

Case: Image-guided PCI

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Unstable angina, M/59

❖ Chief complaint

: Exertional chest pain (For 2 weeks; CCS III)

❖ Past history

: Hypertension

Coronary angiography



**Significant luminal narrowing of distal left main and proximal LAD
with big diagonal arteries**

Coronary angiography



**Significant luminal narrowing of distal left main and proximal LAD
with big diagonal arteries**

Treatment option

Involvement of 3 big side branch vessel.

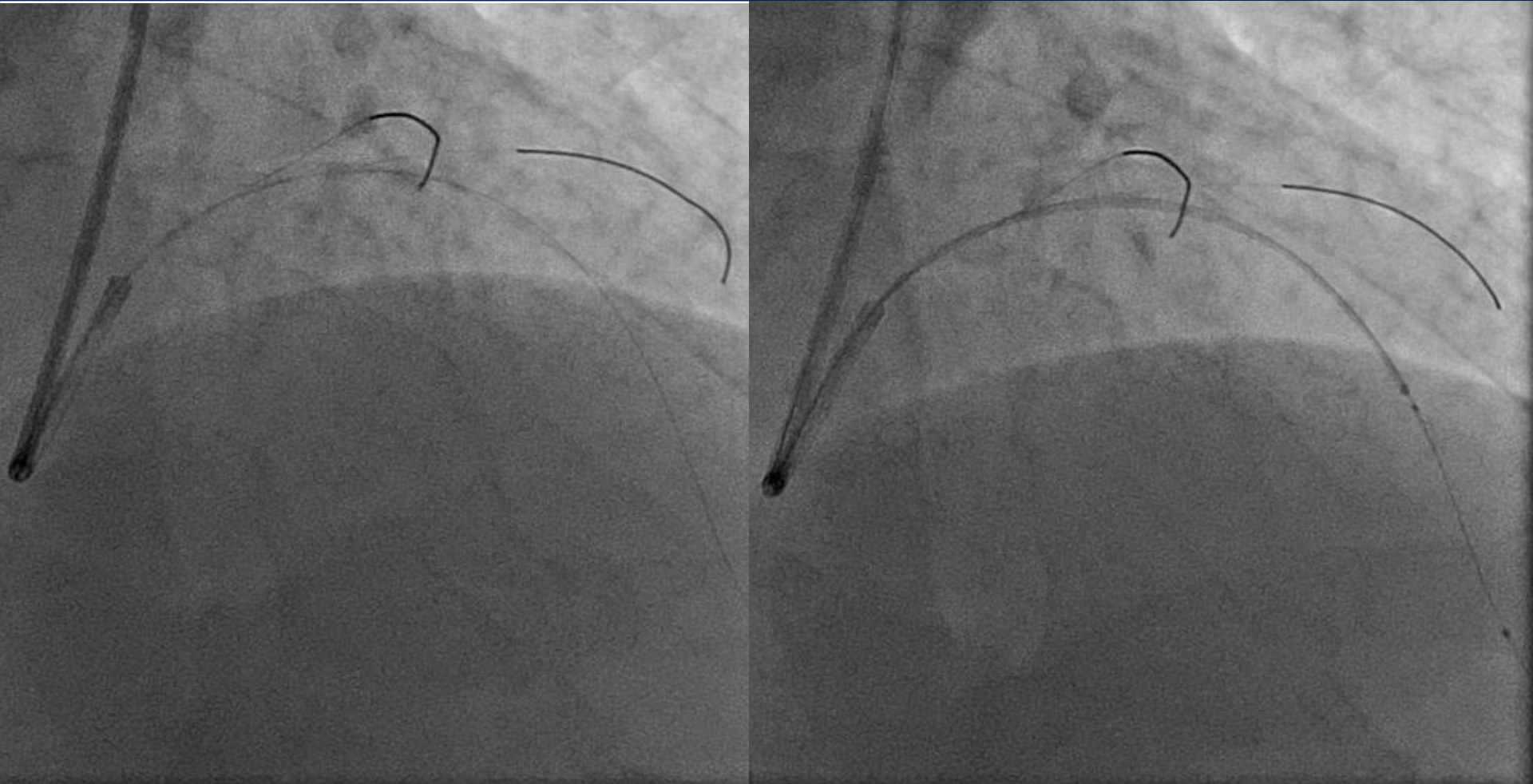
1. PCI or CABG

2. How many number of DES if patient want to undergo

PCI? At least 2, 3 or 4?

