

# OCT guided PCI of LAD/D1 bifurcation lesion

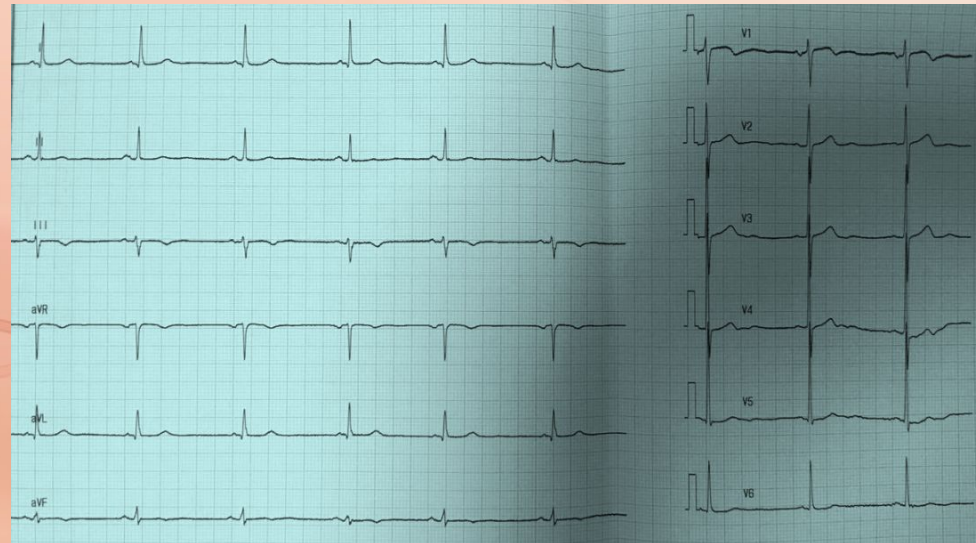
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**Department of Cardiology**  
**Beijing Friendship Hospital**  
**Capital Medical University**

# Disclosure

- I have no conflict of interest.

# Patients profile

- **Male, 81yrs old**
- **CP: intermittent chest pain**  
**6months, aggravated**  
**1month**
- **PH: Diabetes 15yrs with**  
**insulin therapy;**  
**Hypertension 1year with**  
**irregularly medical therapy.**
- **Diagnosis: unstable angina pectoris**



# Medical treatment and evaluation

- **Medical treatment**

**Aspirin 100mg Qd;**

**Clopidogrel 75mg Qd;**

**Atrovastatin 20mg Qd**

**Betaloc ZOK 23.75mg Qd**

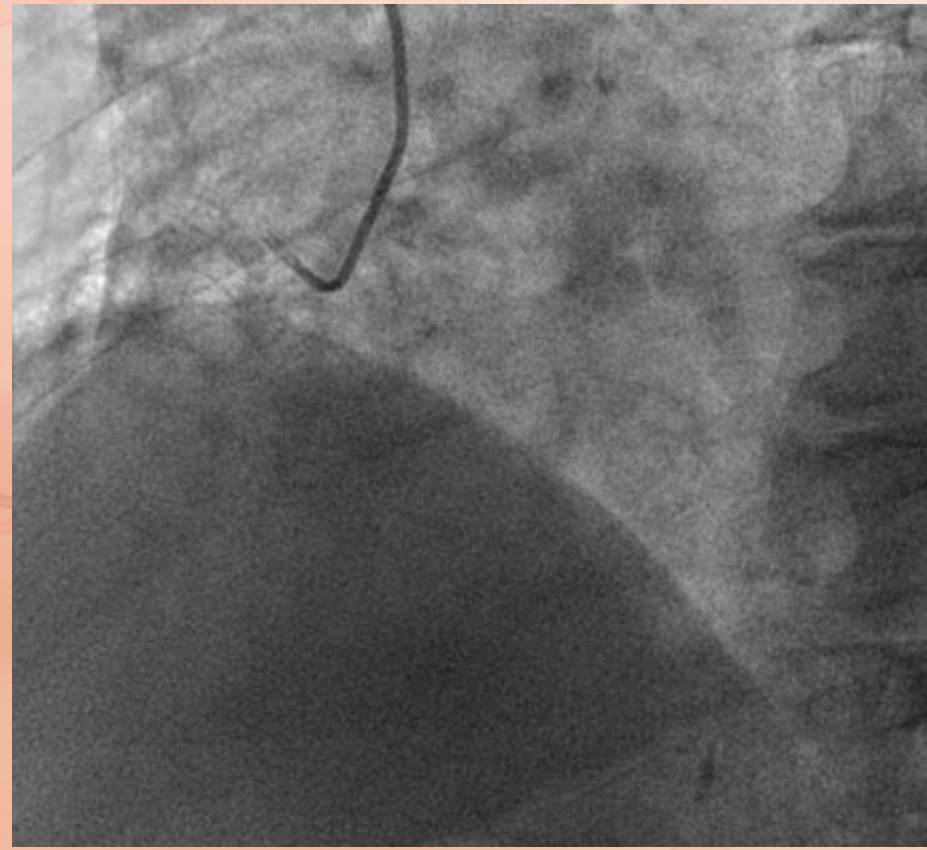
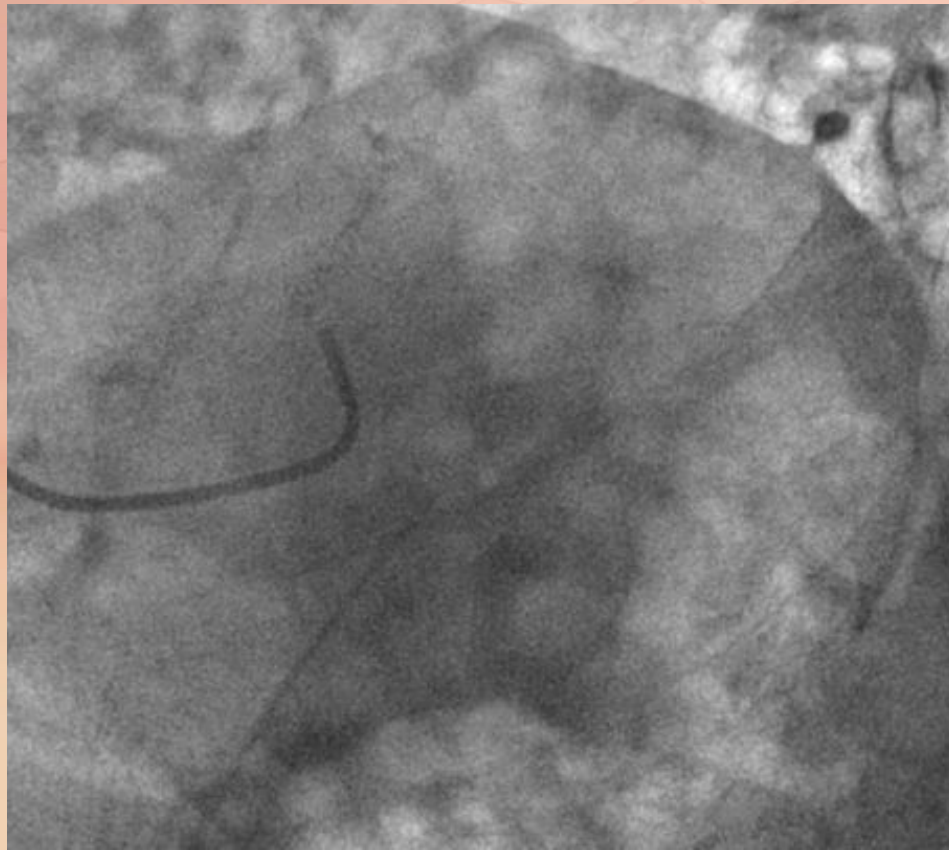
- **UCG: LVEDD 5.49cm EF0.66**

