



*Absinsing Hong*

Recurrence Of Angina Pectoris  
After Bioabsorbable Scarffold Stenting  
In ST-elevation Acute Myocardial Infarction  
**2<sup>nd</sup> Complex PCI in Seoul**

Chon-Seng Hong M.D.  
Chi-Mei Medical Center  
30 Nov, 2017

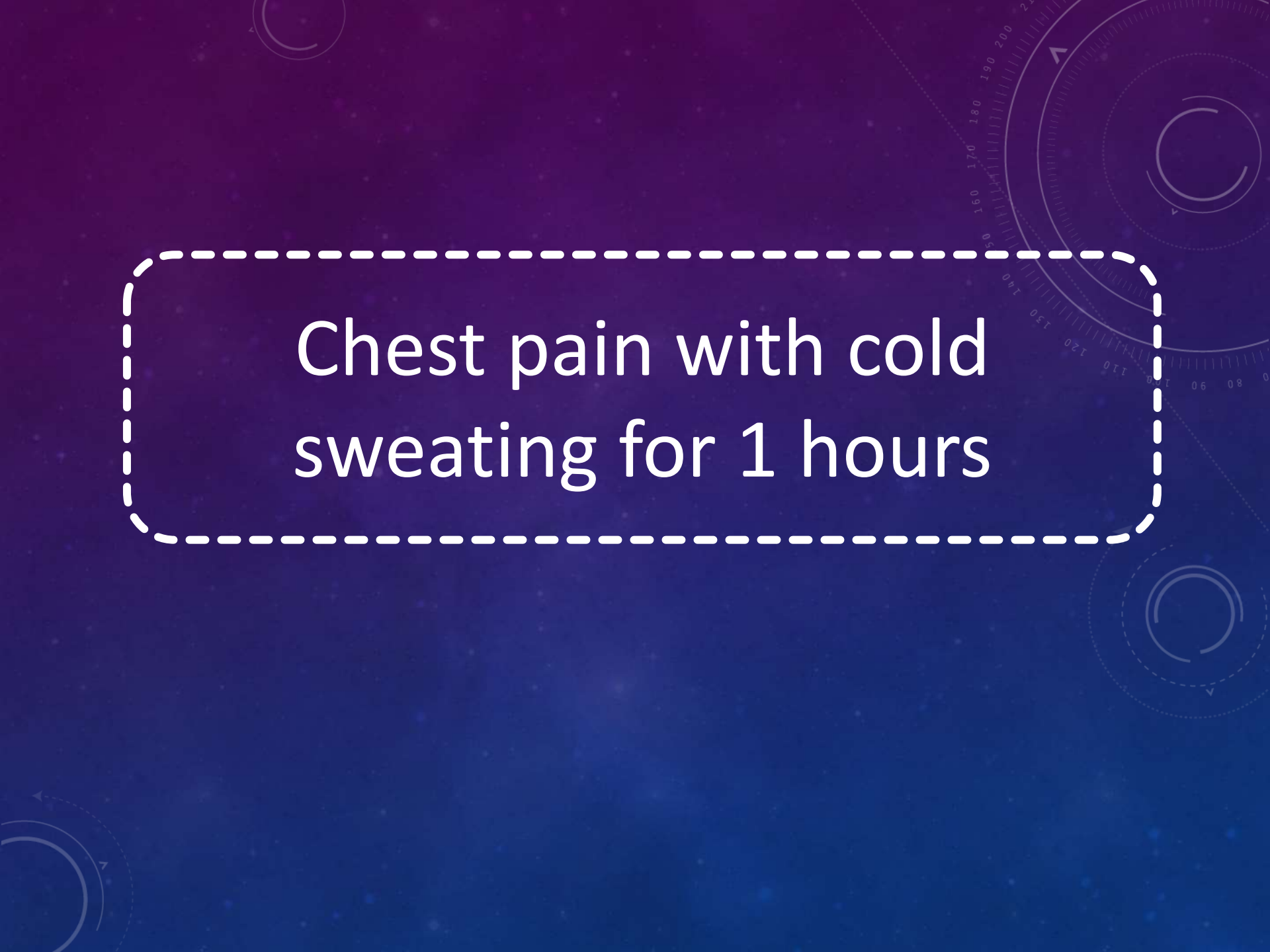


# Case

45 y/o male  
Essential thrombocytopenia

CVD family history: Nil

Smoking: Nil

The background is a dark blue gradient with faint, semi-transparent circular gauges and arrows, suggesting a medical or scientific theme. A prominent white dashed border frames the central text.

Chest pain with cold  
sweating for 1 hours



# Intial EKG



Rate 67  
RR 896  
PR interval 184  
QRSD 102  
QT 452  
QTc 478  
..... AXIS .....  
P 45  
QRS 46  
T 42

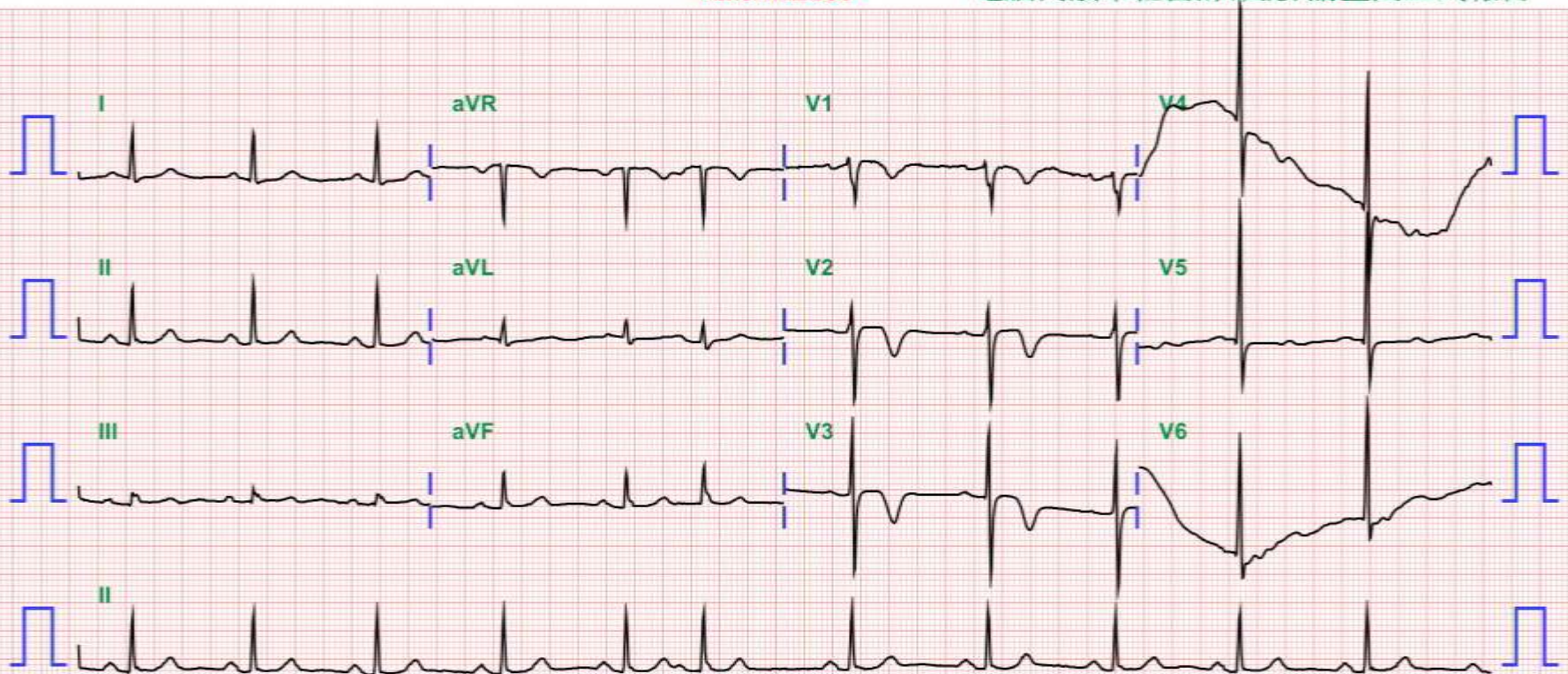
**AGE IS NOT ENTERED, ASSUMED TO BE 50 YEARS OLD FOR PURPOSE OF ECG INTERPRETATION**  
**SINUS RHYTHM**.....normal P axis, V-rate 50- 99  
**ATRIAL PREMATURE COMPLEX**.....SV complex w/ short R-R interval  
**REPOL ABNRM SUGGESTS ISCHEMIA, DIFFUSE LEADS**.....ST-T neg, ant/lat/inf

[ UID : 315615300012101 ]

[ PID : 31561530 / Date : 2016-04-30 ]

電腦判讀未經醫師確認, 請查閱正式報告。

- ABNORMAL ECG -





# 23 mins later... still chest pain



Rate 80  
RR 750  
PR interval 160  
QRSD 94  
QT 356  
QTc 411  
..... AXIS .....  
P 36  
QRS 2  
T -23

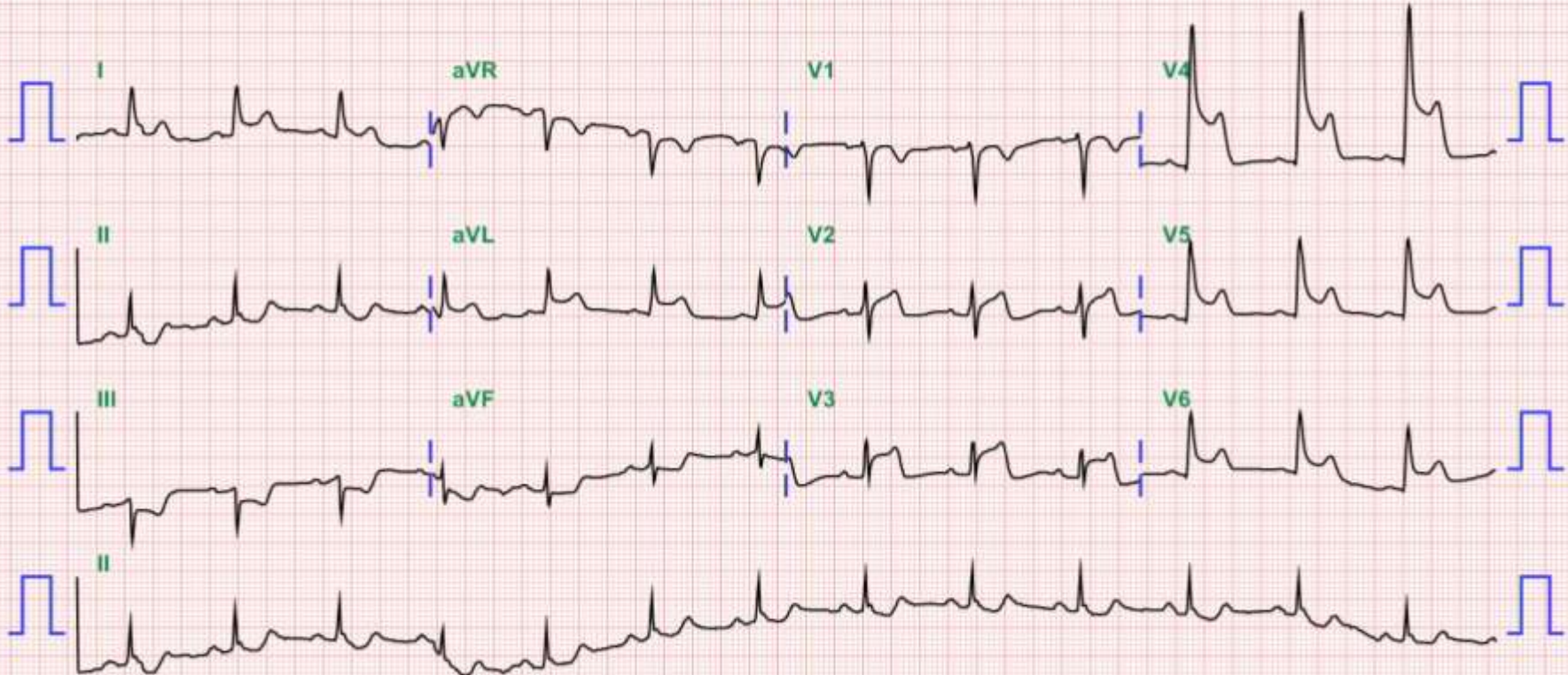
AGE IS NOT ENTERED, ASSUMED TO BE 50 YEARS OLD FOR PURPOSE OF ECG INTERPRETATION  
SINUS RHYTHM.....normal P axis, V-rate 50-99  
ANTEROLATERAL INFARCT, ACUTE.....Q >35mS, ST >0.20mV, V2-V6

