

Subacute Stent Thrombosis 3 days after Nobori Stent Implantation

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Division of Cardiology**

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Case: 54 years-old men

【Chief Complaint】 Chest pain

【Past History】

AMI: PCI to LCx#12 (POBA)

AP :PCI to RCA#3 (Nobori 3.5mm*18mm)

Hypertension, Dyslipidemia, Diabetes mellitus

【Present Illness①】

April 20, 2014, he was admitted to the emergency room complaining of chest pain with new rest symptoms and was diagnosed unstable angina pectoris (UAP).

The coronary angiography (CAG) revealed new critical stenosis at proximal left anterior descending artery (LAD).

【Present Illness ②】

Percutaneous coronary intervention (PCI) with angiographic plus OFDI guidance was performed and Nobori stent (2.5*28mm) was implanted in the proximal LAD .He was discharged home 2 days later in good condition.

The next day he returned with the acute onset chest pain. ECGs revealed anterior ST-segment elevation.

He was diagnosed with subacute stent thrombosis (SAT) and was taken emergently to the catheterization laboratory for repeat angiography.

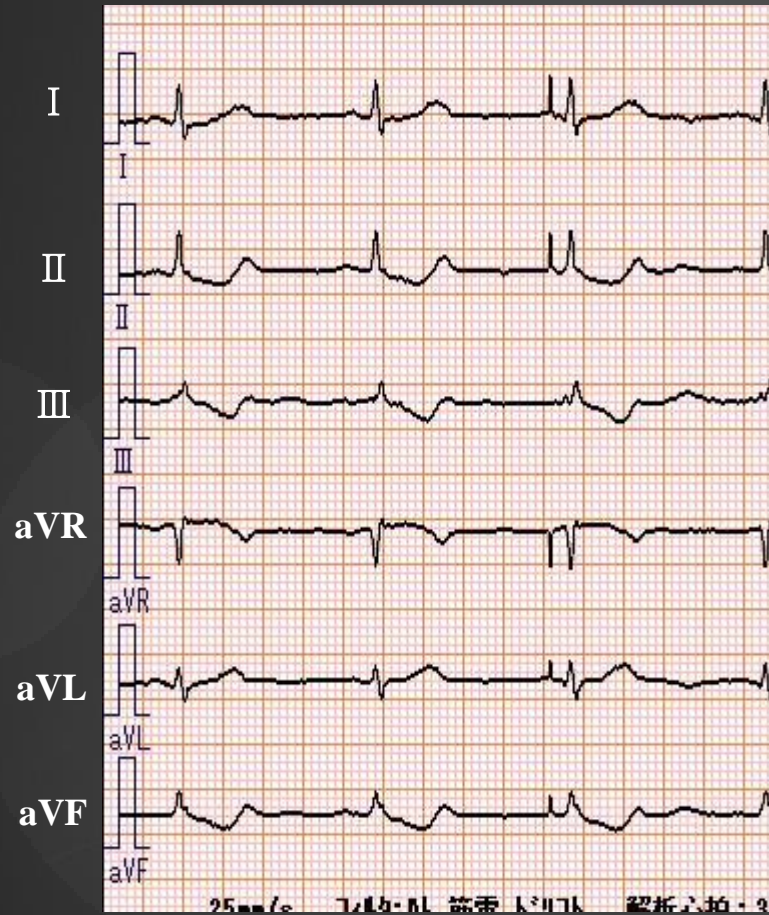
Medications

Acetylsalicylic acid	100mg
Clopidogrel	75mg
Telmisaltan	40mg
Bisoprolol Fumarate	1.25mg
Rosuvastatin	5mg

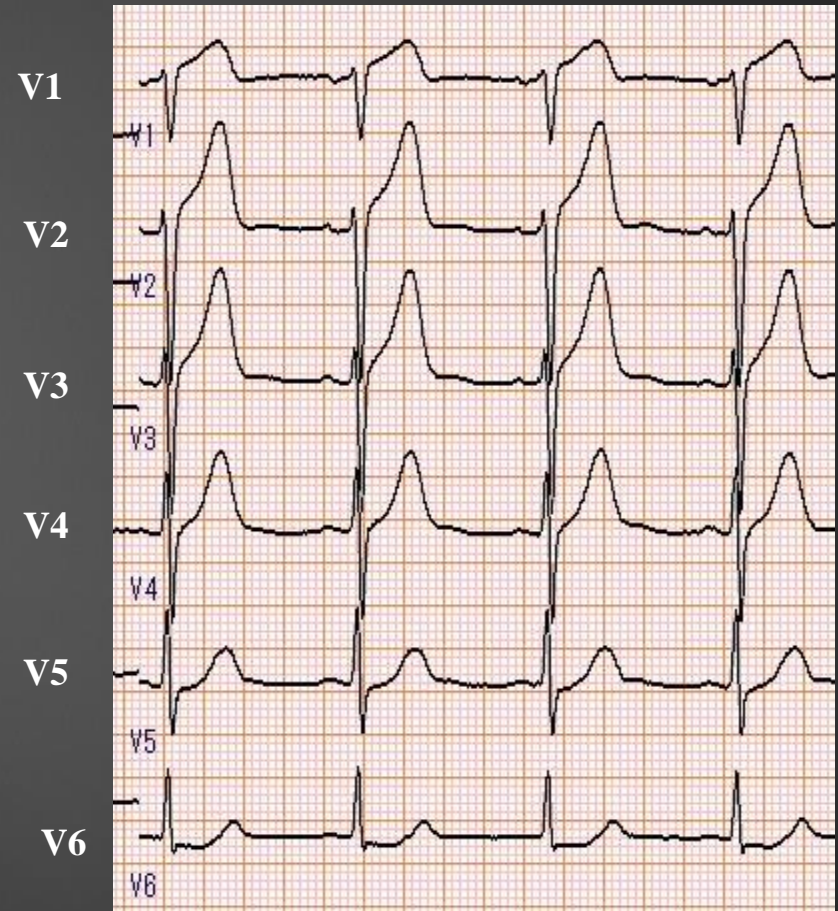
Blood Tests

WBC	9.9	10³/μl	Na	139	mEq/l	TP	6.9	g/dl
RBC	526	10⁴/μl	K	3.7	mEq/l	ALB	3.3	g/dl
HGB	17.0	g/dl	CL	104	mEq/l	GLU	205	mg/dl
HCT	47.9	%	Ca	10.0	mEq/l	HbA1c	7.2	%
MCV	91.1	fl	T-BIL	0.7	mg/dl	LDL-C	85	mg/dl
PLT	18.1	10³/μl	AST	32	IU/L	HDL-C	36	mg/dl
PT	11.9	%	ALT	44	IU/L	TG	135	mg/dl
INR	1.12		LDH	227	IU/L	CRP	0.72	mg/dl
APTT	28.1	sec	GTP	15	IU/L	BUN	16.6	mg/dl
			CPK	50	U/L	CRE	0.78	mg/dl
			CK-MB	7	U/L	TnT	+	

