

An ACS patient of triple vessel
disease:
CHIP with low EF

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Brief History

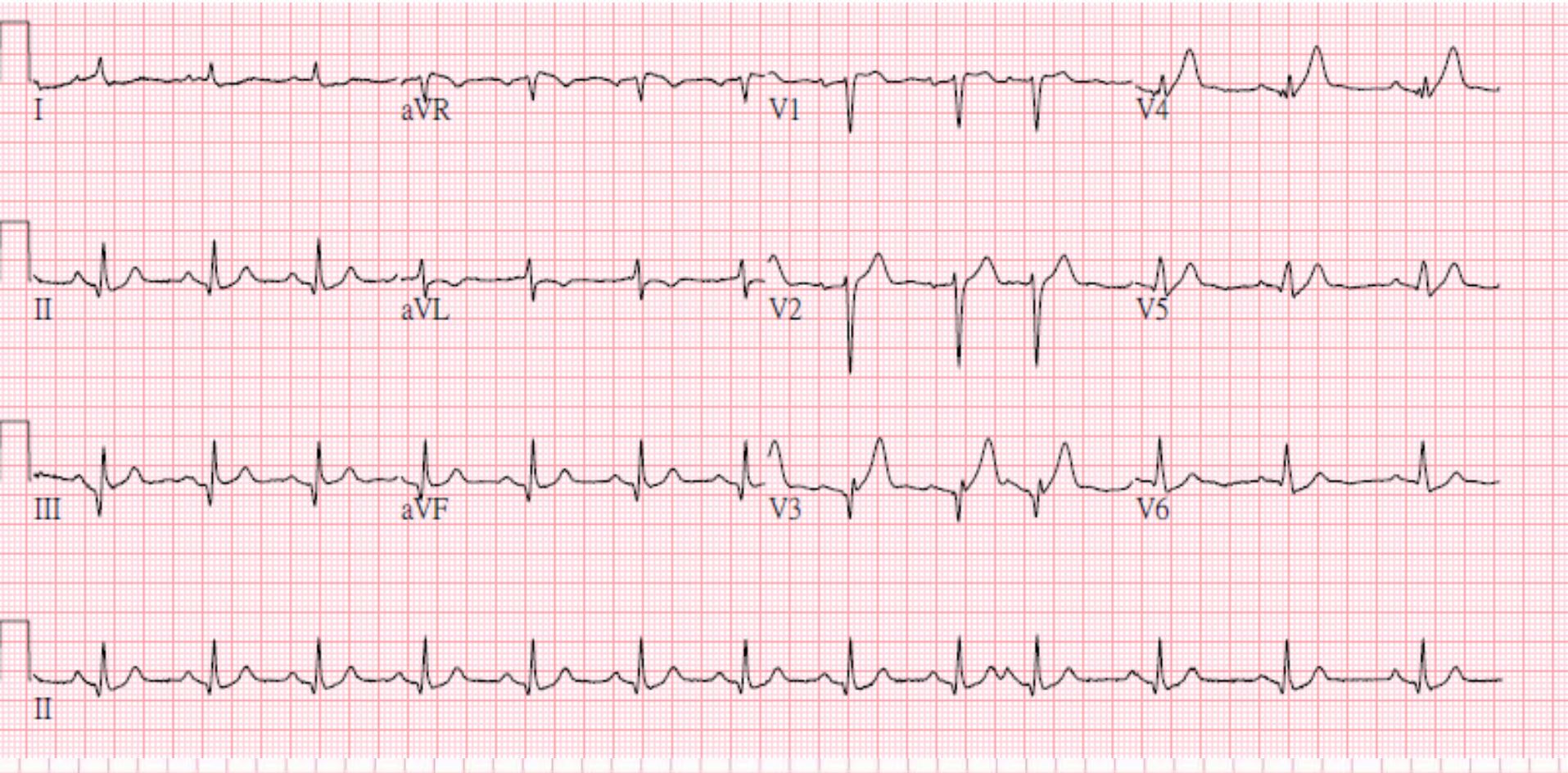
- Name: Mr. Chou,
- Age: 69 year-old
- Occupation: farmer
- Social hx: smoking 40 years
- Past hx: COPD, Hypertension

- C.C: chest tightness and dyspnea for one day.

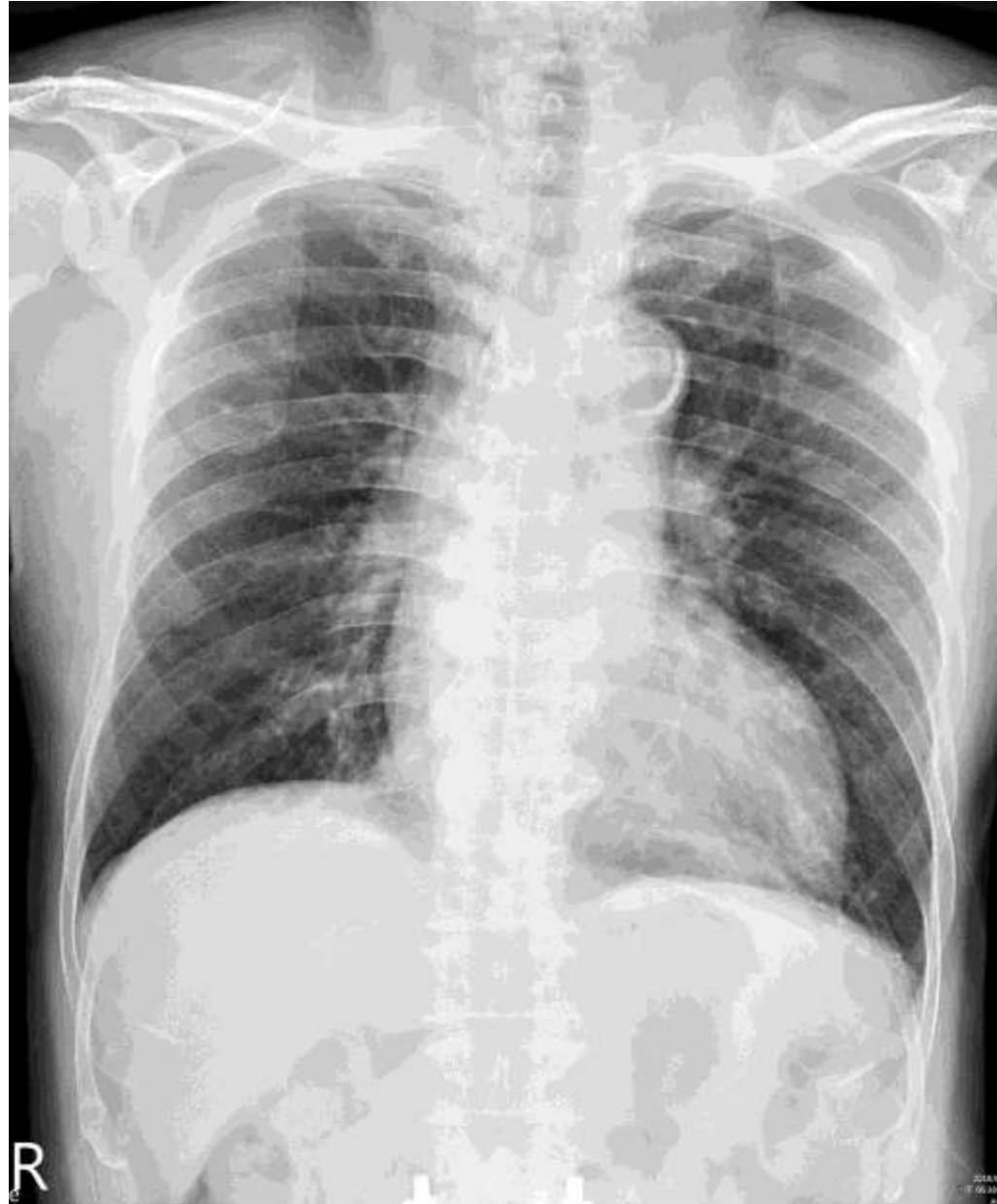
ER Lab Data

Creatinine	1.59 mg/dL
Troponin	2.083* ng/mL
CKMB	28.9* ng/mL
CPK	448* U/L

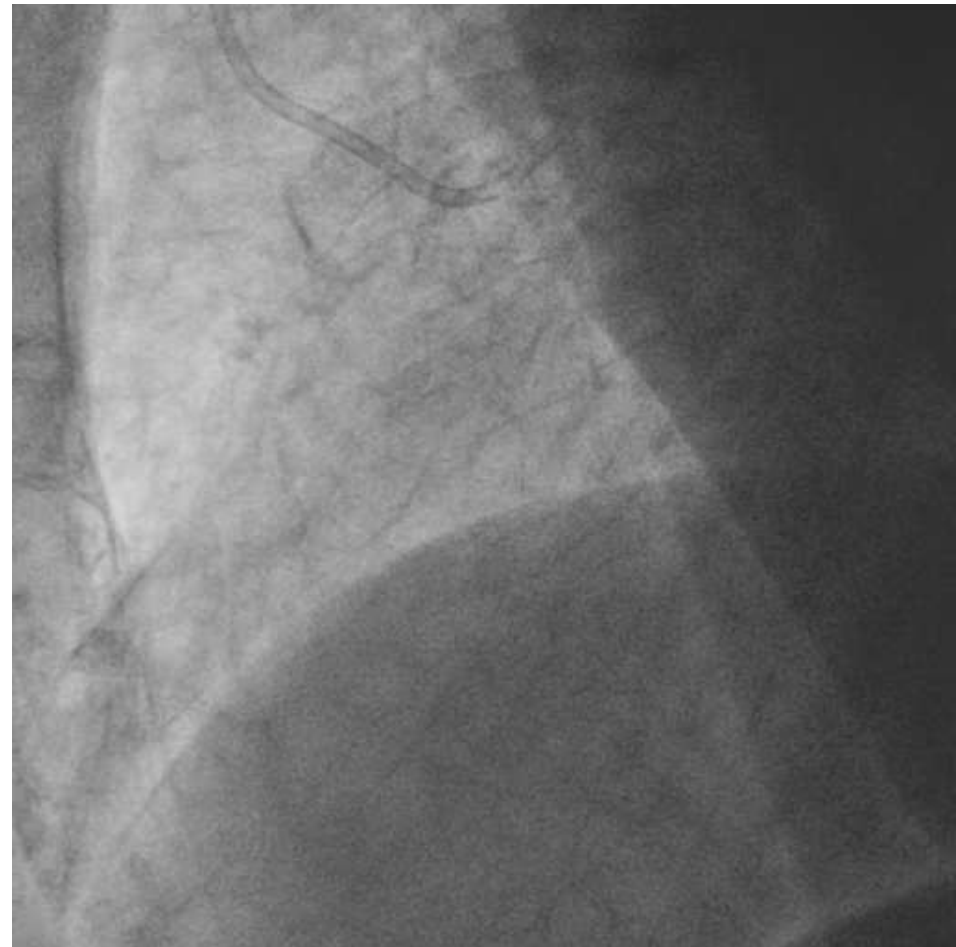
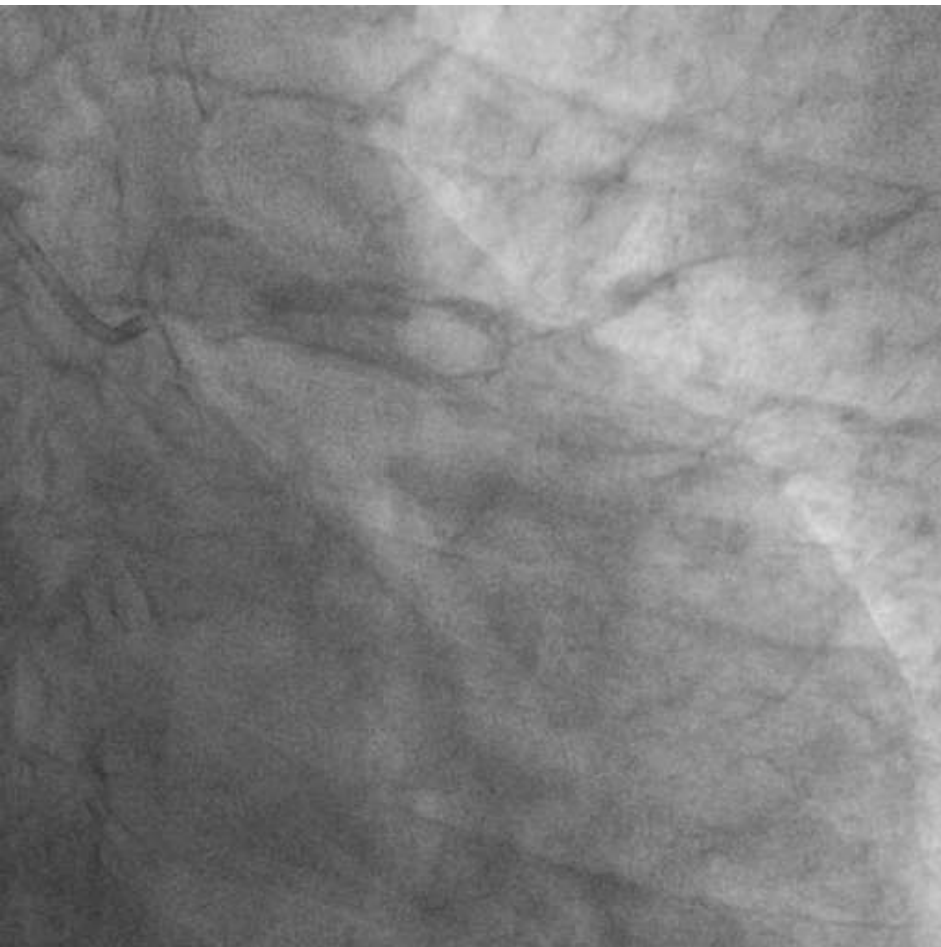
ECG



