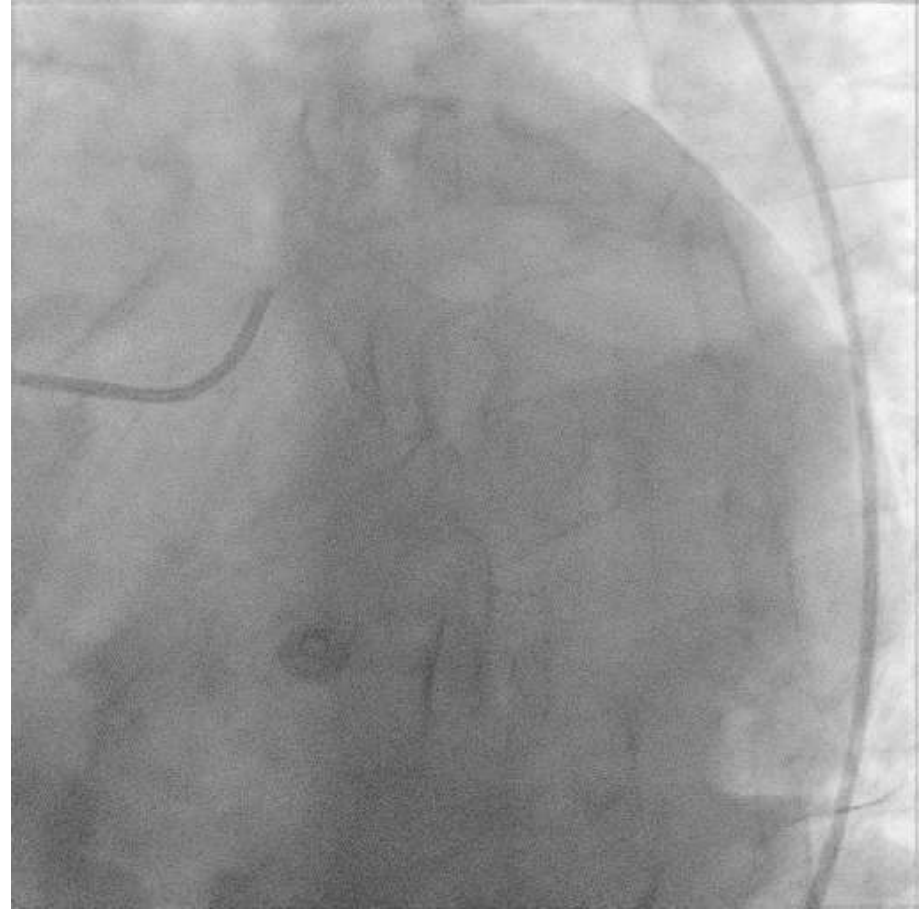
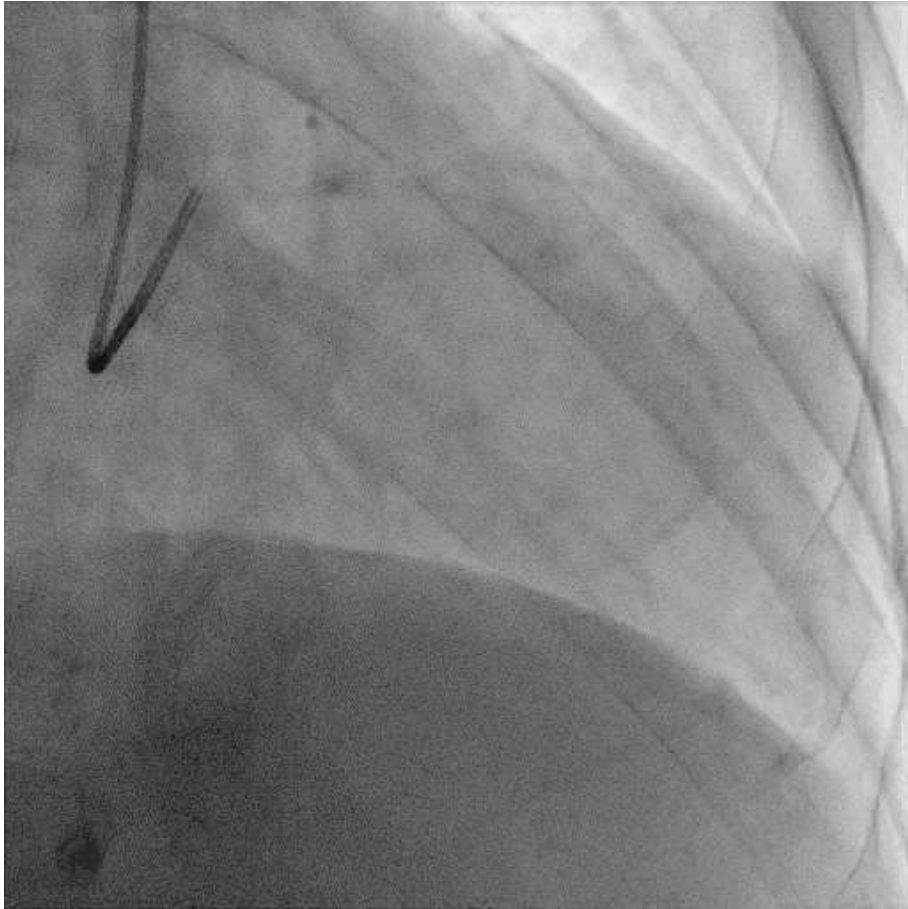
Echocardiography



