



PCI for Diffuse LAD CTO under IVUS Guidance

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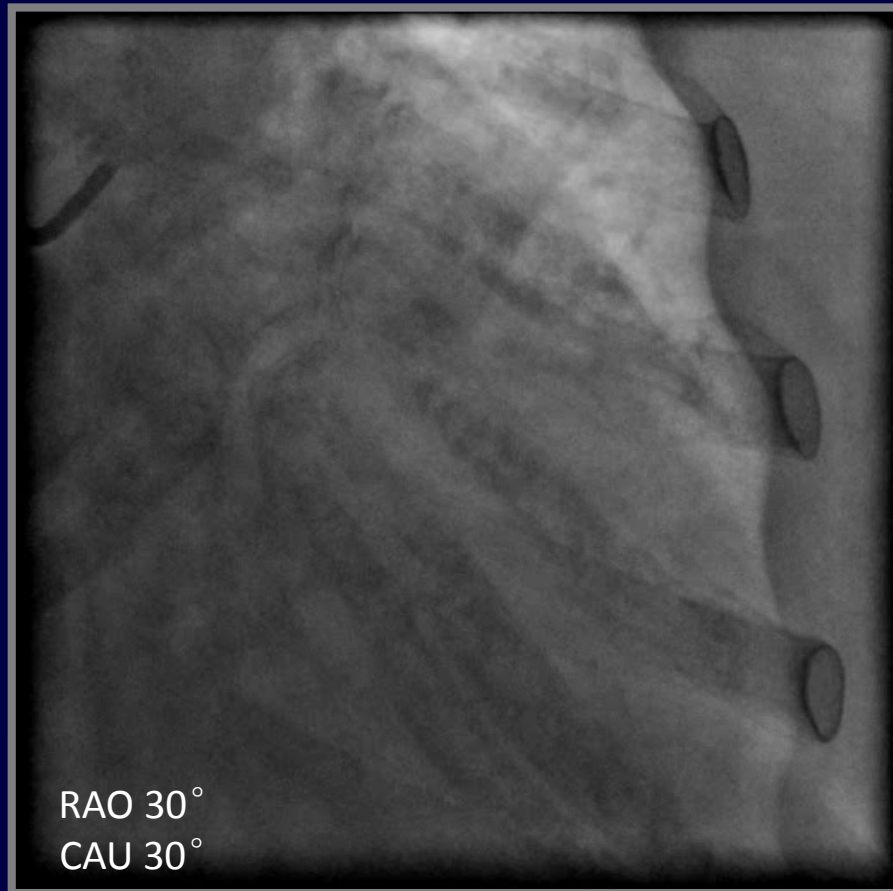
Shanghai East Hospital

History



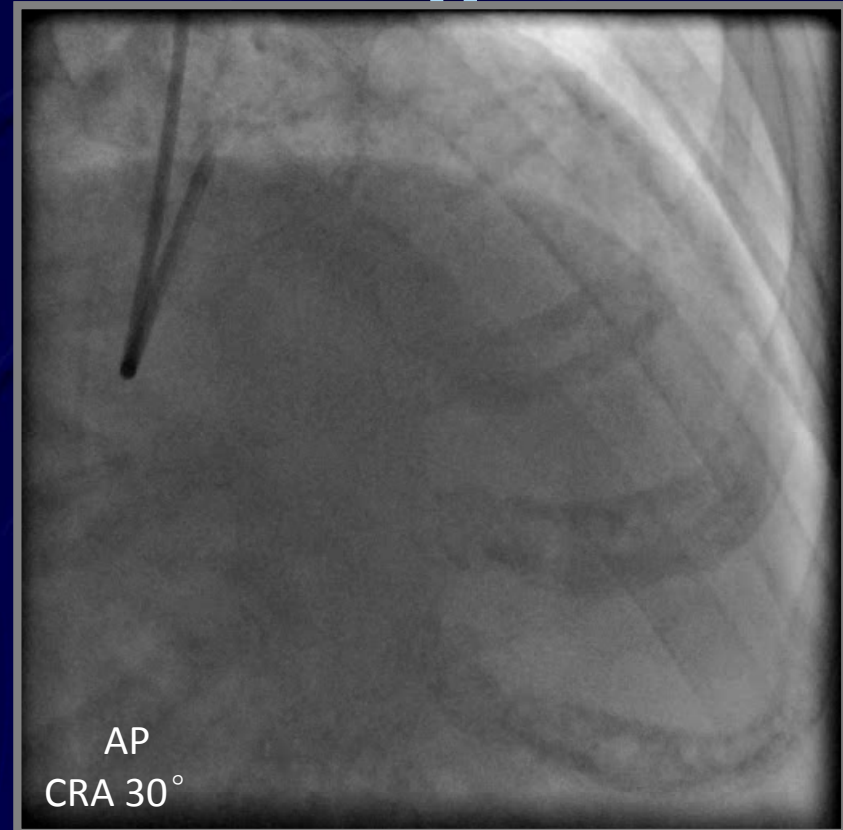
- Female, 65 years old
- Admitted due to effort chest pain for 1 year.
- Coronary risk factor: Hypertension and Diabetes
- ECG showed T wave flat in precordial lead V1-6
- Echo: Normal left ventricular function, with EF 61%

