中國醫藥大學附設醫院
China Medical University Hospital

LM stenosis & LCX-CTO : a case report

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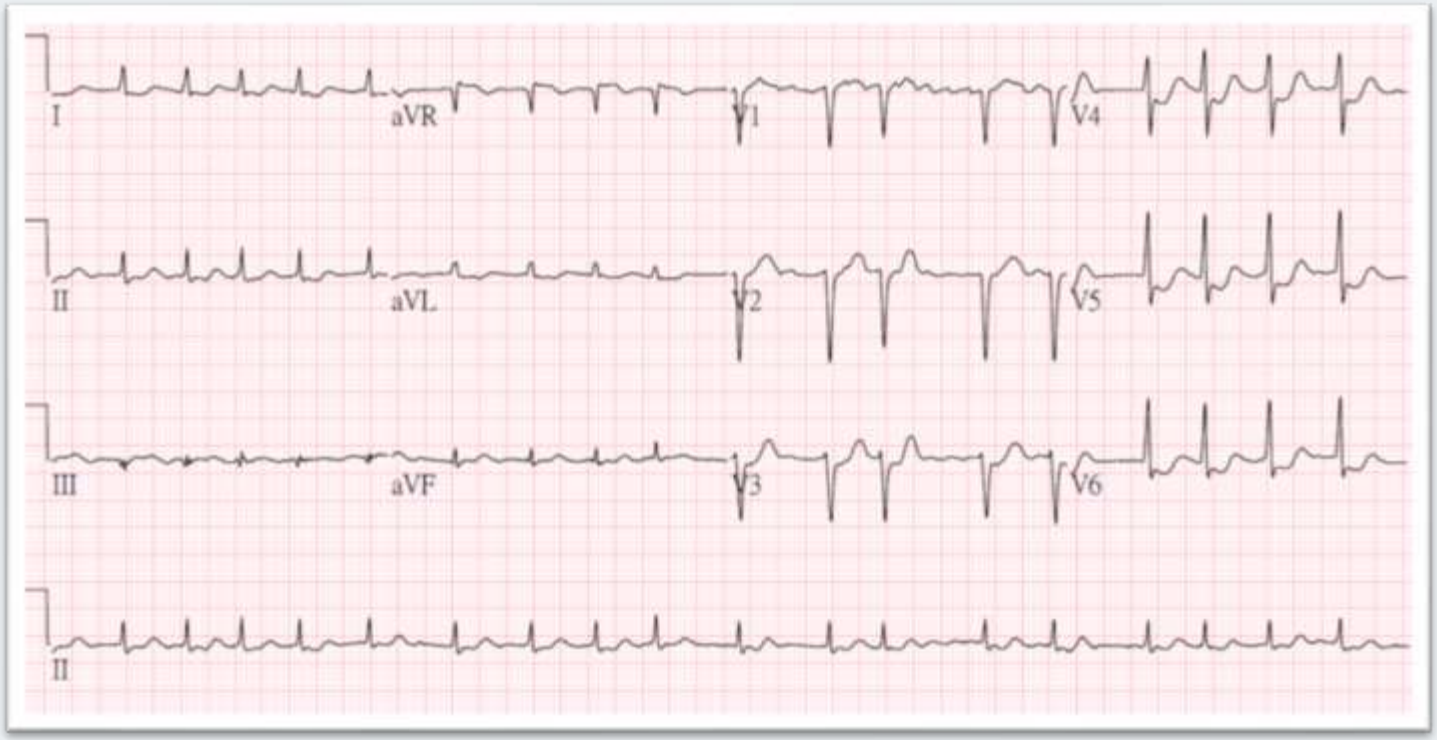
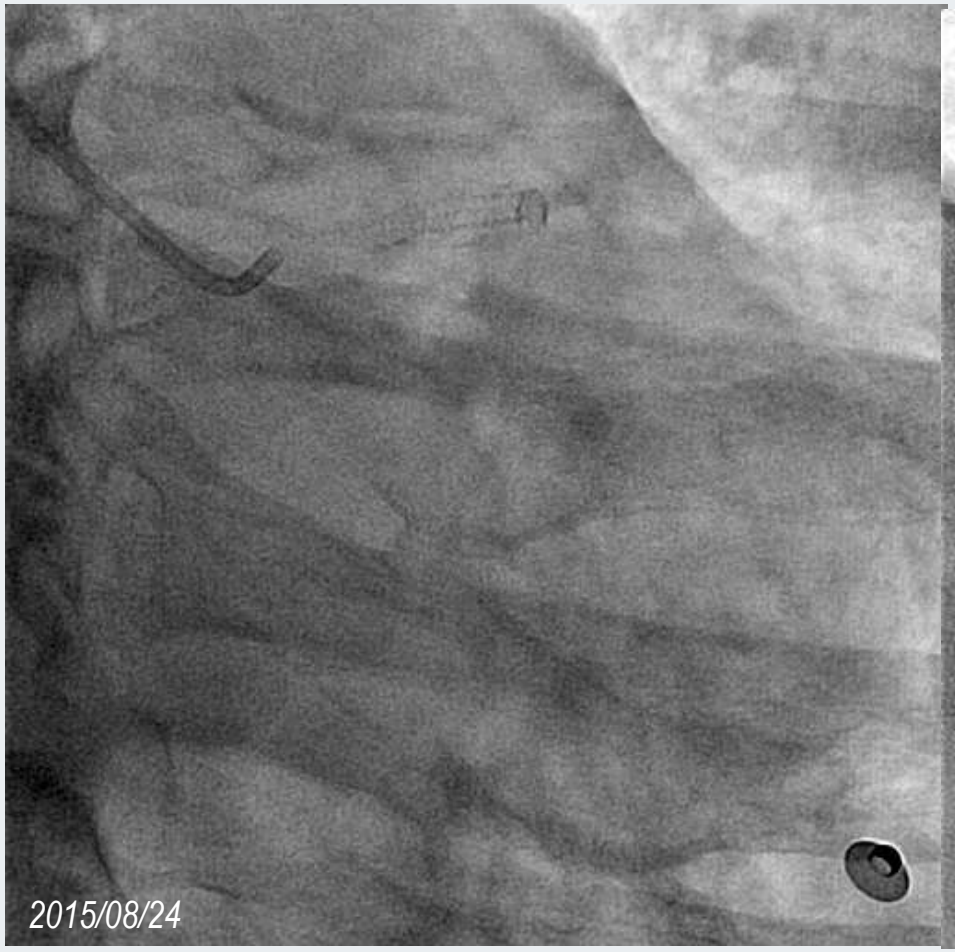
A 73 y/o male, acute chest pain at 9 am.

- PH: HTN, DM, Hyperlipidemia, Atrial fibrillation, Old inferior wall MI
- ECG (40min after symptoms onset):