ECG at admission



25mm/s



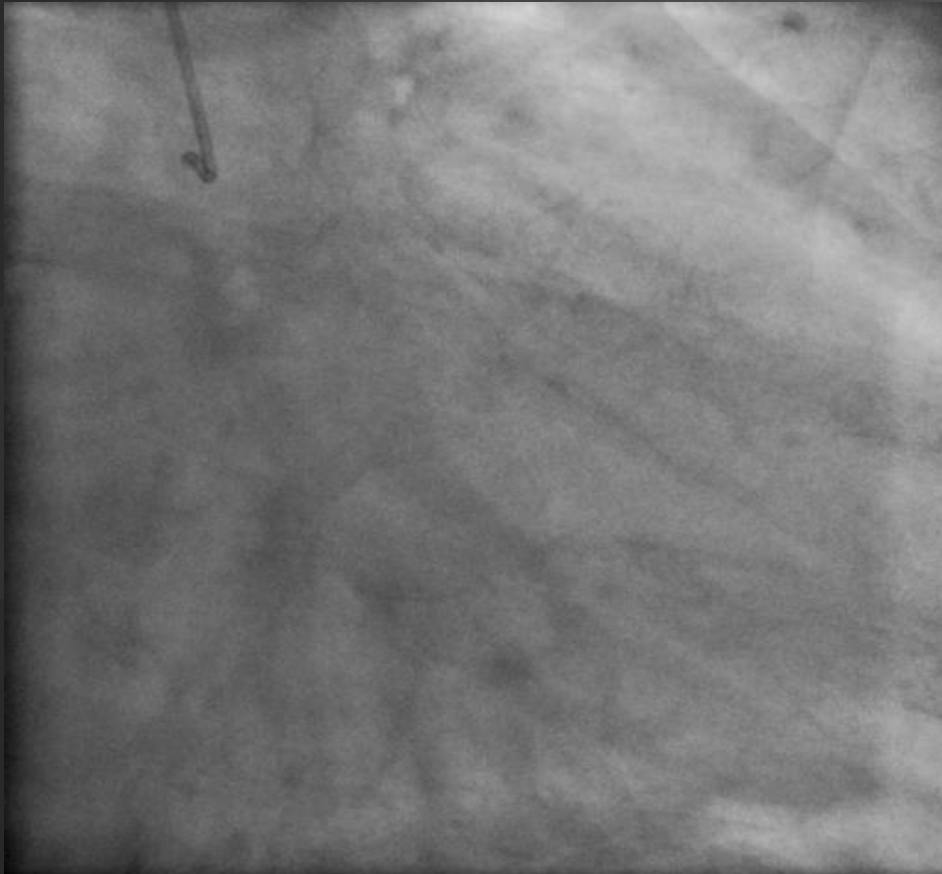
1cm/mV

CAG for UAP

【LCA】

RAO 30 CAU 15

RAO 30 CRA 45

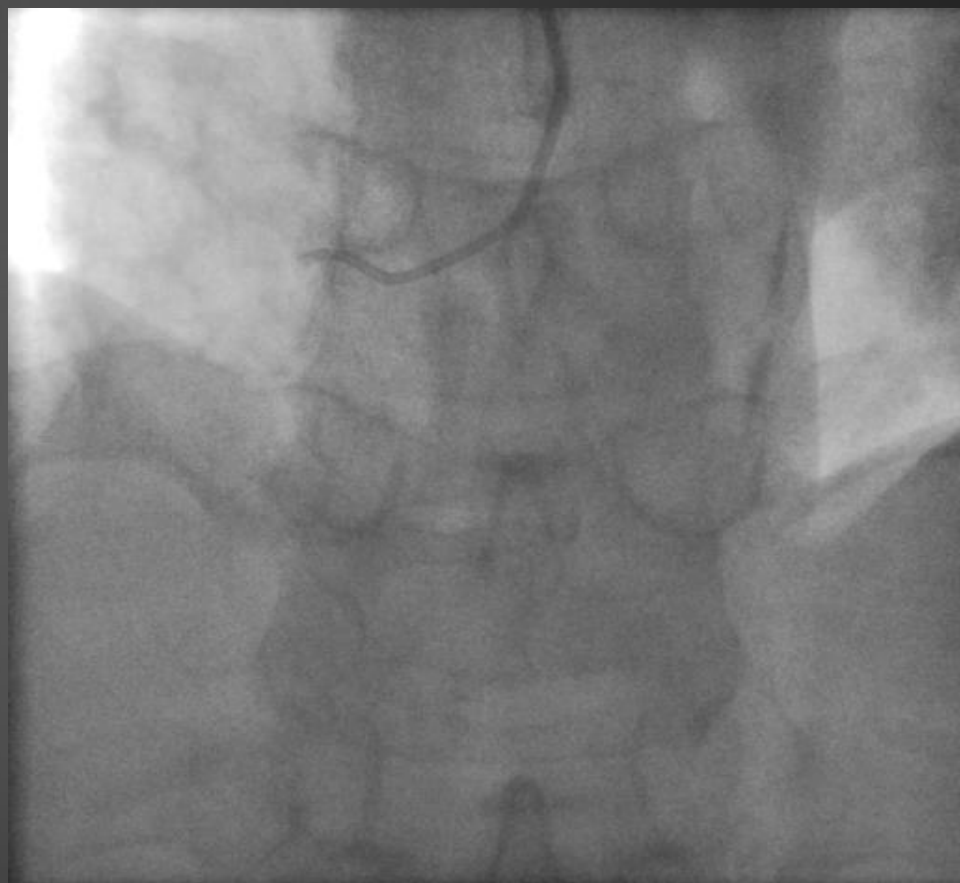
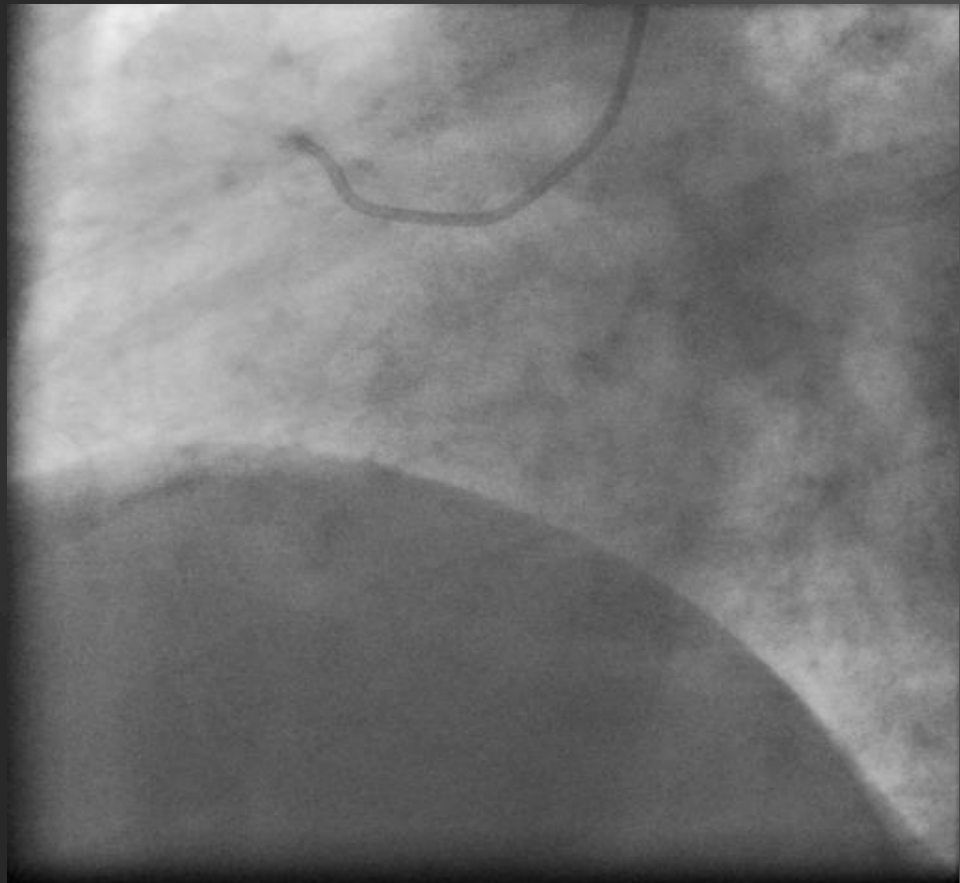


LAD#7 90% Steosis (FFR 0.61)

【RCA】

LAO 45

CRA 30



RCA #3 90% Stenosis (FFR 0.91)

PCI to LAD for UAP (2014/4/21)

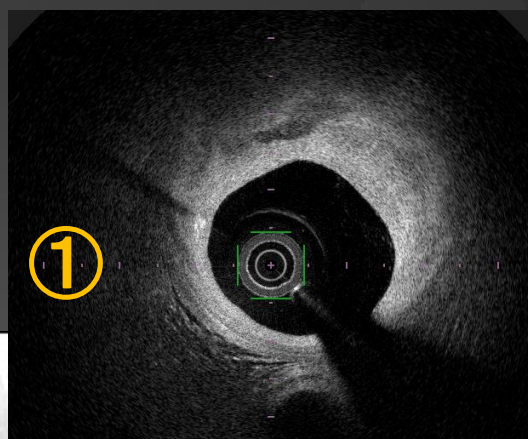
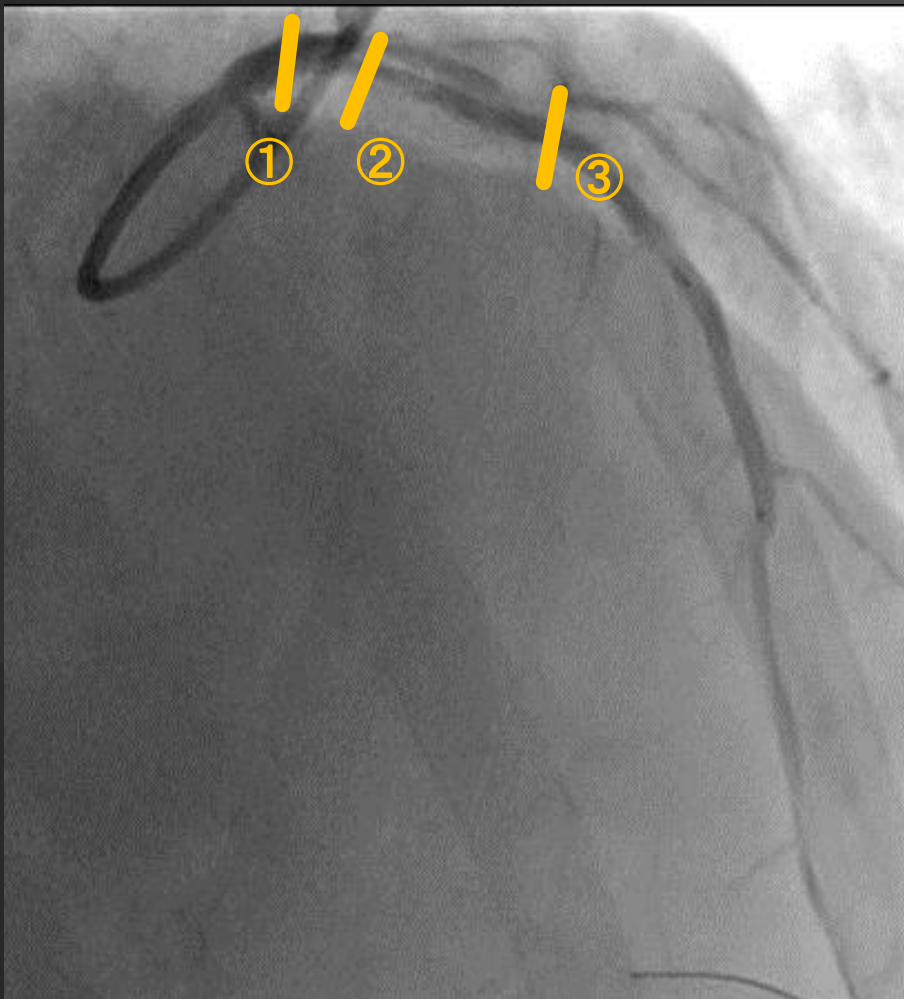


