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***PCI for unprotected LMT Complicated
by CHF***

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Case

Case : 80 y.o. Female

Clinical Course:

1998.8 ACS (RCA)

**proximal RCA Multilink ϕ 3.5mm, distal RCA
Multilink ϕ 3.0mm.**

CAG: proximal LAD 100%(←RCA PDA).

2006.10.14 Admission for treatment of CHF.

CAG was performed because of new onset rest angina.

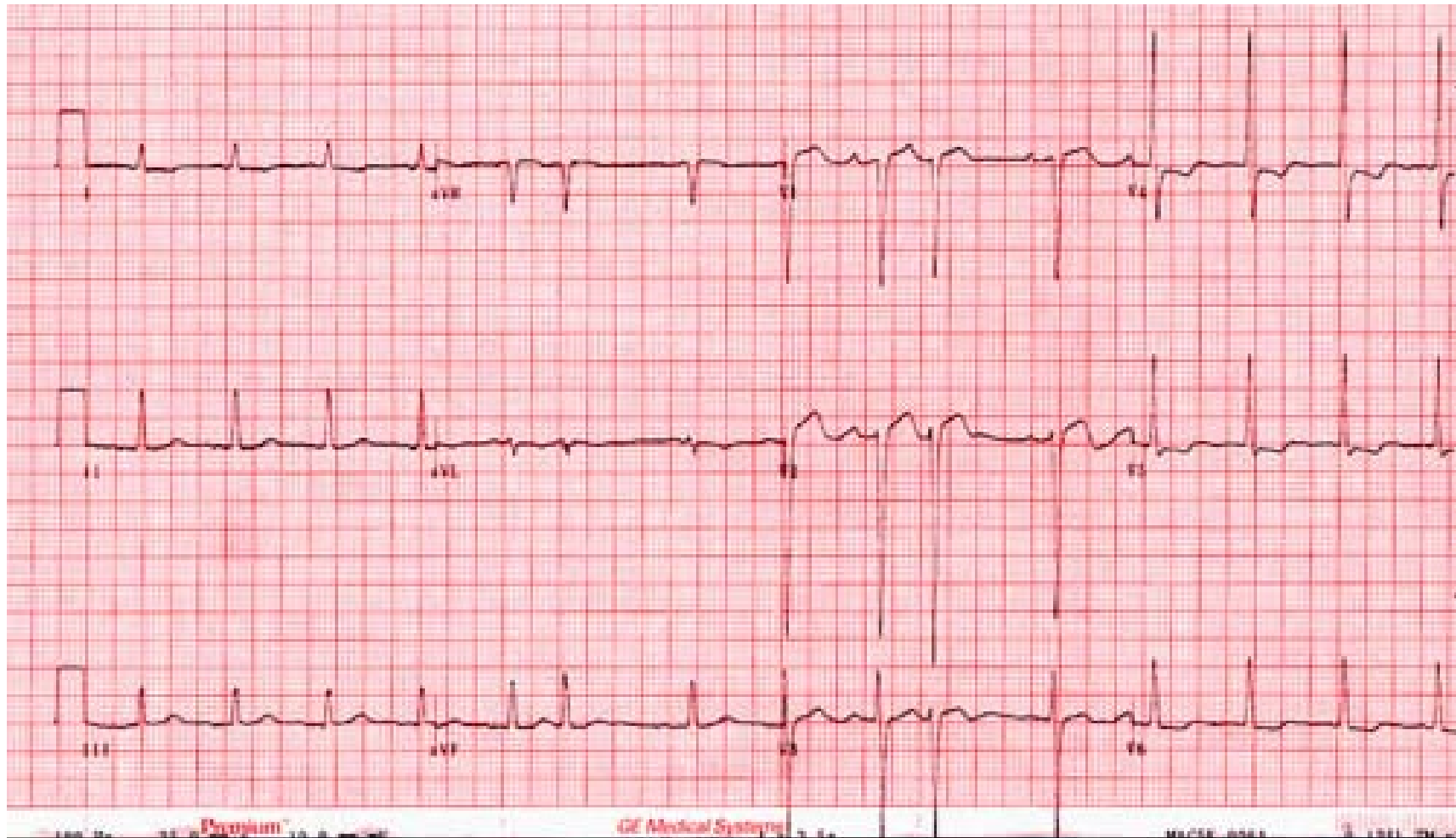
UCG: wall motion antero-septal severe hypo

EF35%

11.10 CAG: LMT ostium 99%, proximal LAD CTO



ECG on admission



UCG on admission



AR I/IV MR II/IV TR I/IV PR I/IV

LAD 48.3mm LVDd 58.1mm

EF 35.1% FS 17.0

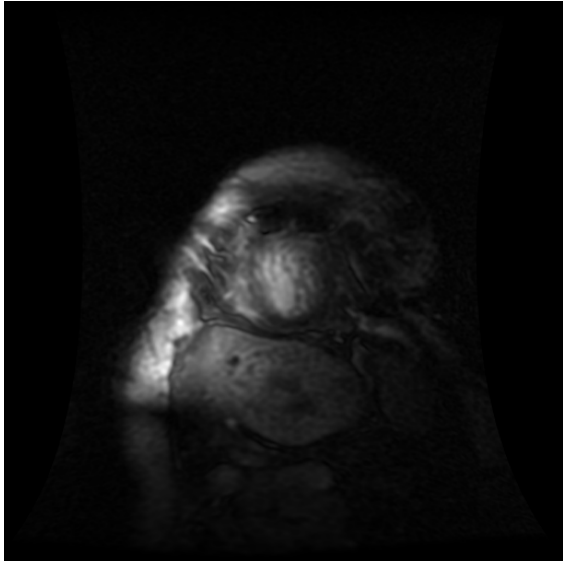
Wall motion: ant-sept severe hypokinesis

Pleural effusion(+)(R<L)

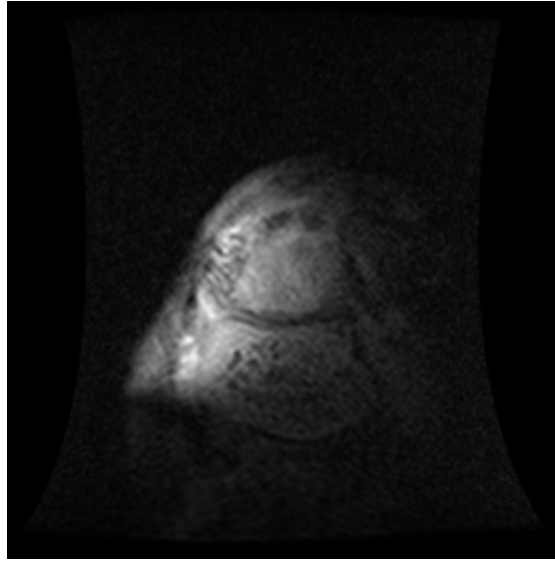
Pericardial effusion(+)



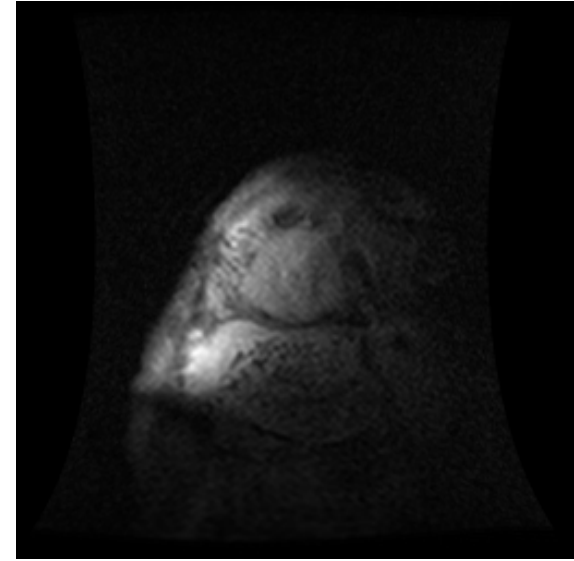
Cardiac MRI



Wall motion



Perfusion (stress)



Perfusion (rest)