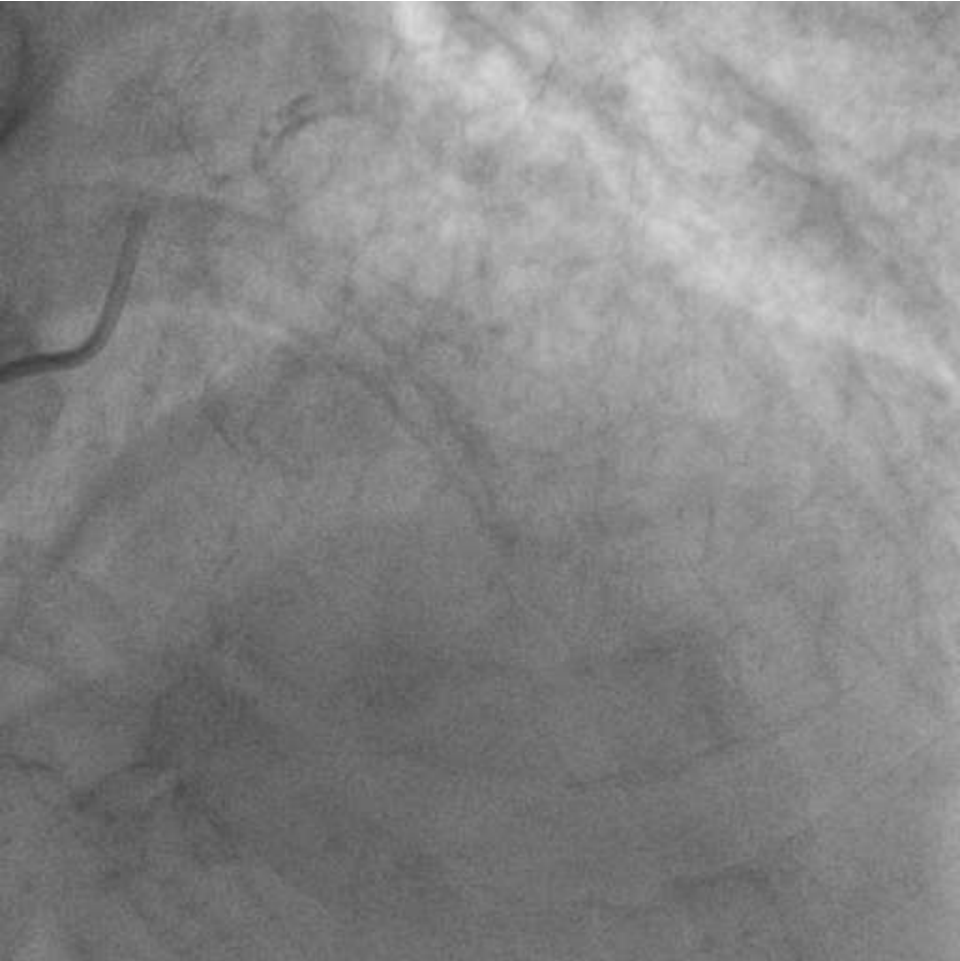
CXR



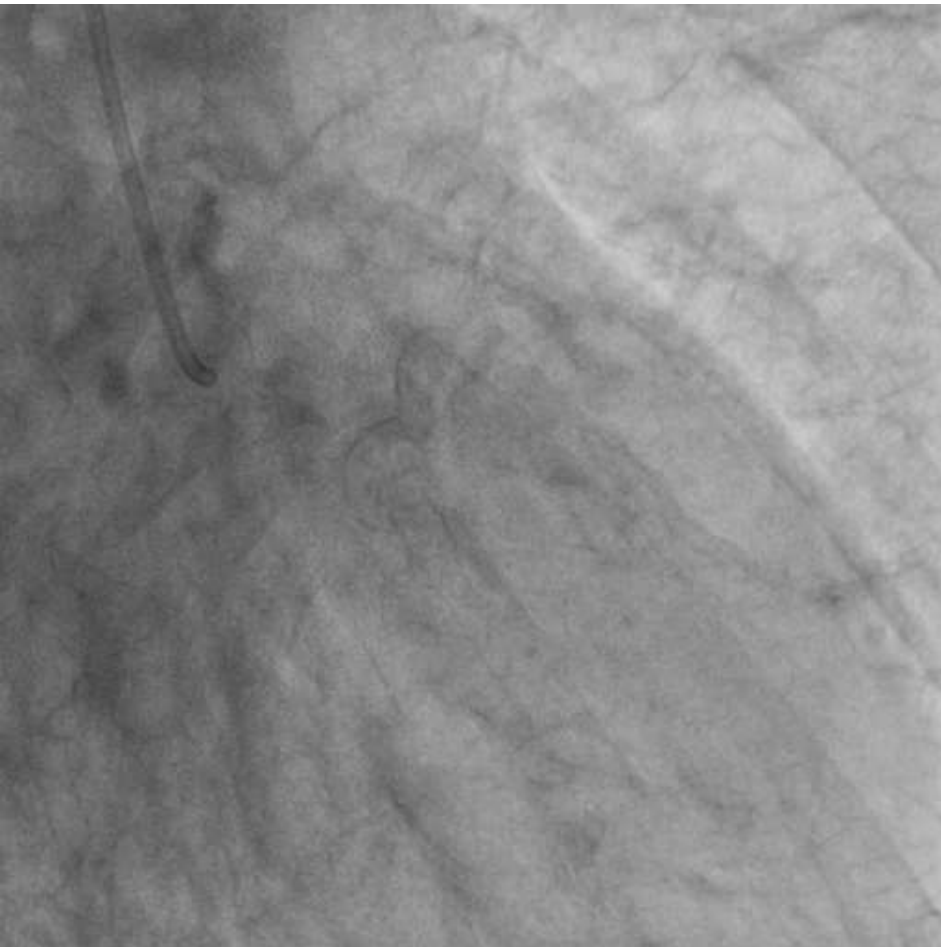
Diagnostic angio



LAD



RCA



Low BP

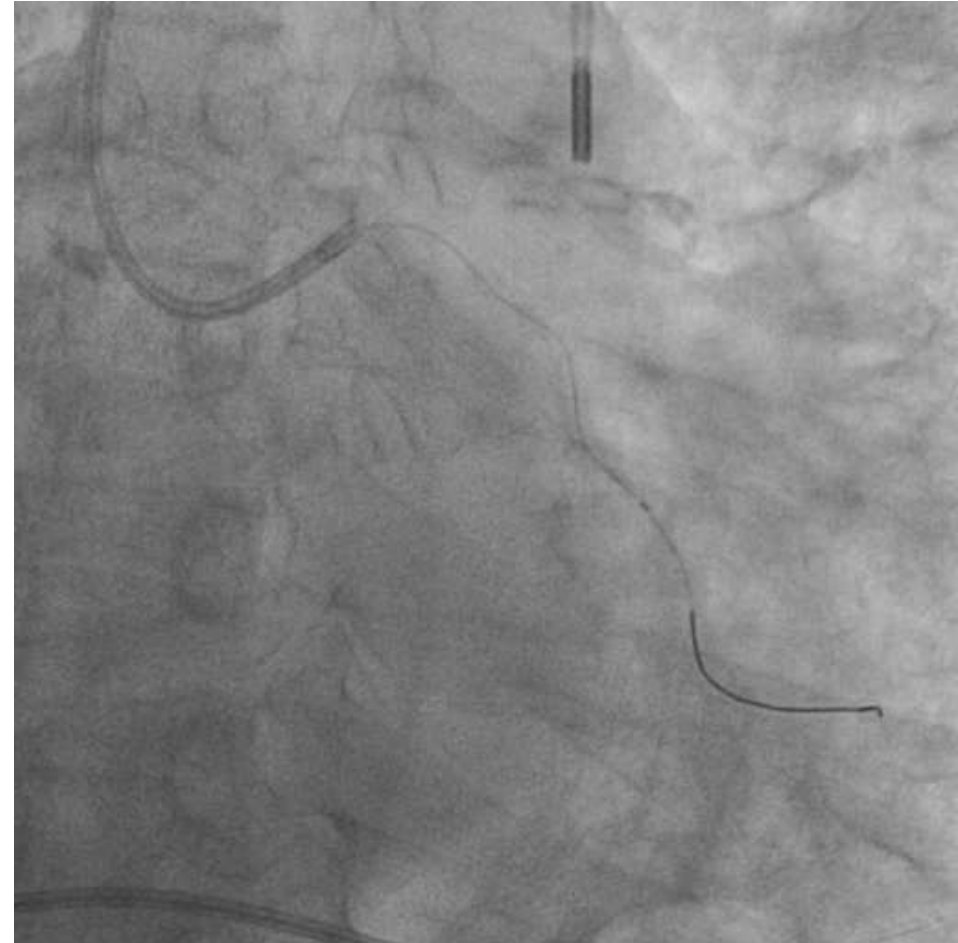
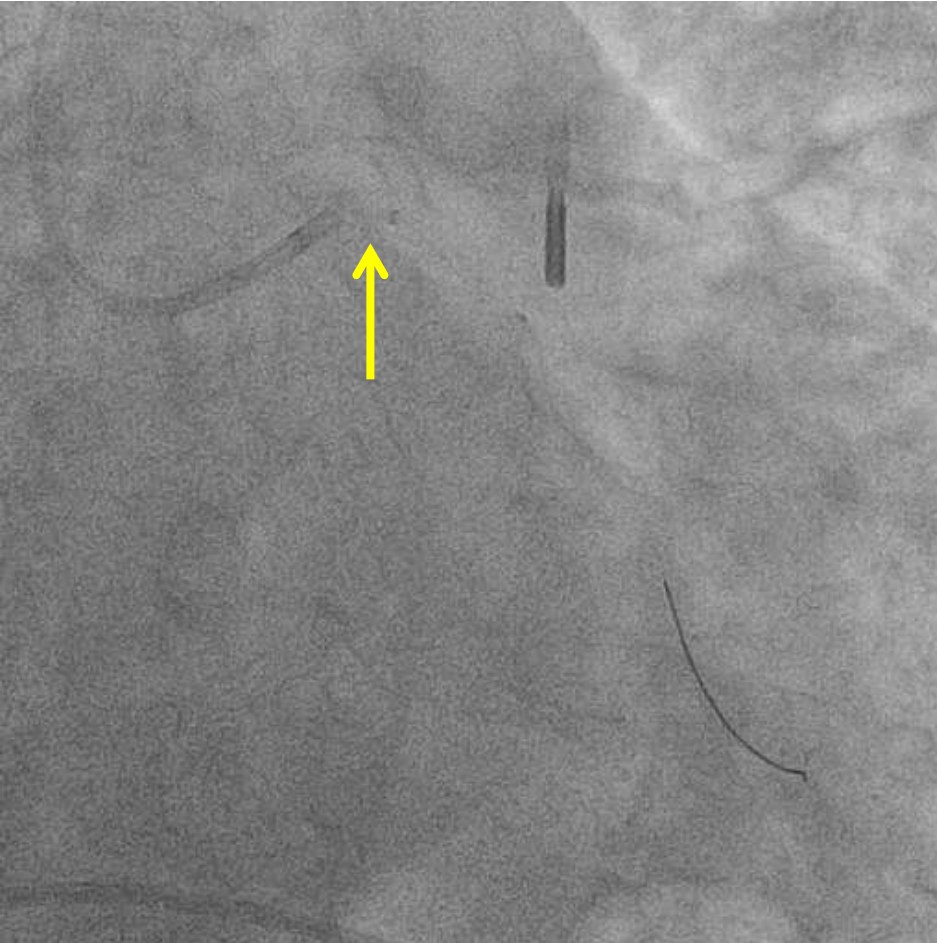
- BP: 121/60 → 80/42
1. IABP placed
 2. 6 Fr. vein sheath → Levophed infusion

Question:

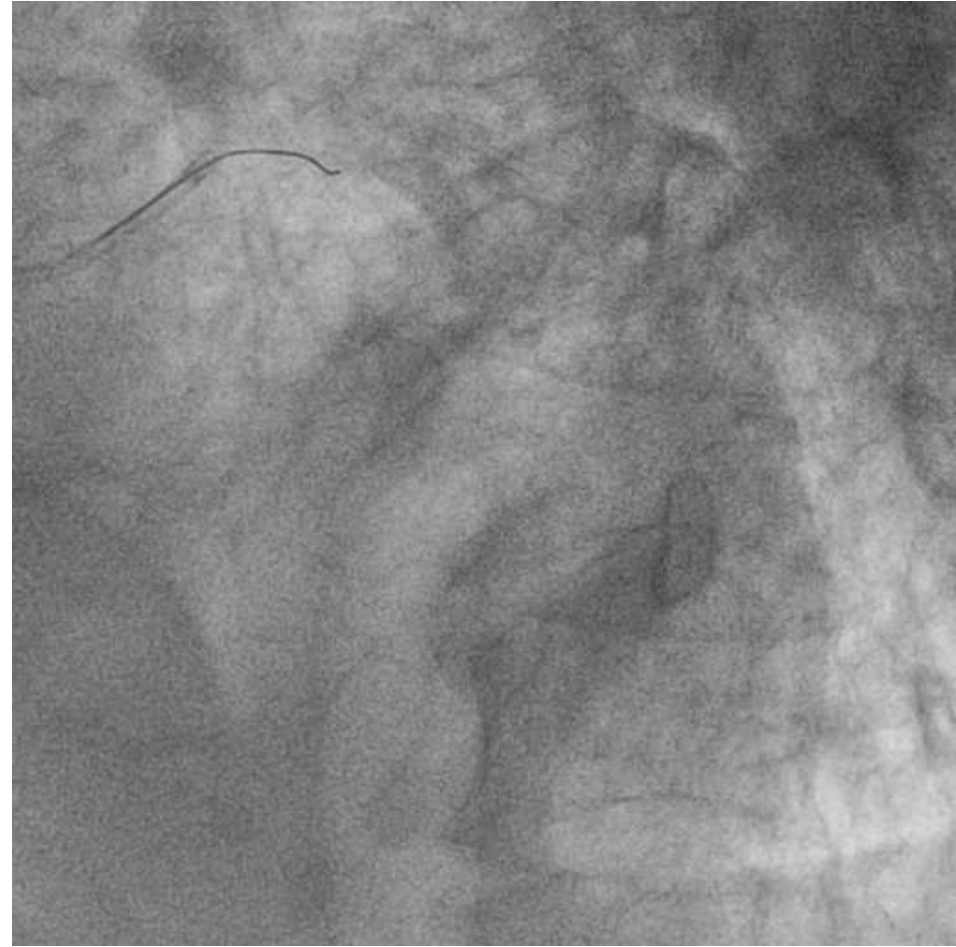
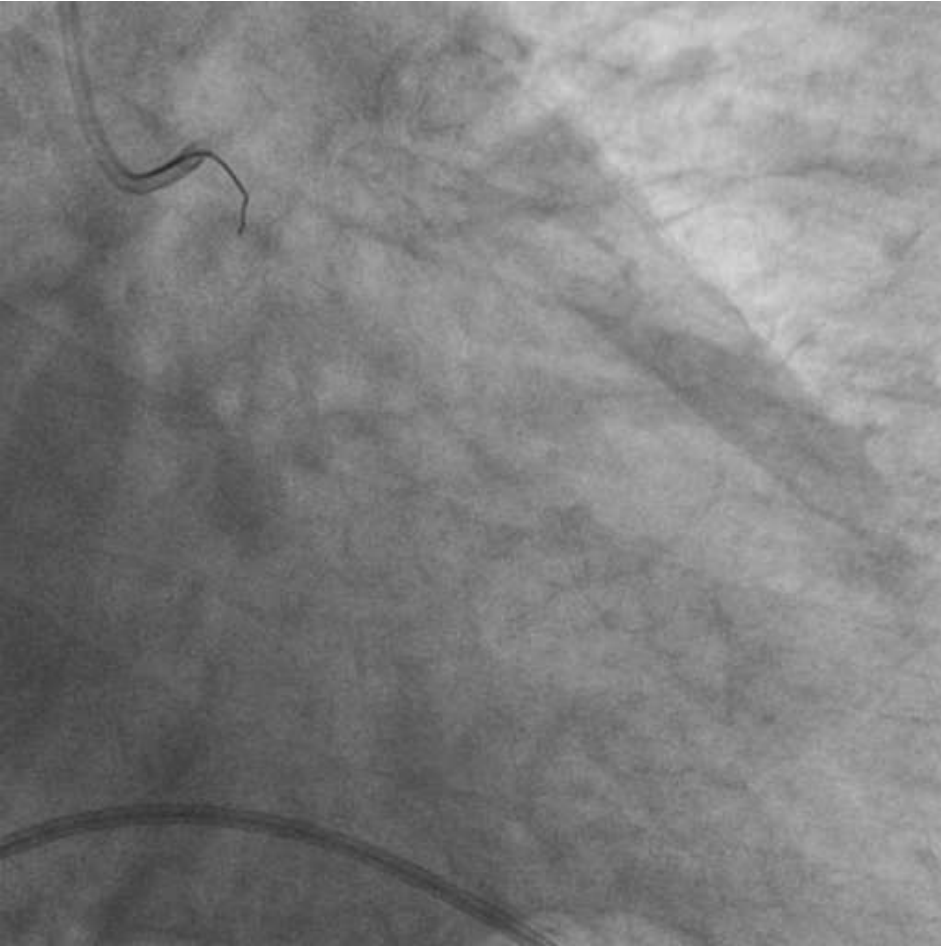
Which vessel was the culprit lesion?

Trek 1.5/12 mm

→ Guideliner



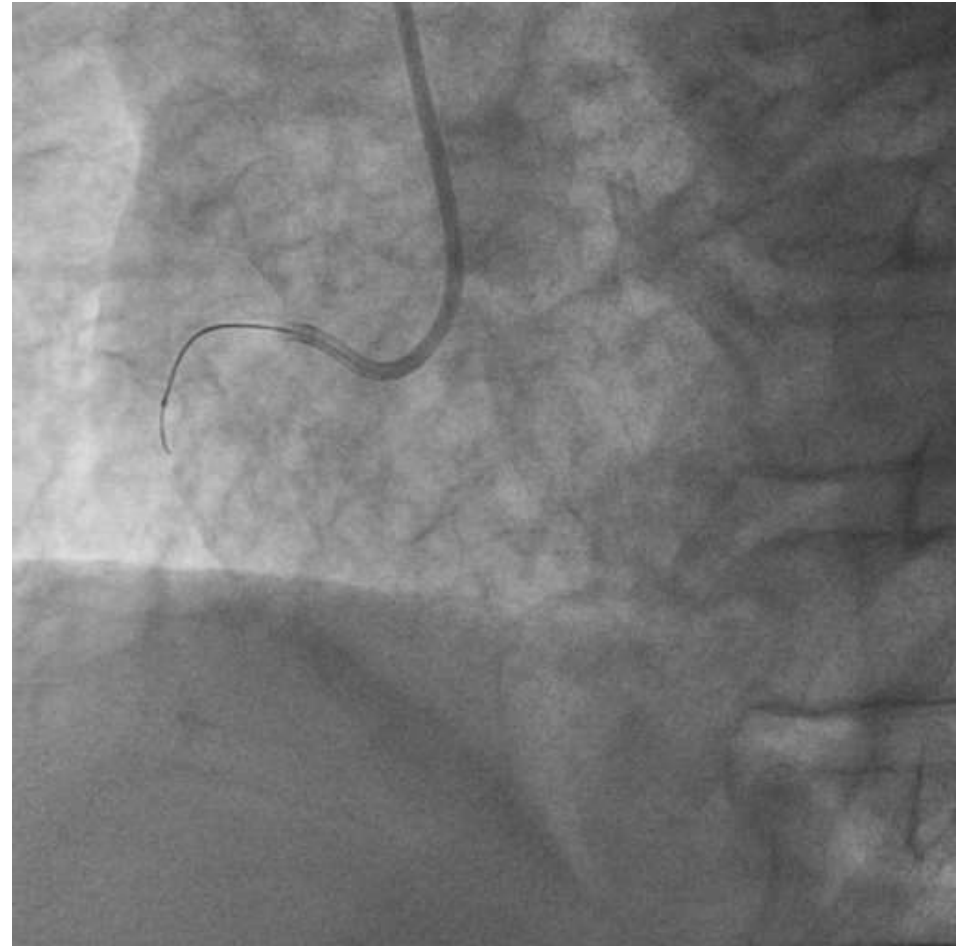
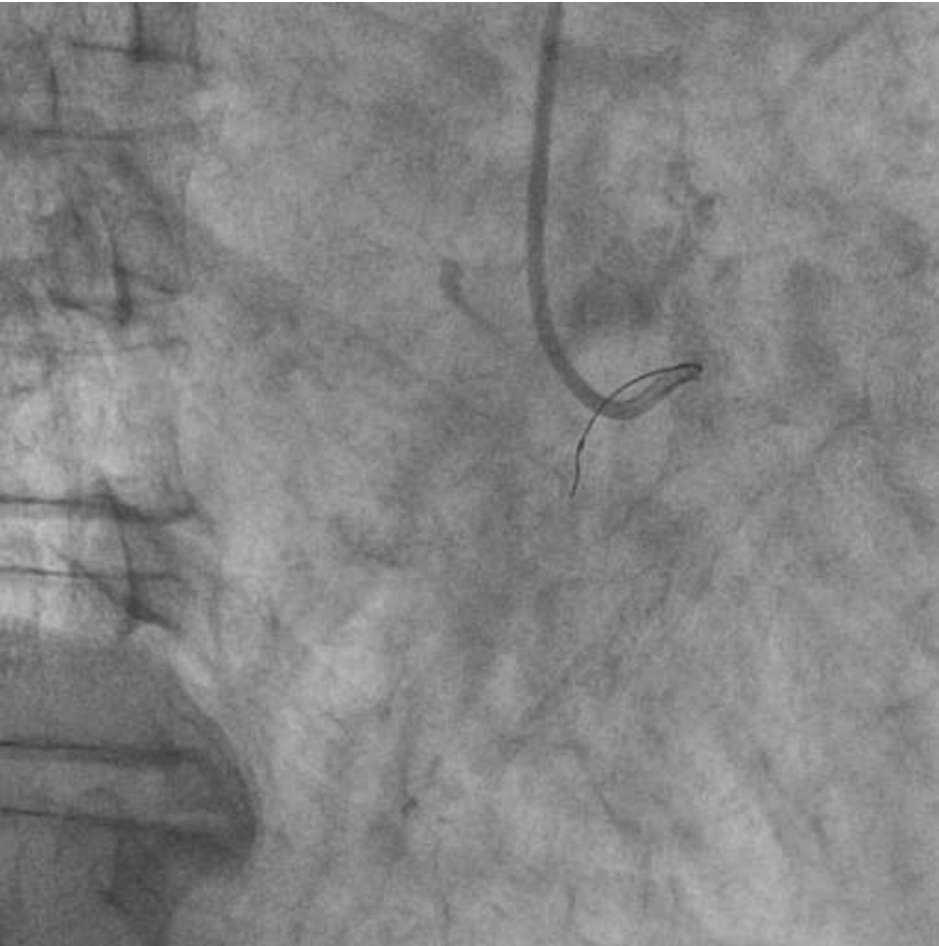
Final