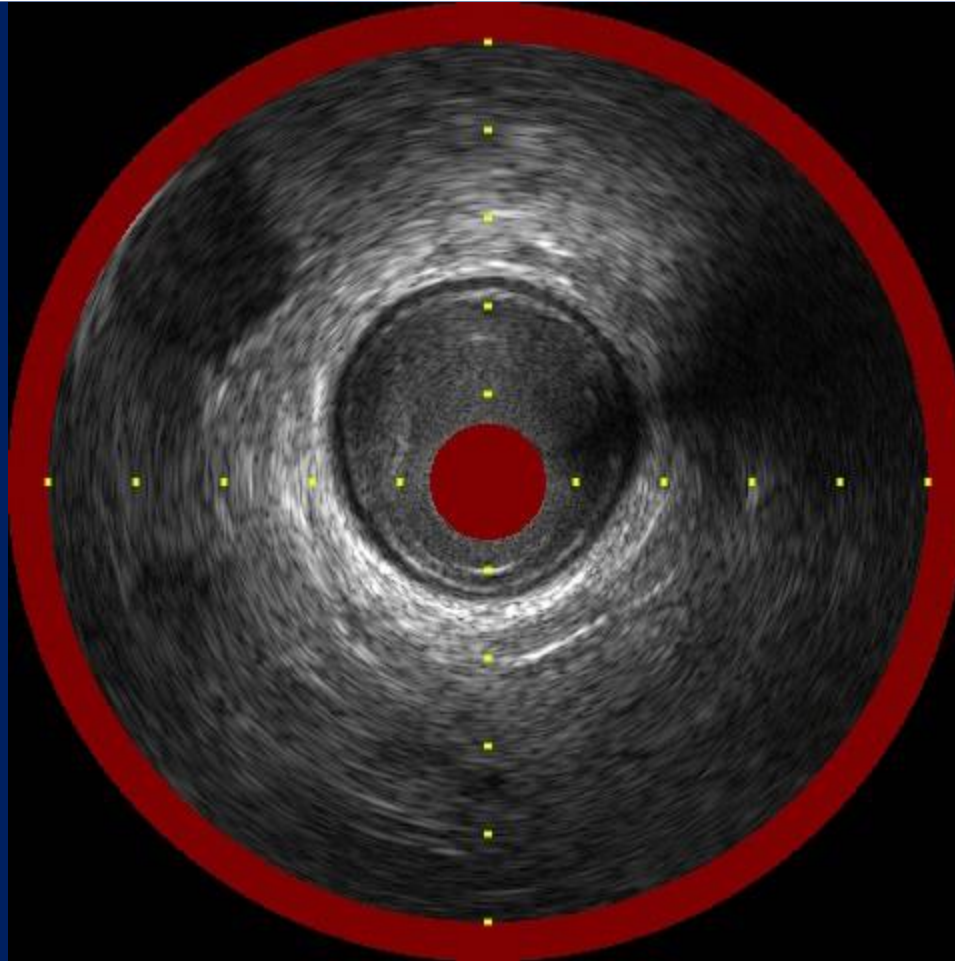
What is a next step to determine the treatment strategy?

Coronary angiography and PCI (May 2018)