Delayed enhancement

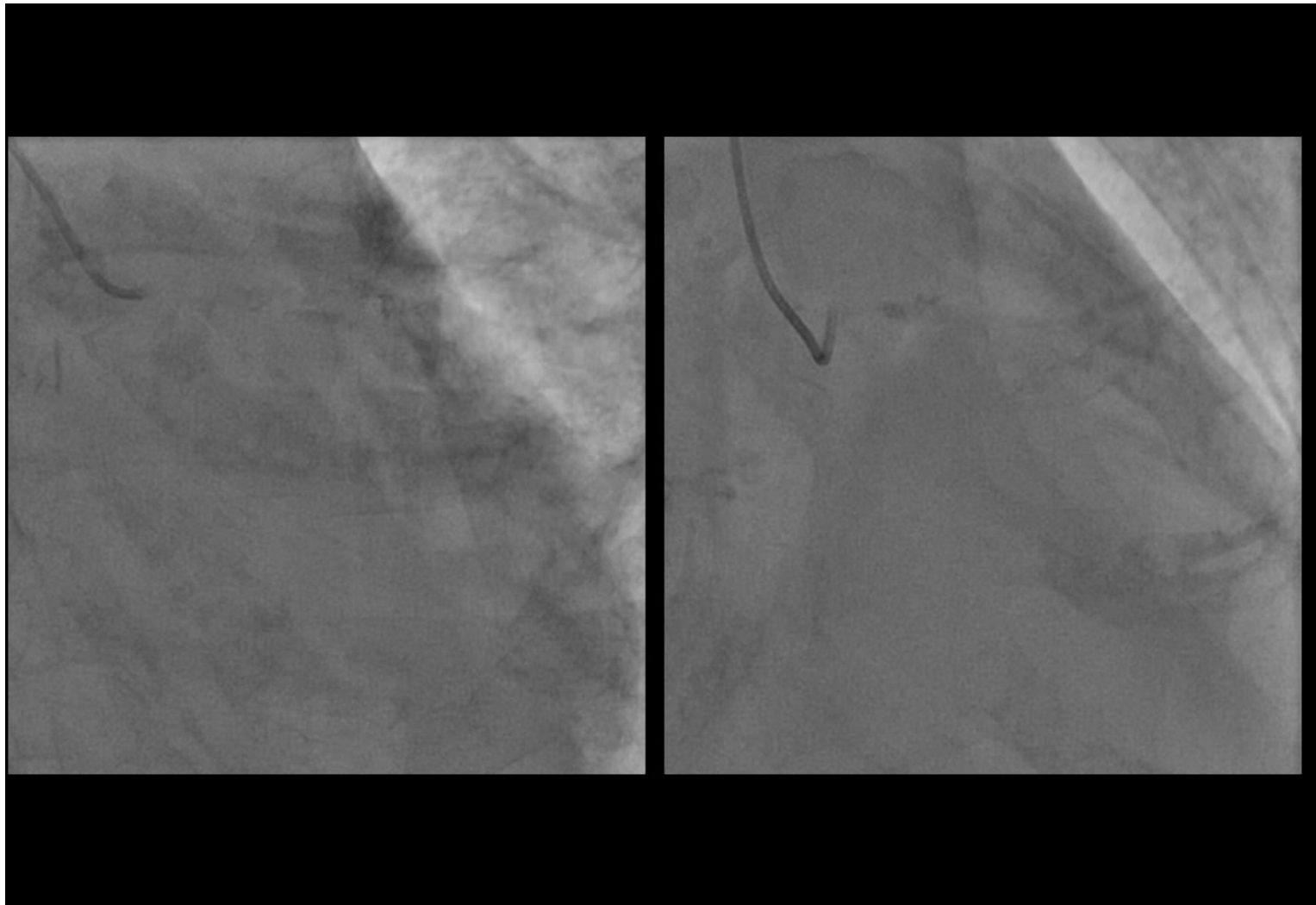
Wall motion : ante-septal severe hypokinesia

Perfusion delay: mid anterior persistent delay

Delayed enhancement: subend anteroseptal (+)



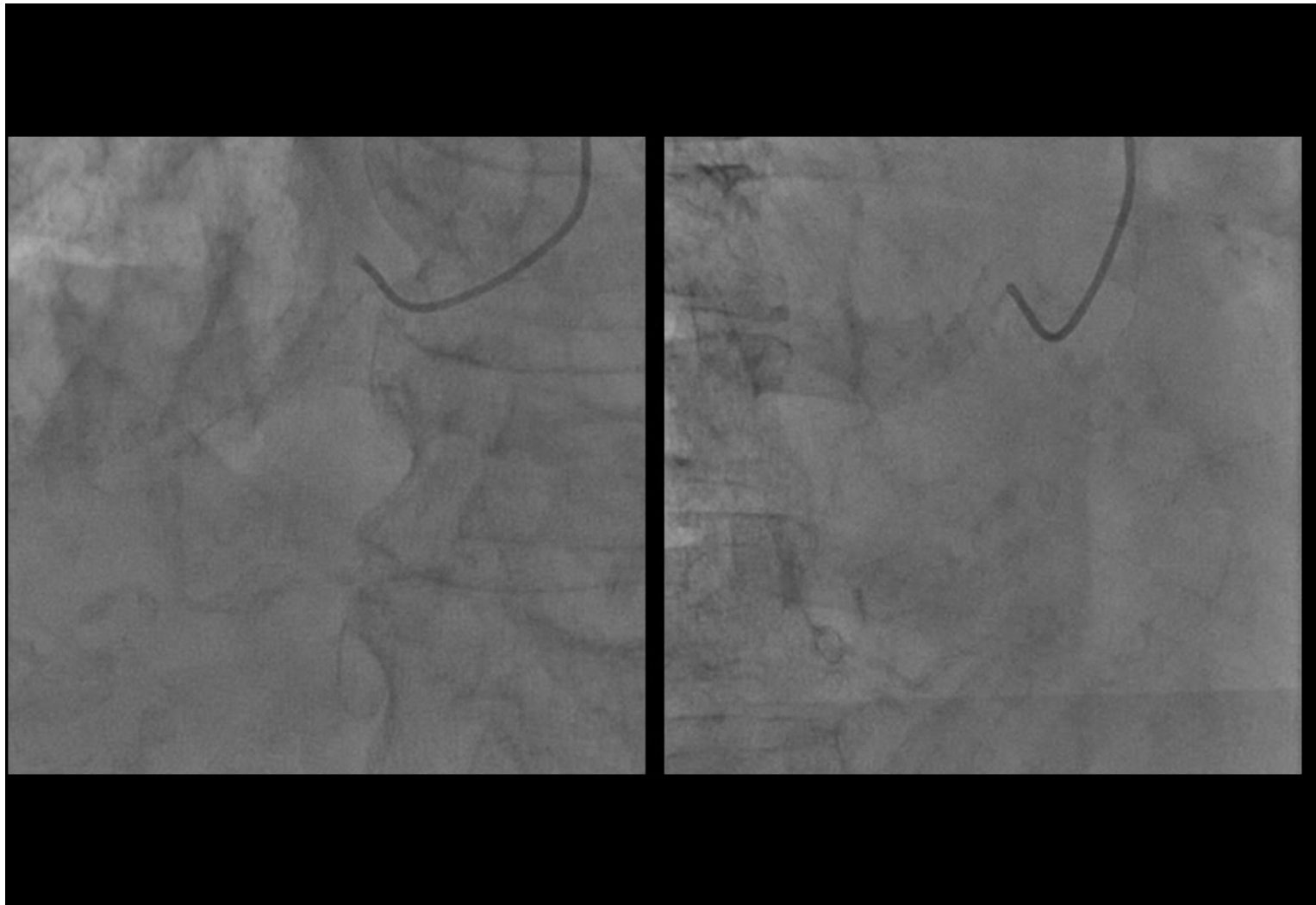
Control CAG (LCA)



LCA ; LMT ostium 99%, proximal LAD CTO, RCA→LAD collateral(+)



Control CAG (RCA)



***LCA ; LMT 99%, LAD CTO, RCA→LAD collateral(+)
RCA ; proximal and distal STENT ISR(-)***

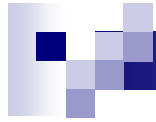




Questions

- How do you treat the unstable LMT case complicated by CHF, PCI or CABG?
- If PCI is selected, what is your strategy to fix this case successfully.