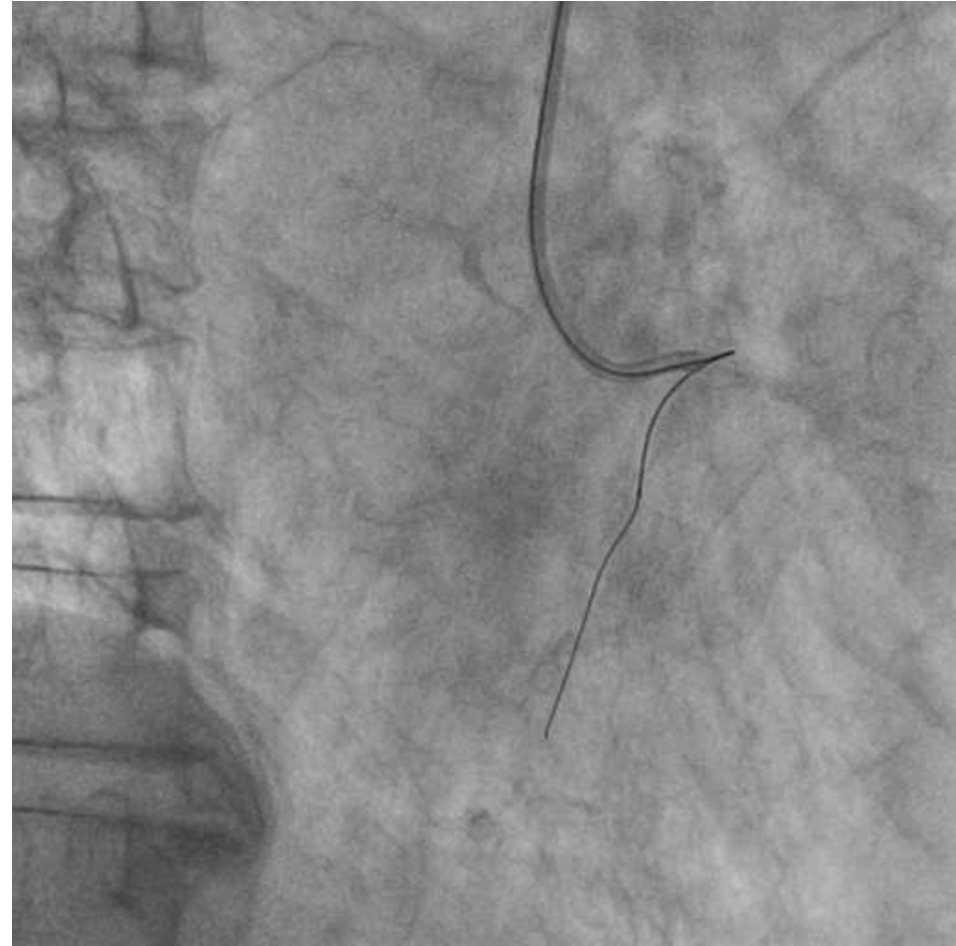
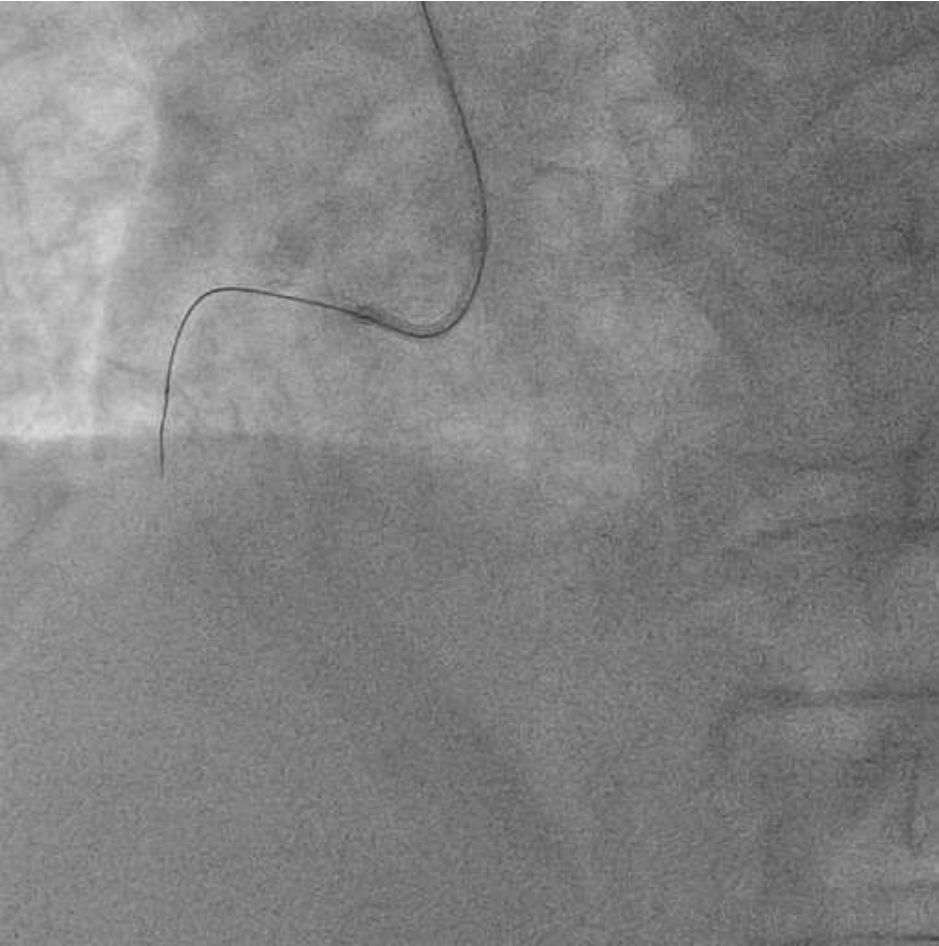
- In concern that it might necessary to do Rota of LAD CTO
- After discussing CVS
→ treat RCA

SAL 1.0 6 Fr. Guide

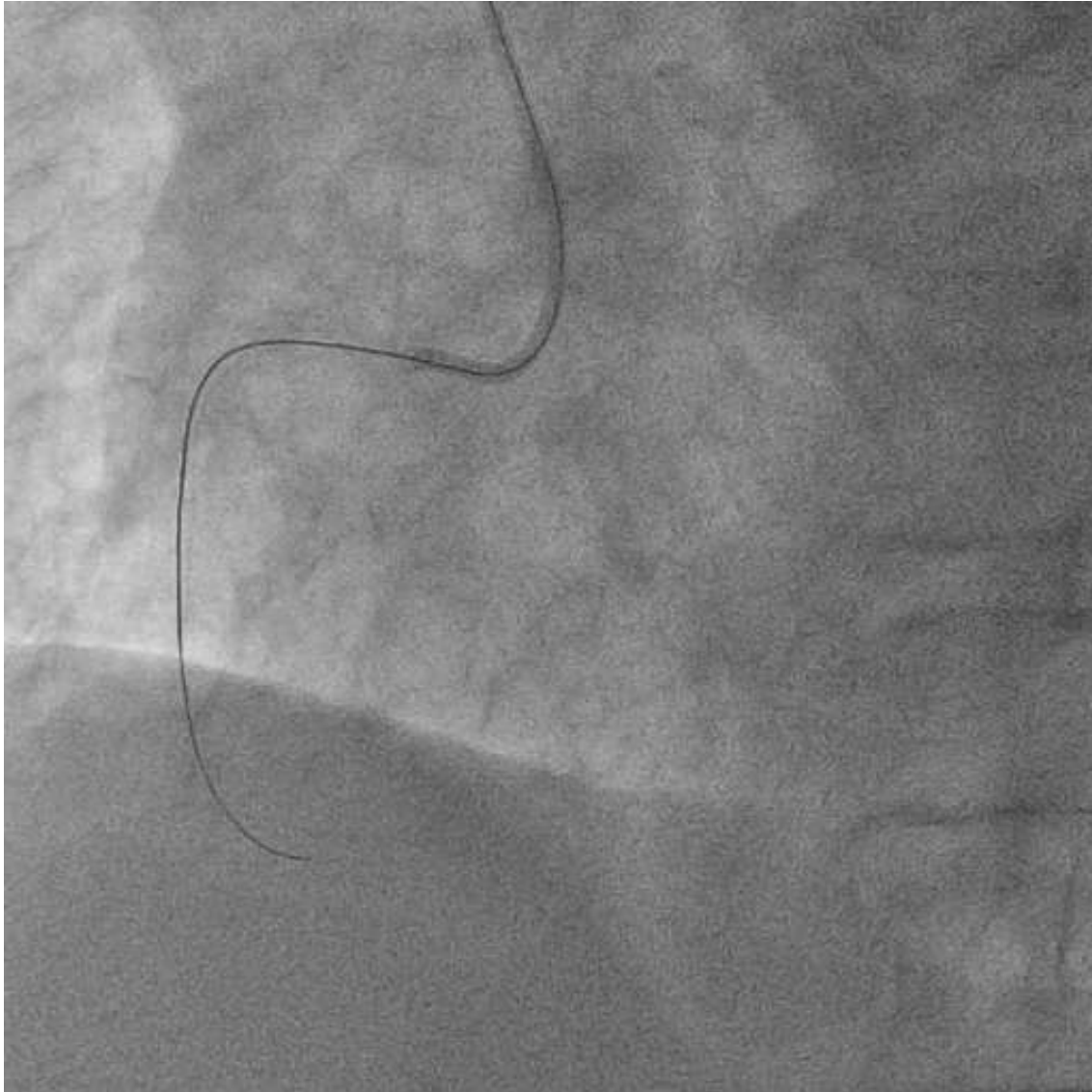
Sion + finecross



Fielder FC → Sionblack → UB3 failed
→ Gaia 2



Finexcross went down...

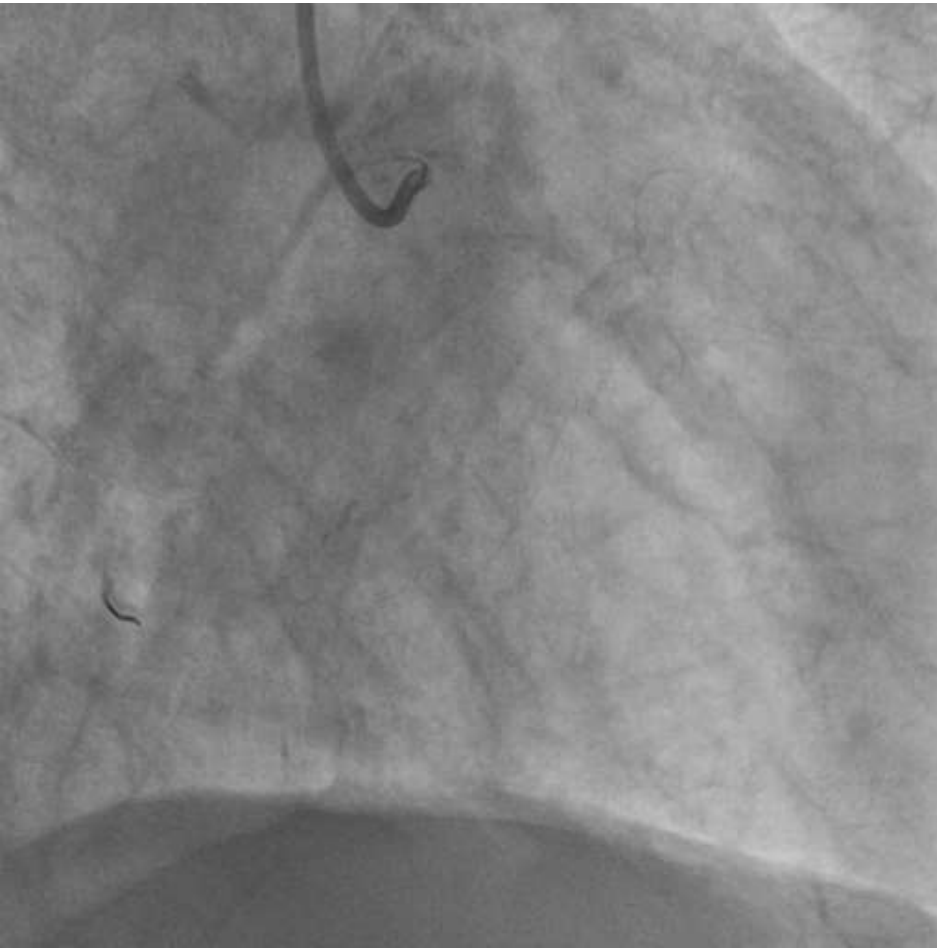


After ballooning...



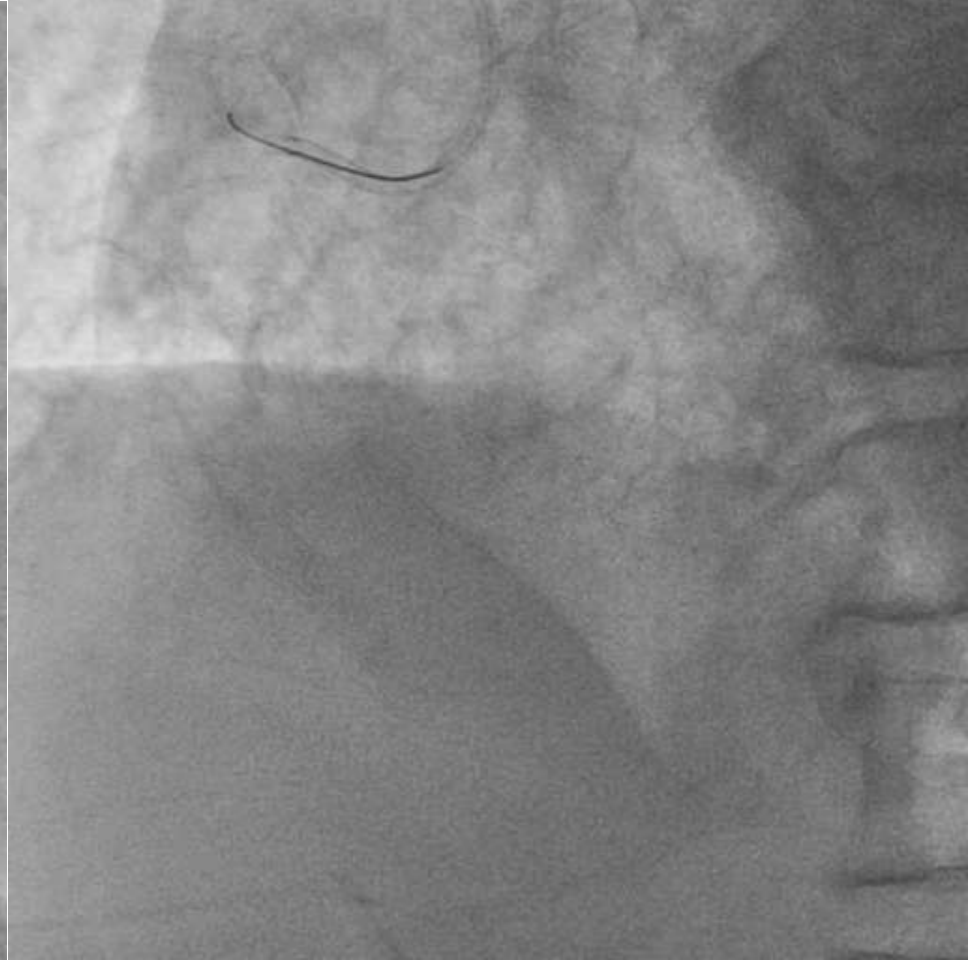
Would you like to stent it ?

