

Reversed sequential mini-crush

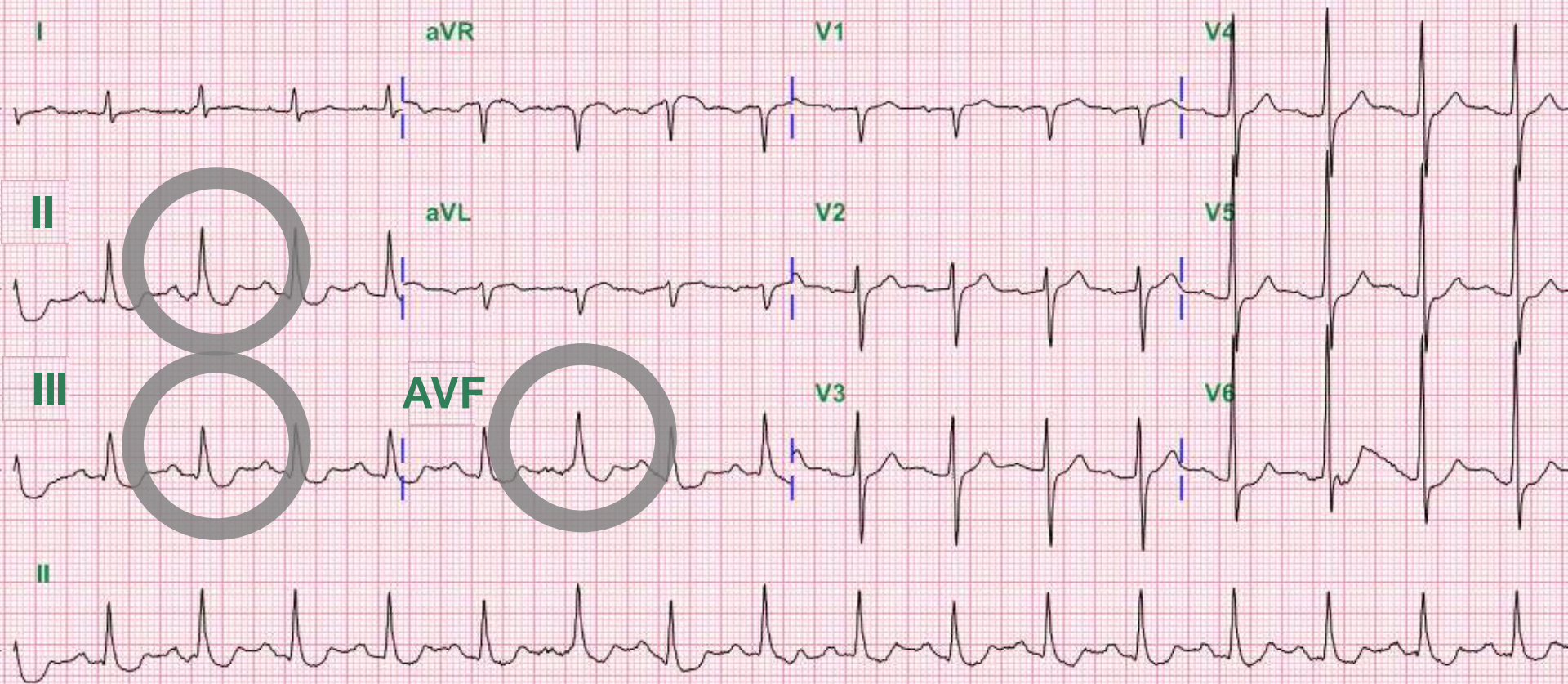
Bifurcation Stenting of LCX & OM Br. and LM, LAD & LCX

Case Presentation II

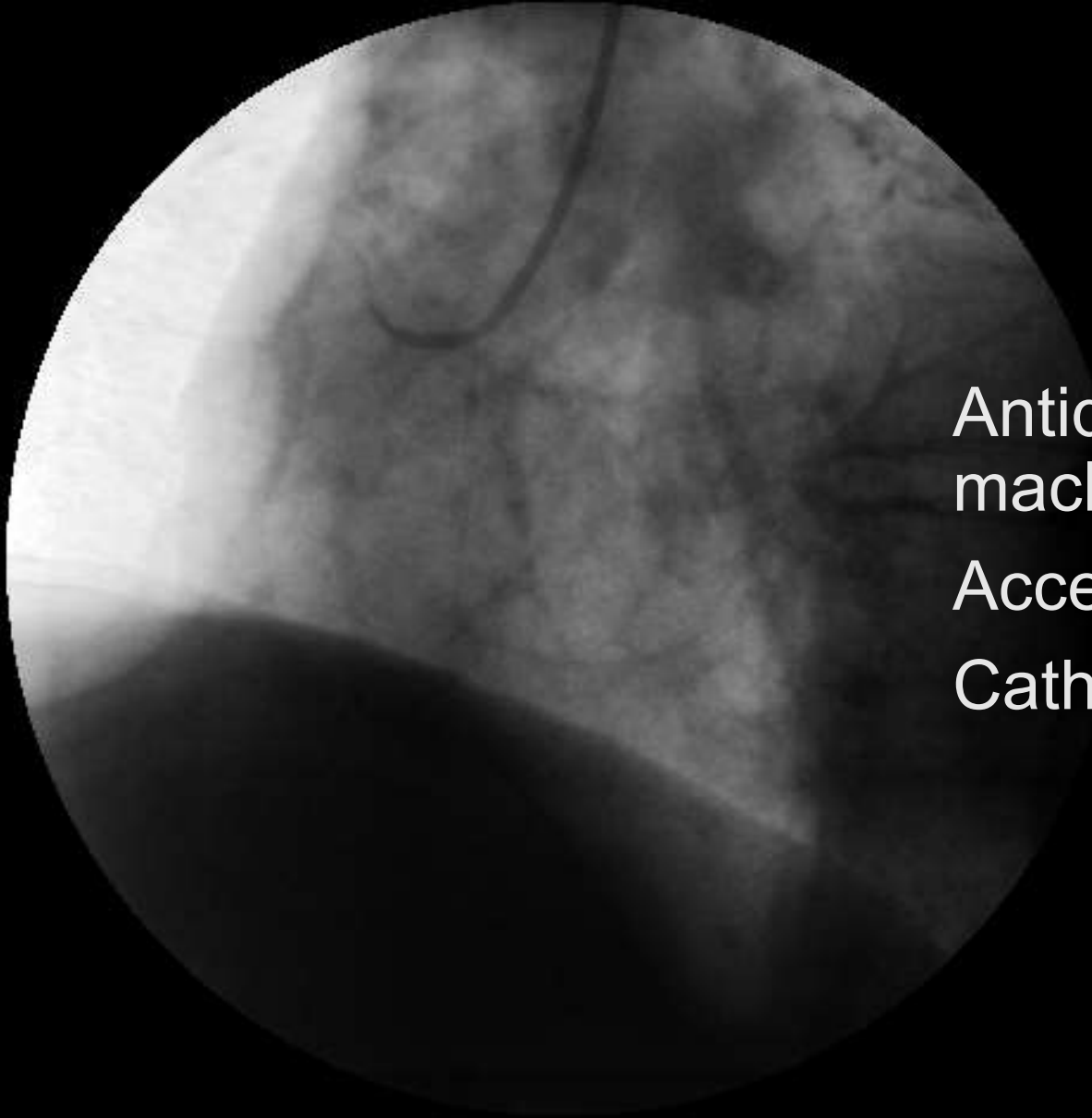
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- 69 y/o male has CAD risk factors of smoking, HTN and ESRD
- Chest tightness when he had dialysis
- Thallium scan showed ischemia in inferior wall