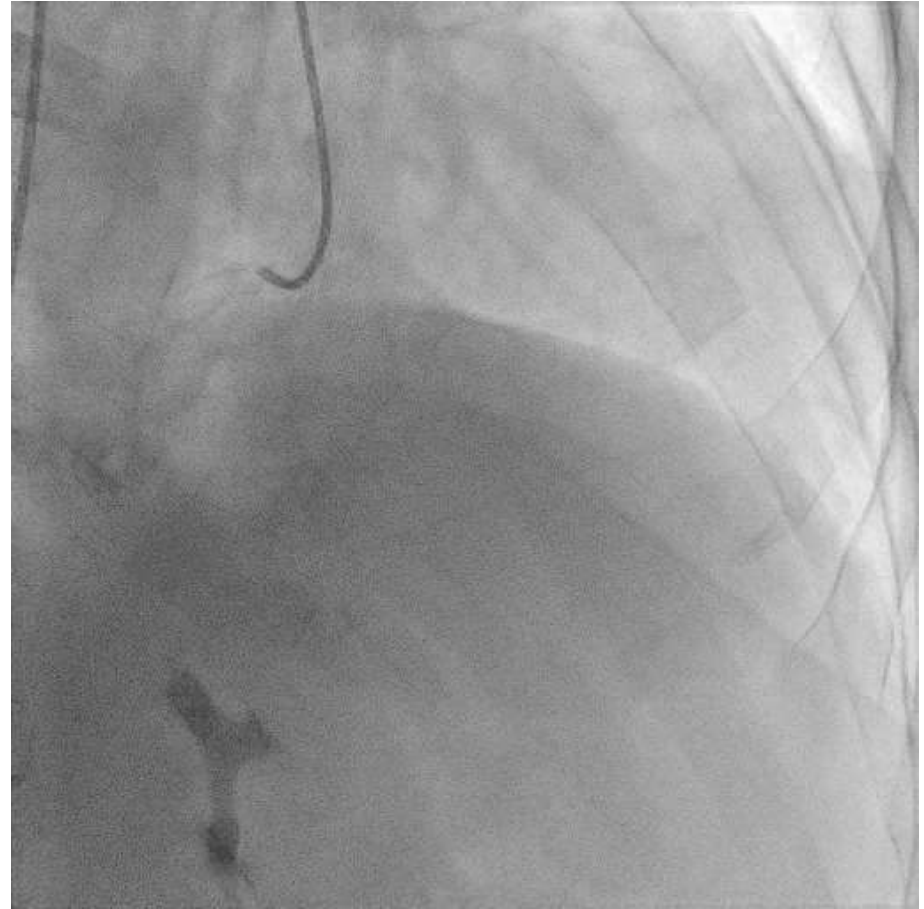