- **Serum creatine 66.2umol/L**

# CAG

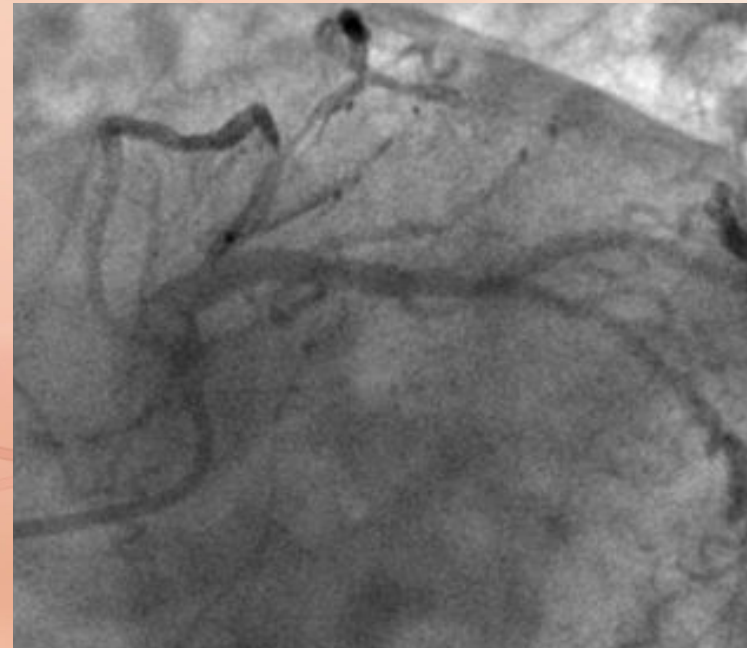
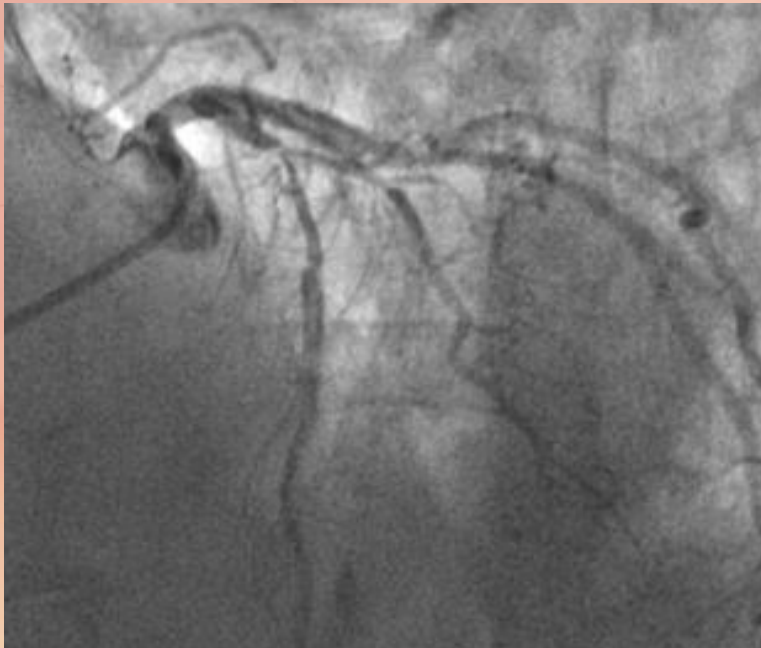