The patient wanted to receive
complete coronary revascularization by PCI.





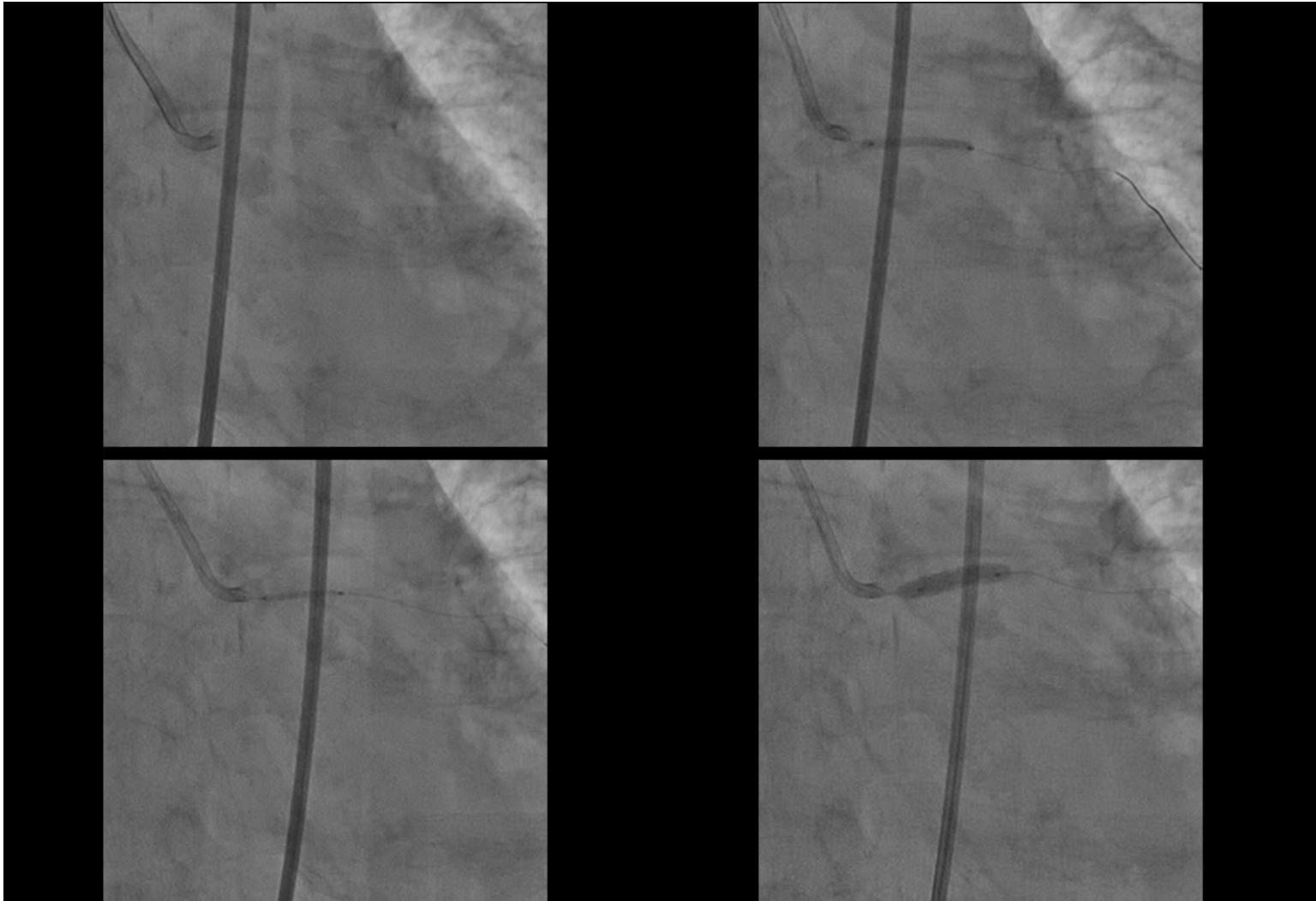
Strategy for Complete Revascularization

PCI for non-protected LMT ostial lesion under IABP support.

Staged PCI for LAD CTO after improvement of LV function with LCX and Diagonal revascularization.



PCI procedure

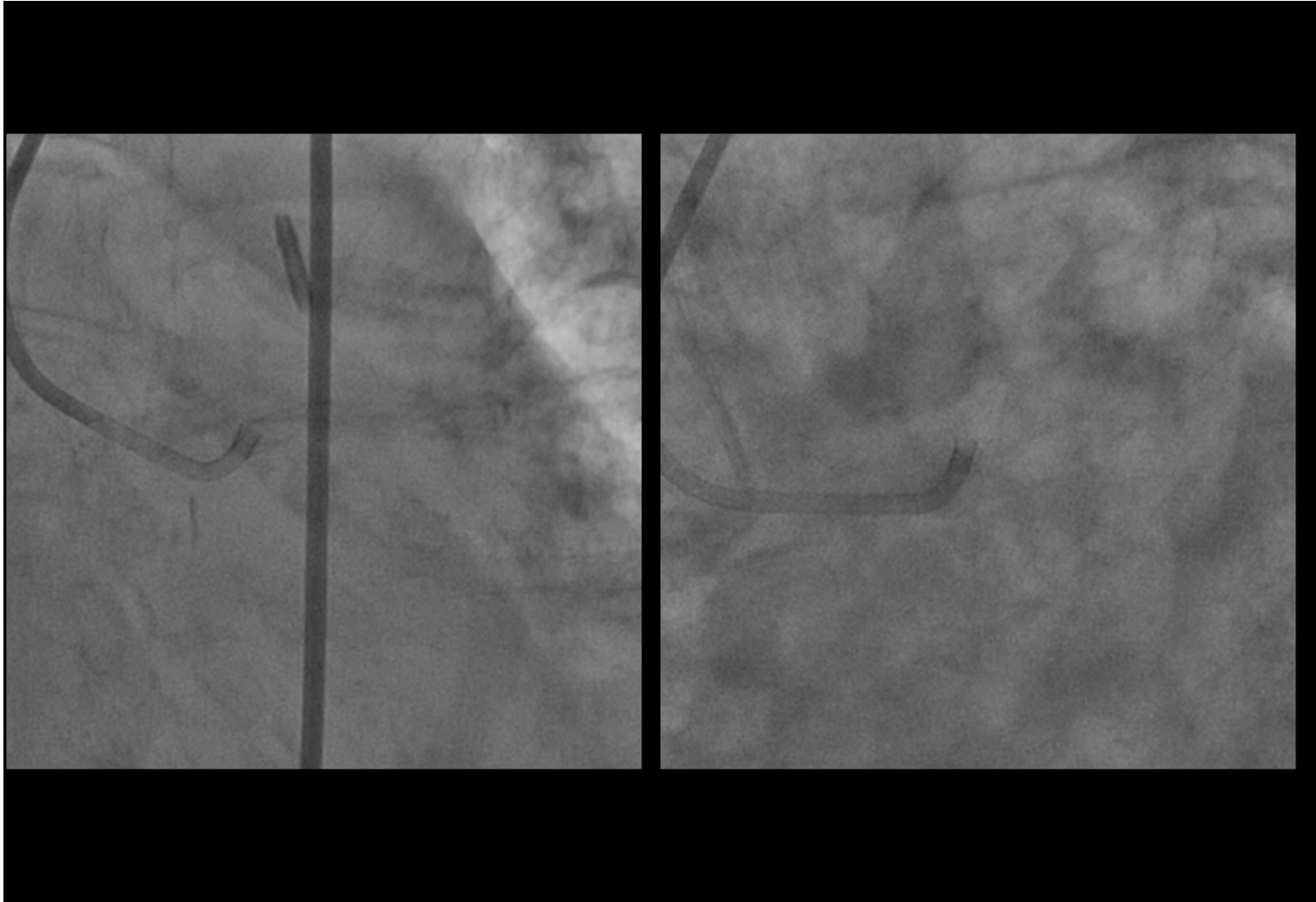


**Approach: Rt.transfemoral, IABP Support, G/C: mach1 FL4 ST SH 8Fr, G/W; Neos Fielder
Pre dilatation; ϕ 2.0x20 MAVERICK2, STENT; ϕ 3.5x13 Cypher 22atm,**