Left Coronary Angiogram



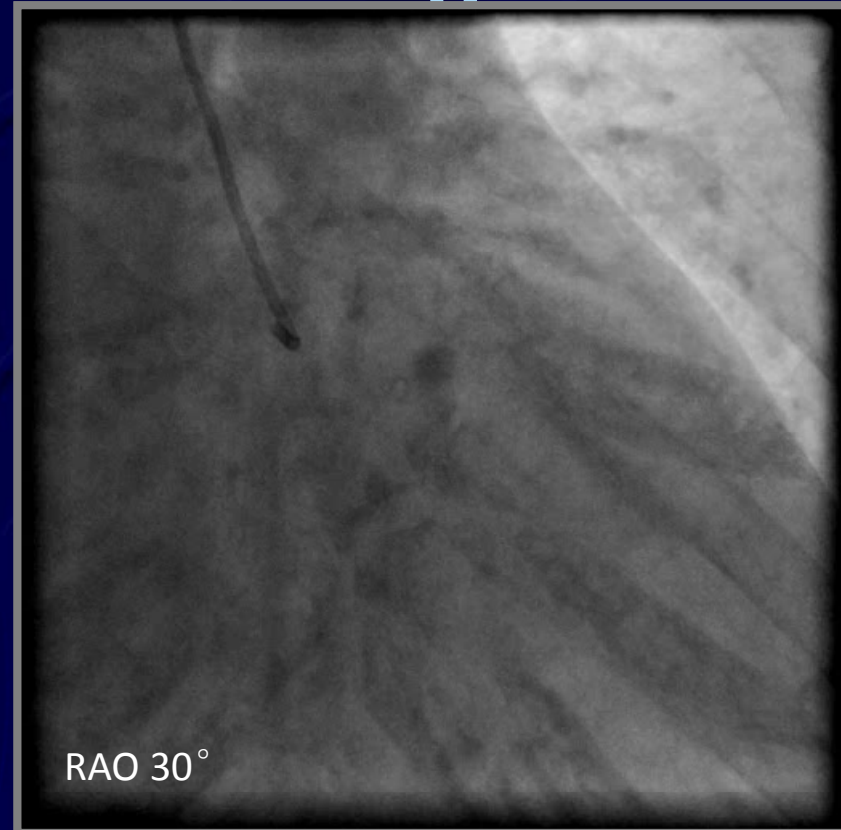
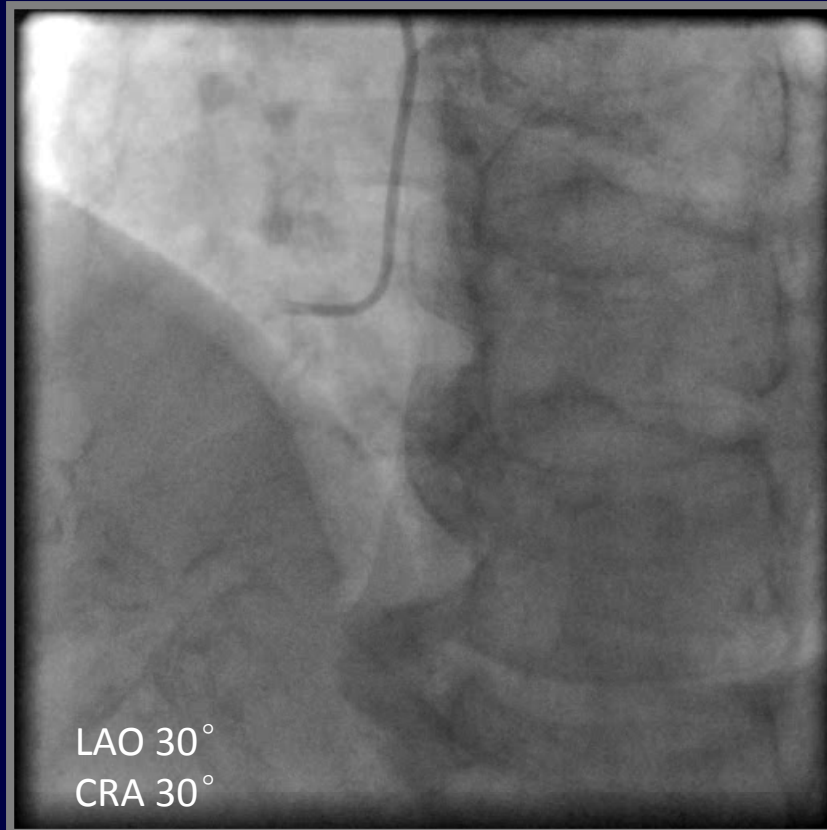
- LM: short and nearly normal
- LCX: advanced, 70% stenosis in the proximal portion, severe stenosis at ostial and proximal of OM1 and OM2

Left Coronary Angiogram



- LAD: diffuse narrowing from ostial to proximal portion with severe calcification, CTO from the diagonal branch ostium , and 95% stenosis in the proximal portion of D1
- The distal RCA was filled through the collateral channel of the left coronary

Right Coronary Angiogram



- Diffuse narrowing from ostial to mid portion, total occlusion at mid RCA.
- Distal LAD were well filled through the rich collateral channels of RCA.

