



国家心血管病中心  
National Center Cardiovascular Diseases, China



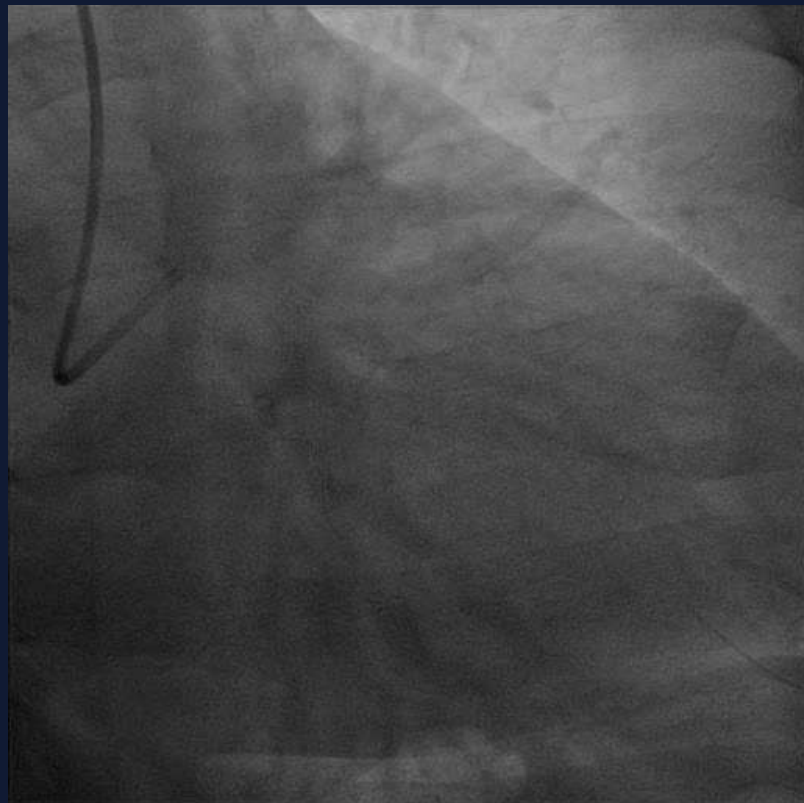
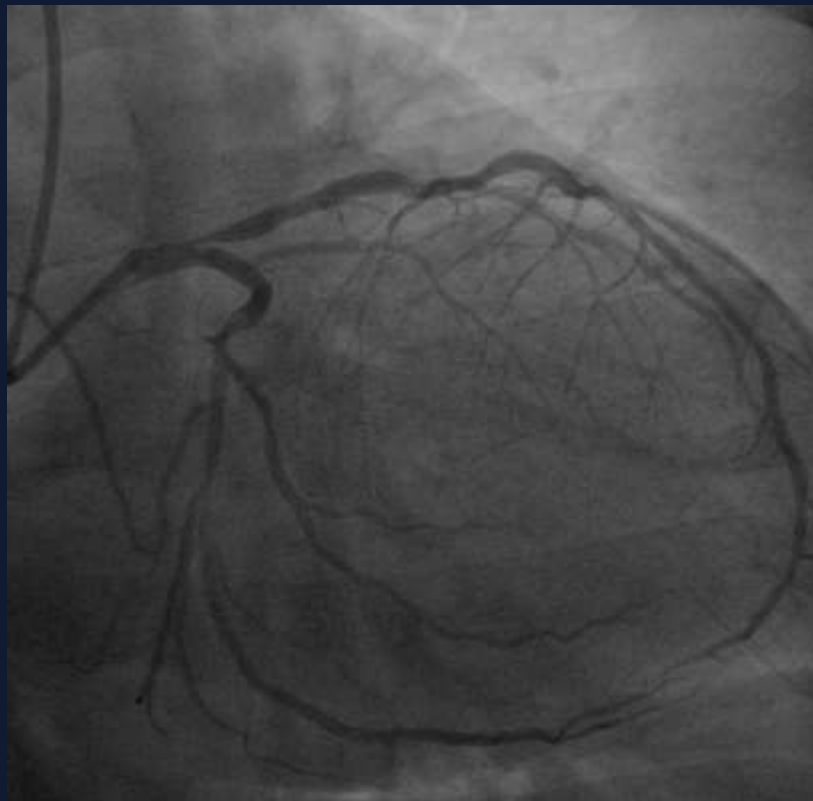
阜外心血管病医院  
Fu Wai Hospital, CAMS & PUMC

# PCI Optimization with Intravascular Imaging: Role of Technologist at Fu Wai Hospital

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# Case1: LM bifurcation



LAD: ostial 90% stenosis  
LM: distal mild stenosis  
LCX: ostial mild stenosis  
Small angle between LAD and LCX