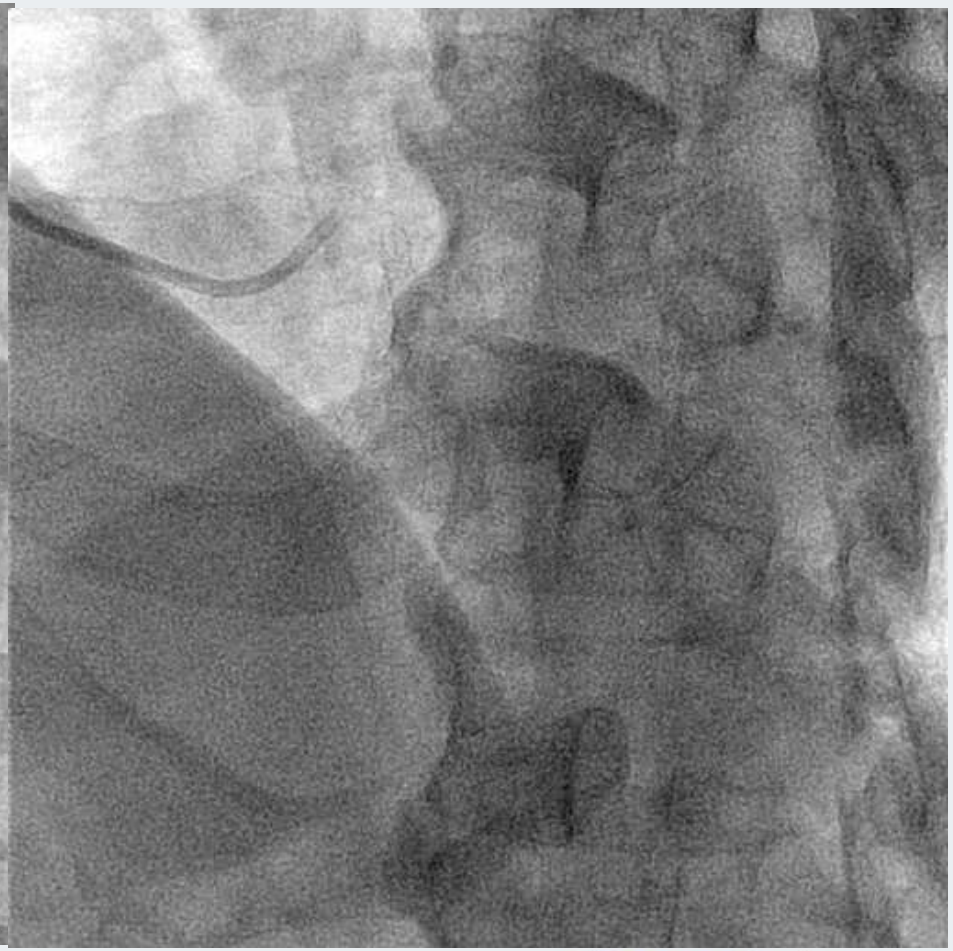


Cath at 11:10 am

- *Diffuse stenosis of LM*

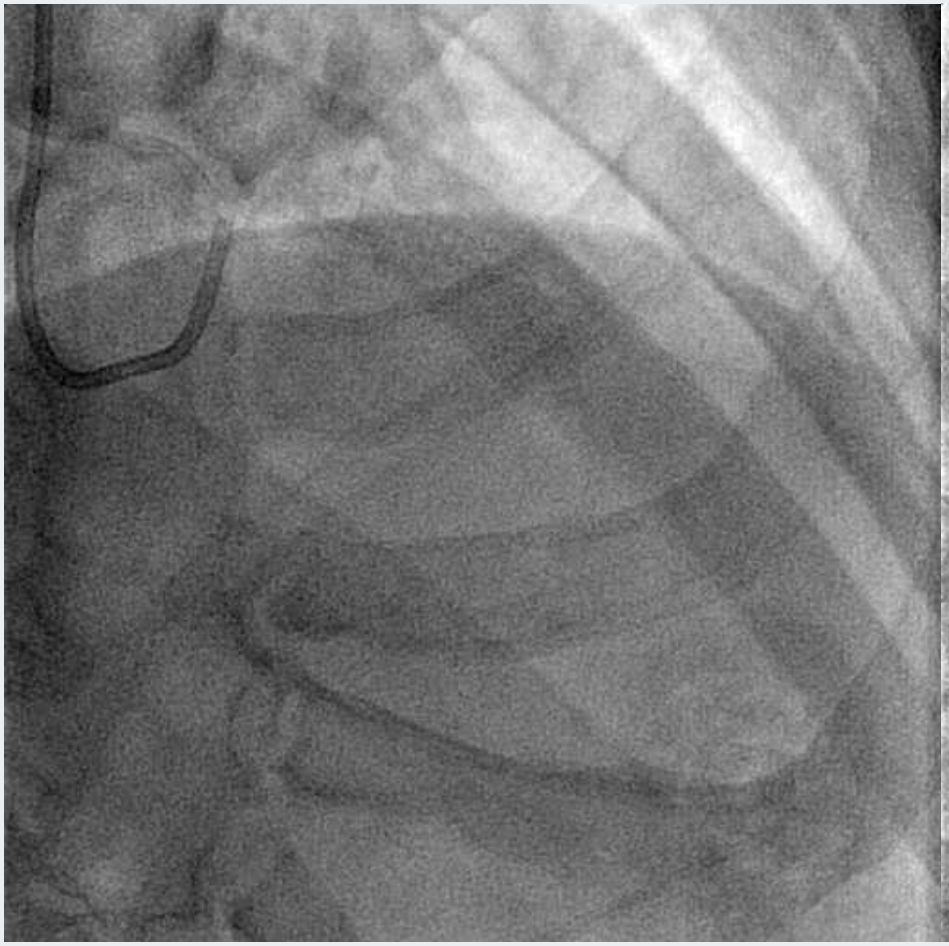


- *Diffuse ISR at proximal-mid LAD*

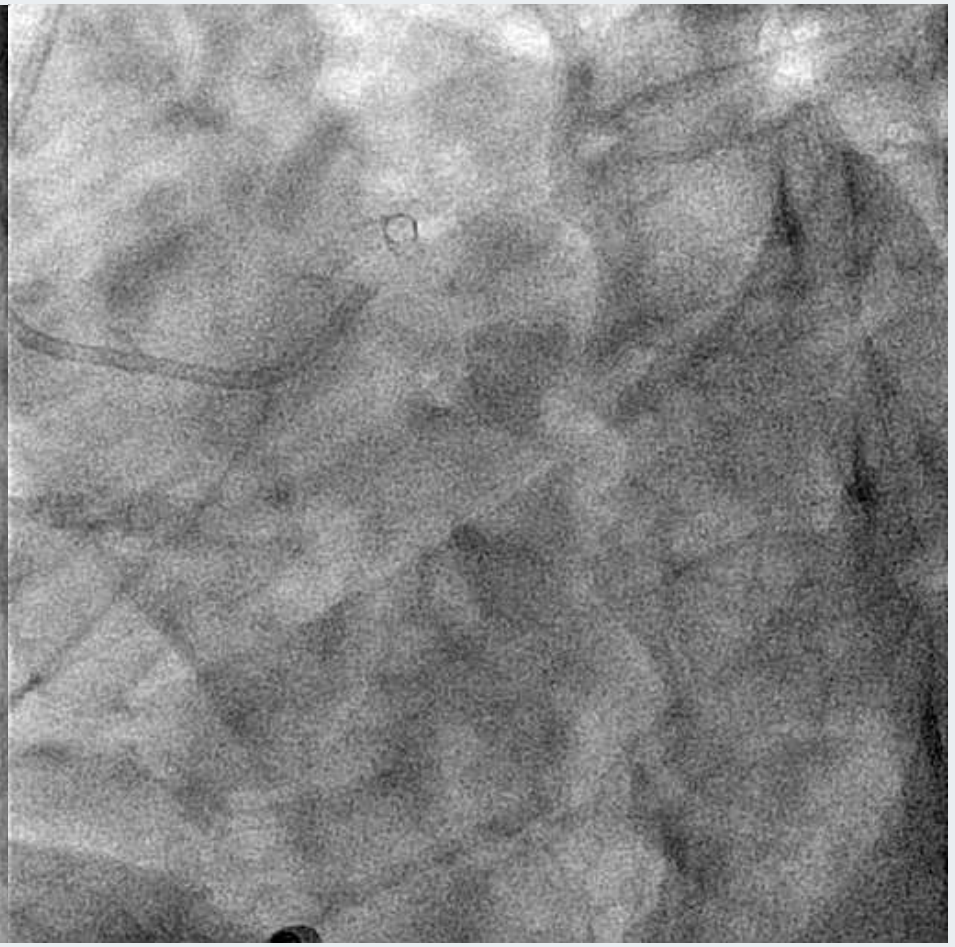


- *CTO at distal CX*

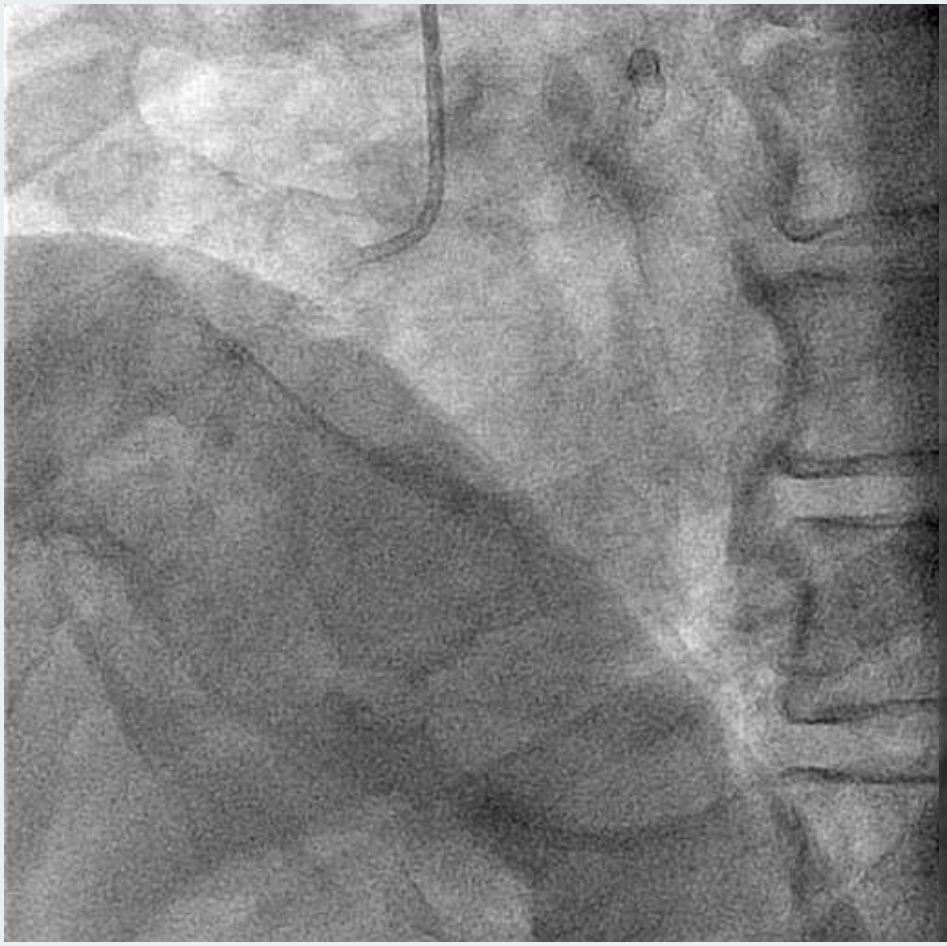
Bridging collateral at Dx-os

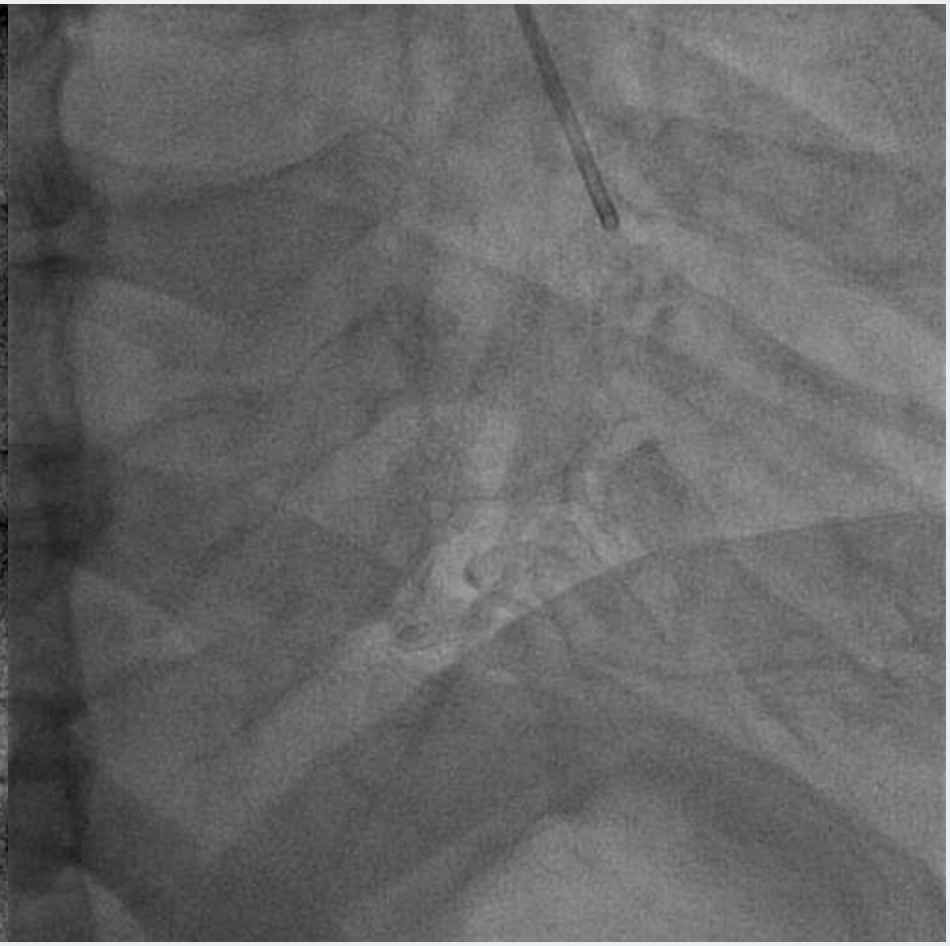


CX ostium was OK



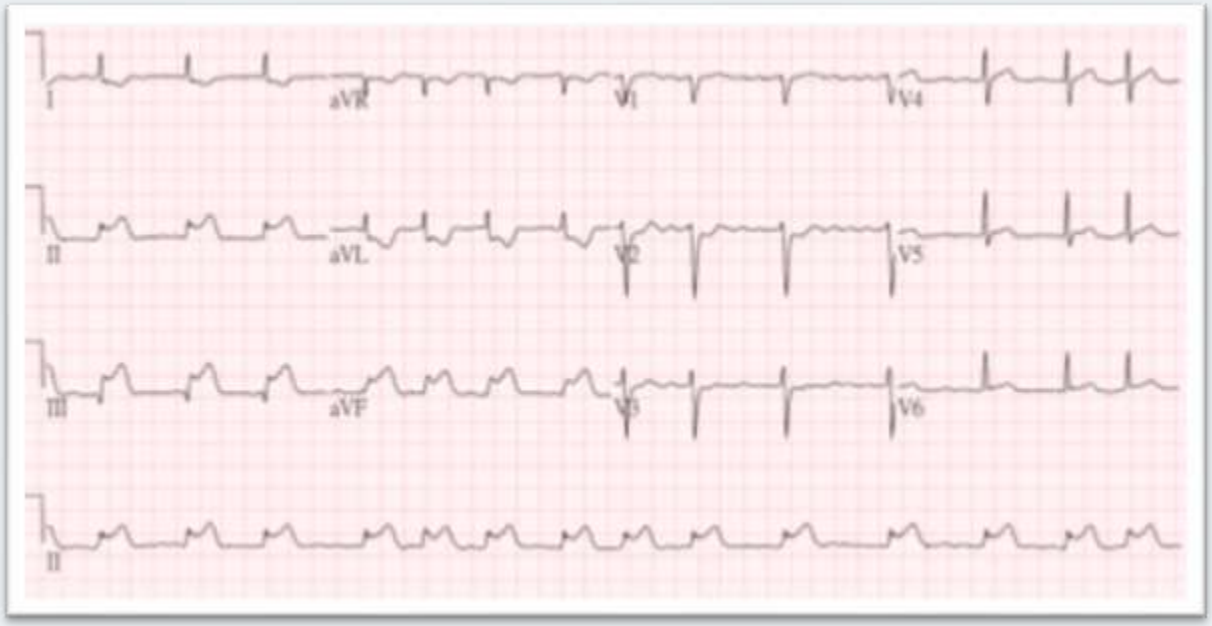
- *Ostial stenosis of RCA*
- *Good collateral to distal CX*