Therapy strategy

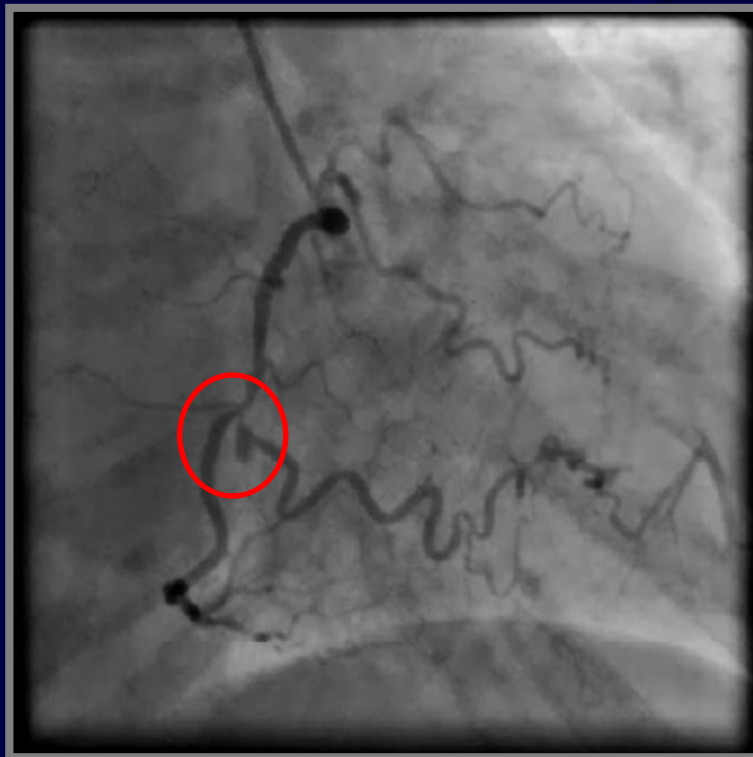


- Syntax Score is 42.5
- CABG was suggested, but patient refused absolutely

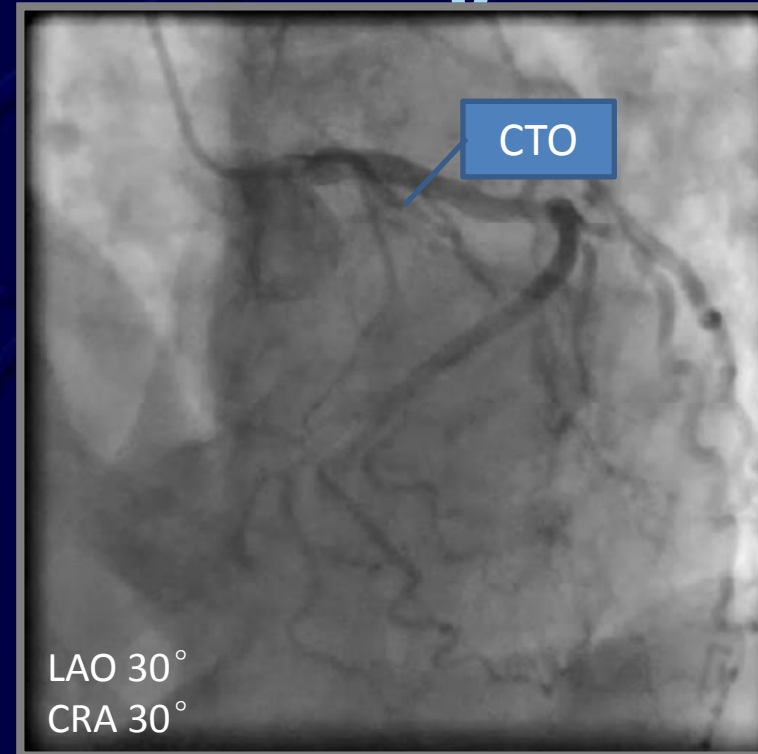
Therapy strategy



- LAD and RCA are both CTO lesion,
Which lesion will be the target?

