Unexpected aftercare caused by the simple stent technique

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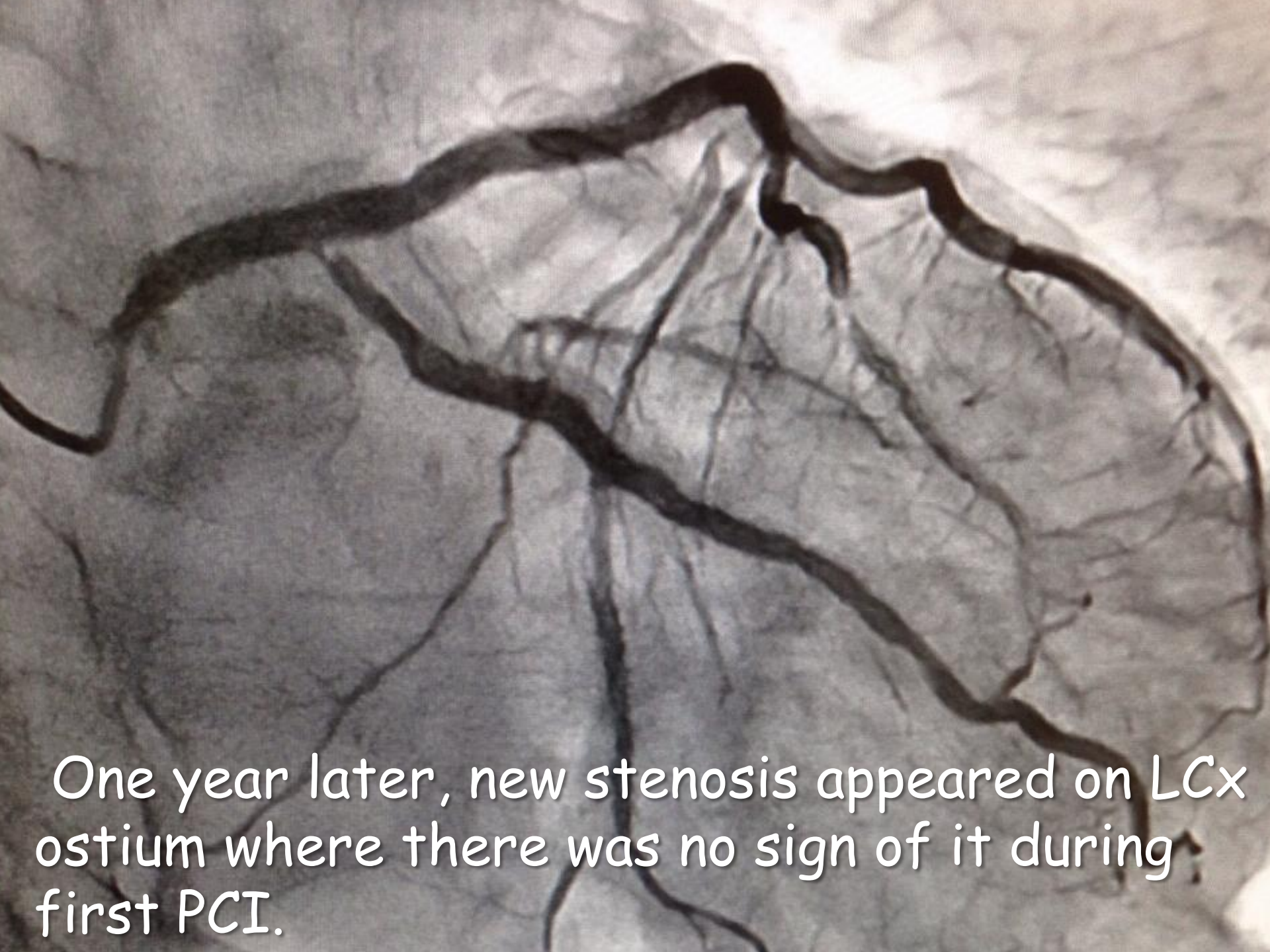
Case. 60's Male

- One year ago, he had been implanted one Resolute Integrity stent from LMT to proximal LAD without POT or final kissing balloon dilatation (FKBD). The whole procedure was completed successfully.
- But recently, the chest discomfort and arrhythmia on exertion started to appear, therefore, we made an appointment of CAG as to follow-up this patient.