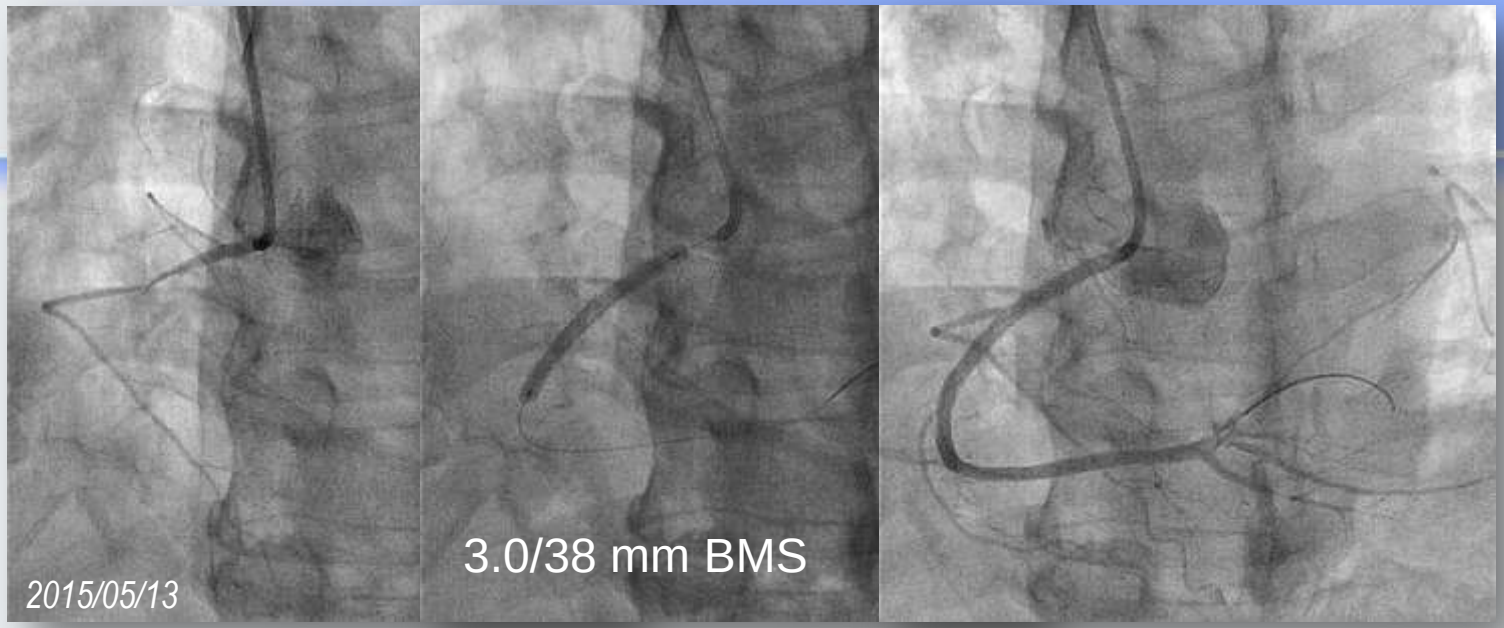


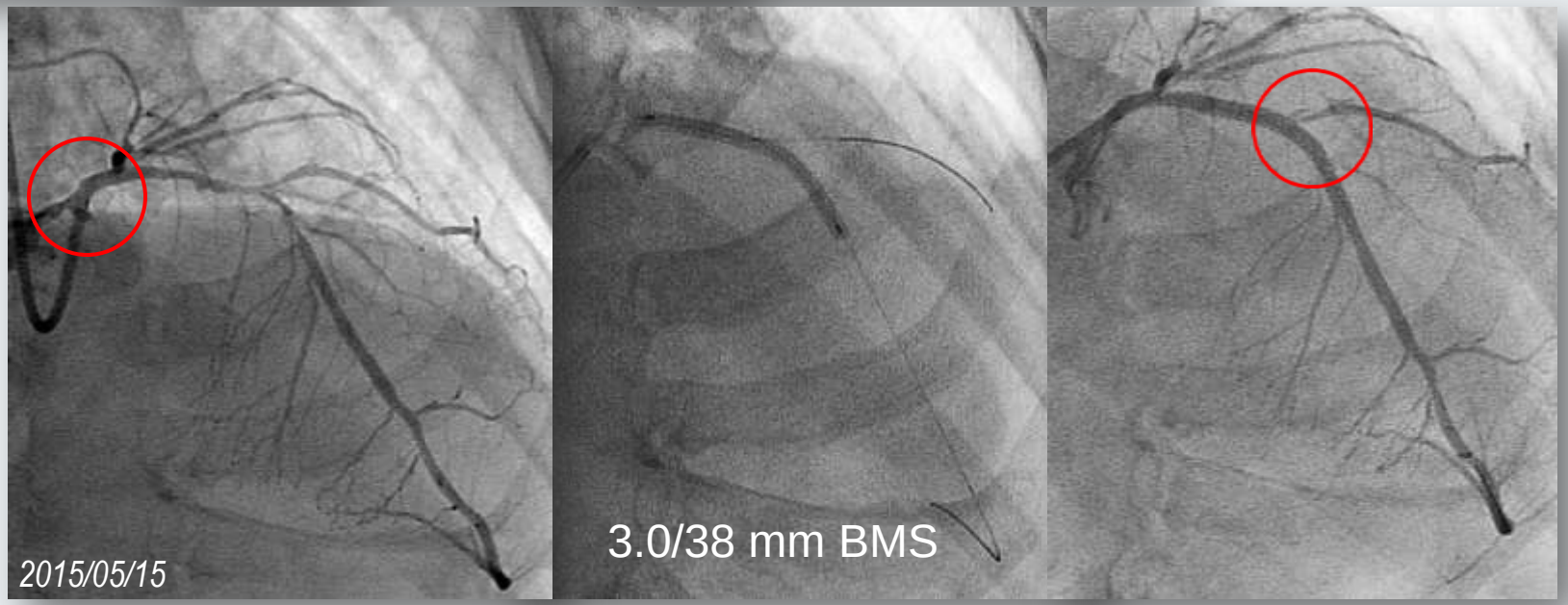
Relevant Past History

- AMI, inferior wall, 3.5 months ago.



- CAD 3V, including CTO of LCX.
- Primary PCI to RCA (BMS), S2B = 220min, LVEF = 50%
- Elective PCI to LAD 2 days later (BMS)
- DAPT for 1 month, then Ticagrelor & NOAC


2015/05/13
3.0/38 mm BMS


2015/05/15
3.0/38 mm BMS

Summary

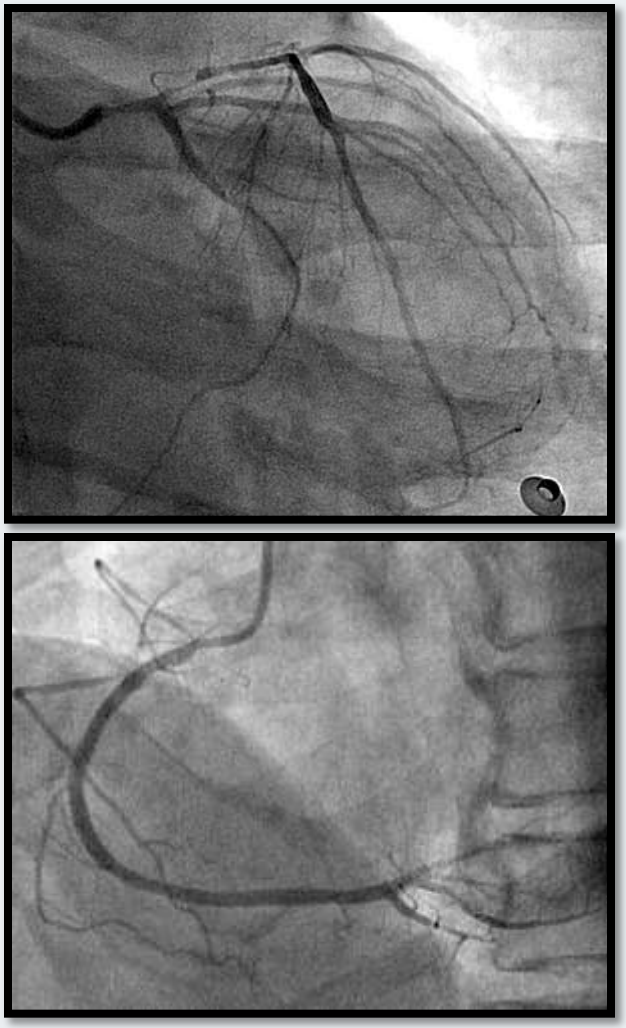
- NSTEMI
  - LM + CAD 3V, with CTO of LCX, and ISR of LAD & RCA
  - Troponin I : 5.8 ng/ml (N < 0.5)
  - LVEF : 44%, (63/47mm)
  - Syntax score : 34.5
  - STS score : Mortality 1.87%
    Morbidity or Mortality 21.59%

- Recommend CABG
- Admitted to ICU with Heparin/NTG infusion

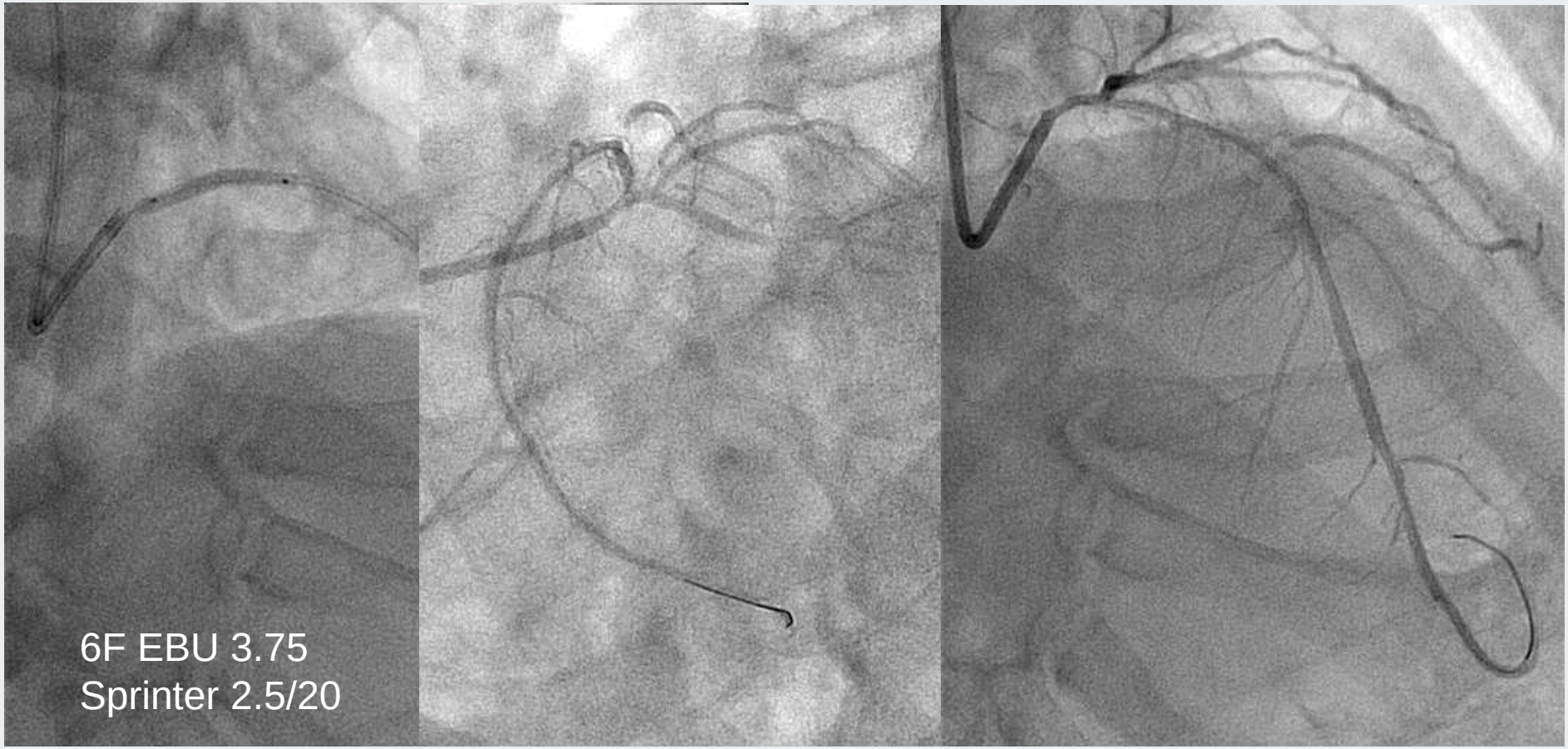
PCI 3 days later

Complete revascularization if possible

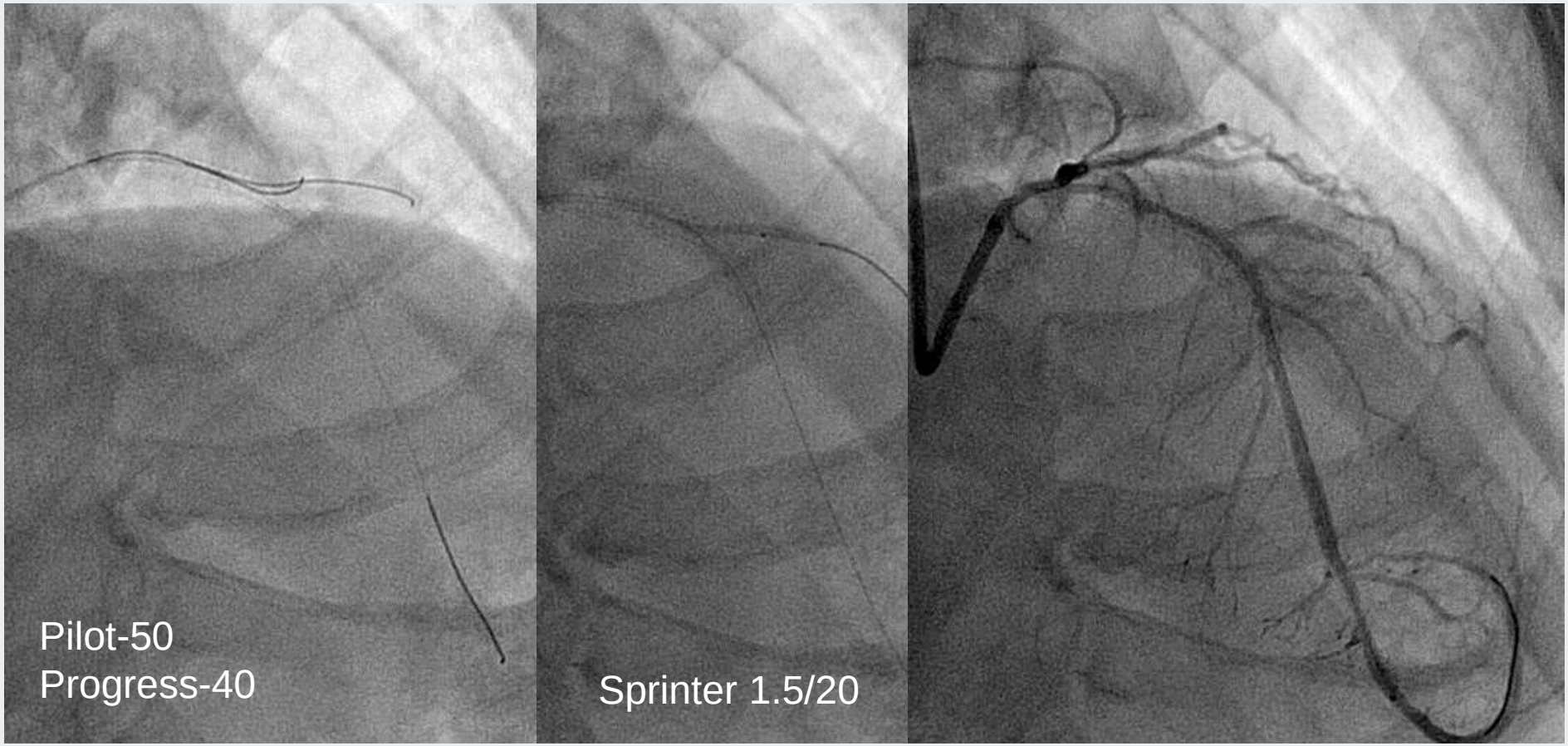
- Which lesion first ?
- One session or two ?
- Radial or femoral ?
- IABP ?
- One stent or two stents for LM ?
- CTO-LCX : Antegrade or retrograde ?



