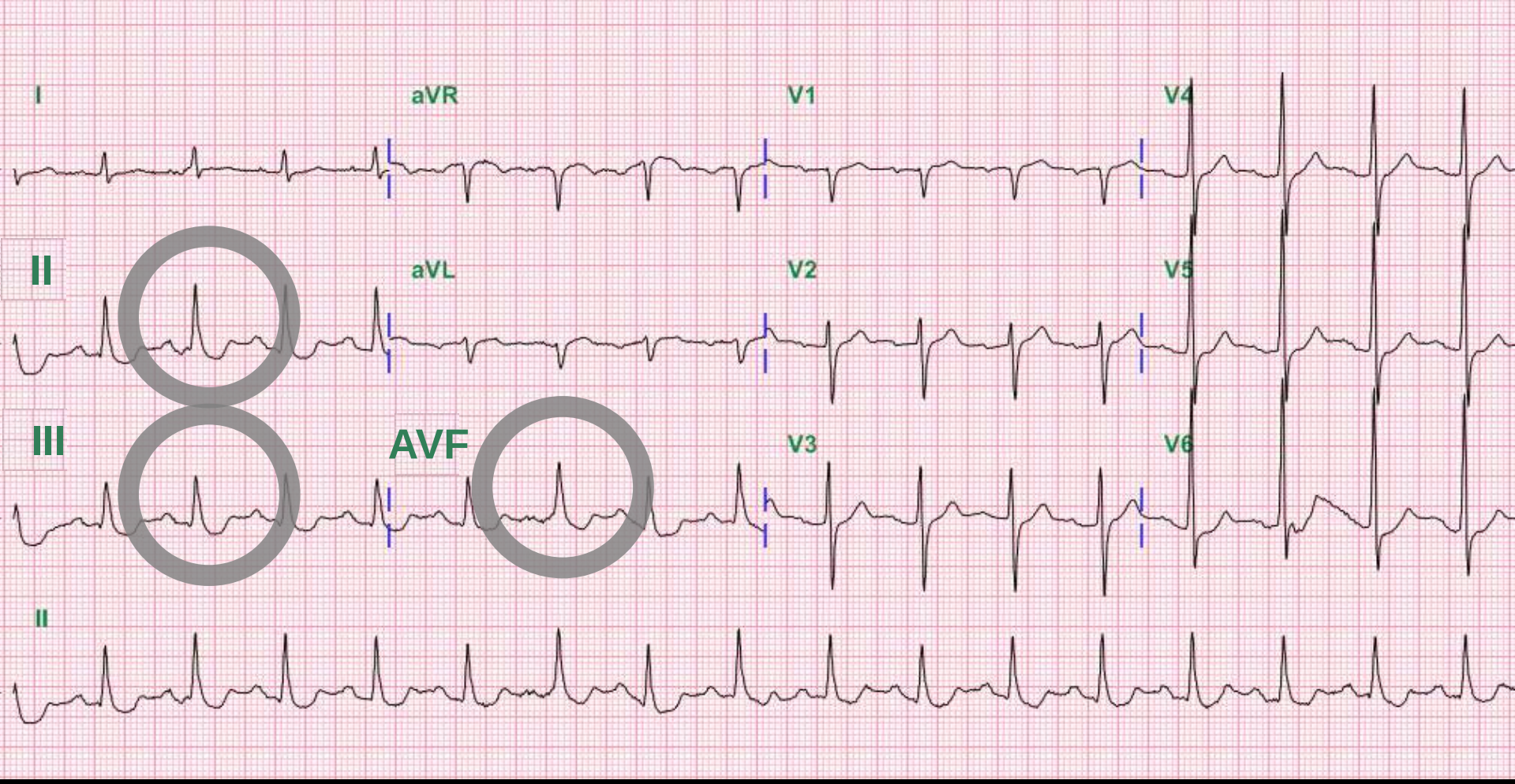
Reversed sequential mini-crush

Bifurcation Stenting of LCX & OM Br. and LM, LAD & LCX

Case Presentation II

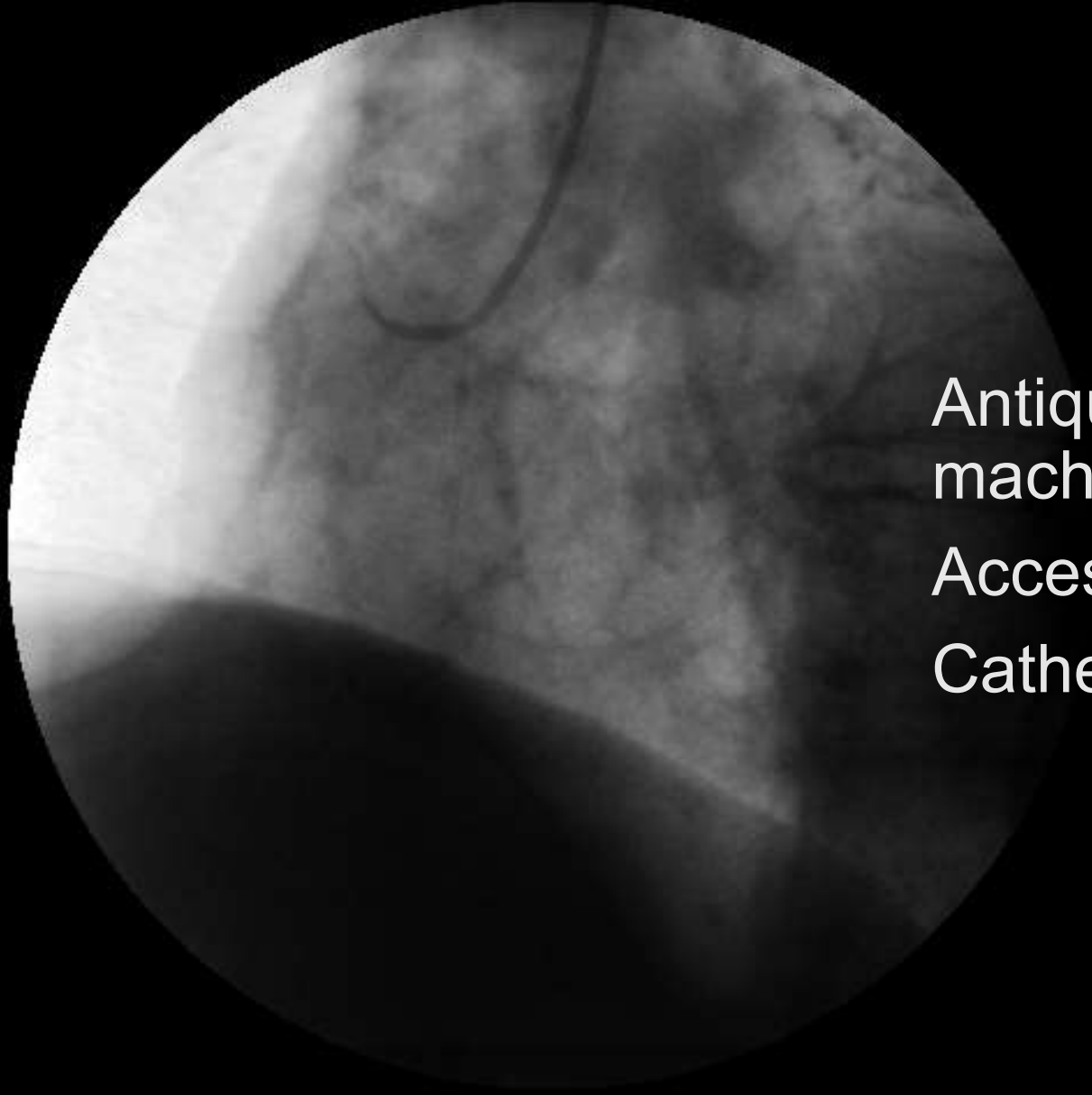
Ching-Yuan Tsai, MD

- 69 y/o male has CAD risk factors of smoking, HTN and ESRD
- Chest tightness when he had dialysis
- Thallium scan showed ischemia in inferior wall



ECG diagnosis: Inferior ischemia

ECG in OPD



Antique cardiac catheter machine

Access: RRA

Catheter: 5Fr JR4

RCA angiography

Definite lesion over ostium of OM br.

Hazy over ostium of LAD

Moderate plaque over proximal LCX

But the operator chose to believe in Thallium scan

LCA angiography

Catheter: 6Fr EBU3.5

Wire: Sion (Asahi, Japan)

Balloon: NC Trek 2.75x12mm (Abbot)