Final CAG



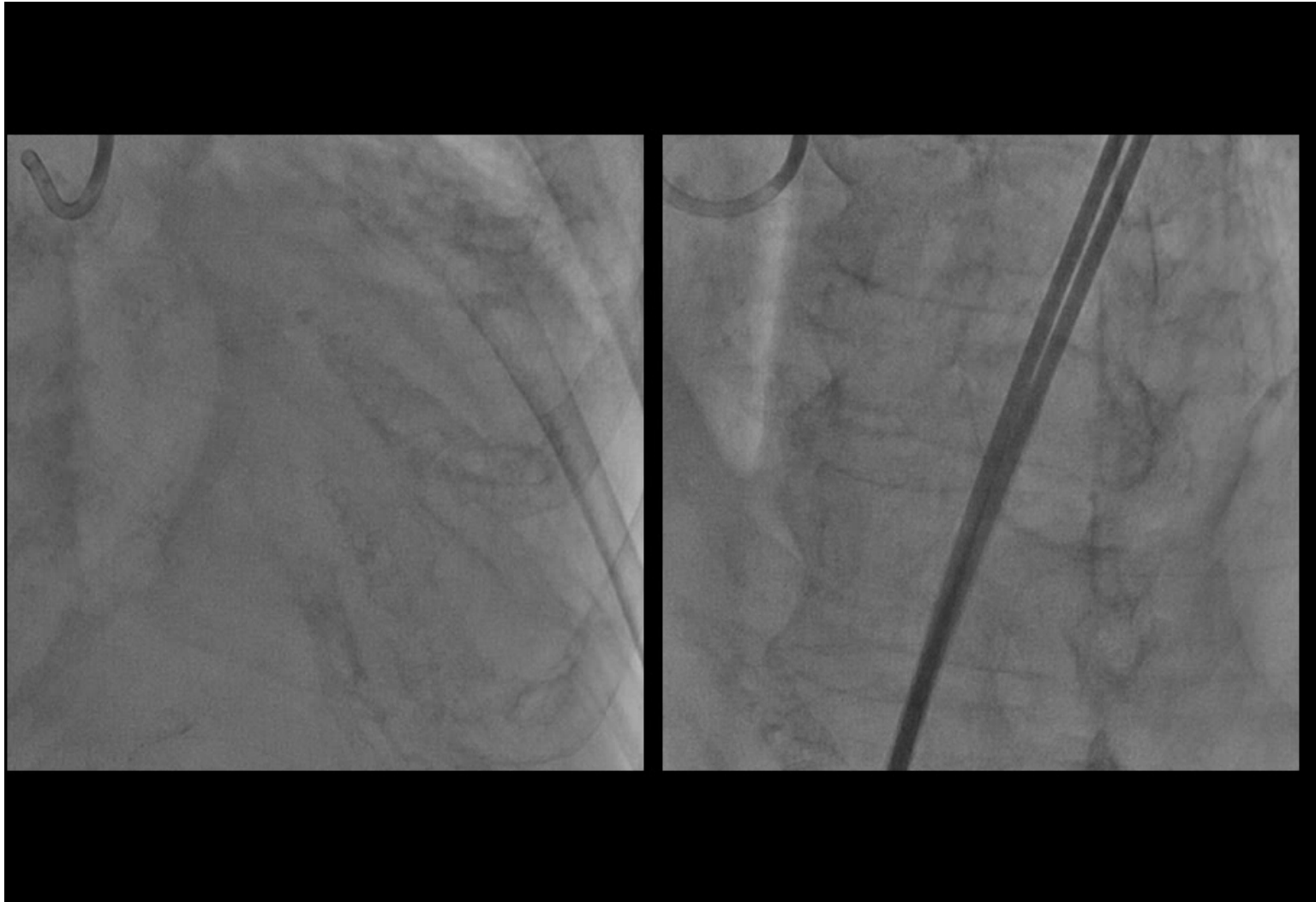


Summary of the procedure

- # Stabilizing the hemodynamic status during procedure under IABP support.
- # Using Judkins type guiding catheter with sideholes and keeping coaxial alignment
- # Retraction of the guiding catheter 1-2 cm into the aorta prior to balloon inflation and stenting
- # The proximal 1-2 mm tip of the stent extended into aorta and postdilated to make flarelike appearance



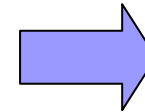
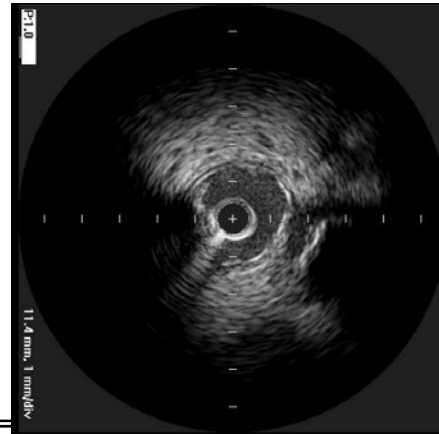
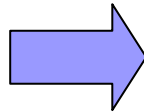
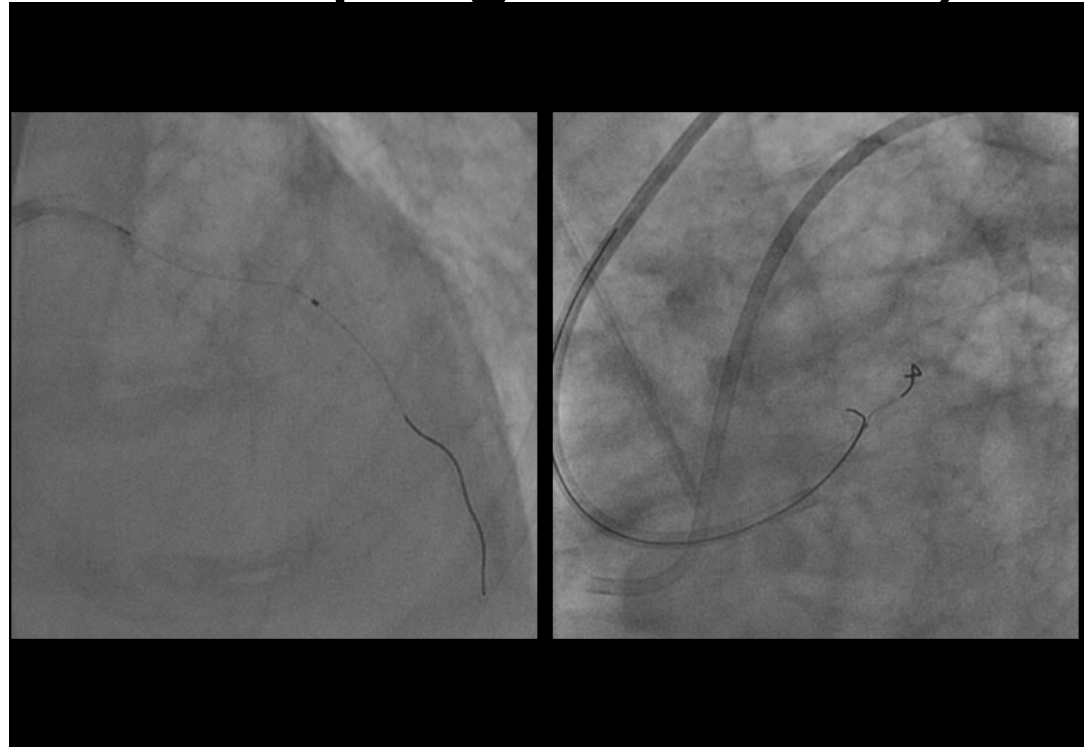
Control CAG (2nd PCI)