1st PCI more than one year ago

before

after

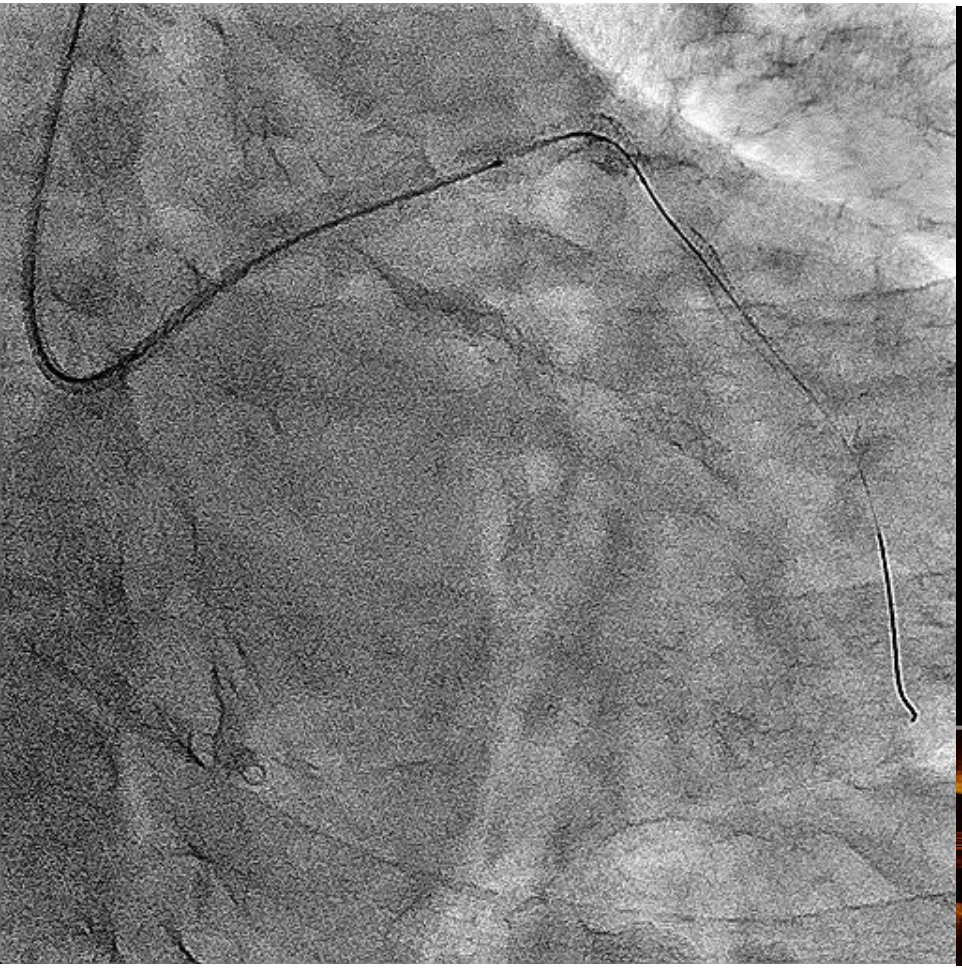


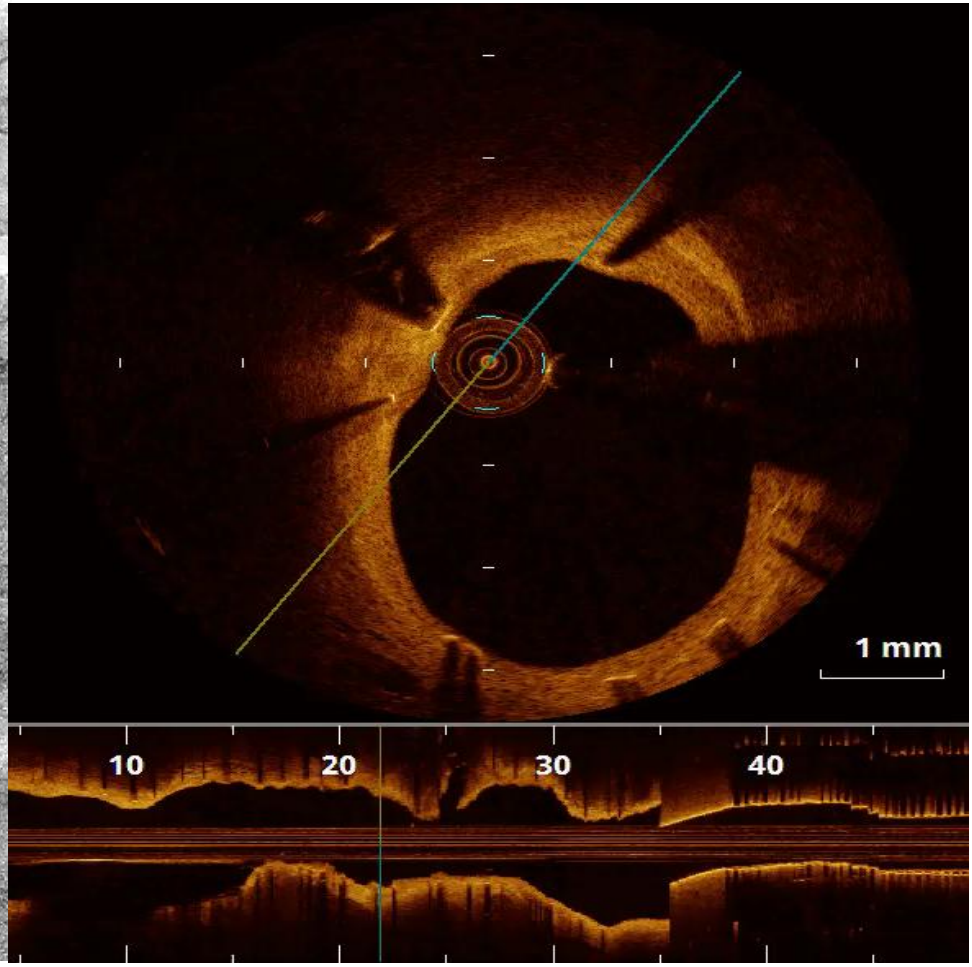
One year later, new stenosis appeared on LCx ostium where there was no sign of it during first PCI.

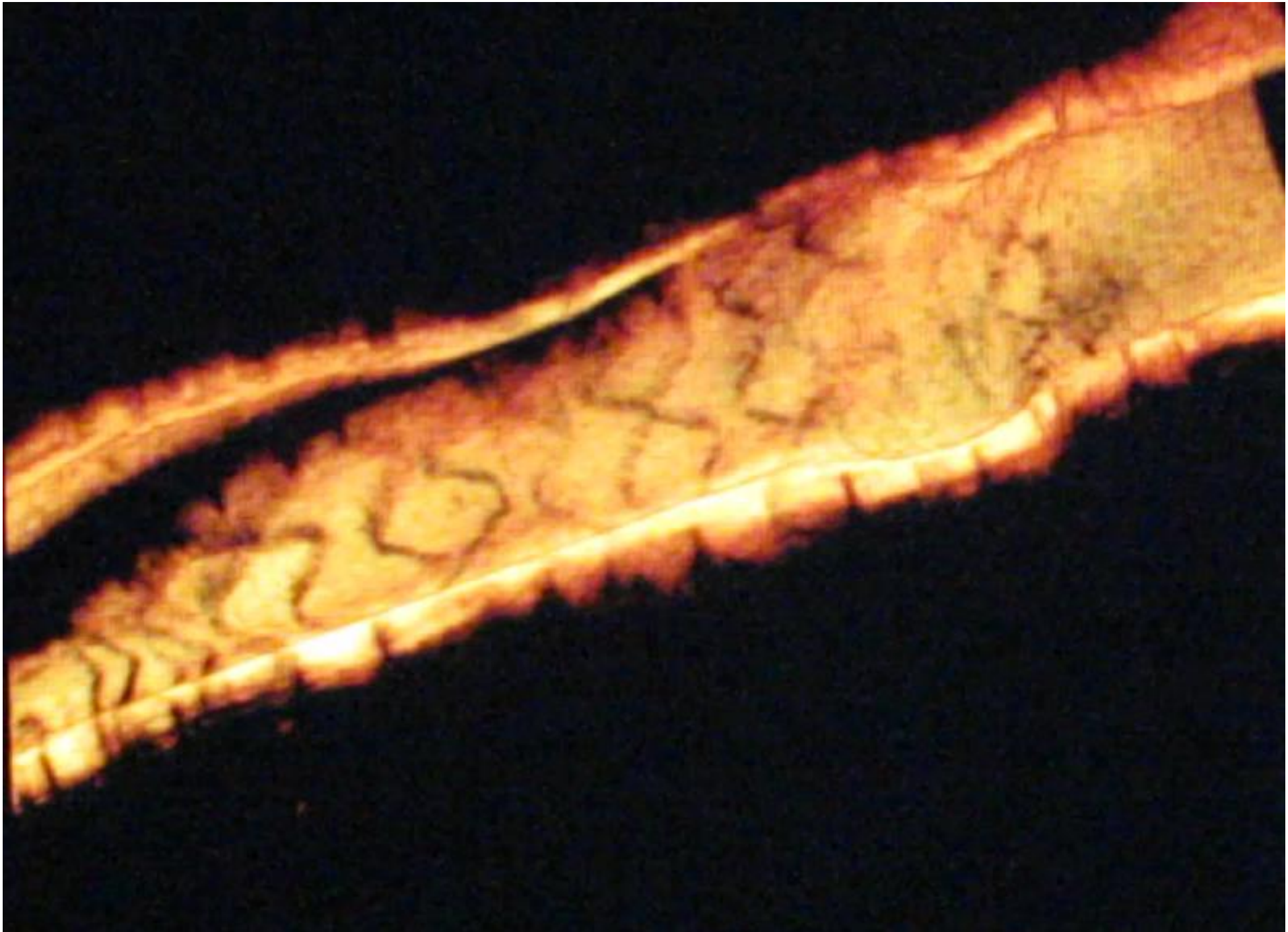
- Indeed, it remains mystery if these new stenosis could have prevented if I added POT or FKBD during the first treatment.
- What important is, we always need to be ready to respond to various cases of long-term outcomes.
- But, still some questions arise.