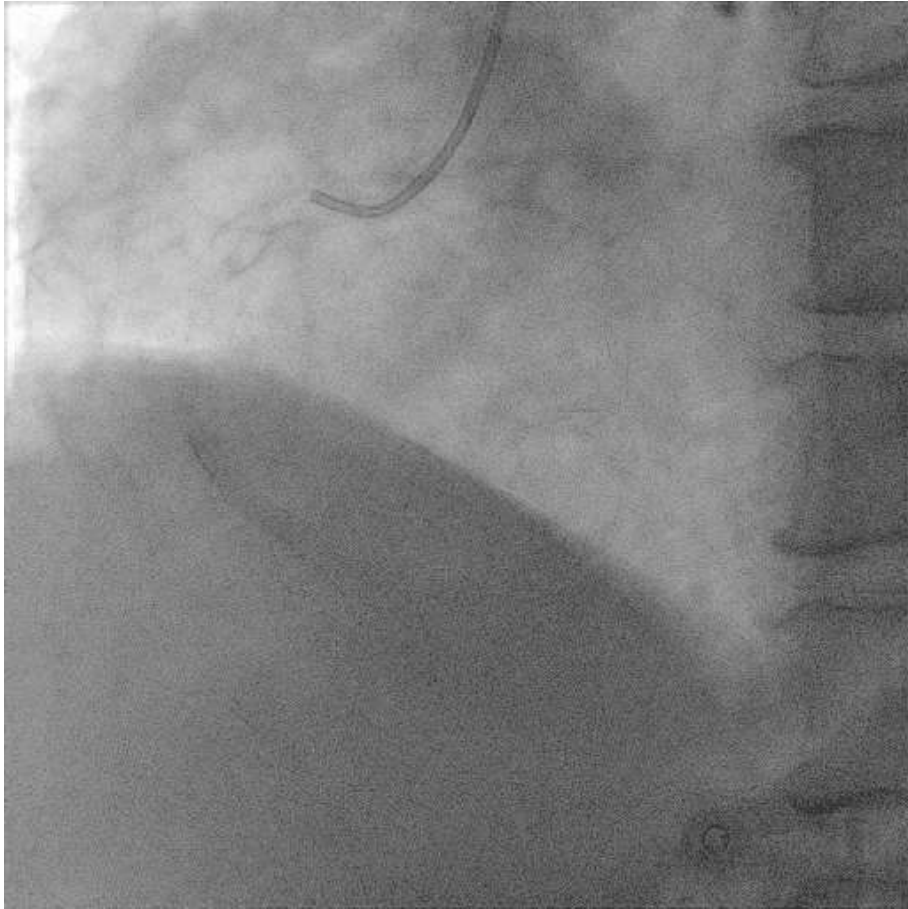
<Parasternal short axis lower mid>