ECG diagnosis: Inferior ischemia
ECG in OPD

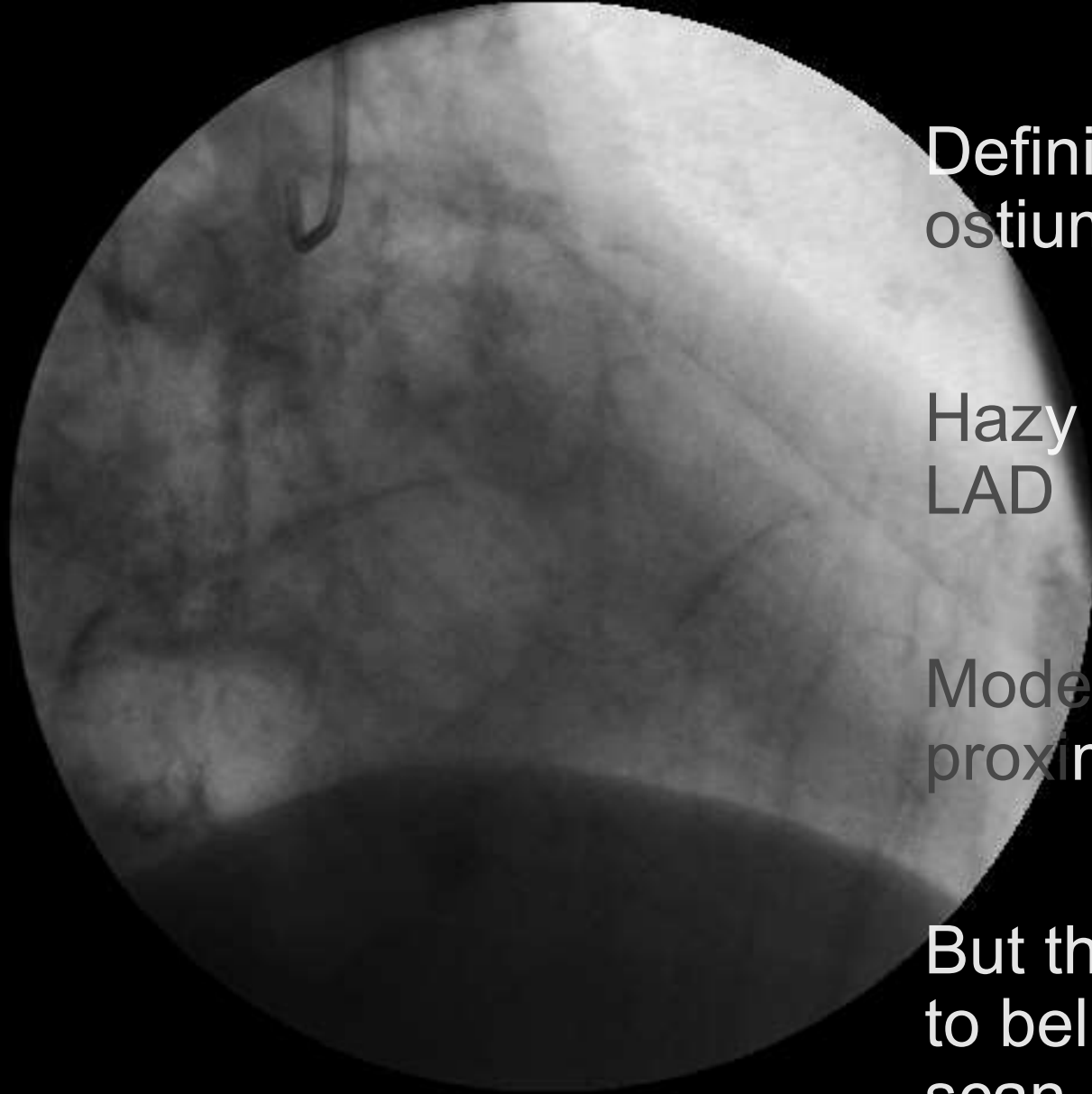


Antique cardiac catheter
machine

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

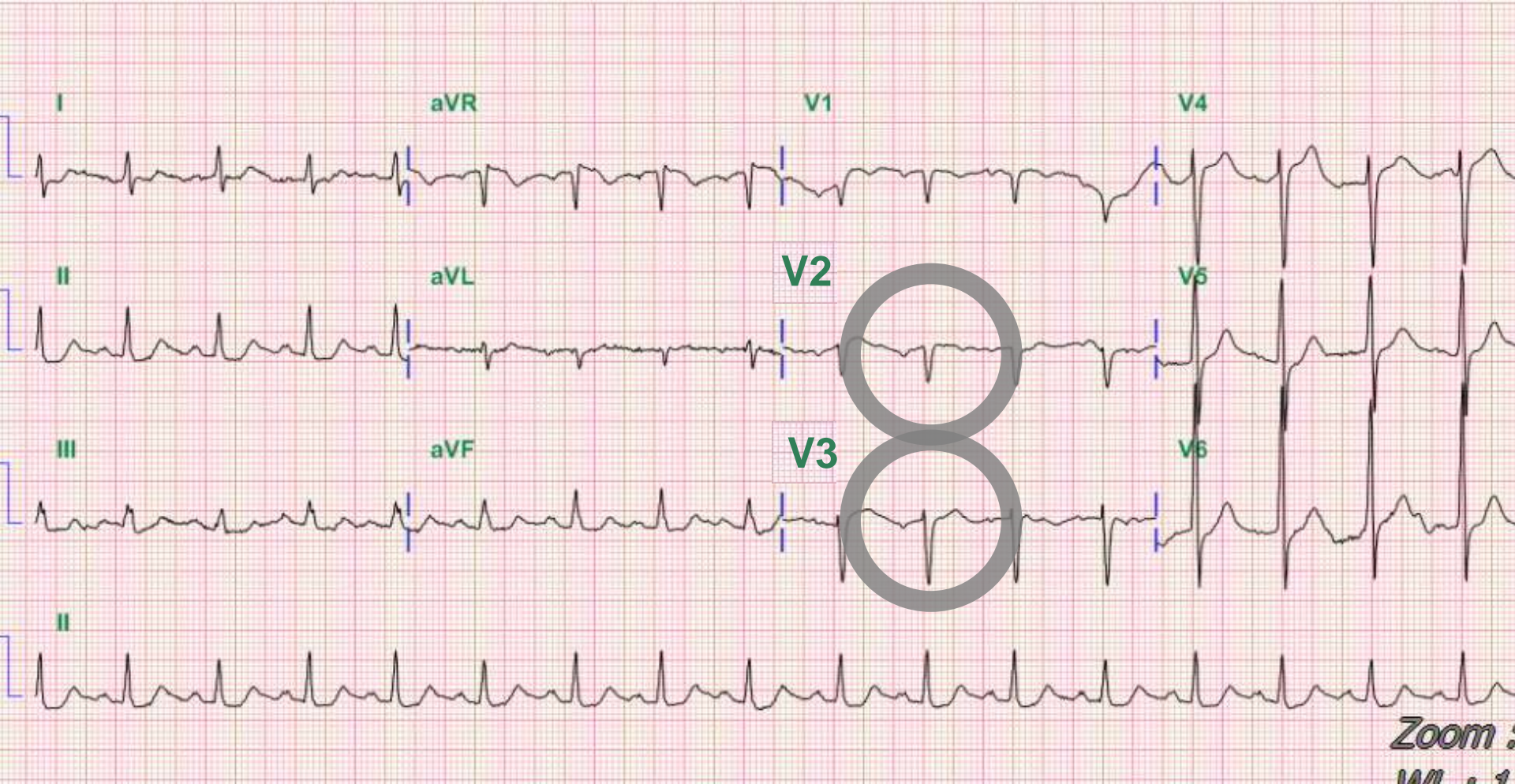
Wire: Sion (Asahi,
Japan)