**Approach: Rt.Radial
Artery**

**Guiding Catheter:
6Fr JL 4.0**

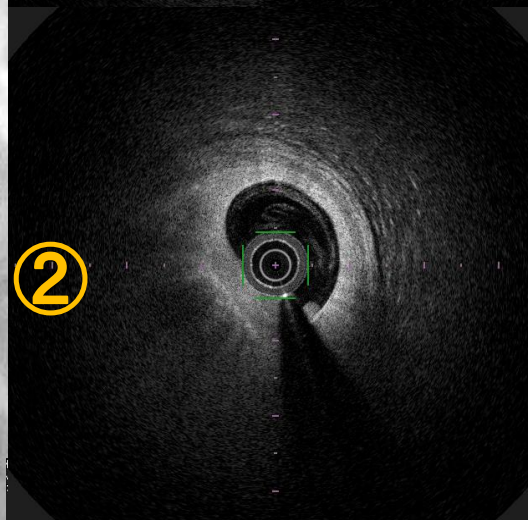
**Guide wire :
ELITE II**

OFDI study (Pre)



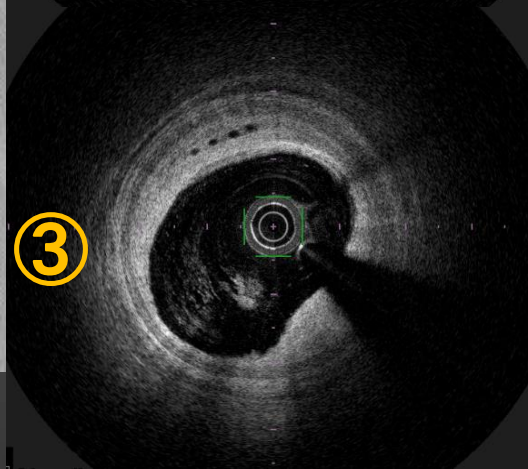
Lumen 2.5mm

Area 4.9mm²



Lumen 1.4mm

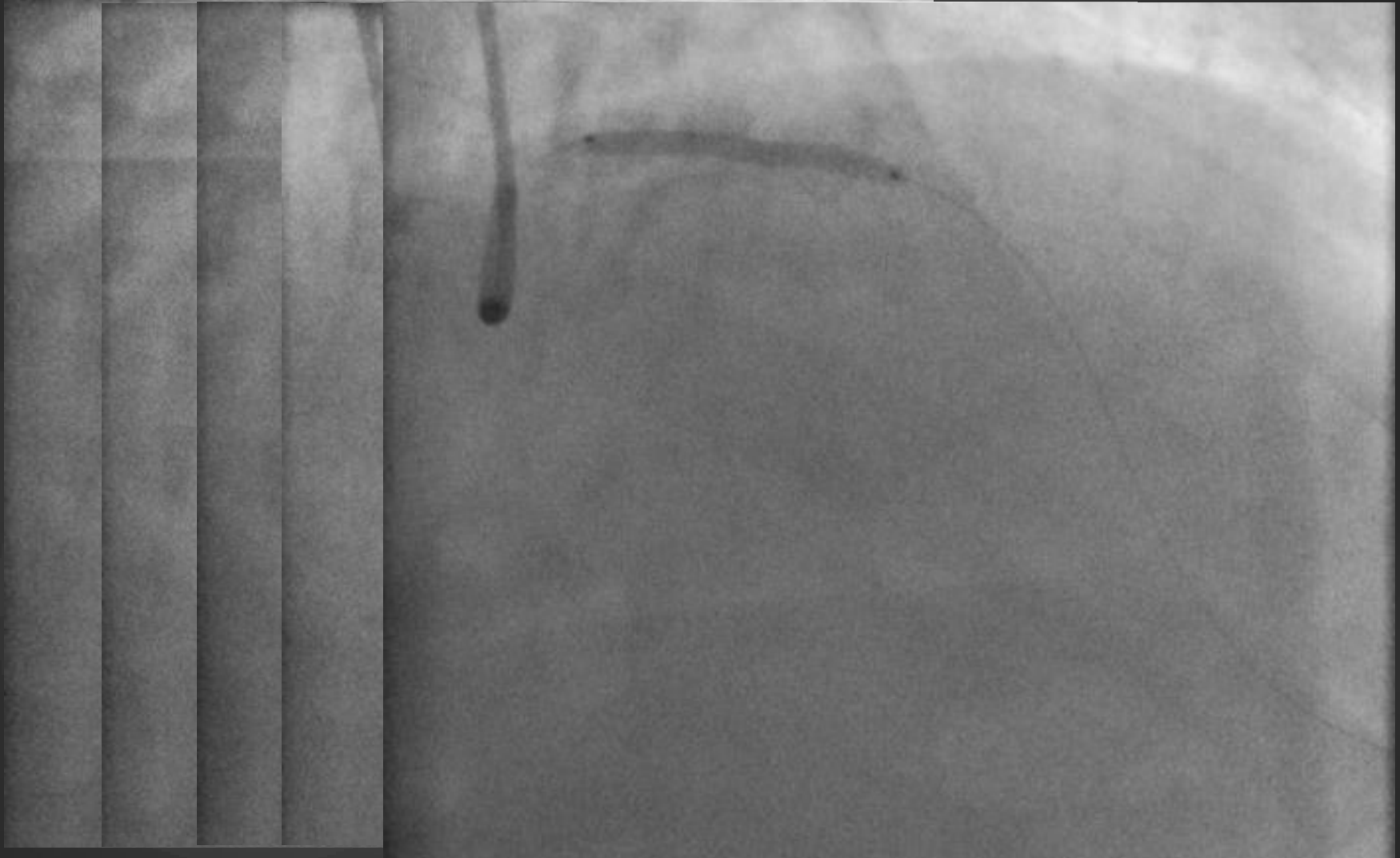
Area 2.0mm²