<Parasternal short axis apical>

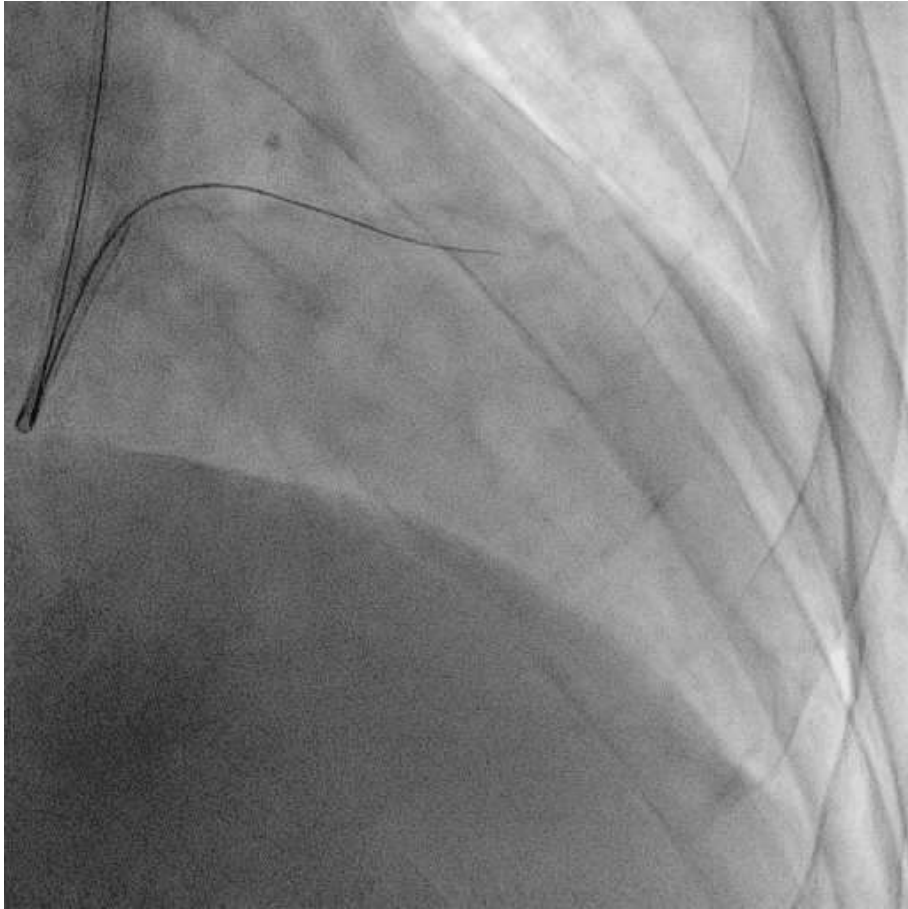
CAG: 2 month ago



CAG: 2 month ago



failed PCI 2month ago



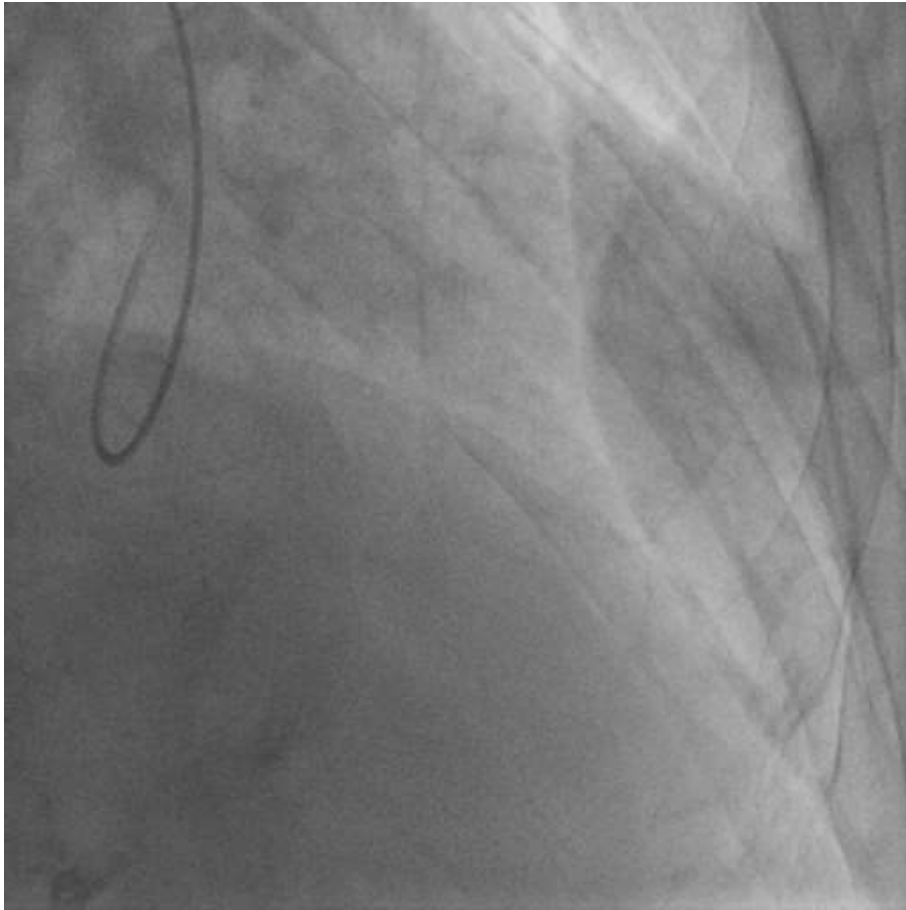
GW passing failure

Procedural notes