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

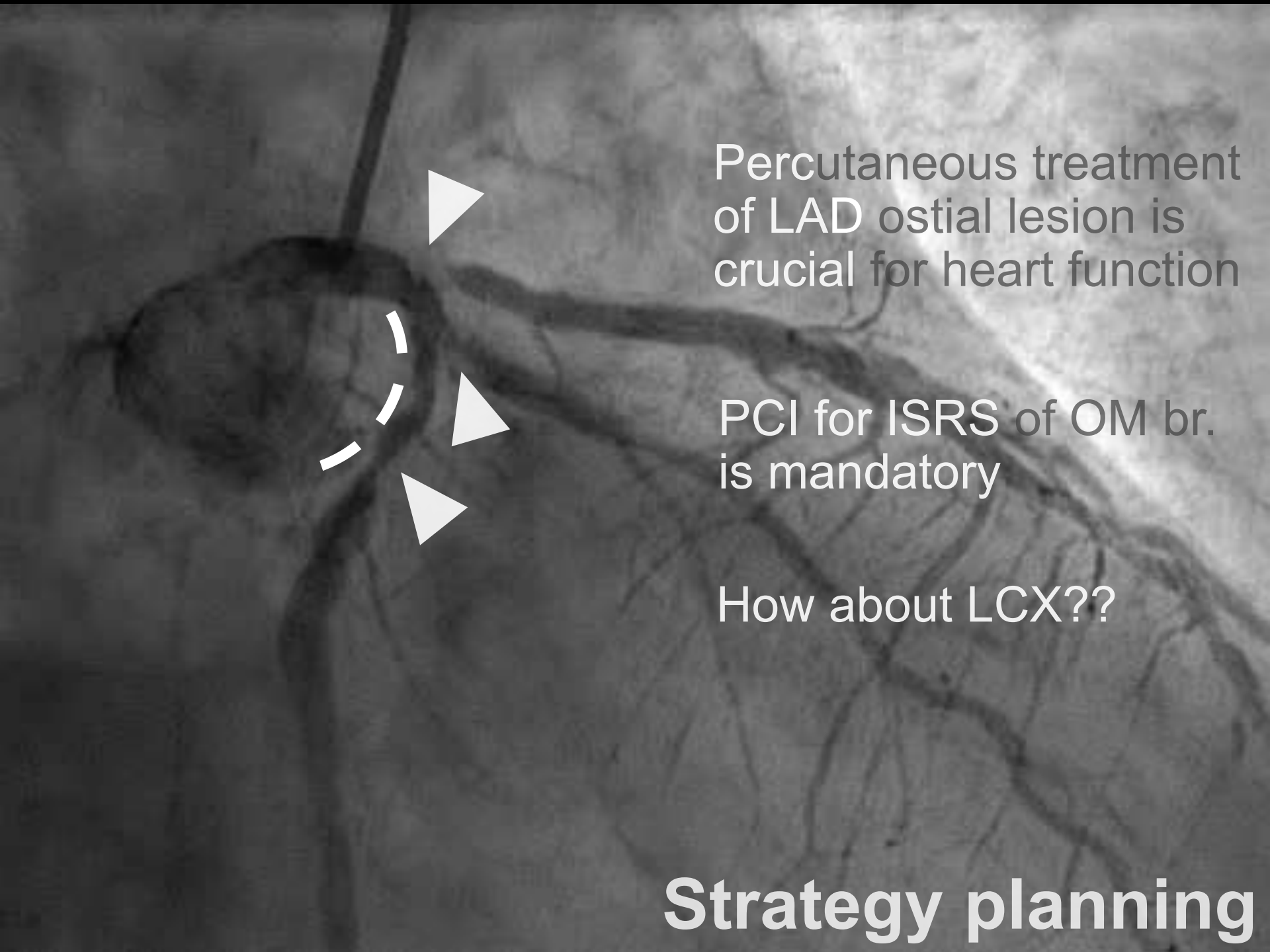
ISRS of OM br.

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.....

A grayscale coronary angiogram showing the LAD, OM, and LCX arteries. A dashed white circle highlights a lesion at the ostium of the LAD. Three white arrowheads point to this lesion. The OM branch is also visible, showing a lesion. The LCX branch is visible in the lower part of the image.

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

A grayscale coronary angiogram showing the LAD and LCX arteries. A red triangle points to the LAD, and a white triangle points to the LCX. A yellow dashed line traces a path from the LAD towards the LCX, indicating a planned wire route. Several grey dashed lines represent the struts of a stent. Text annotations provide a strategy for navigating the wire through the stent struts to reach the LCX.

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

A coronary angiogram showing a bifurcation. A yellow dashed line indicates a stent placed from the Left Main (LM) to the Left Anterior Descending (LAD) artery. A white dashed line indicates a balloon dilatation plan for the Obtuse Marginal (OM) branch. A grey dashed line indicates a balloon dilatation and stenting plan for the Left Circumflex (LCX) branch.

Then put a stent from
LM to LAD with
bifurcation technique

Balloon dilatation of OM
branch

Balloon dilatation and
stenting of LCX

Reversed sequential mini-crush

Strategy planning

An angiogram showing the coronary artery system. The main coronary artery is visible at the top, branching into the Left Circumflex Artery (LCX) and the Obtuse Marginal Branch (OM br.). Several catheters are inserted into these vessels. The text overlay provides details about the catheters used and the procedure.