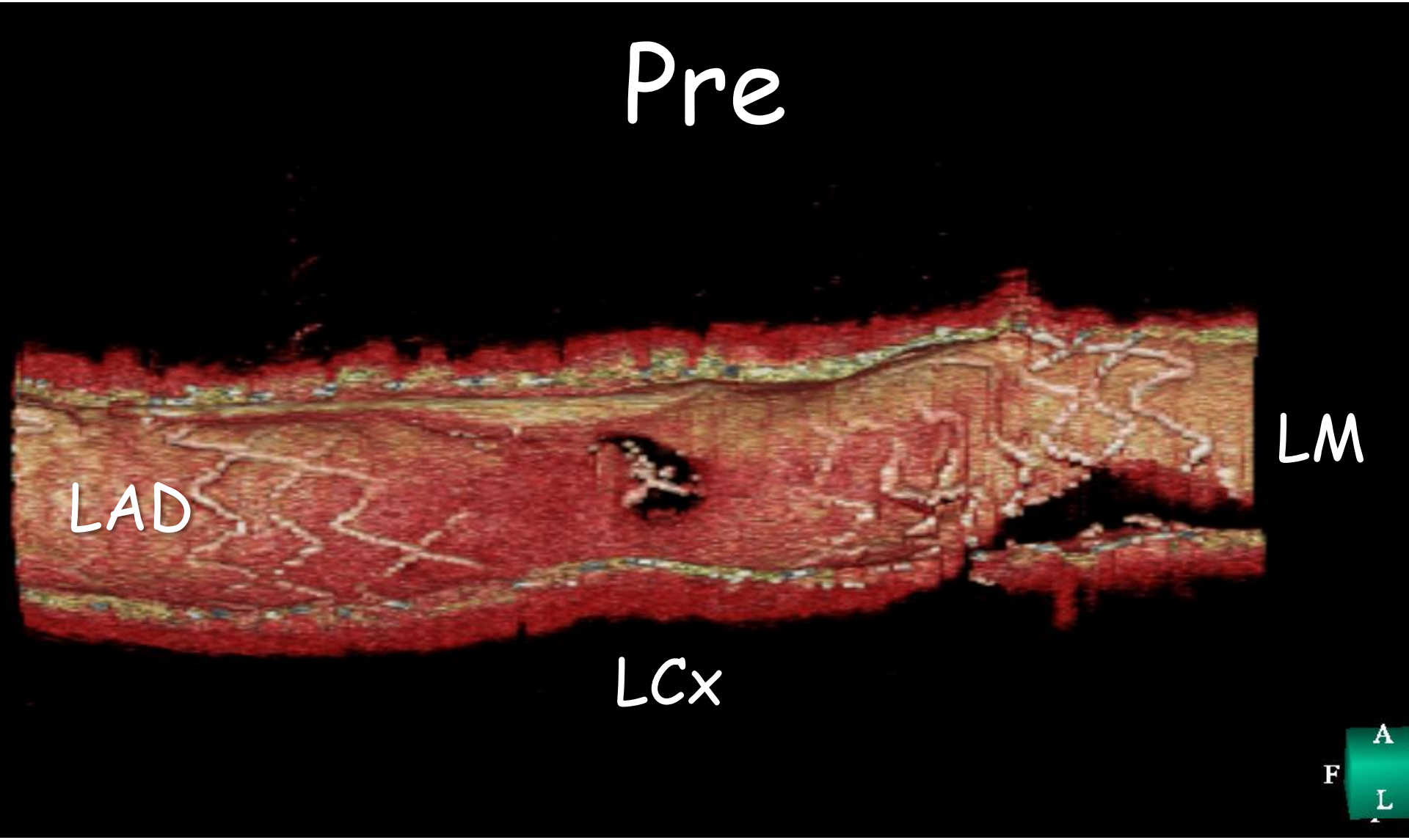
For second time PCI, I used DCB to treat restenosis of distal EES.