# CAG



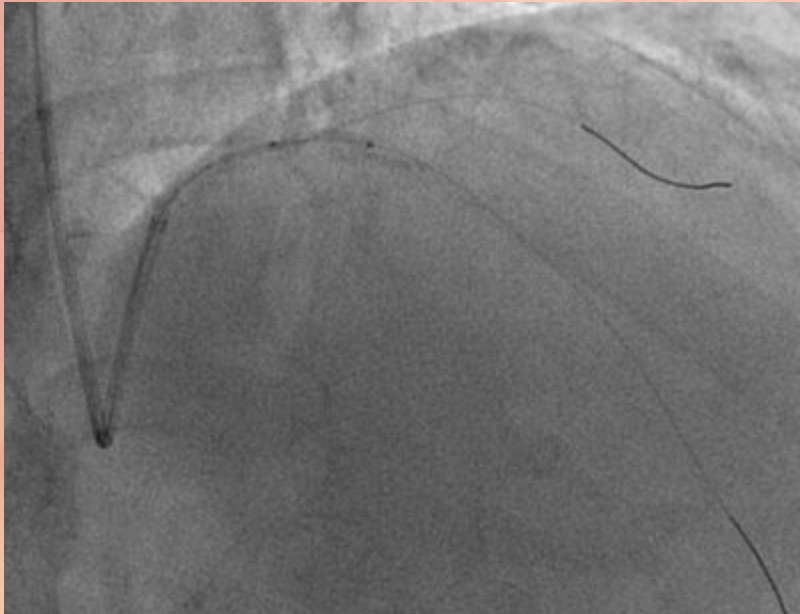
**PCI of LAD and RCA was planned**

**What we have seen:** Type I bifurcation; MV: 90% stenosis with calcium; SB: 90% stenotic lesion

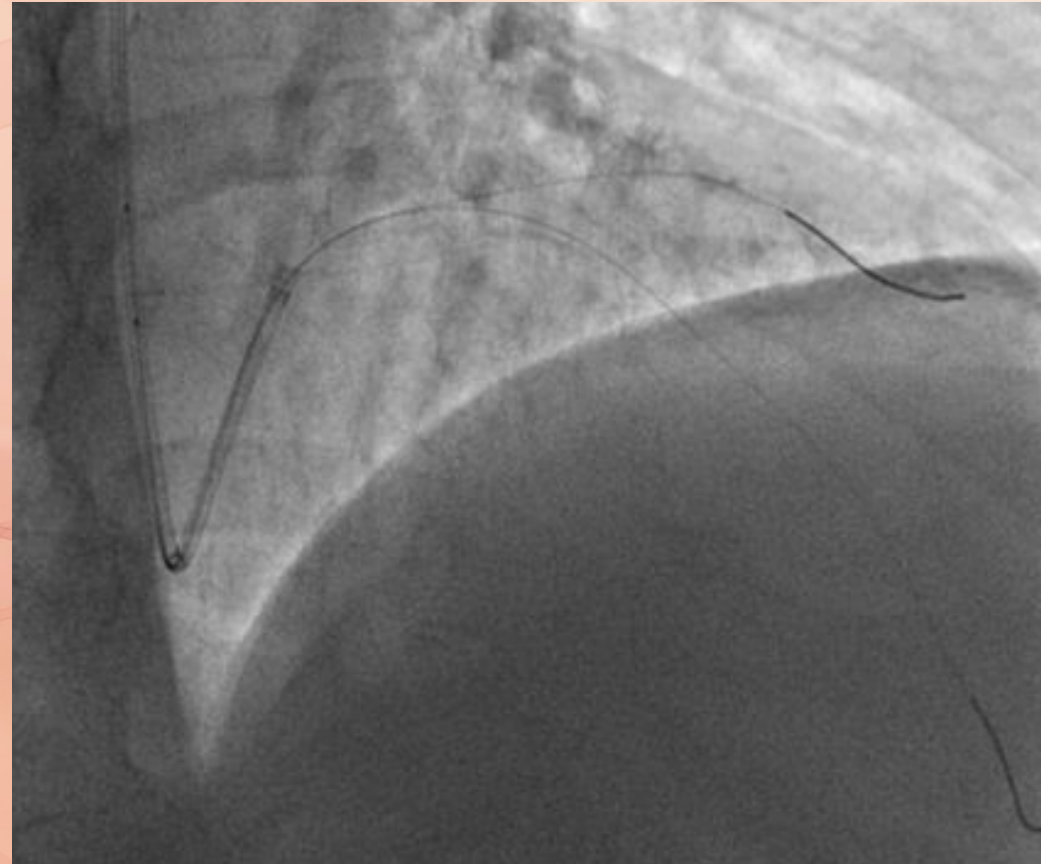


**What we did not know:** plaque characteristics?  
Calcium severity? Reference vessel diameter?  
Length of the lesion?

**OCT detection**

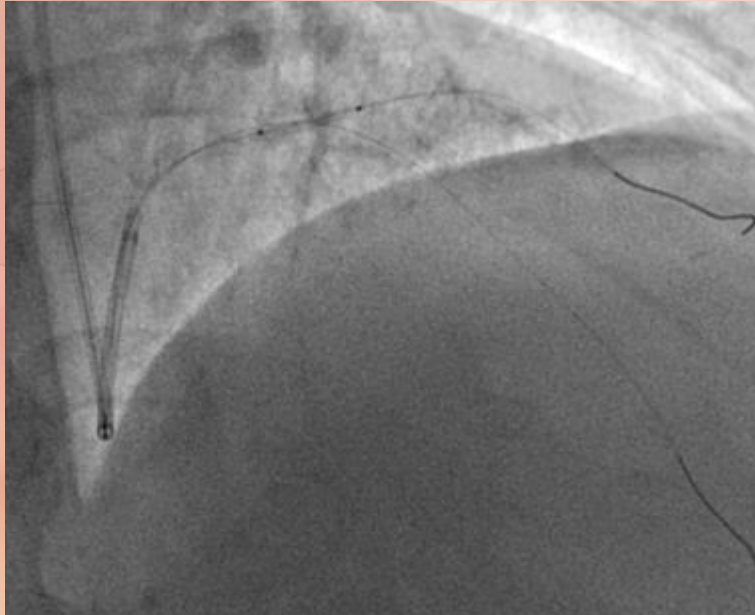


**6F EBU3.75 GC; Sion GW(LAD)  
and Runthrough GW(D1)**

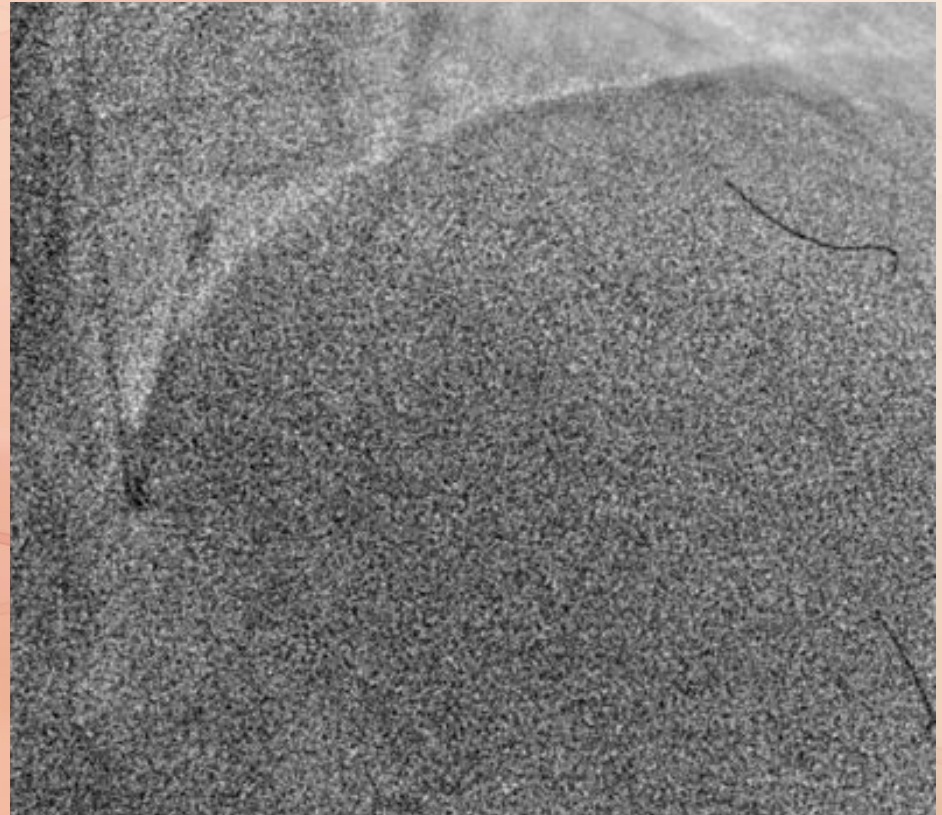


Pre-dilatation of LAD and D1 was performed with a balloon 2.0/15mm before OCT detection.