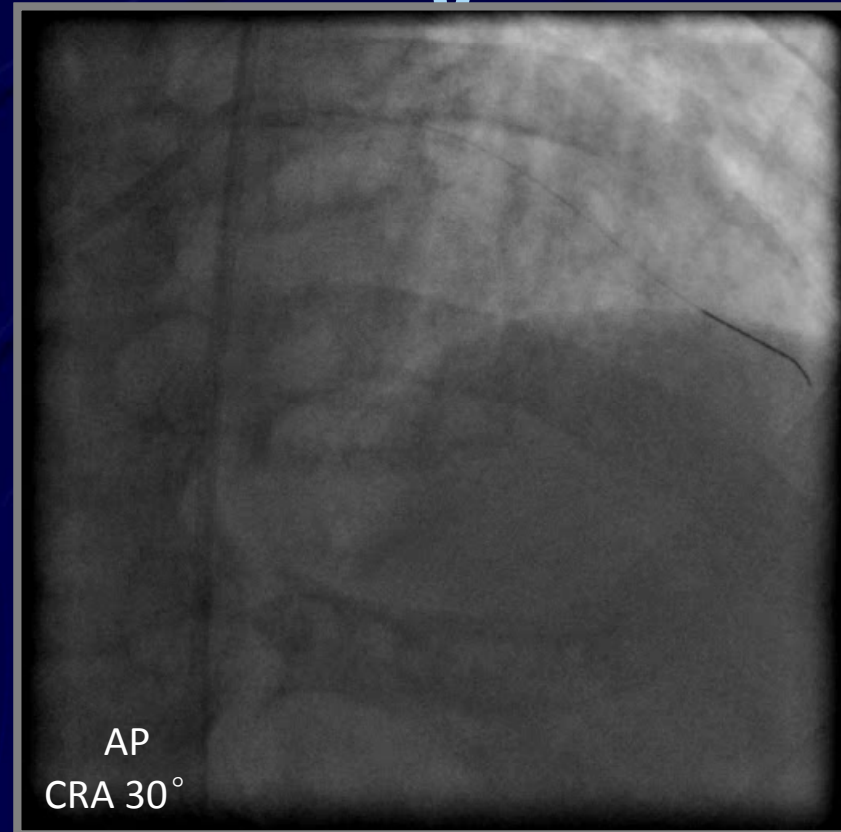
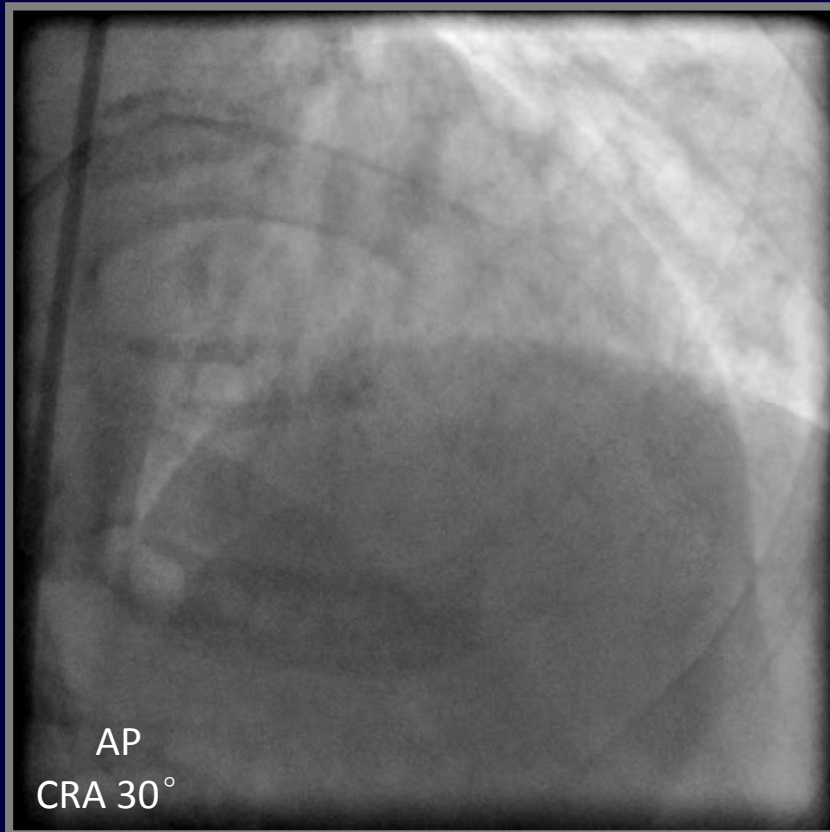


Therapy strategy



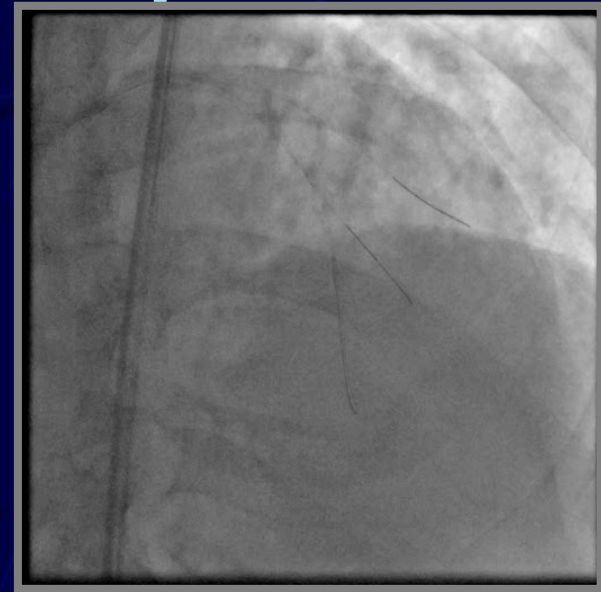
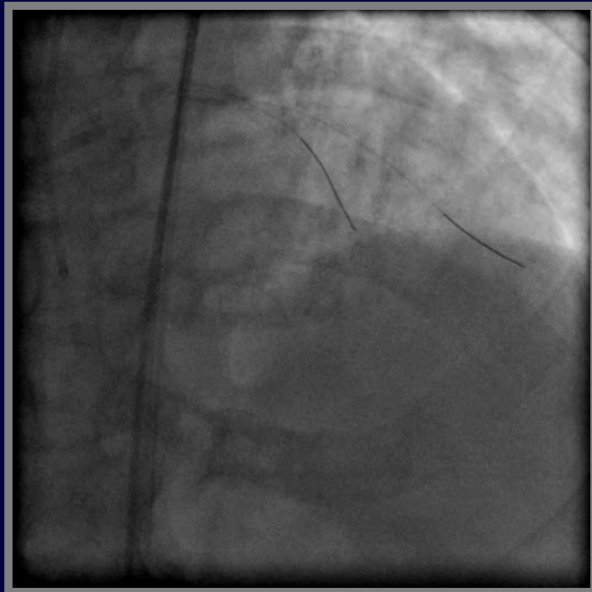
- CTO lesion length longer than 20mm
- Occlusion at ostium of D1
- Calcification