Lt radial approach
6Fr 12cm introducer sheath

Diagnostic CAG (4Fr AL1 sidehole)



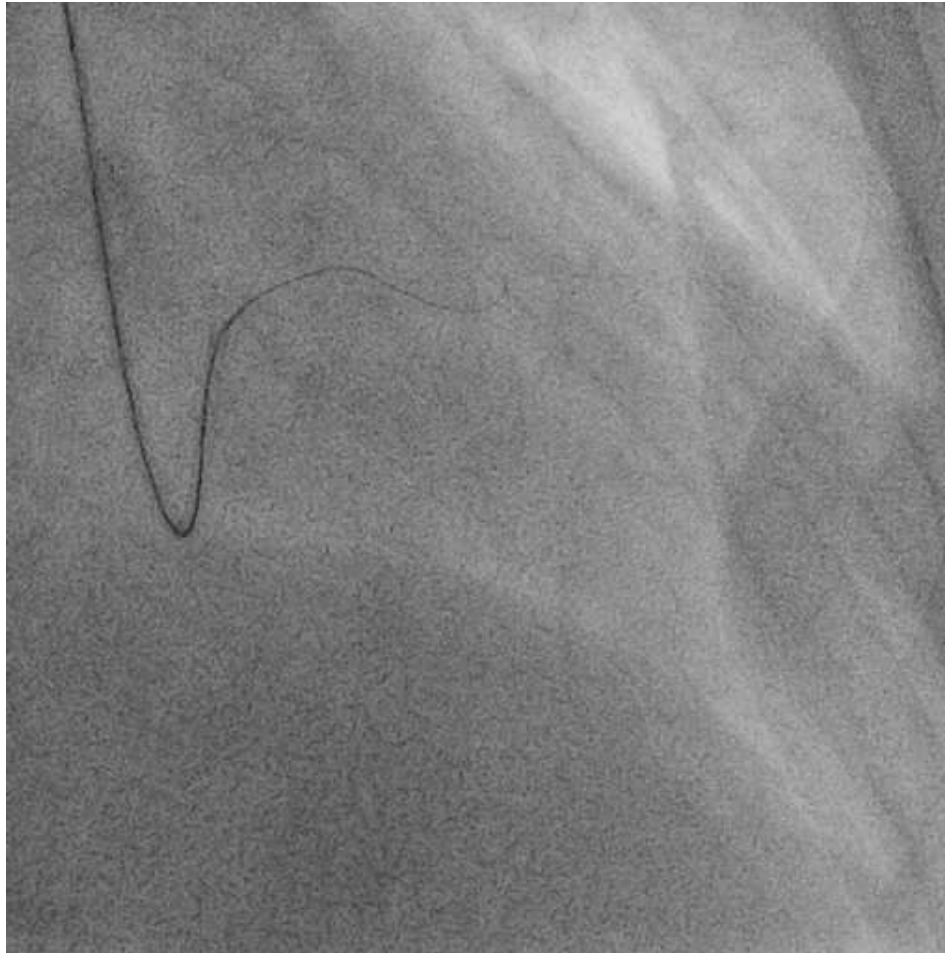
Initial plan for this lesion

- Transradial approach
- 6Fr XB guide
- Microcatheter assisted Filder XT guidewire