[ UID : 315615300016101 ]

[ PID : 31561530 / Date : 2016-04-30 ]

電腦判讀未經醫師確認, 請查閱正式報告。

- ABNORMAL ECG -



**STEMI** of anterior wall

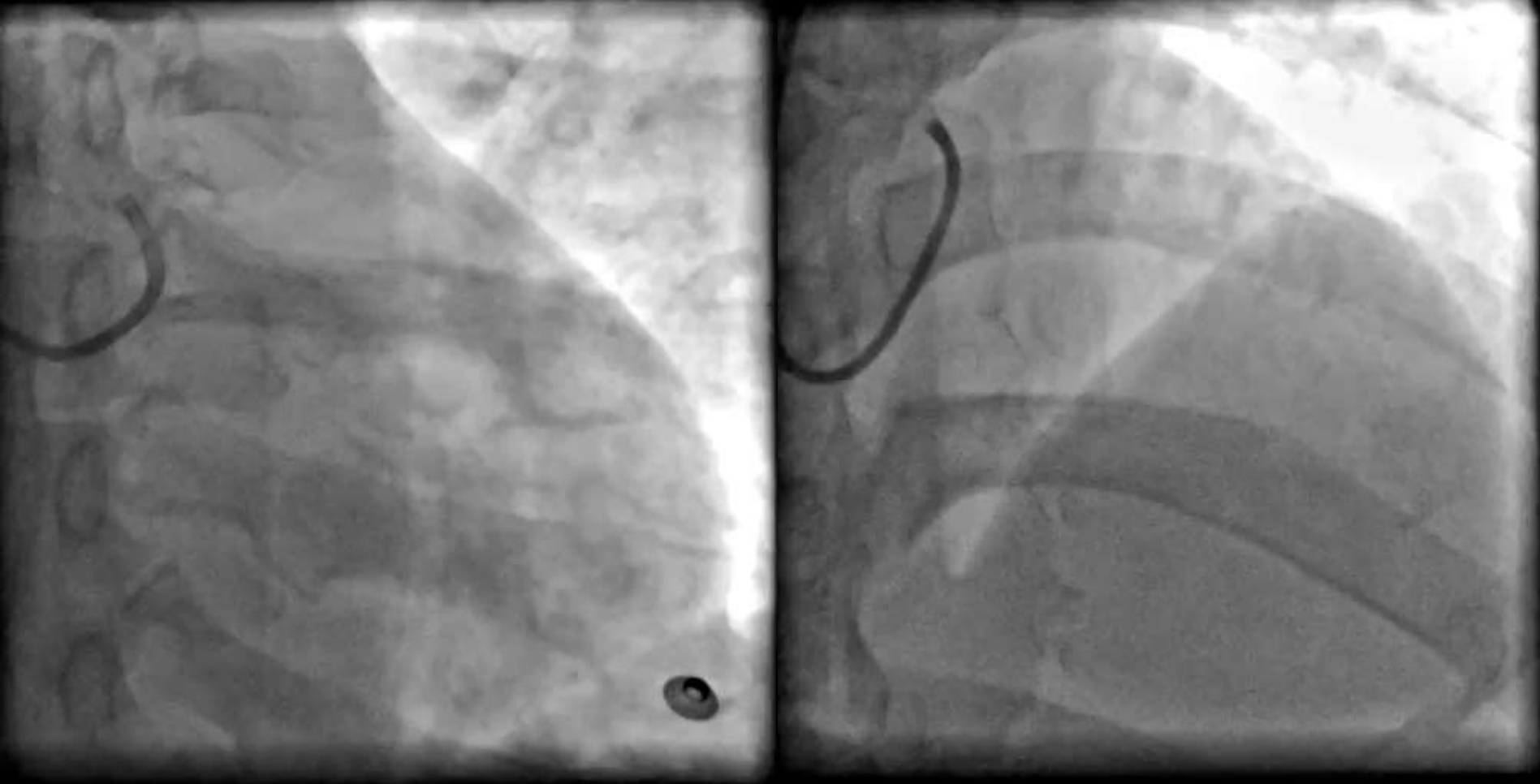


Primary **PCI**

# Right coronary artery

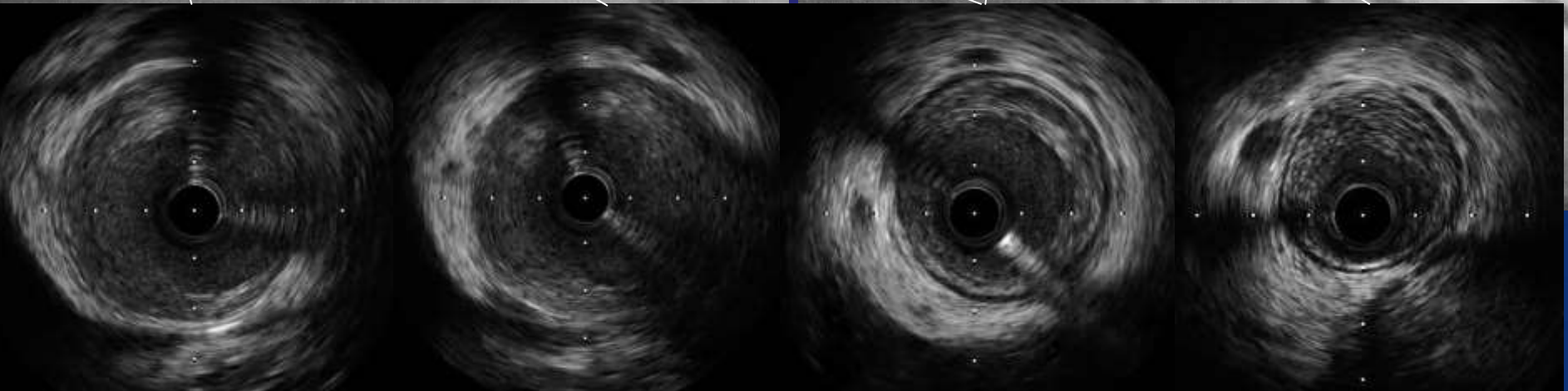
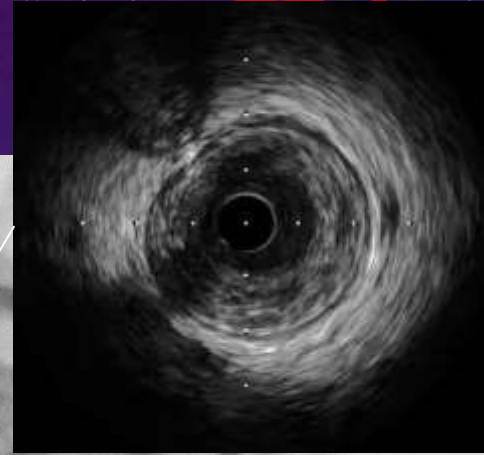
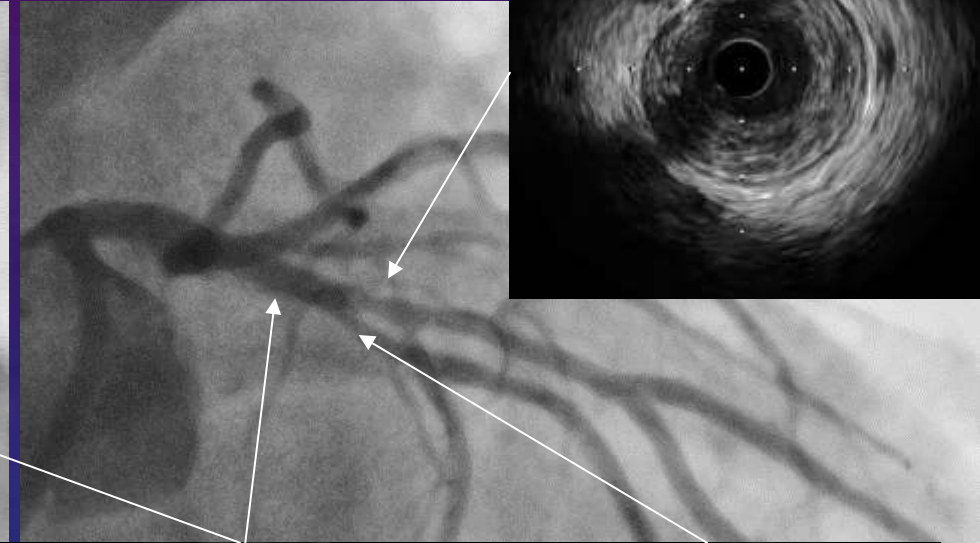
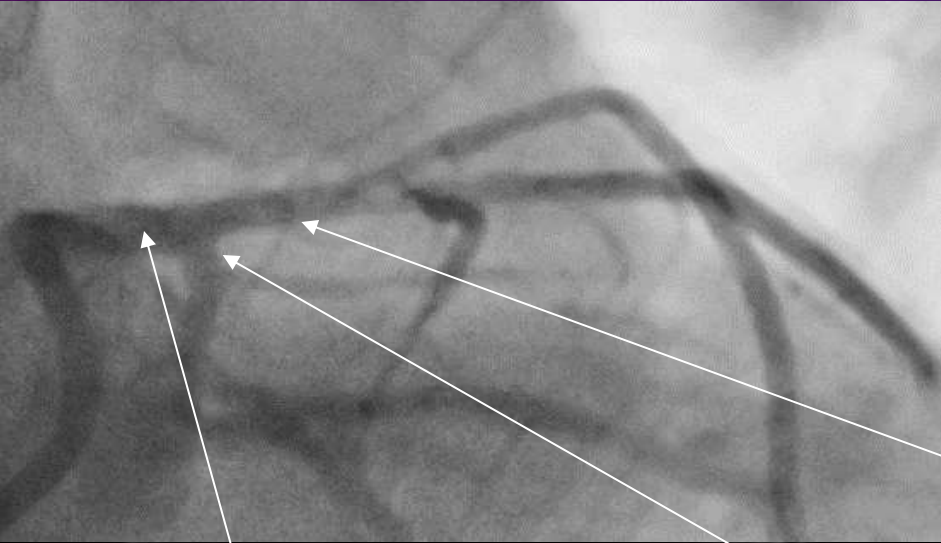


# Left coronary artery





# Target: LAD bifurcation



# Provisional 1 stent



BRS

Patient: I want **BRS!**

2 stent or 1 stent ?