Proximal LAD; CTO, RCA→LAD collateral(+), RCA; STENT ISR(-)



IVUS (Diagonal branch)



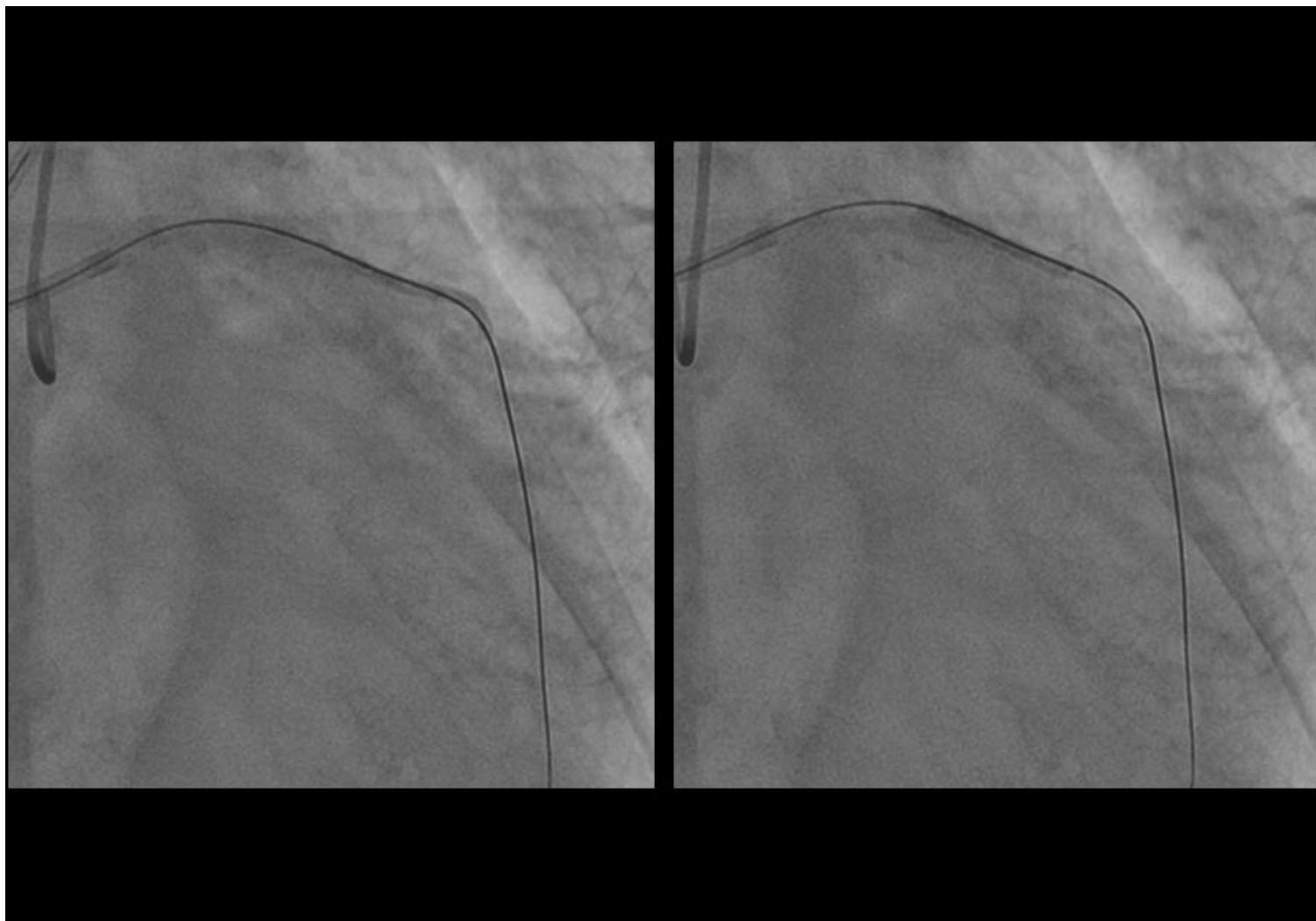
Antegrade Approach



Pararell Wire Technique; TRANSIT + Miracle12 / TRANSIT + Confianza Pro12



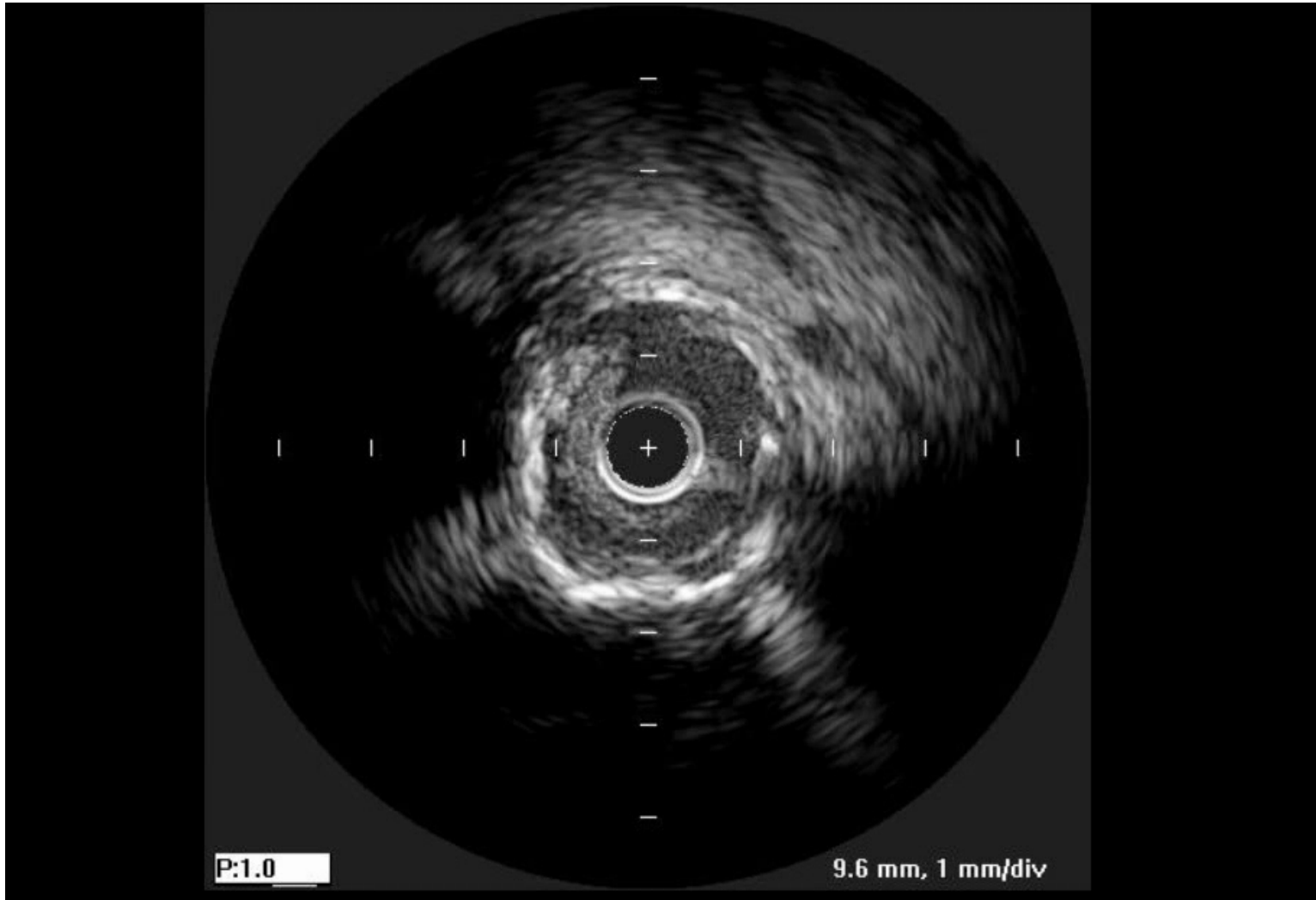
Pre Dilatation