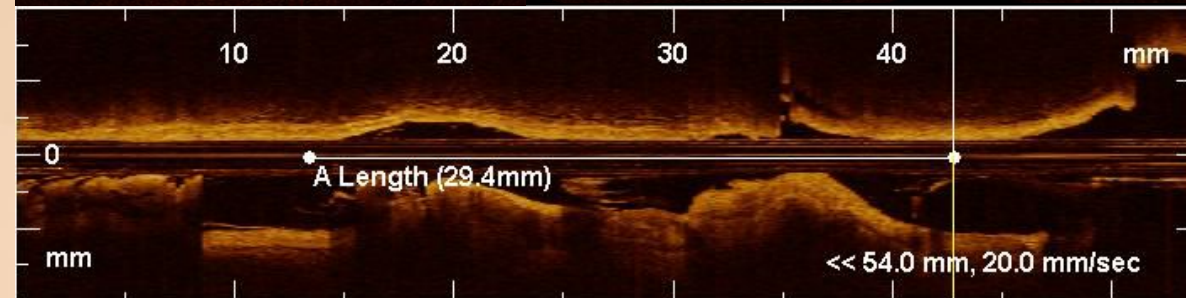
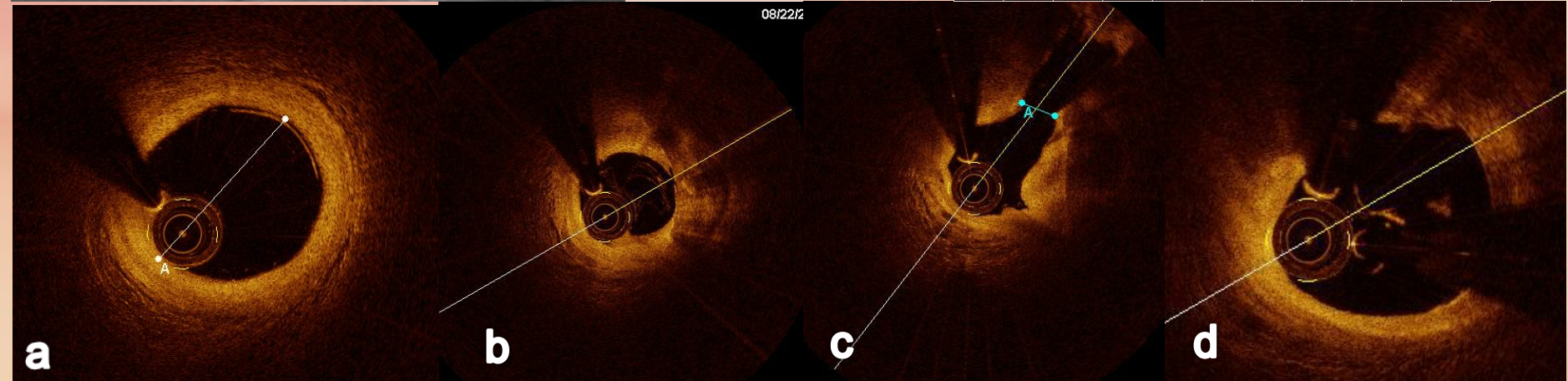
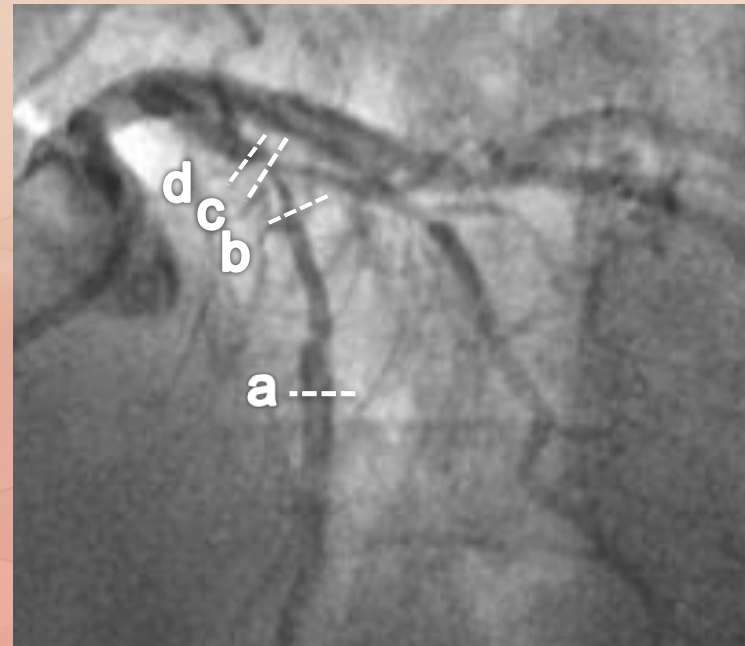
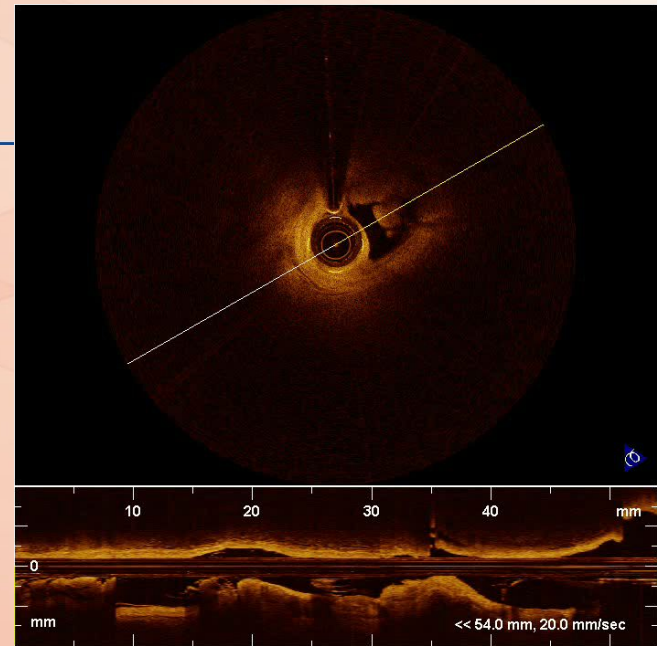
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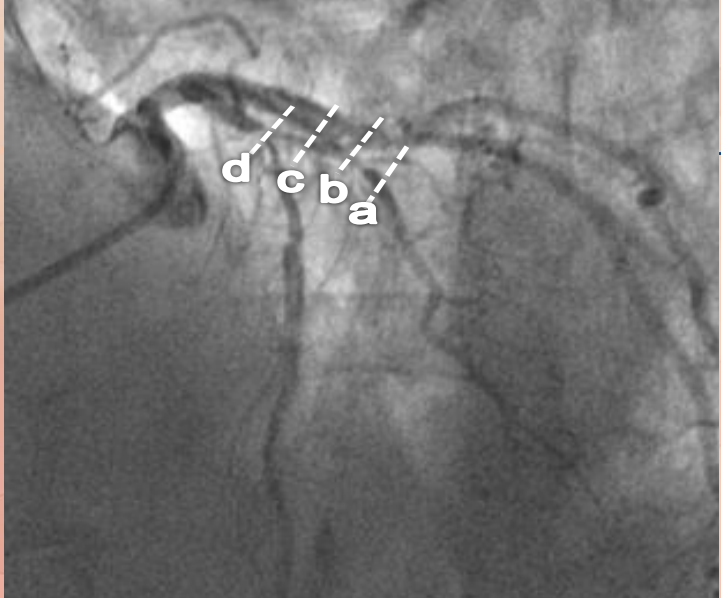