Lumen 2.7mm

Area 4.6mm²

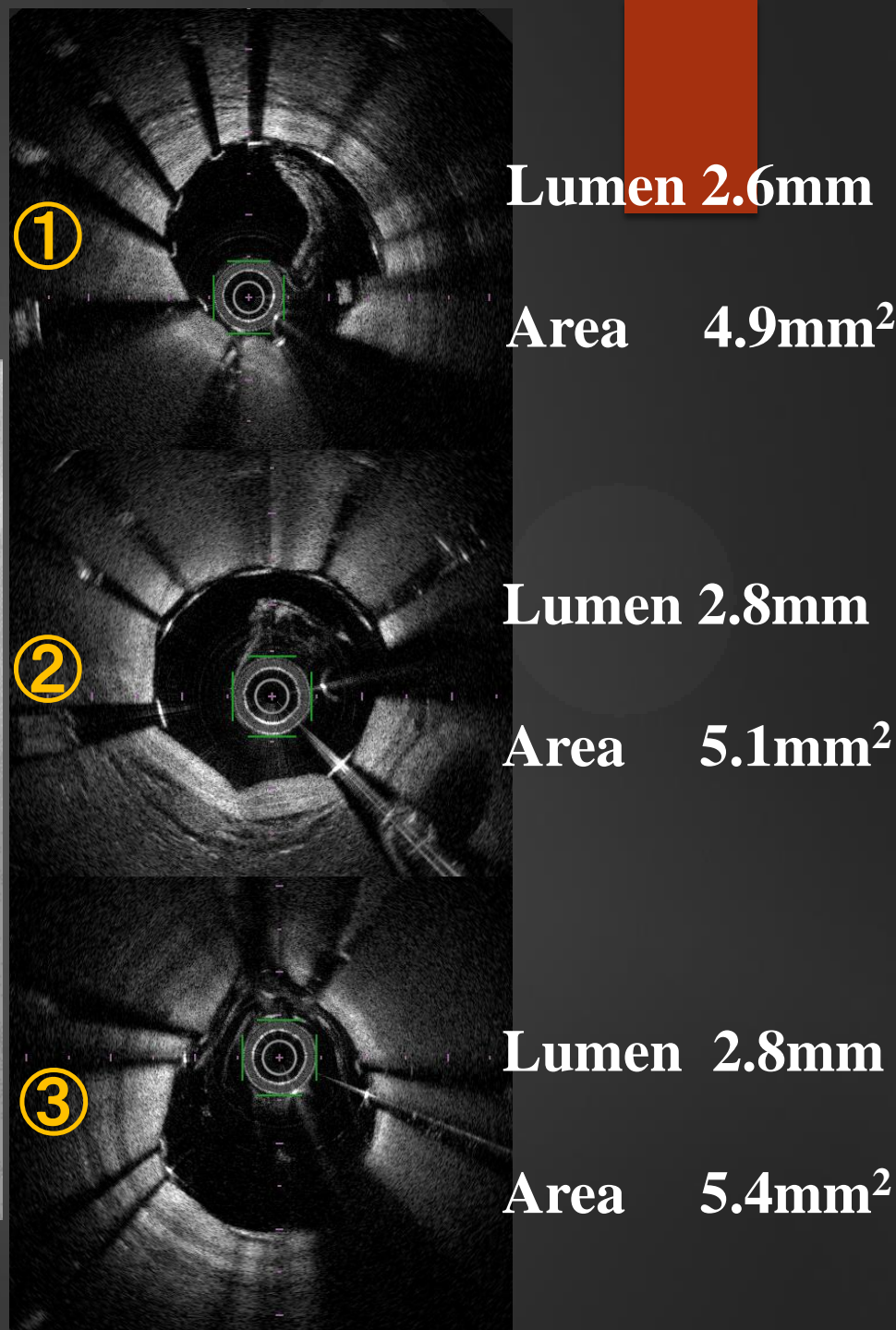
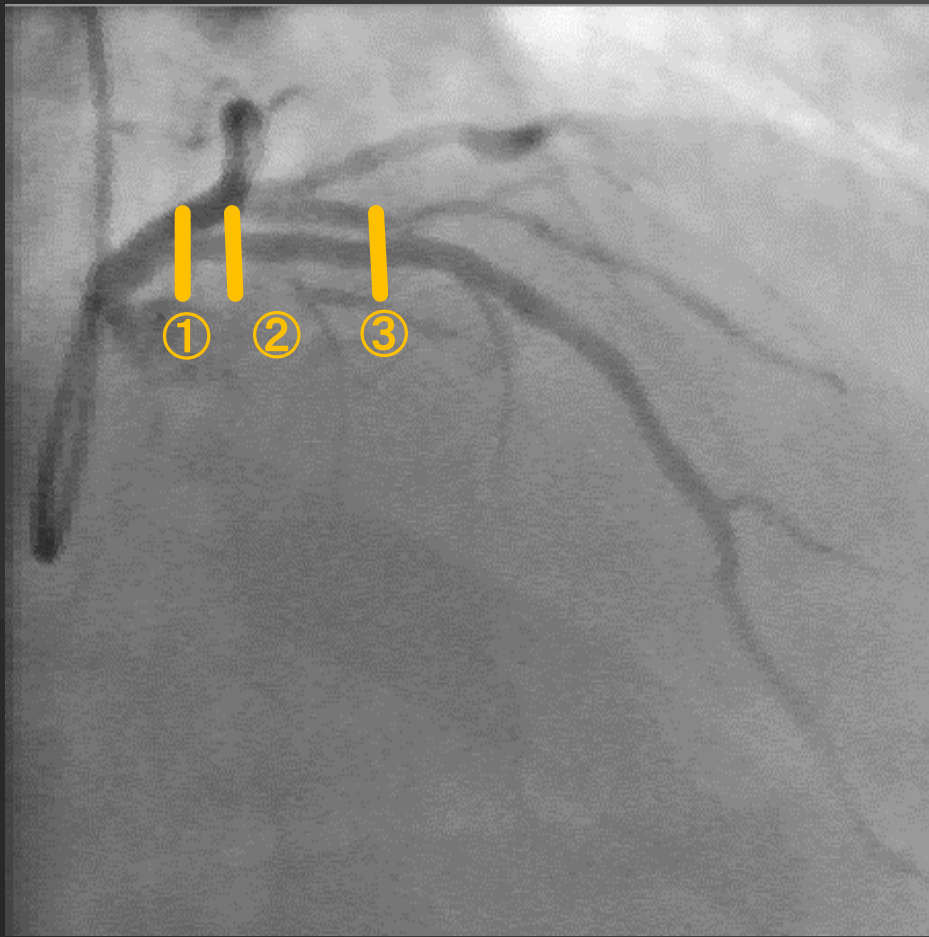
Pre-Dilatation & Stent Implantation



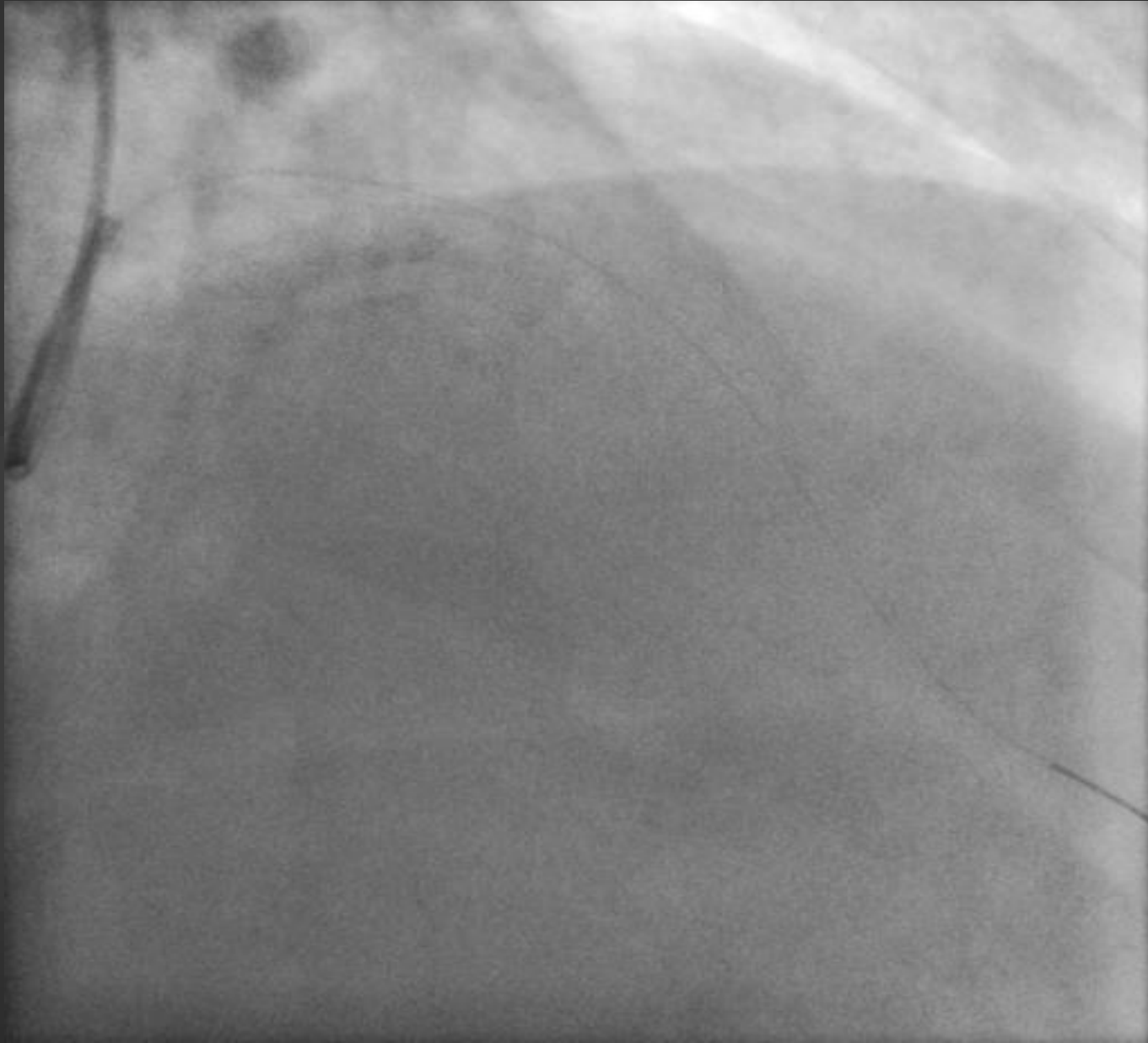
Balloon:Cyclone HP 2.5x10mm

Stent:NOBORI 2.5x28mm

OFDI study (Post stent implantation)