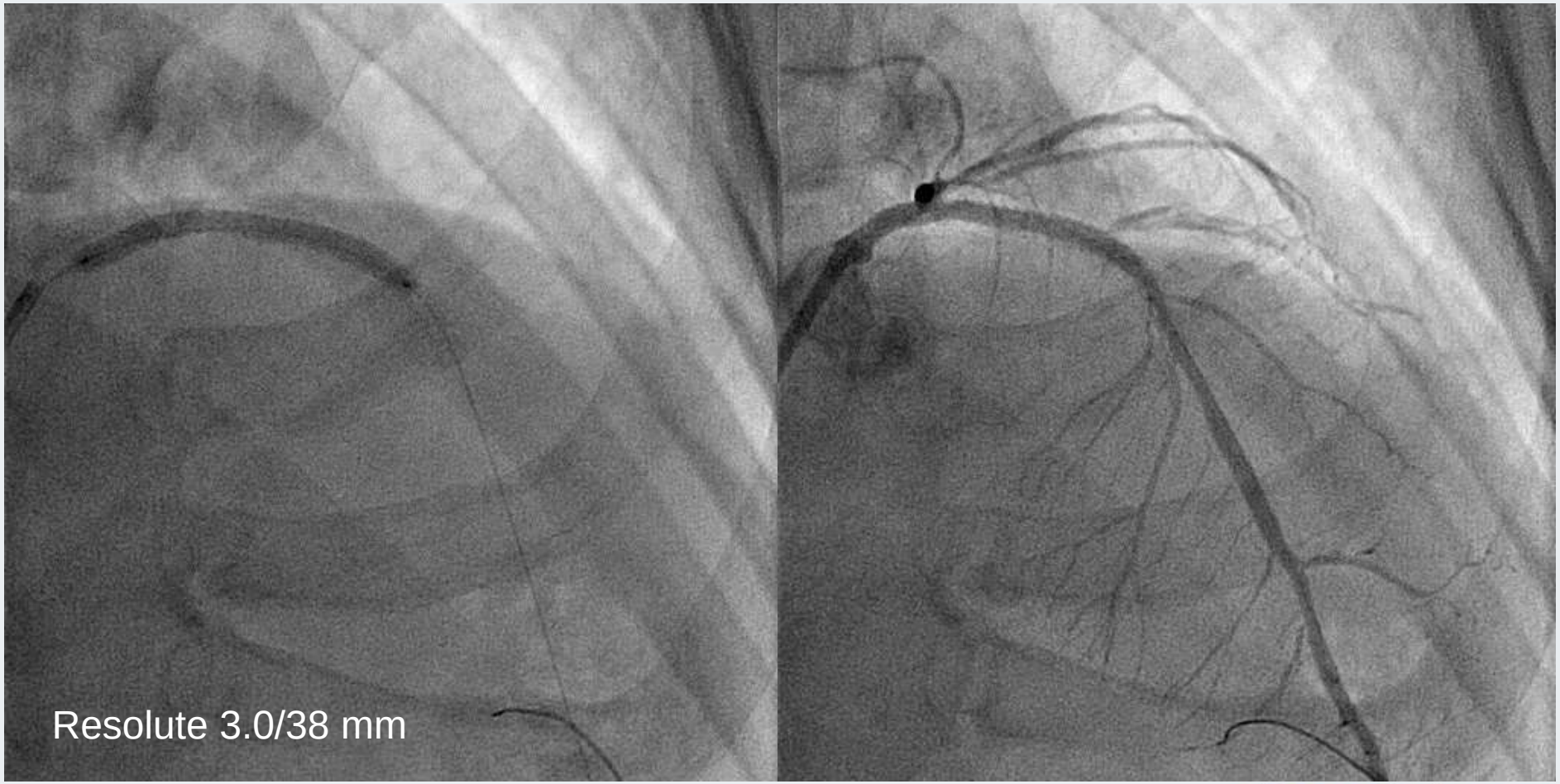
Firstly: Dilated LM with a small balloon



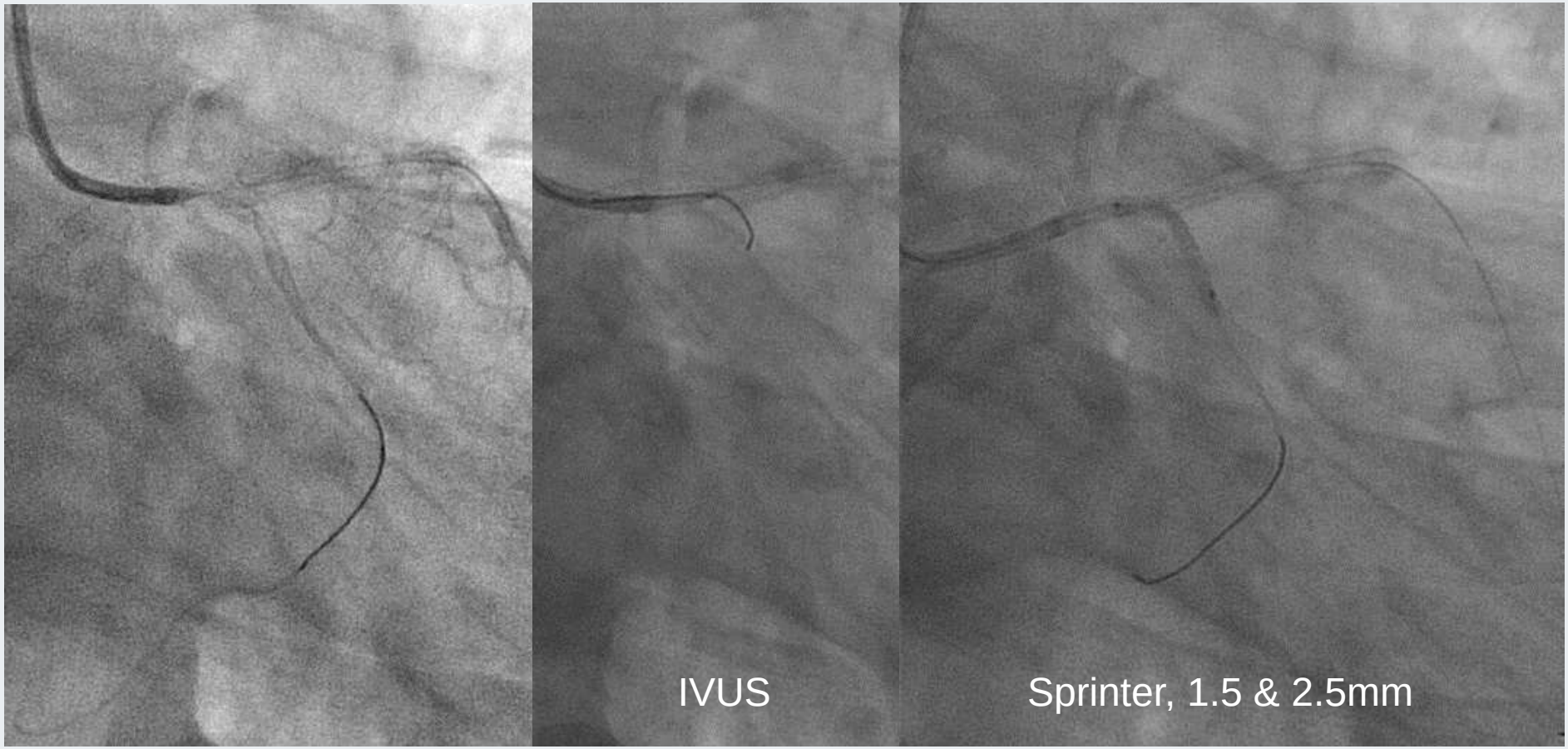
Tried to treat Dx but failed

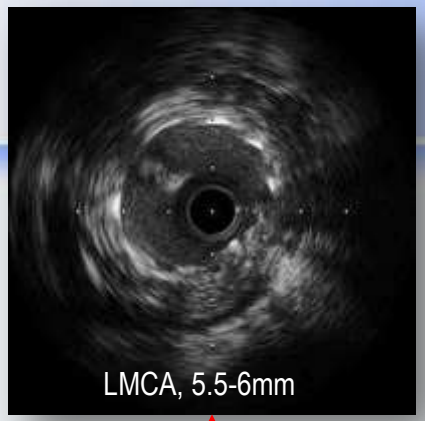


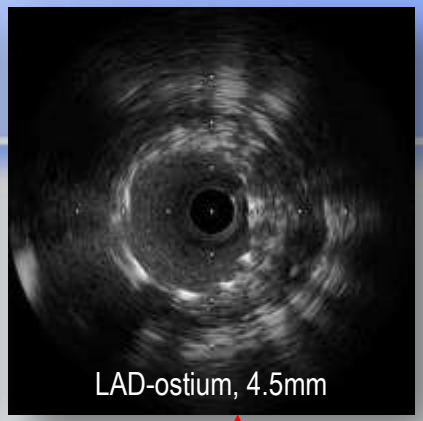
A long DES from LM-ostium

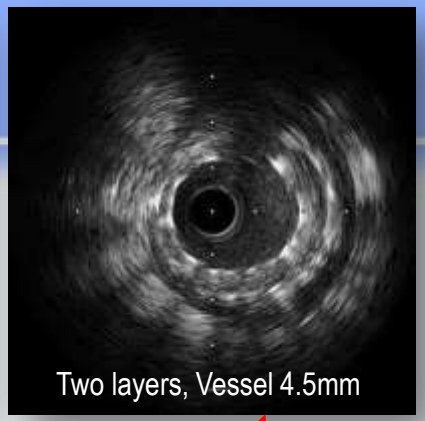


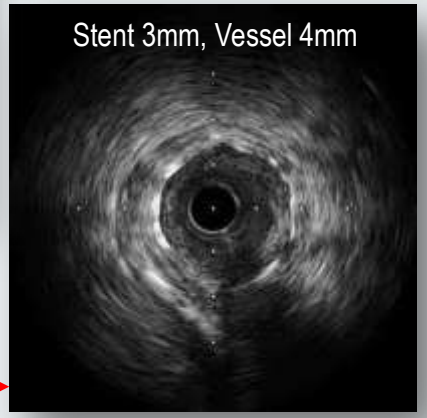
Wiring of CX through distal cell, confirmed by IVUS