# OCT Of LAD

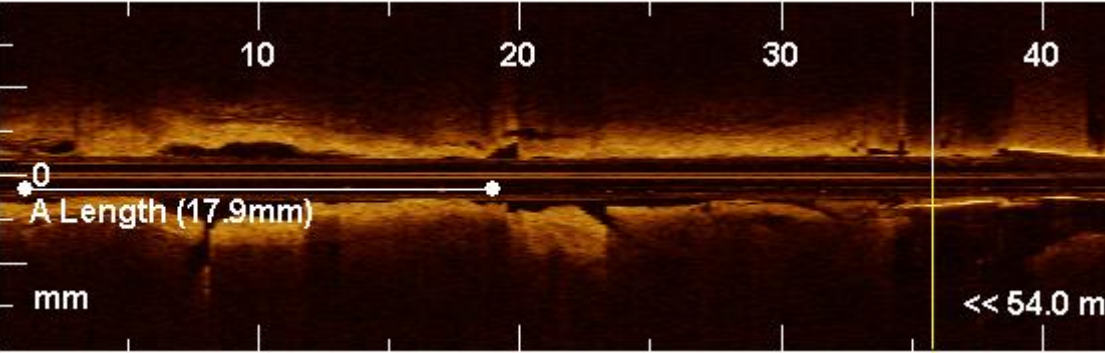
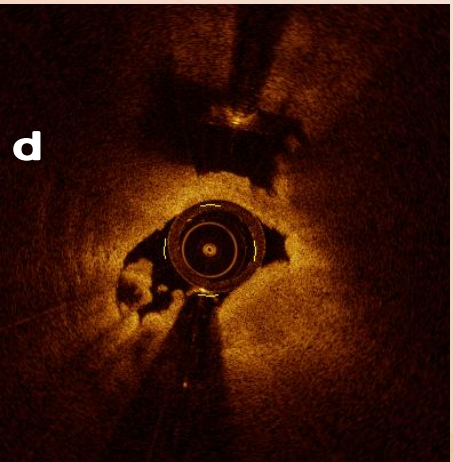
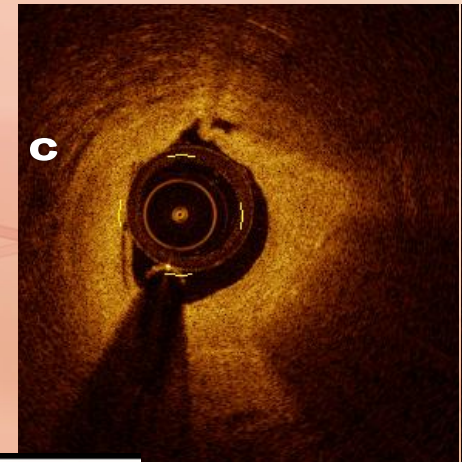
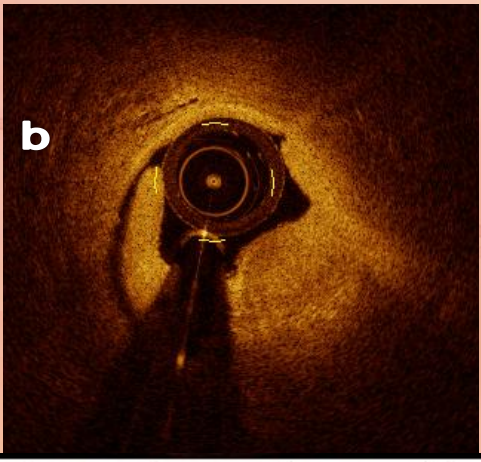
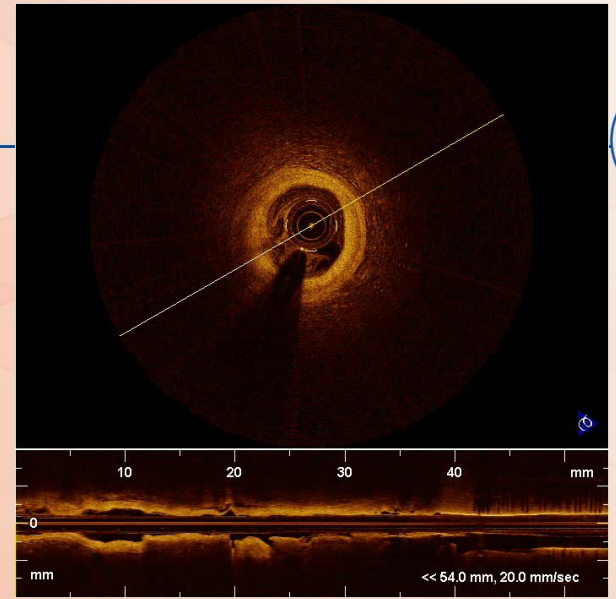


**RD: 2.46mm**  
**MLD: 1.34mm (after pre-dilatation)**  
**Lesion length: 29.4mm**





# OCT Of D1

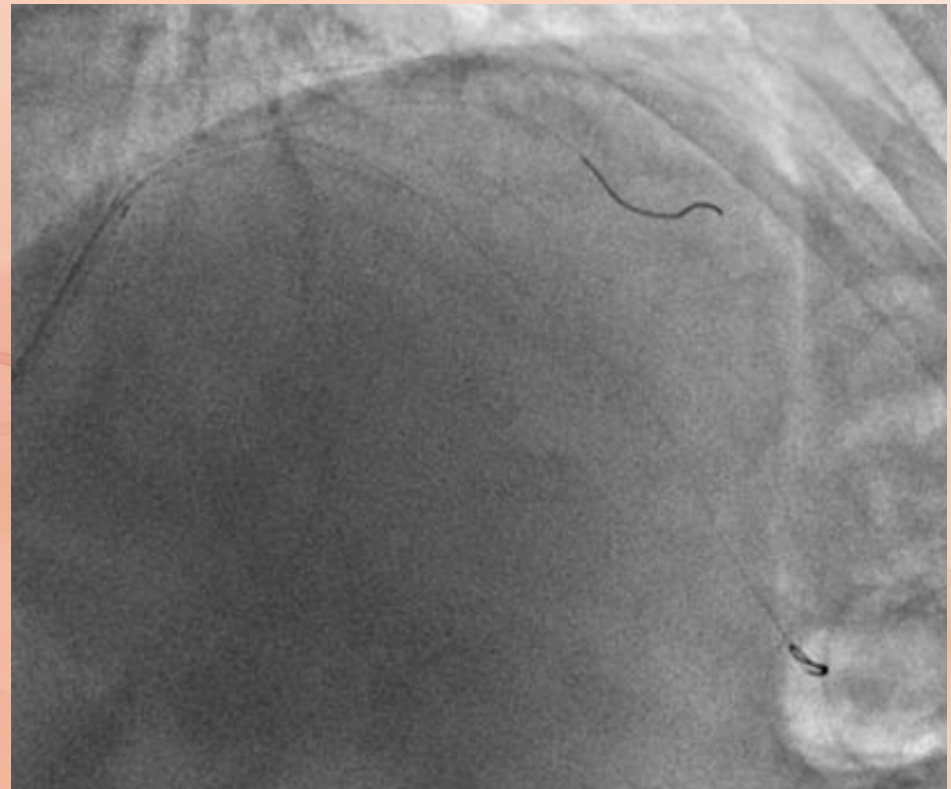
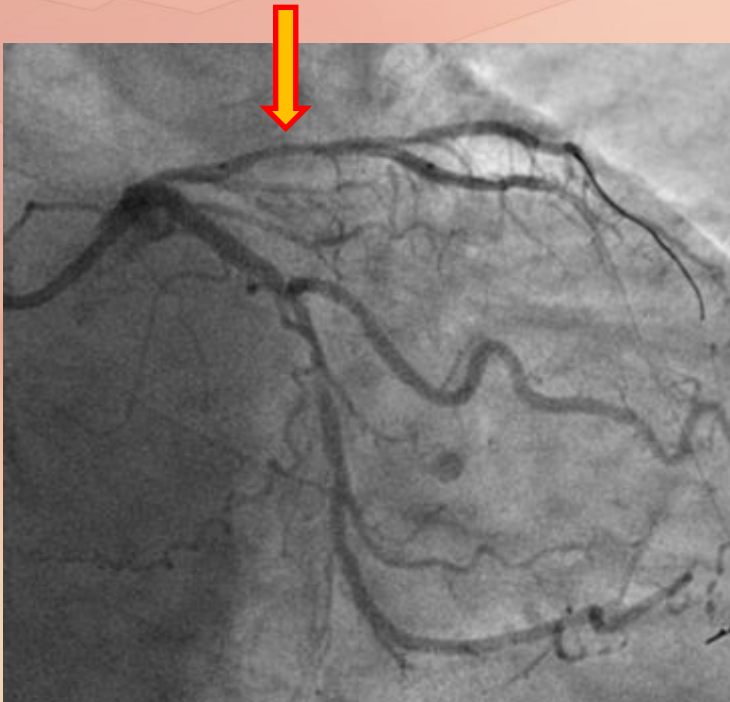