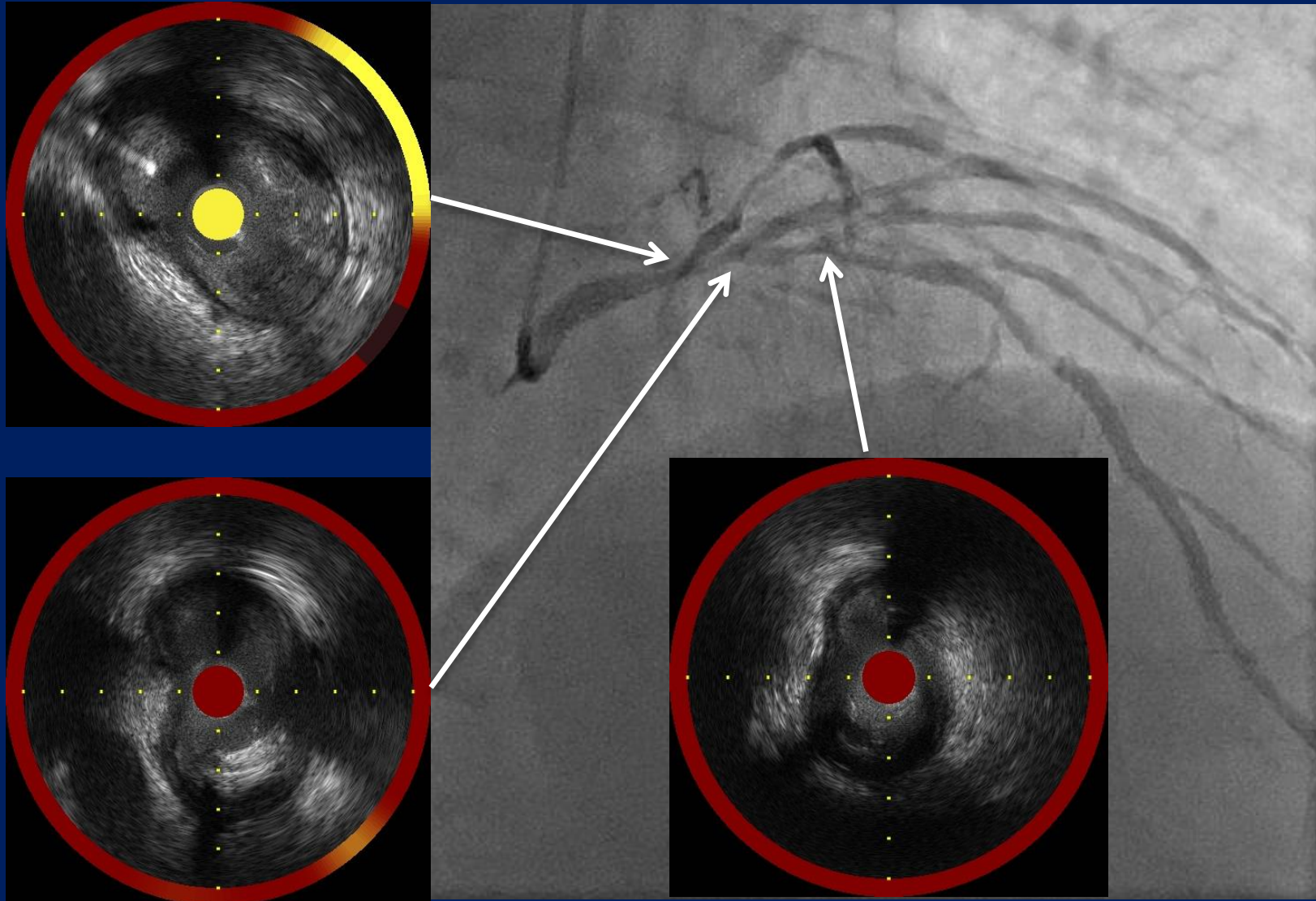
After wiring LAD, LCX and 2nd diagonal artery, **IVUS** was performed