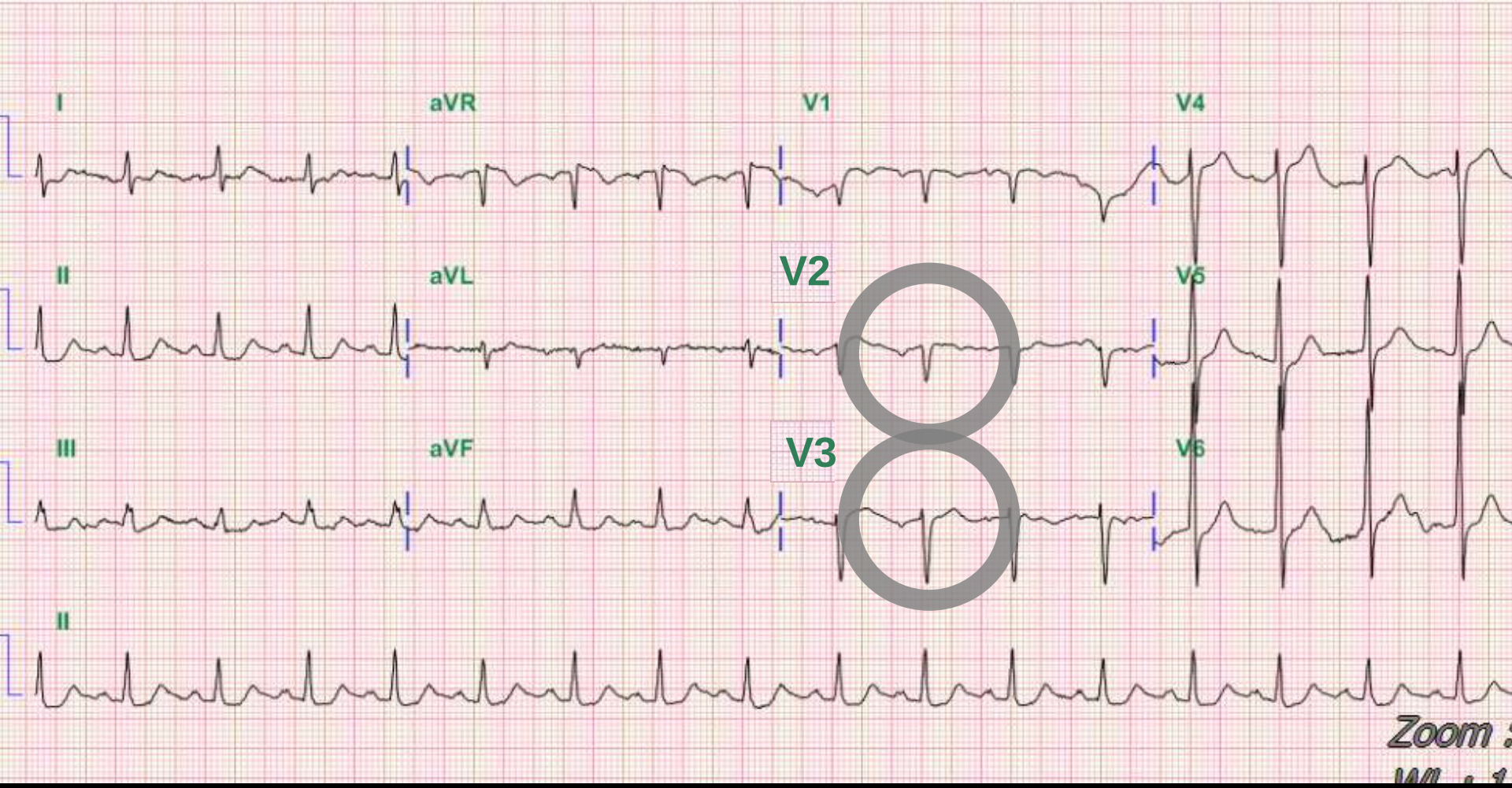
Stent: Omega 2.75x12mm (Boston)

OM PCI

- He received DAPT (Aspirin and Clopidogrel) and was doing well during OPD f/u till 7 months later.

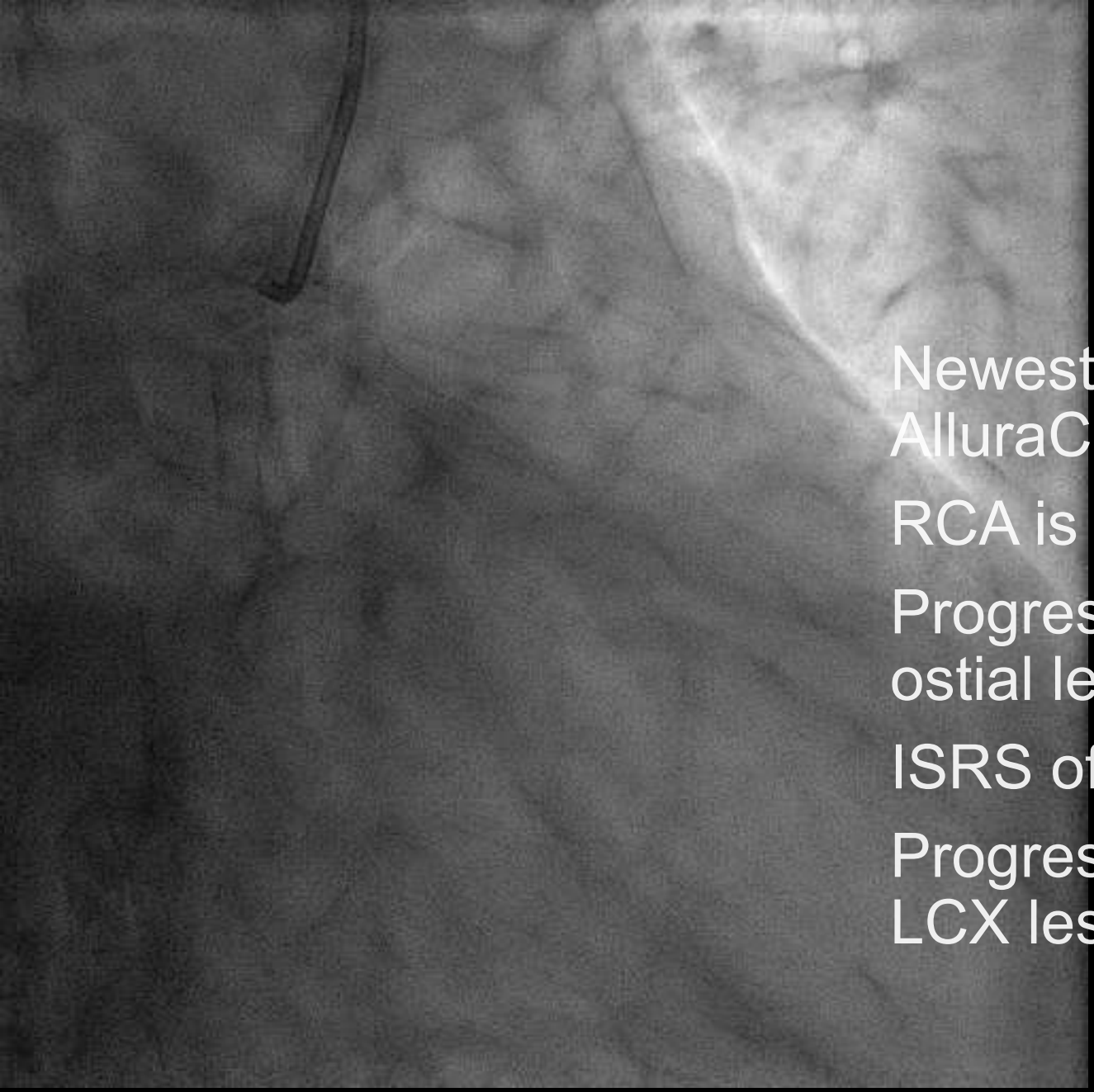
- One day, he was brought to ER due to NSTEMI with acute pulmonary edema.

- His troponin-I went up to 8.35 mg/dL maximally



ECG diagnosis: PRWP & minor STT change

ECG in ER



Newest Philips AlluraClarity machine

RCA is not changing

Progression of LAD ostial lesion

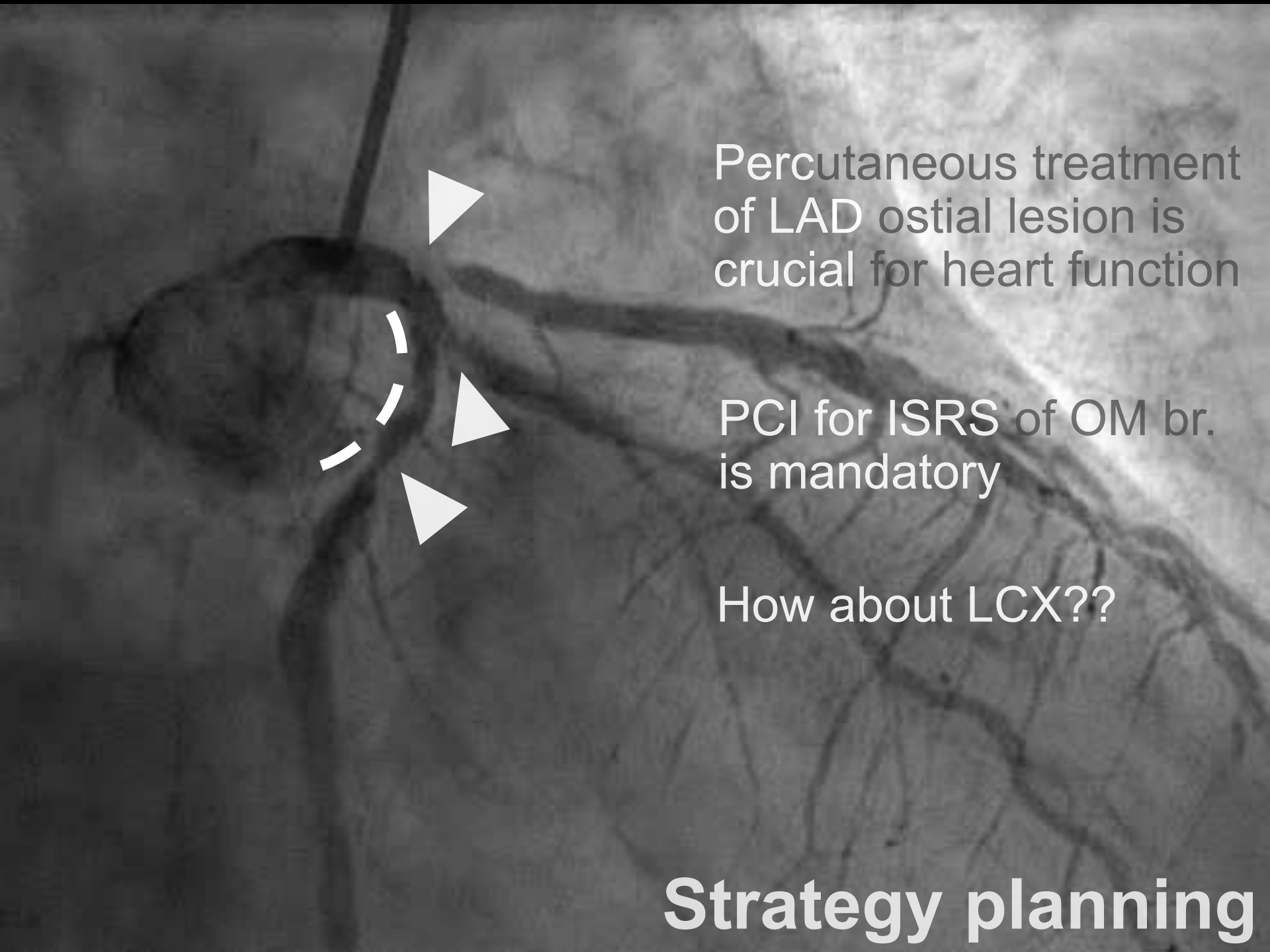
ISRS of OM br.