PCI



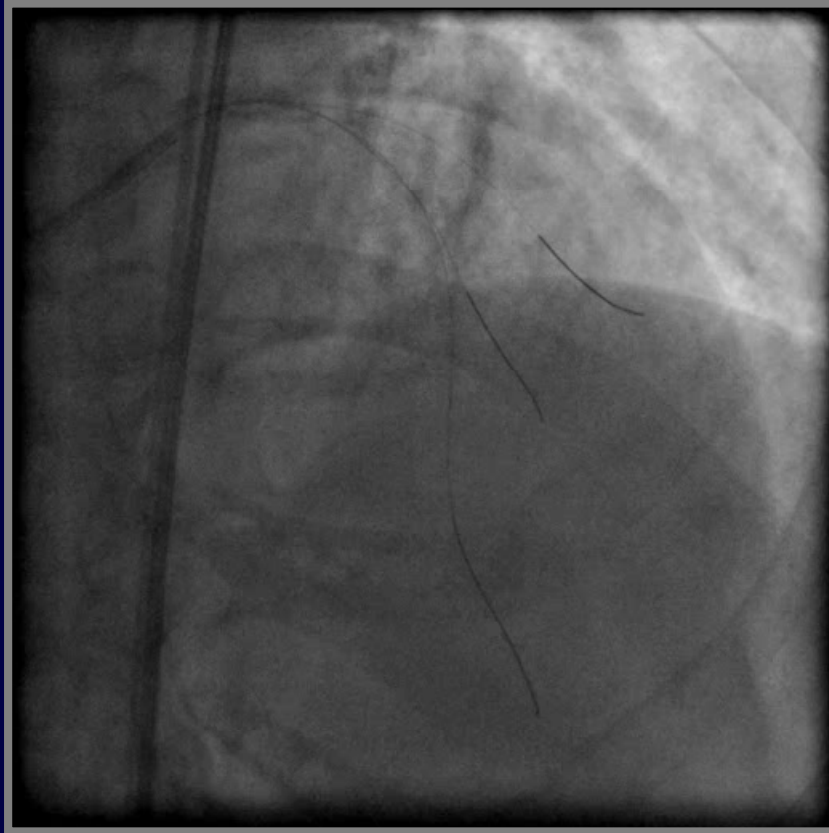
- 6F EBU3.5 Guiding Catheter
- Runthrough wire couldn't go through D1 side branch, Crosswire NT wire was inserted into D1

Recanalize CTO



- Another CrosswireNT wire was navigated into D2
- Angiography from RCA to confirm the position of the wire
- Pilot150 wire pass the CTO lesion by parallel wire technique

PCI

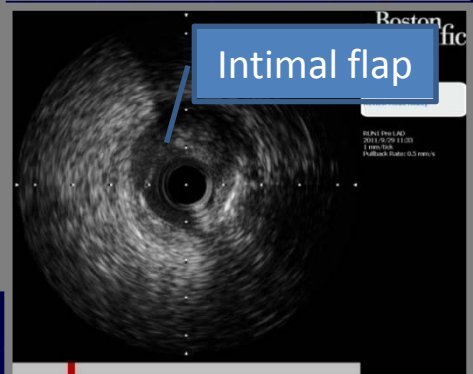
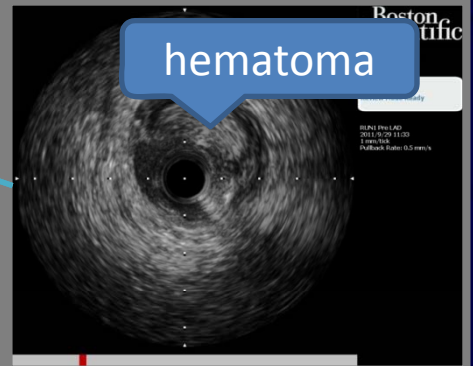
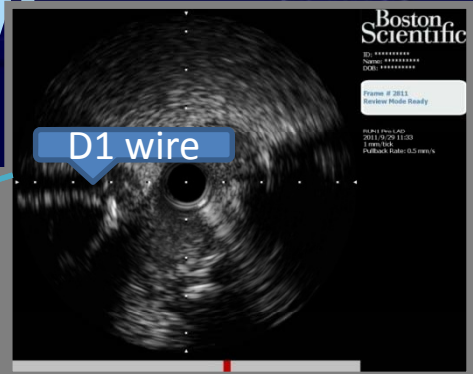
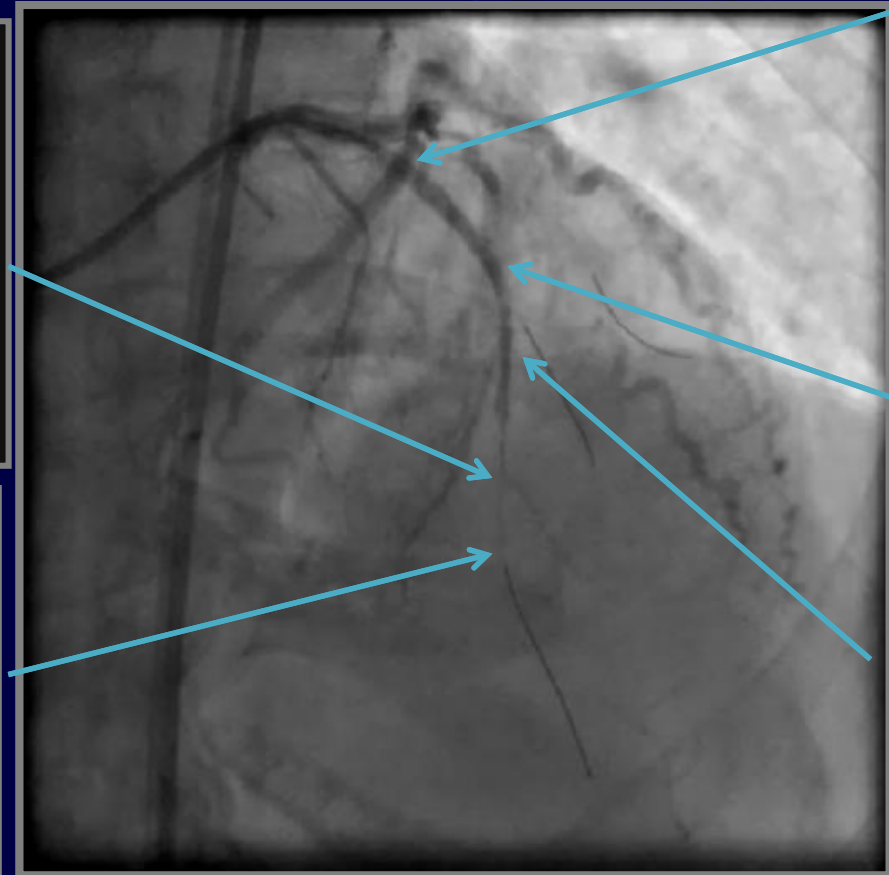
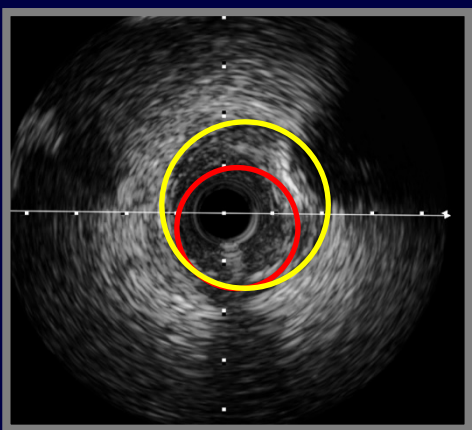
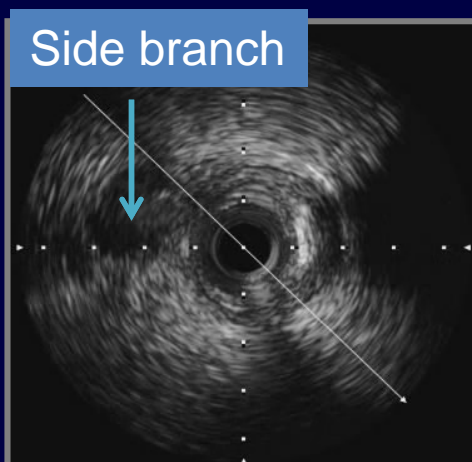