**RD of D1: 1.80mm**  
**Lesion length: 17.9mm**

# Strategic plan

- Main vessel stenting(3.0/29mm DES stent) and provisional side branch stenting.

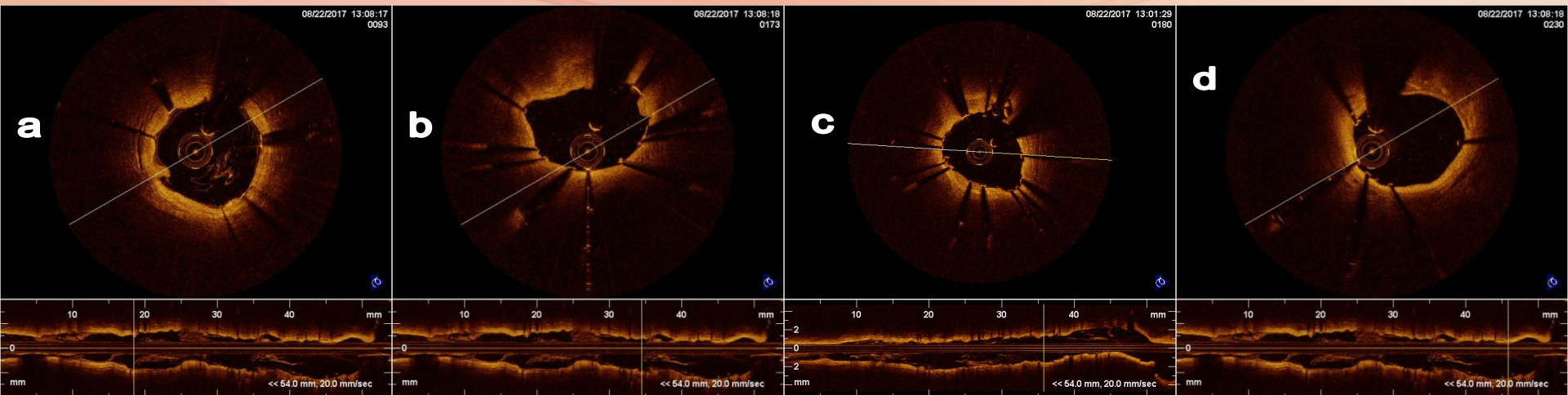
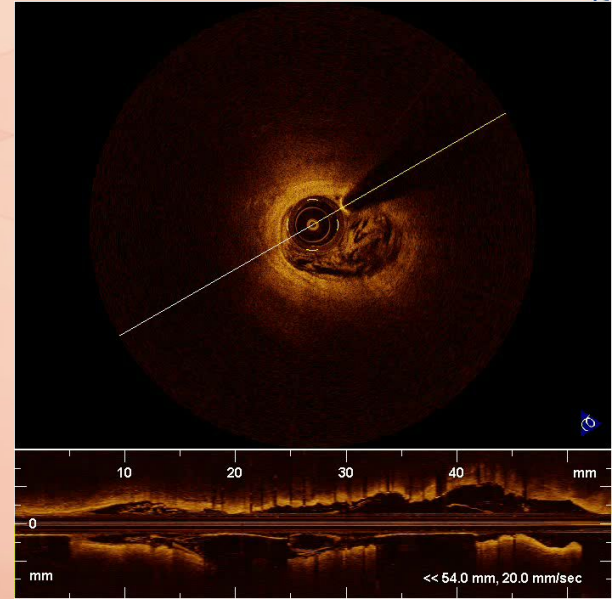
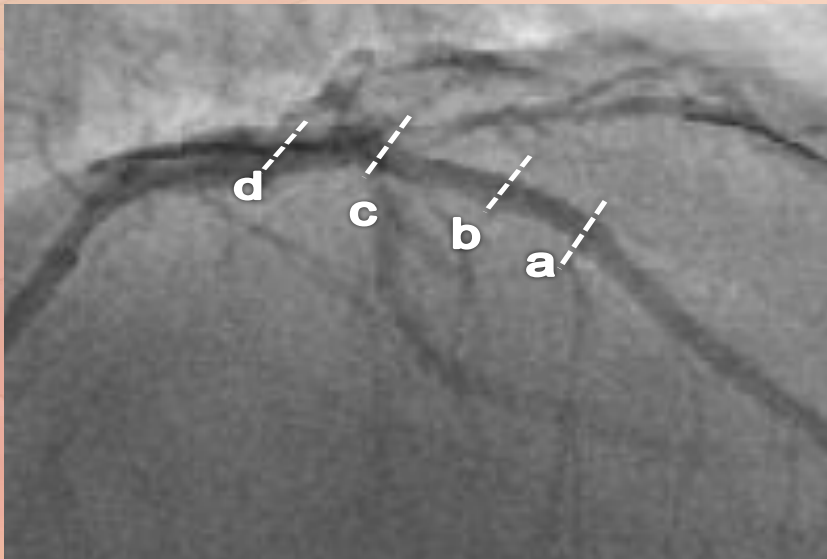
# Stent positioning and after delivery