DEB 2.25x30mm



@ 6 atm

Final



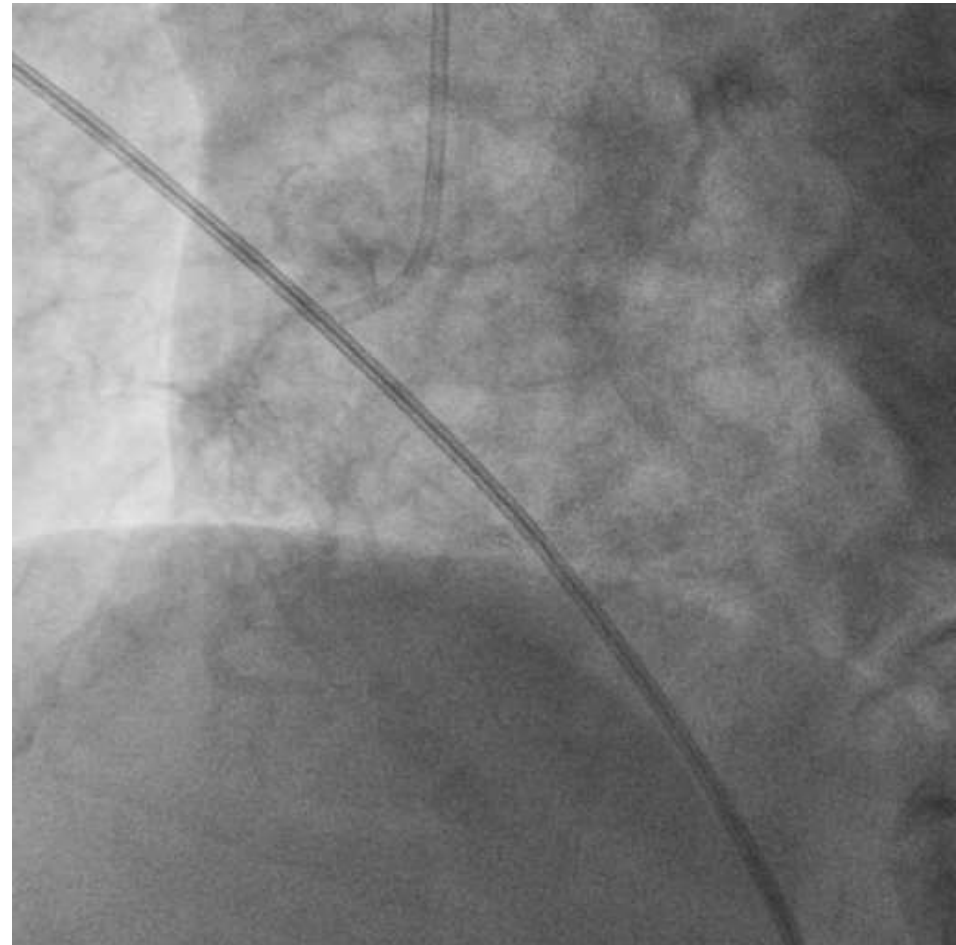
On the next day: stage PCI of LAD



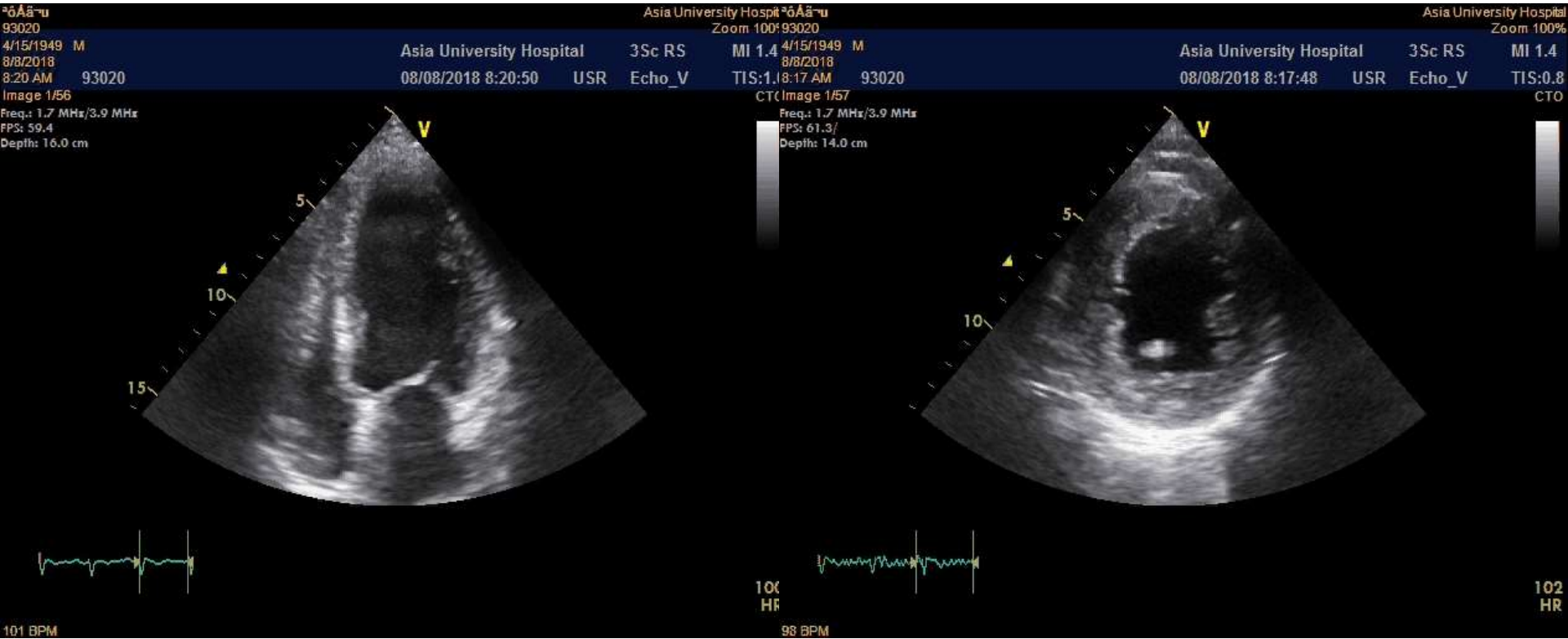
M-LAD: bifurcation with heavy calcification...



RCA f/u



Echo



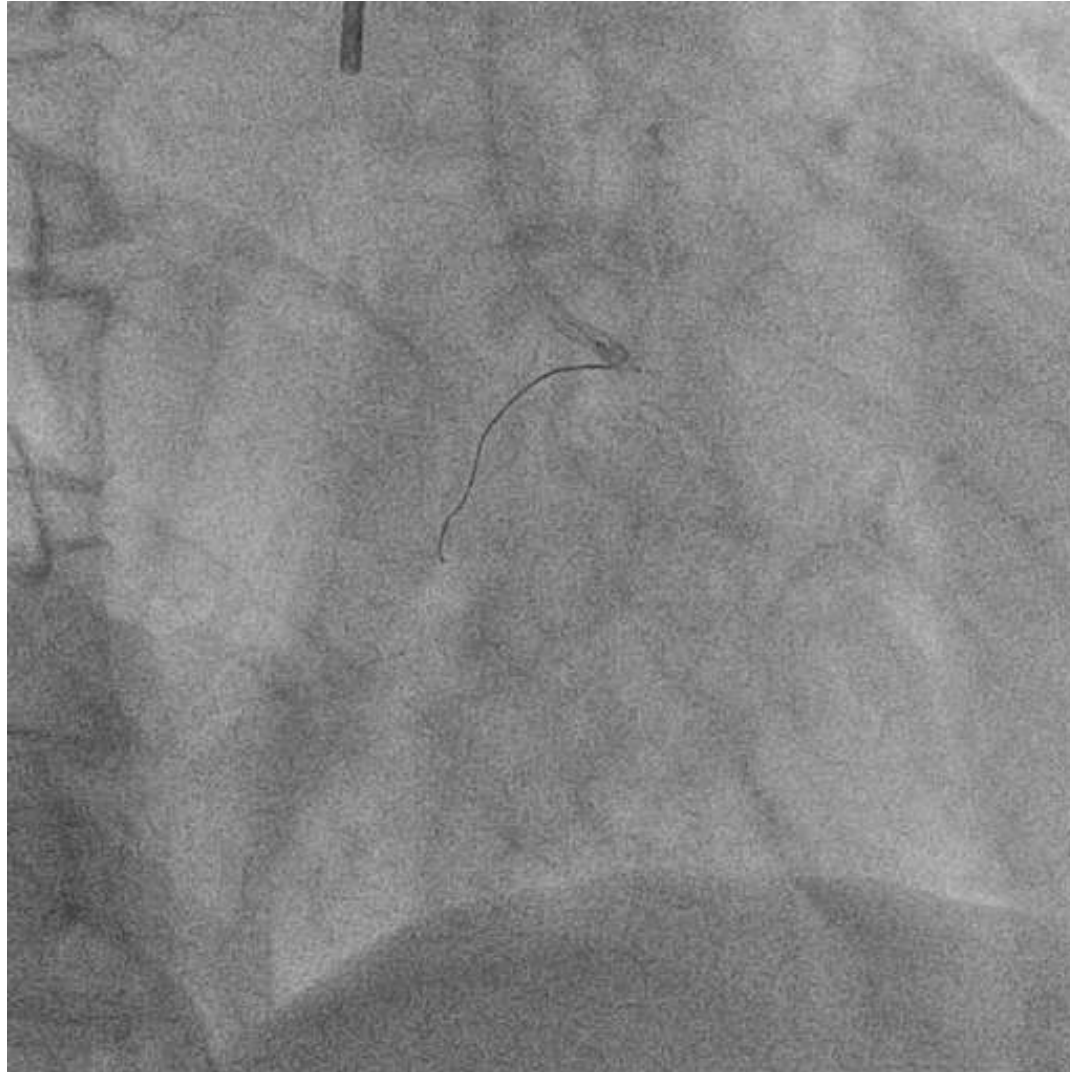
Summary

1. STEMI
2. 3V-CAD: RCA CTO, post POBA+DEB; m-LAD and DA bifurcation lesion with heavy calcification; p-LCX stenosis with calcification, distal proper CTO
3. Heart failure (EF < 30%)
4. Cardiogenic shock s/p IABP + norepinephrine

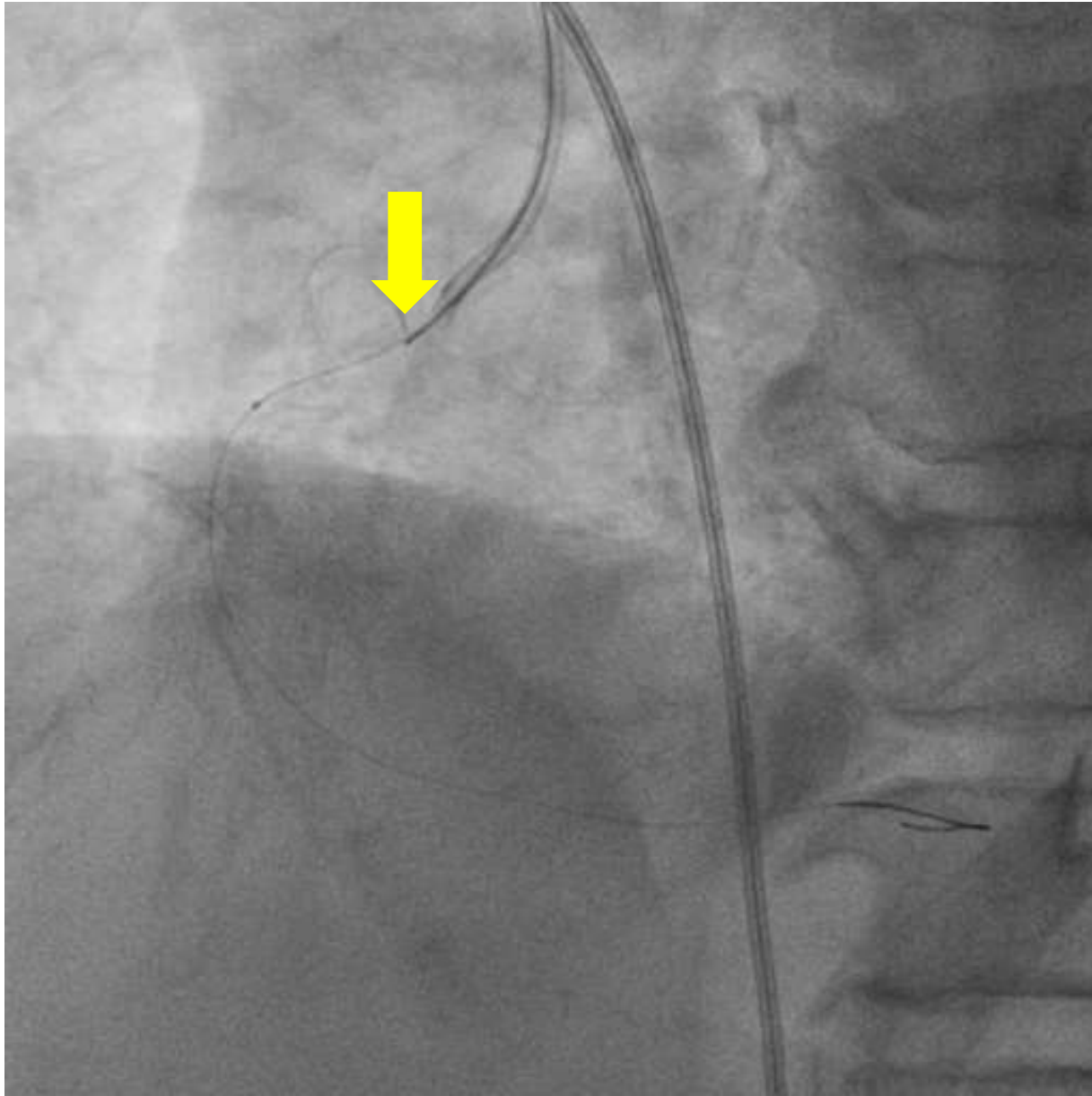
1. Heparinization for 2 more days
2. Stenting of RCA under IVUS guide
3. Rotablation of m-LAD and DA
4. Two stent technique: DK crush
5. Stage PCI of LCX (Rota)