Diffuse dissection?
Or wire re-enter the false lumen
during the balloon crossing

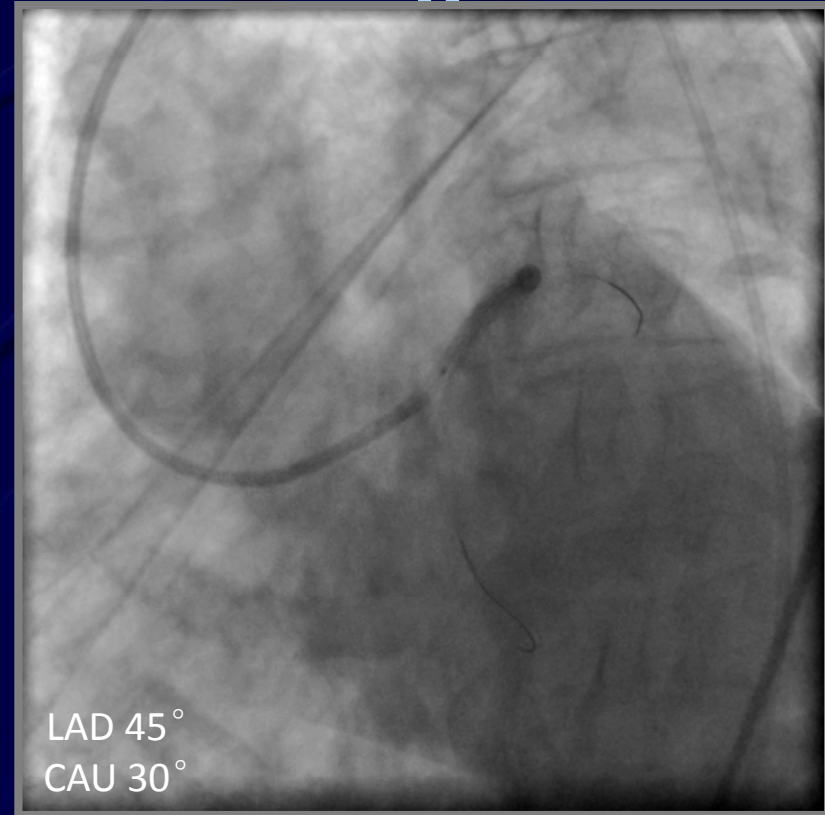
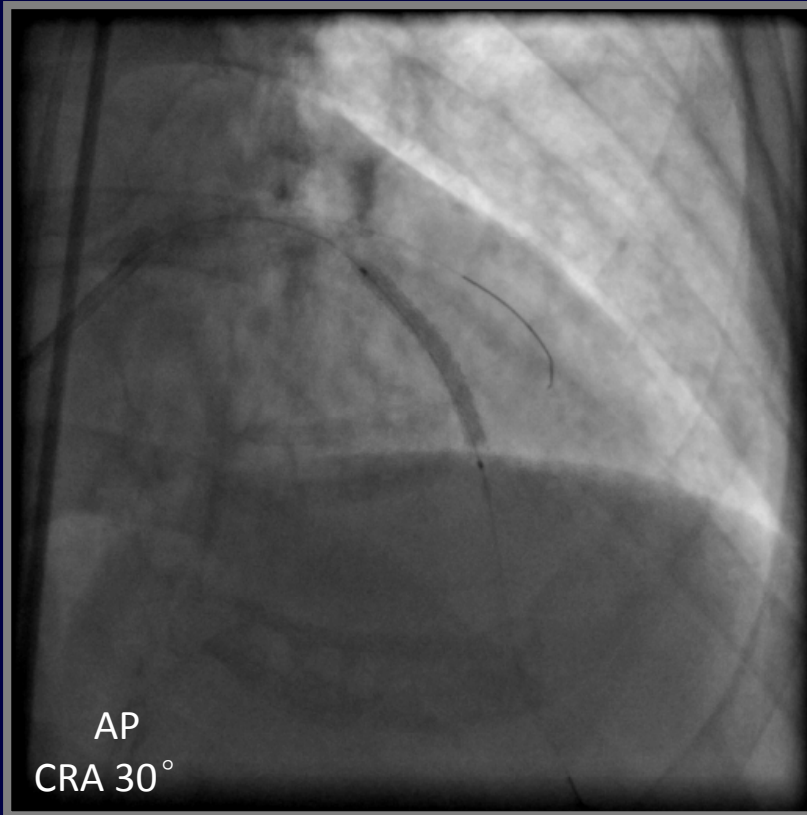
- 1.25*10mm Sprinter balloon pass the lesion , 10-12atm sequentially predilate
- 2.0*20mm balloon predilate
- But the distal flow is not satisfied, What happened