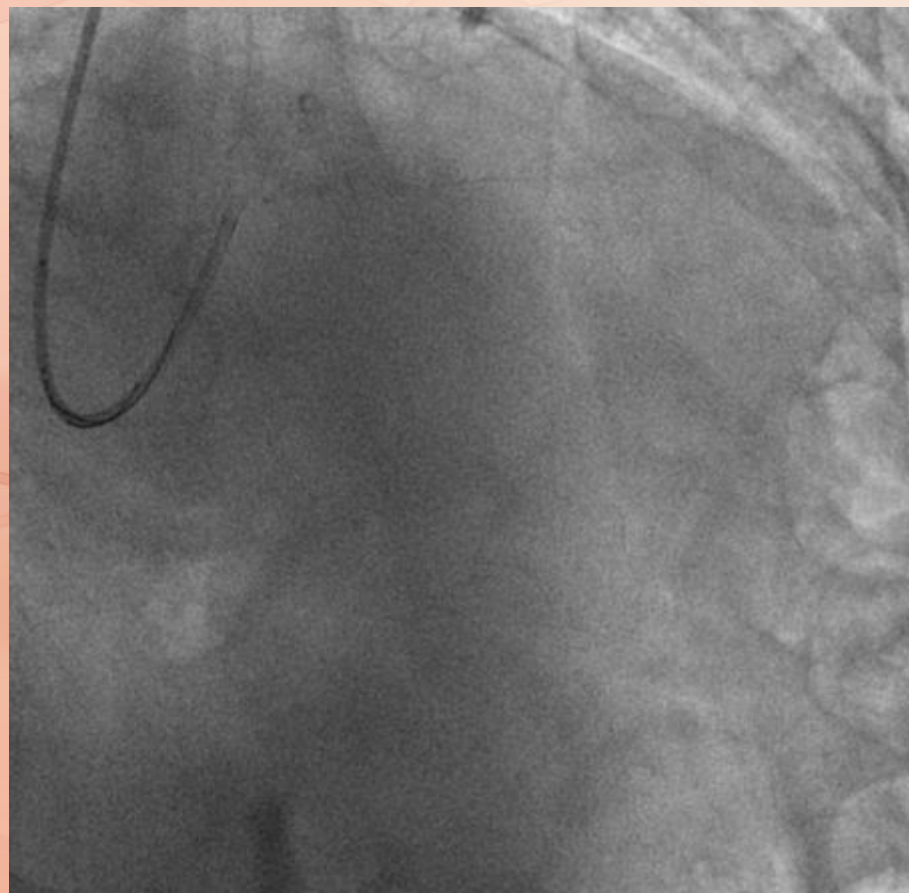
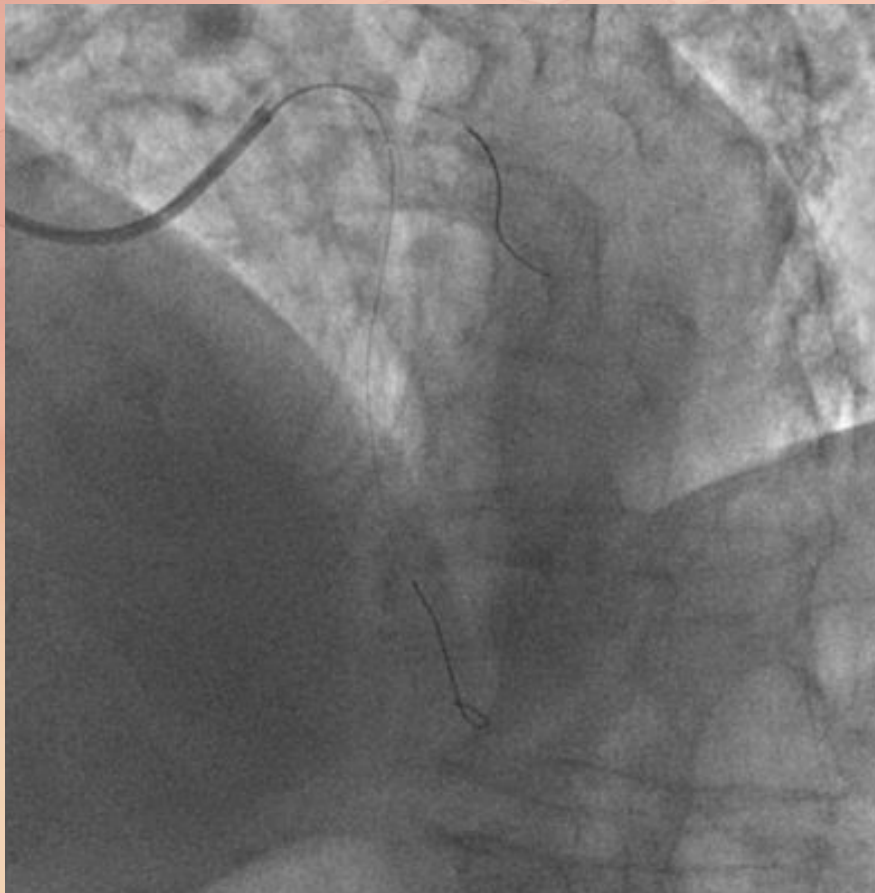


**3.0/15mm NC Balloon**

# OCT detection after post-dilatation



# Final result





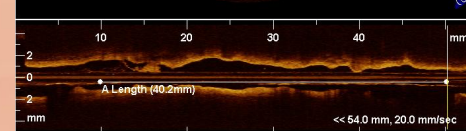
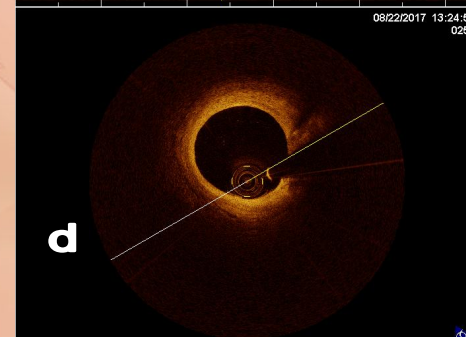
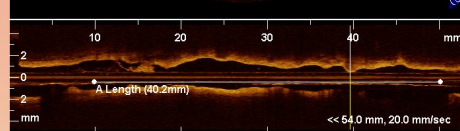
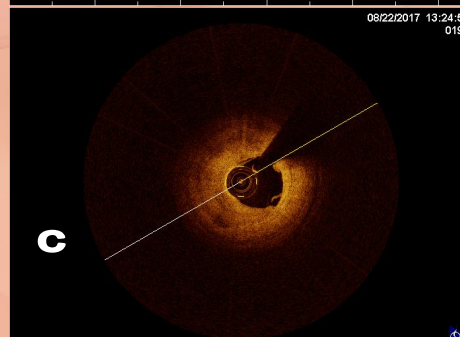
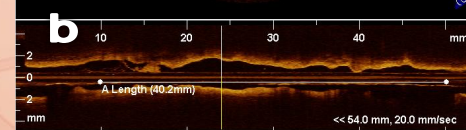
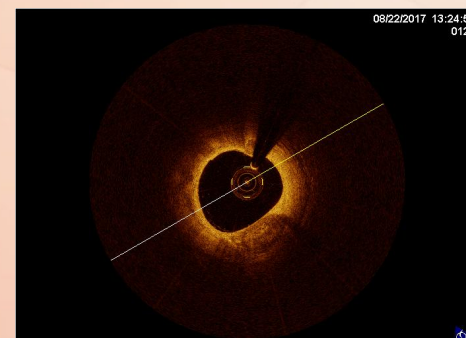
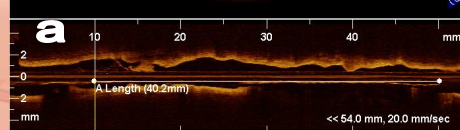
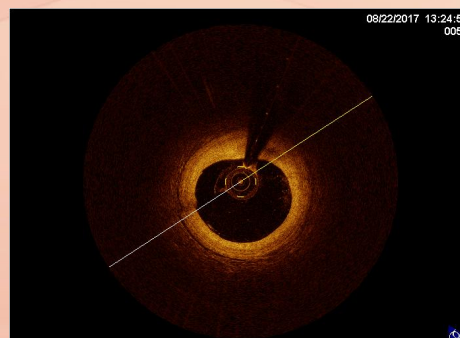
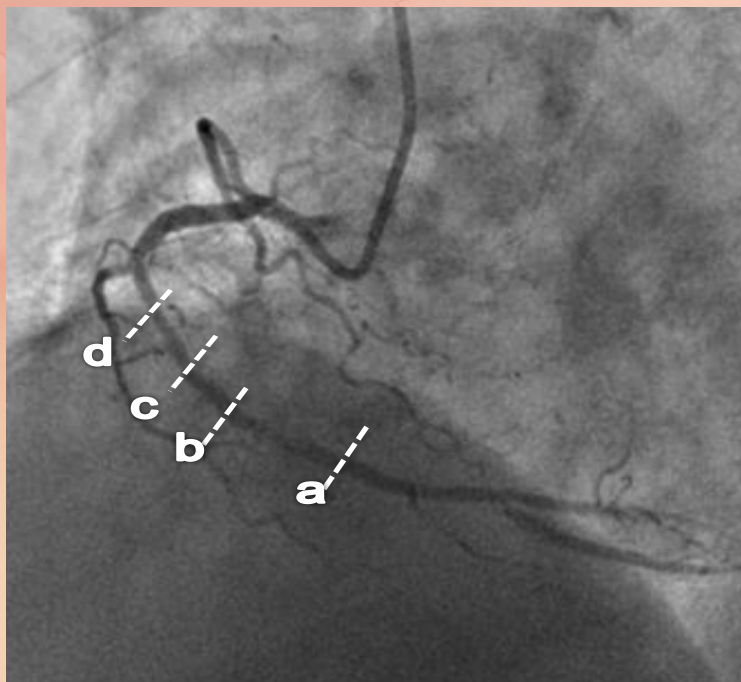
# Summary