Day 4

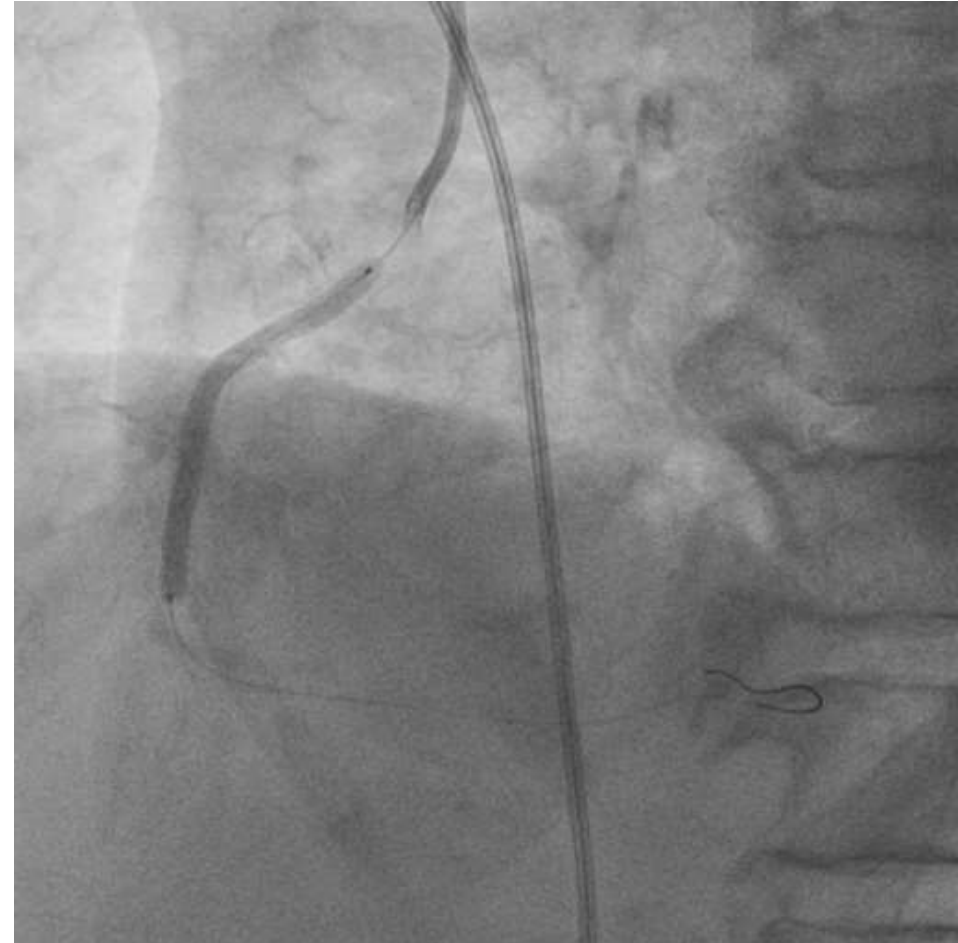
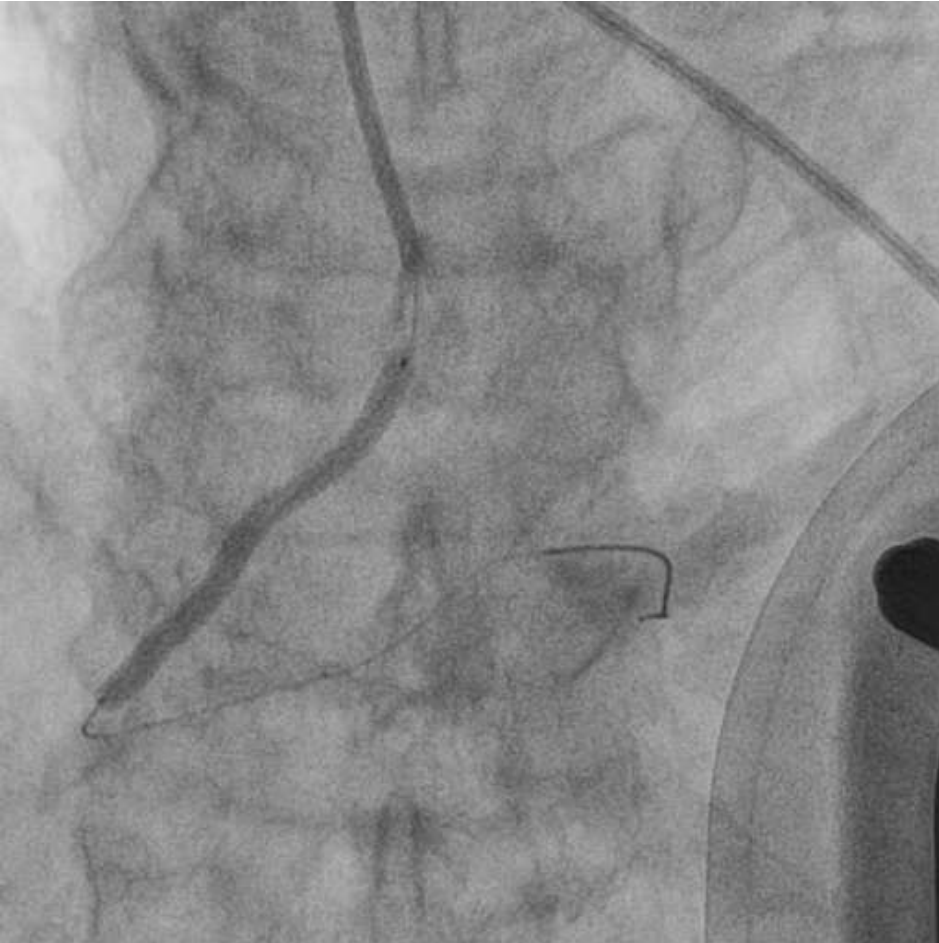
SAL 1.0 6 Fr. Guide; Sion+Finecross