# One-stent strategy



Stent 3.5\*29mm

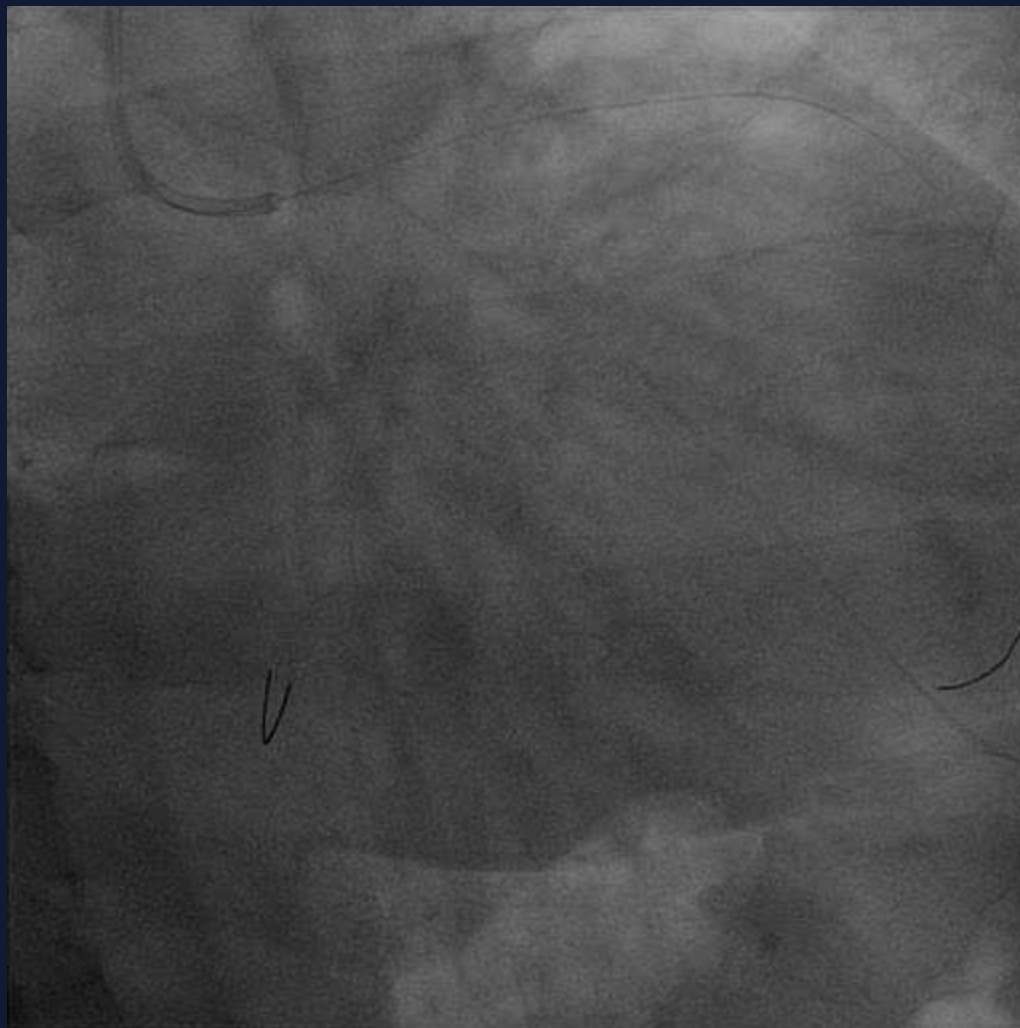


LCX ostium: jailed  
FFR: 0.73



Kissing





Final result



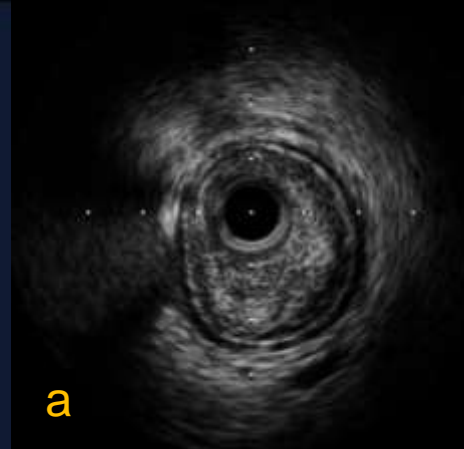
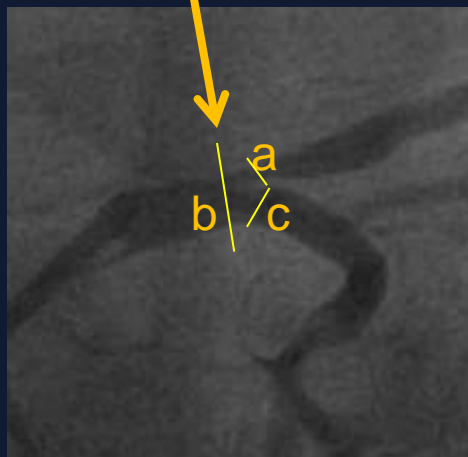
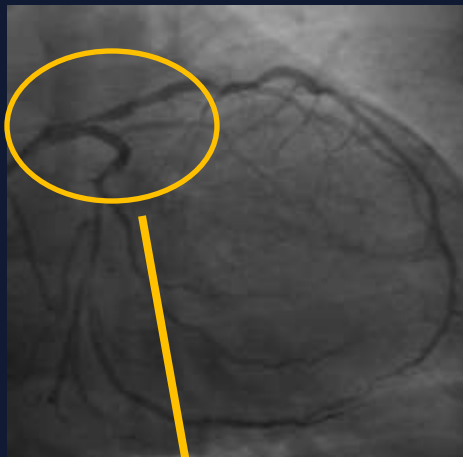


During the procedure...