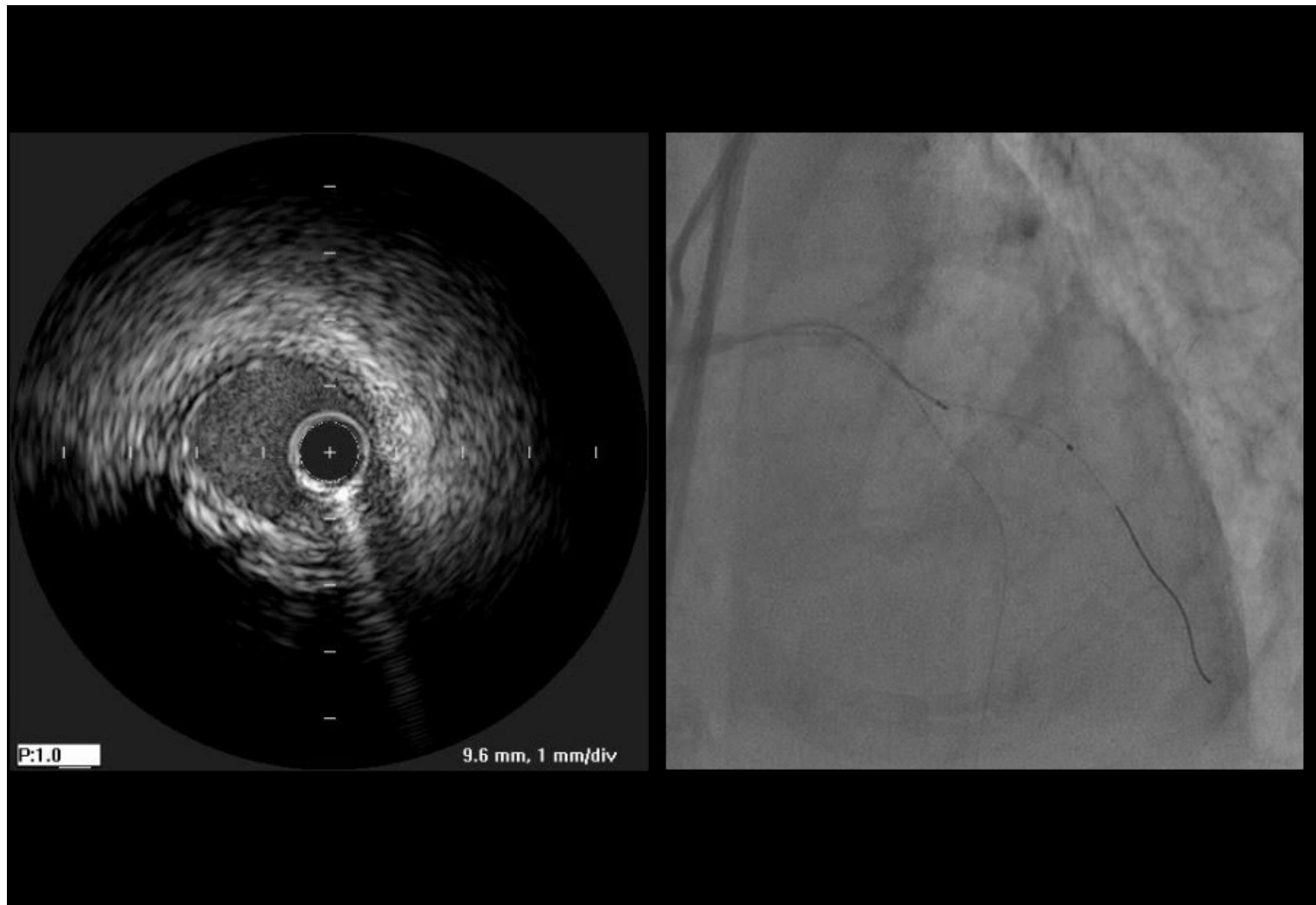
LAD B/C; ϕ 2.0x20 Ryujin PLUS



IVUS (LAD)



IVUS (Diagonal branch)



Guide Wire ; Confianza Pro12



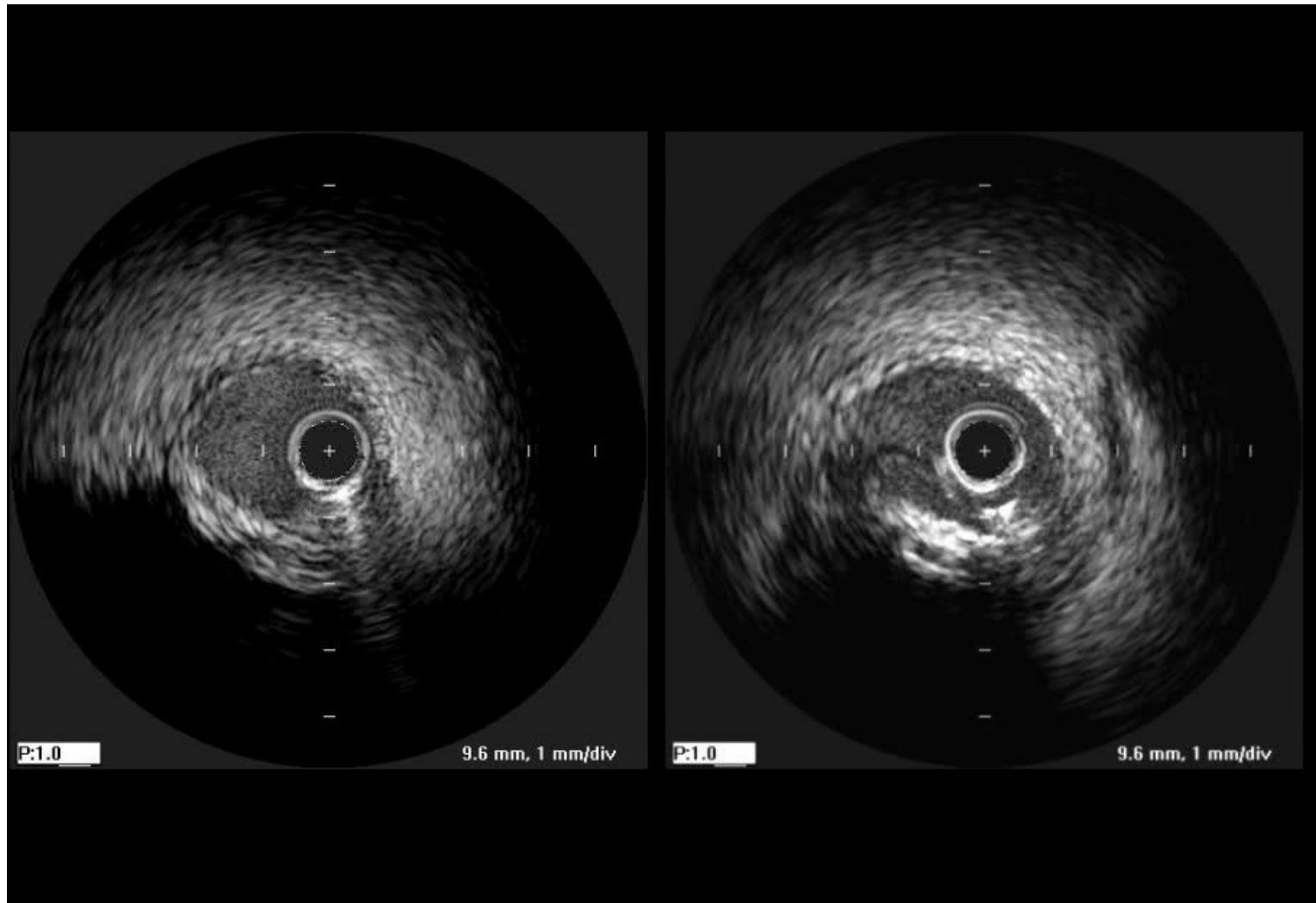
POBA (Diagonal branch)



LAD B/C; ϕ 2.0x20 Ryujin PLUS



IVUS (Diagonal branch)