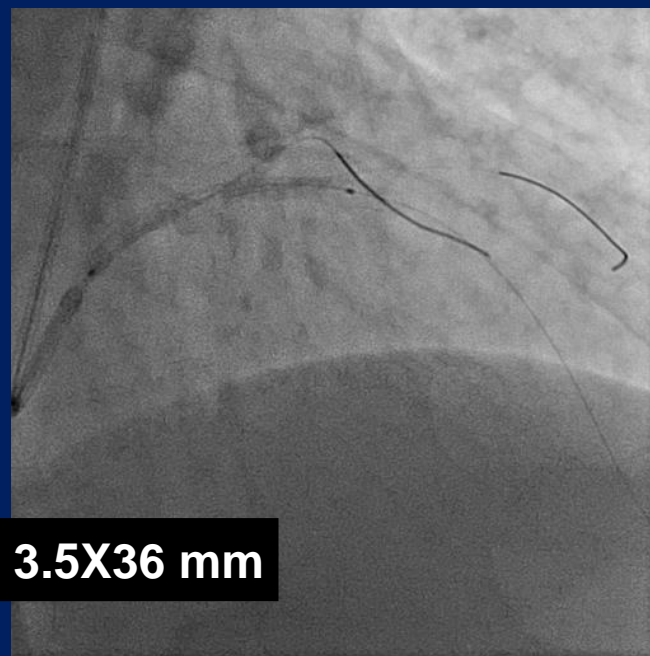
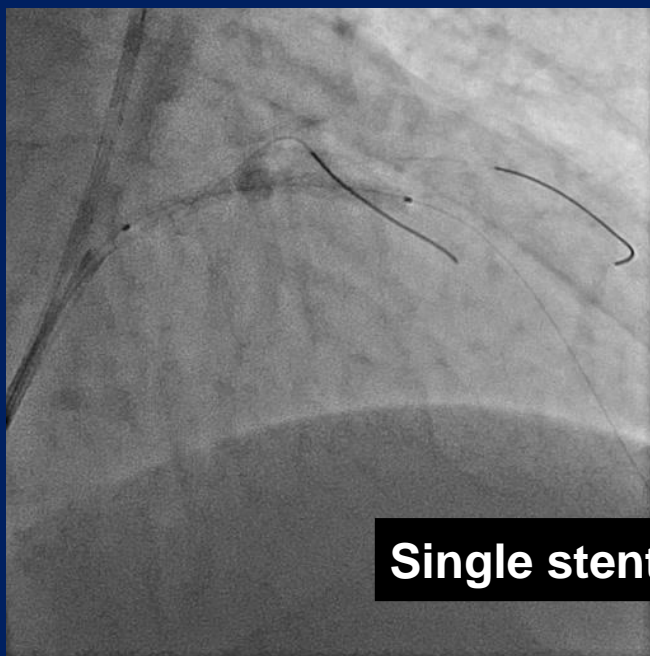
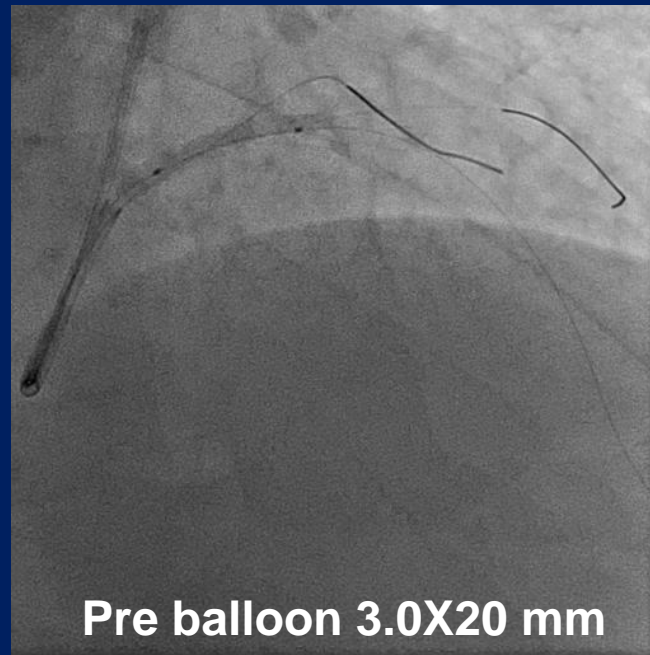
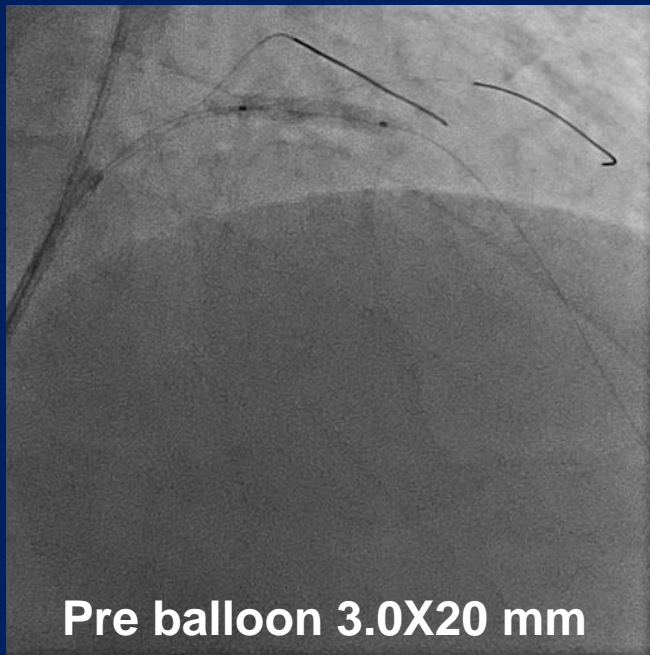
NIRS-IVUS