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

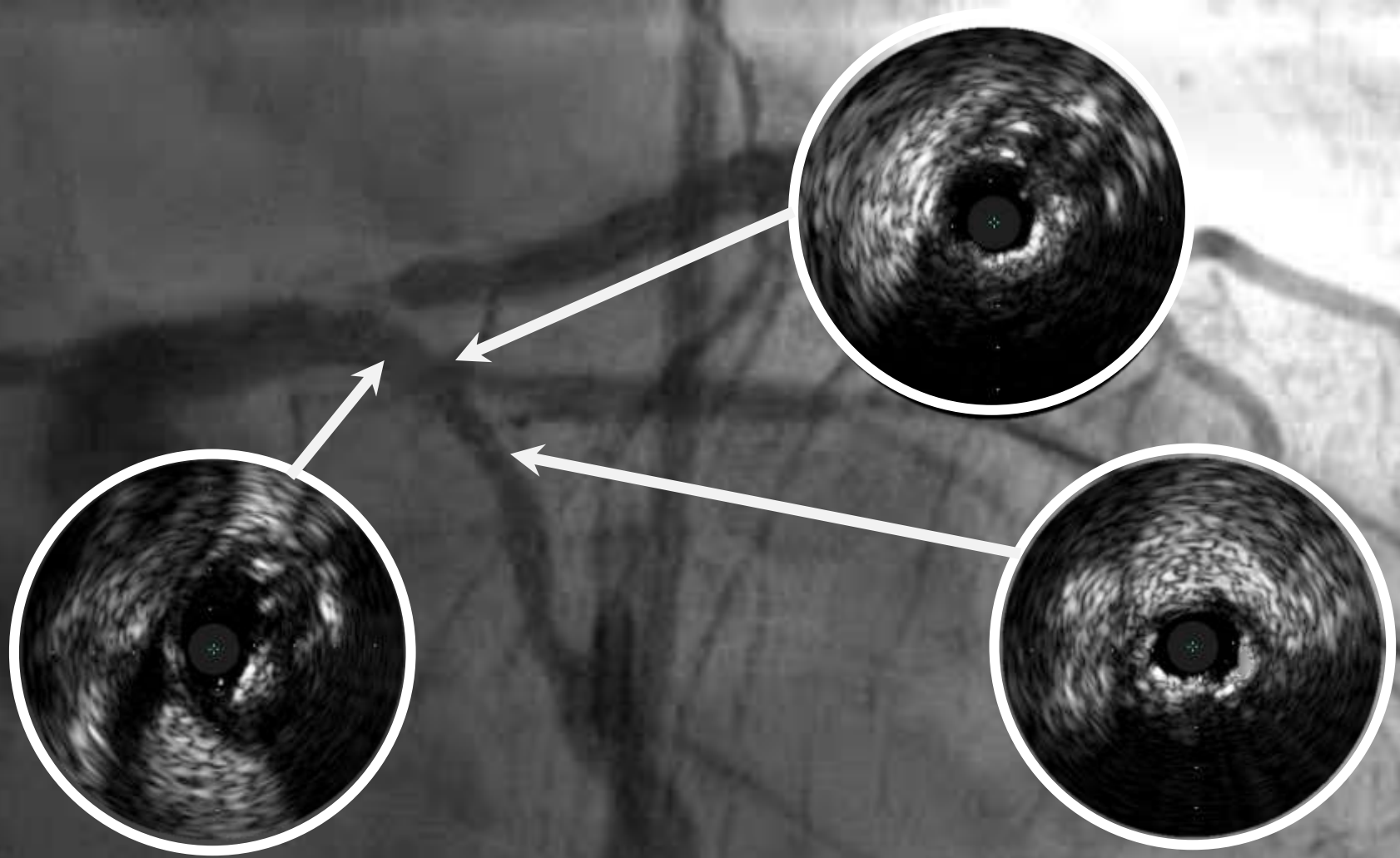
This is a grayscale angiogram of a coronary artery. A dark, elongated shadow is visible, representing the balloon used for dilatation. The surrounding area shows the branching pattern of the coronary arteries.

3.0x20mm balloon at
LCX

This text is positioned below the first one, indicating the location of a second