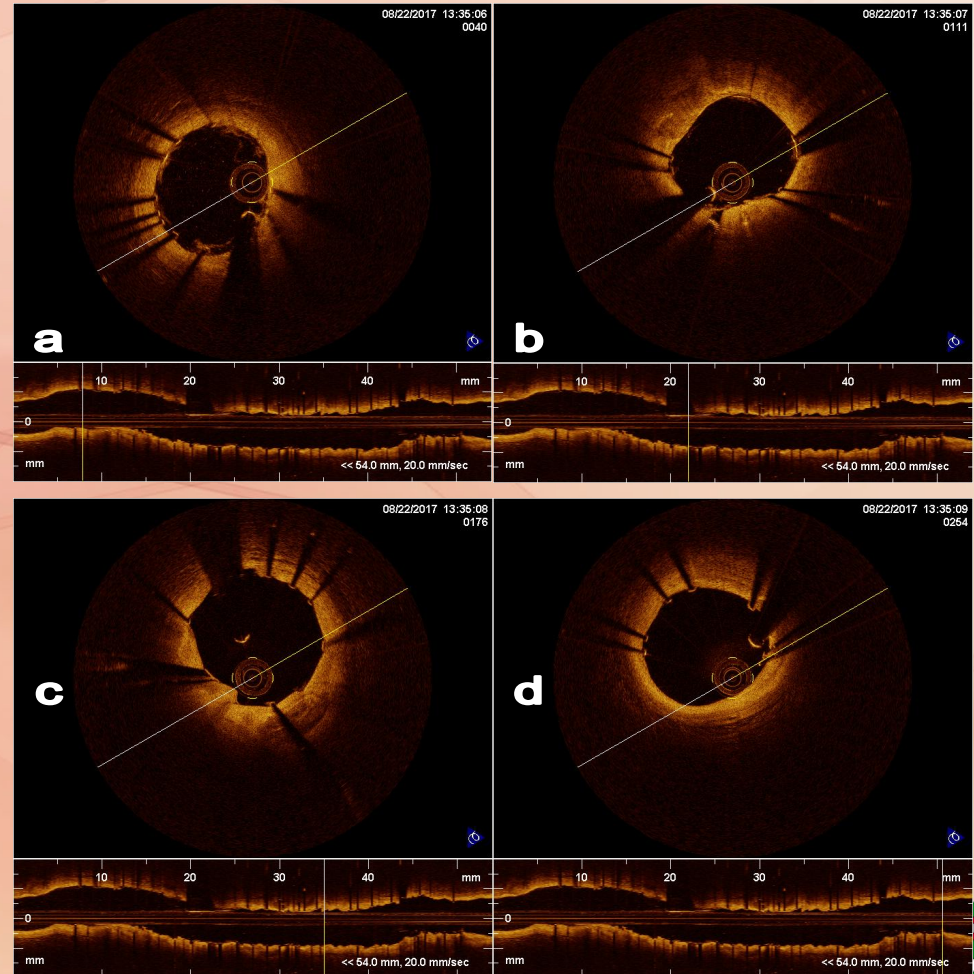
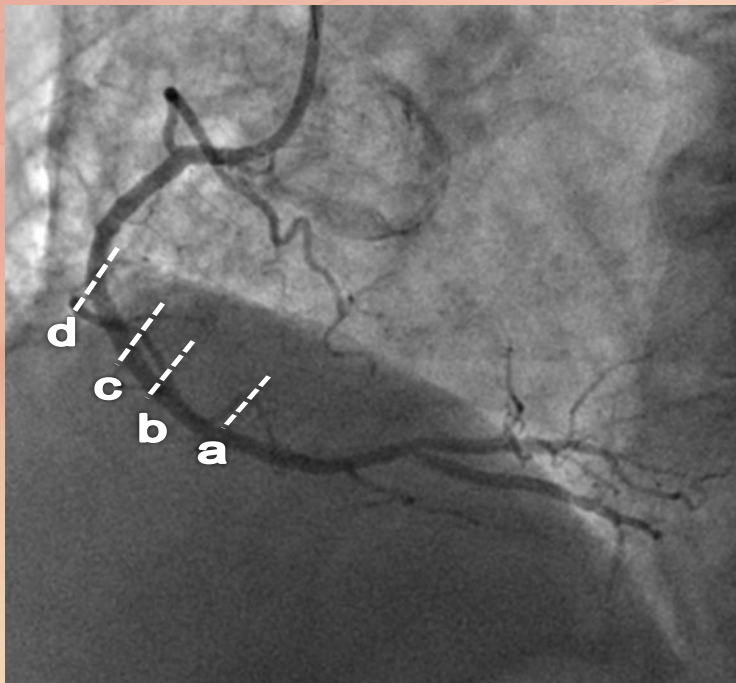
- Main vessel stenting (+/-POT) and provisional side branch stenting is suitable in bifurcation lesion even with ostial and extensive lesion in the SB.
- OCT helps to make strategy for bifurcation lesions by identifying **lesion distribution**, plaque characteristics, **measuring the size** and can predict SB comprise before PCI procedure.
- POT might be unnecessary after a satisfied result by angiography and OCT detection.
- OCT can identify **stent apposition, expansion and other possible complications** after stents.



# OCT in RCA



# PCI and OCT after stent in RCA



**3.0/21mm, 2.75/24mm DES**

# Post-procedure course

- The patient remained symptom-free and no cardiac biomarkers elevation was found after PCI.
- He was discharged home the next day on dual anti-platelet therapy.
- He remained free of cardiac symptoms or events 2 months after the intervention.



***Thank you for your attention !***