Progression of proximal LCX lesion

LCA angiography

What is our strategy??

- Firstly we advised the patient that he was a good surgical candidate if he wasn't financially supported for DES.
- As we've expected, he couldn't afford DES and refused CABG either.
- After one week of negotiation and persuasion, the physician gave in.
- "Okay, I will have you BMS implanted, but you will go back to cath lab very often." He agreed, so…….

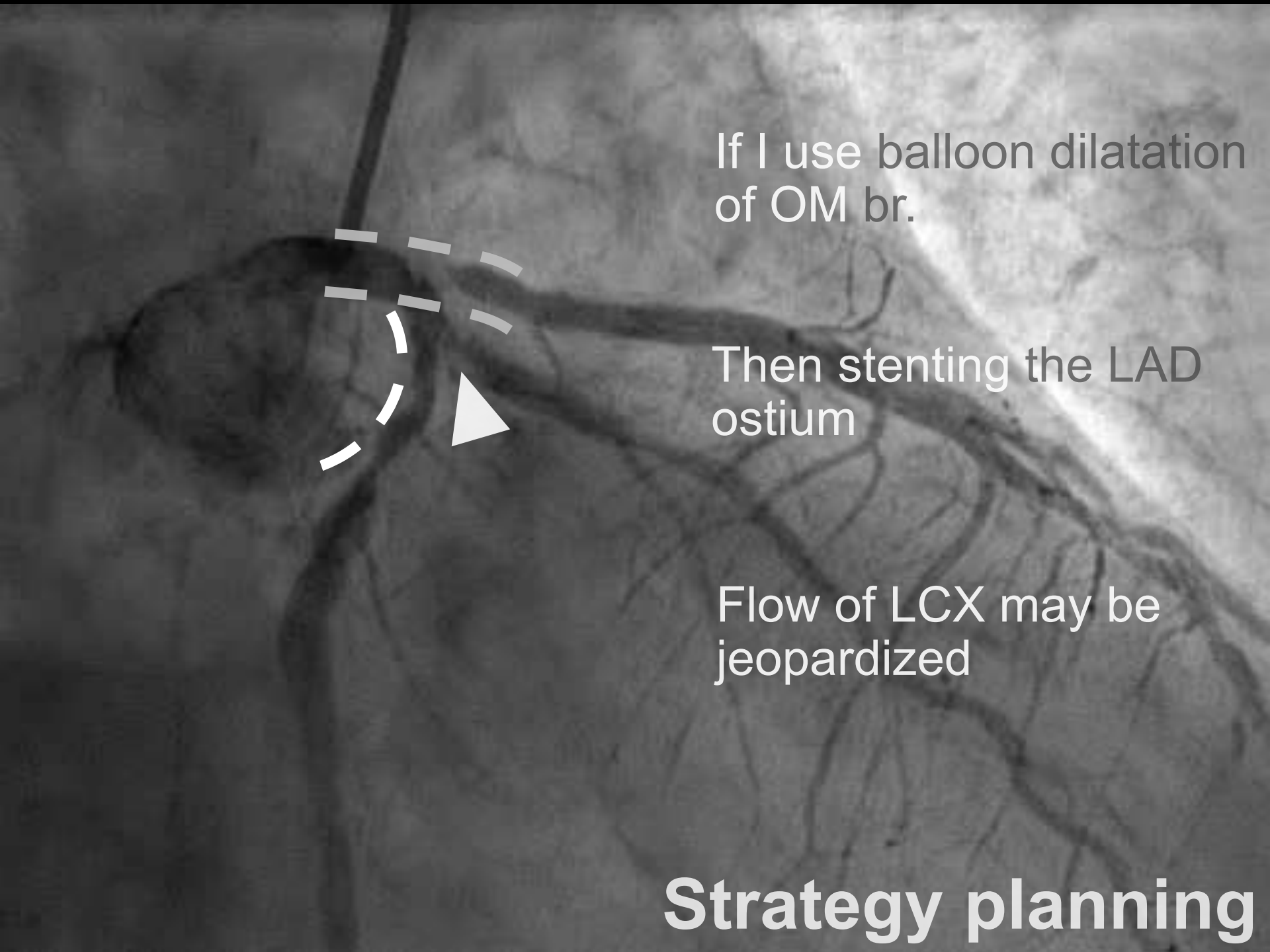


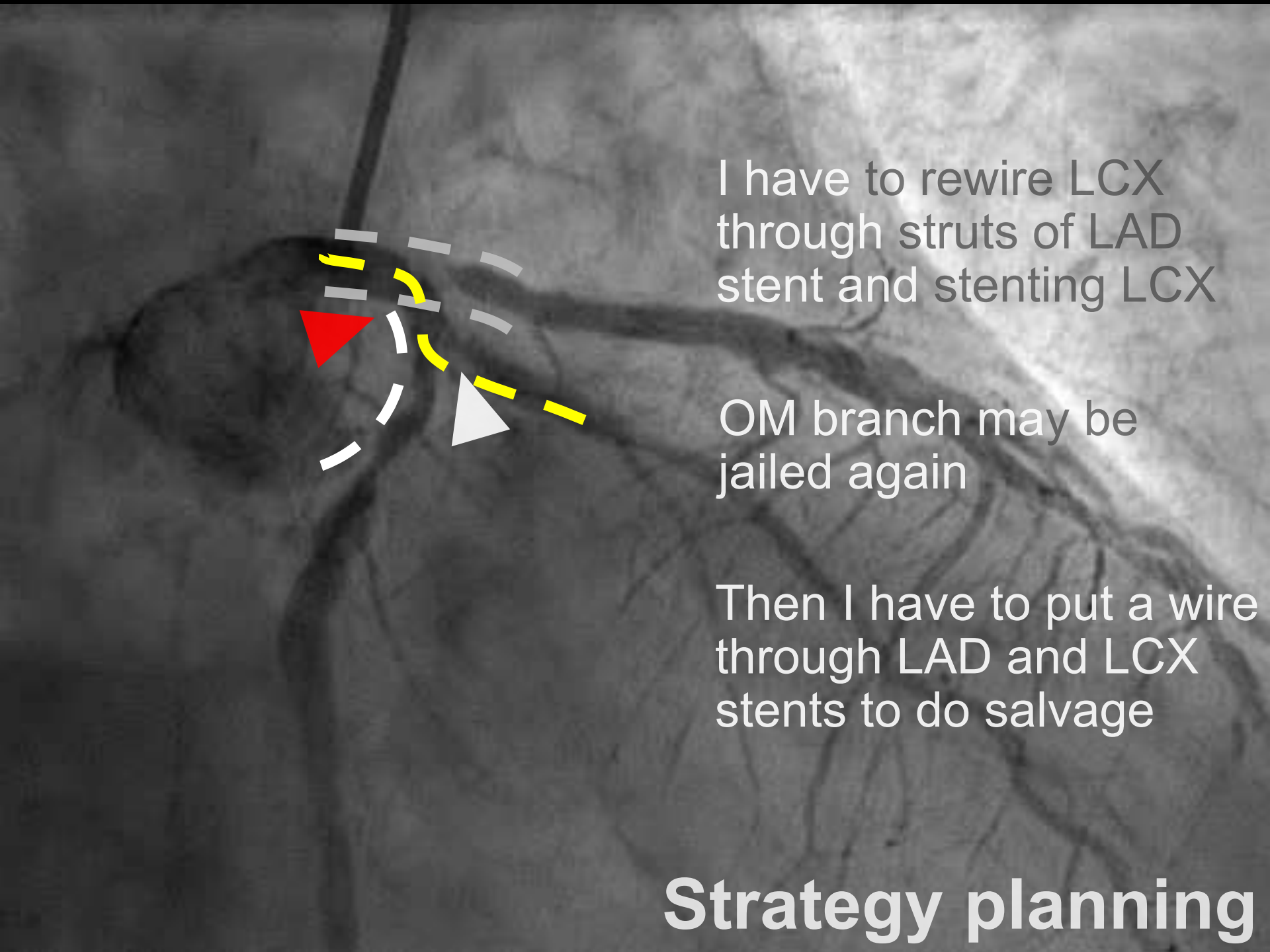
Percutaneous treatment of LAD ostial lesion is crucial for heart function

PCI for ISRS of OM br. is mandatory

How about LCX??