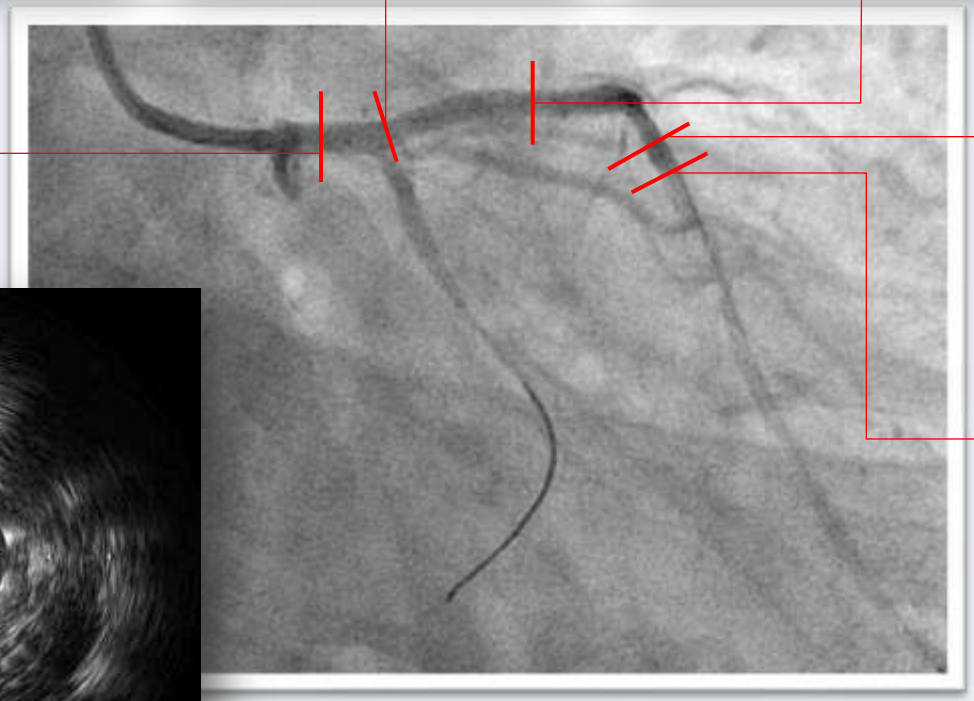


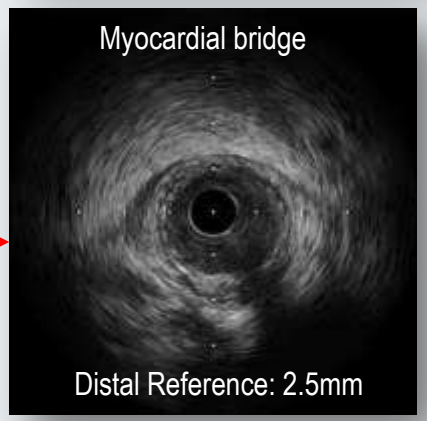


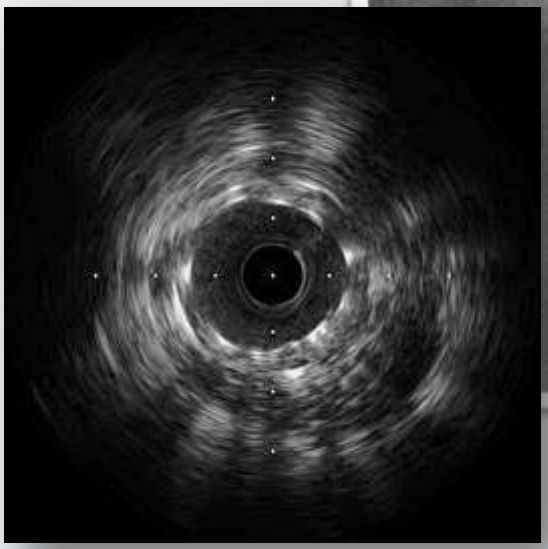






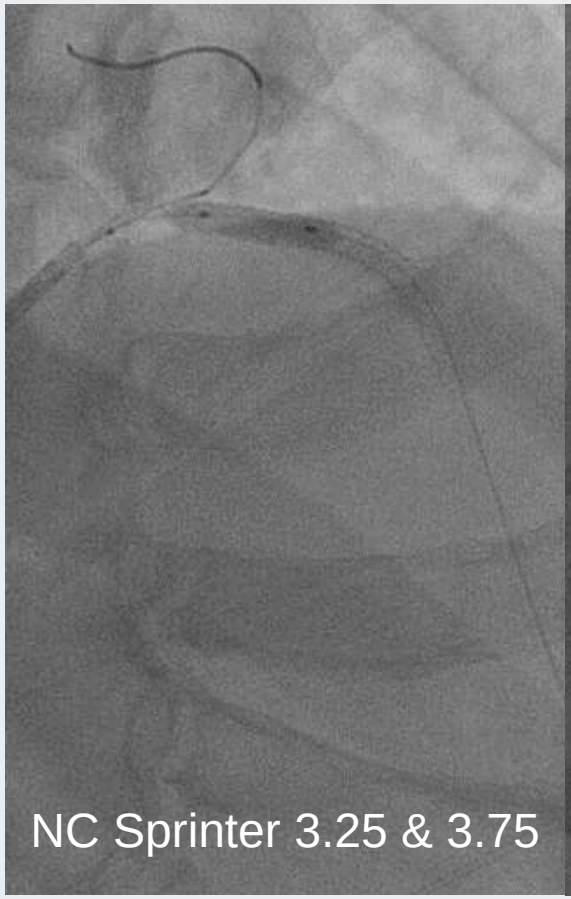


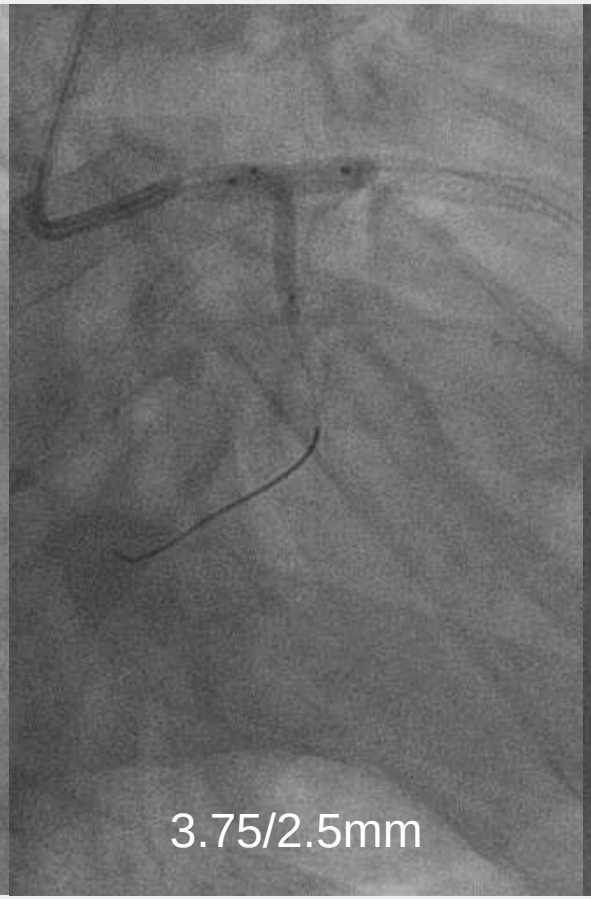


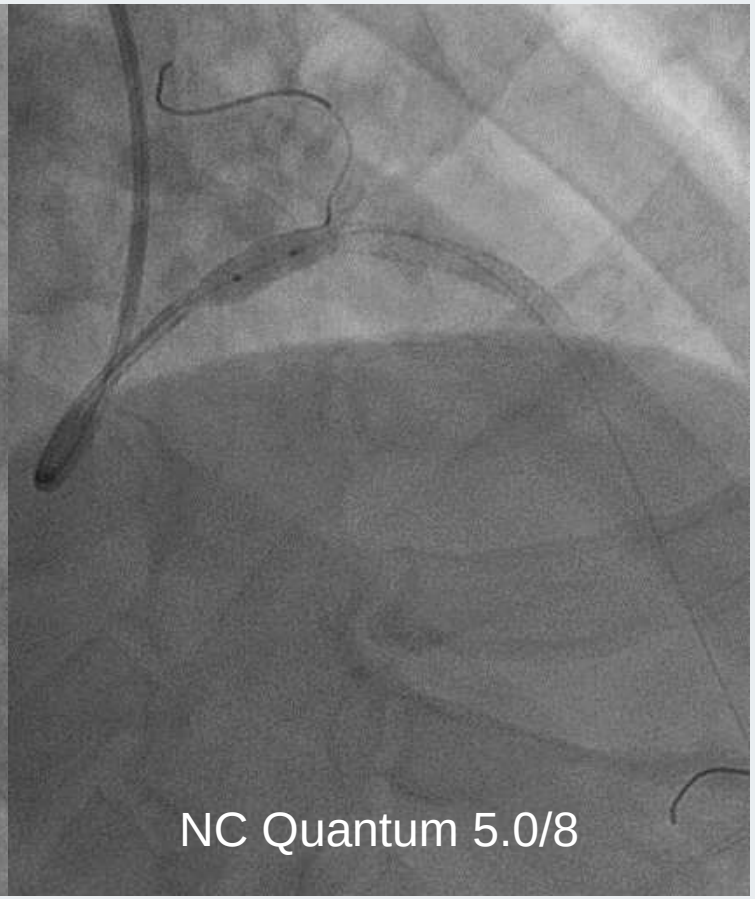


Crossed the proximal cell