Final Angiography

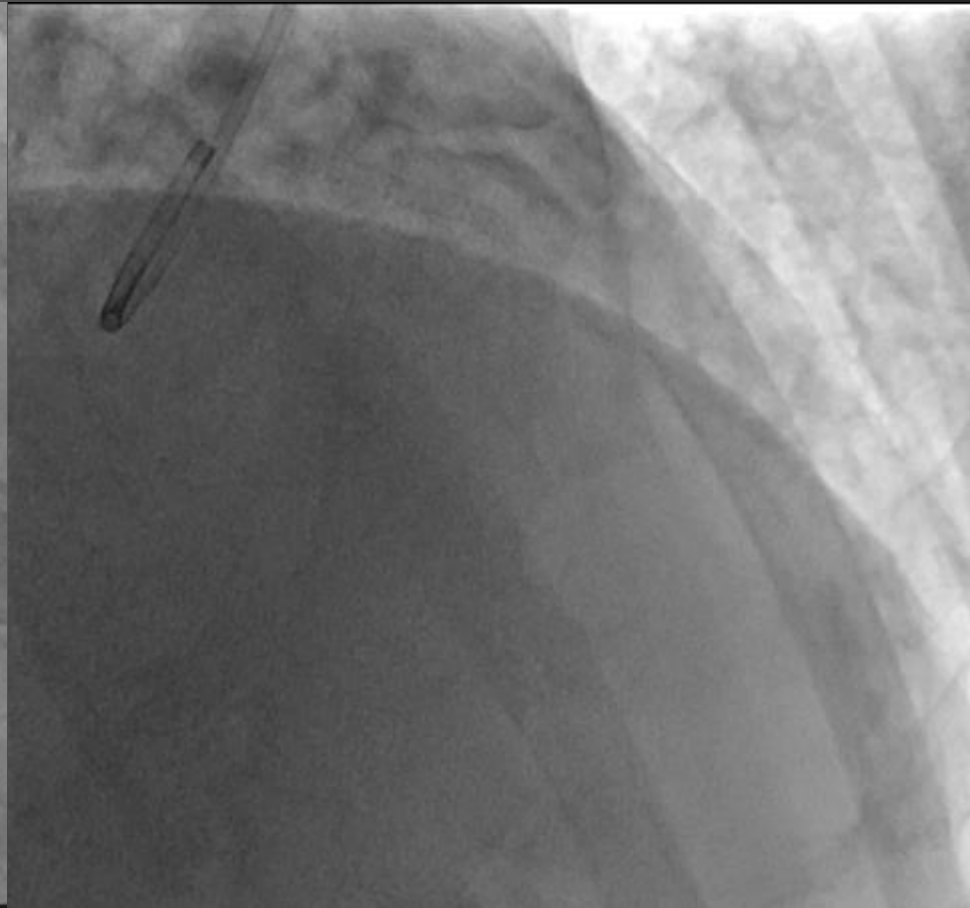
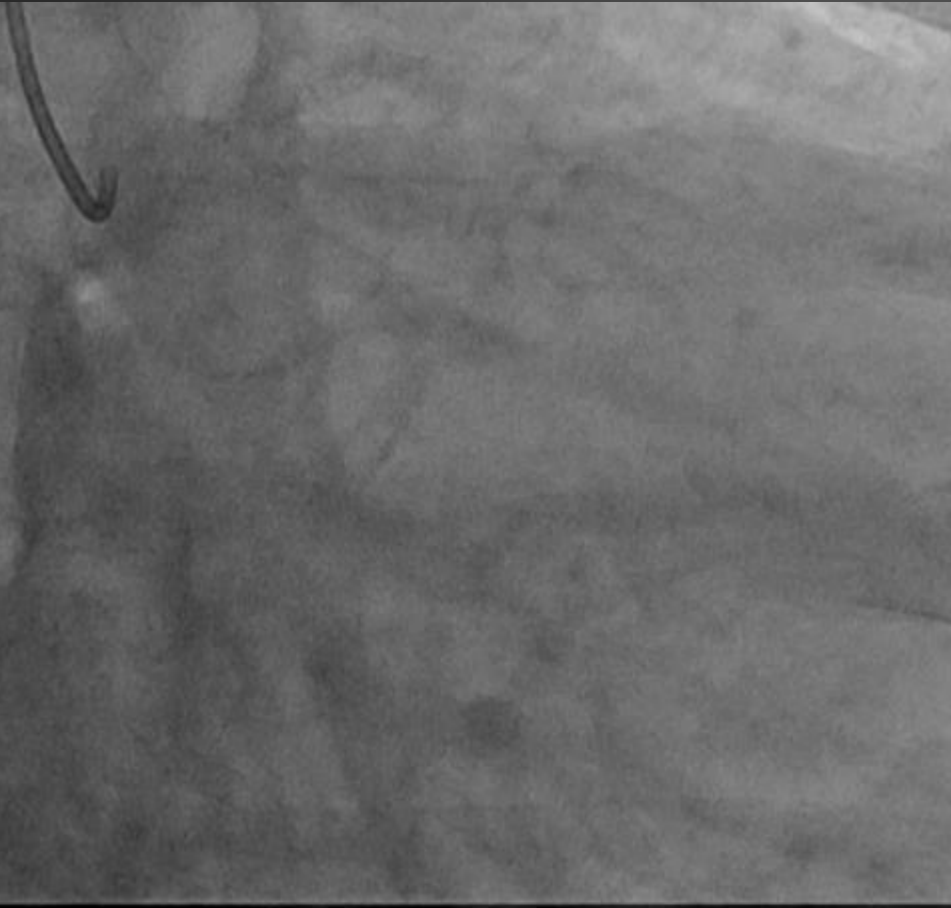


CAG for SAT (2014/4/24)

【LCA】

RAO 30 CAU 15

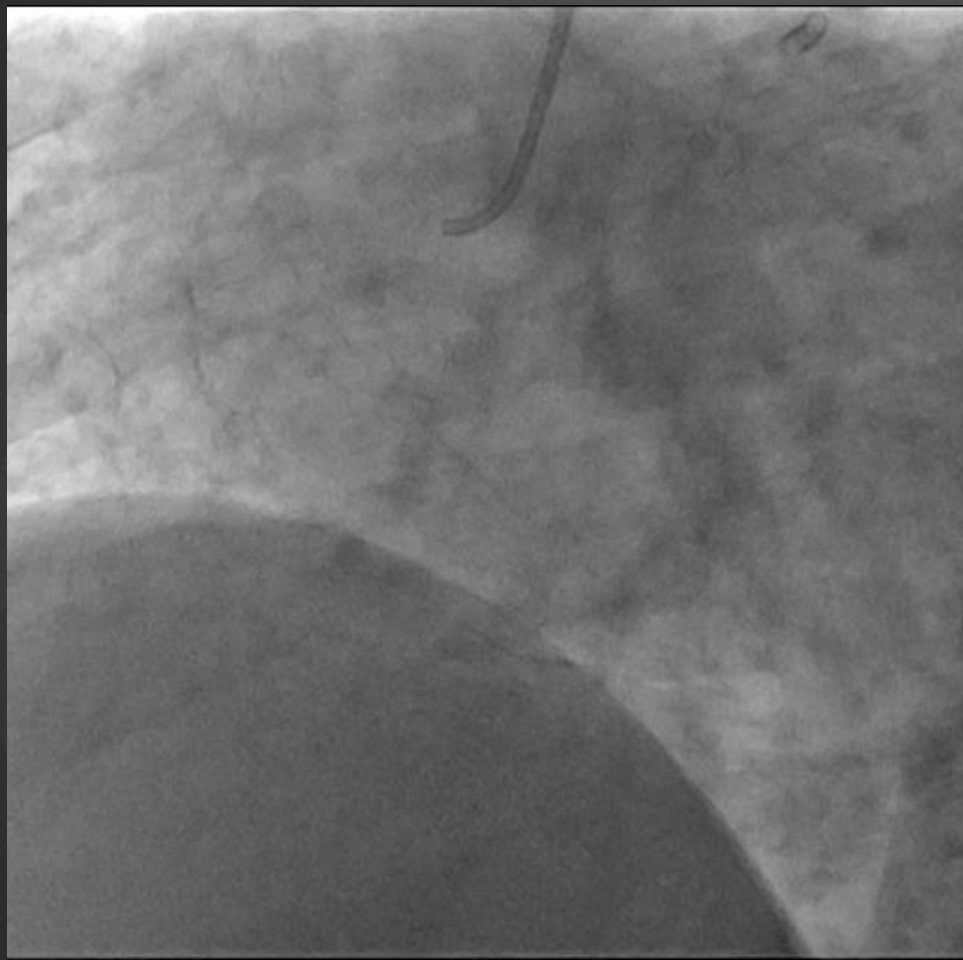
RAO 30 CRA 45



LAD#6 100% (Subacute stent thrombosis)

【RCA】

LAO 45



RCA #3 90% Stenosis

PCI to LAD for SAT (2014/4/21)



Approach:

Rt.Femoral Artery

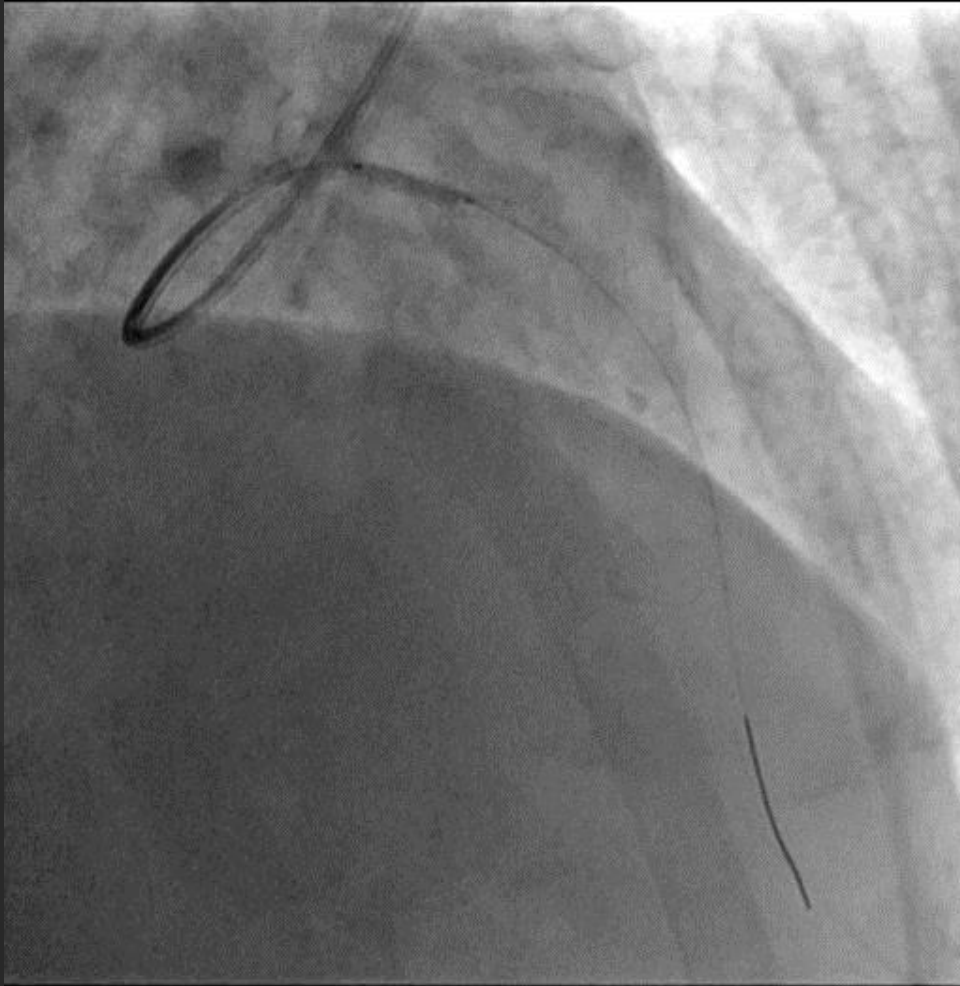
Guiding Catheter:

7Fr JL 4.0

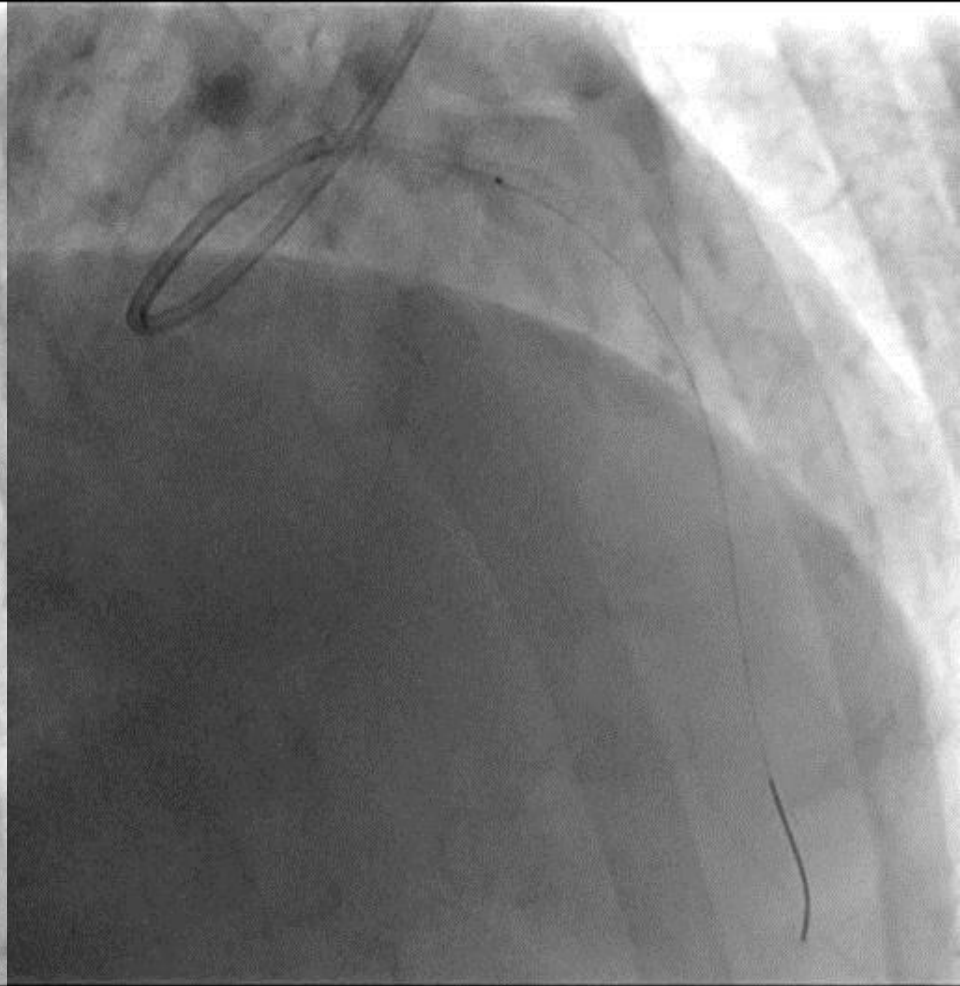
Guide wire :