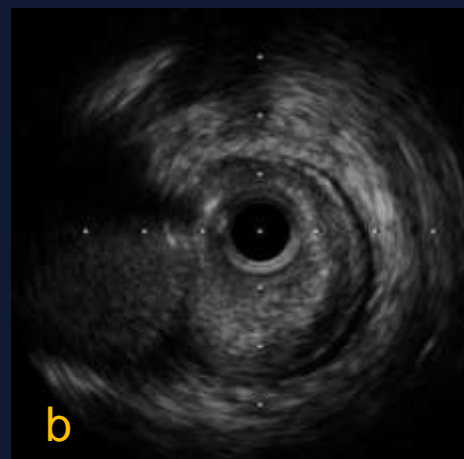
Why did cardiologist choose one-stent strategy?



# Baseline



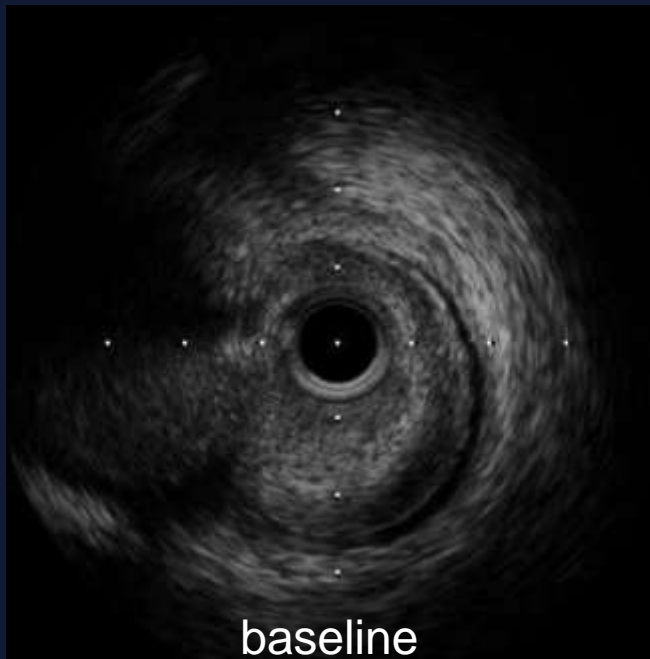
oLAD



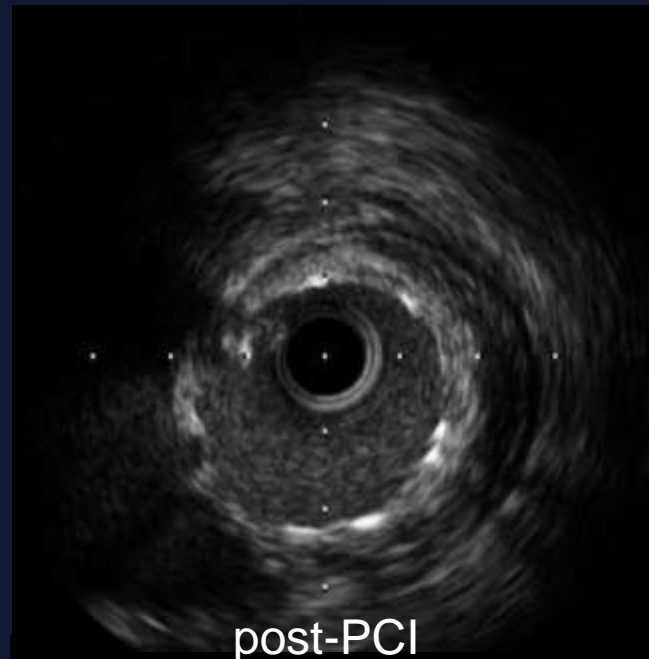
LM  
bifurcation



oLCX



baseline



post-PCI

Carinal shift