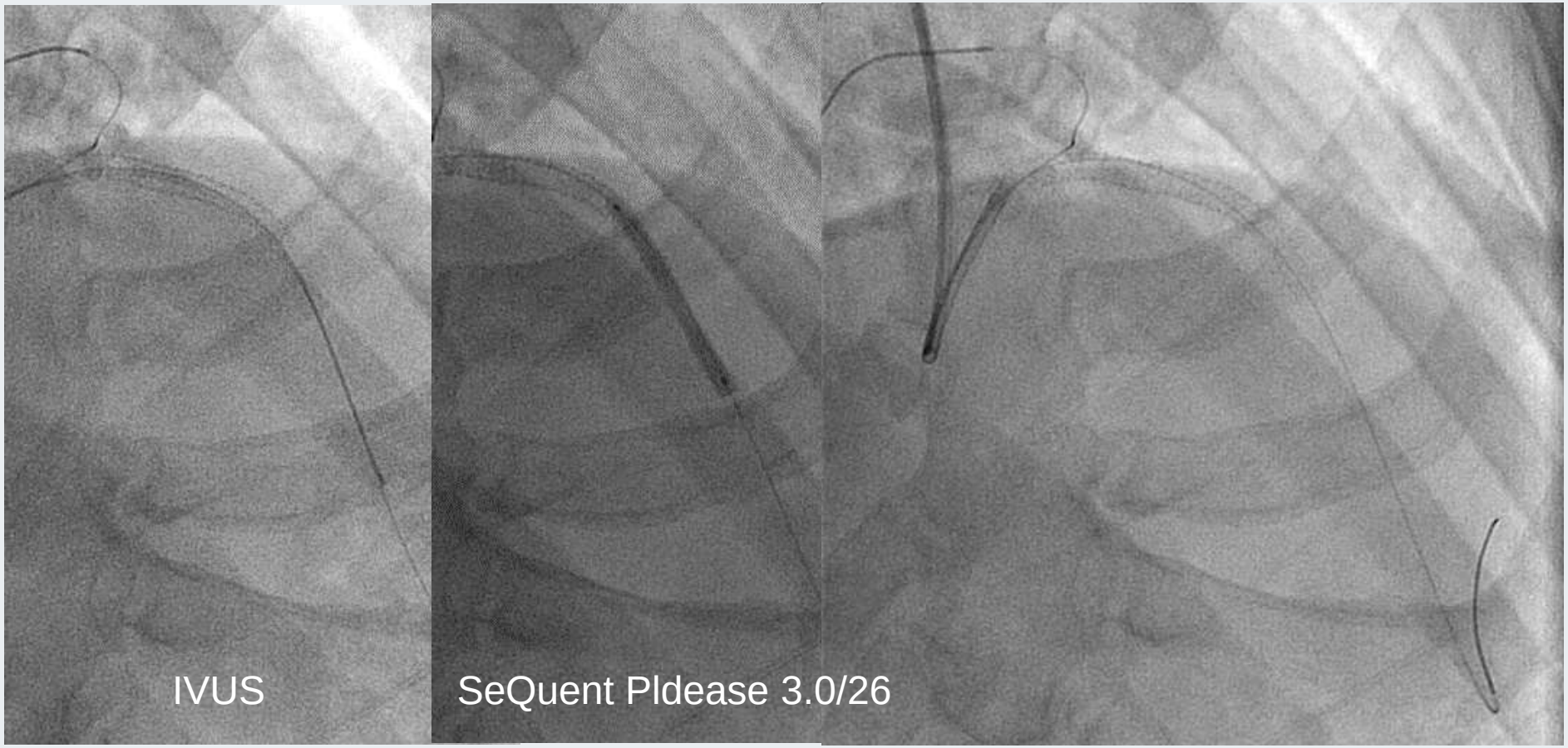
Optimized the LM-LAD stent by KBT & POT


NC Sprinter 3.25 & 3.75

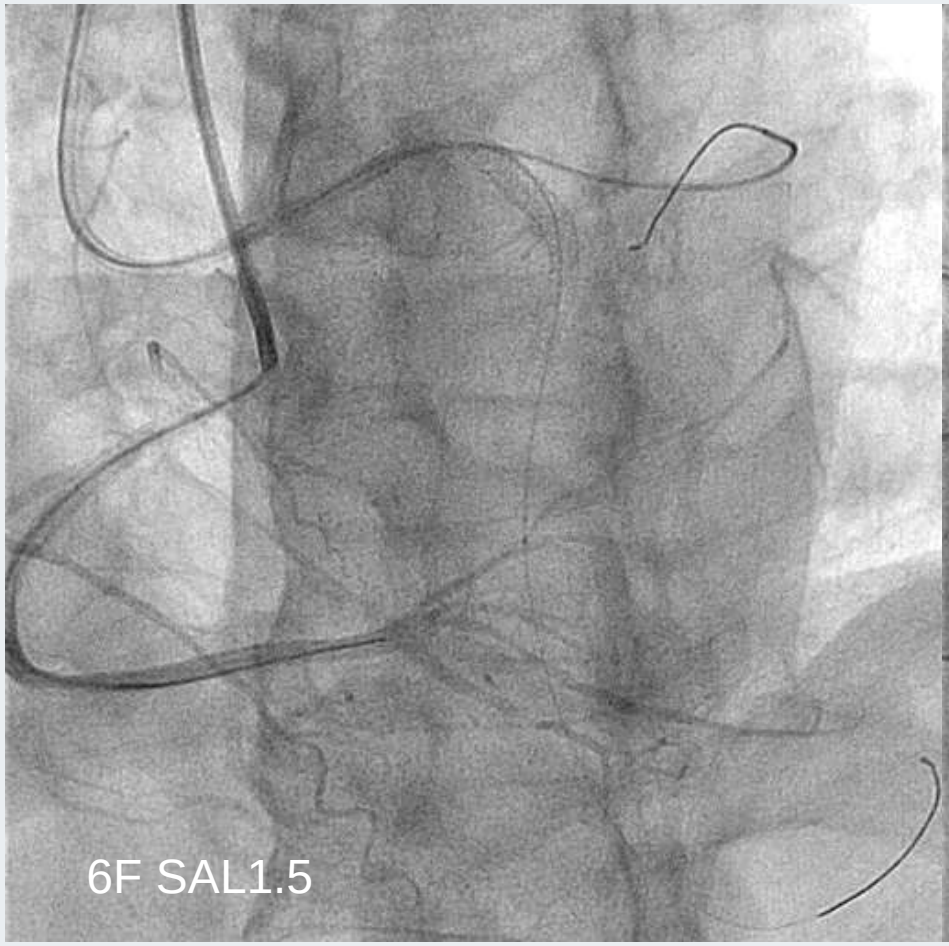

3.75/2.5mm

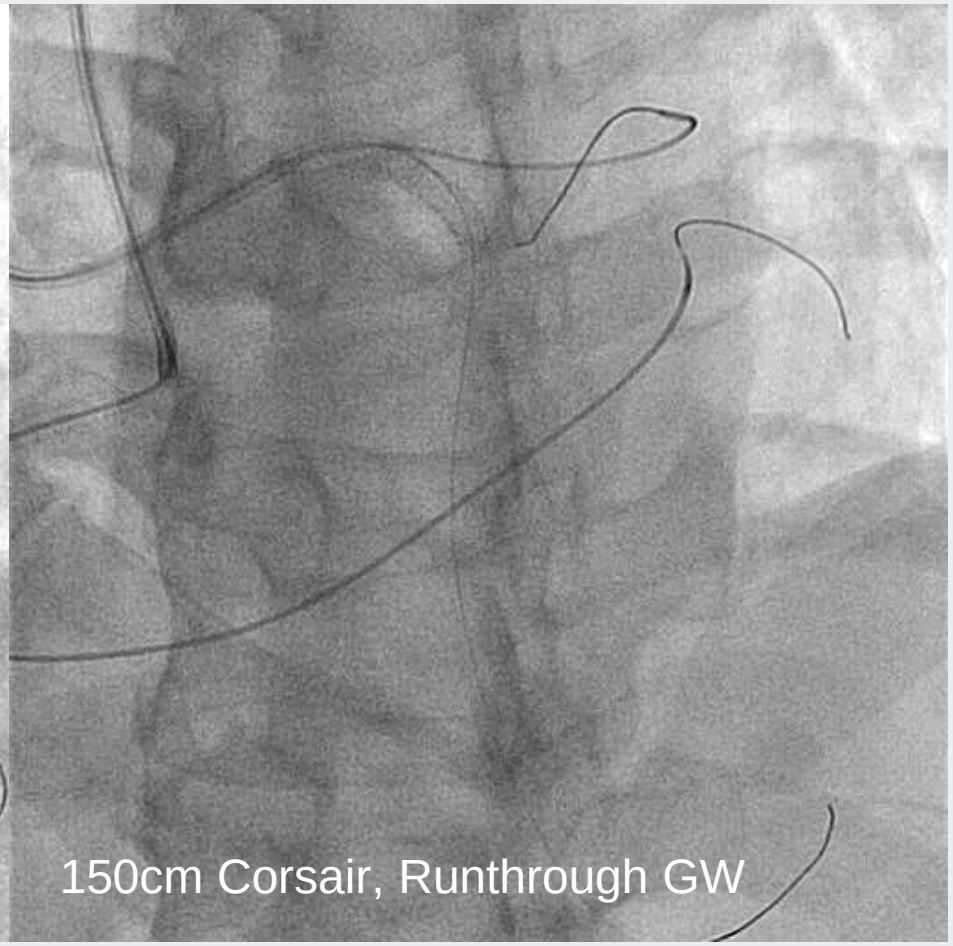

NC Quantum 5.0/8

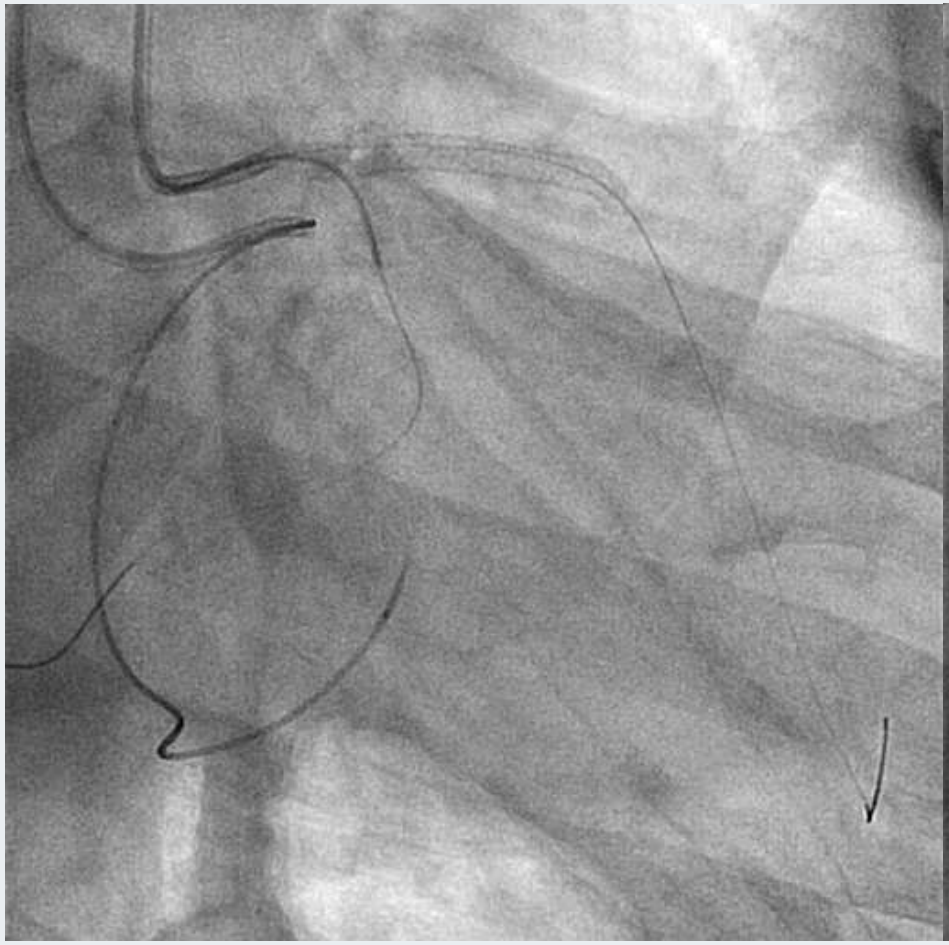
To treat residual lesion of LAD (ISR) with a DEB