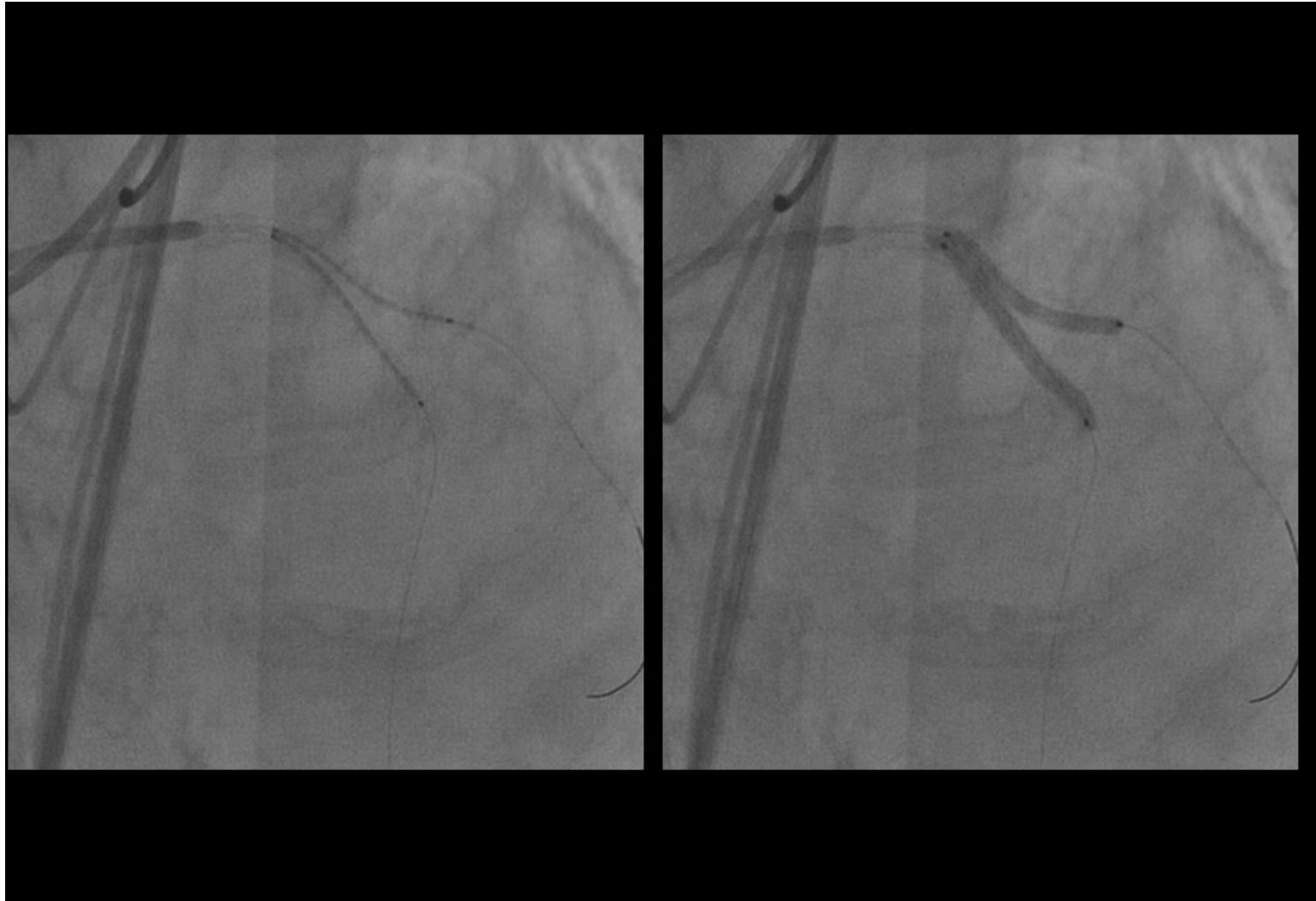


Pre

Post



Kissing STENTing



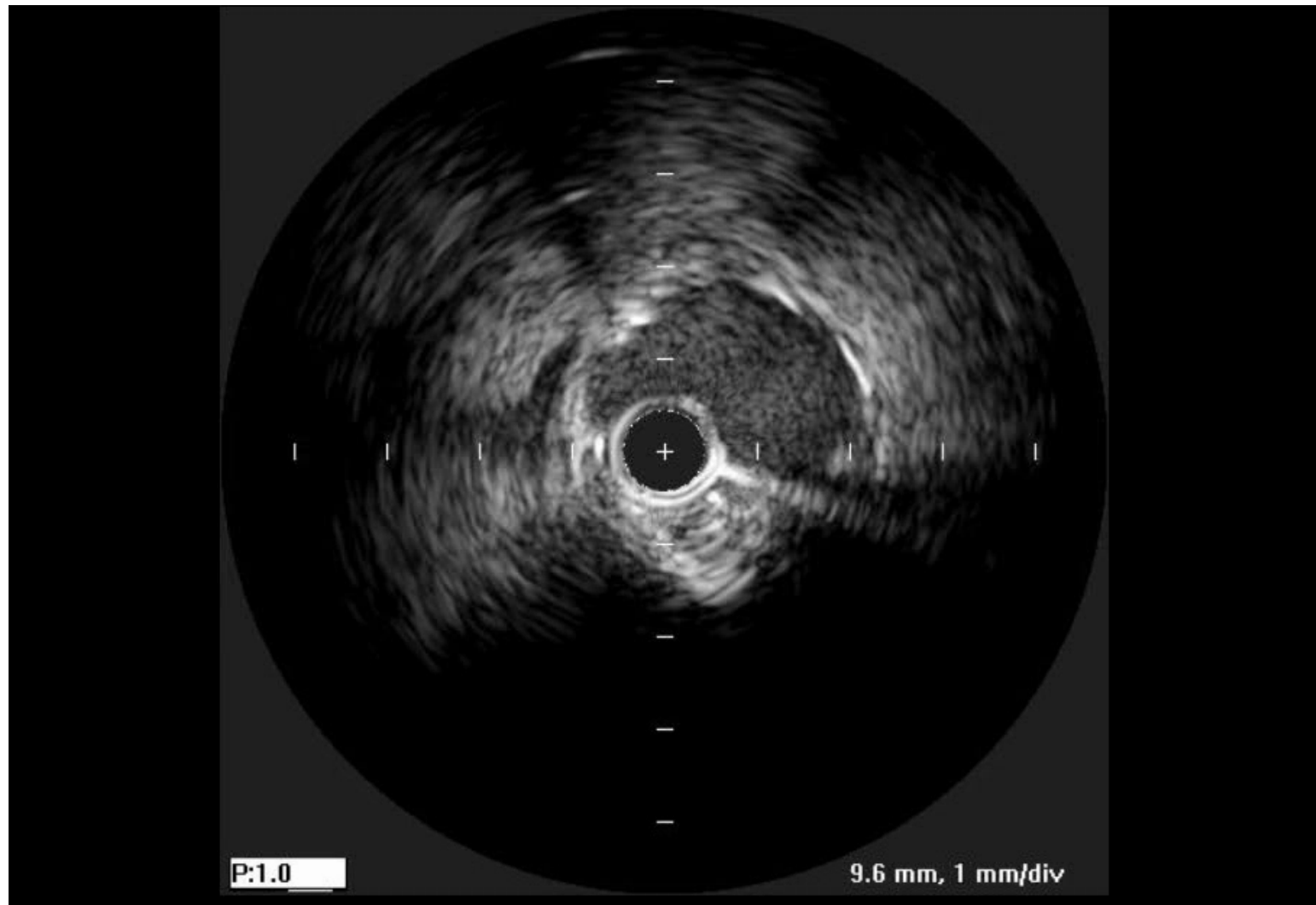
LAD; ϕ 3.0x33 Cypher, Diagonal; ϕ 2.5x28 Cypher 16atm, FINAL KBT; SDS 20atm