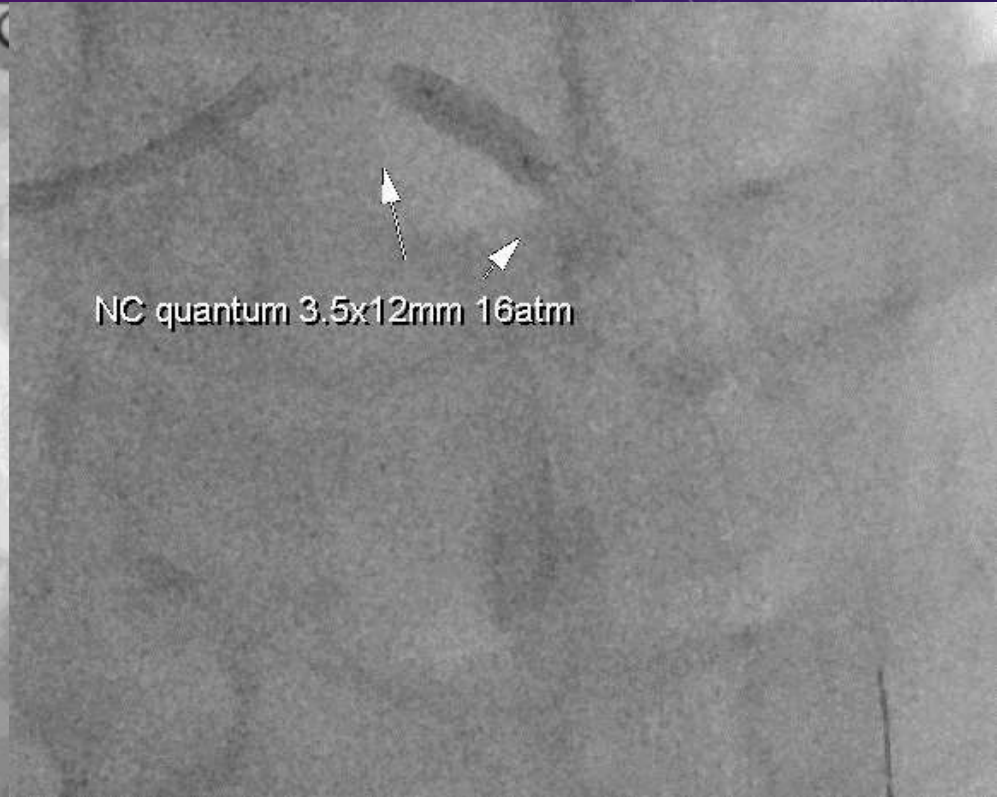
# Predilated with maverick balloon 2.5x15mm 10ATM & 14 ATM



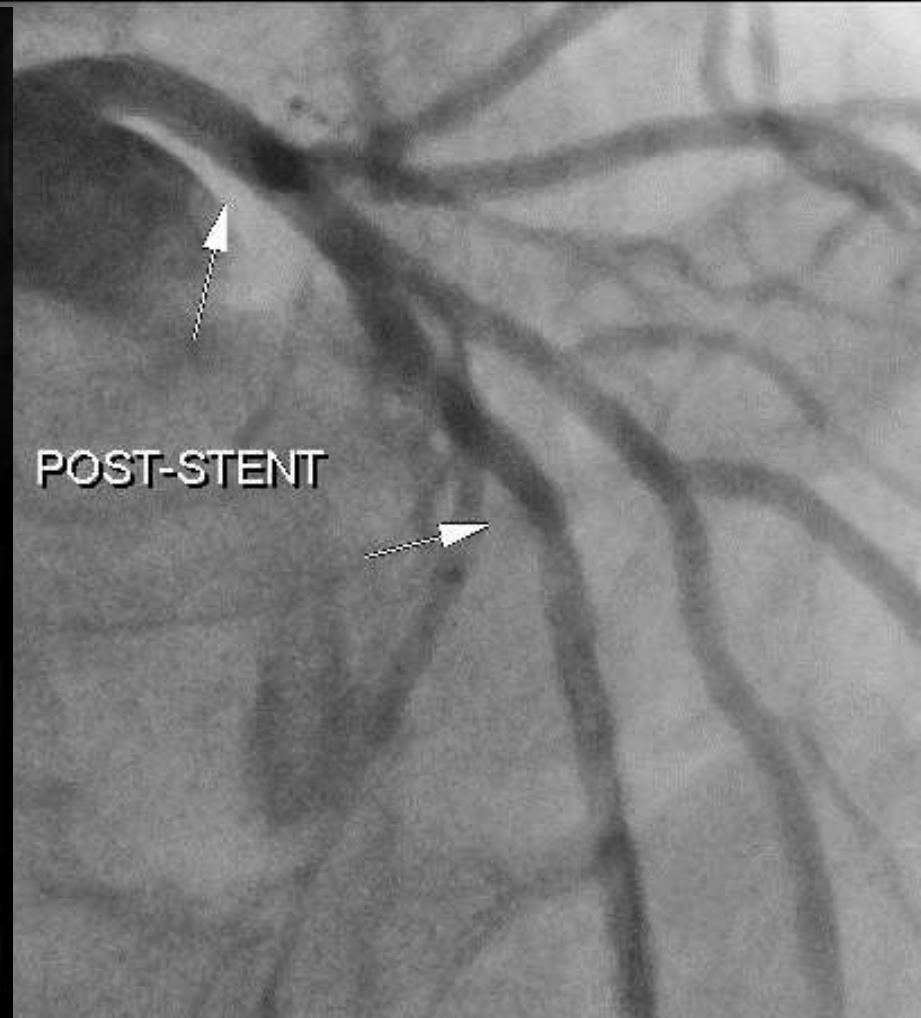


# Abbott BRS 3.0x23mm 12 atm

## POT: NC quantum 3.5x12mm 16atm



# Final





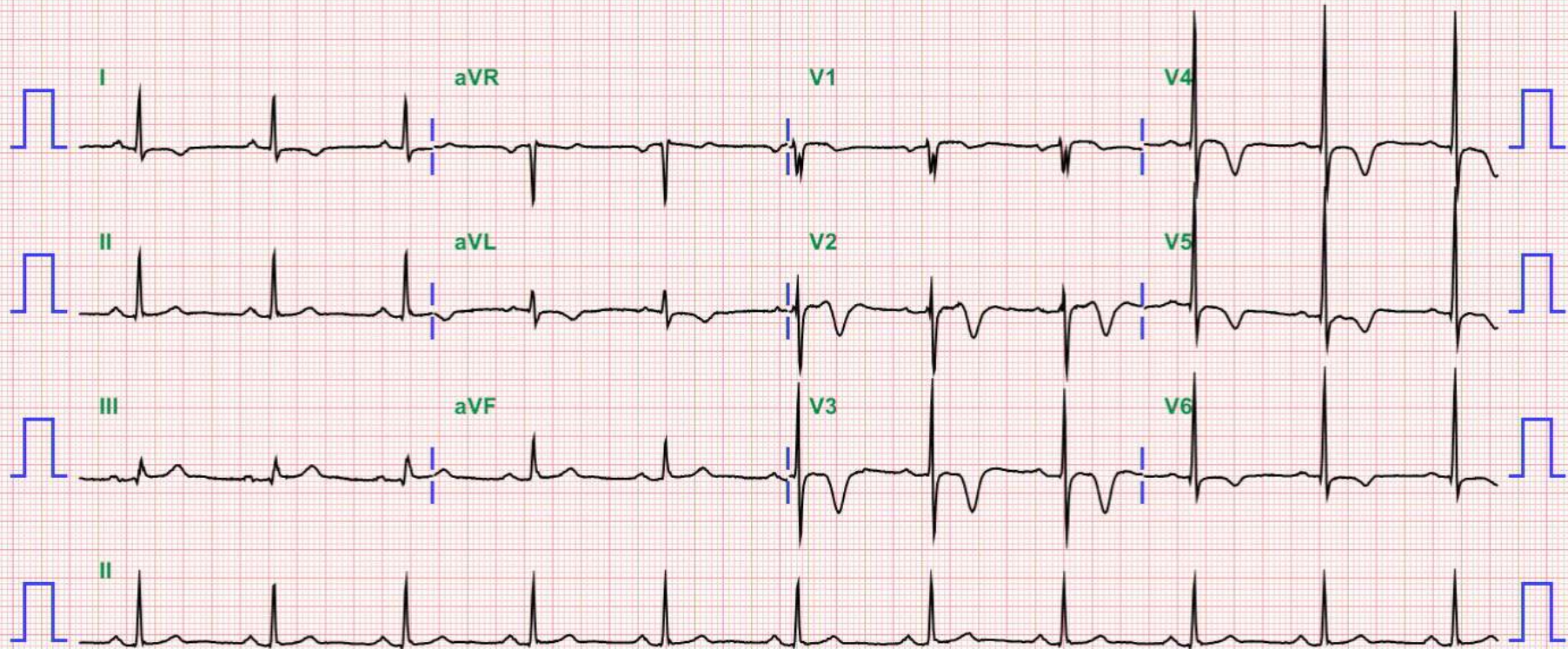
# EKG post BRS stenting Day 1



Rate	64	<b>** abnormal ECG **</b>
RR	938	<b>Sinus rhythm</b>
PR interval	184	<b>Minimal ST depression</b>
QRSD	98	<b>Twave abnormality, consistent with anterolateral ischemia</b>
QT	420	
QTc	430	
..... <b>AXIS</b> .....		
P	45	
QRS	48	
T	113	

[ UID : 315615300030103 ]

[ PID : 31561530 / Date : 2016-05-01 ]





Lab data	
Hb1Ac	6.3%
LDL	88mg/dL
Platelet	640,000 /uL

# Medications

- Aspirin (100mg) 1 CP QD PO 7 7 CP
- Ticagrelor(90mg). 1 TB BID PO 7 14 TB
- Carvedilol (6.25mg). 1 TB BID PO 7 14 TB
- Atorvastatin (40mg) 1 TB QD PO 7 7 TB
- Perindopril (4mg) 1 TB QD PO 7 7 TB
- Pantoprazole (40mg). 1 TB QD PO 7 7 TB

However, **Angina Recurrence**

**Angina** attacked at early morning.

Same episode at resting in the evening.

5-7 am, 2-3 mins.

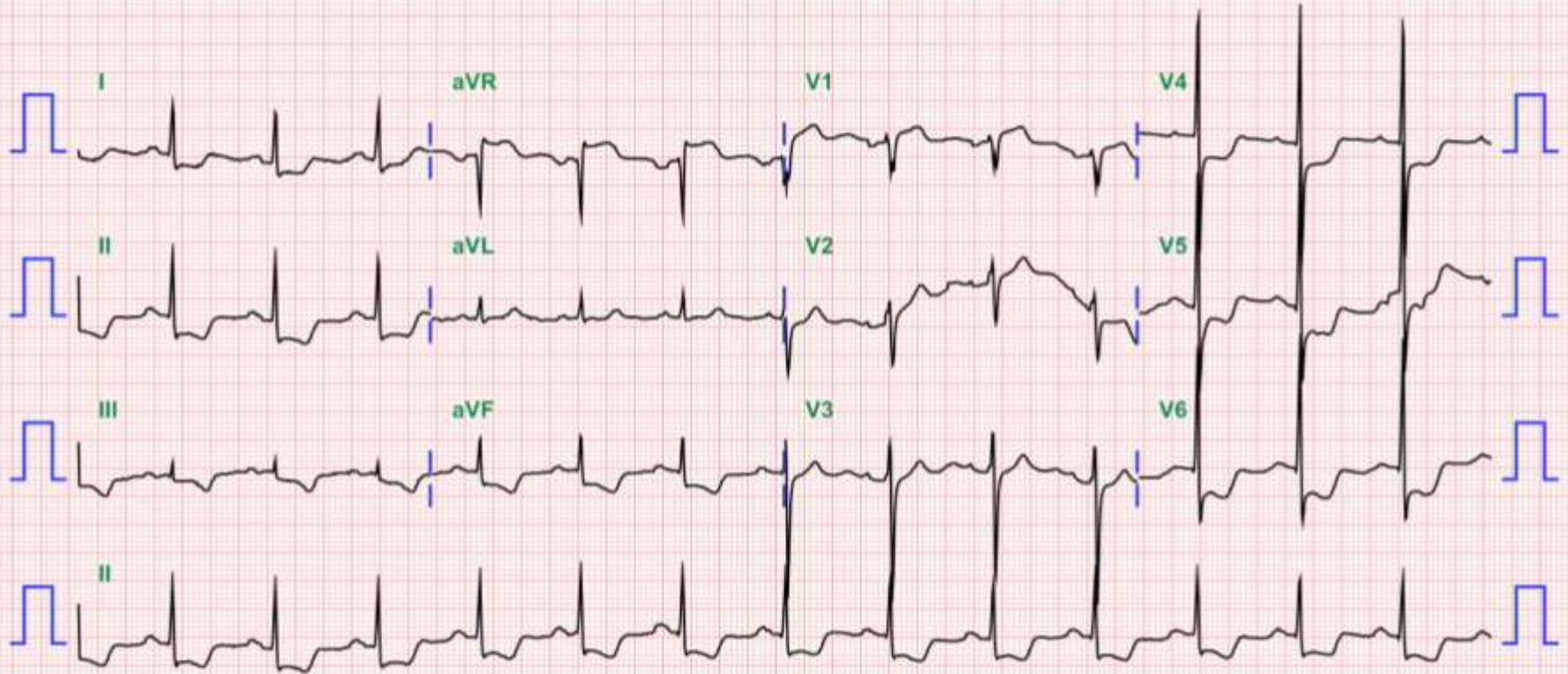
5pm, 15mins.