IVUS Image

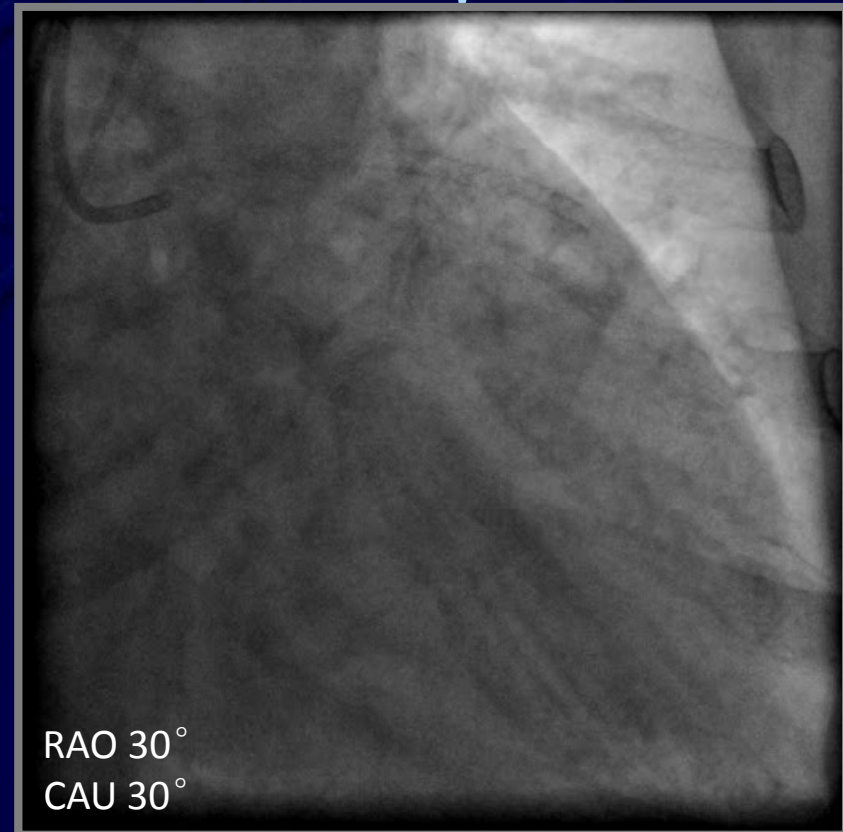
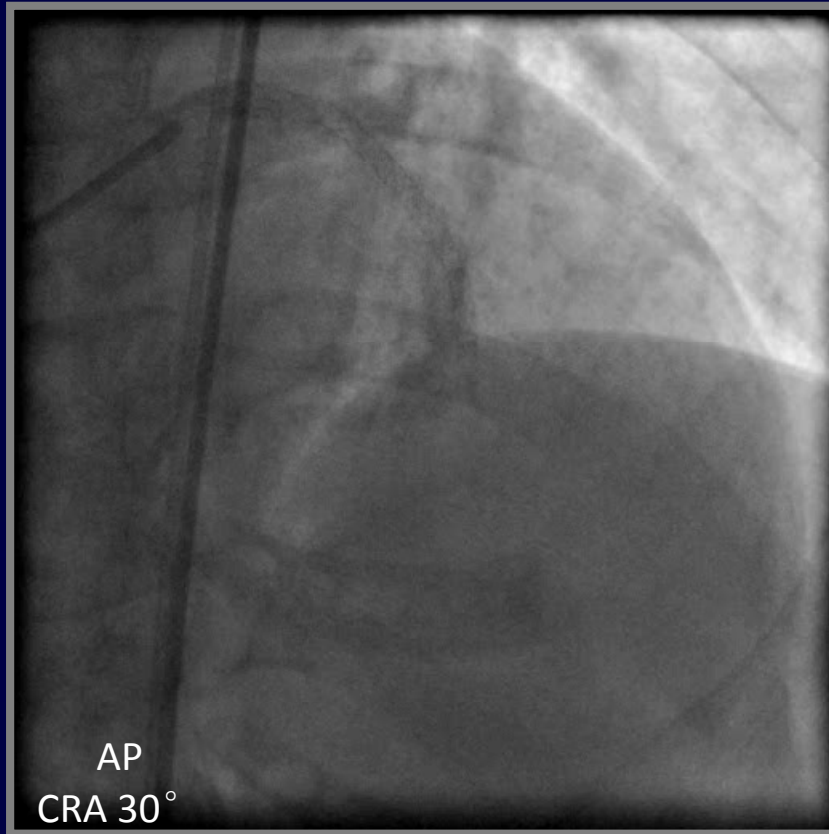