ELITE II

POBA and Thrombectomy

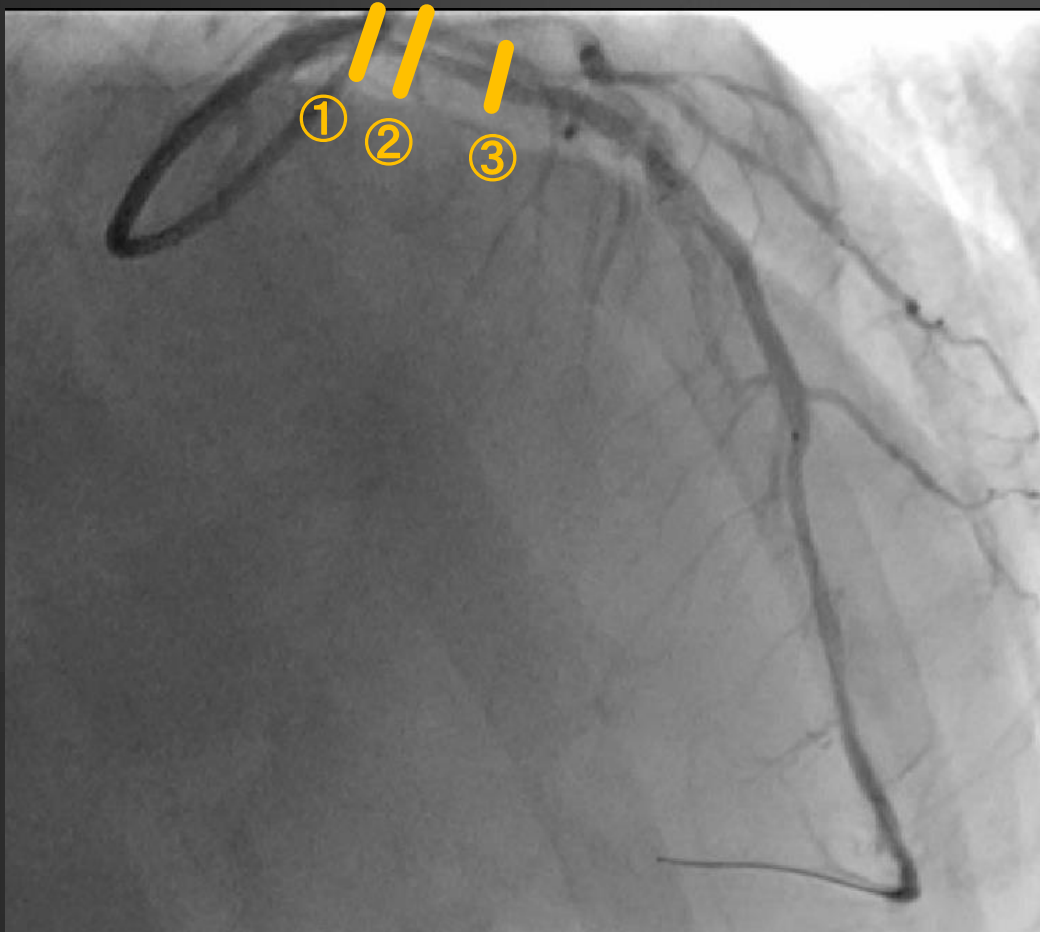


Balloon: Sapphire Π 2.0x15mm

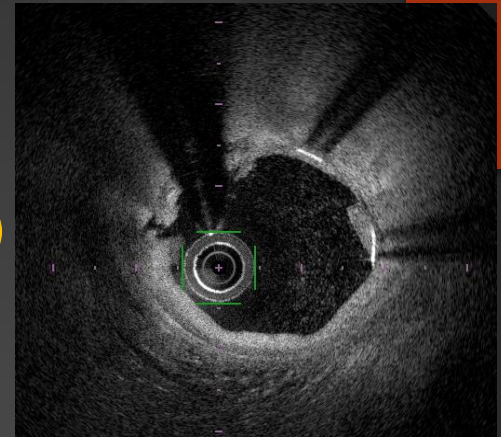


**Thrombectomy:
6Fr ExportAdvance**

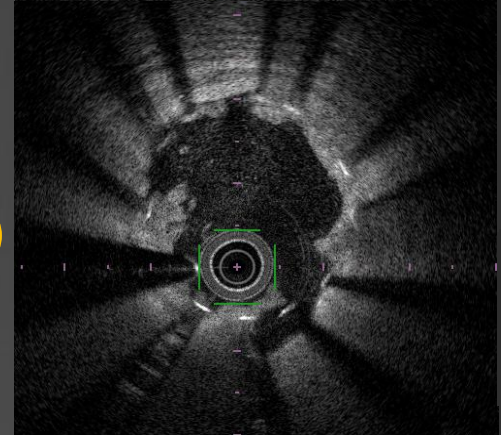
OFDI study



①



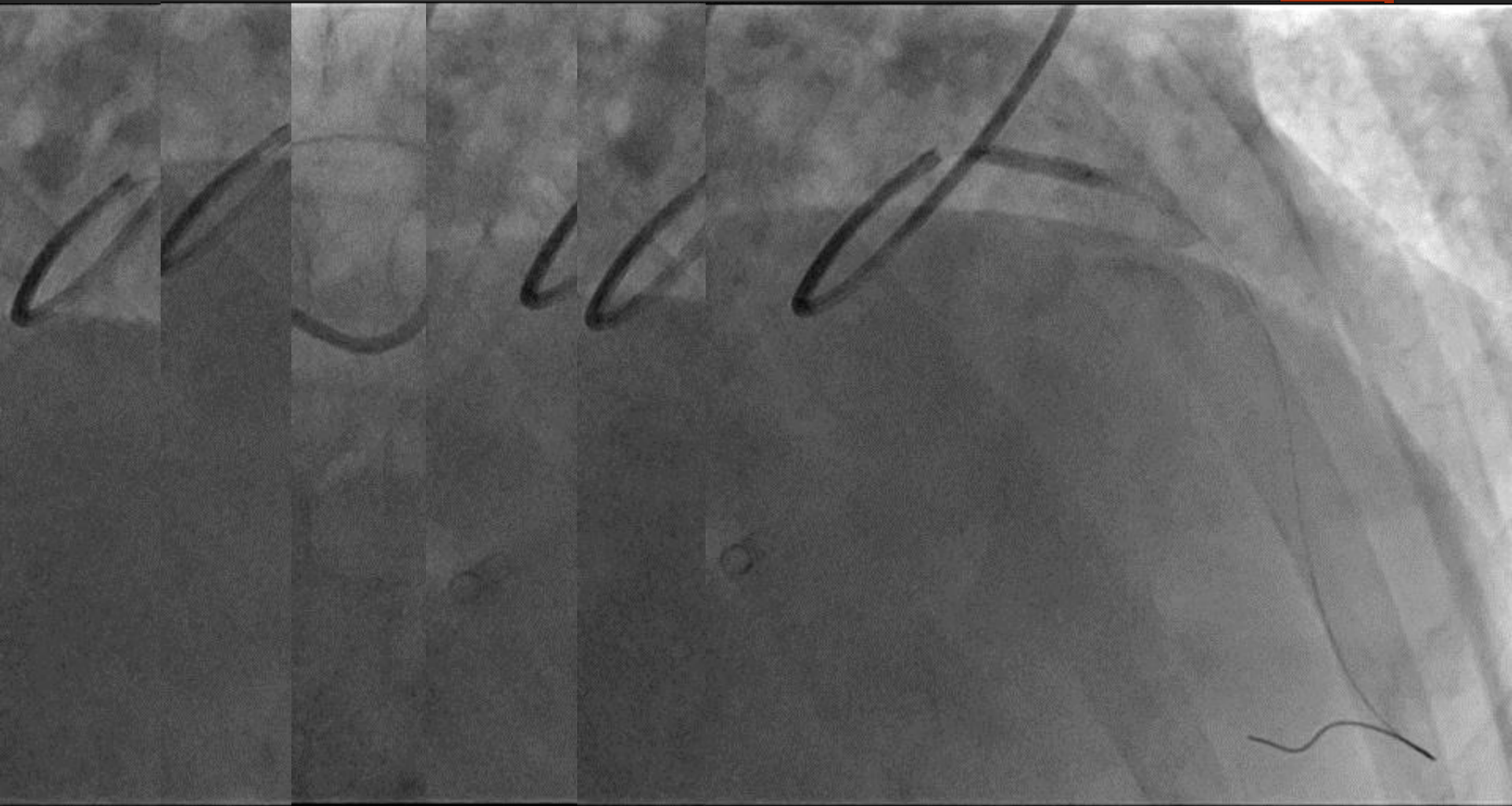
②



③

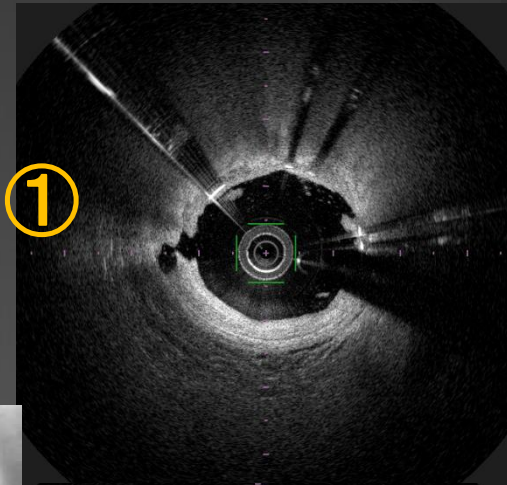


POBA



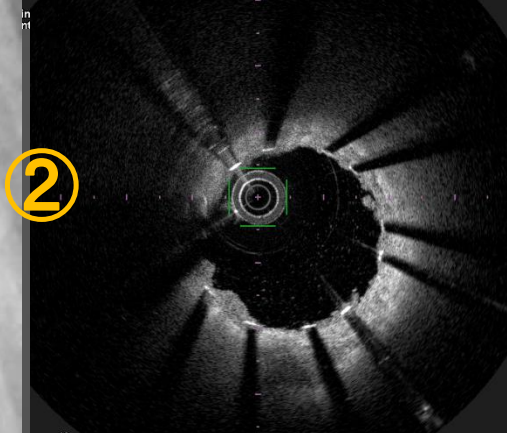
Baloo:Hiryu plus 2.75x15mm Baloo:TREK 3.0x15mm

OFDI study (Post POBA)