7am 2-3 mins.



# Chest Pain!!

## Post primary PCI day 23



# Coronary angiogram

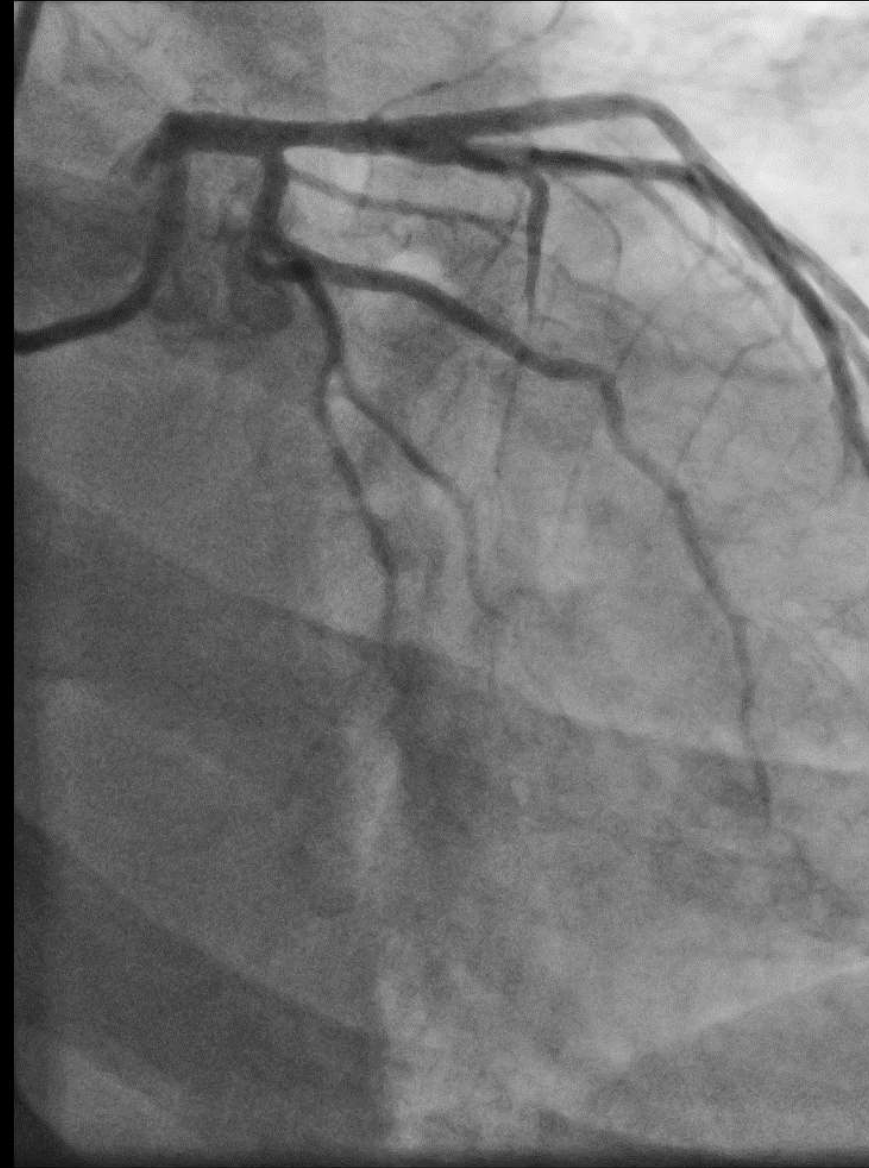


# Coronary angiogram





# Coronary angiogram



# Still chest pain..... ?

## Why?



Stent restenosis?

Instent thrombosis?

Prinzmetal's angina?

Side branch problem?

Dressler syndrome

Non-Coronary causes

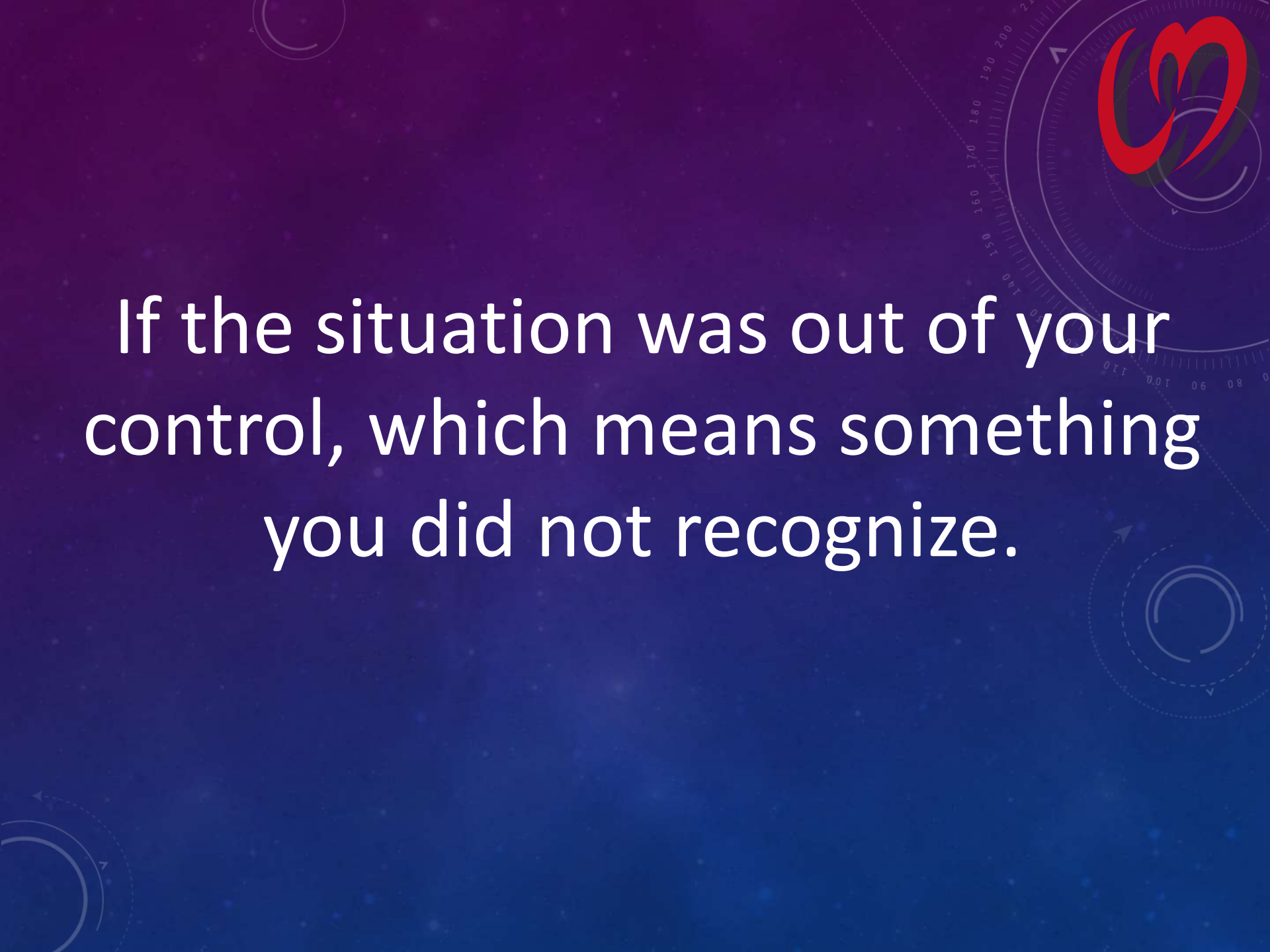
Peptic ulcer

Neuromuscular problem

Pleuritis



**10** times OPD visits  
in **8 weeks**  
after the first discharge

The background is a dark blue gradient with faint technical graphics. In the top right corner, there is a red heart logo composed of two overlapping loops. Surrounding the heart are several circular gauges or dials with numerical scales and arrows. One large gauge has numbers from 0 to 210, and another smaller one has numbers from 0 to 110. There are also dashed circular lines and arrows scattered across the background.

If the situation was out of your control, which means something you did not recognize.

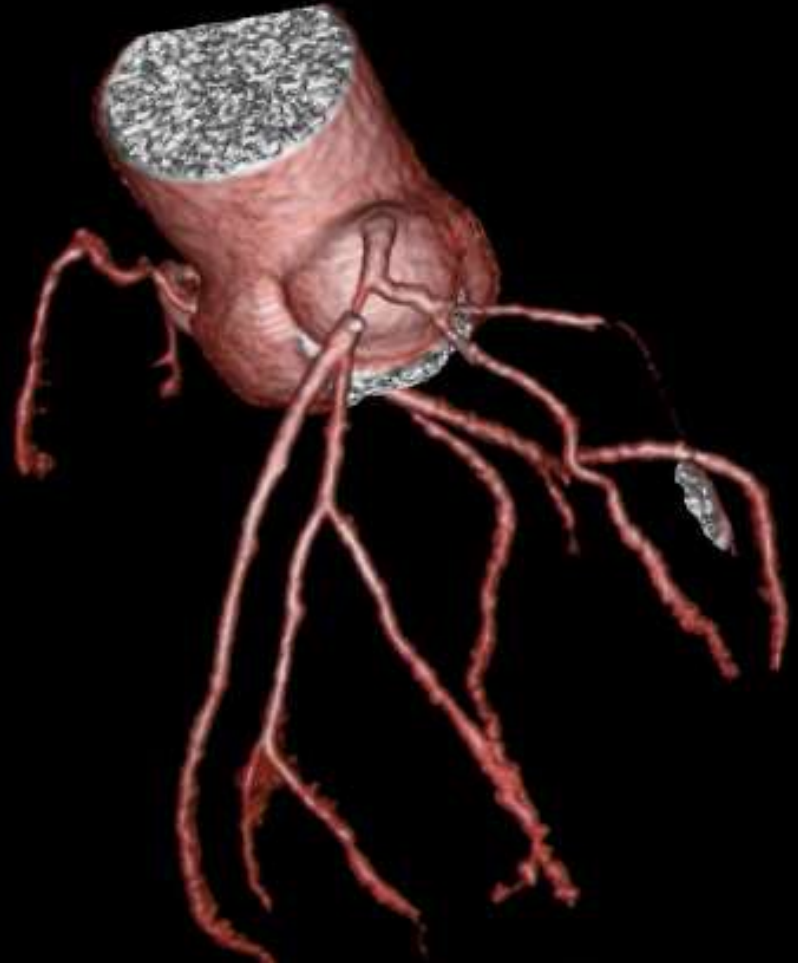
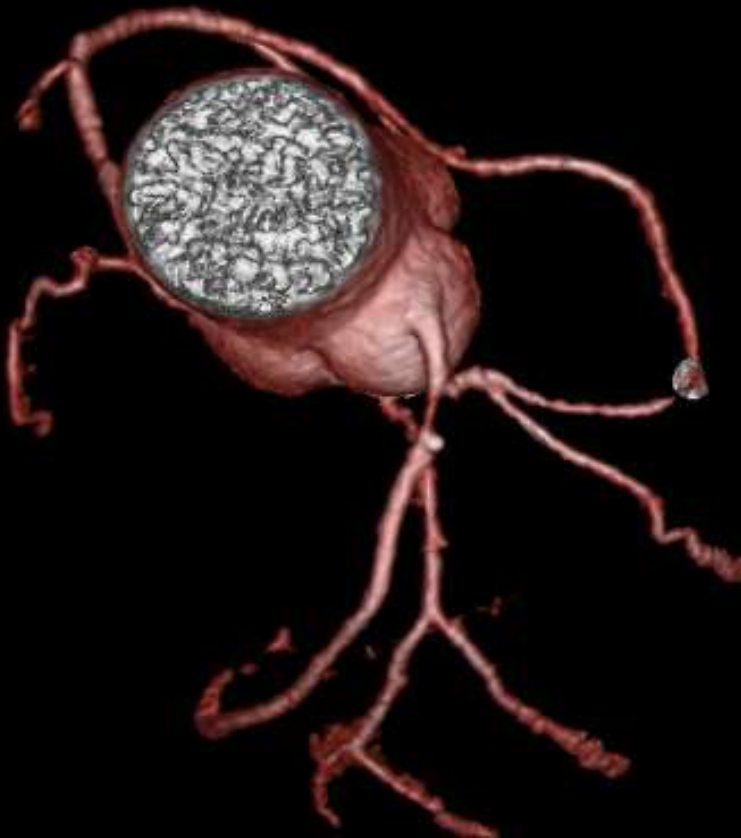