OCT findings proximal LAD~LMT

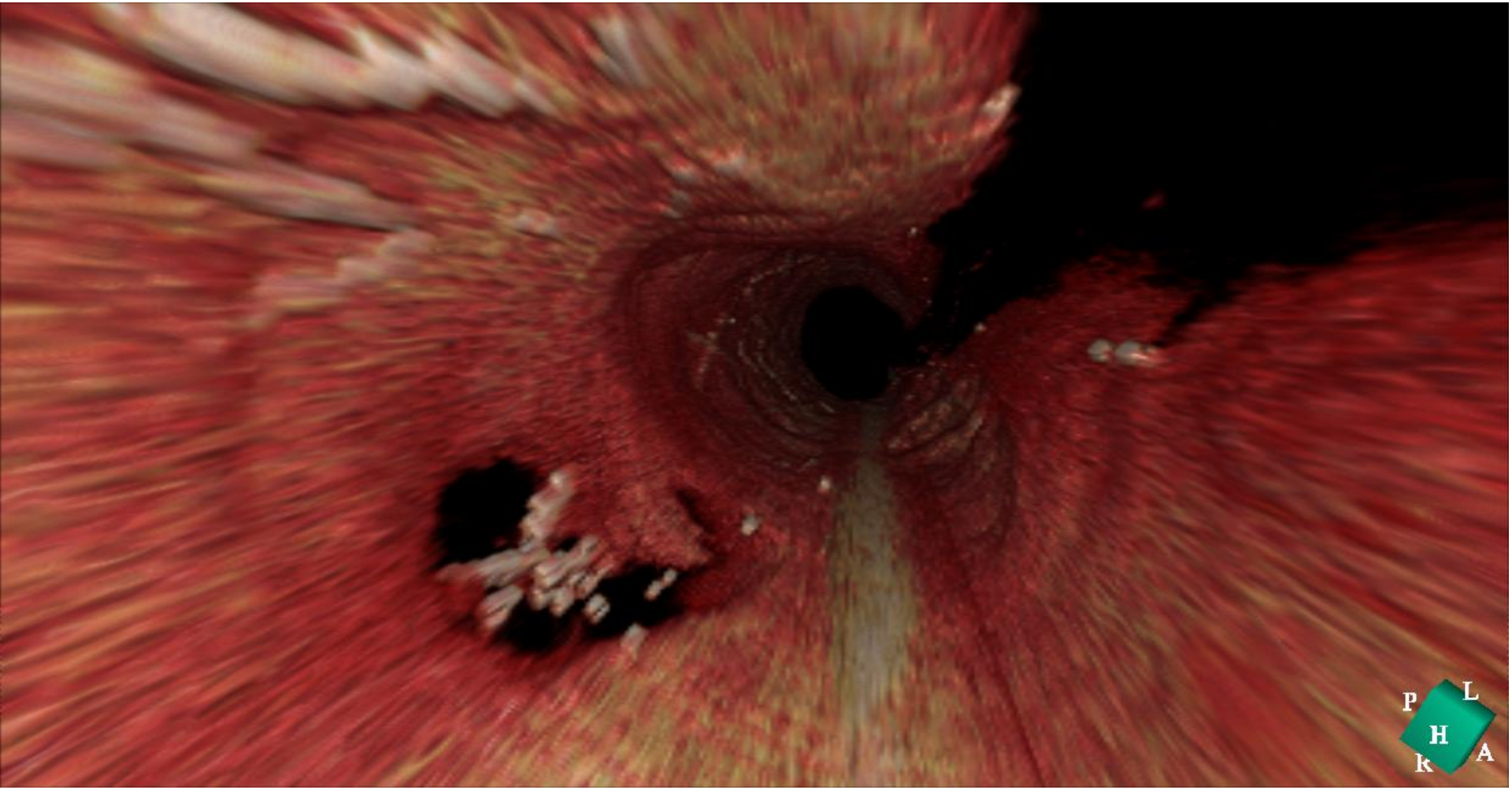




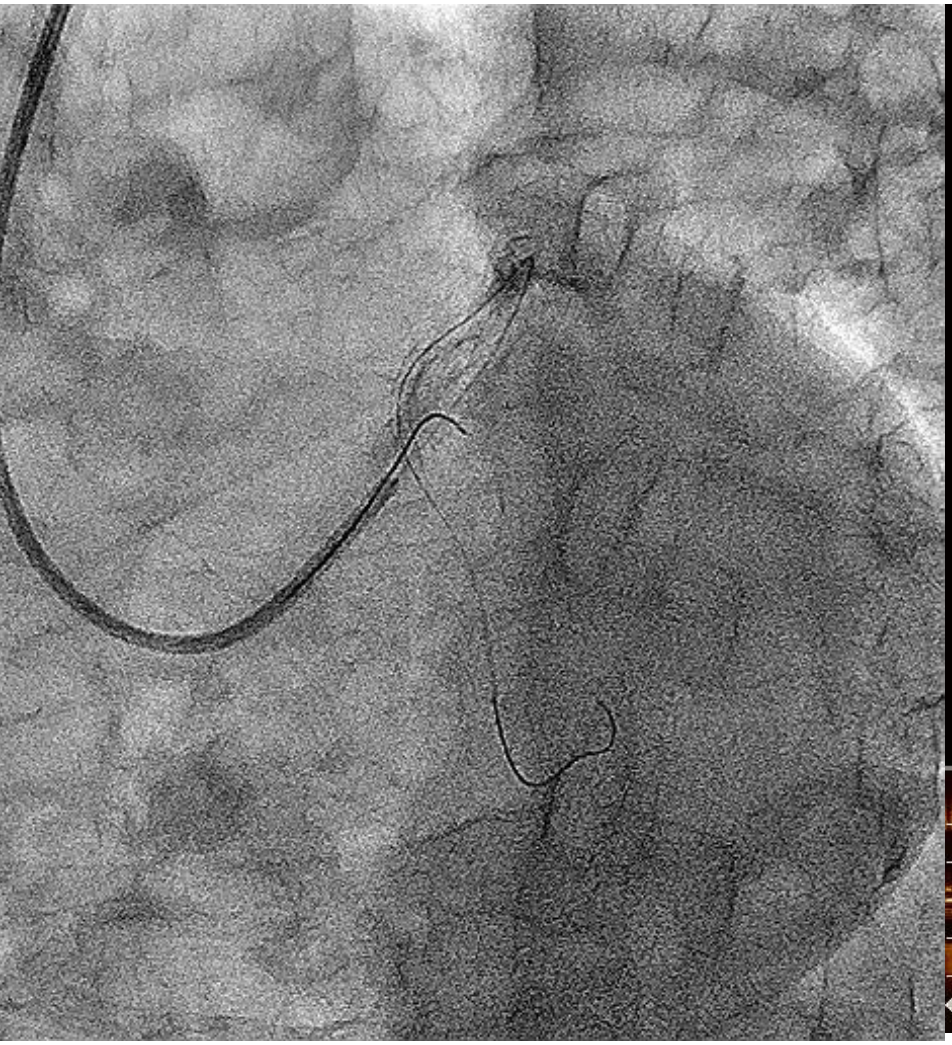


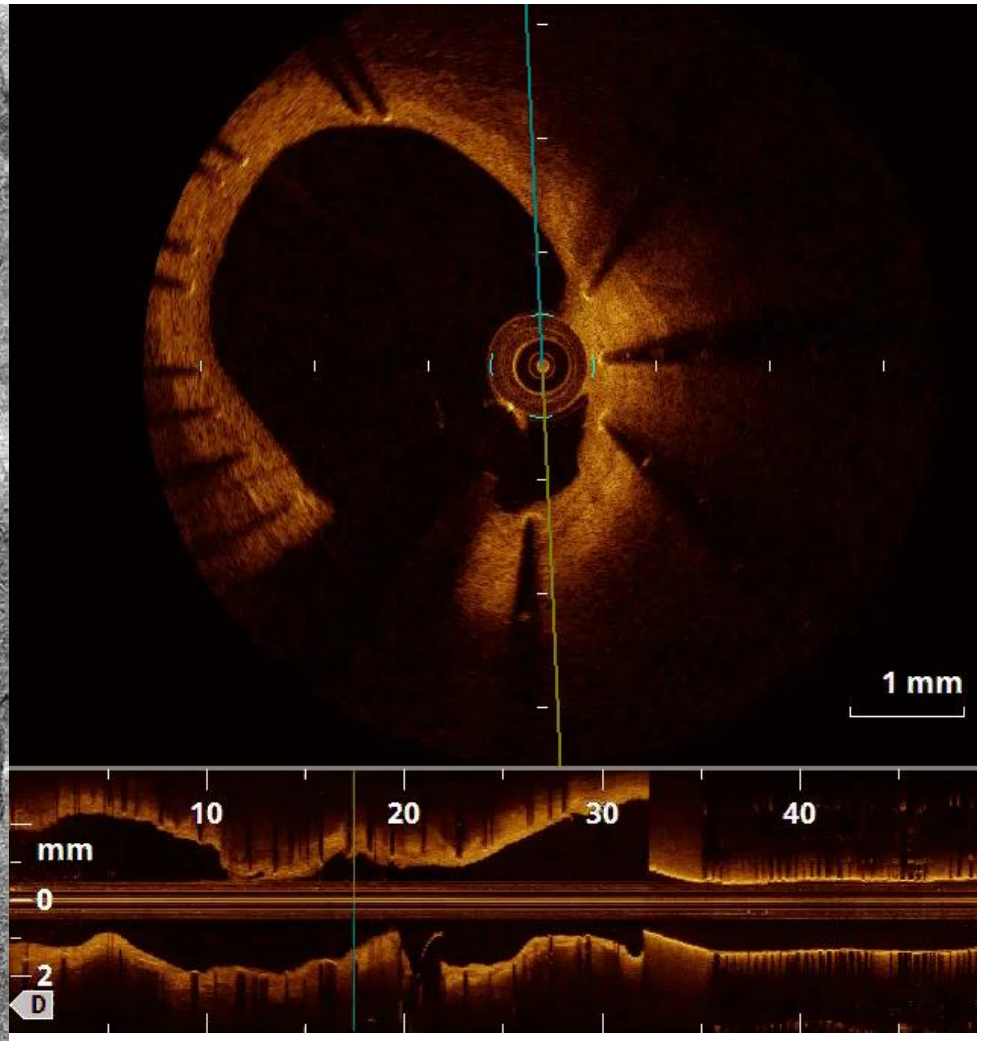


This is the image that I sent to Dr. Okamura at Yamaguchi University and asked him to reconstruct it from the OCT data taken after the procedure.