Before KB

After KB

Remodification of carinal shift

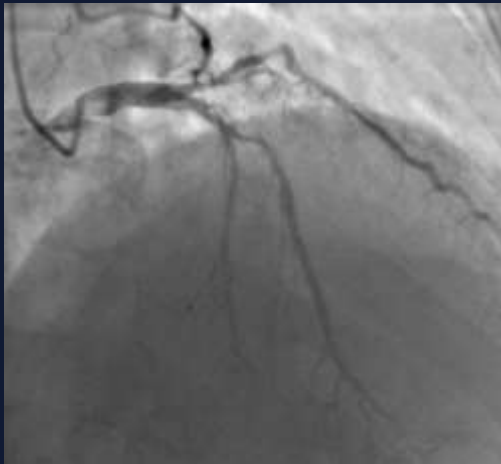
oLCX

Before kissing, LCX FFR=0.73  
After kissing, LCX FFR=0.84





# Case2: PCI complication



LAD: 80% stenosis  
calcification

Pre-dilatation

Dissection &  
Hematoma



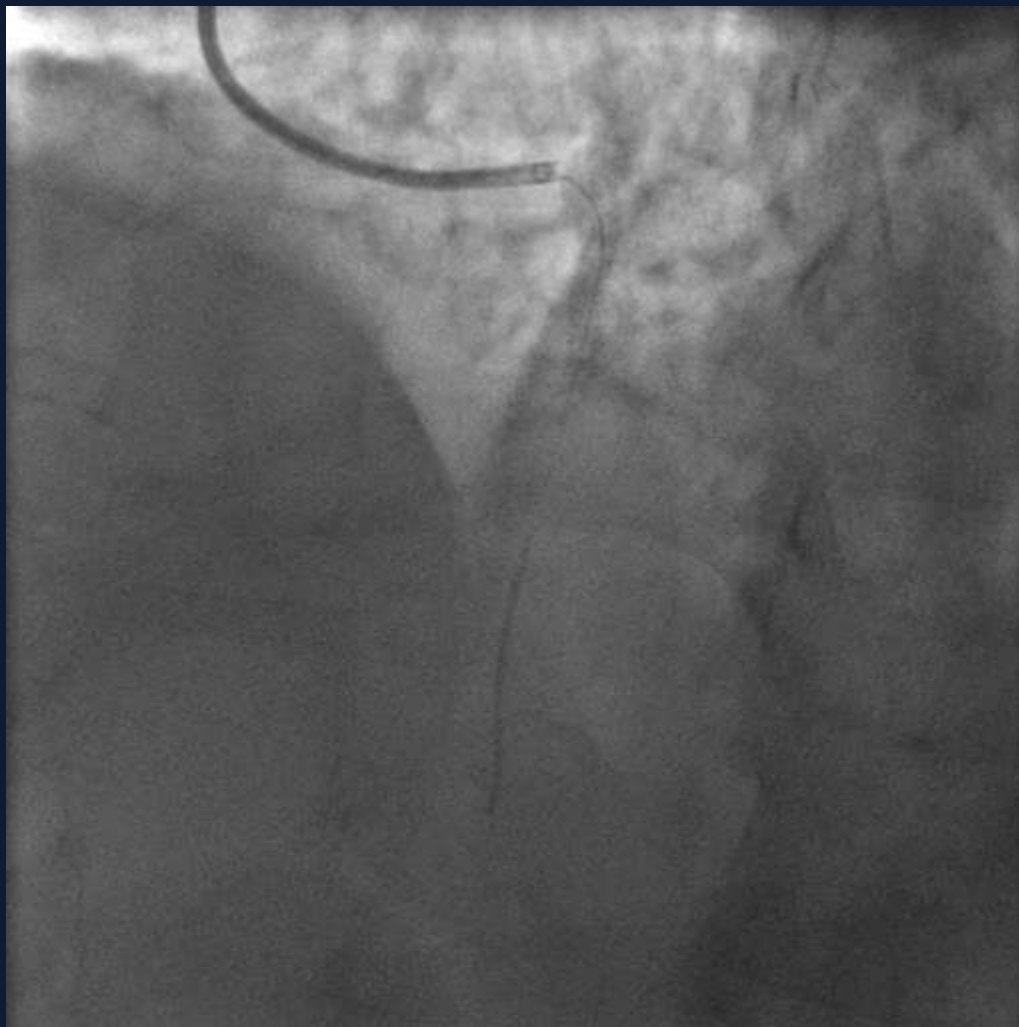


Whole system was out



Rewire LAD





Final result

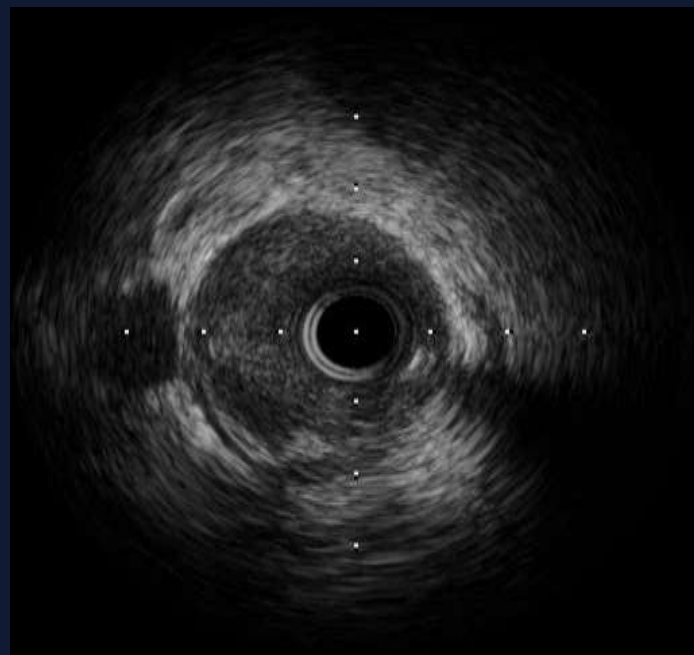
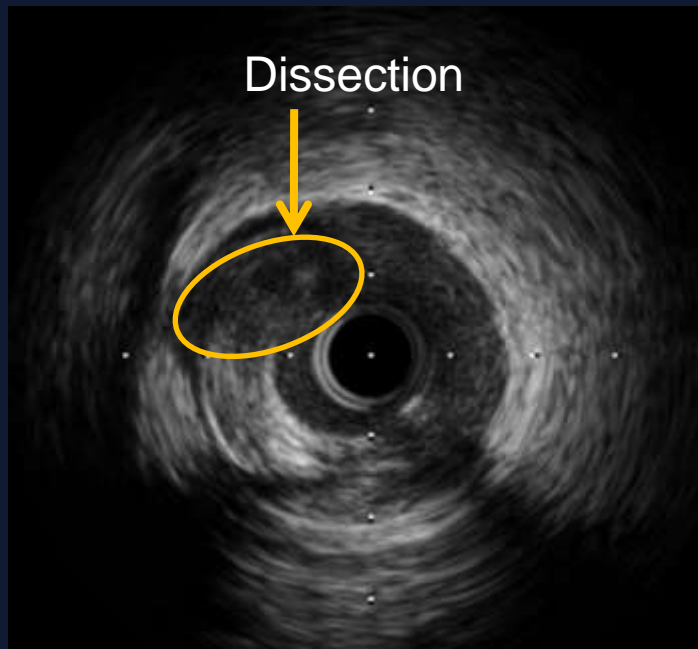
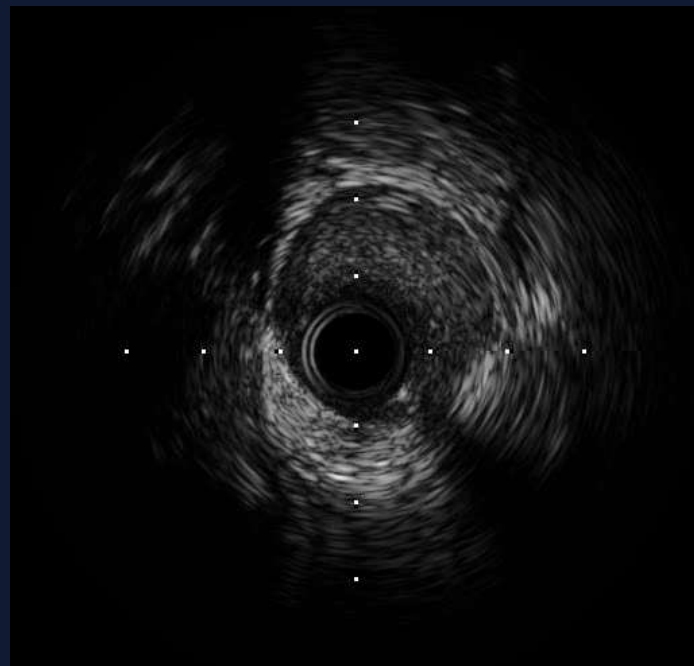
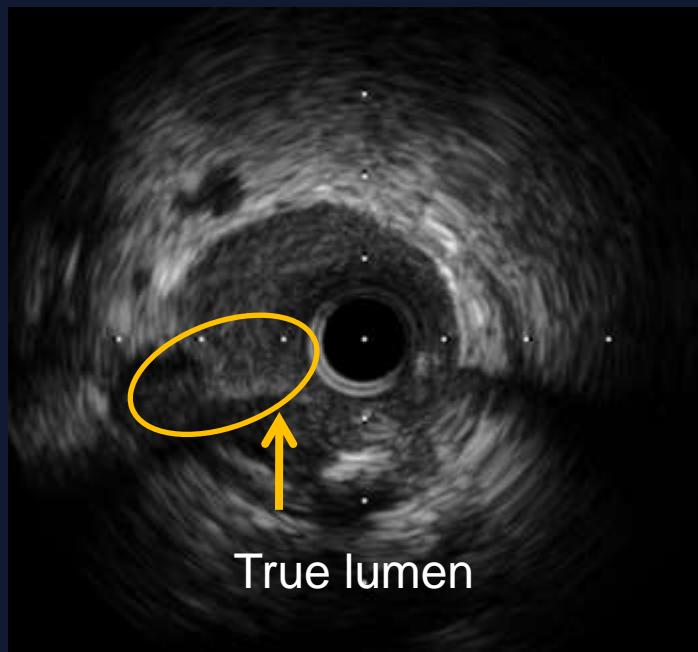