# Coronary CT



R

S



A

A

F  
V

S



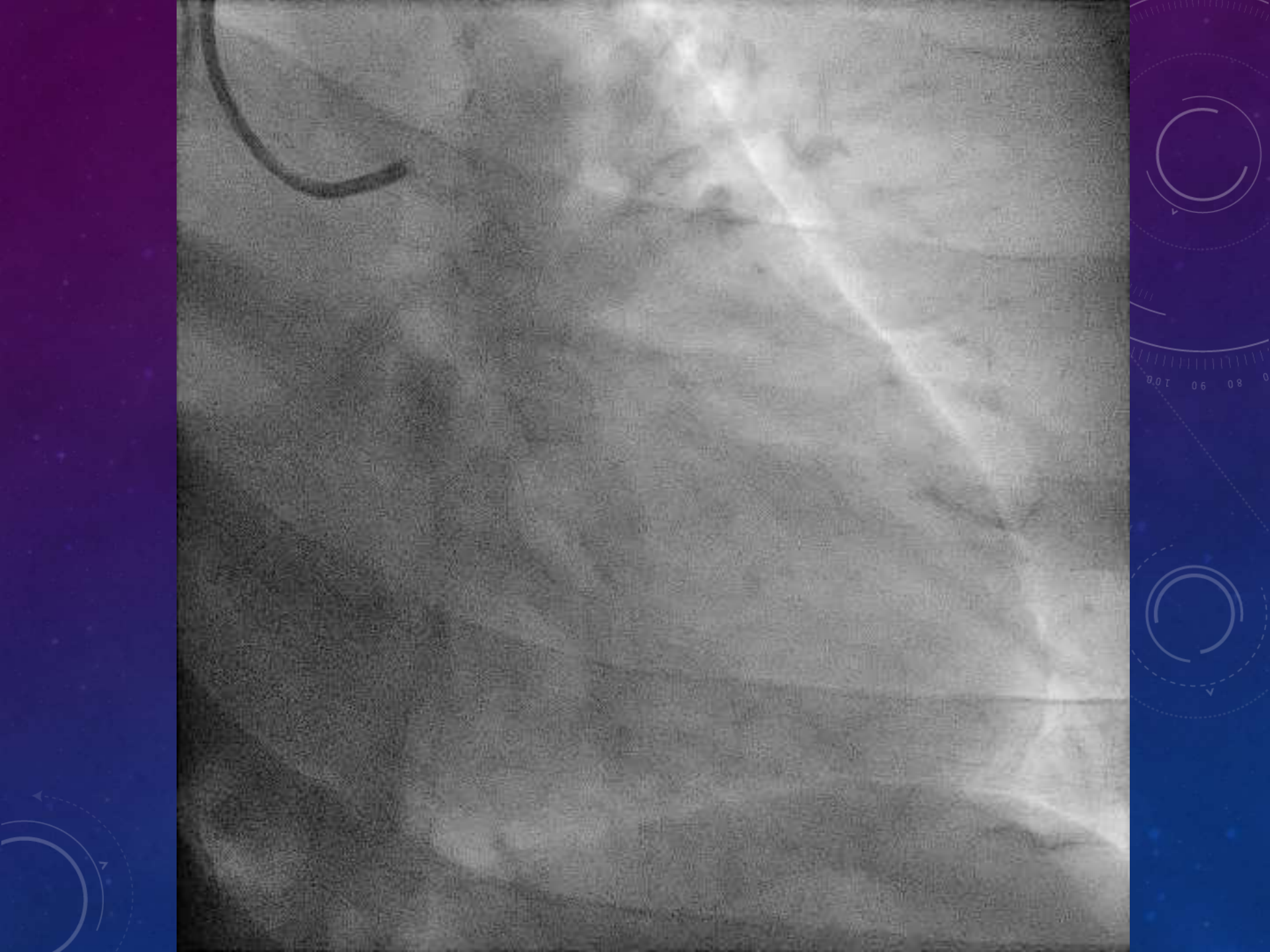
LAD



# RCA

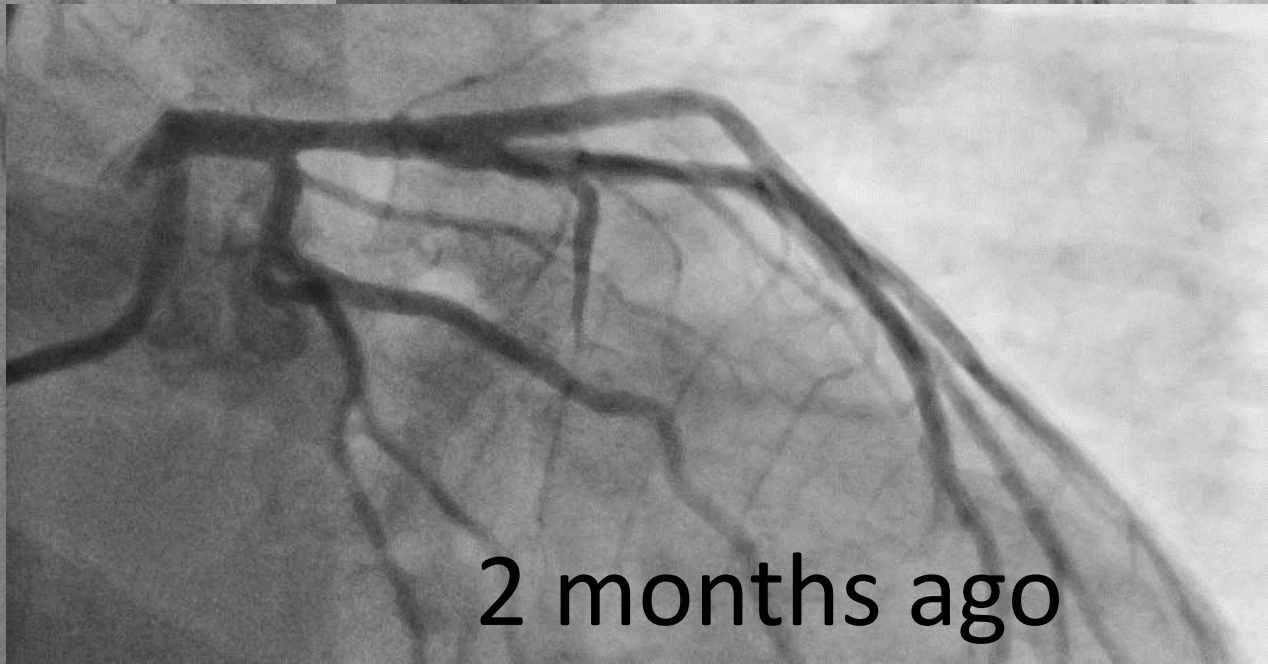
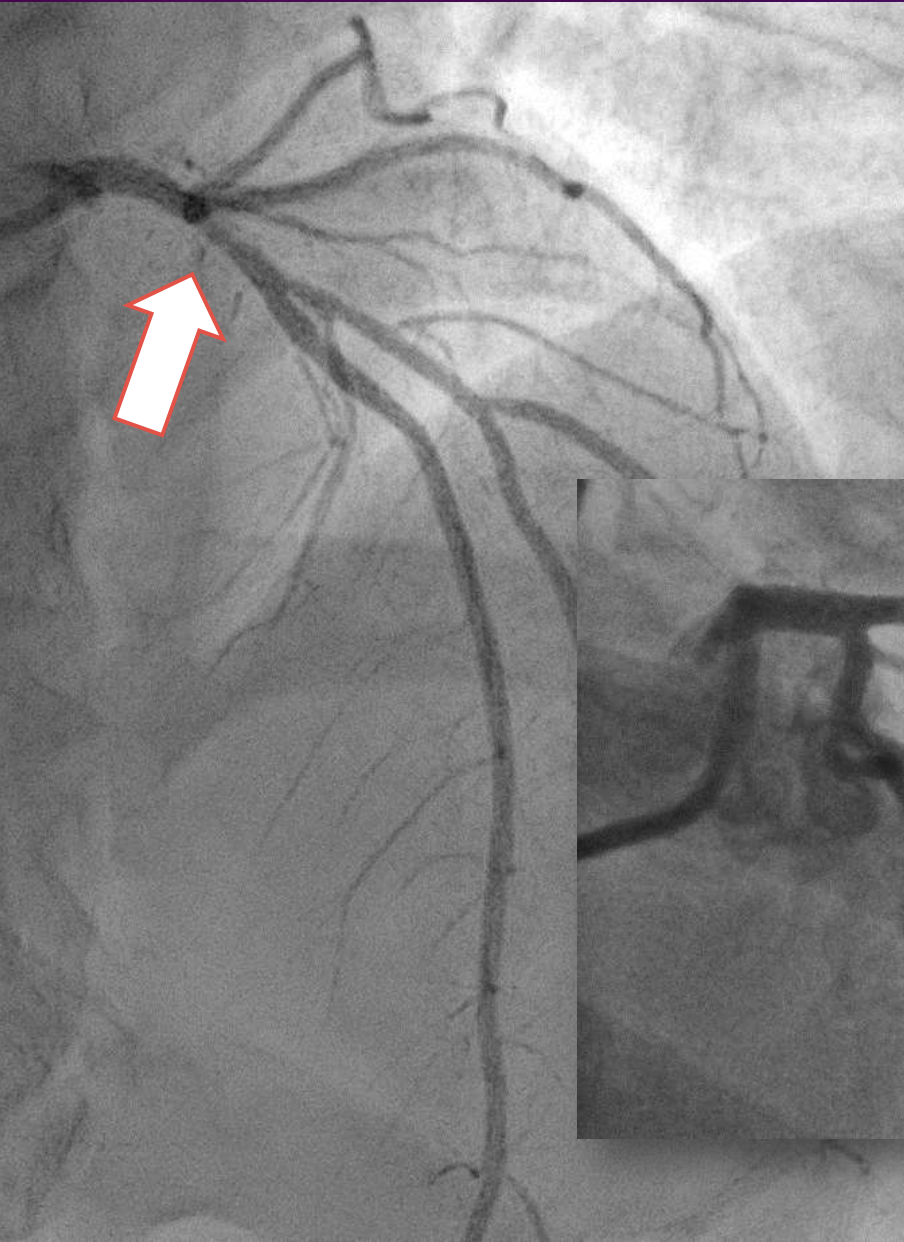