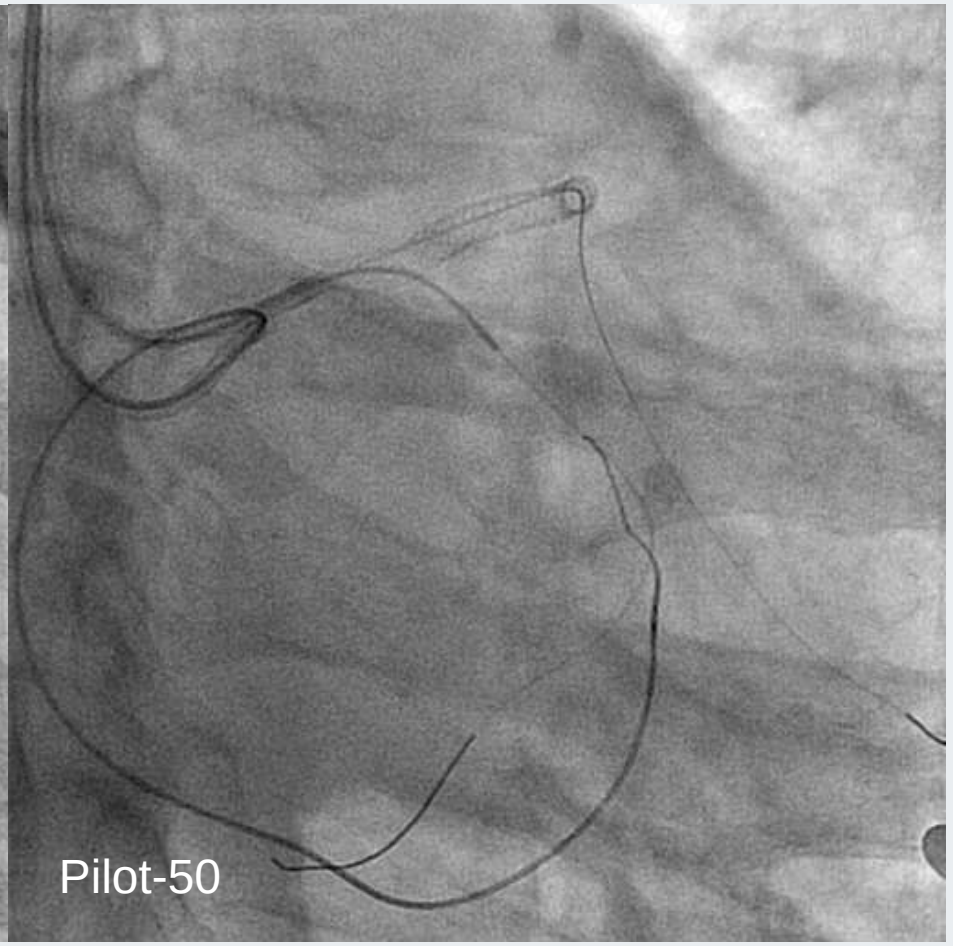


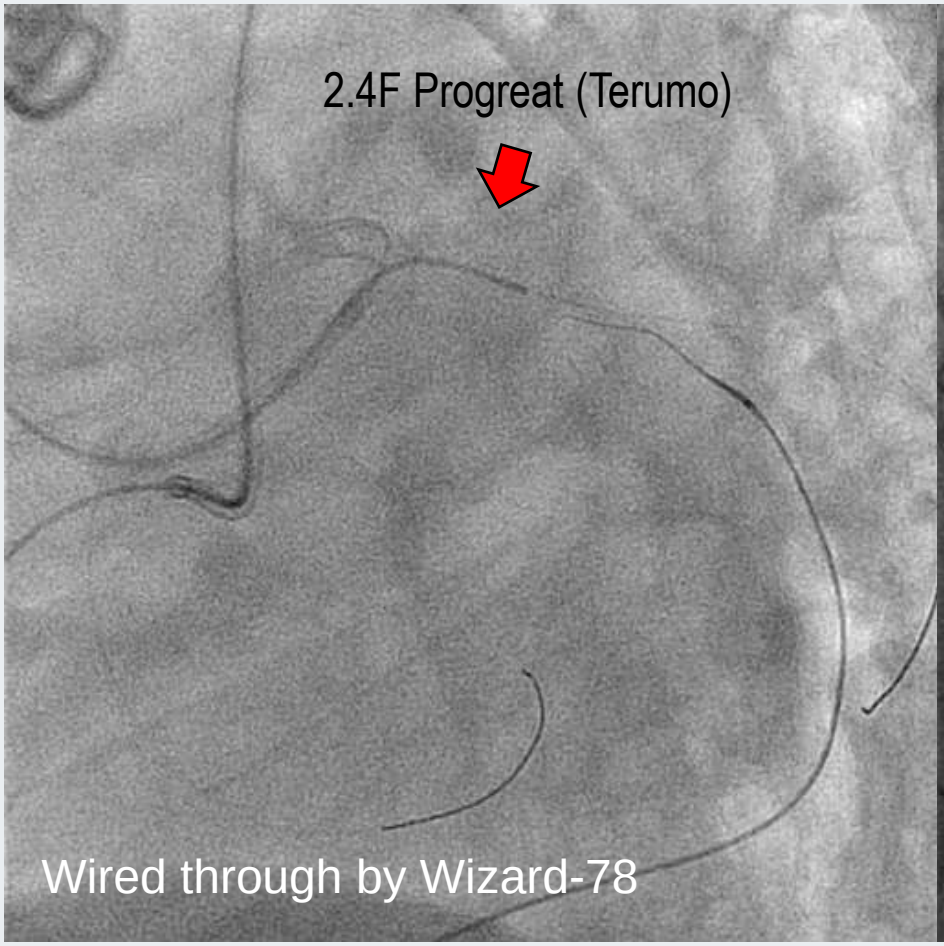
Retrograde approach of LCX-CTO

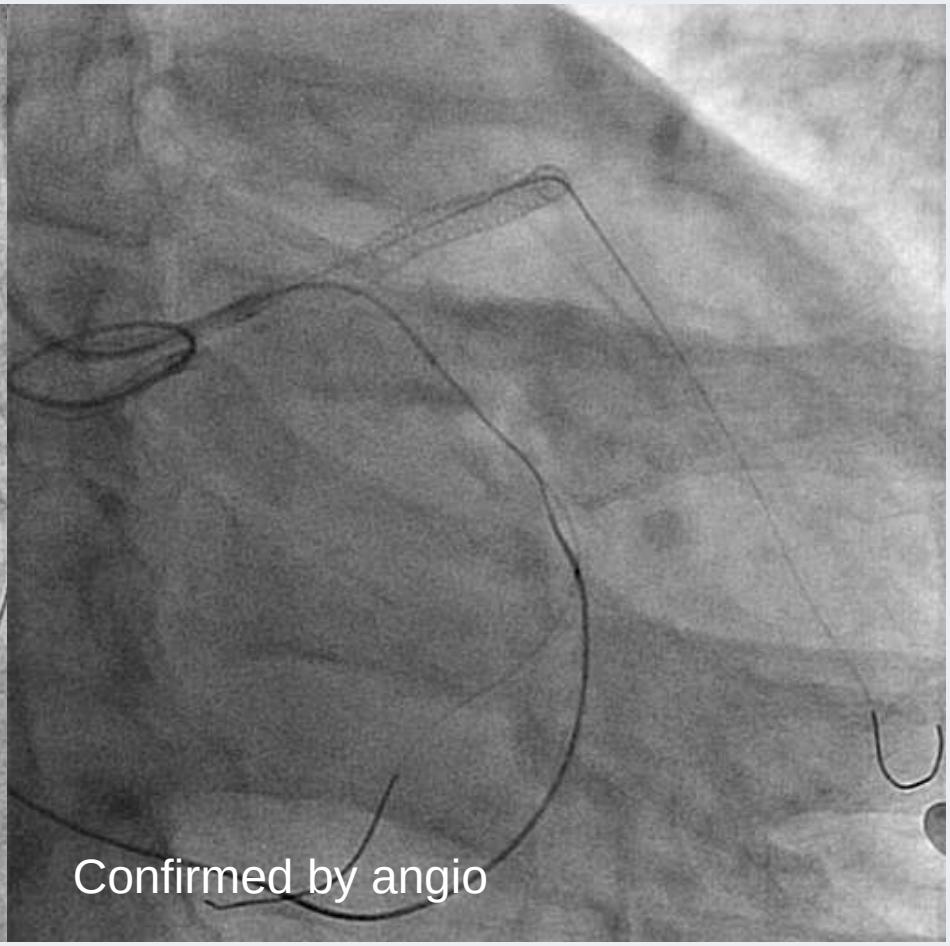




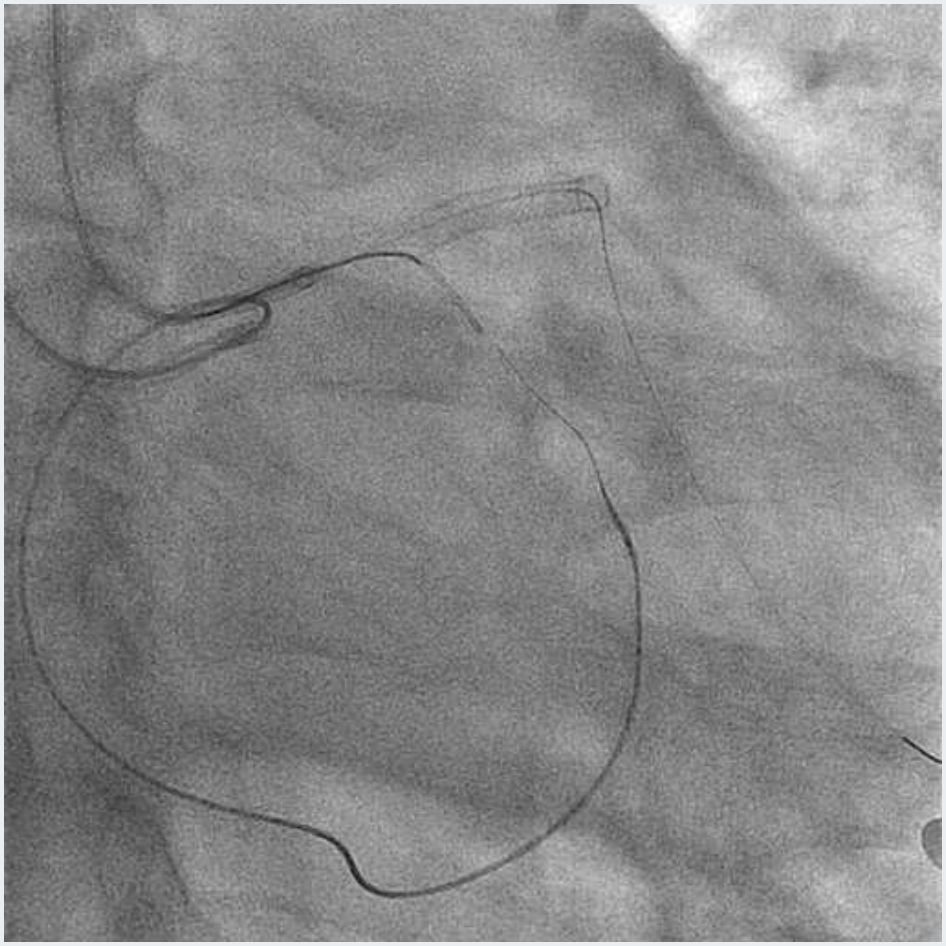


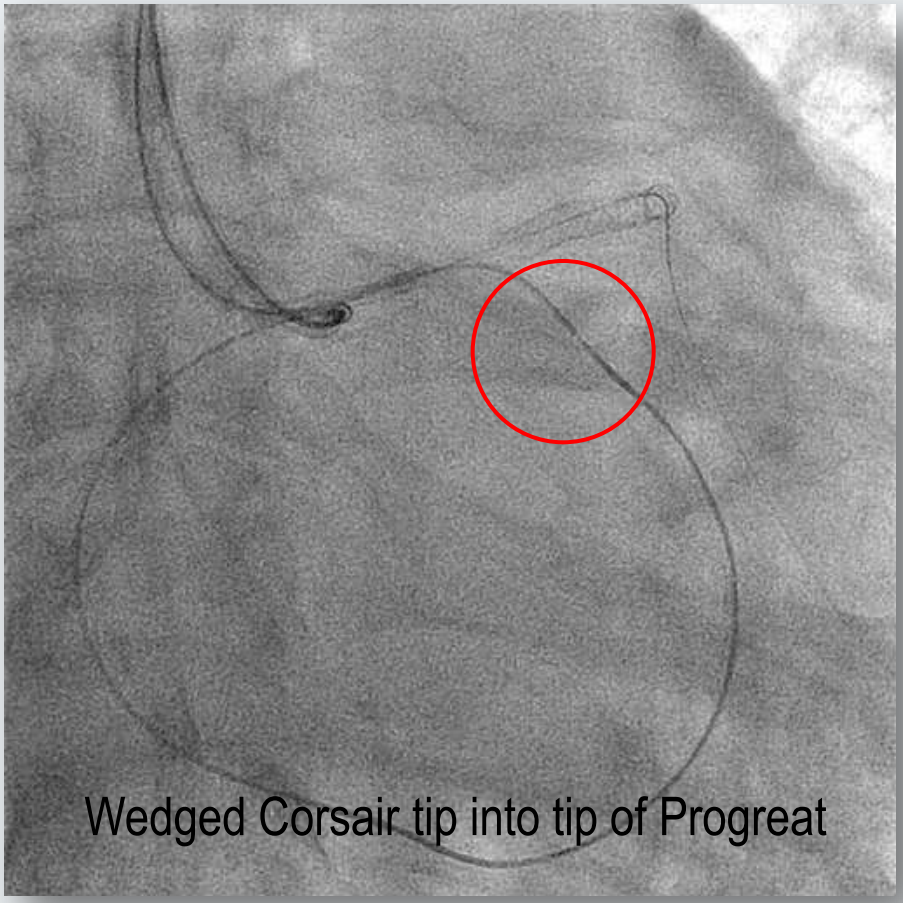

Pilot-50

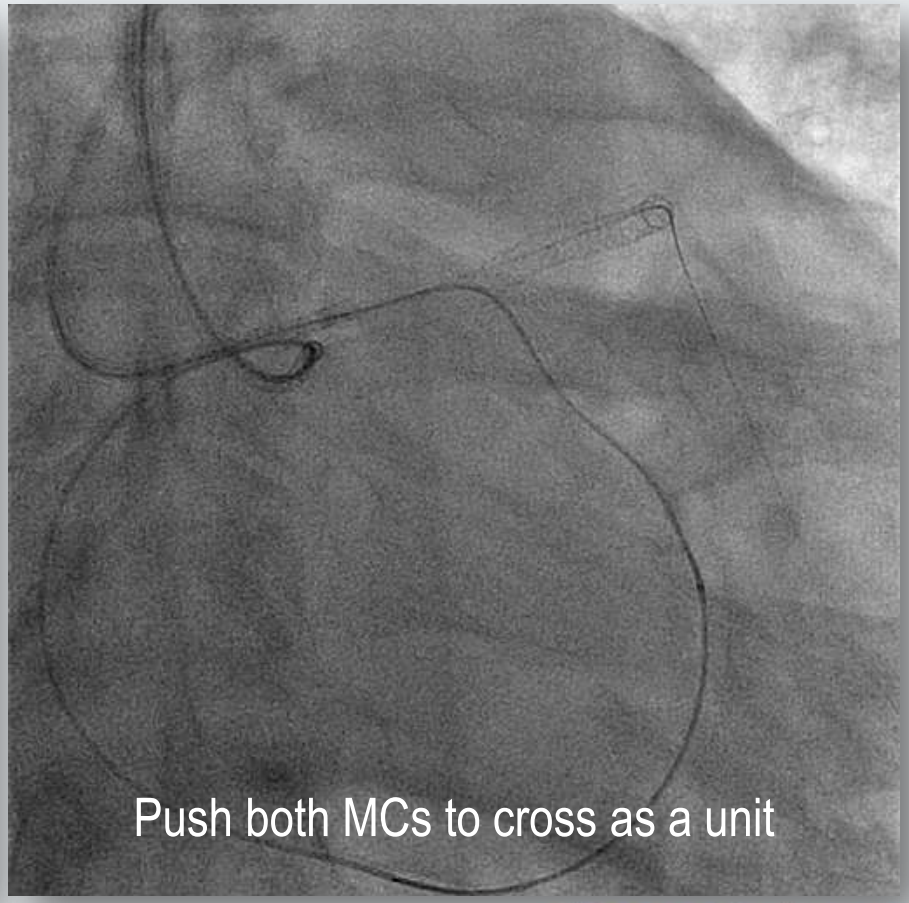




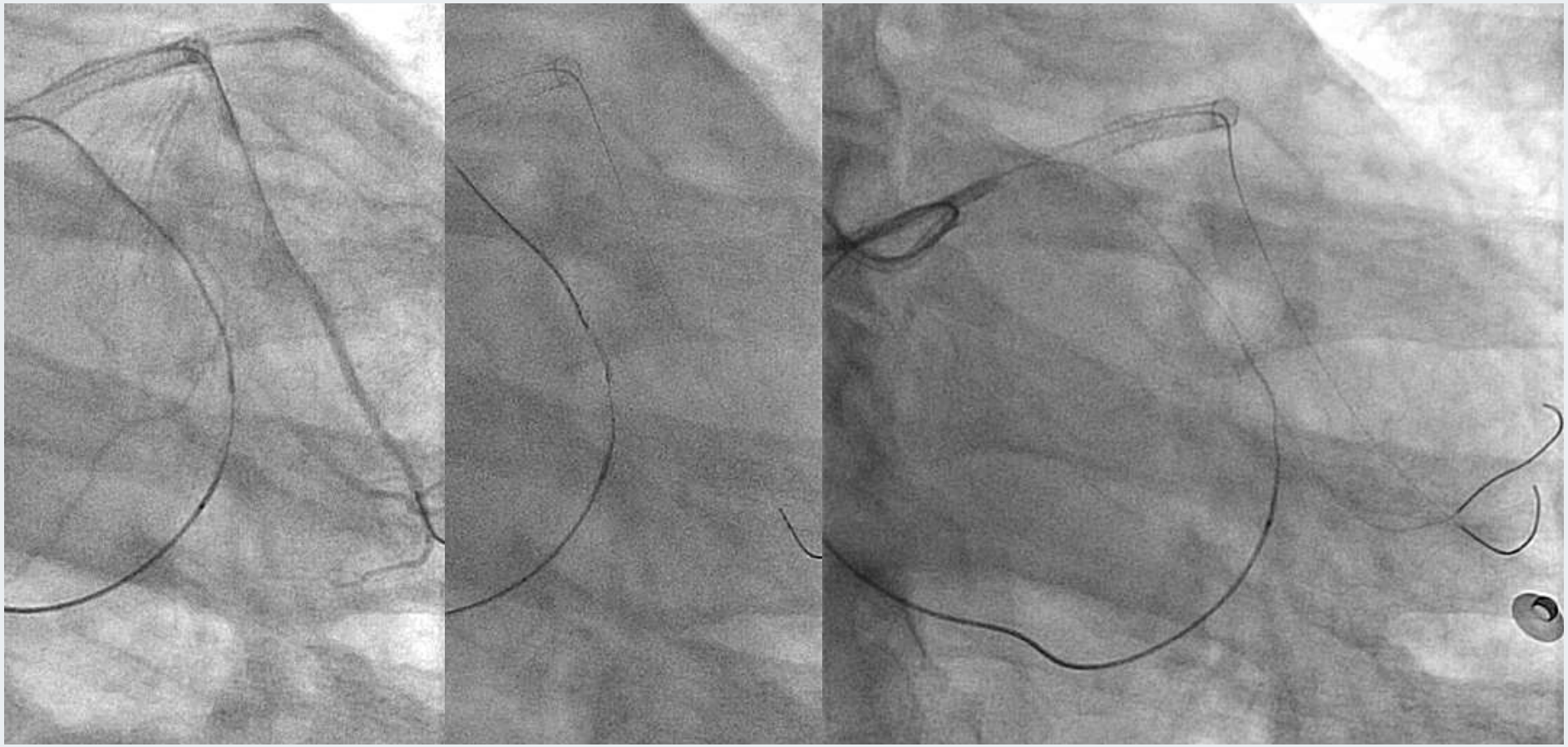
Rendezvous: Wizard 78 wired into the antegrade Progreat MC