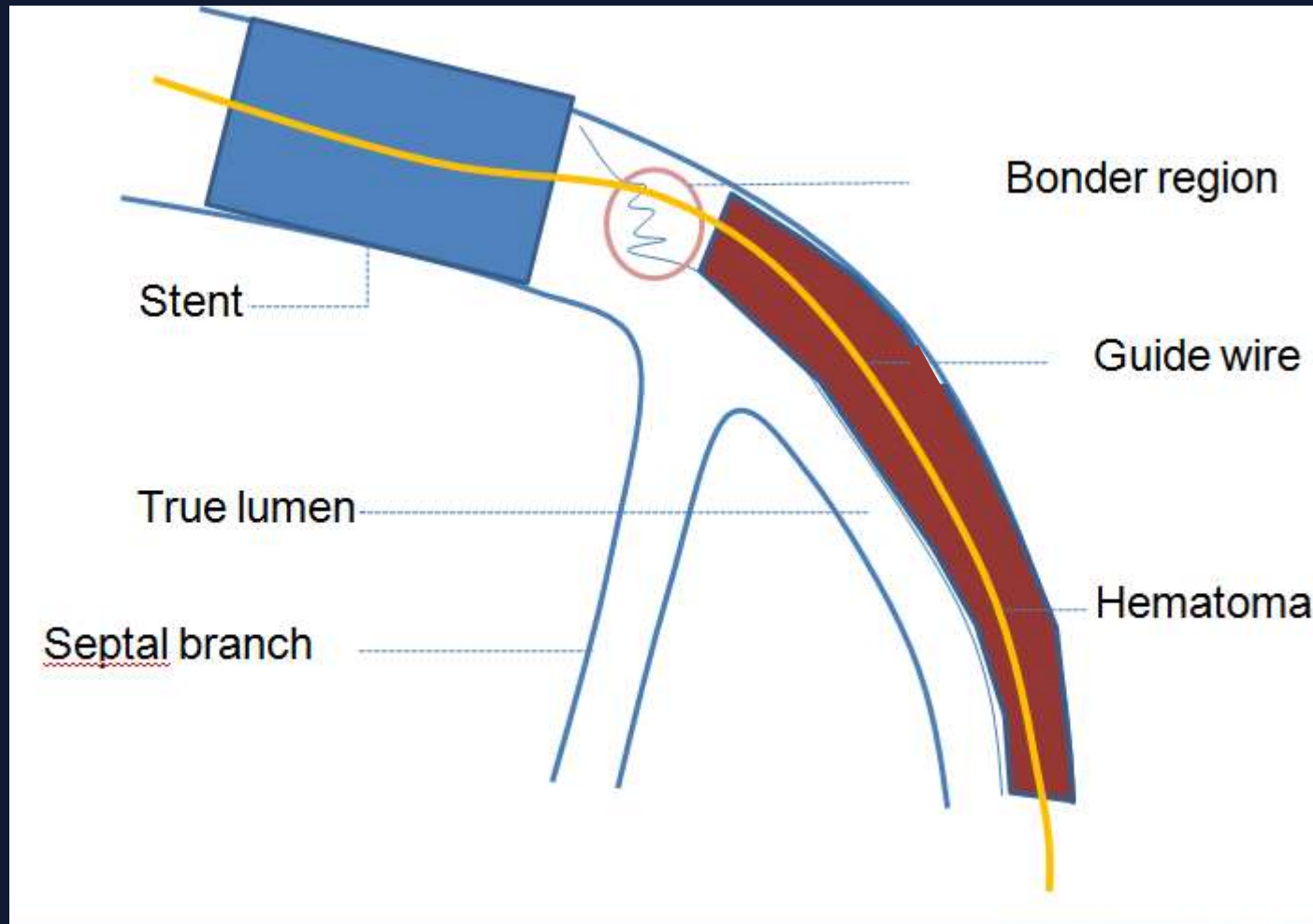
During the procedure...

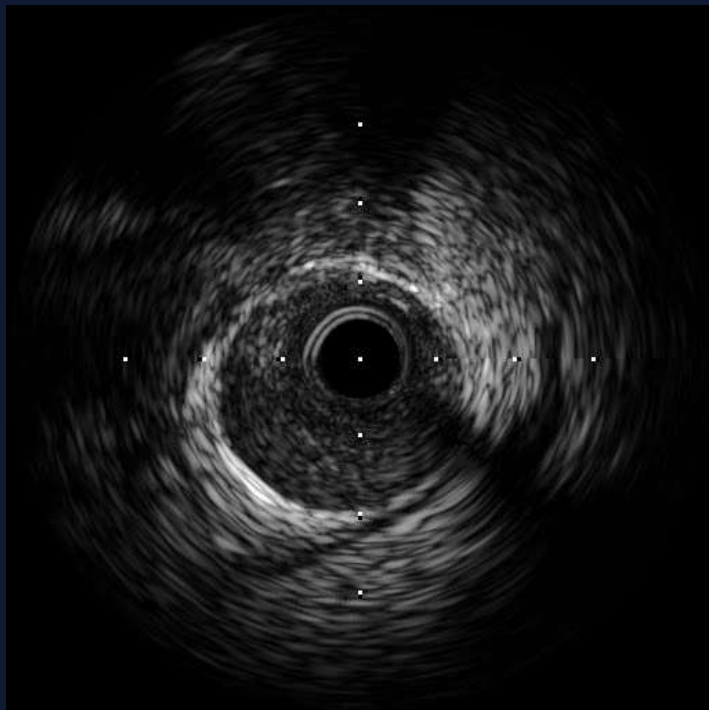
Key of the successful treatment for PCI complication