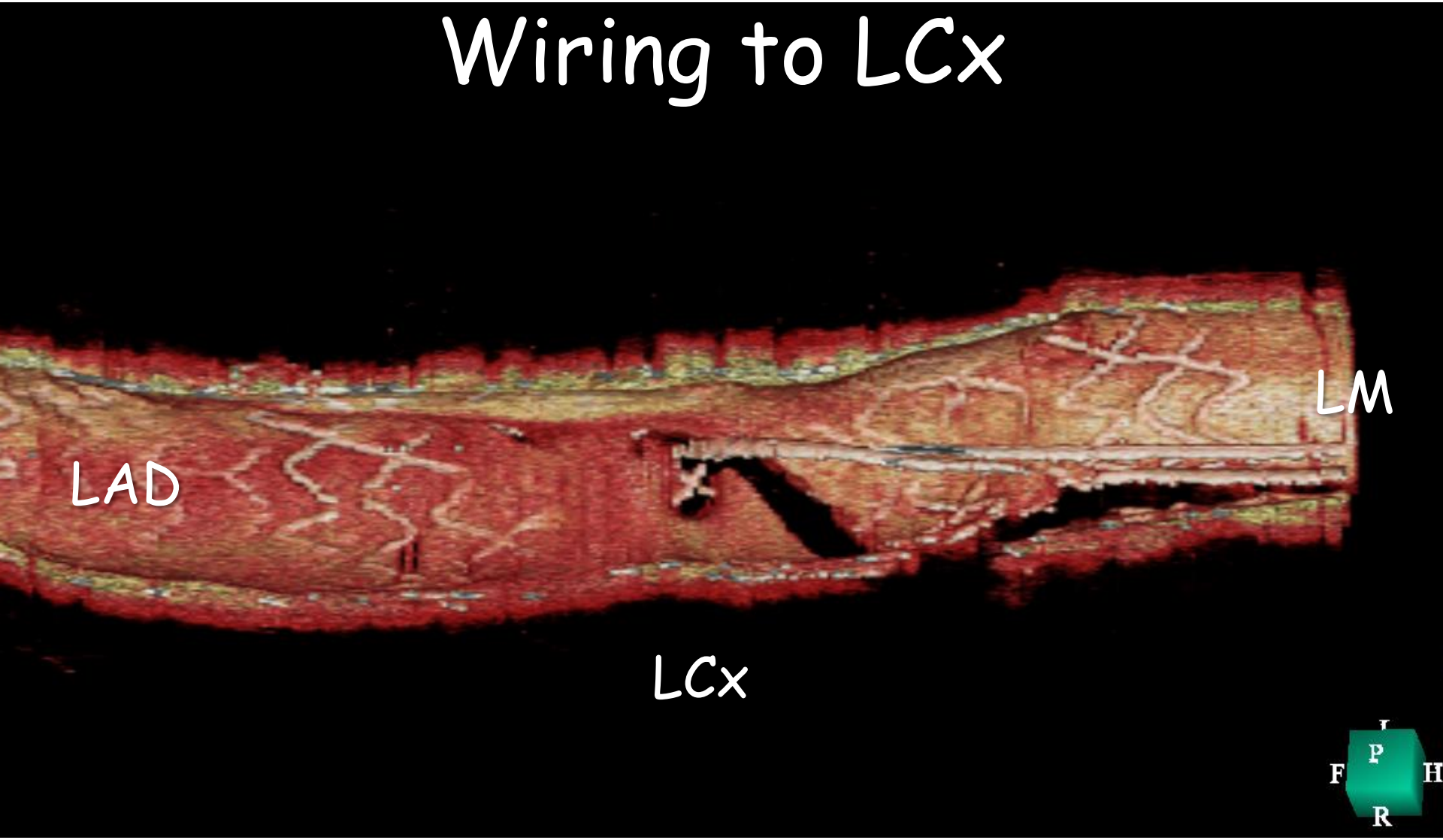

P
L
H
k
A

GW recrossing with Crusade cath.