Strategy planning


If I use balloon dilatation of OM br.
Then stenting the LAD ostium
Flow of LCX may be jeopardized
Strategy planning

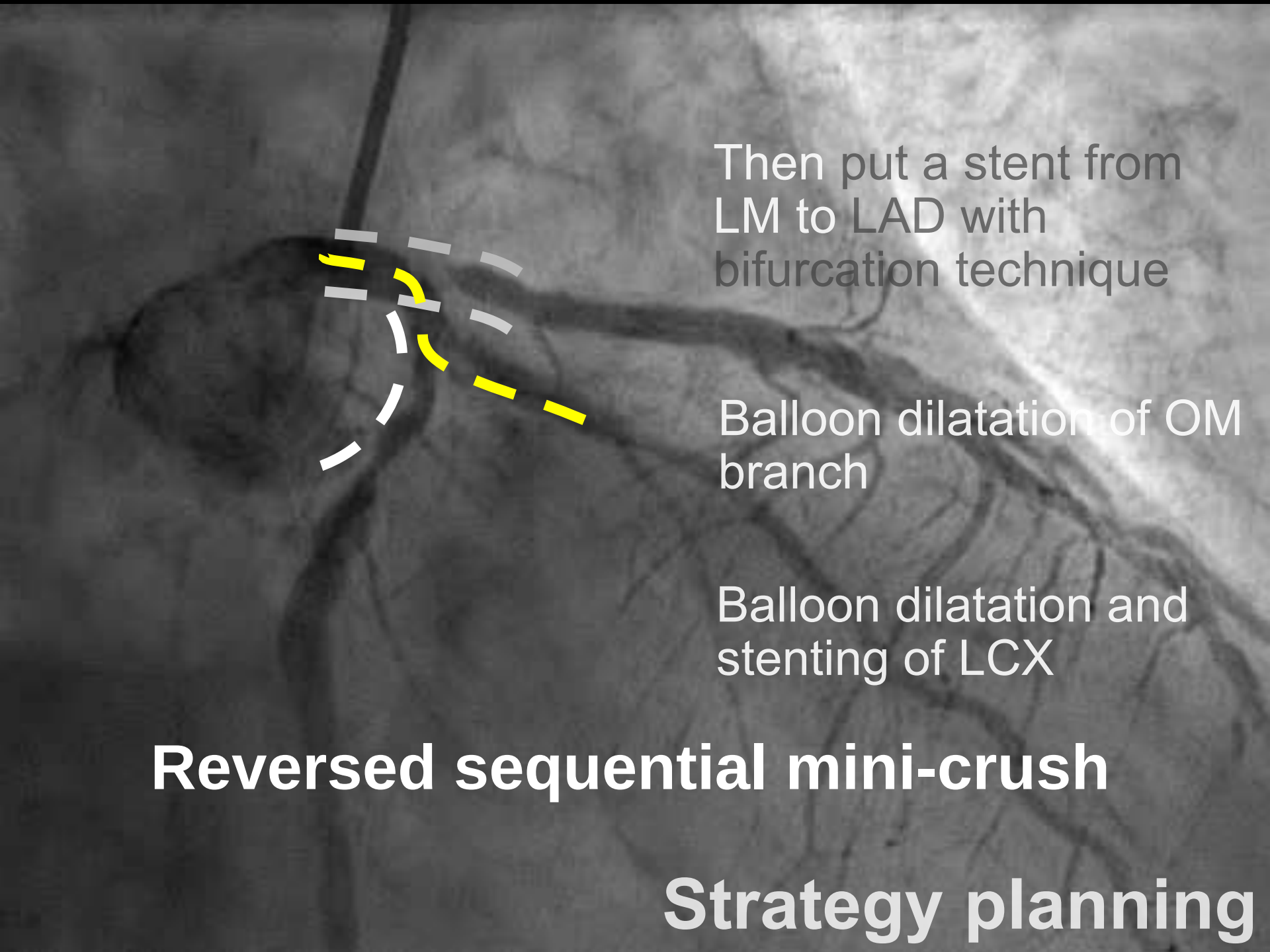


I have to rewire LCX through struts of LAD stent and stenting LCX

OM branch may be jailed again

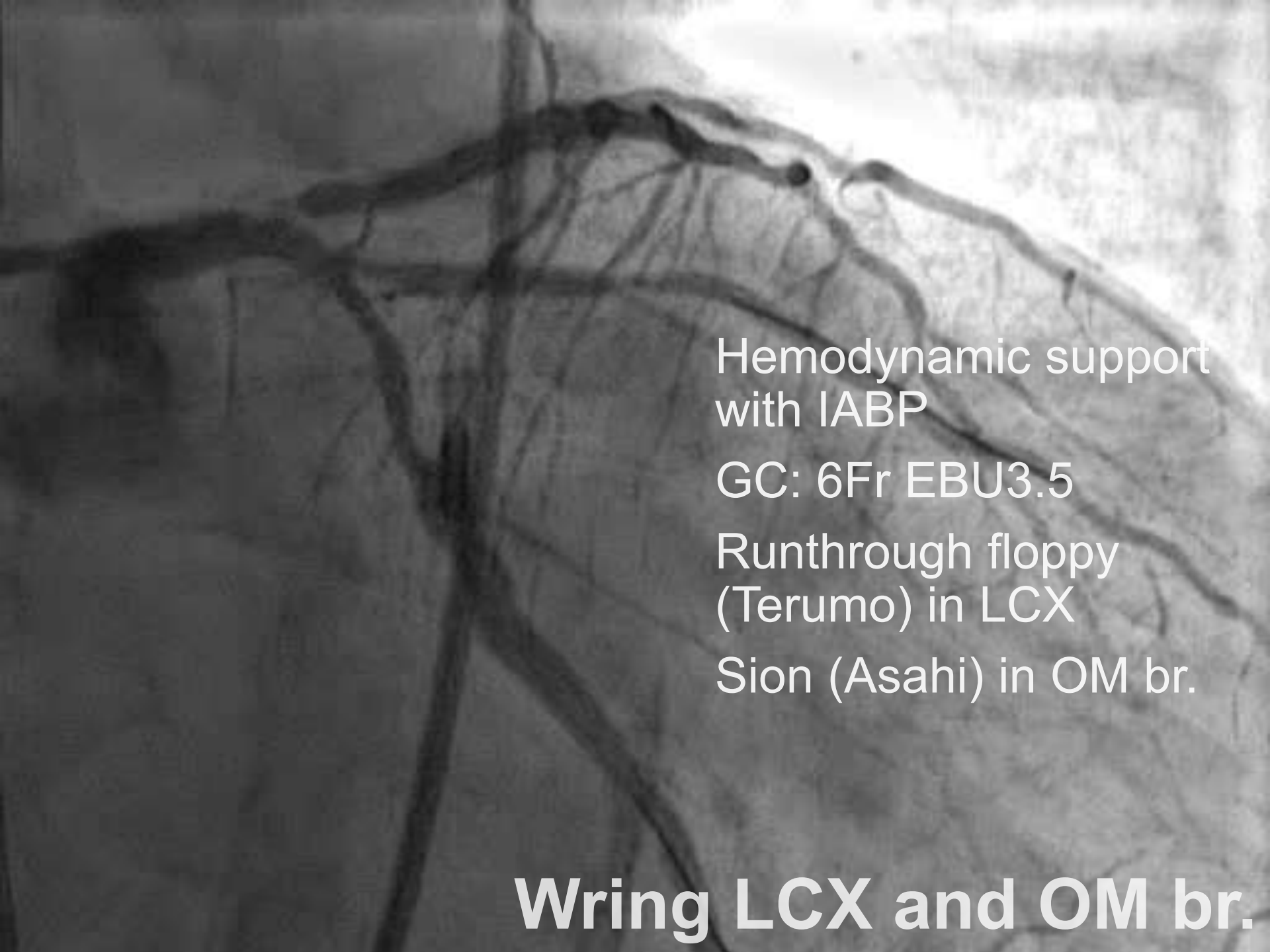
Then I have to put a wire through LAD and LCX stents to do salvage