dilatation procedure. The corresponding balloon shadow is not clearly visible in this view.

**After balloon dilatation
of LCX and OM br.**

This text is located at the bottom of the image, summarizing the procedure performed. The arteries appear more open and clear compared to a pre-dilatation state.



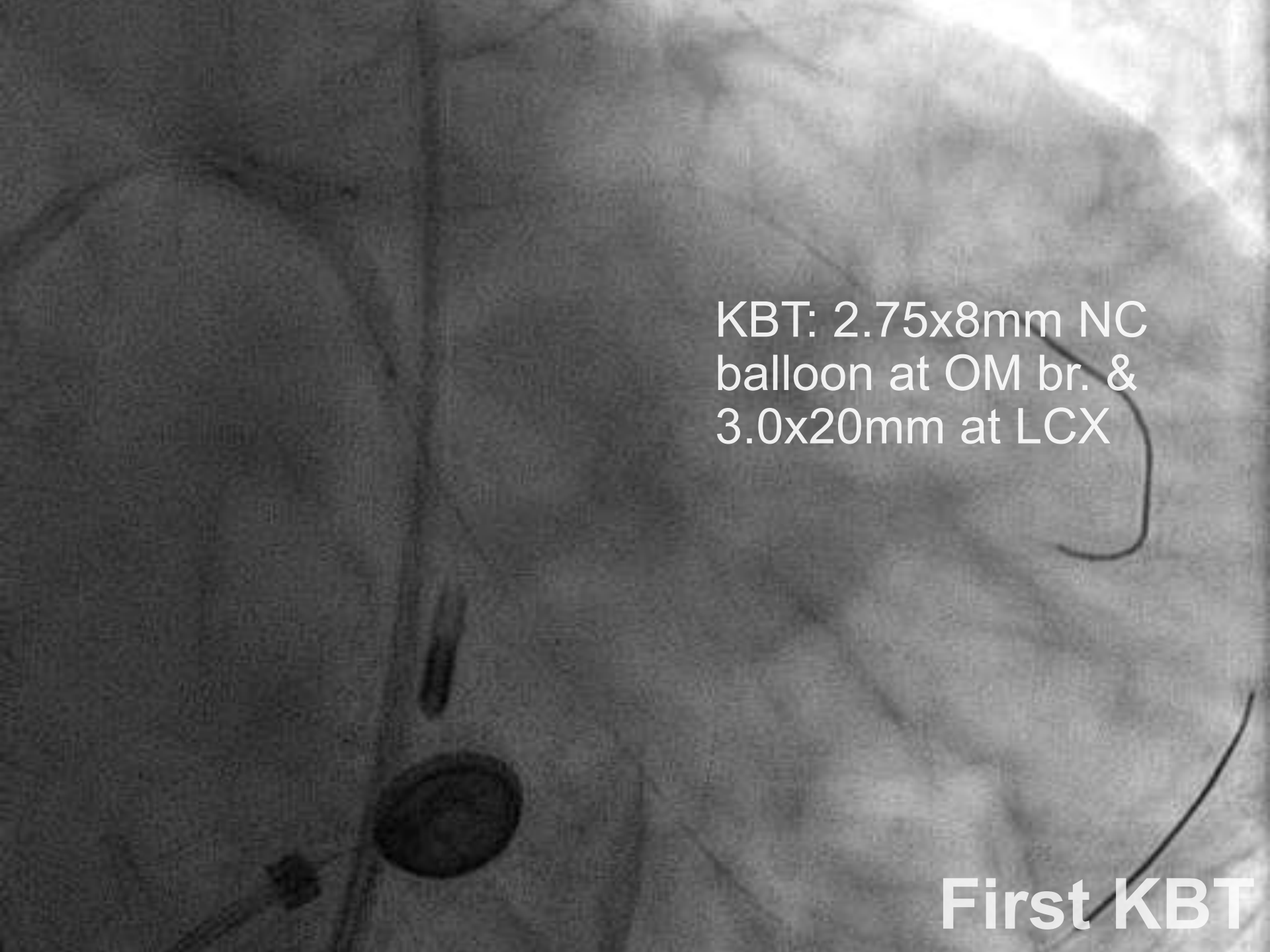
**Eagle-eye Platinum digital catheter
Volcano (Boston)**