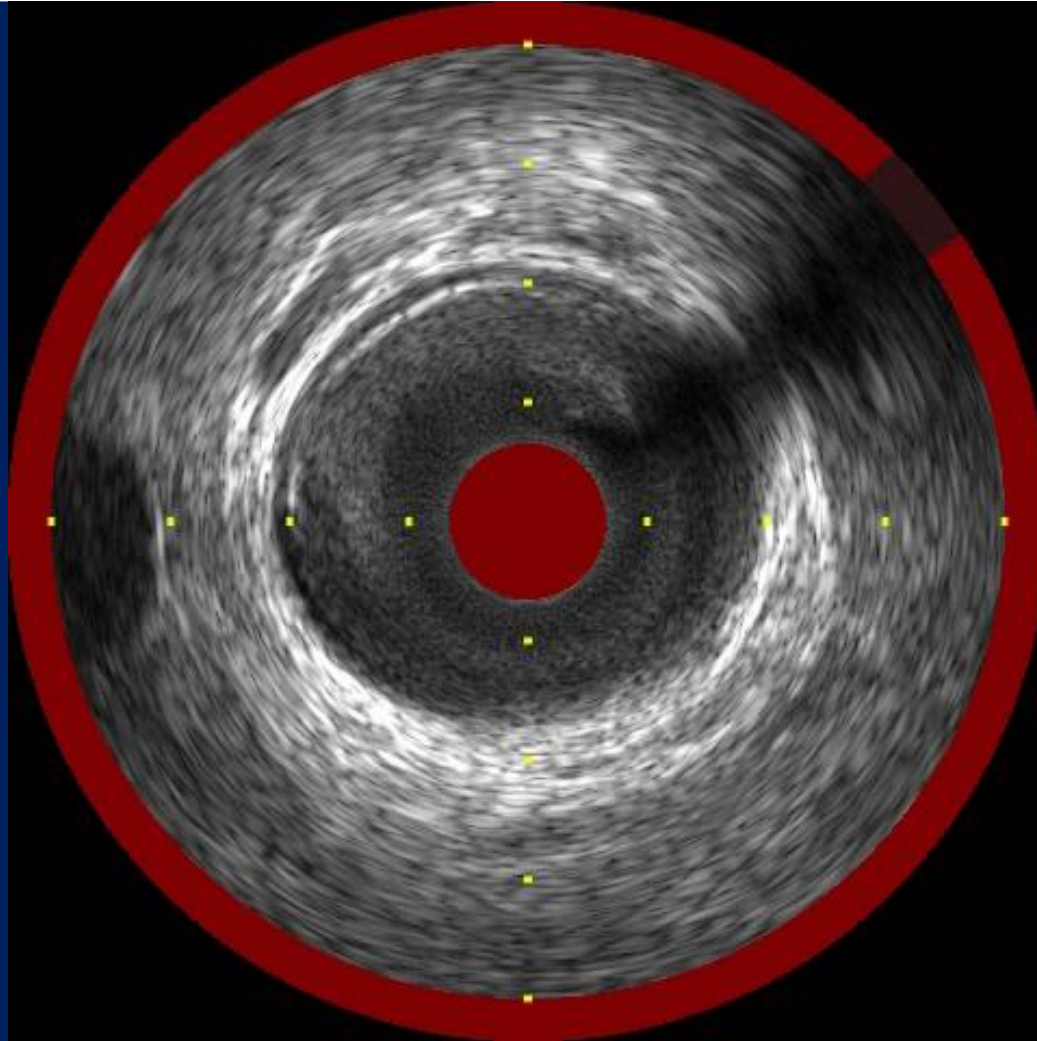
Ostium of 1st diagonal, 2nd diagonal and LCX were preserved