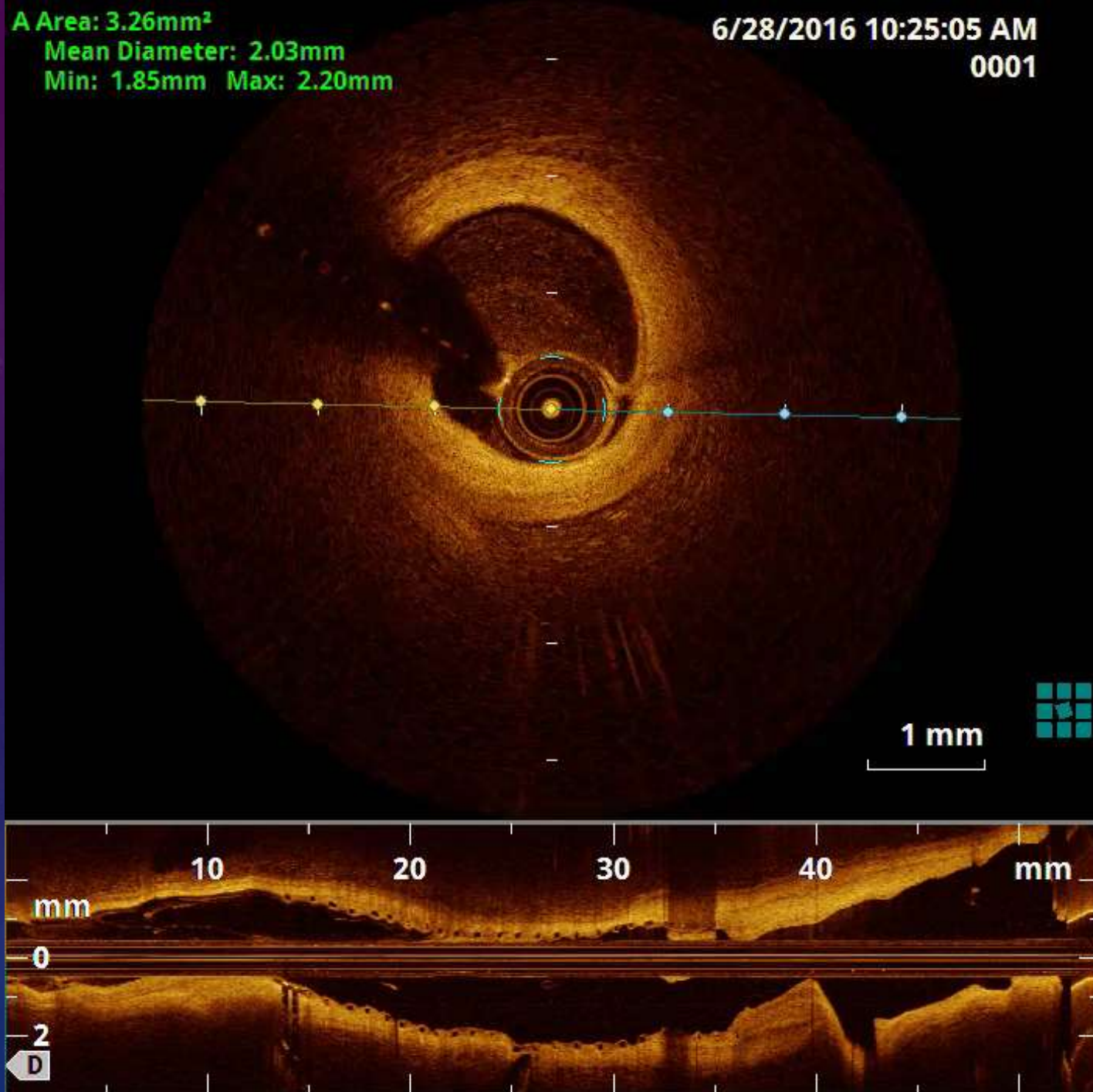
LAD



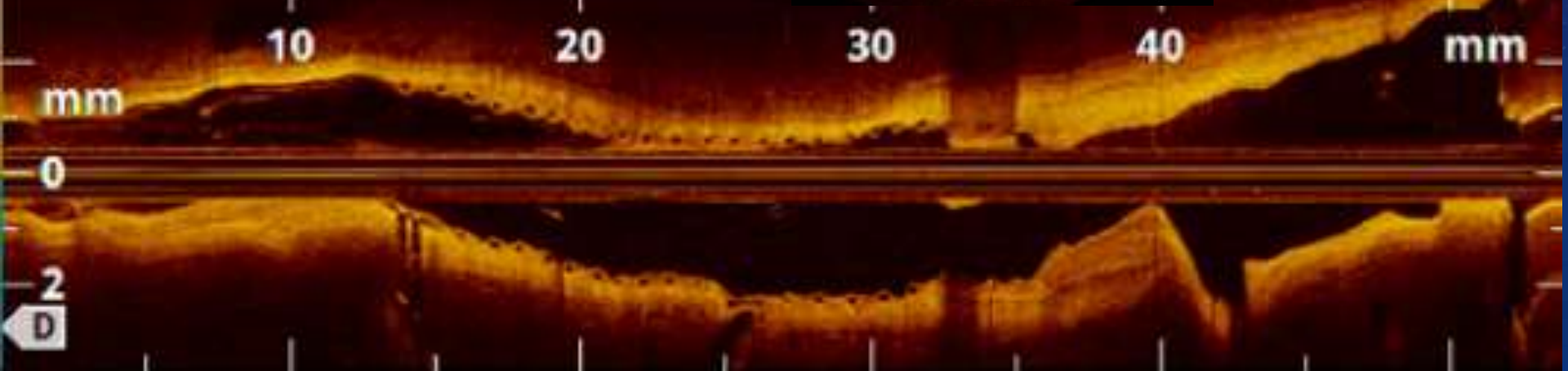
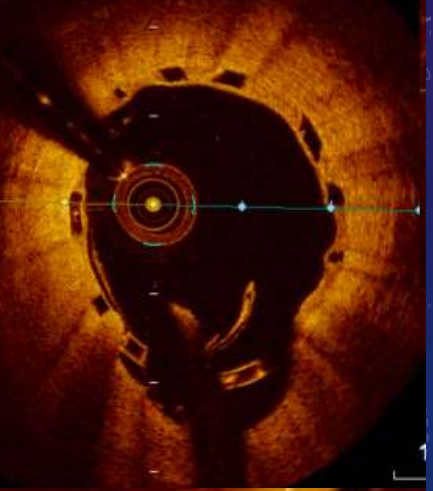
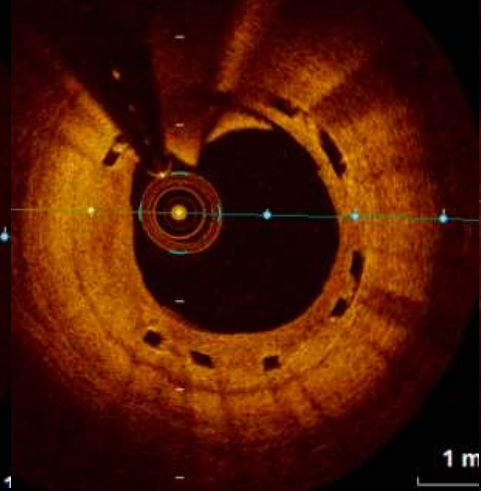
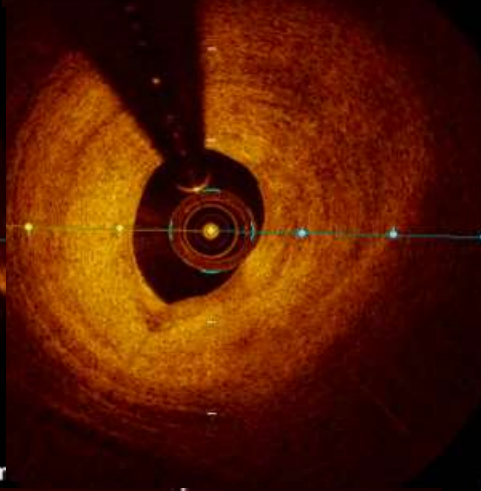
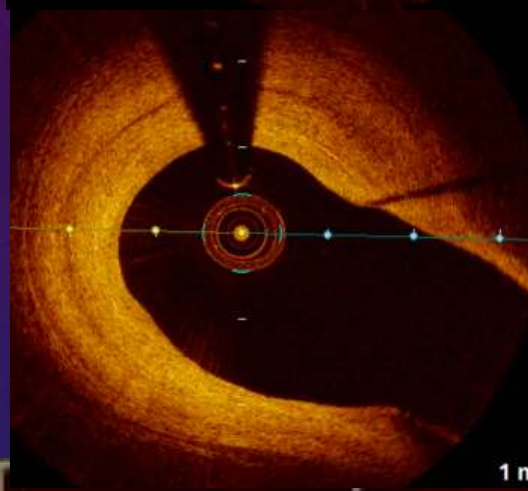
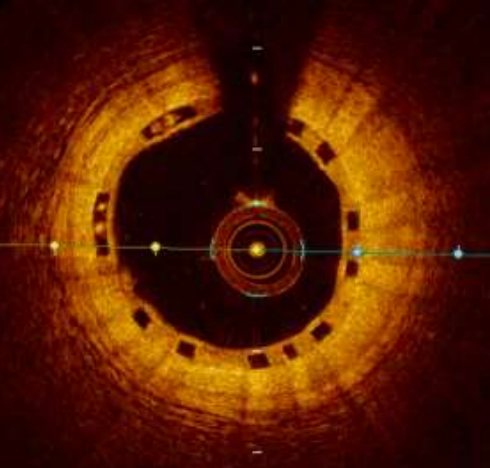
2 months ago