2.75x28mm BMS with
minimal crush of OM
stent

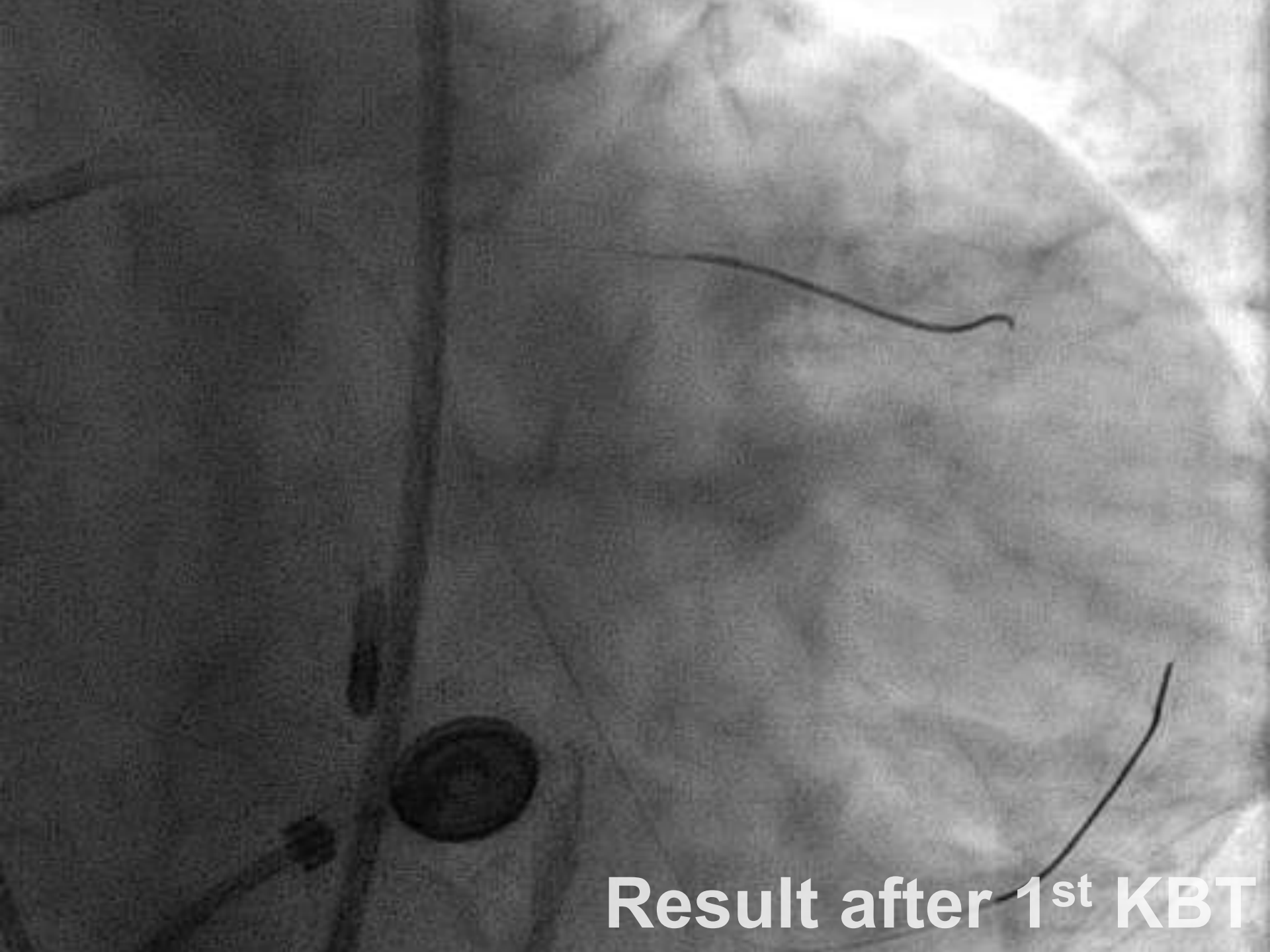
Rewire OM br. with
Crusade + Sion

Stenting



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

First KBT

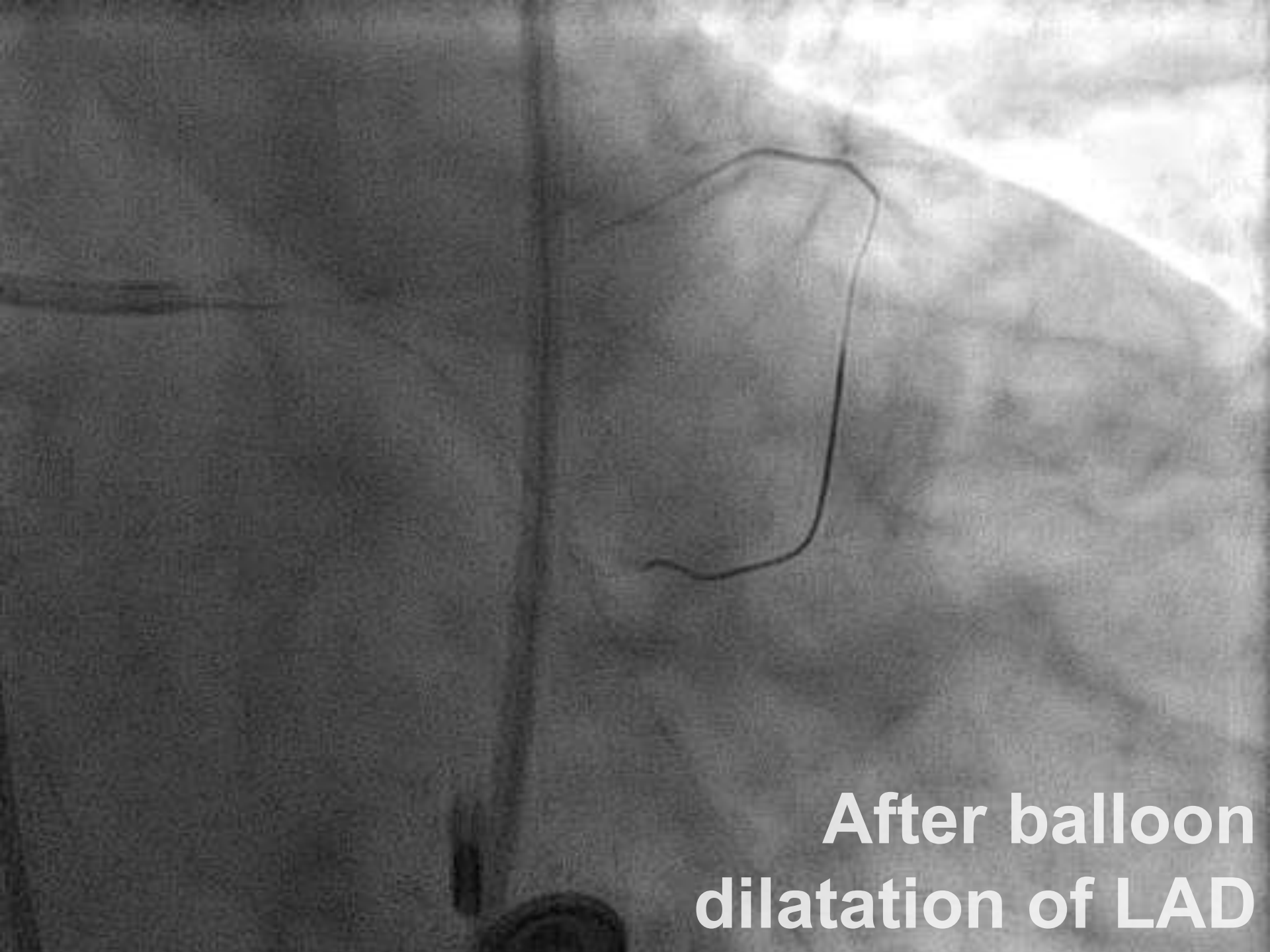