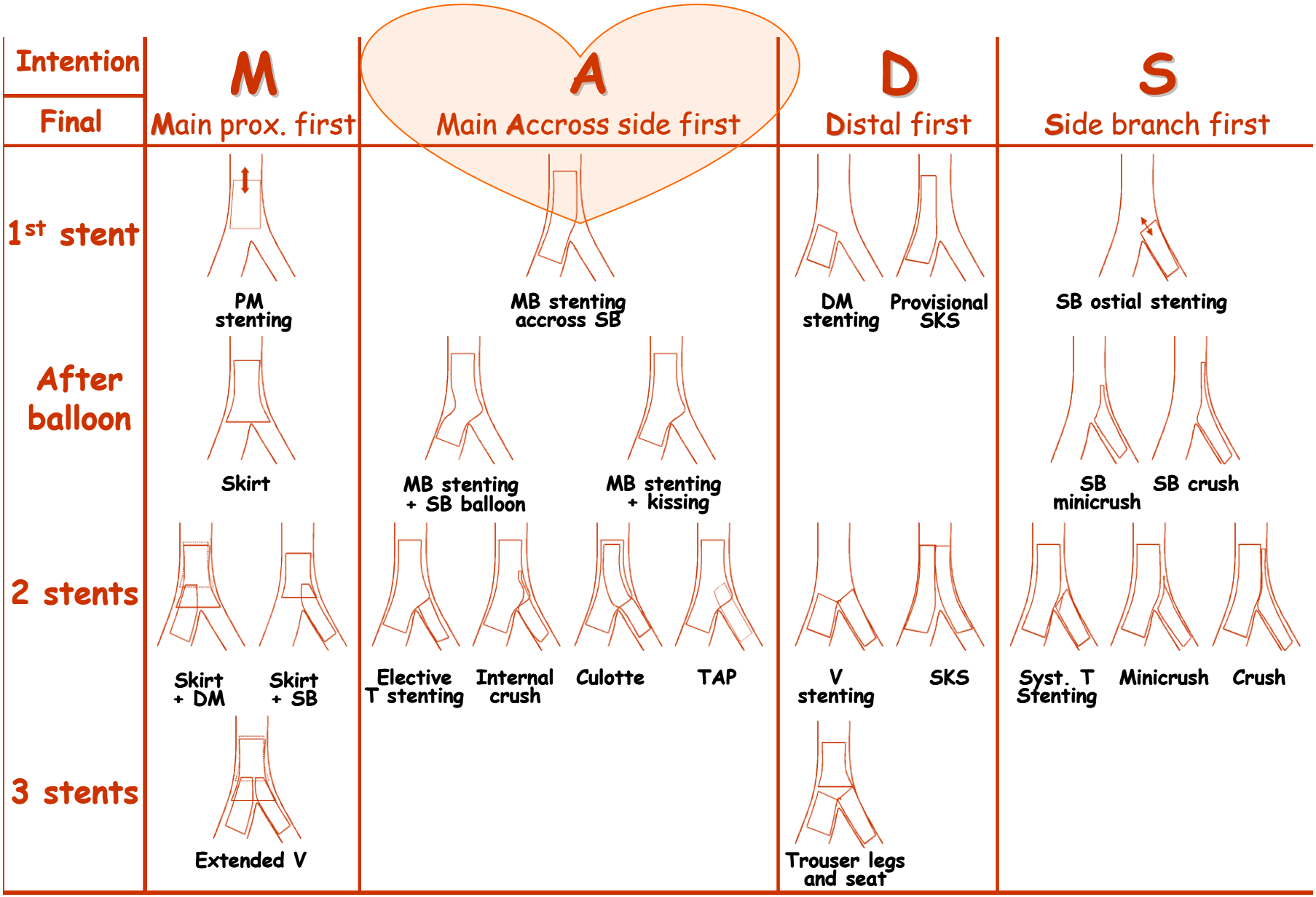


Wiring to LCx

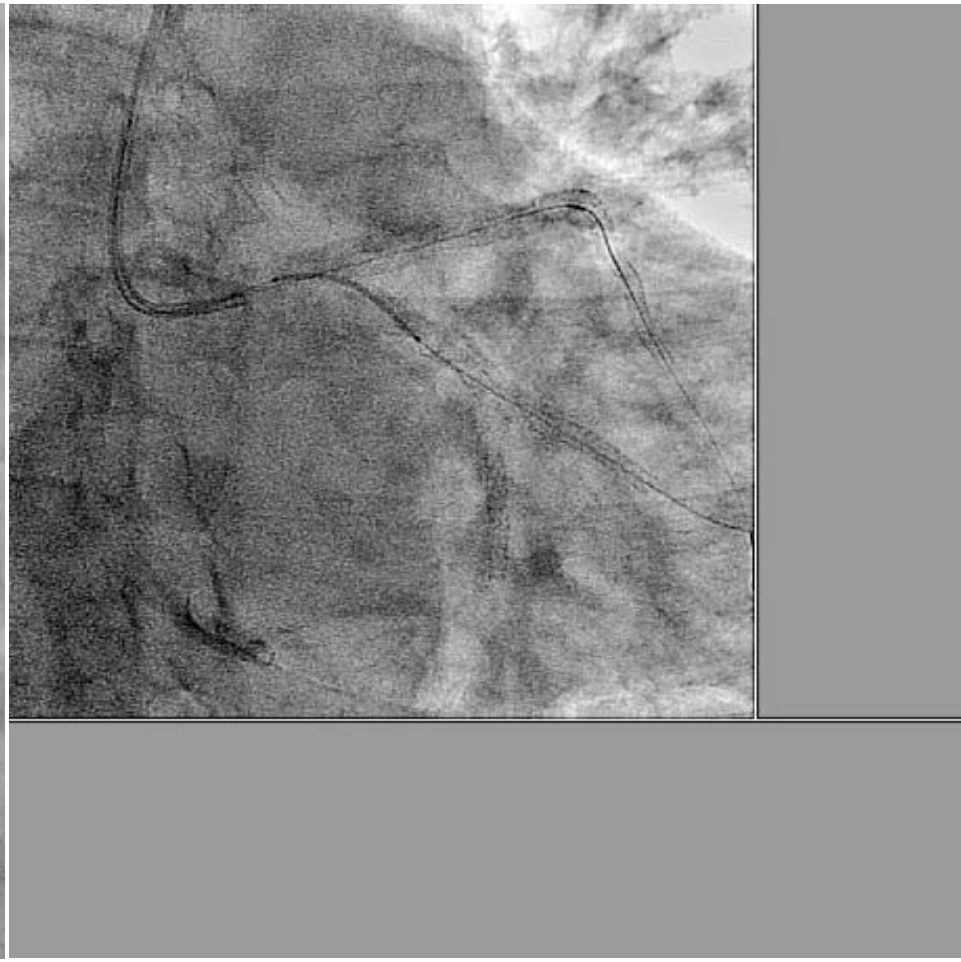


Pre KBD with high pressure

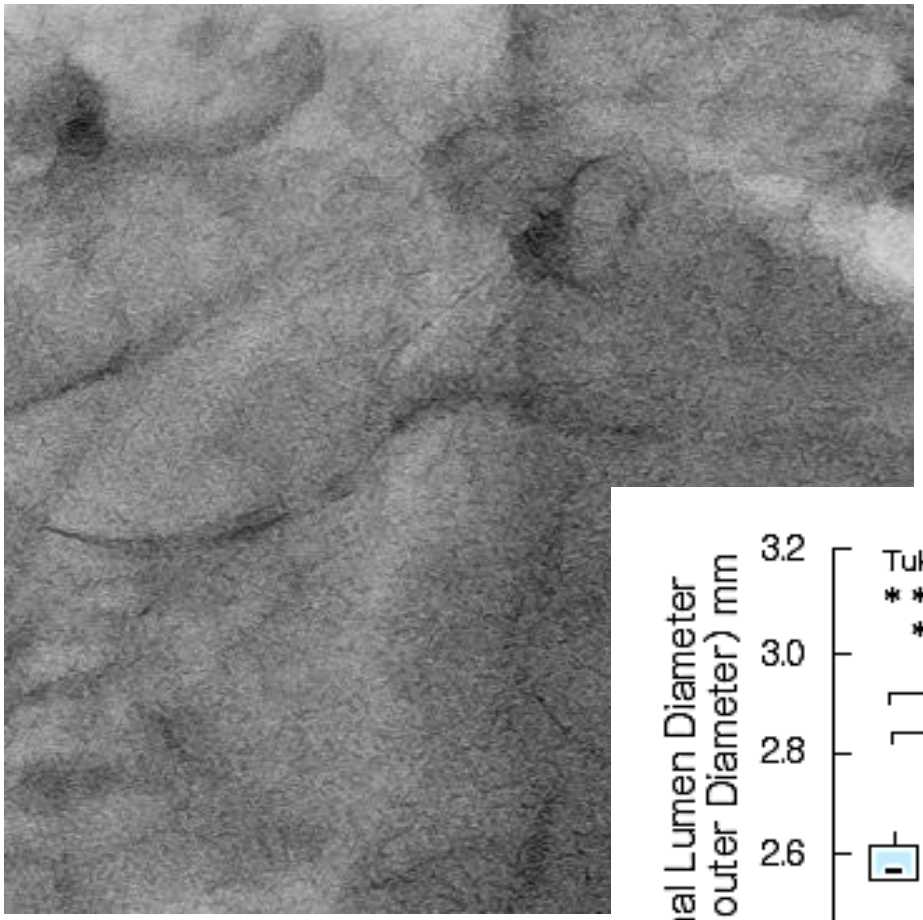
Which method is better?

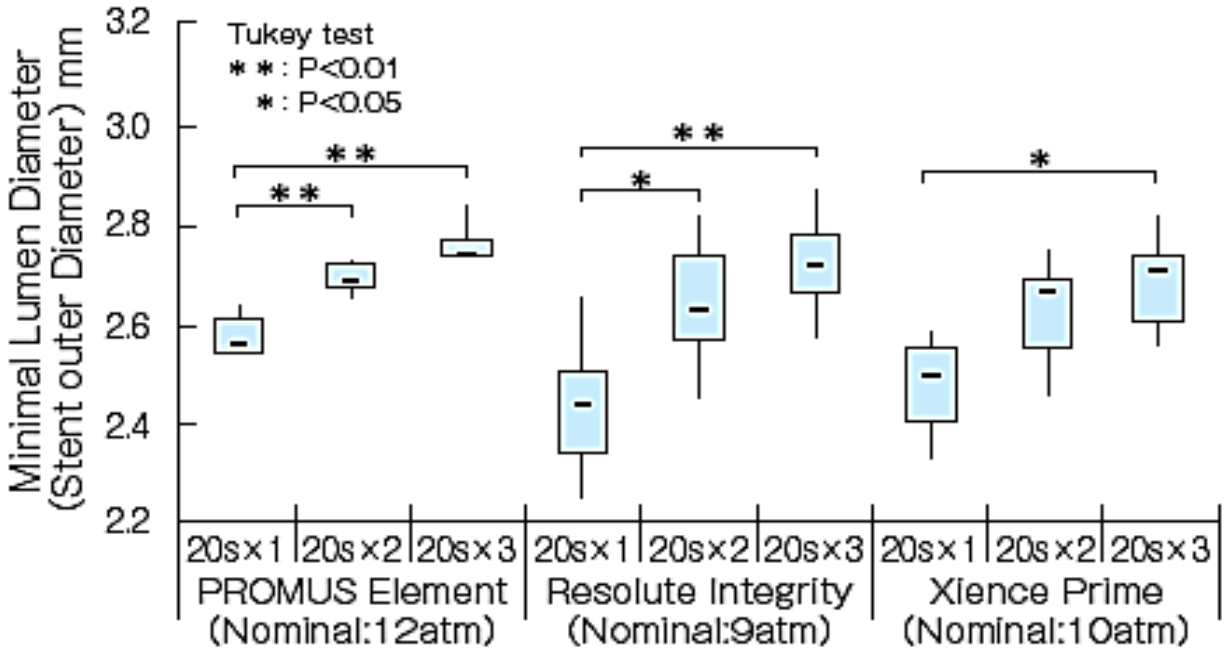

Intention
Final
M
Main prox. first
A
Main Accross side first
D
Distal first
S
Side branch first
1st stent
After balloon
2 stents
3 stents
PM stenting
MB stenting accross SB
DM stenting
Provisional SKS
SB ostial stenting
Skirt
MB stenting + SB balloon
MB stenting + kissing
SB minicrush
SB crush
Skirt + DM
Skirt + SB
Elective T stenting
Internal crush
Culotte
TAP
V stenting
SKS
Syst. T Stenting
Minicrush
Crush
Extended V
Trouser legs and seat