# Schematic diagram of LAD





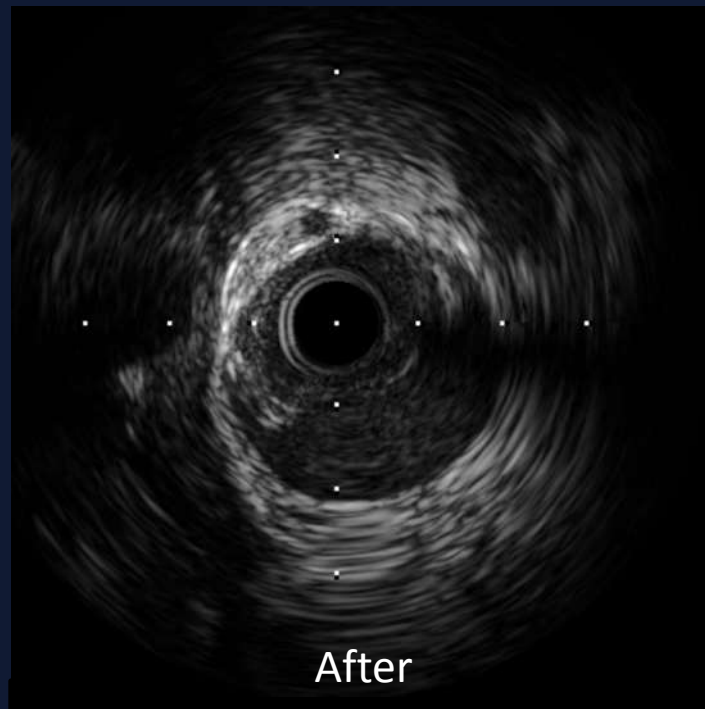
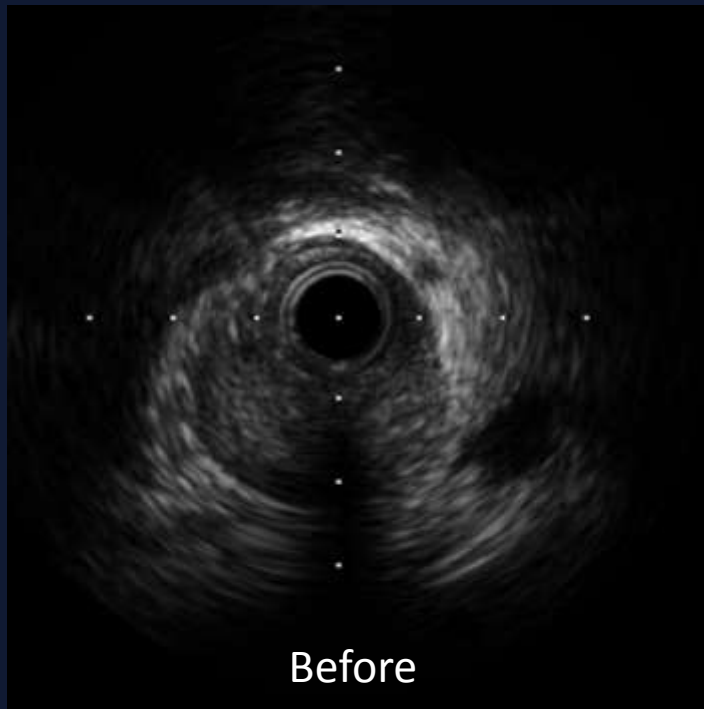
Hematoma



Hematoma: cutting balloon







Enlargement of lumen





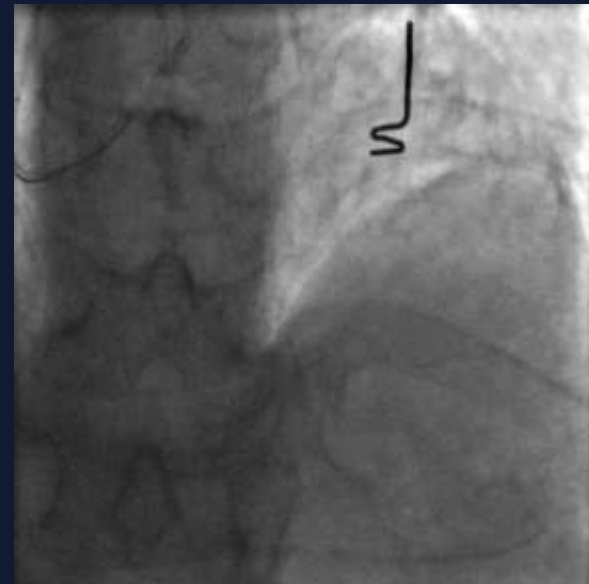
# Case3: BRS



LAD: mid 70% stenosis



3.0\*13mm BRS



Final result





## During the procedure...

BRS: different material(PLLA, PDLLA...); radio lucent;

How to gain a better result?