Result after 1st KBT

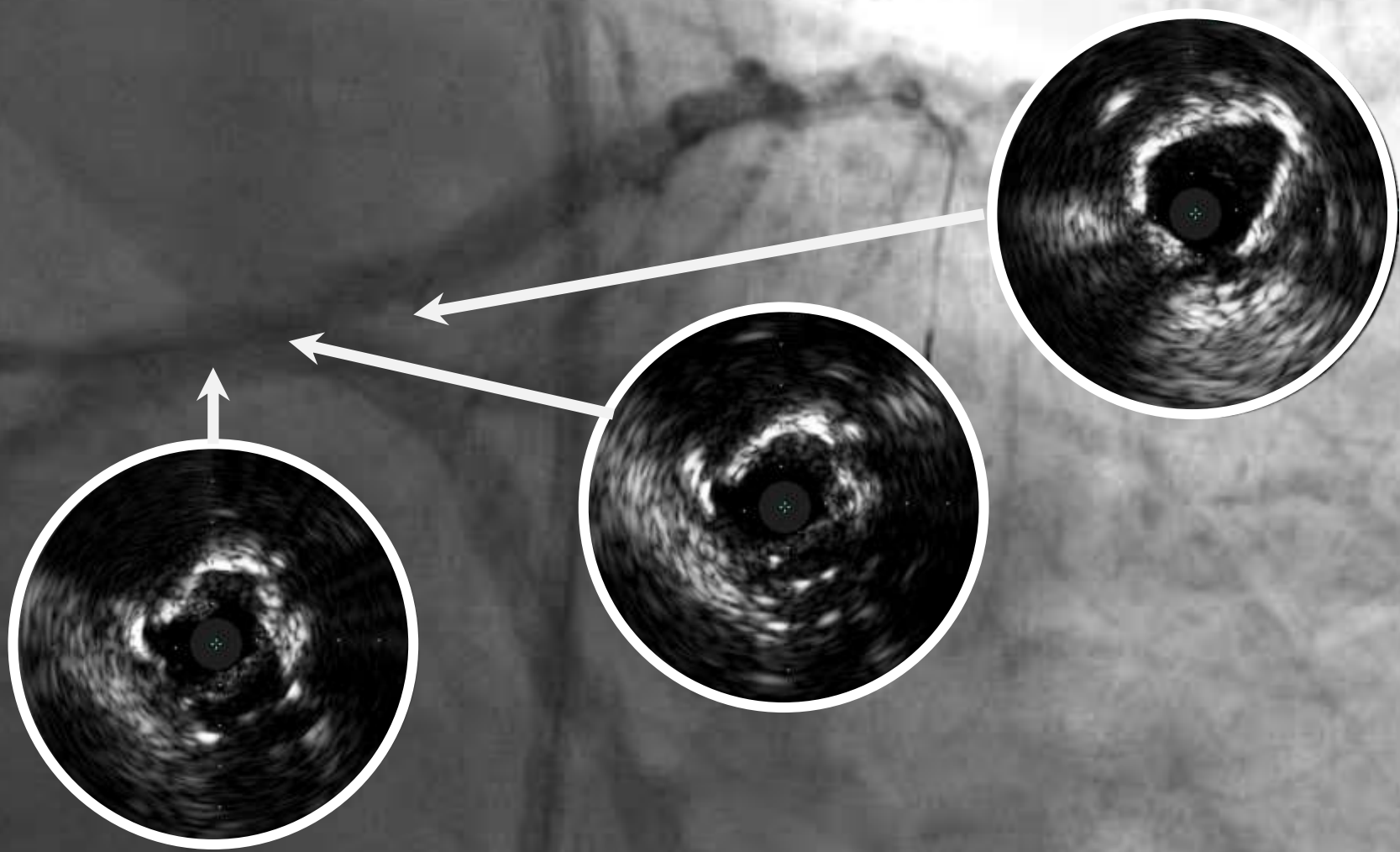


Wiring LAD with Sion
2.75x8mm balloon at
LAD and upsized to
3.5x15mm by IVUS

**Balloon dilatation
of LAD**



**After balloon
dilatation of LAD**