Strategy planning



Reversed sequential mini-crush

Strategy planning



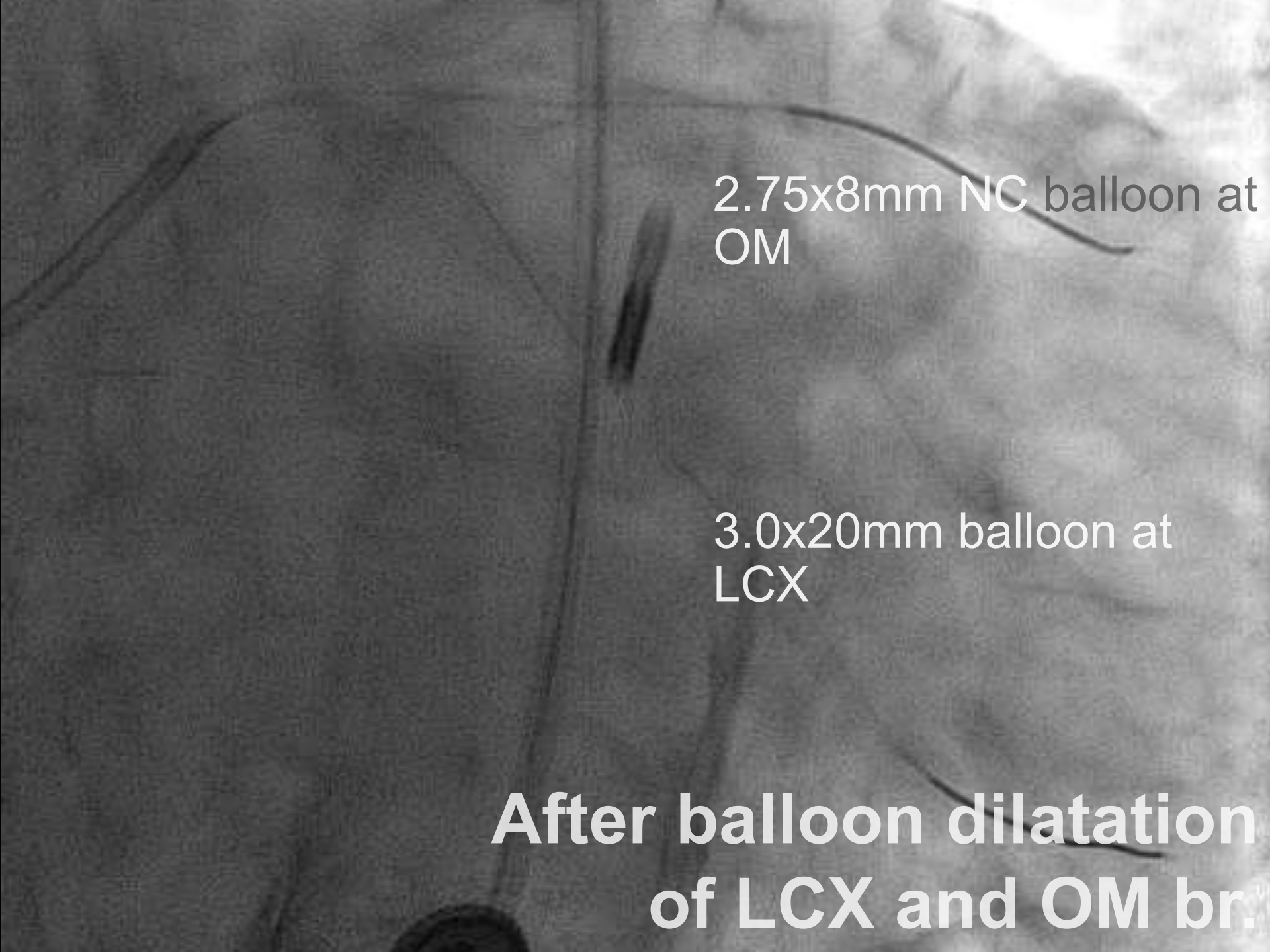
Hemodynamic support with IABP

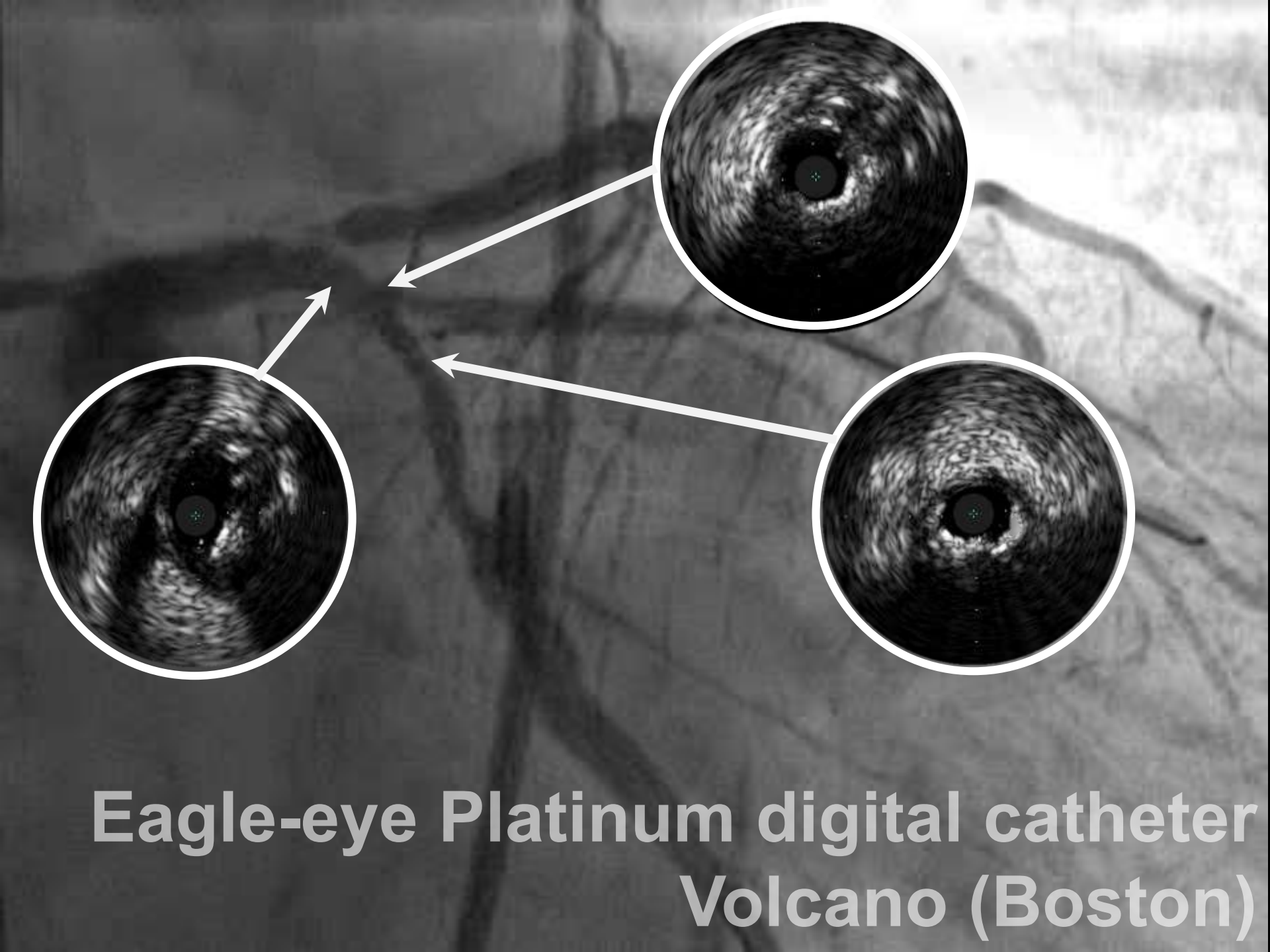
GC: 6Fr EBU3.5

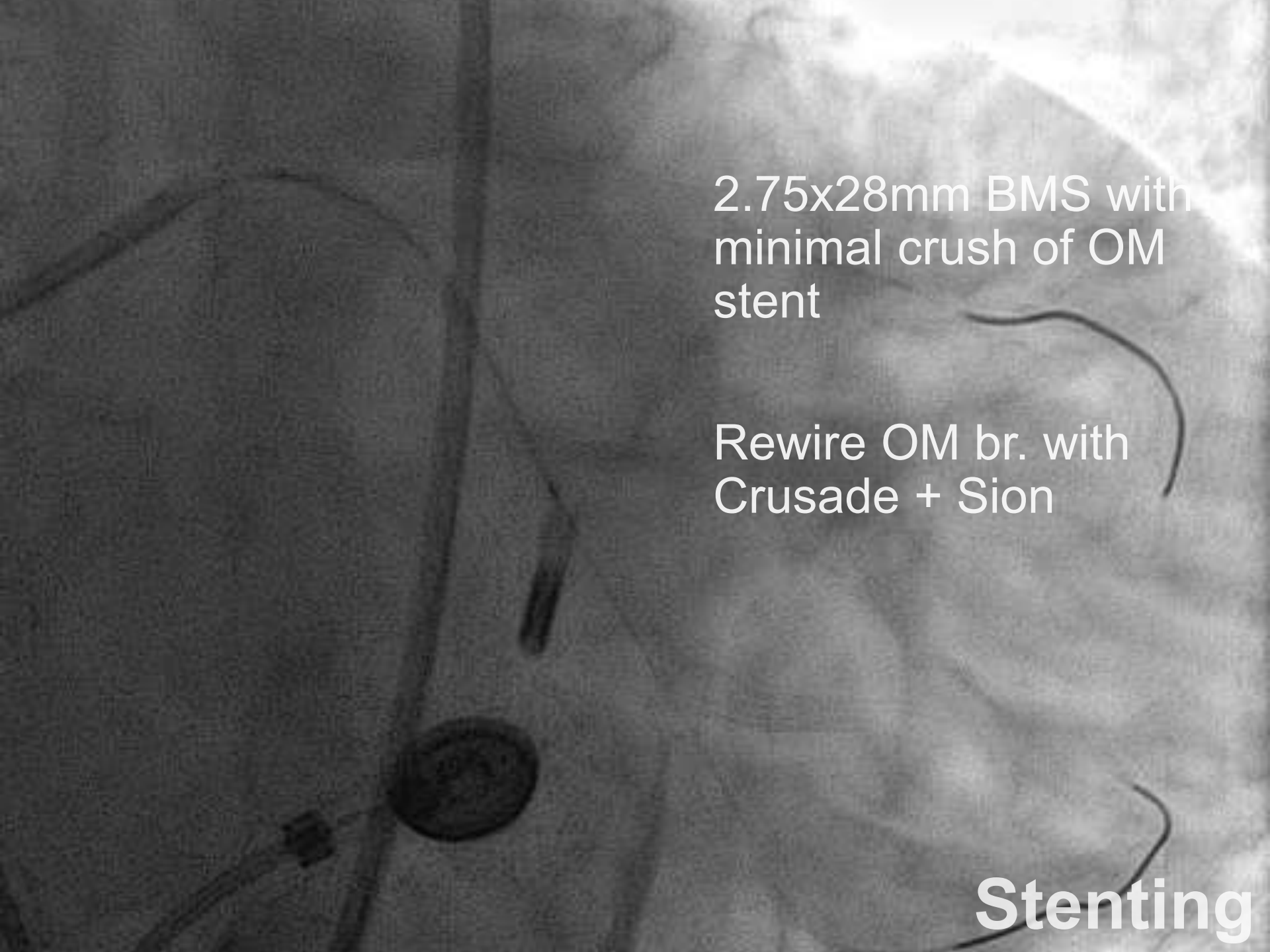
Runthrough floppy (Terumo) in LCX

Sion (Asahi) in OM br.

Wring LCX and OM br.


2.75x8mm NC balloon at OM
3.0x20mm balloon at LCX
After balloon dilatation of LCX and OM br.