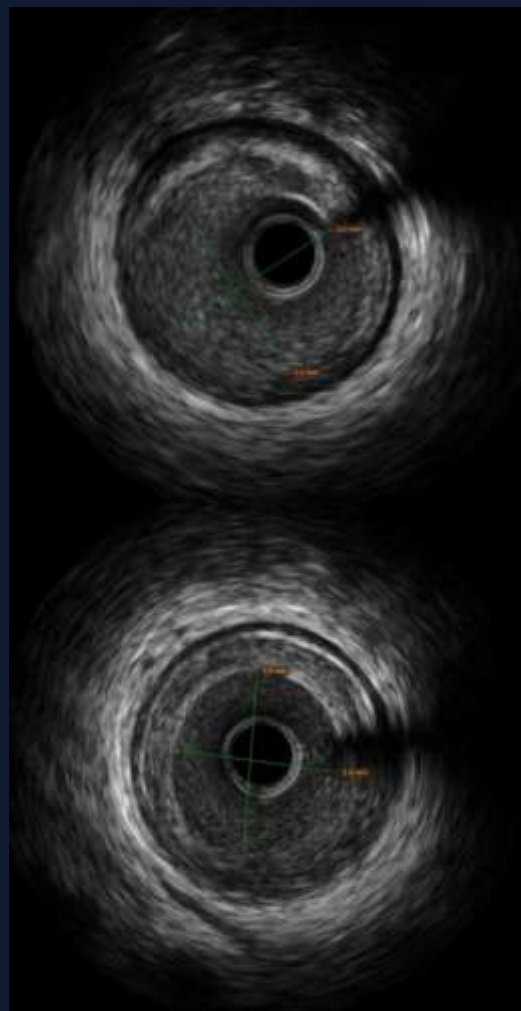




# Baseline



Angiography:  
visual Ref. around 3.0mm



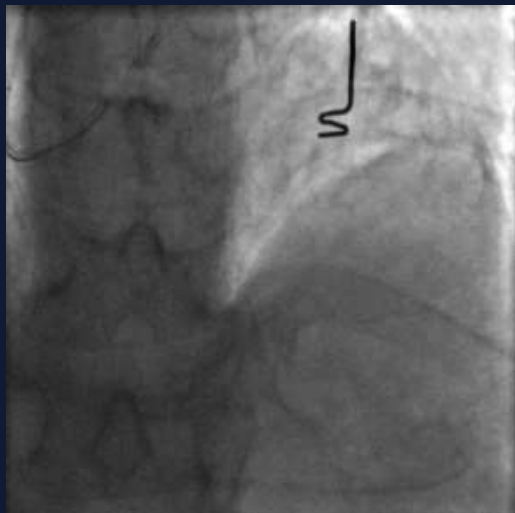
Prox.  
Ref.=3.2mm

Dist.  
Ref.=2.9mm





# Post-PCI

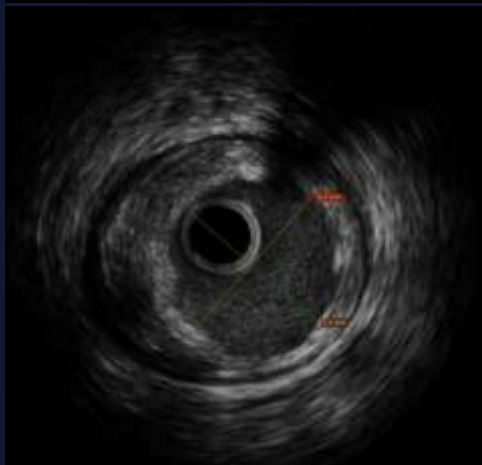
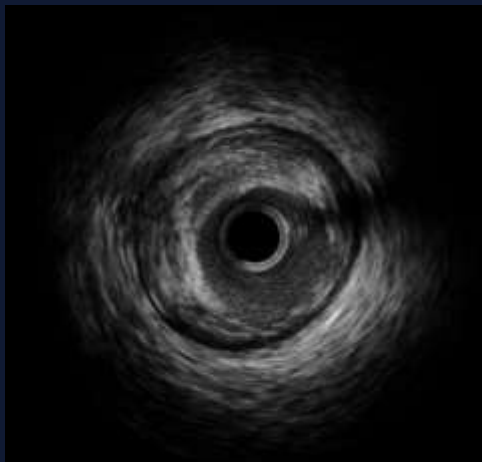


Angiographic result:  
(1) Fully expanded  
(2) No residual stenosis





# Post-PCI



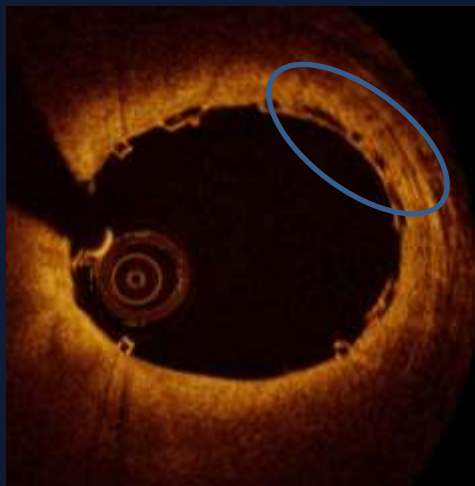
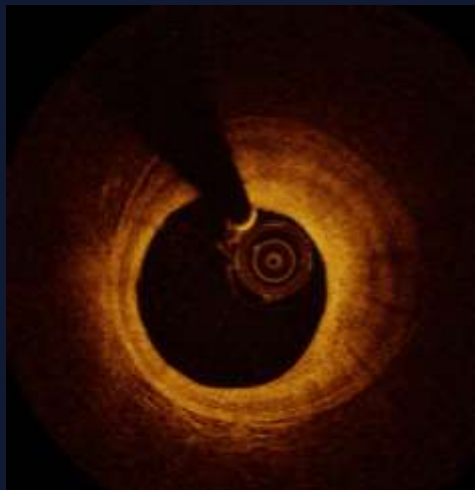
IVUS result:

- (1) Fully expanded
- (2) Optimal stent size
- (3) No dissection in Prox./Dist. edge
- (4) Well apposed





# Post-PCI



OCT result:

- (1) Scaffold was complete and continuous
- (2) Struts were embedded into the vessel wall
- (3) Well apposed