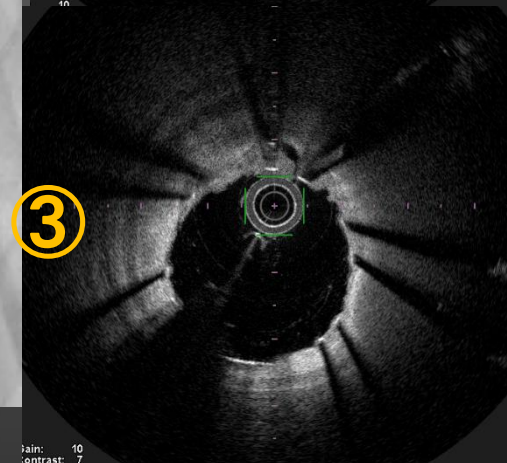
Lumen 2.6mm

Area 5.3mm²



Lumen 2.9mm

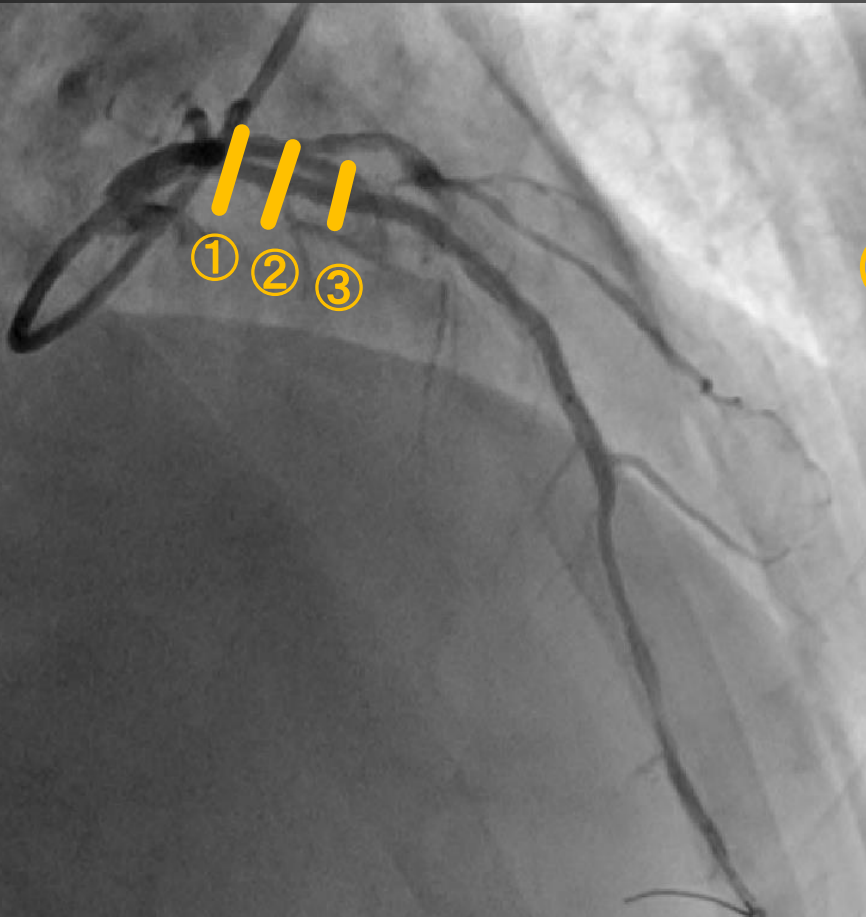
Area 6.1mm²



Lumen 2.9mm

Area 6.0mm²

Gain: 10
Contrast: 7

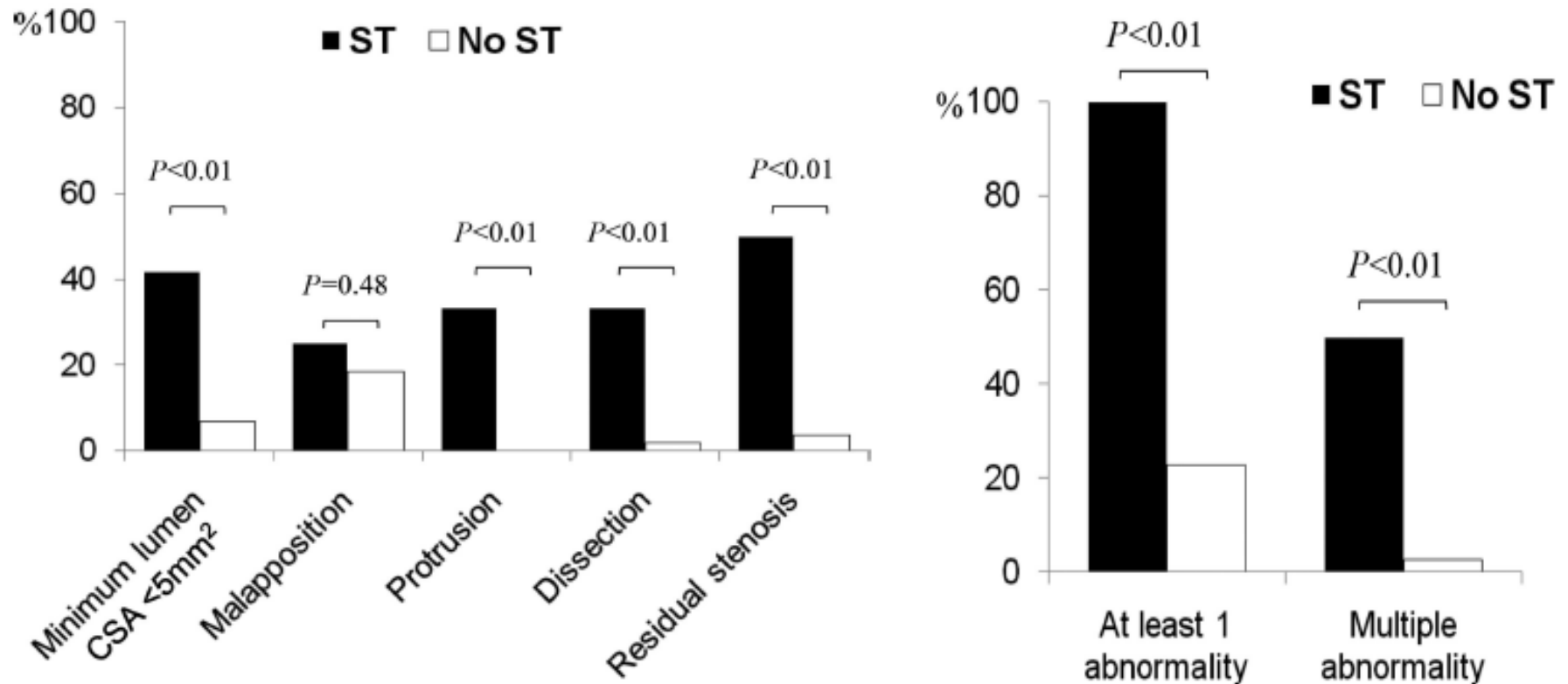


Final Angiography



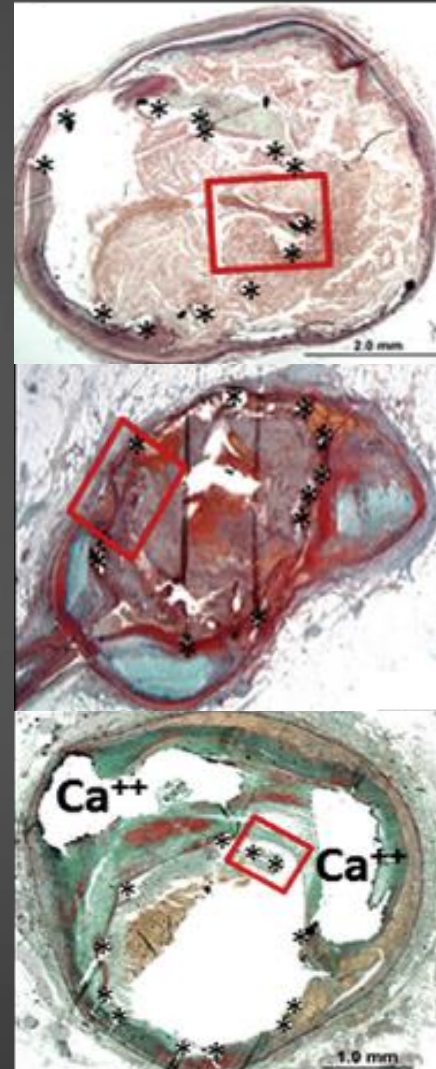
Discussion

Causes of early stent thrombosis with acute coronary syndrome (IVUS finding)



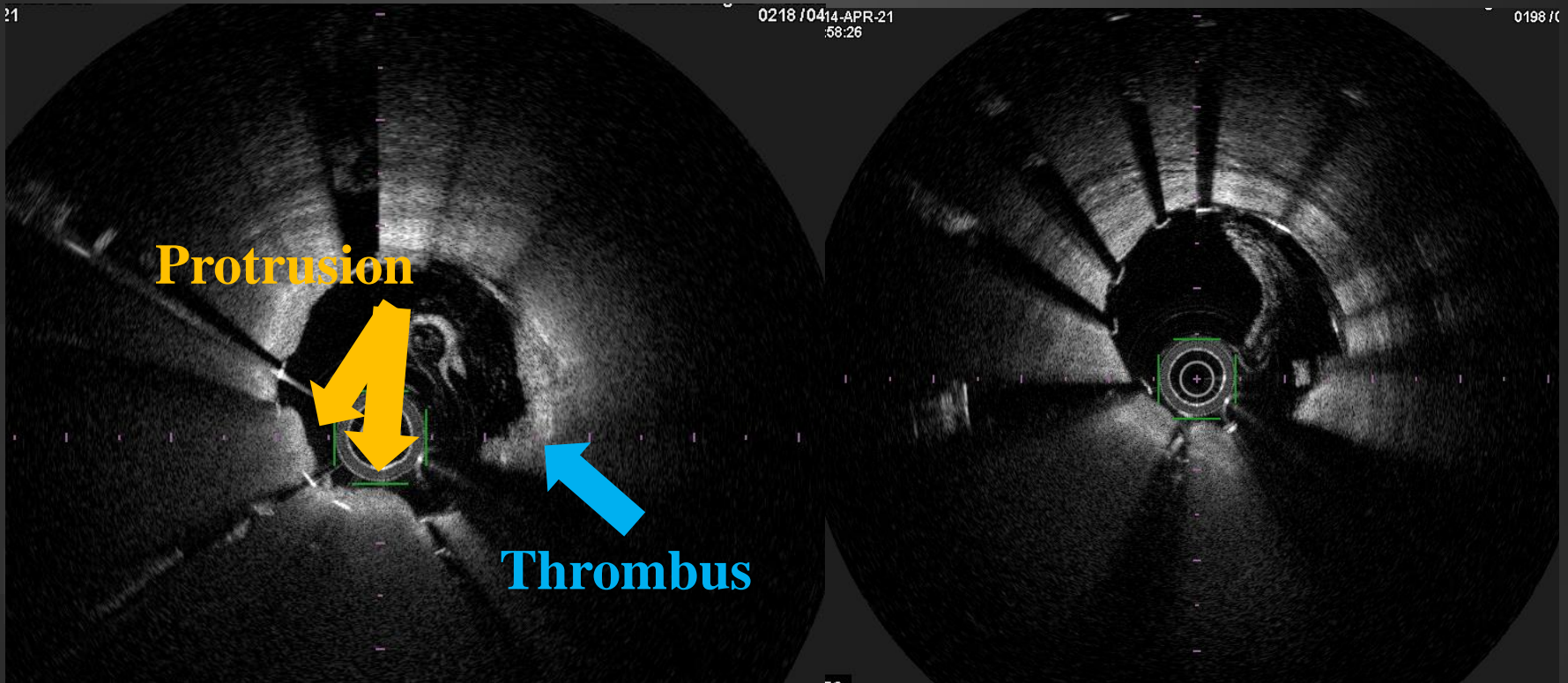
Causes of early stent thrombosis with acute coronary syndrome

- Necrotic core prolapse
- Medial Tear
- Incomplete apposition



This case

OFDI (Post stent implantation)



Protrusion

Minimum stent Area
4.9mm² (< 5mm²)

Conclusion

We experienced subacute stent thrombosis 3 days after Nobori stent implantation.