A Area: 3.26mm<sup>2</sup>  
Mean Diameter: 2.03mm  
Min: 1.85mm Max: 2.20mm

6/28/2016 10:25:05 AM  
0001





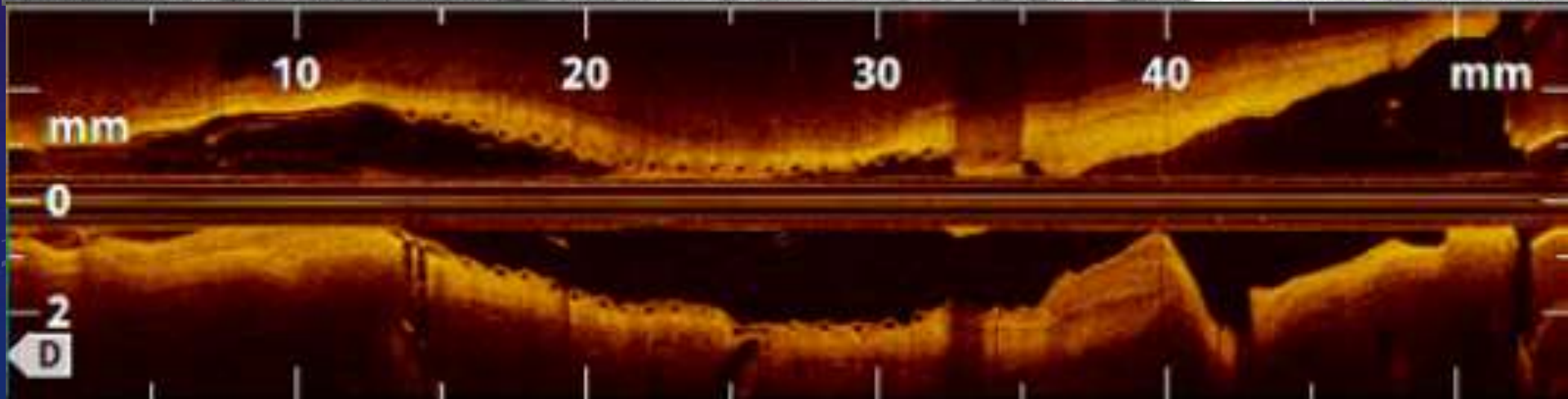




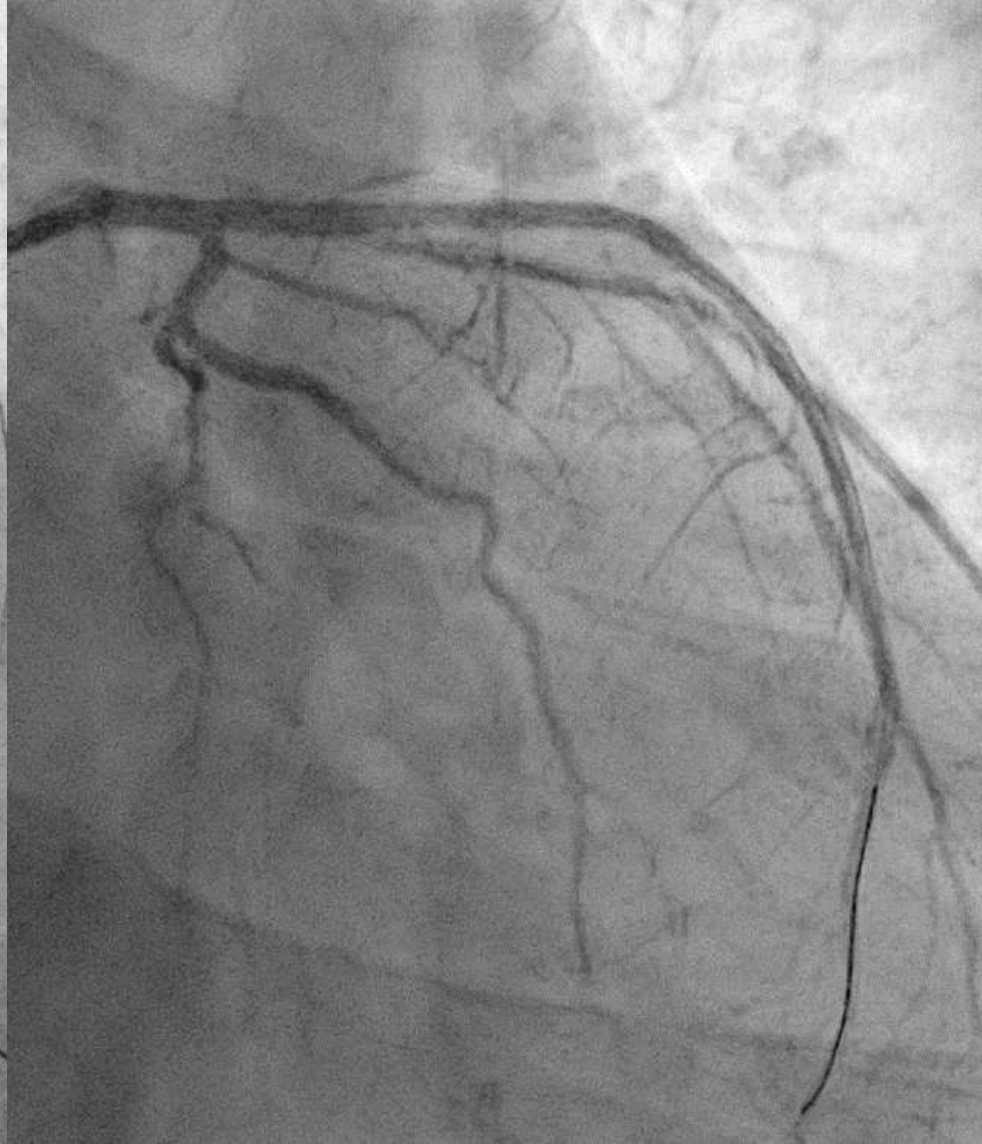
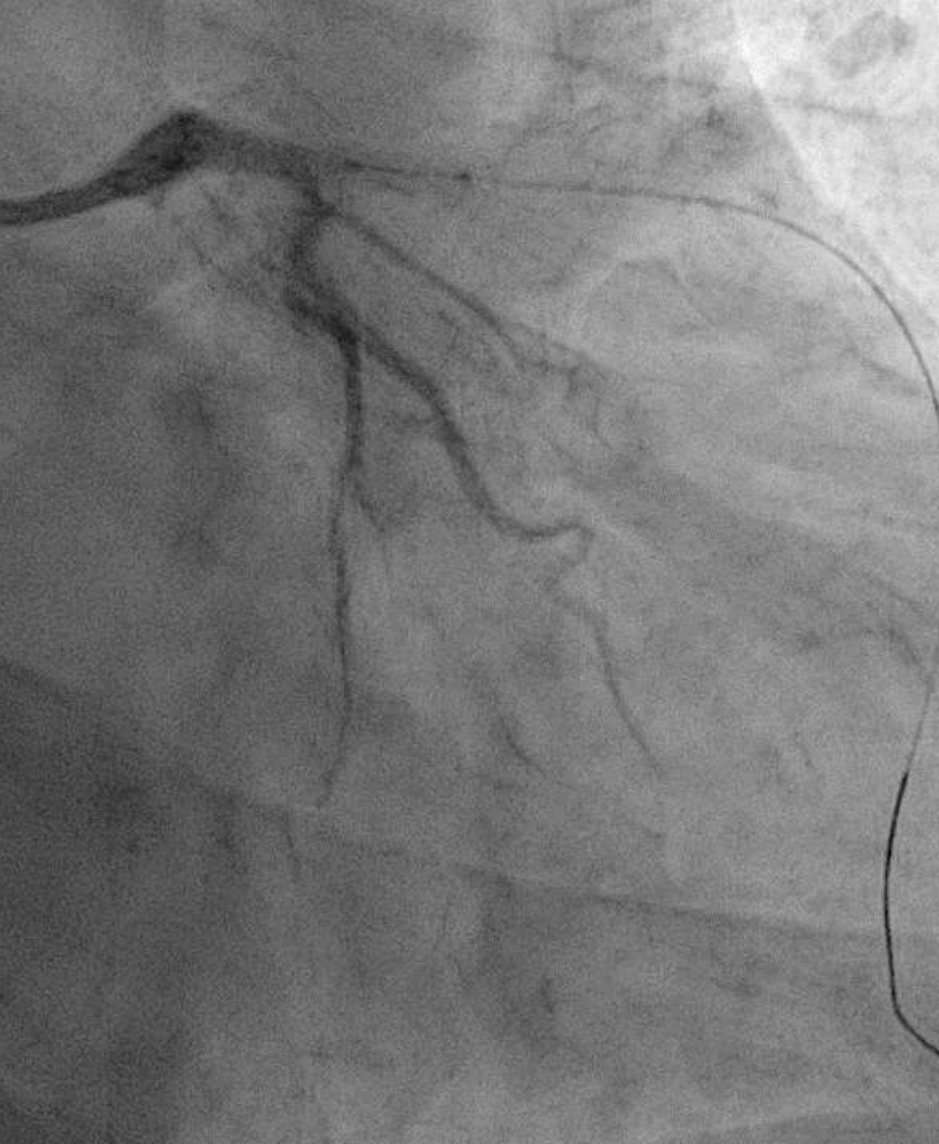
# Ostimal or crossover stenting?



Patient: I still want **BRS!**



**Pre-dilated: NC Trek 3.5x8mm 16atm**





**BRS Absorb 3.5x12mm 10atm**

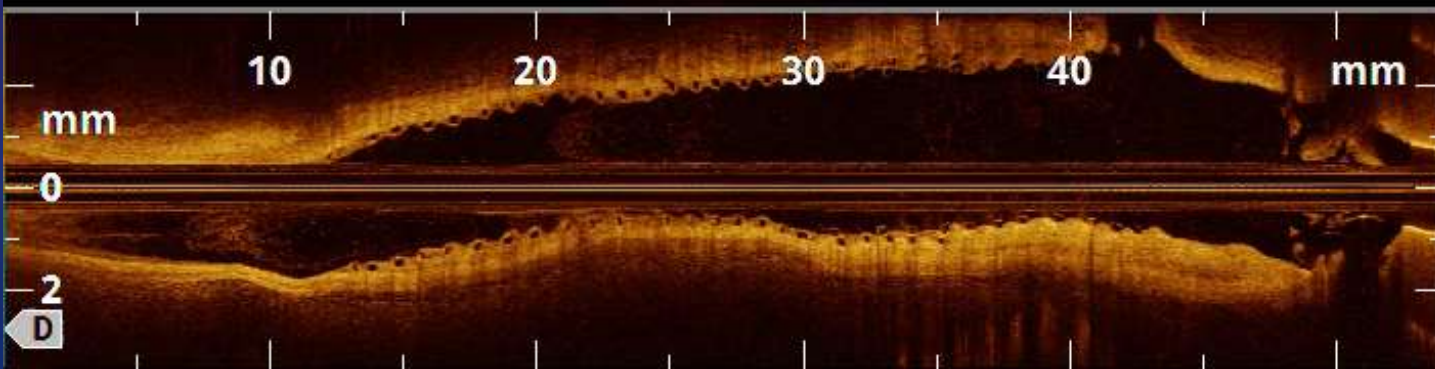
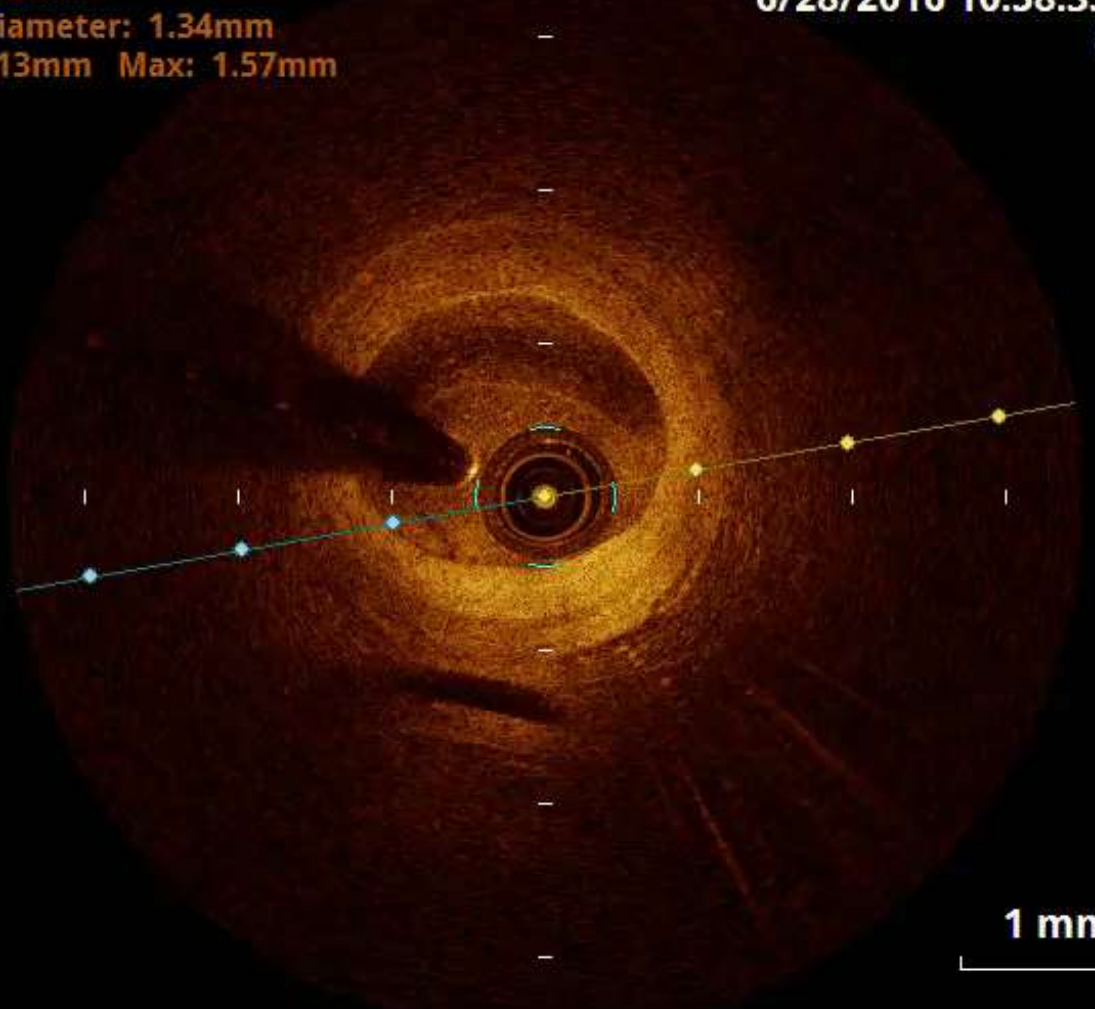
**Post-dilated: NC Trek 3.5x8mm 24atm**