Simple cross-over technique



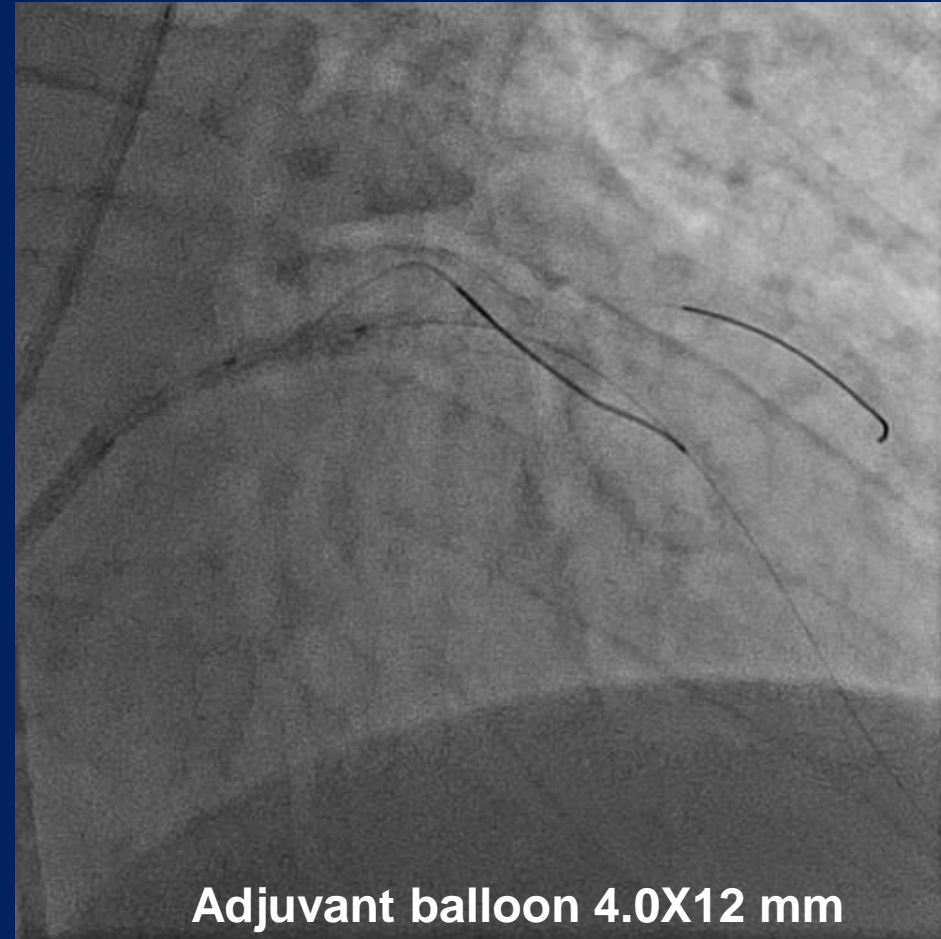
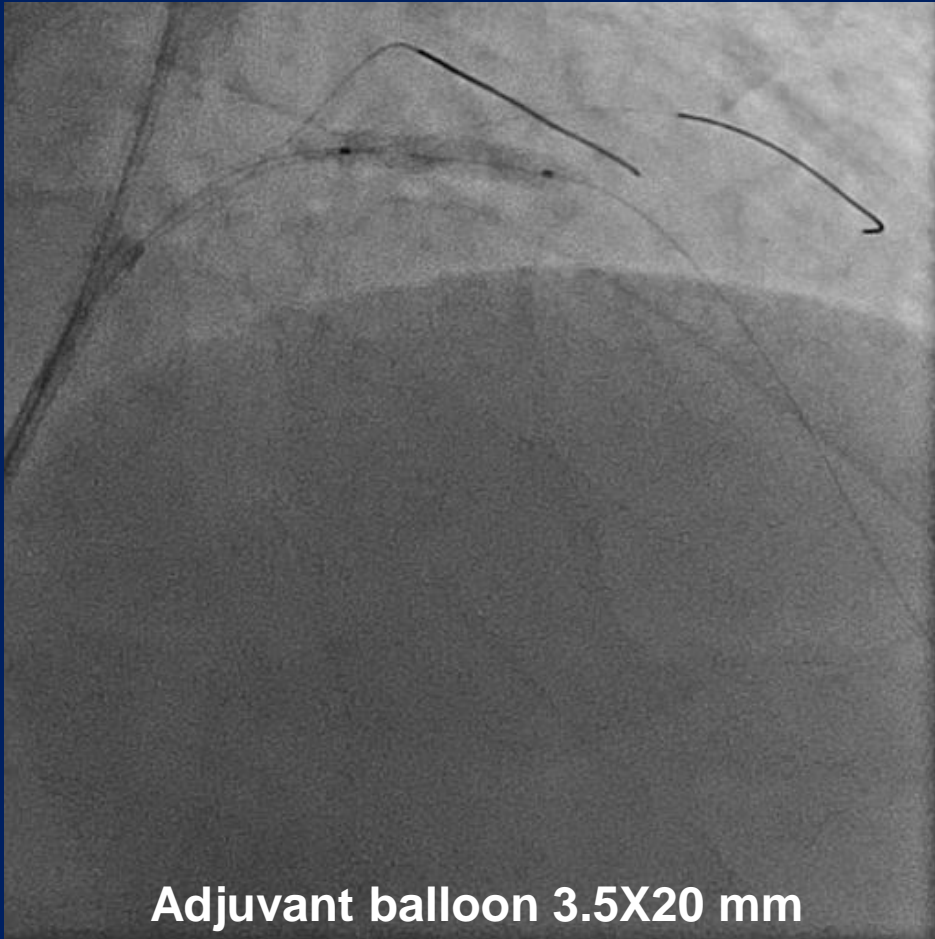