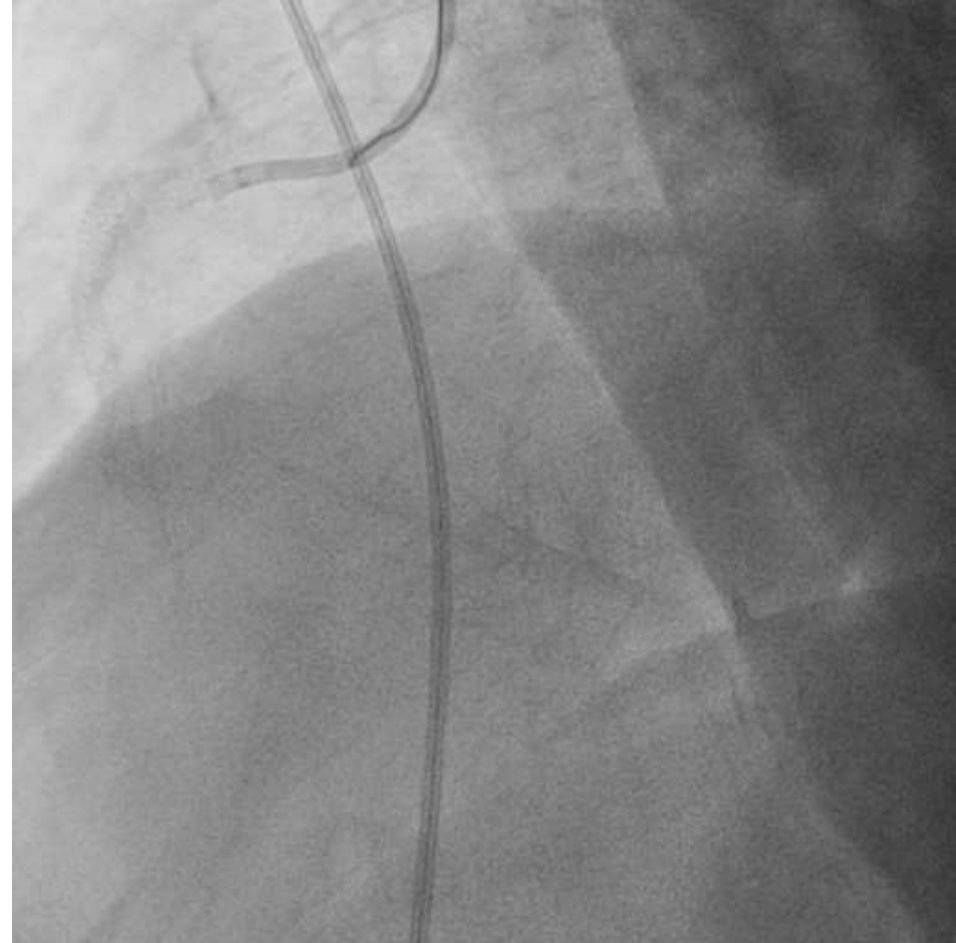
Marking technique



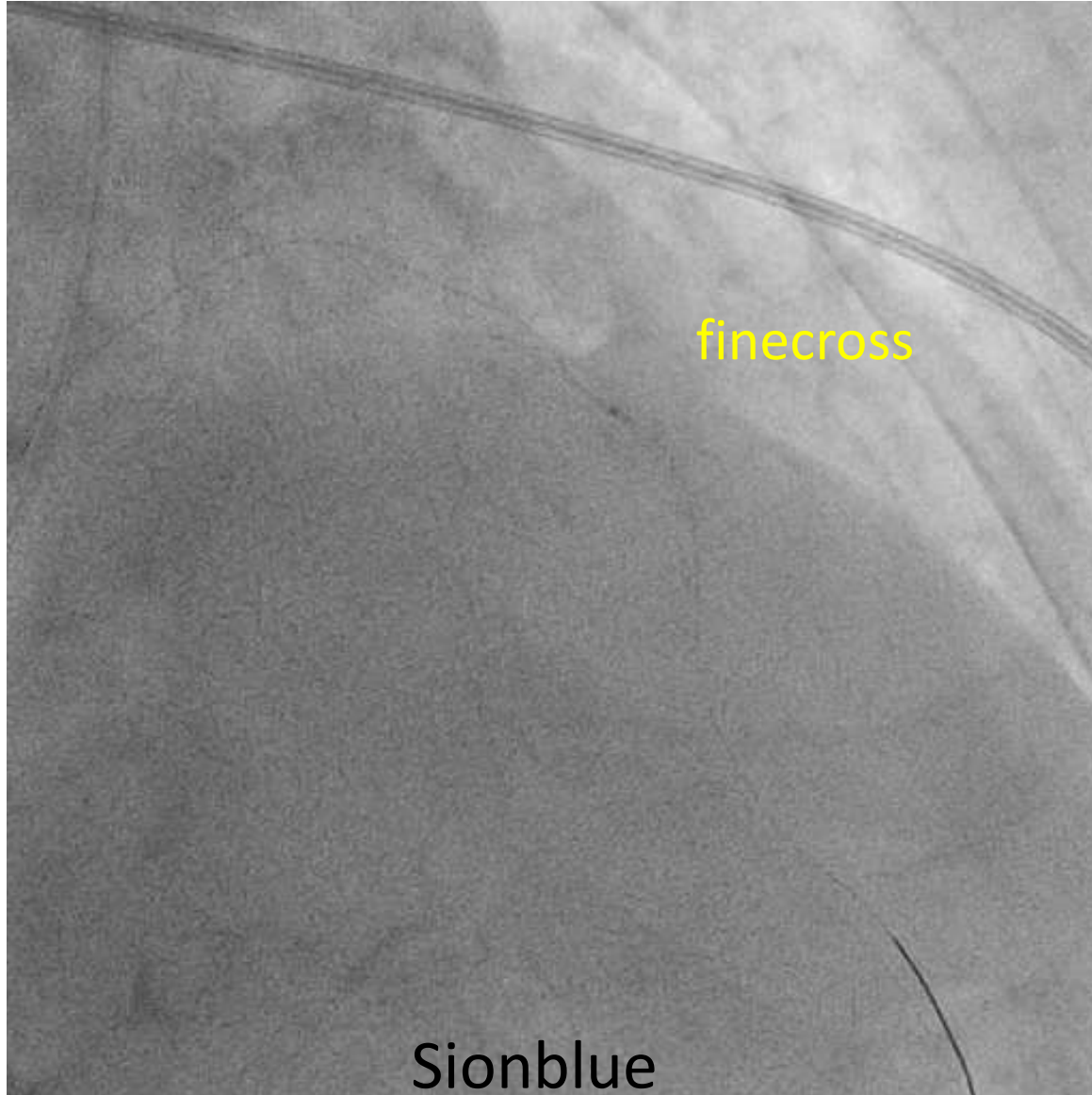
Synergy 3.0/48 mm



Final



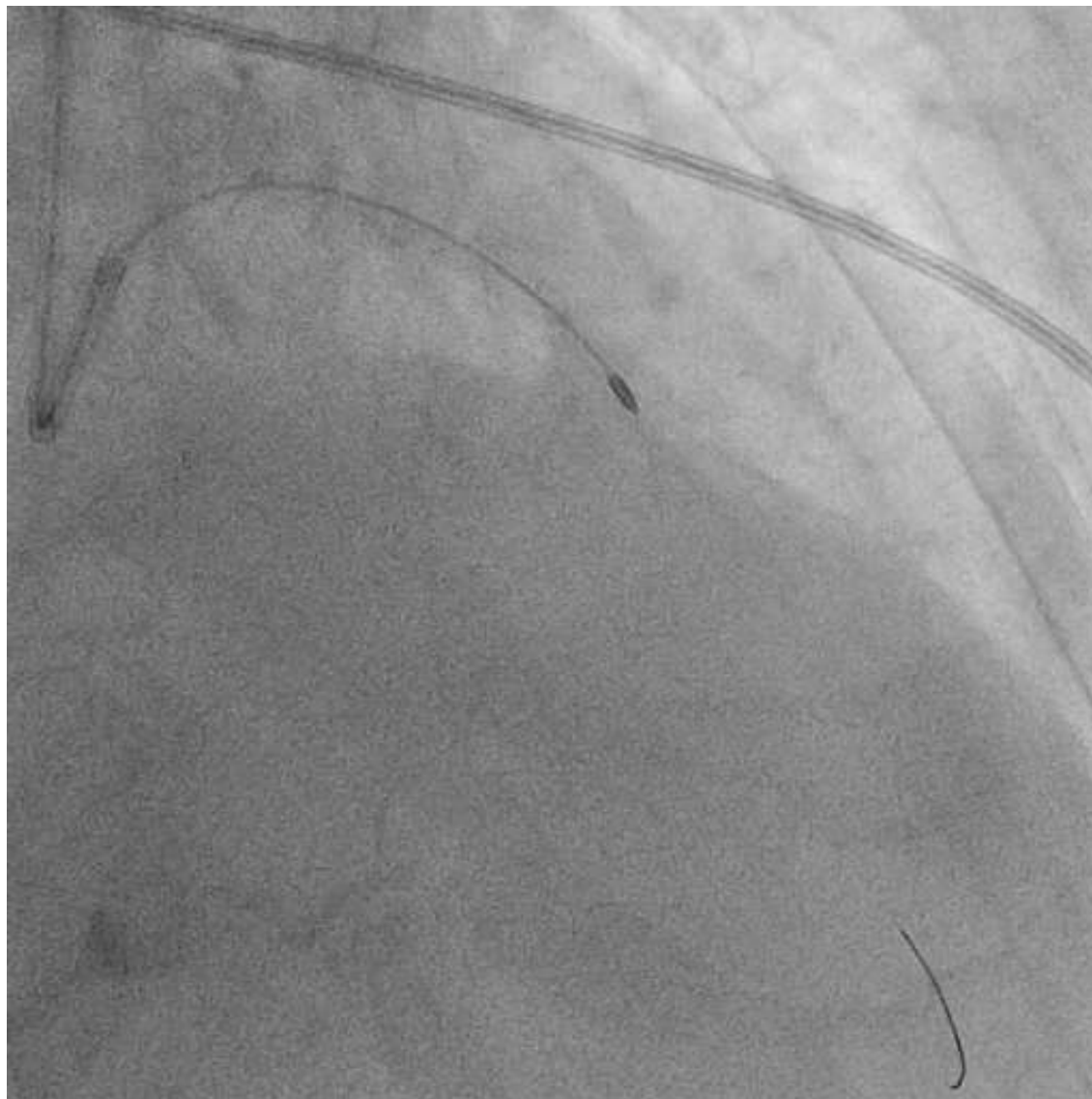
LAD



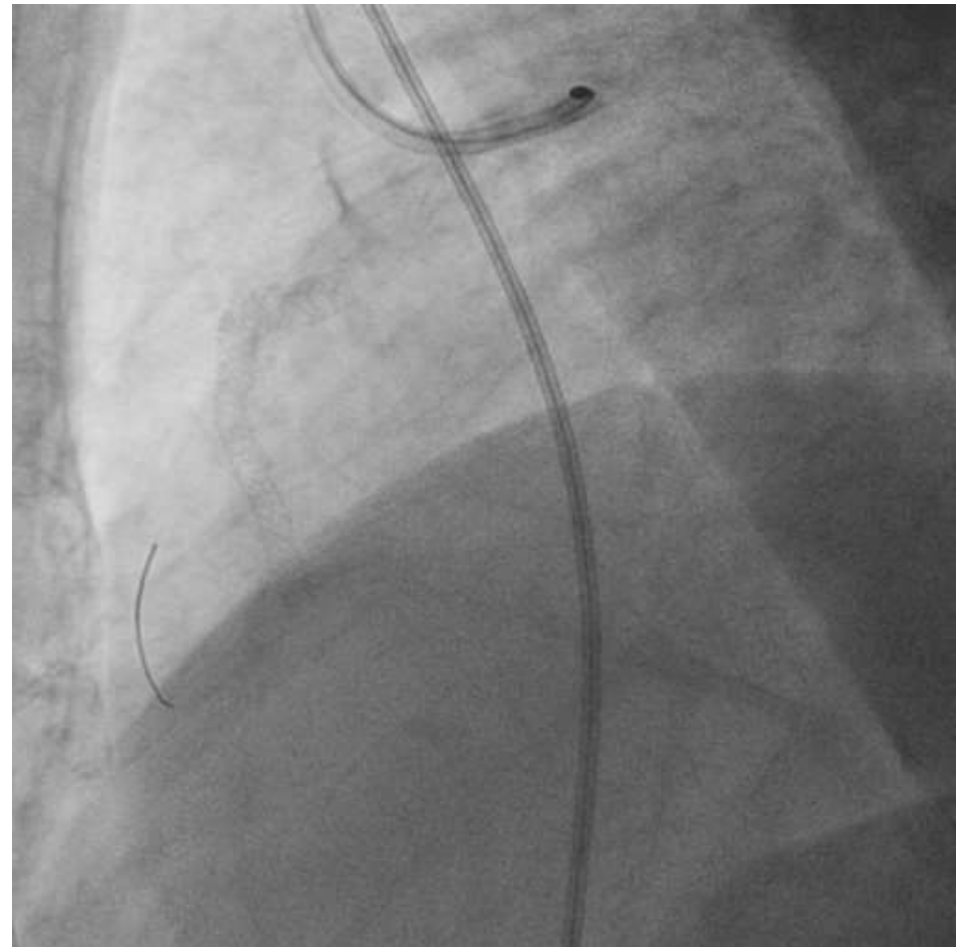
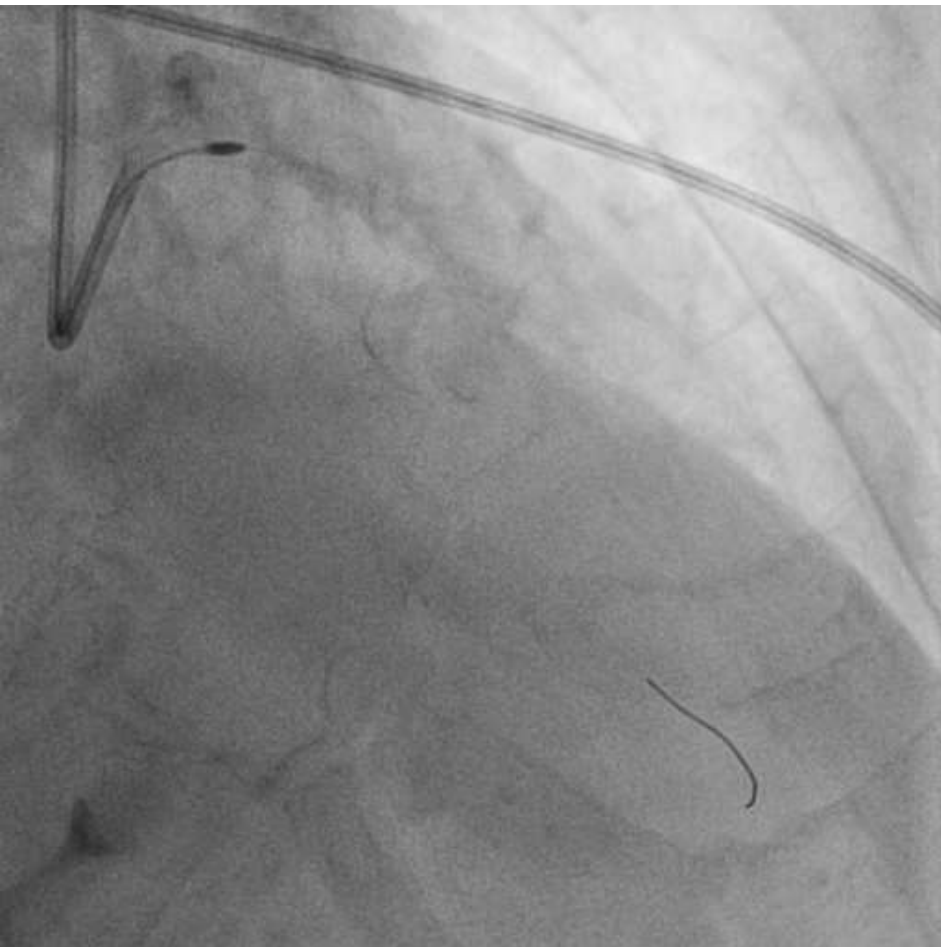
1.25 mm Burr