Stent implantation



2.5*28mm DES implanted from proximal to mid LAD
3.0*33mm DES implanted from ostial to proximal LAD
3.25*12mm NC balloon postdilate

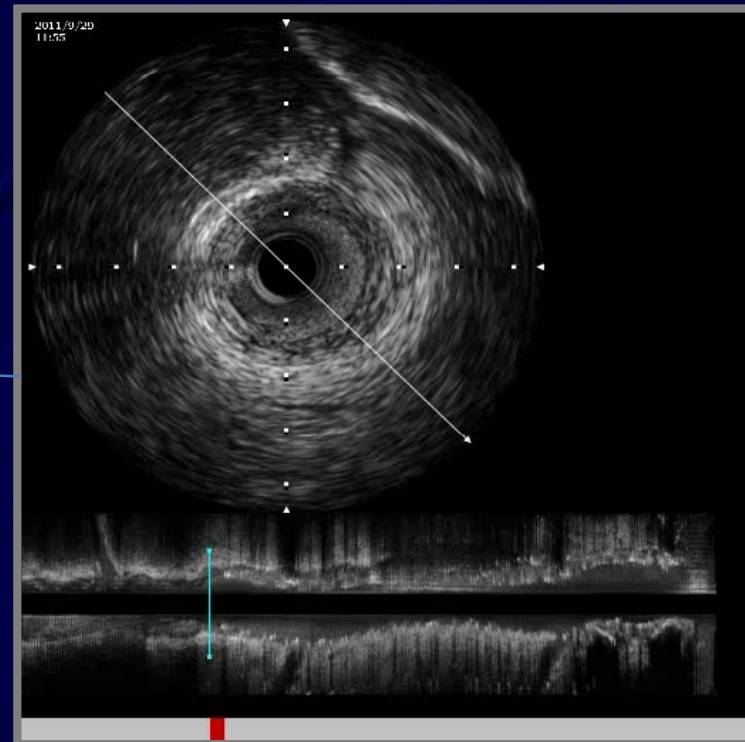
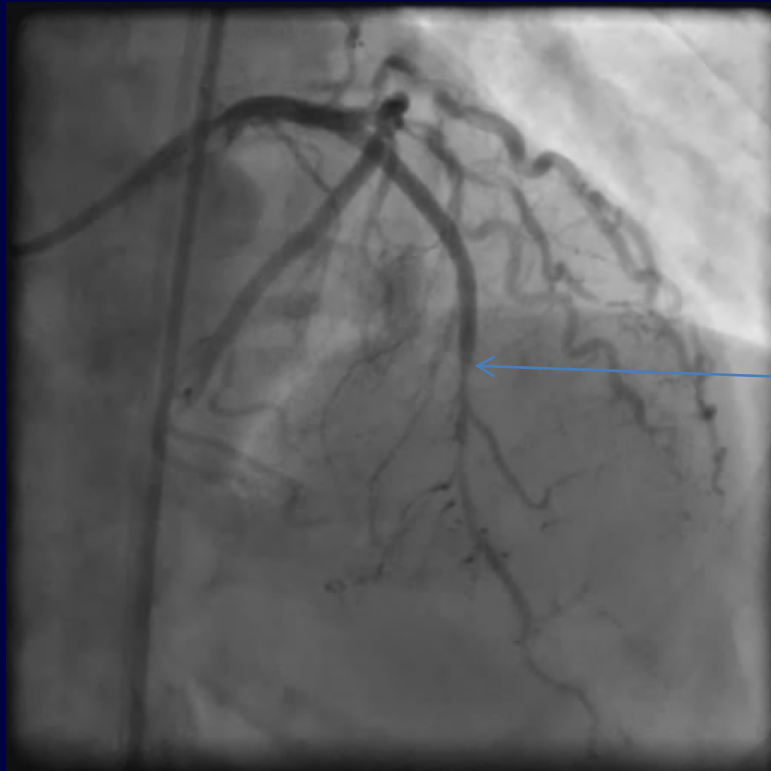
Final Result



Post-stent IVUS image



Distal edge of stent





Post-stent IVUS image

Proximal edge of stent