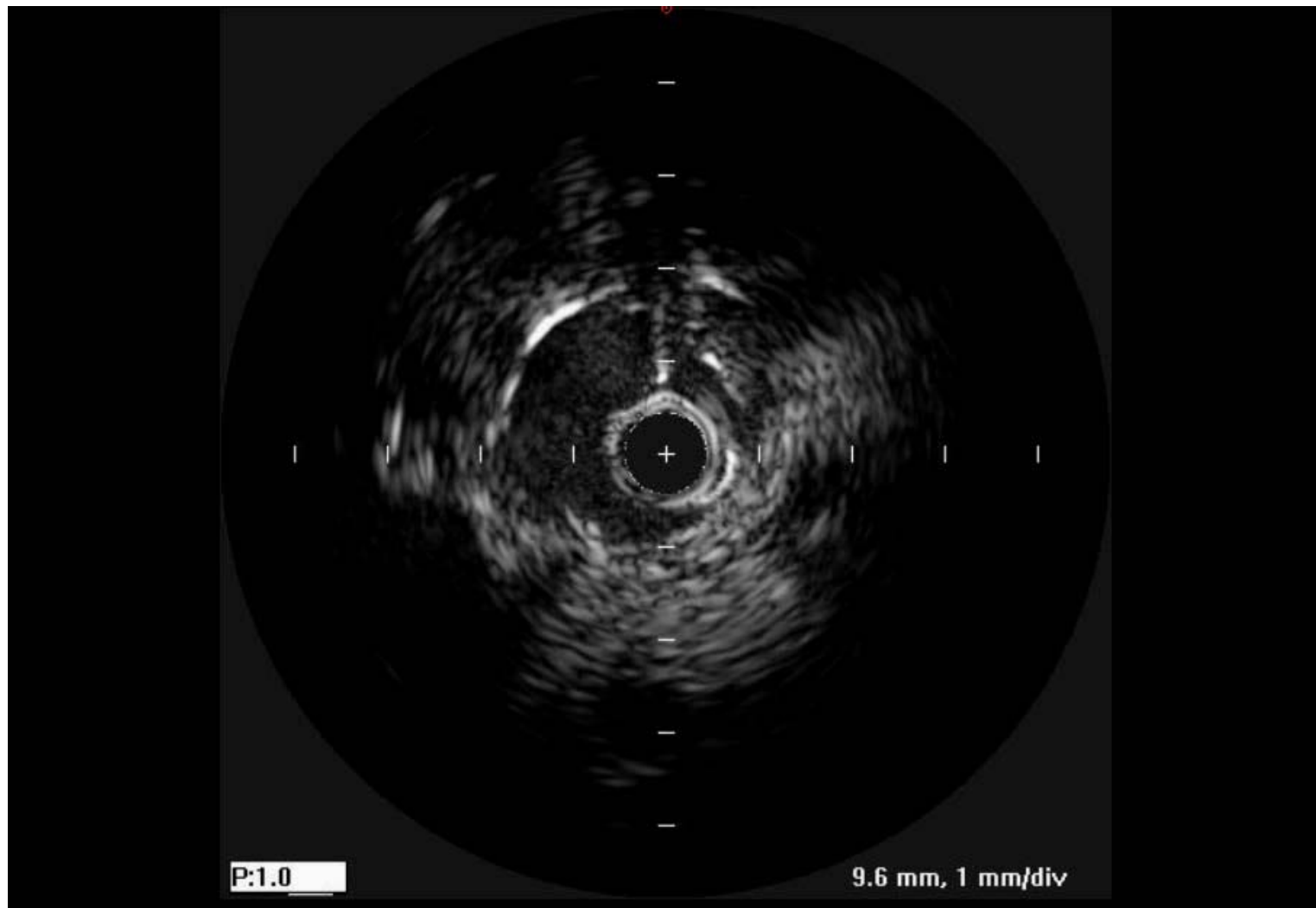
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Final IVUS (LAD)

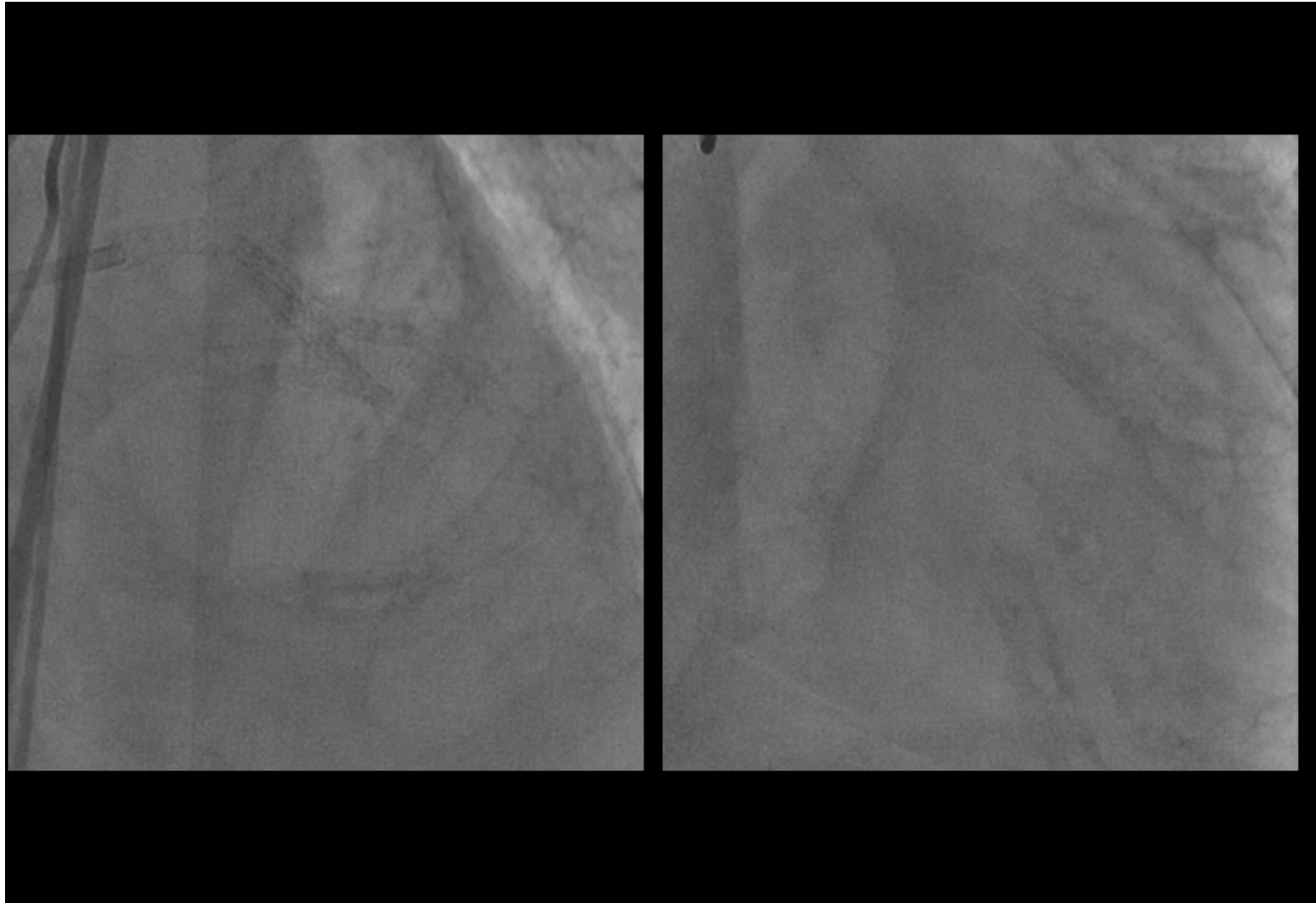


Final IVUS (Diagonal branch)





Final CAG





PCI for unprotected LMT Complicated by CHF

- still challenging and controversial
- may cause hemodynamic collapse if failed
- needs precise estimation of viable myocardium
- Severe MR cannot be reversed merely by PCI revascularization

- In the case of ACS, PCI is the quickest method to establish revascularization for critical myocardial ischemia
- High success rate and long term patency with DES in complicated lesions including CTO make it possible to establish complete revascularization by PCI