Post stent NIRS-IVUS

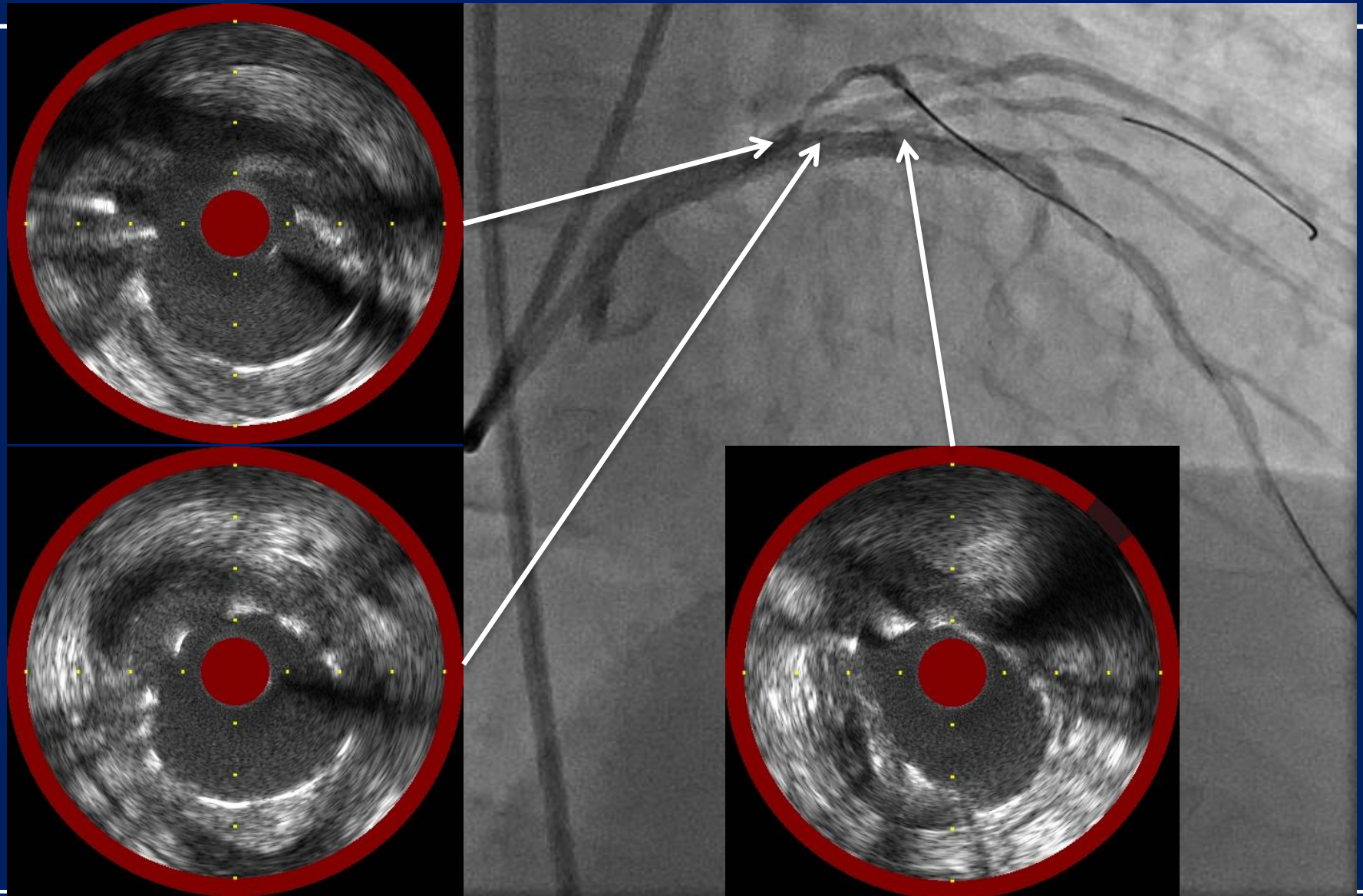


Stent underexpansion

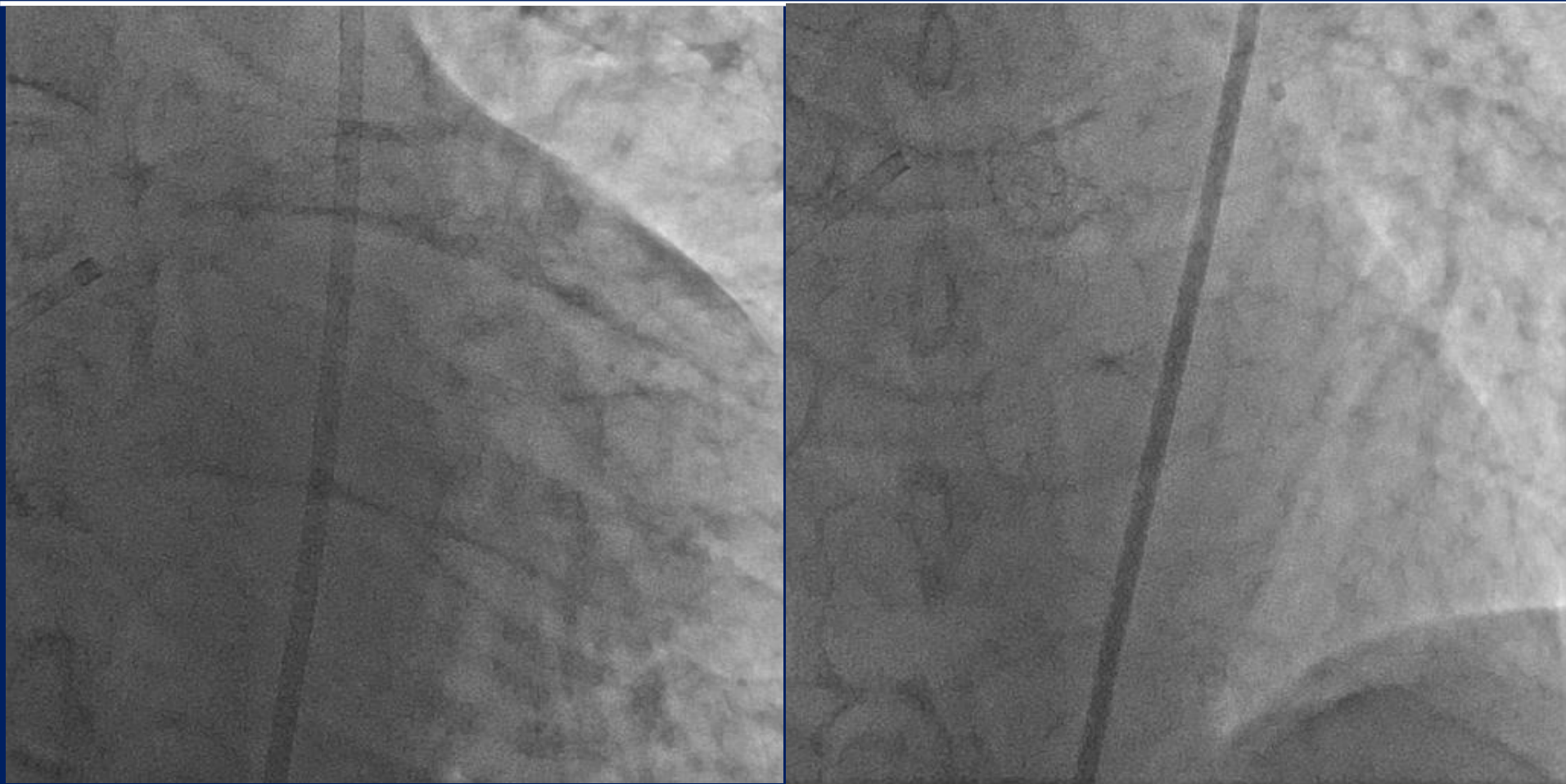
Additional high-pressure inflation



Post adjuvant balloon NIRS-IVUS



Final coronary angiography



Side braches were preserved successfully.

MIBI scan (Sept 2021)

영상검사 특수촬영-핵의학			
Tc-99m Myocardial SPECT(운동부하+안정상태)			
○			
2021.09.23 10:48	촬영실	심혈)감마카메라83호	
2021.09.24 08:23			
<p>Hx: Follow up HTN + 2018-01-02 s/p PTCA: c stent at dLM~mLAD d/t CAD 2VD (dLM-pLAD 80%, 1st Dg 50%, mLAD 80%, pLCx 80%) 2020-09 Echo: No RWMA, EF: 76%, Sigmoid septum with colorflow acceleration without significant obstruction. Concentric LVH 2020-09 TMT: Inadequate test because of insufficient workload</p> <p>Technique: Tc-99m MIBI was injected to the patient intravenously, and resting SPECT imaging was performed. Four hours later, an exercise stress test was done using an ergometer, and stress SPECT imaging was obtained.</p> <p><<<Findings and impression>>></p> <p>On stress or resting images, no photon defect is seen in the myocardium.</p> <p>LV cavity size is within normal limits. No wall motion abnormality is seen. LVEF is estimated to be 71%.</p>			

Currently in 2023, symptom free with medication (aspirin 100mg qd, lipitor 80mg qd, carvedilol 32mg and acertil 10mg qd)

Conclusion

**Just use IVUS or OCT
without hesitation in
complex PCI**

Use of only one DES in patients with CABG candidates