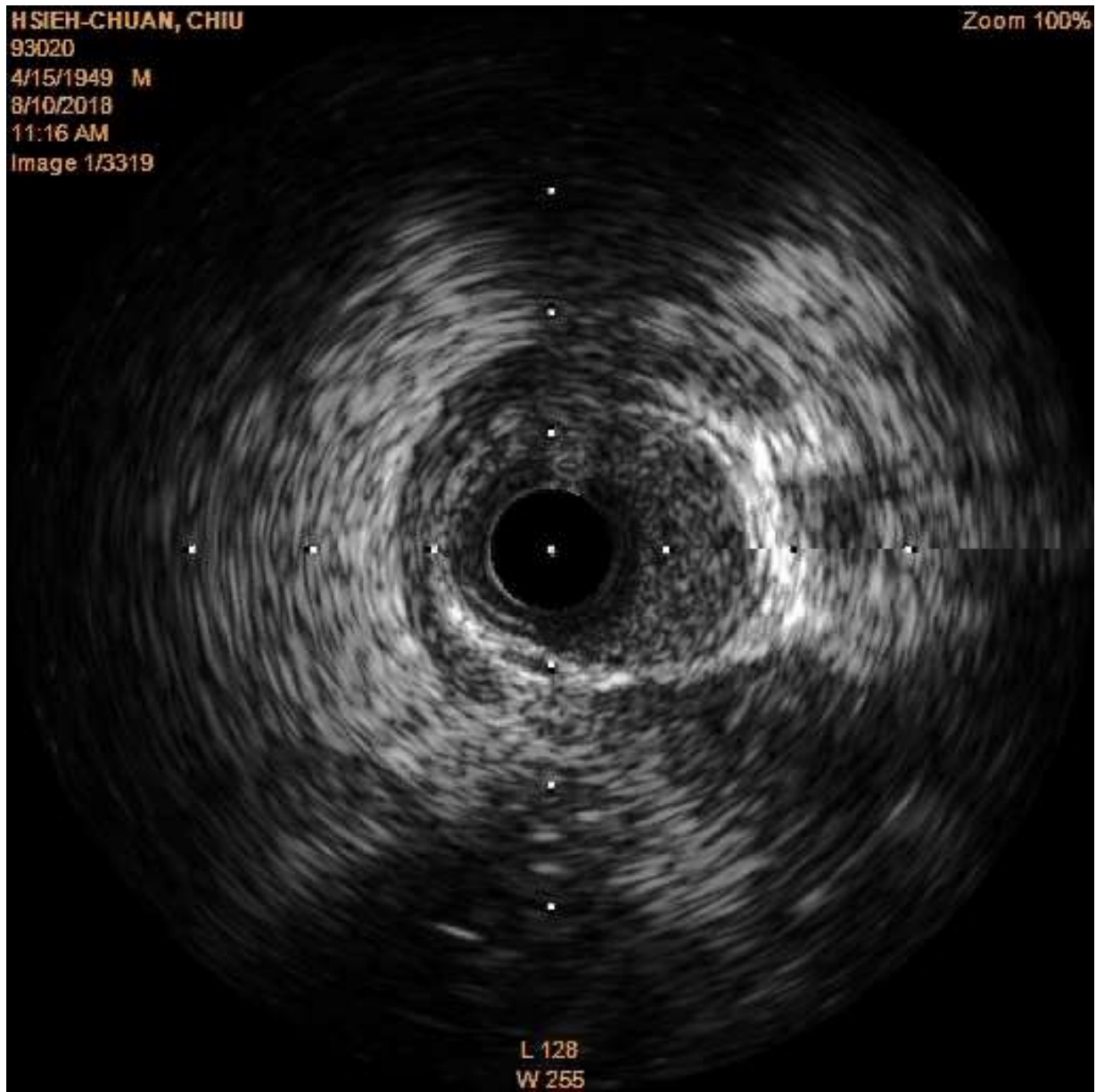
1.5 mm Burr



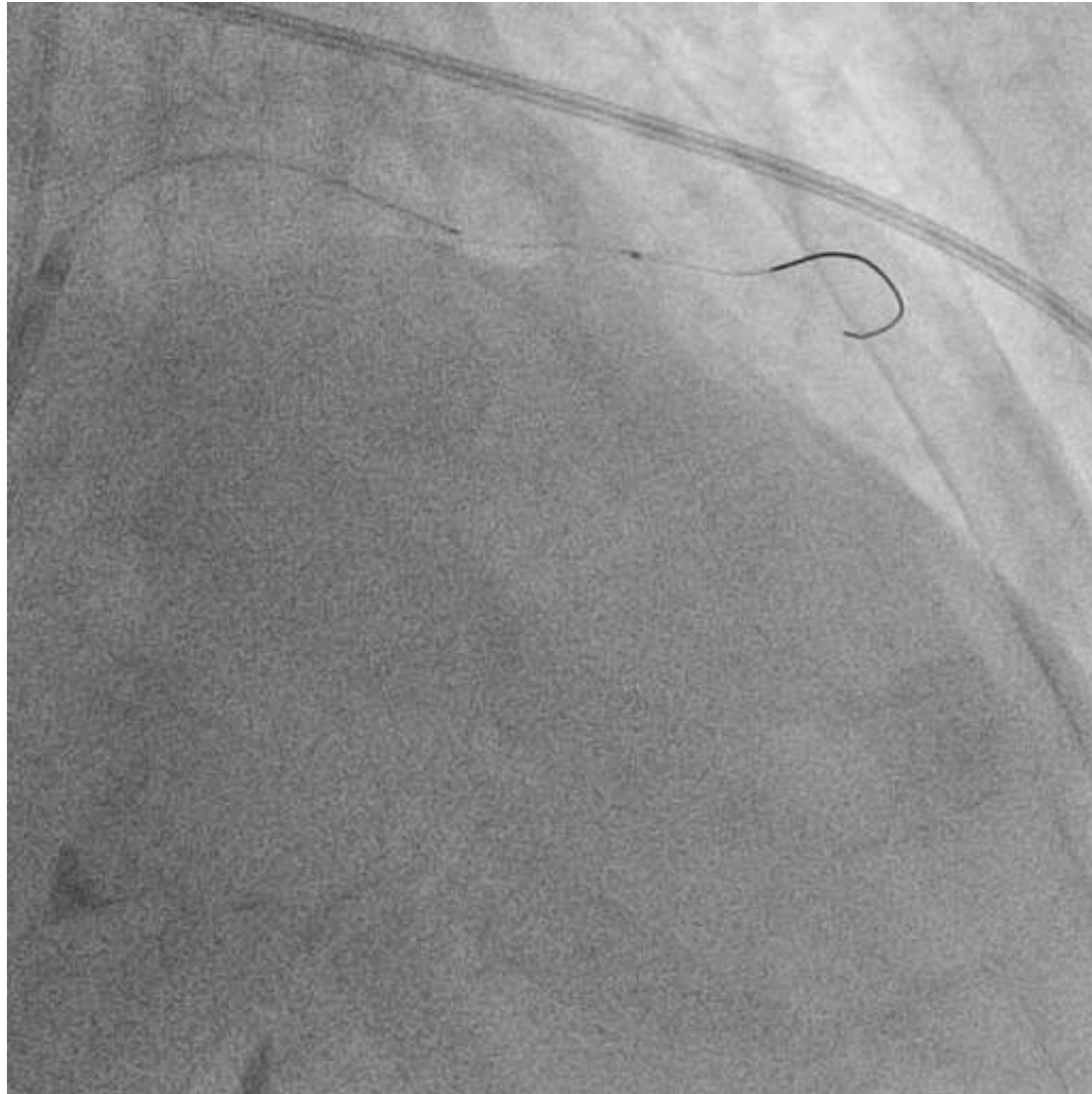
After LAD Rota



LAD IVUS



DA: IVUS could not pass



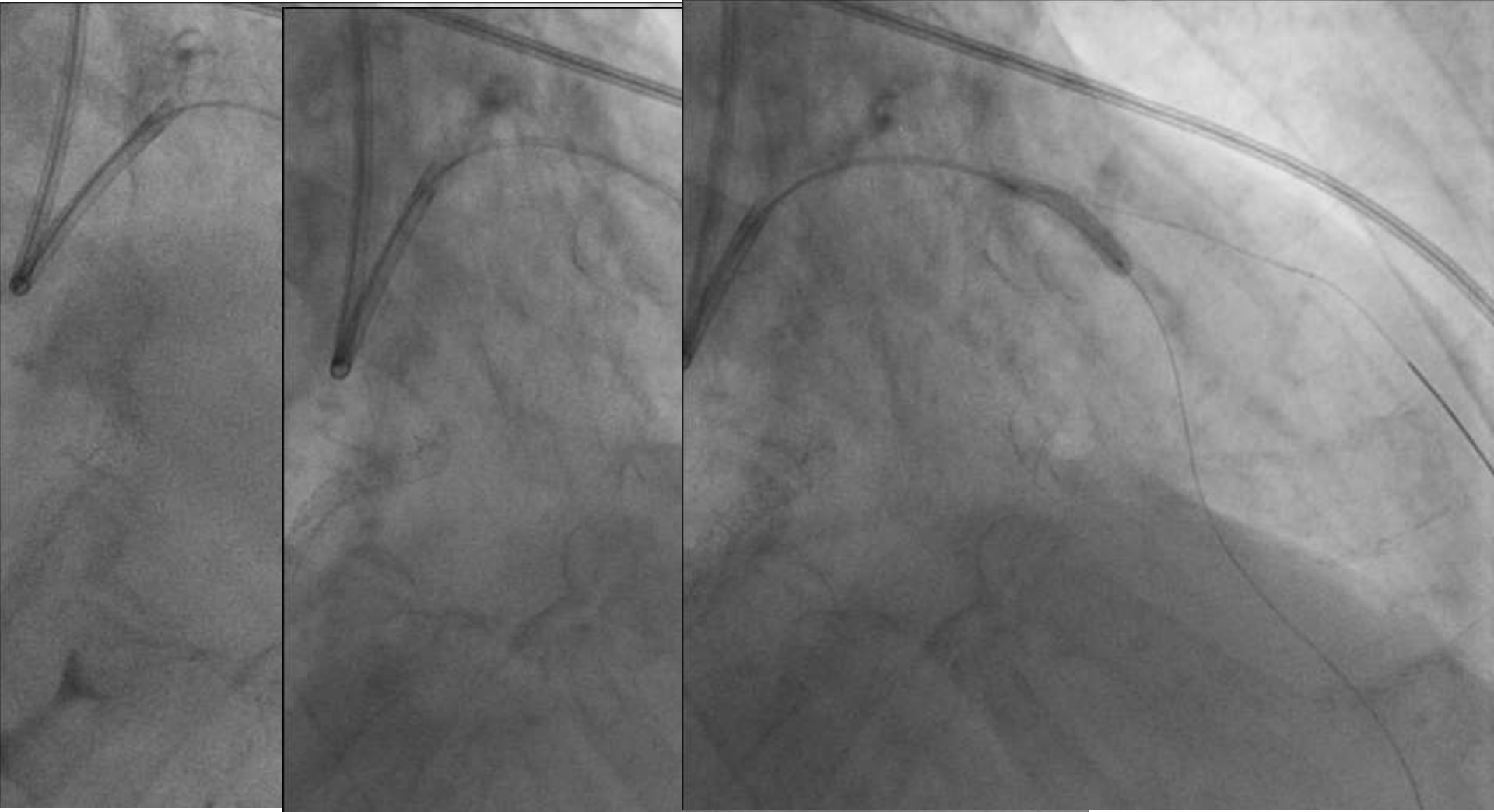
DA: 1.25 mm Burr



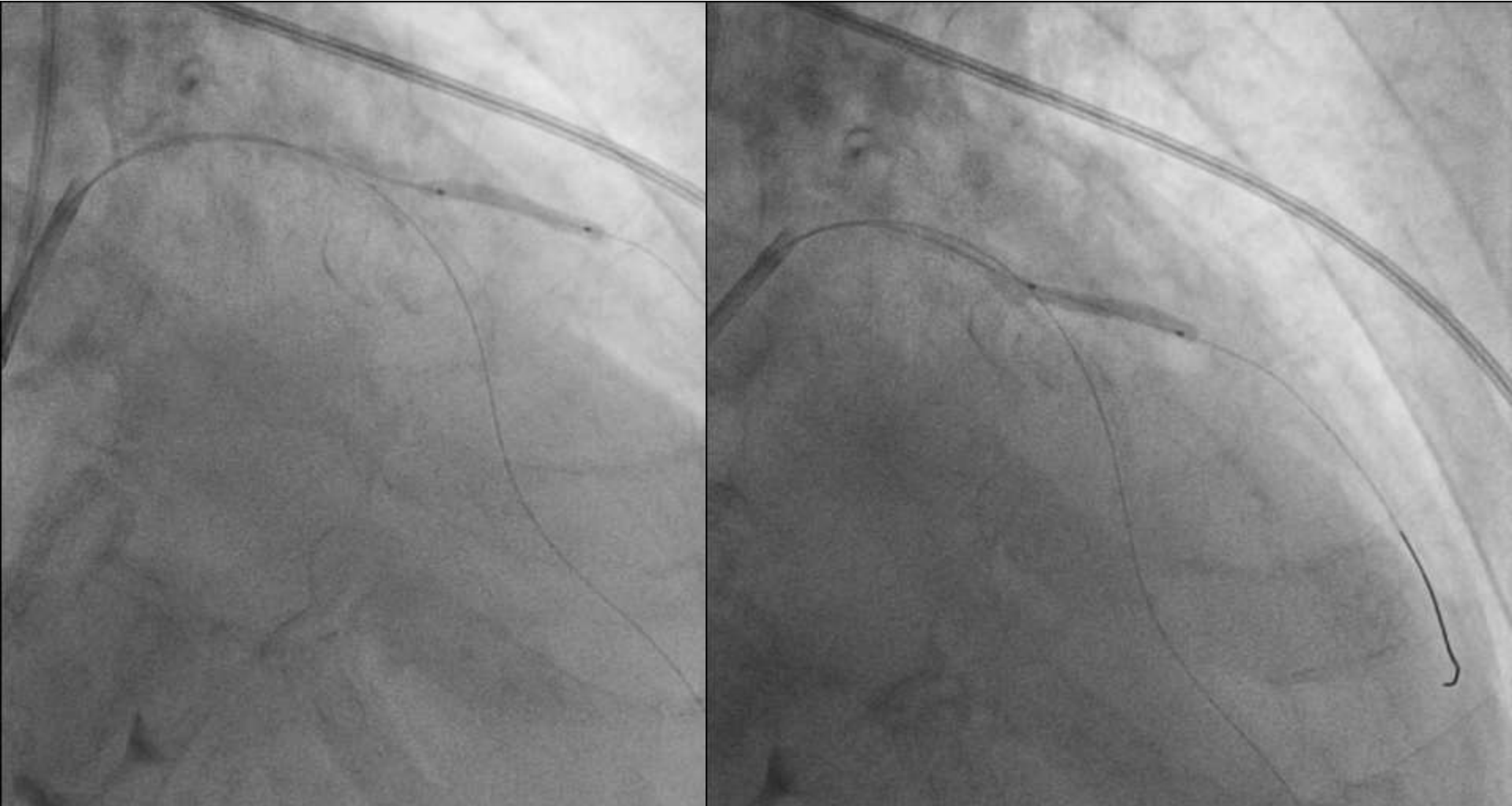
After Rotablation



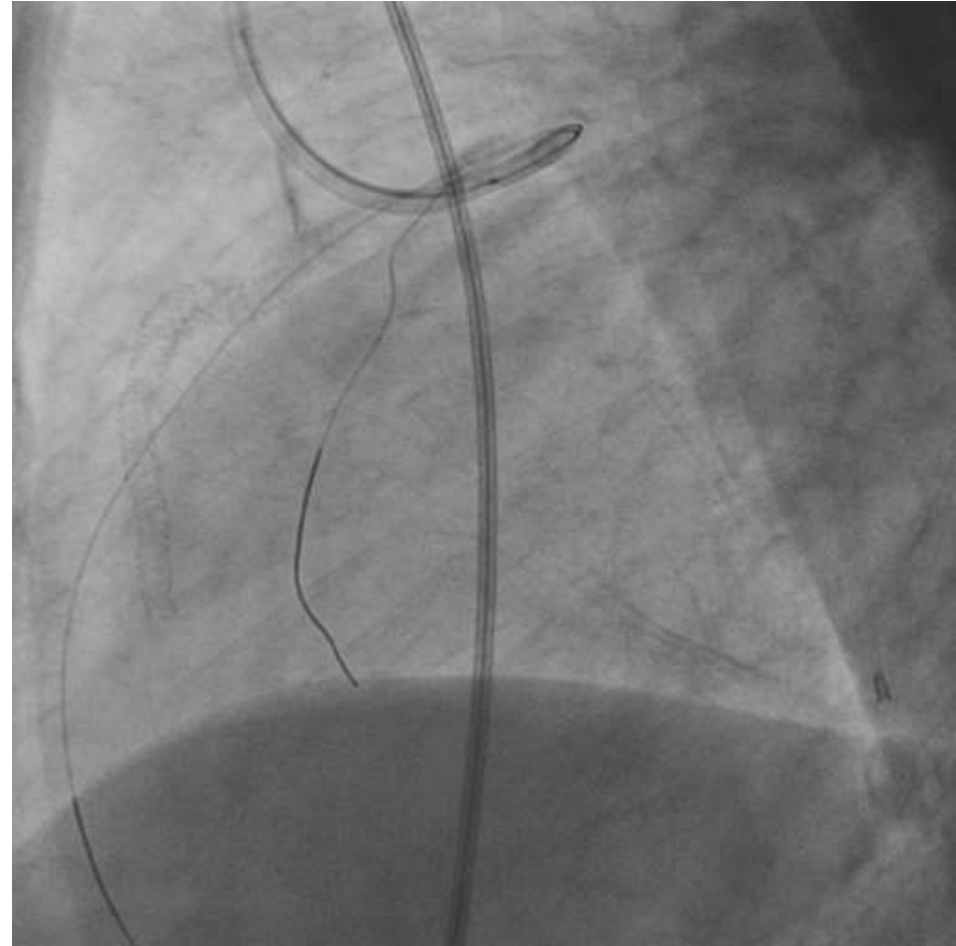
NC Trek 3.0/15 mm



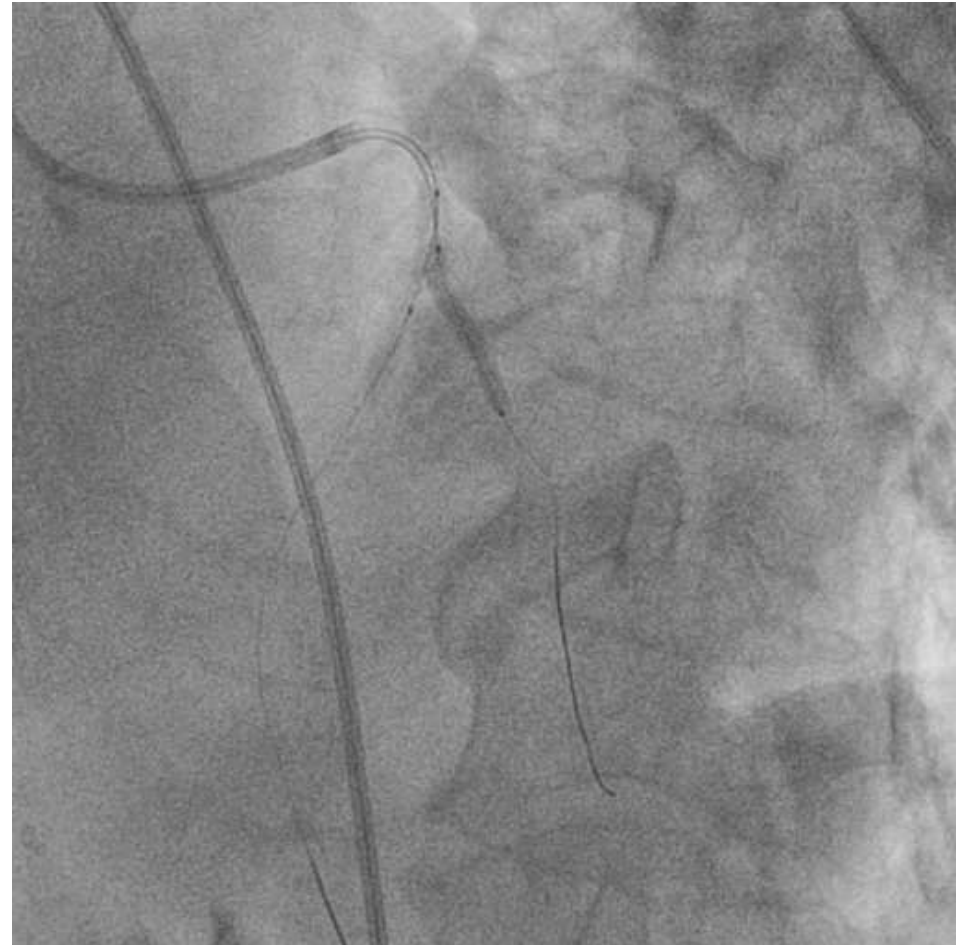
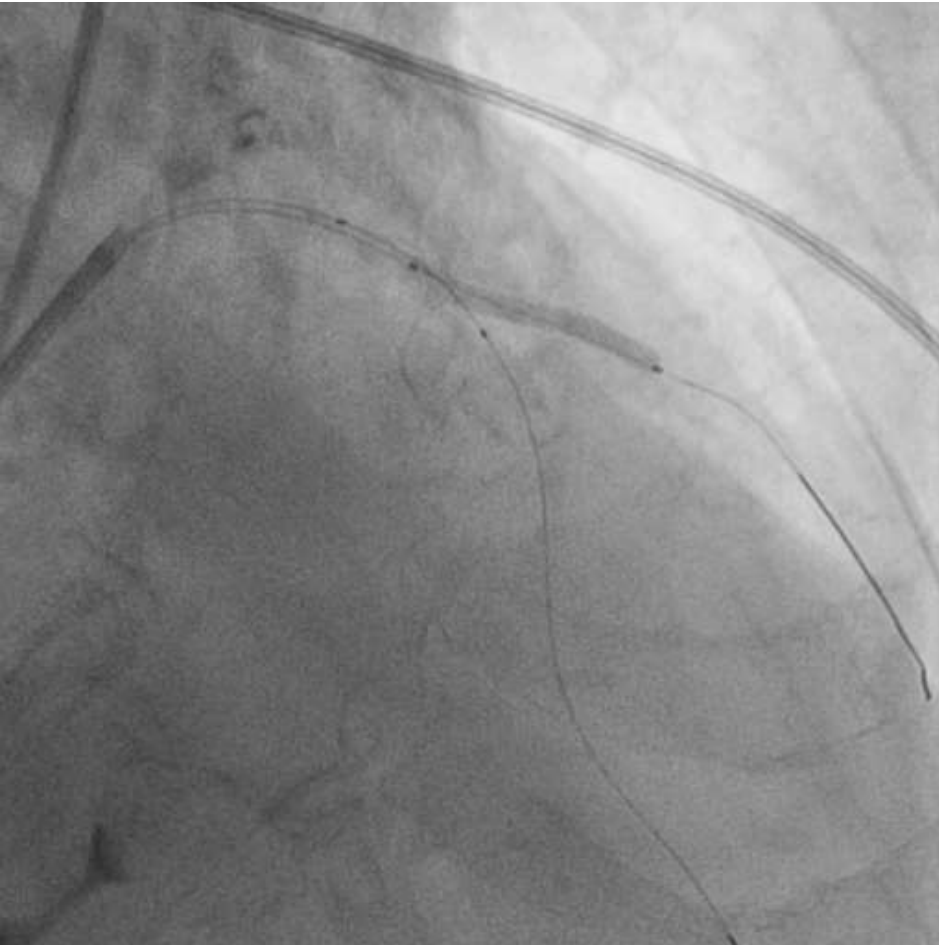
NC Quantum 2.5/20 mm