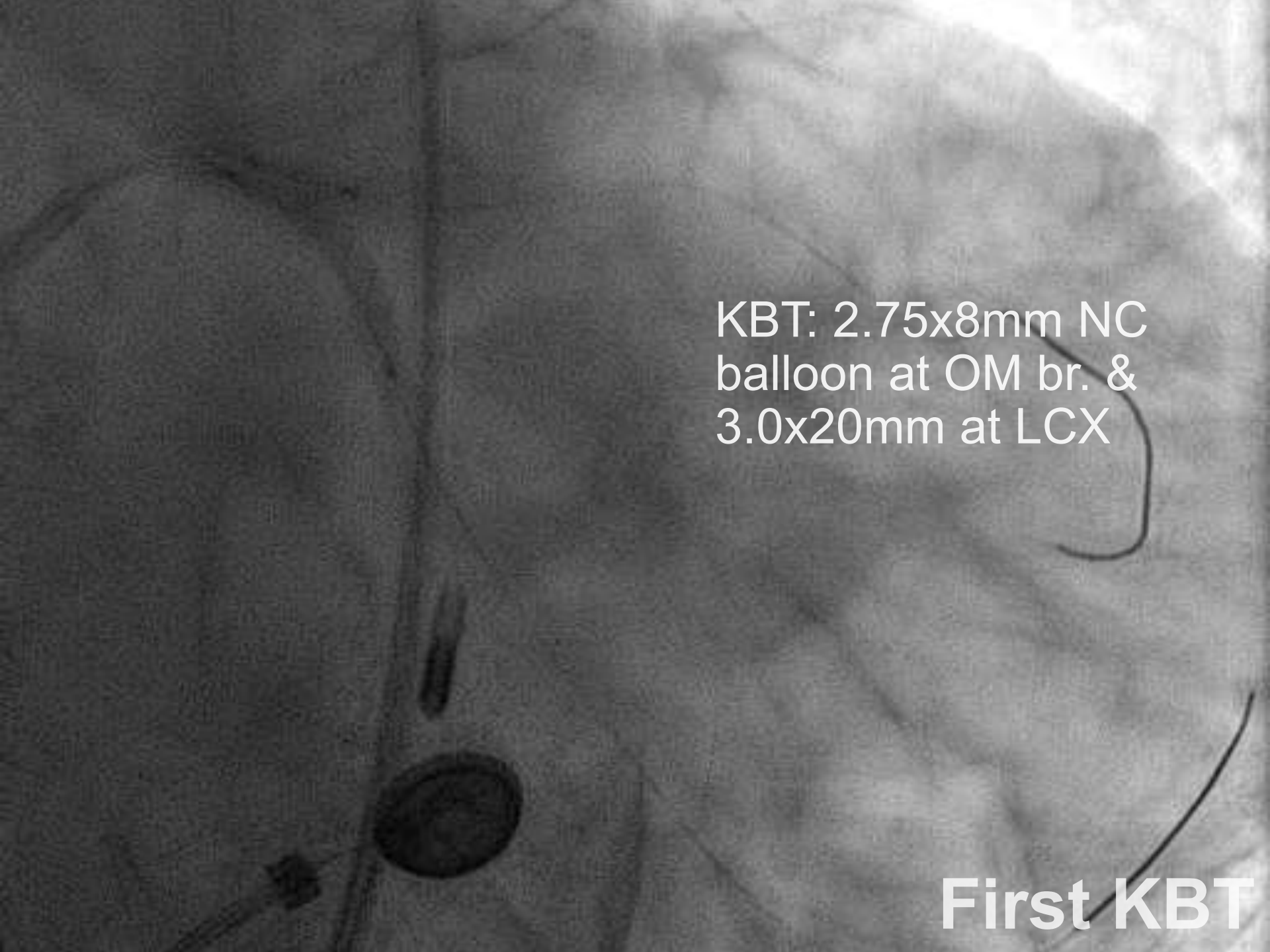

Eagle-eye Platinum digital catheter
Volcano (Boston)

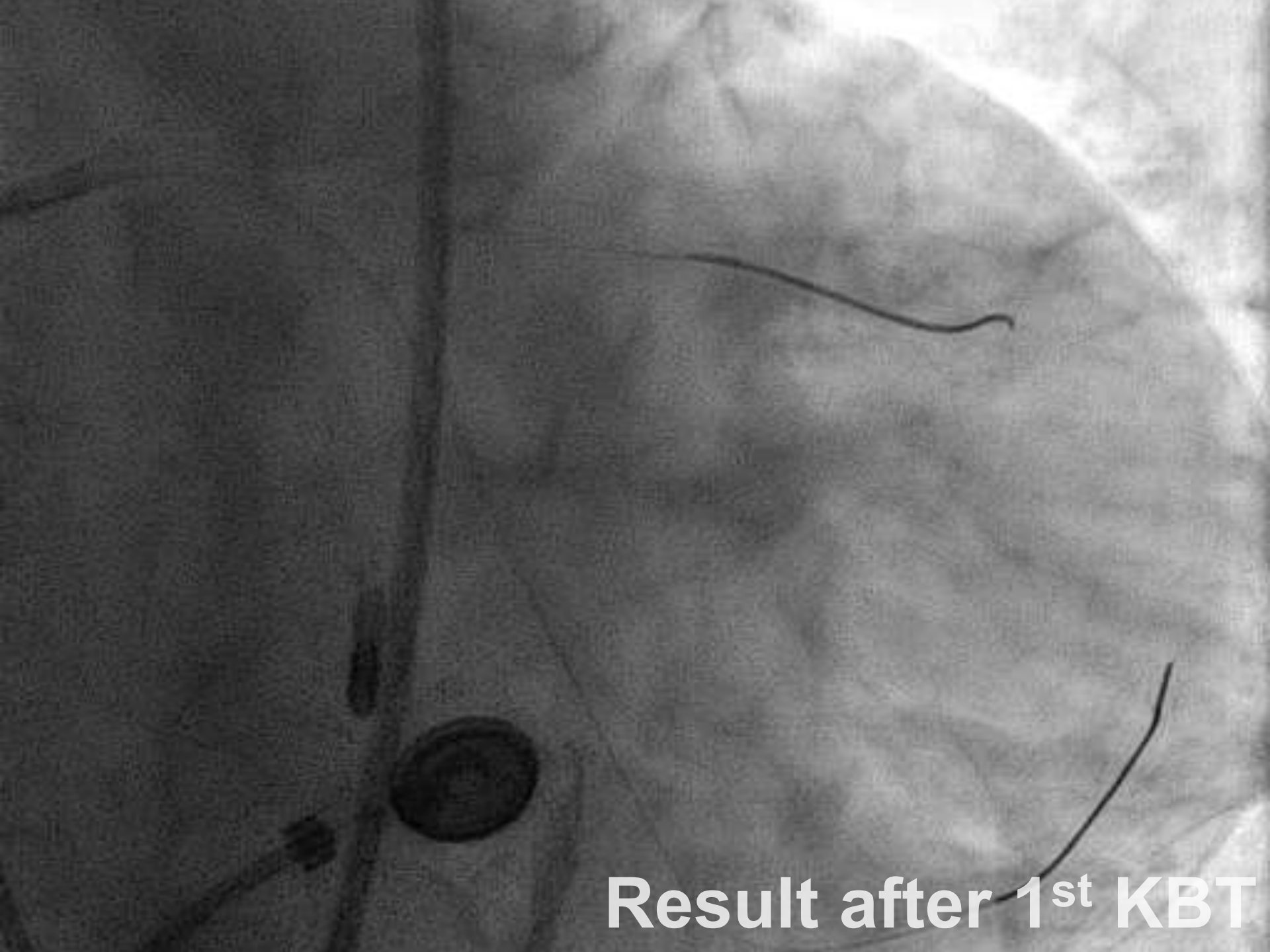


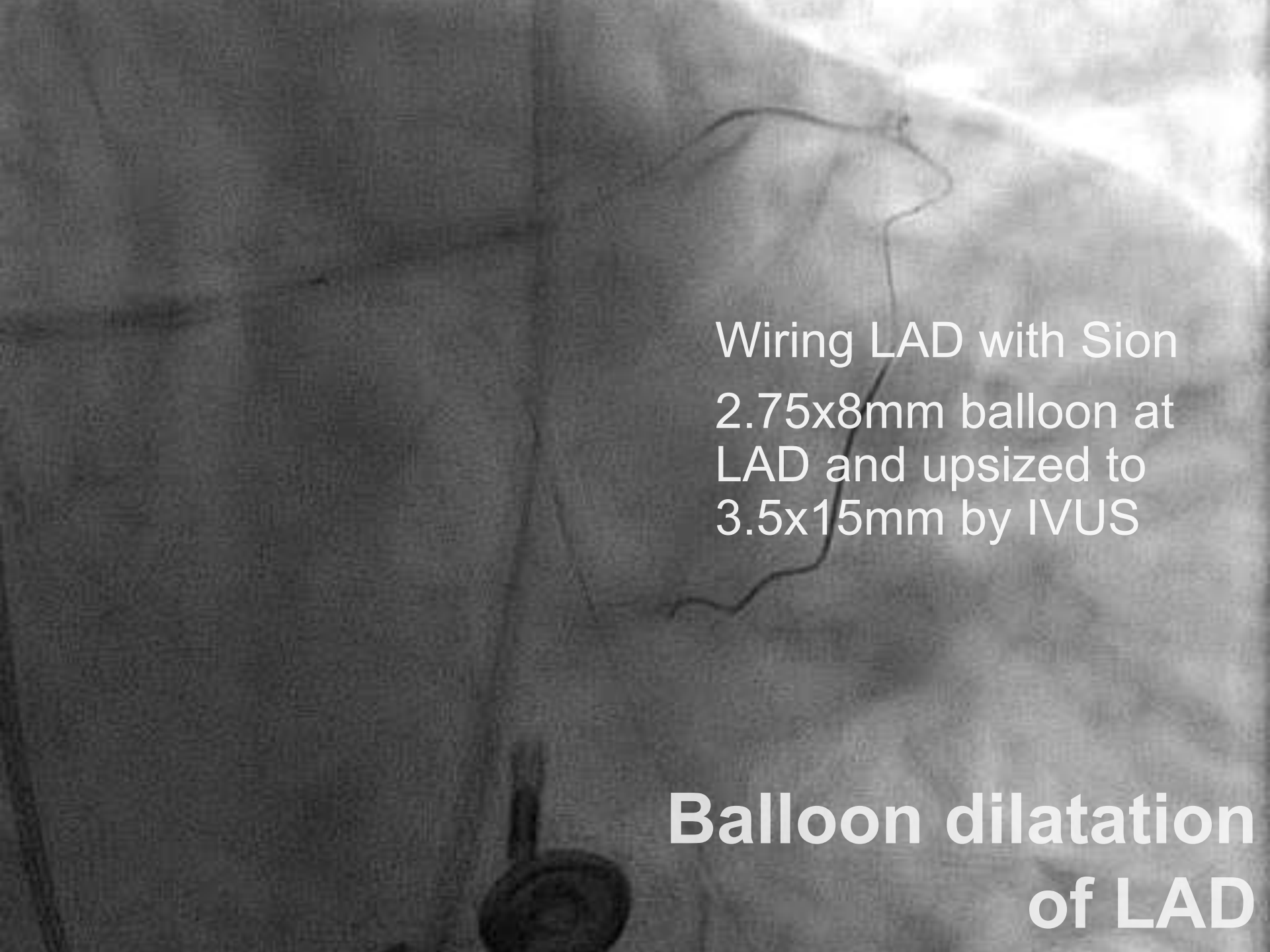
2.75x28mm BMS with minimal crush of OM stent