Resolute Integrity Stent View

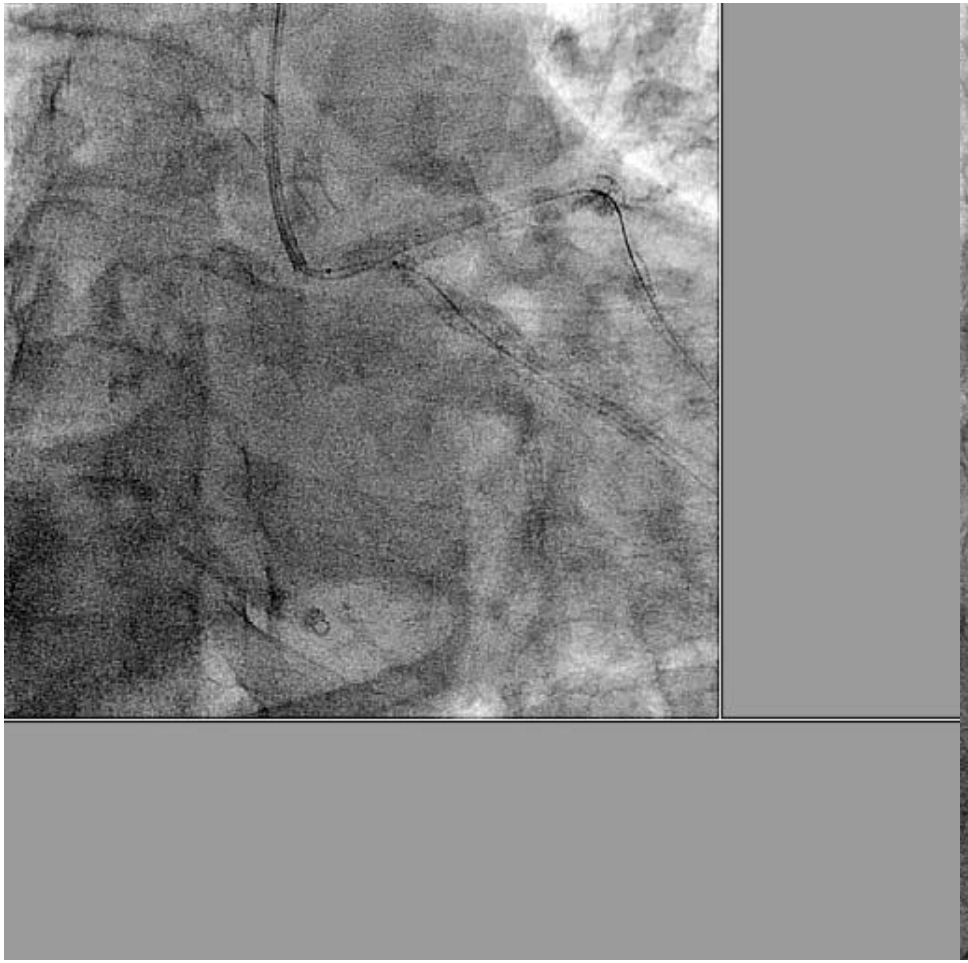


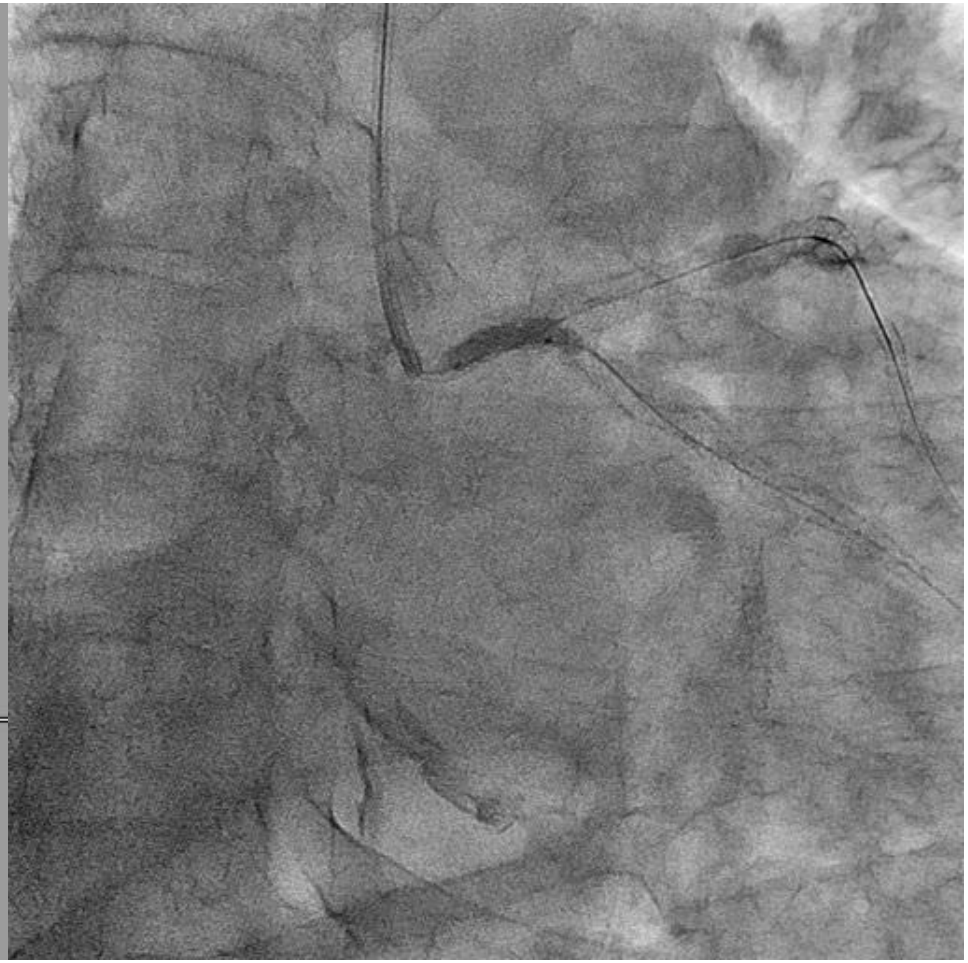
Three times inflation



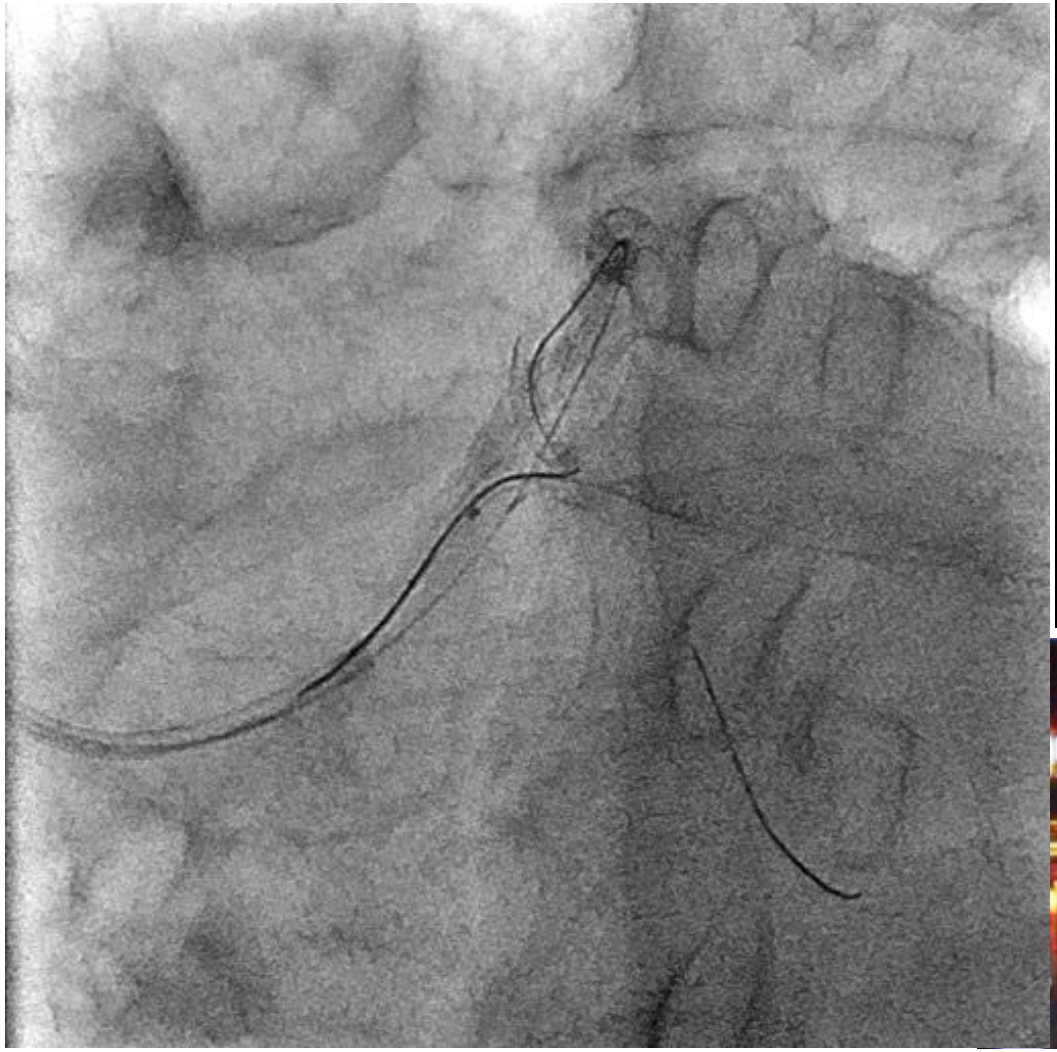


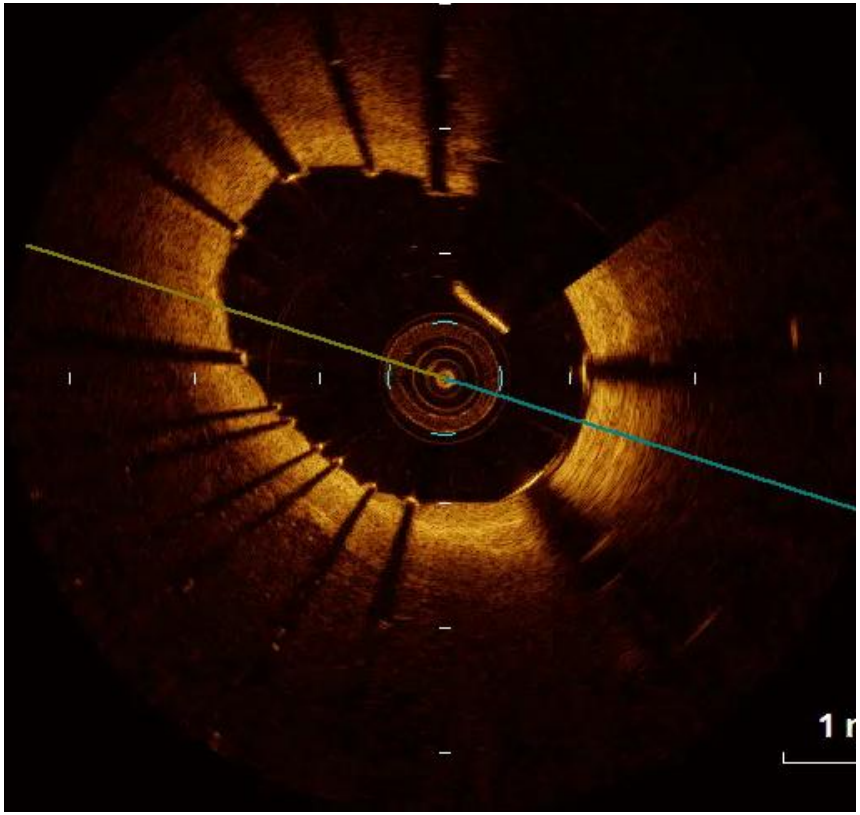
POT with Φ3.5mm HP Bal.

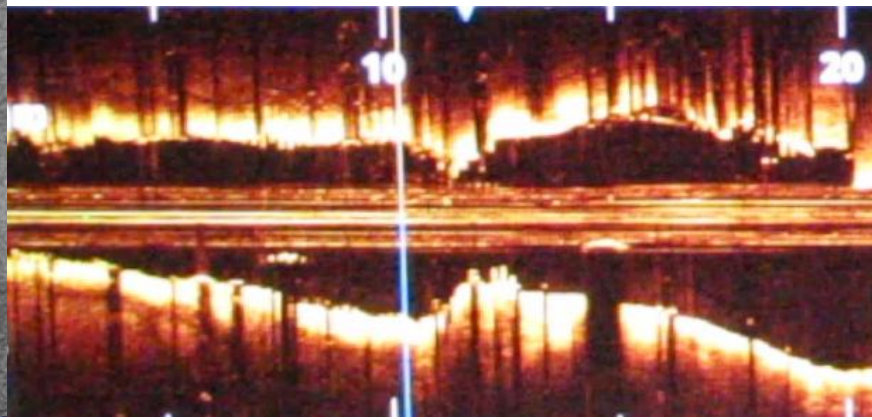




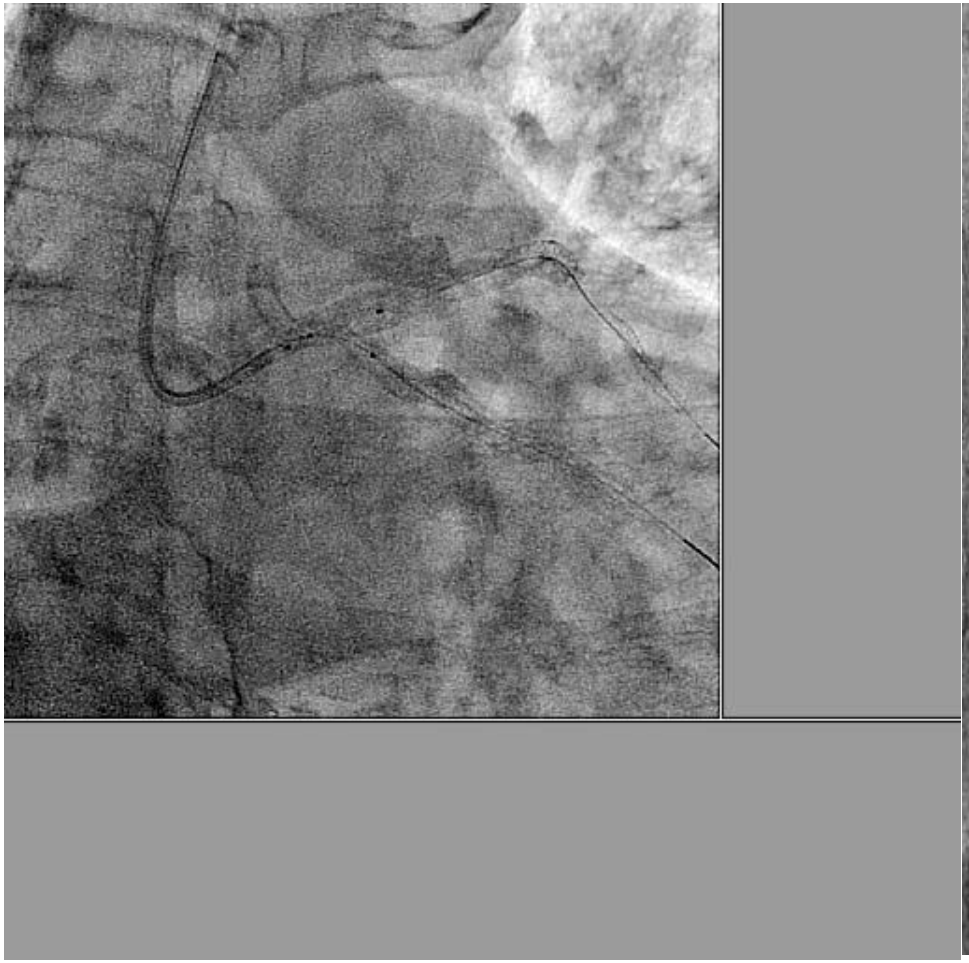
Recrossing point







FKBD with high pressure



Final images


LAD-LMT
1 mm
1 mm

From this image, I found out that localized incomplete apposition occurred between 2 stents that are overlapped one another.

Conclusion

- Heterogeneous neointimal hyperplasia around SB ostium will become the new problem.
- Is this phenomenon accidental or is it inevitable?
- LCx ostium stills stands in our way.
- We usually focus on the outside strut malapposition , but we have to be careful about the carina side struts overlapping. It is unavoidable phenomenon at sharp curve.