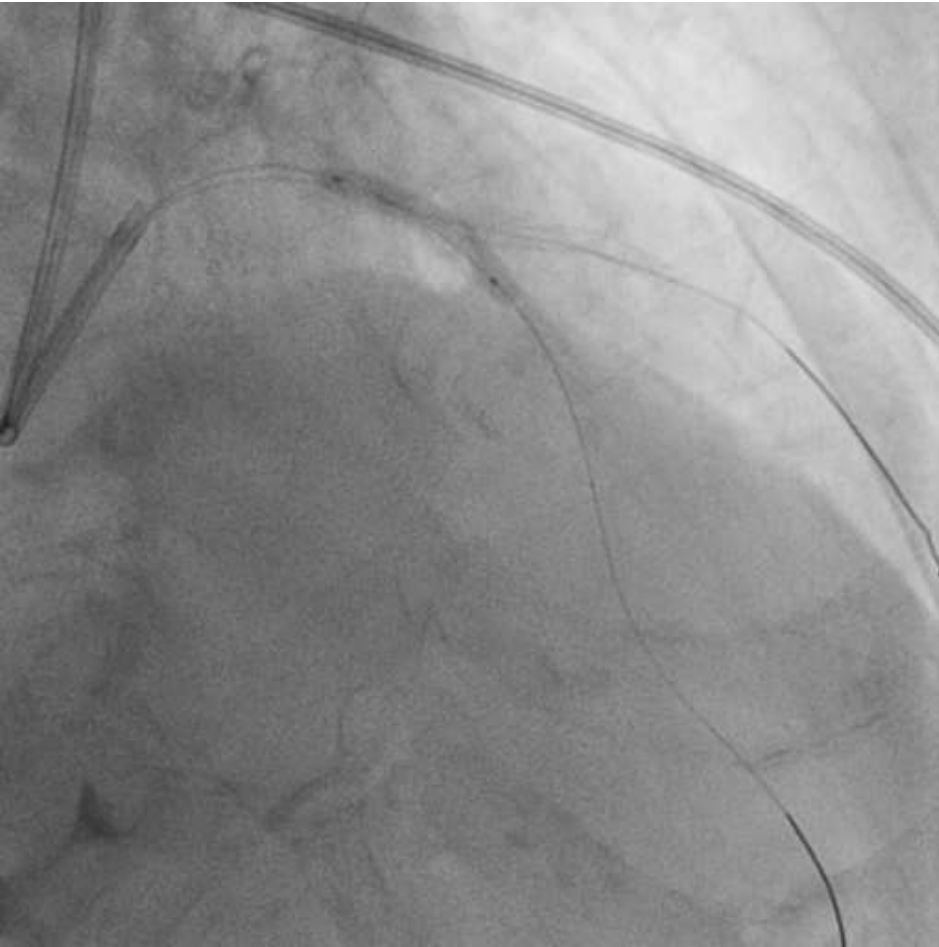
After ballooning



Synergy 2.5/24 mm



Crush



3.5x20 mm NC

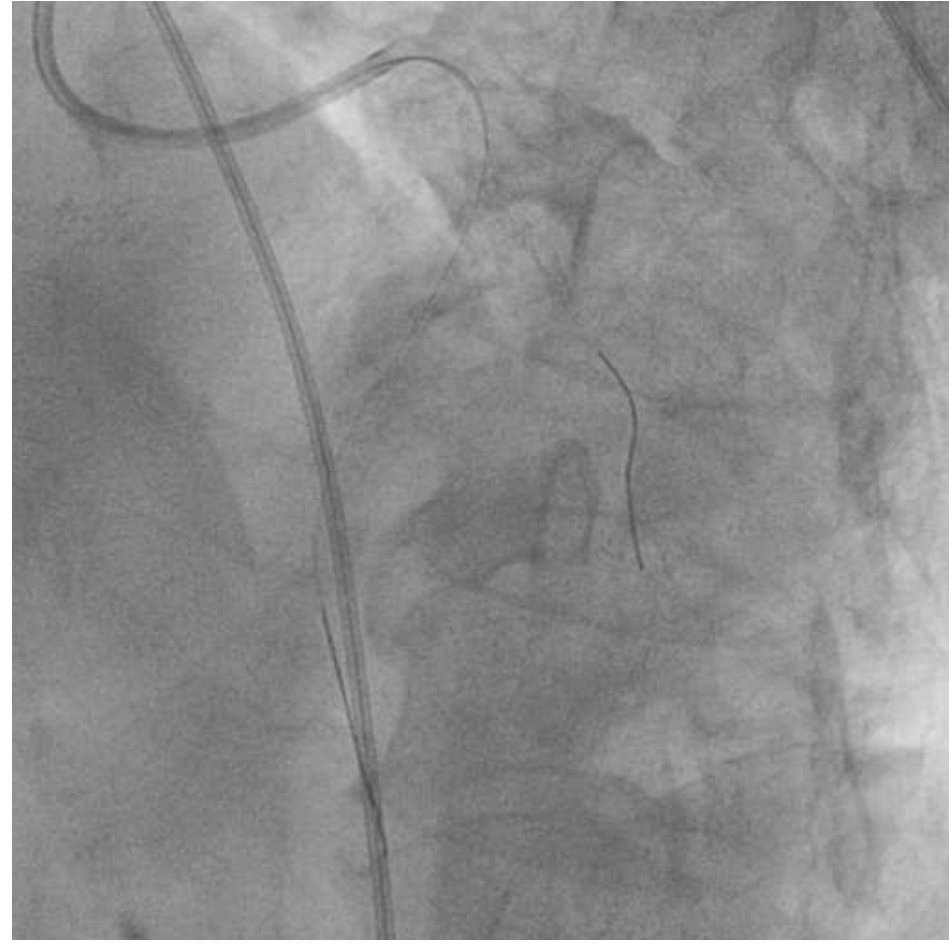
1st KBT



NC Quantum 2.5/20 mm
NC Quantum 3.5/20 mm

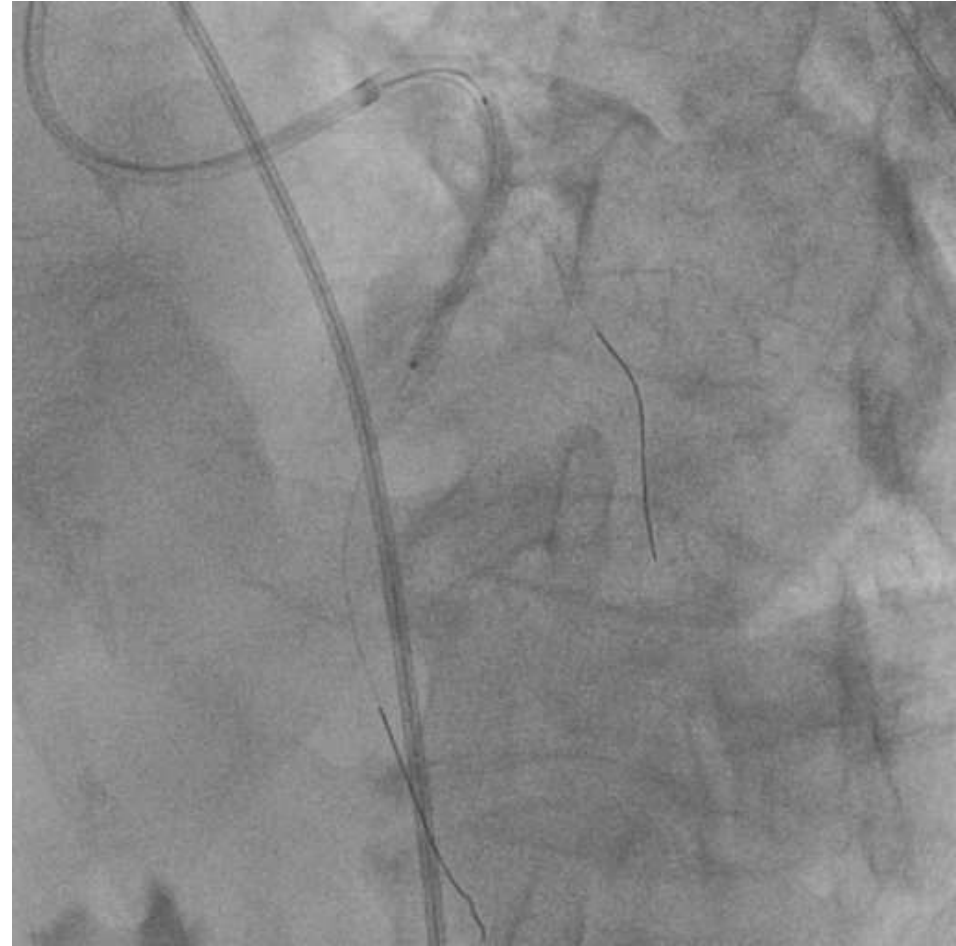
@ 10 atm

No stent edge dissection

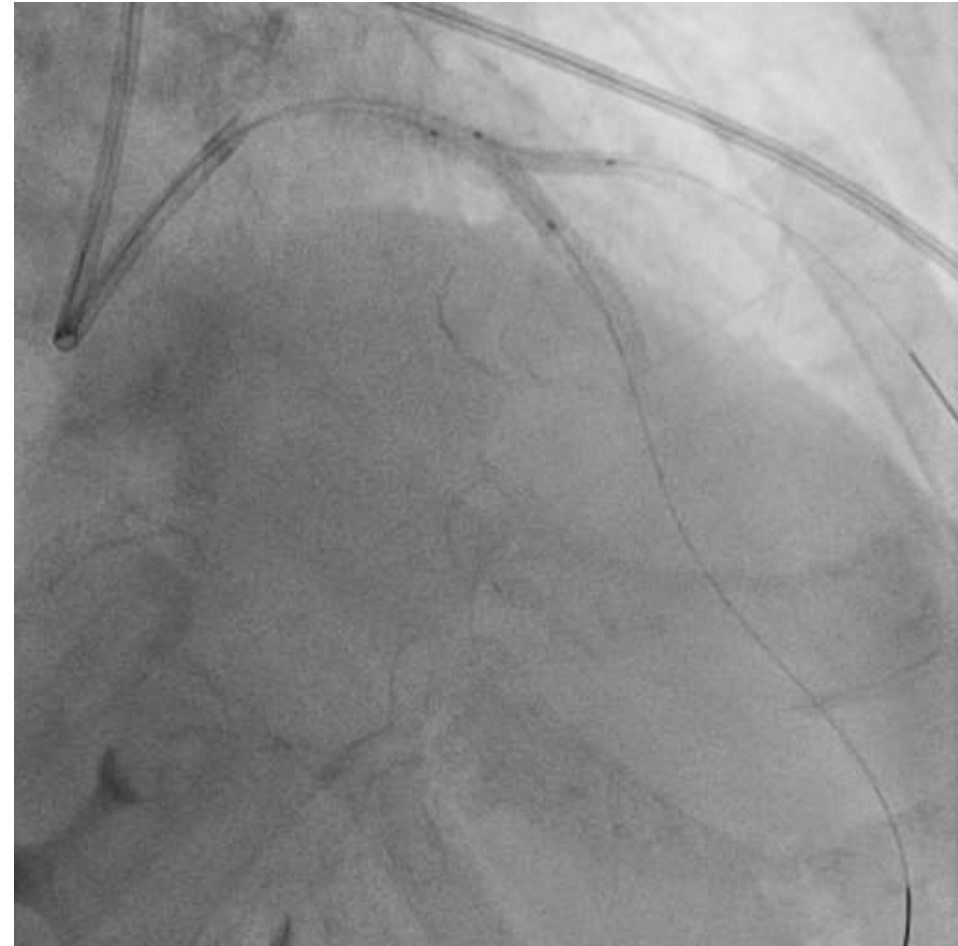
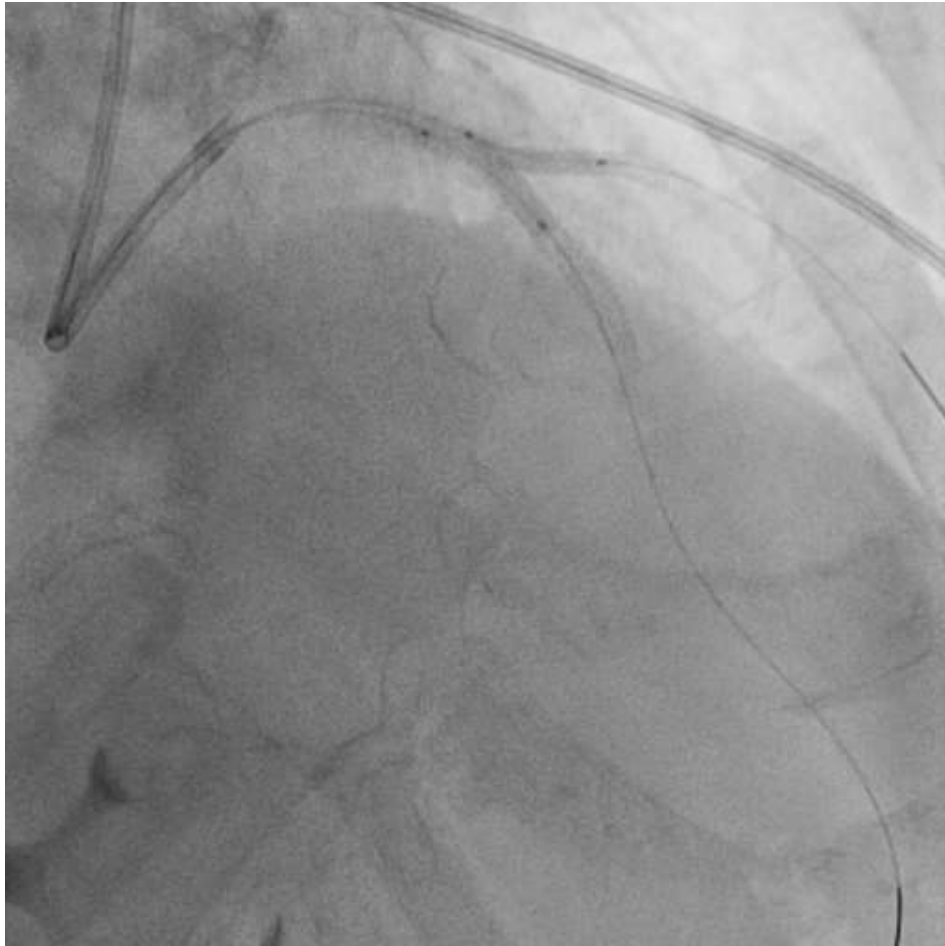


MV stenting

Synergy 3.0/38 mm



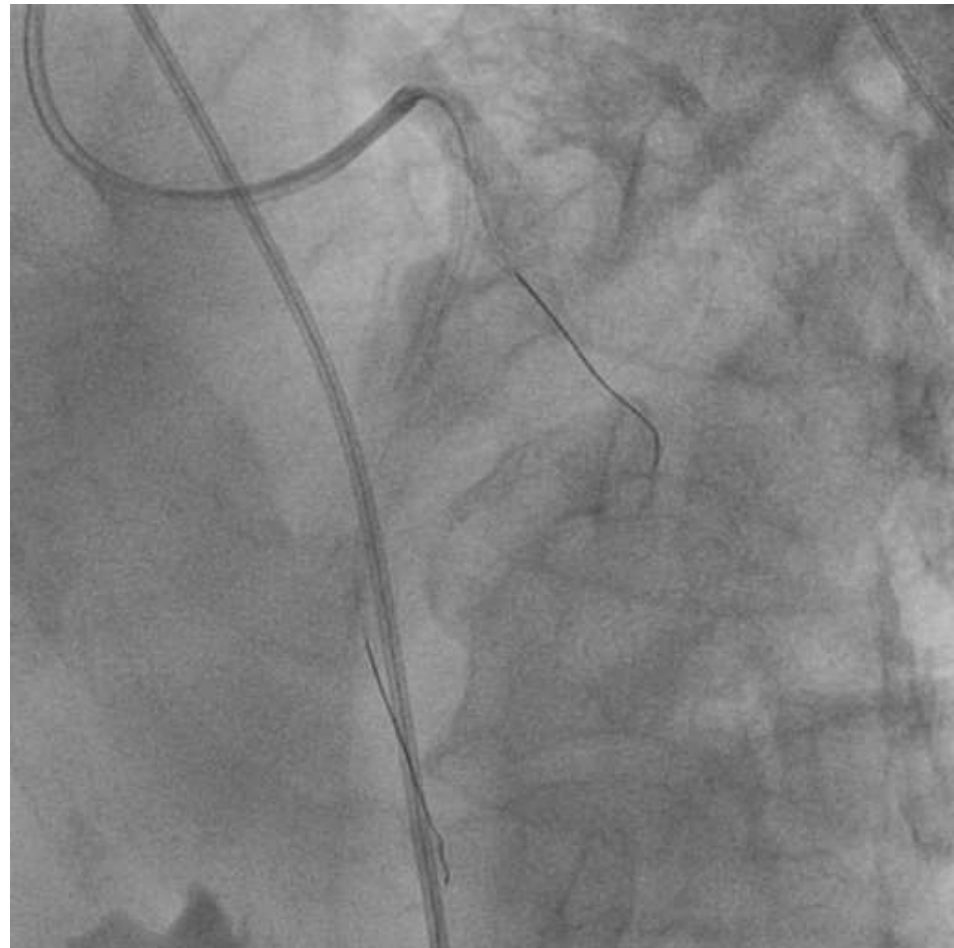
2nd KBT



NC Quantum 2.5/15 mm
NC Euphora 3.0/15 mm

@ 10 atm

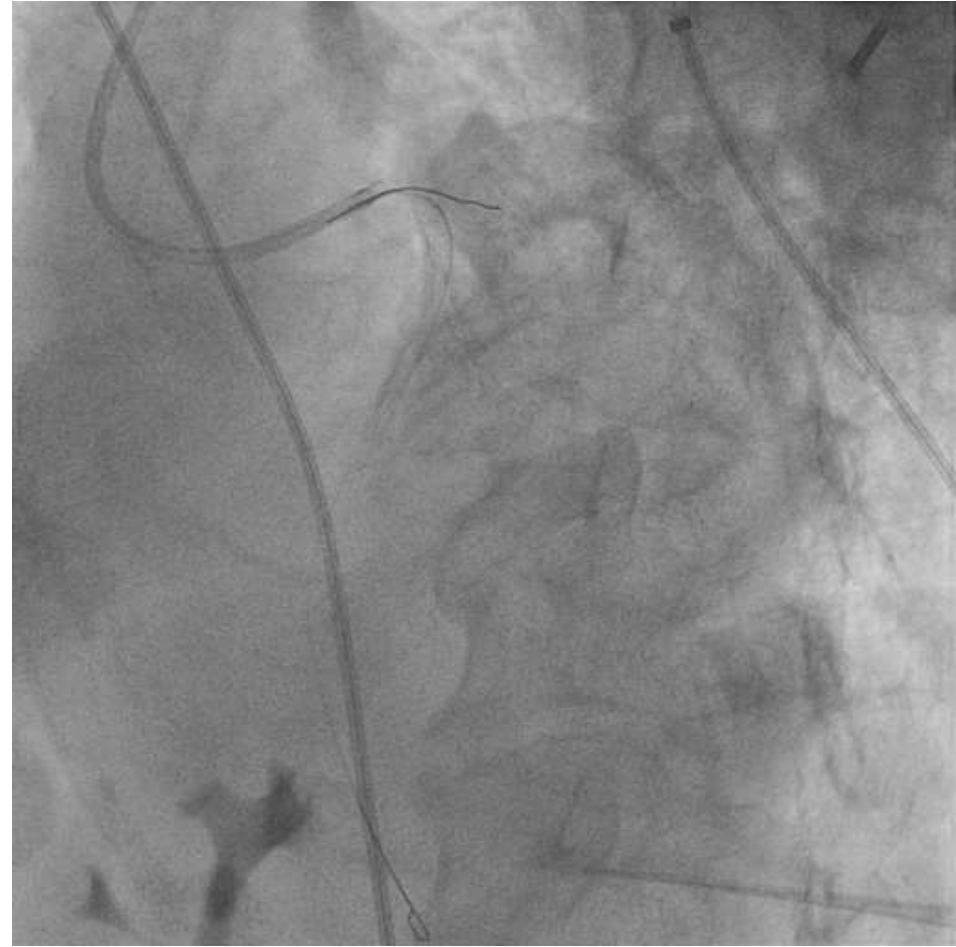
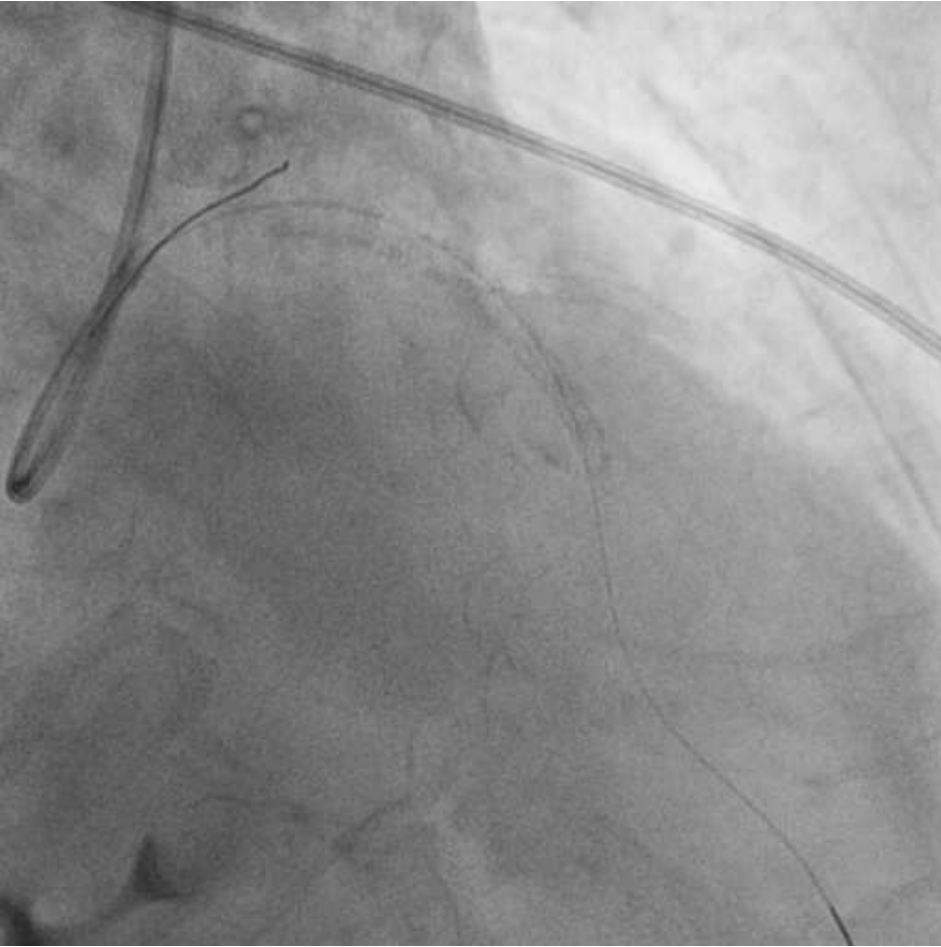
After KBT



P-LAD: RI 3.5/12 mm



Final



Procedure Detail

- Procedure time: 310 min
- Fluoroscopy time: 108 min
- Contrast: Visi 390 ml

Take Home Messages

1. In p't with multiple vessel disease encountering ACS, we should pay more attention to identify the culprit lesion. Even the lesion looks like chronic occlusion, we should always keep the possibility of acute on chronic lesion in mind.
2. For CHIP, mechanical circulatory support device is essential and indispensable.
3. DEB could be an option for vessels that are too small to stent.

4. Rotablator atherectomy is an ultimate solution to deal with long and heavy calcified lesion.

5. For SB worthy of preservation but heavy calcified, rotablation should be considered.

Thanks for your attention !