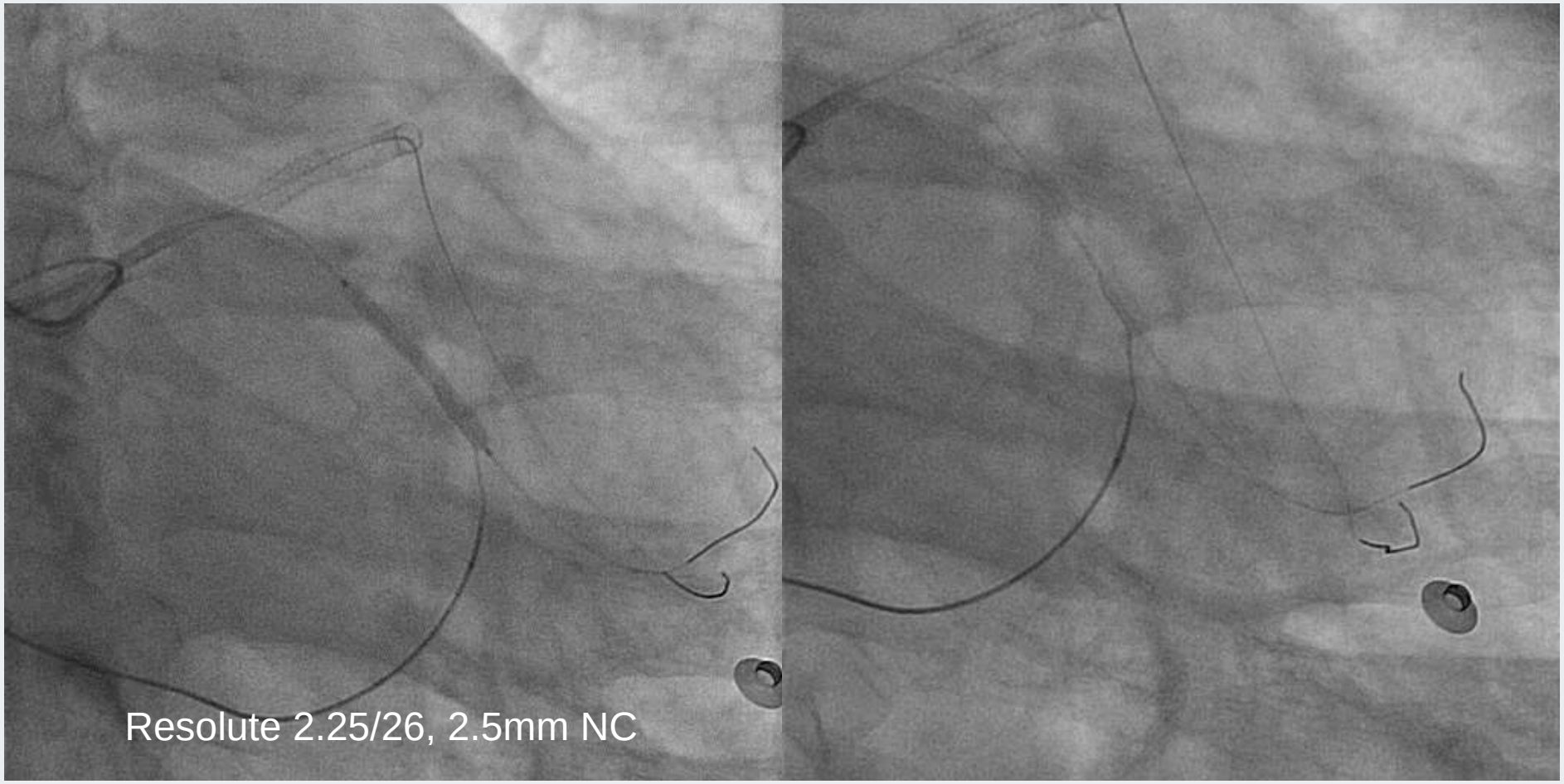


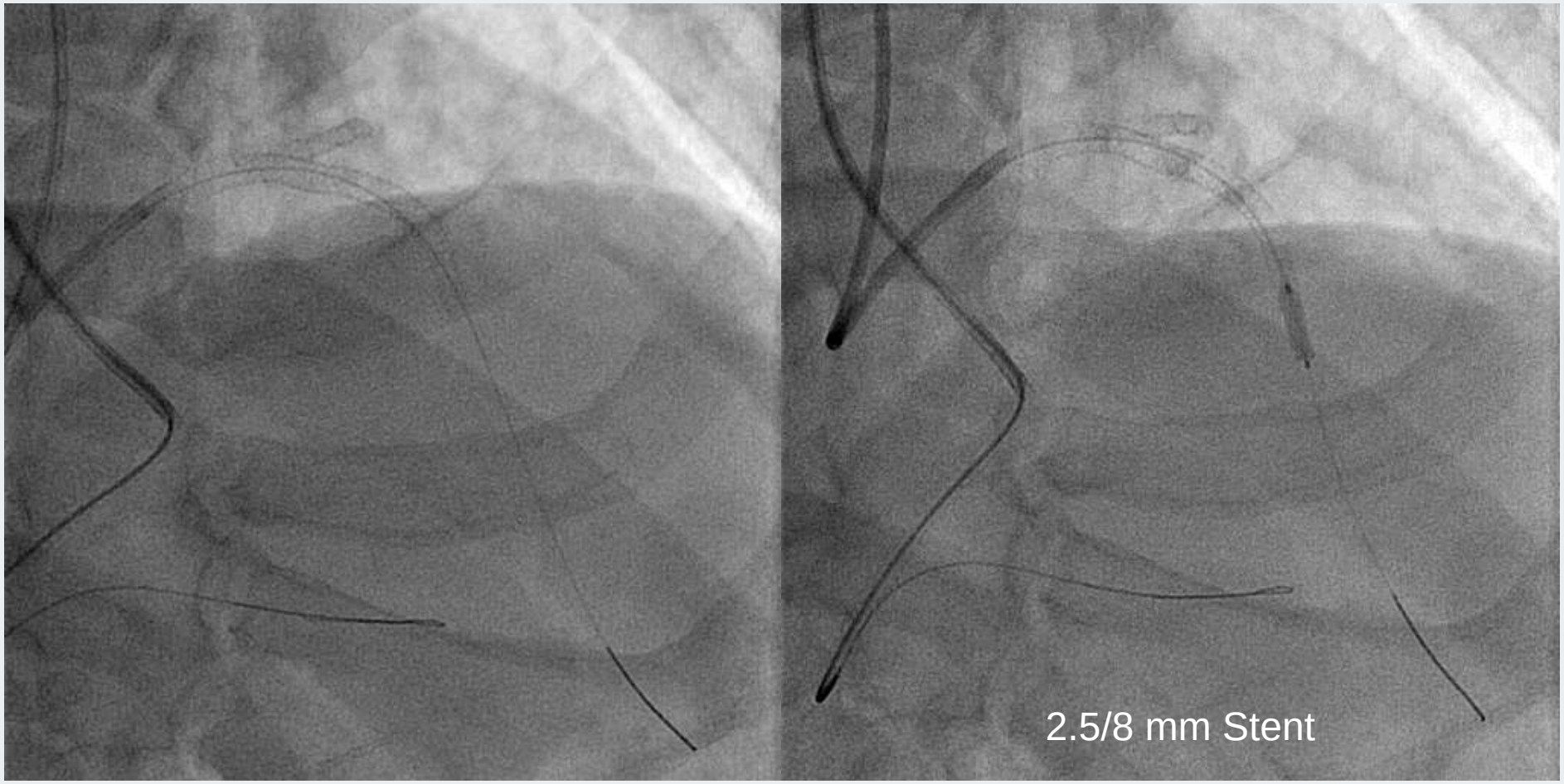


Wiring of OM branch through Progreat

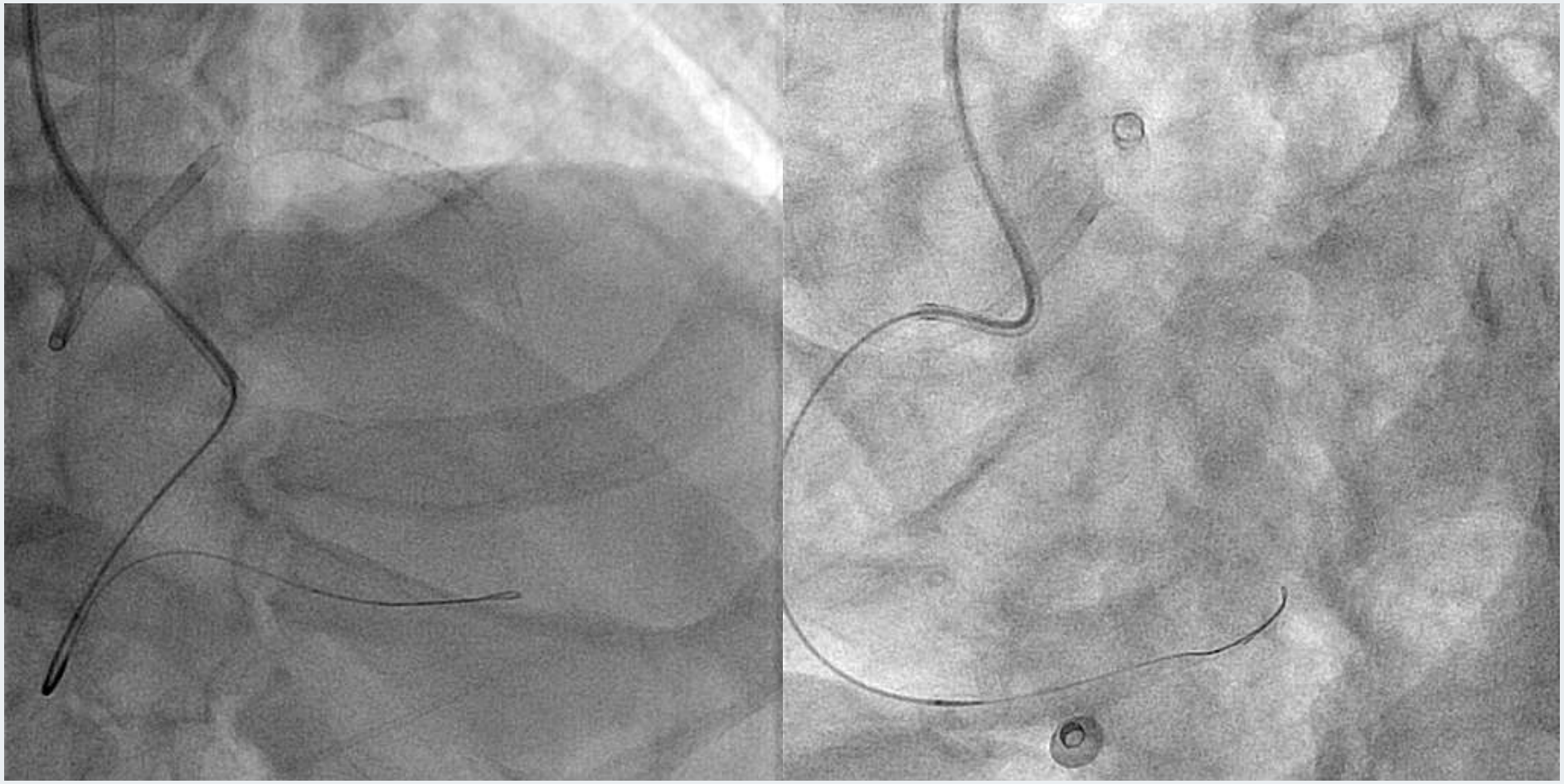


Stenting of CX into its major branch

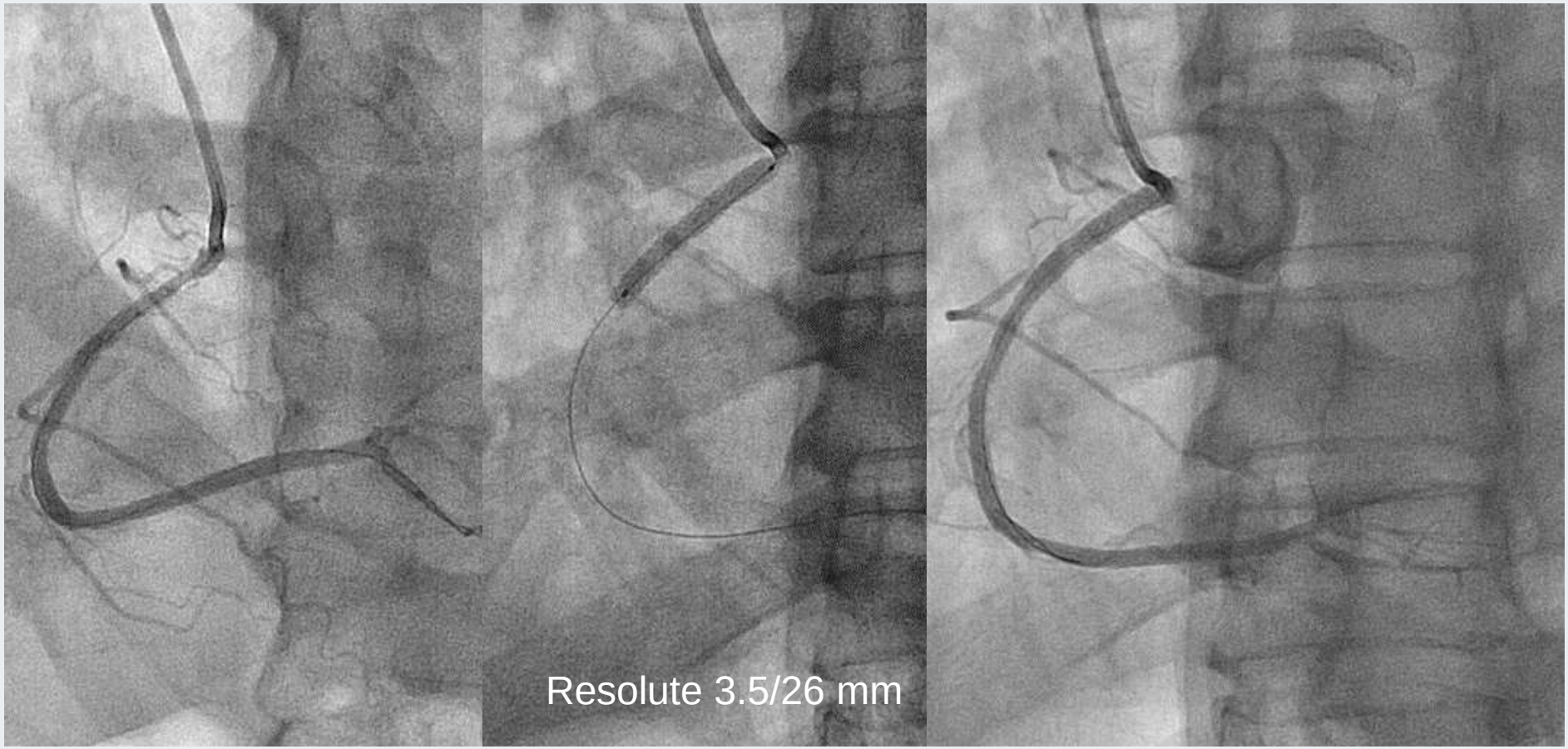



2.5/8 mm Stent

Final result of LCA



Final touch: Stenting of RCA-ostium



Summary of the Case

- One stent cross-over for LM (medina 1,1,0), with KBT and POT
- 6F catheters were chosen, because
  - Avoid further injury of LM
  - Stronger back up was not needed
  - Two stent strategy was not needed
  - IVUS guided wiring was not needed
- CTO-CX: retrograde approach was chosen because
  - Ambiguous stump, side branch
  - Very good collateral channel
- Complete revascularization was achieved (almost)
- Discharged 4 days later with triple therapy
- No MACE at 8 months' FU