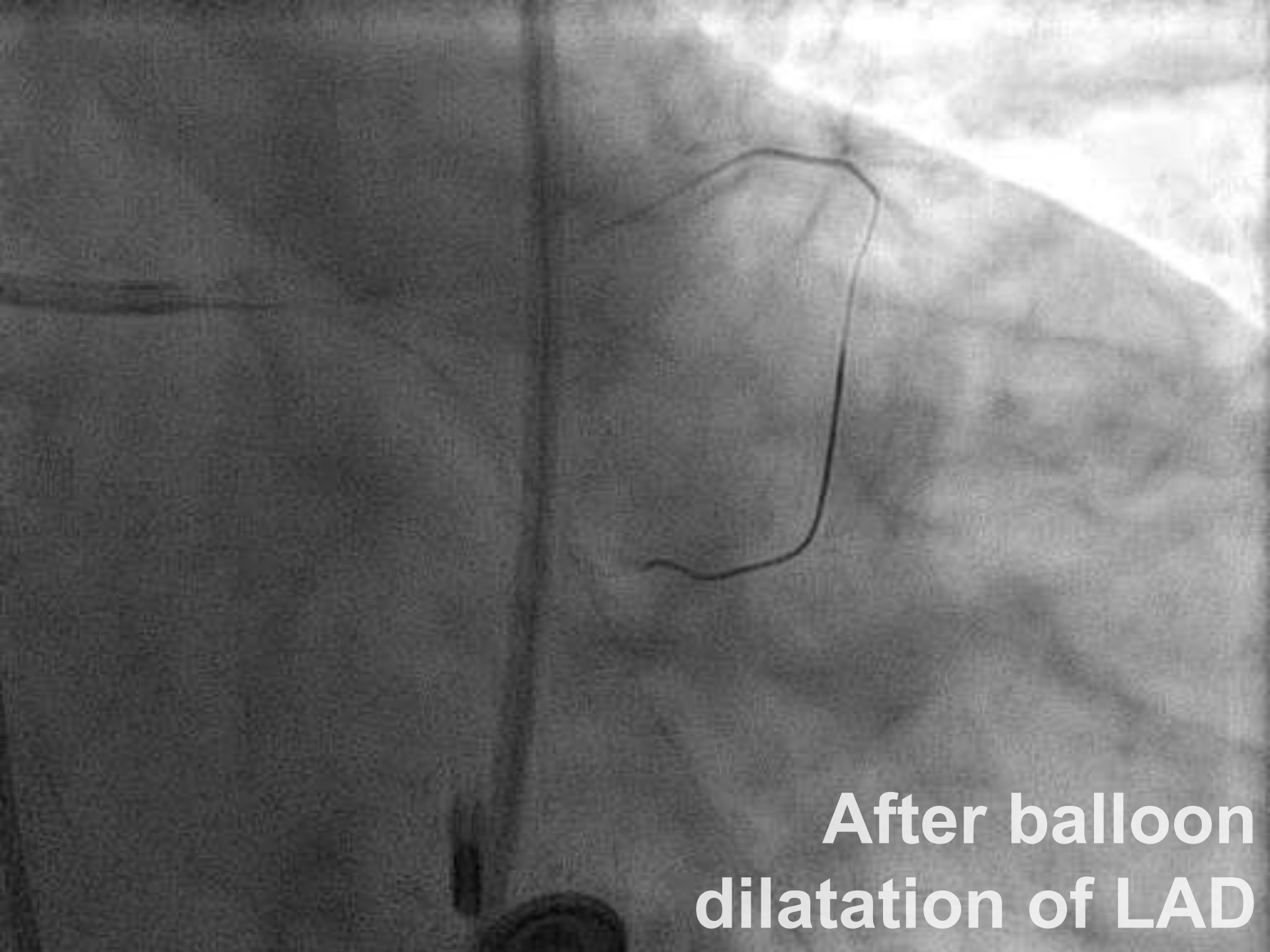
Rewire OM br. with Crusade + Sion

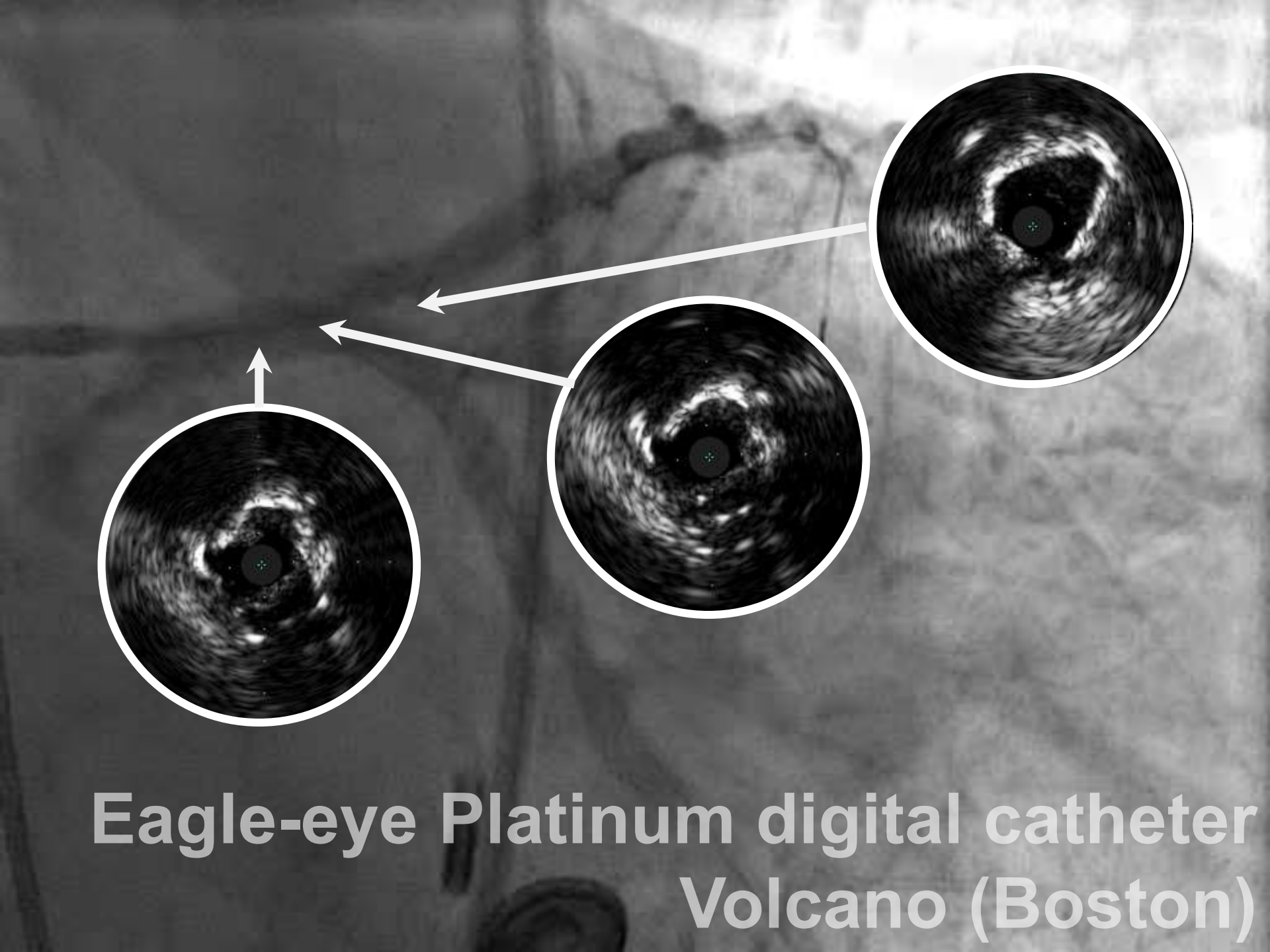
Stenting


KBT: 2.75x8mm NC balloon at OM br. & 3.0x20mm at LCX
First KBT


Result after 1st KBT


Wiring LAD with Sion
2.75x8mm balloon at LAD and upsized to 3.5x15mm by IVUS
Balloon dilatation of LAD