Wire passing

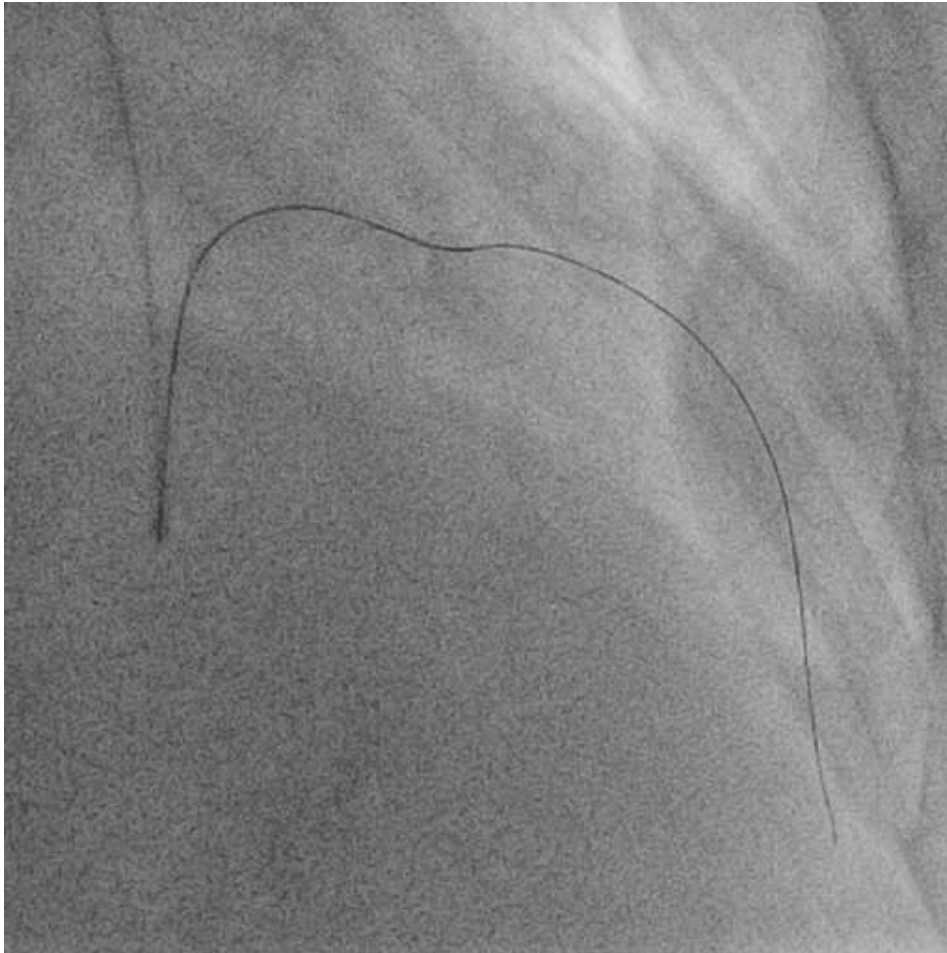
Fielder XT + Carnelian microcatheter

6F XB



Microcatheter advancement

→ Balloon passing failure (Fine 1.0/10)