**Eagle-eye Platinum digital catheter
Volcano (Boston)**



3.5x28mm BMS

POT with 4.0x10mm NC
balloon at LM part

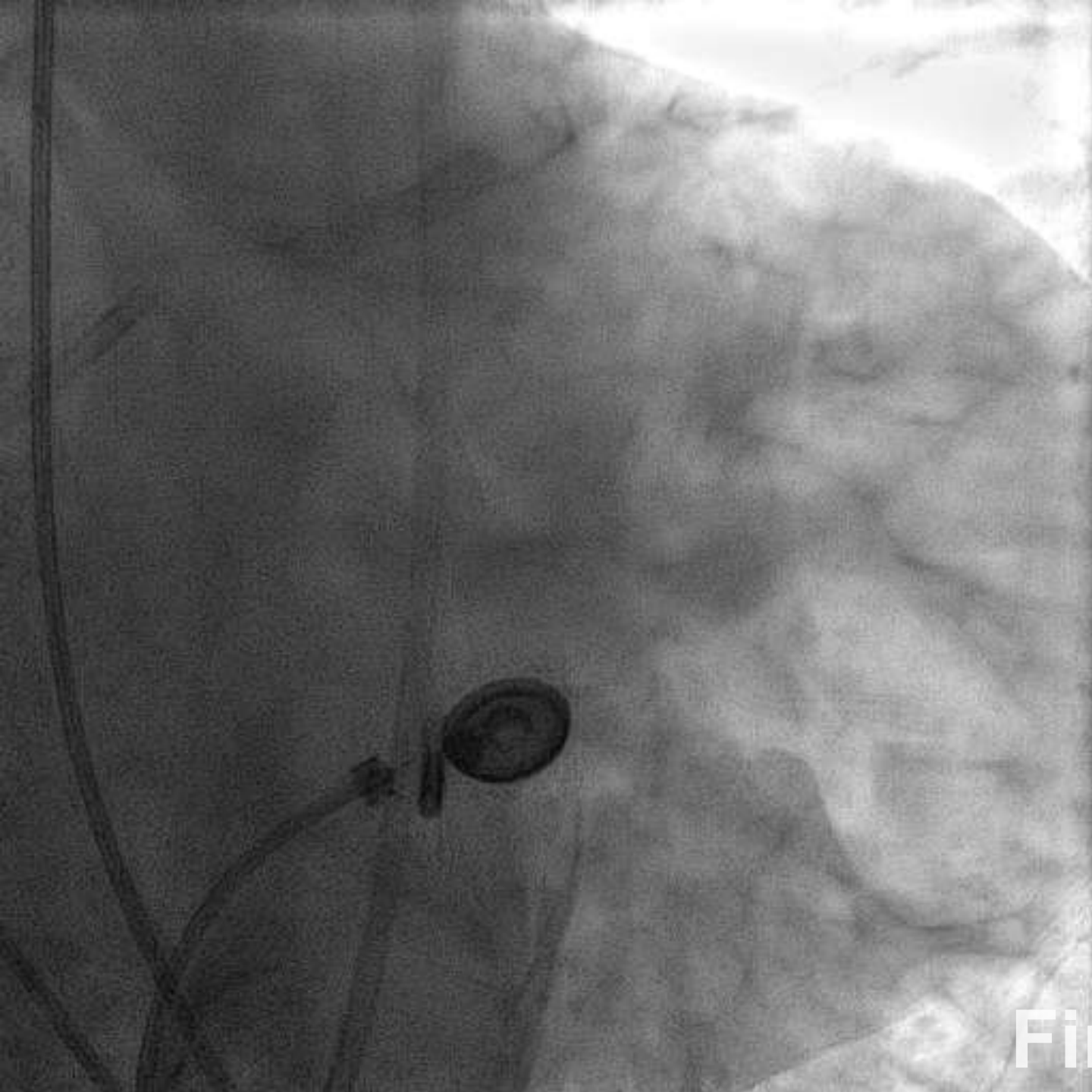
Rewiring LCX with
Crusade + Sion

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