After balloon
dilatation of LAD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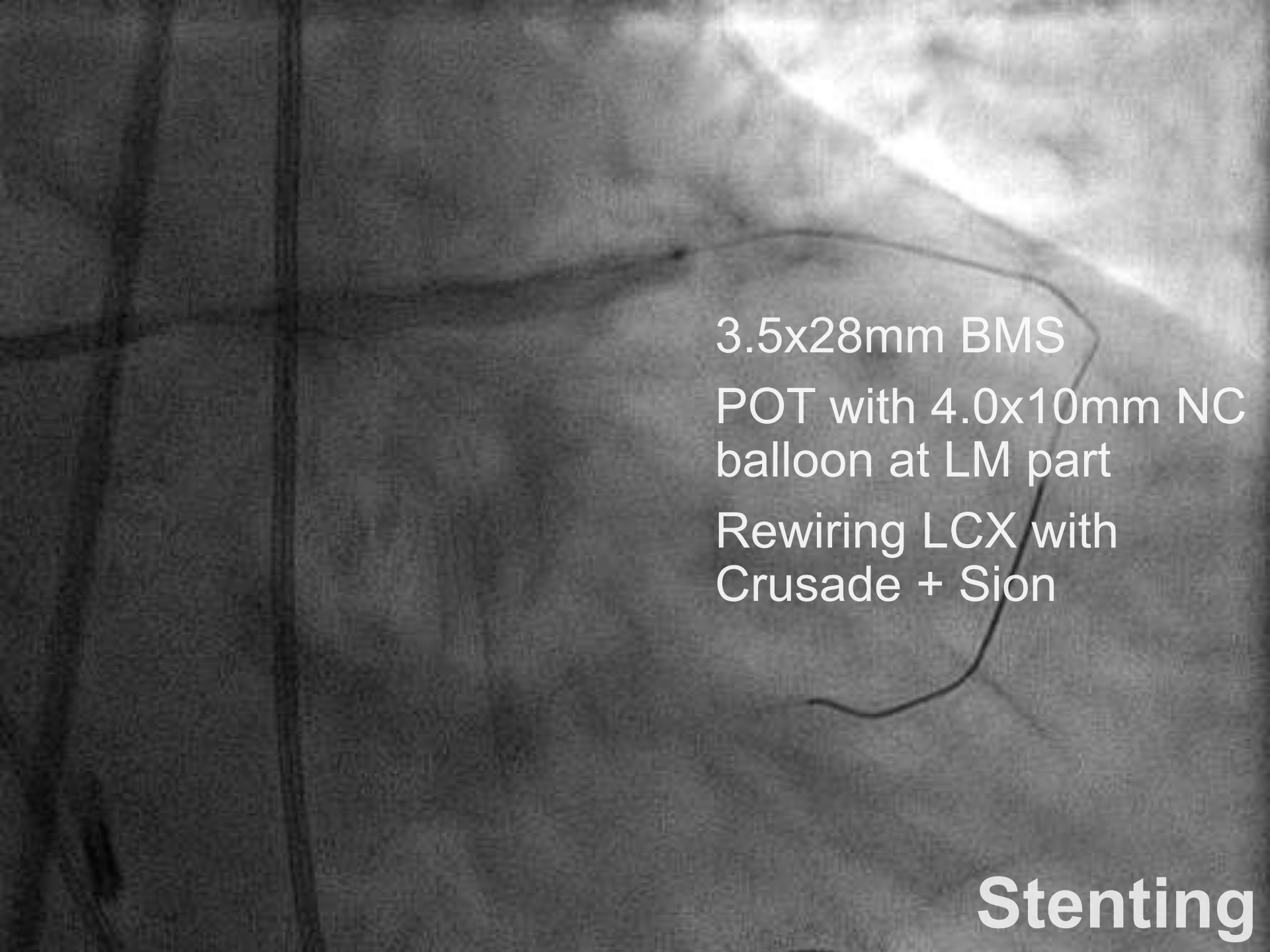
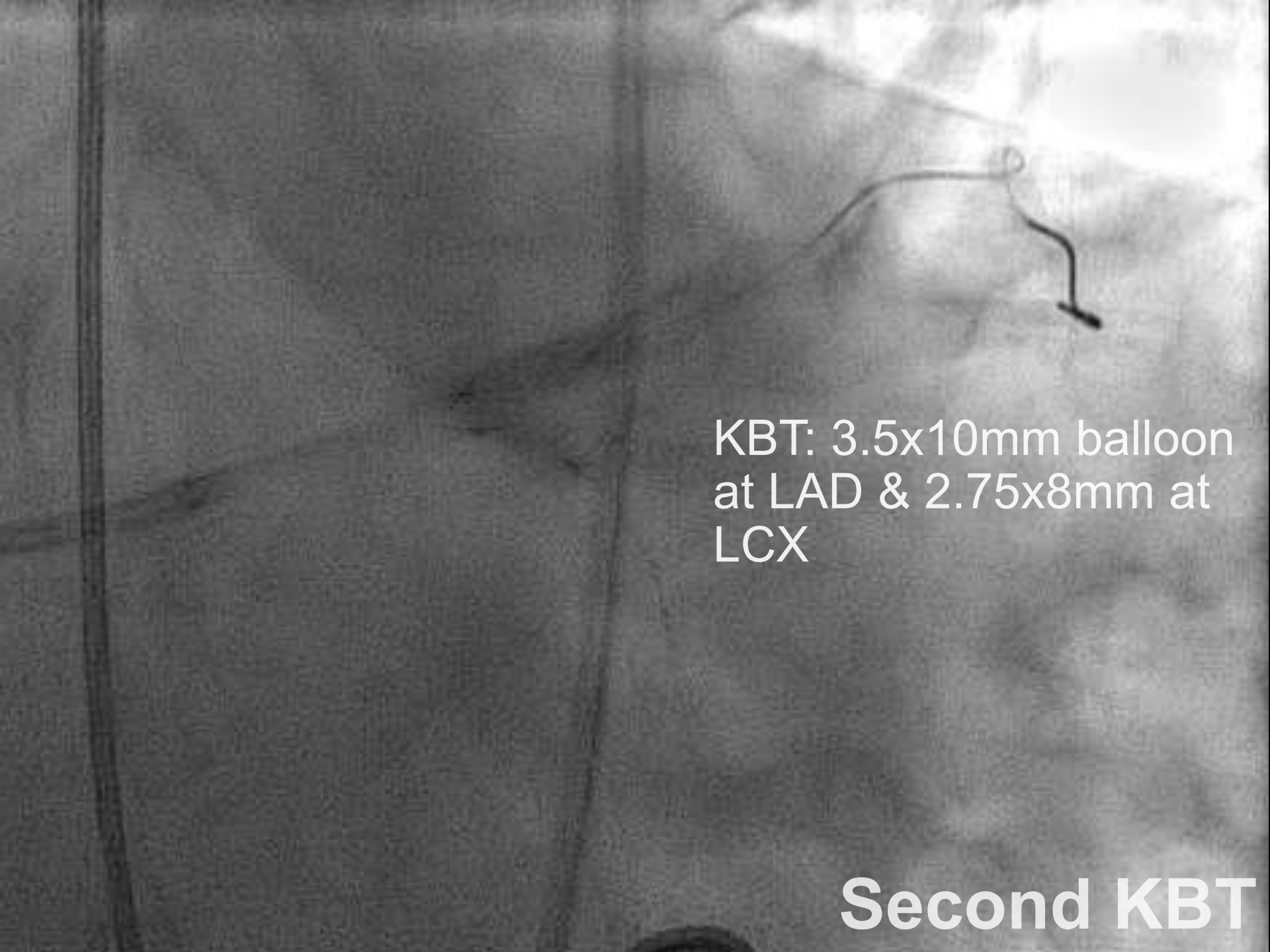
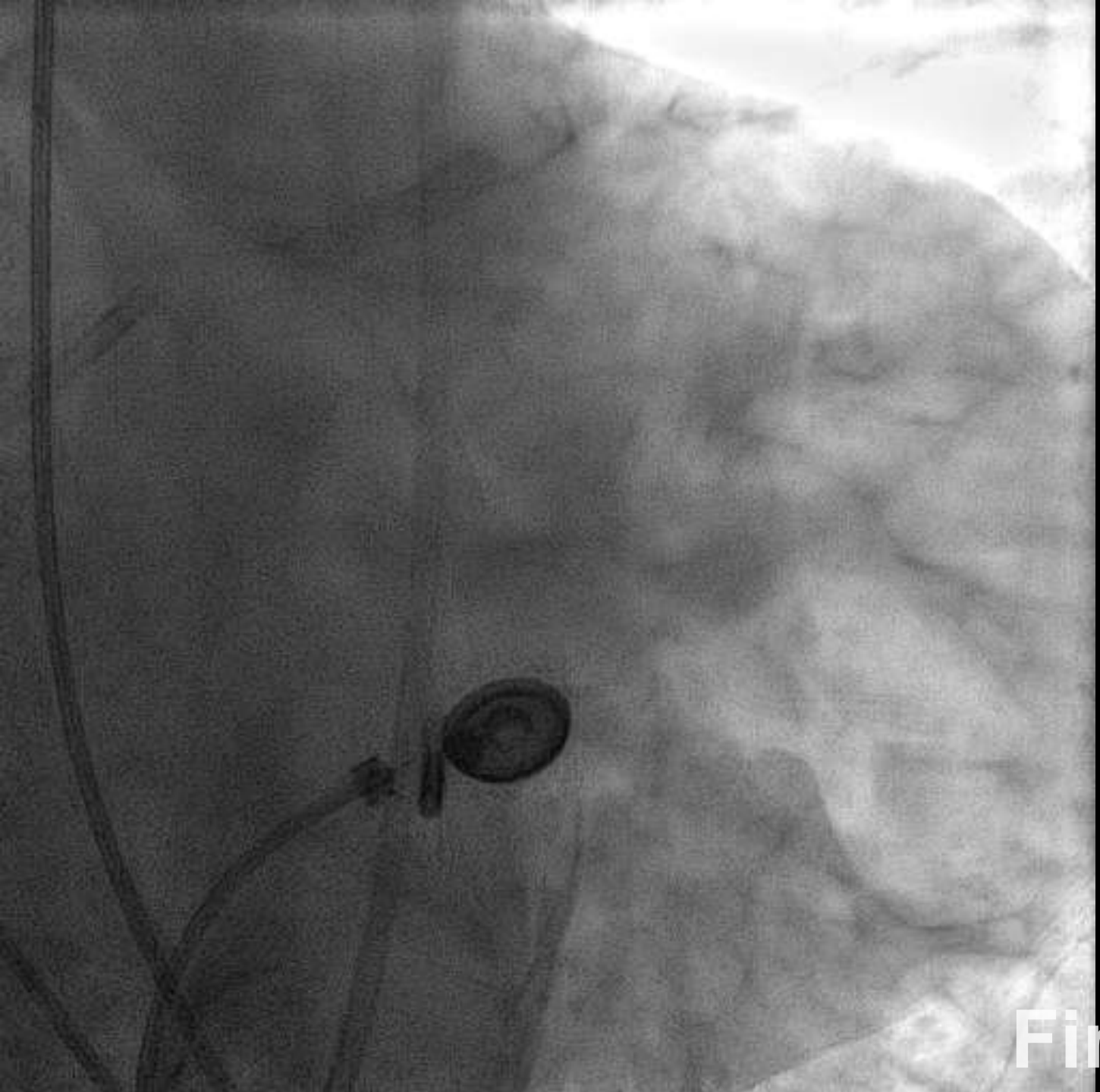

3.5x28mm BMS
POT with 4.0x10mm NC balloon at LM part
Rewiring LCX with Crusade + Sion
Stenting


KBT: 3.5x10mm balloon at LAD & 2.75x8mm at LCX
Second KBT



Final result

Conclusion

- Careful planning before intervention is crucial, it even means weeks of delay
- Planning can avoid possible unexpectedness and improve our success rate
- IVUS can help us evaluate more beyond mere angiography
- Any bifurcation technique handy to use is a good technique

Thanks for your attention