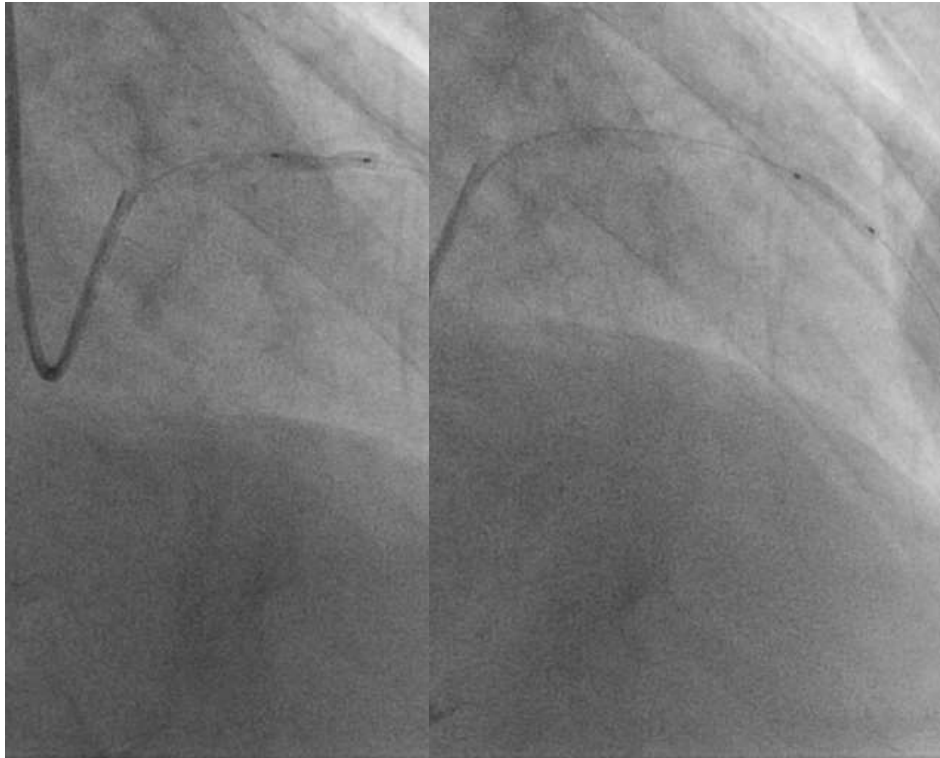
Rota for calcified lesion assisted with caravel microcatheter



Rotablation atherectomy (1.25mm burr)



Balloon predilatation



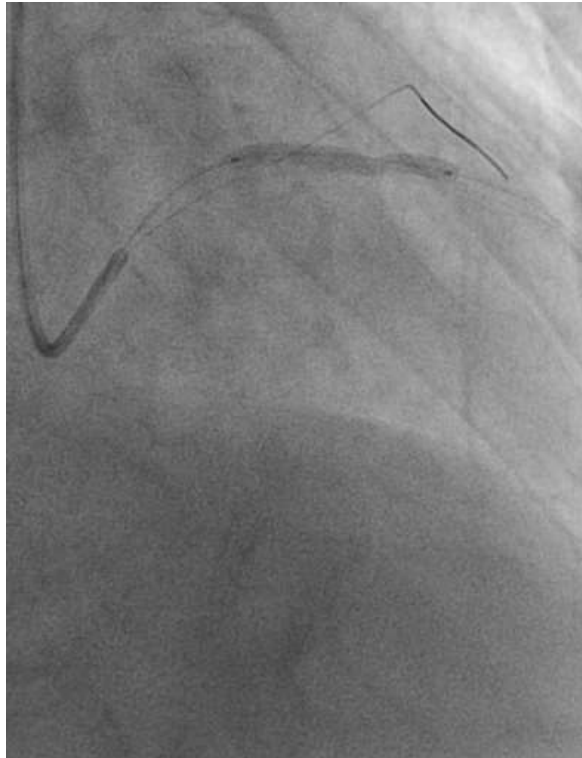
Fine 2.5/15 mm (15 ATM)



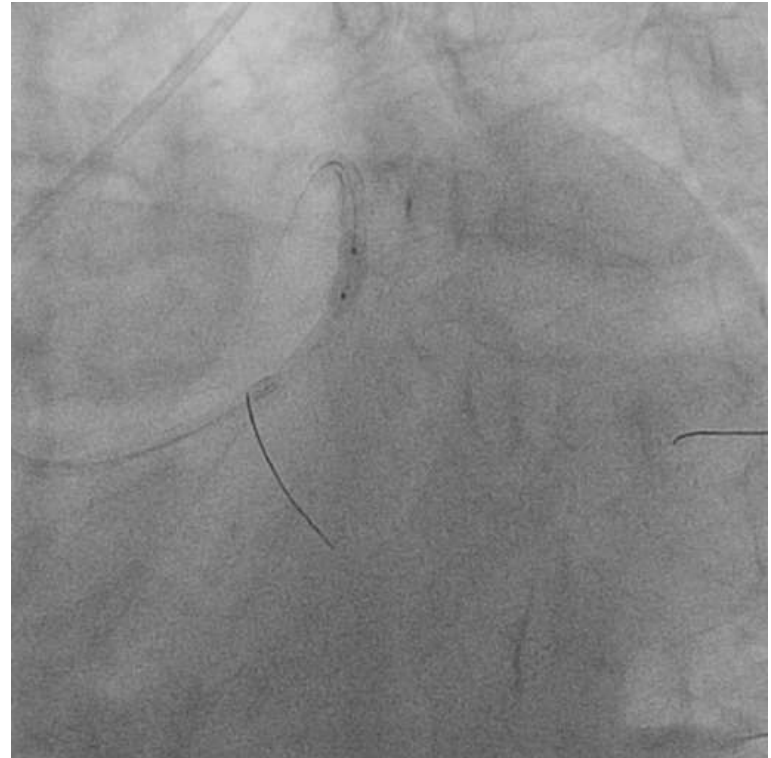
Stent implantation



Genoss 2.5/28mm

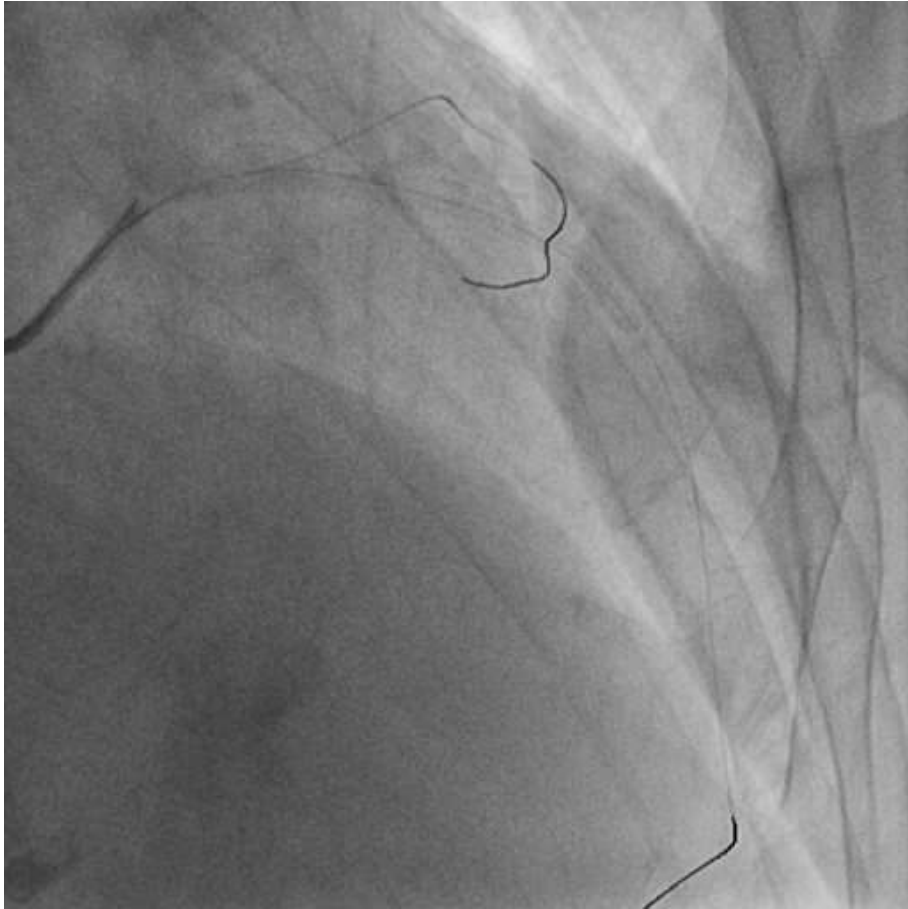


Genoss 3.5/28mm



Fine NC 4.0/10 (12 ATM)

Final angiography



FU Chest x-ray



Case Summary

- Near total mLAD lesion with heavy calcium in pts with ischemic heart failure
- Failure to cross the lesion with 1.0mm balloon
- Rota burr compatible with 6F guide for lesion modification.

Post-stenting IVUS