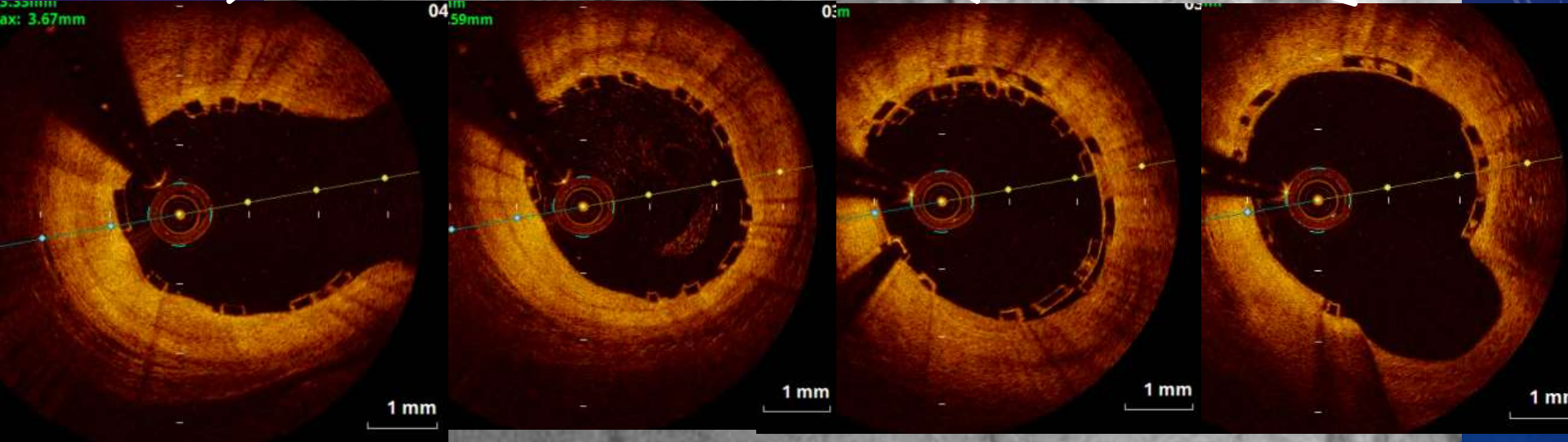
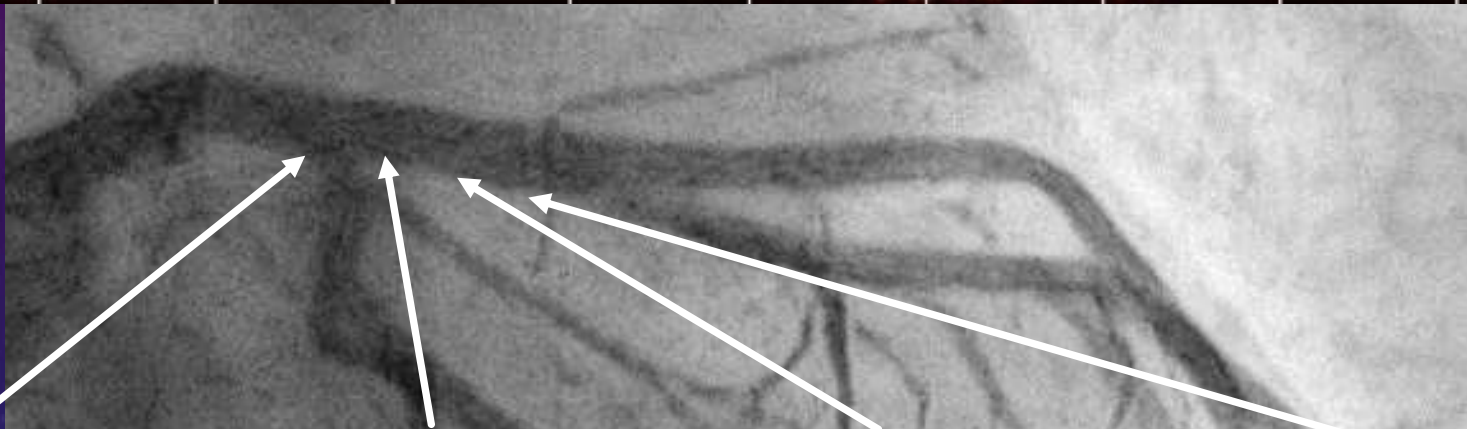
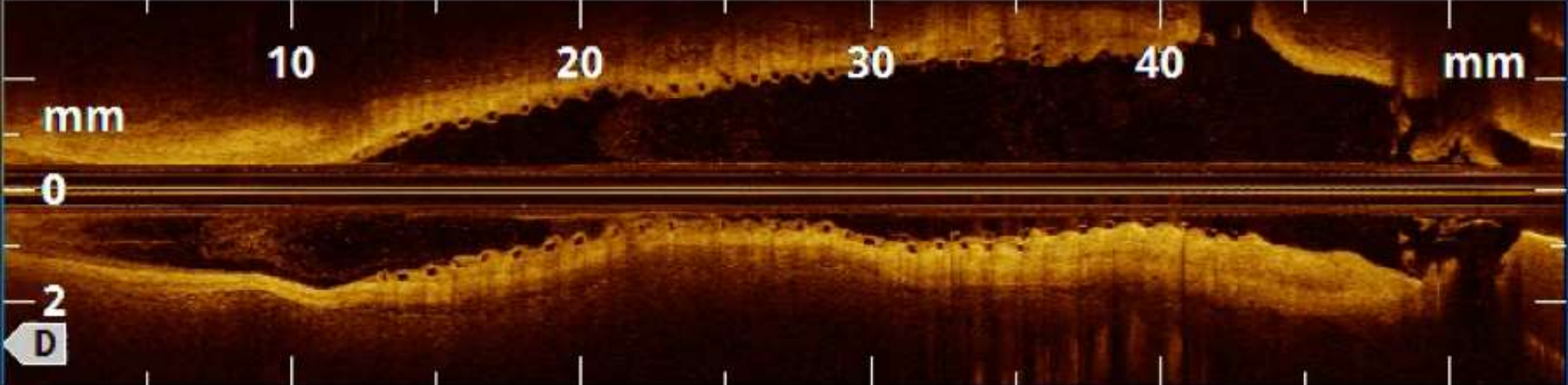




A Area: 1.45mm<sup>2</sup>  
Mean Diameter: 1.34mm  
Min: 1.13mm Max: 1.57mm

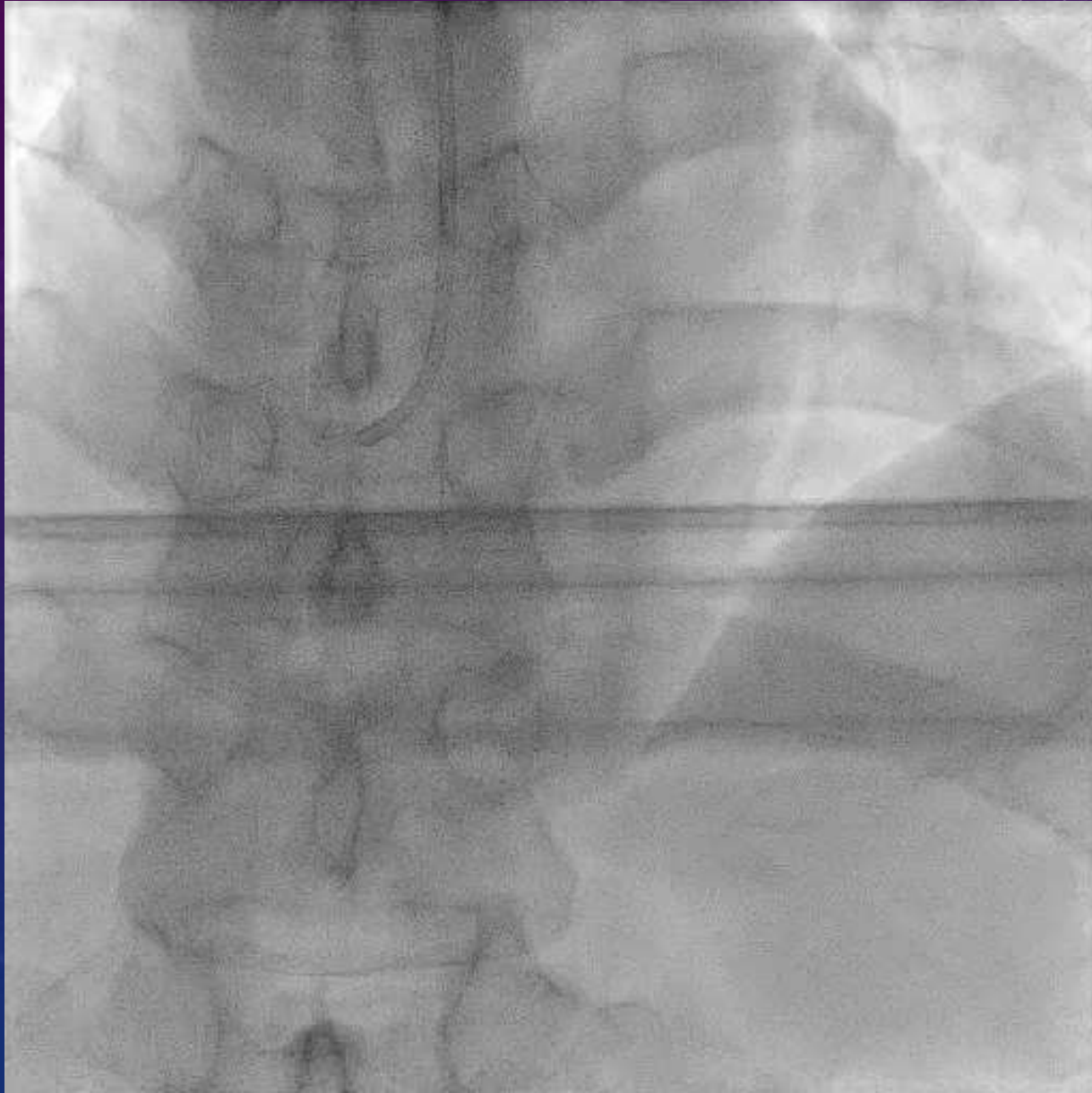
6/28/2016 10:58:33 AM  
0001





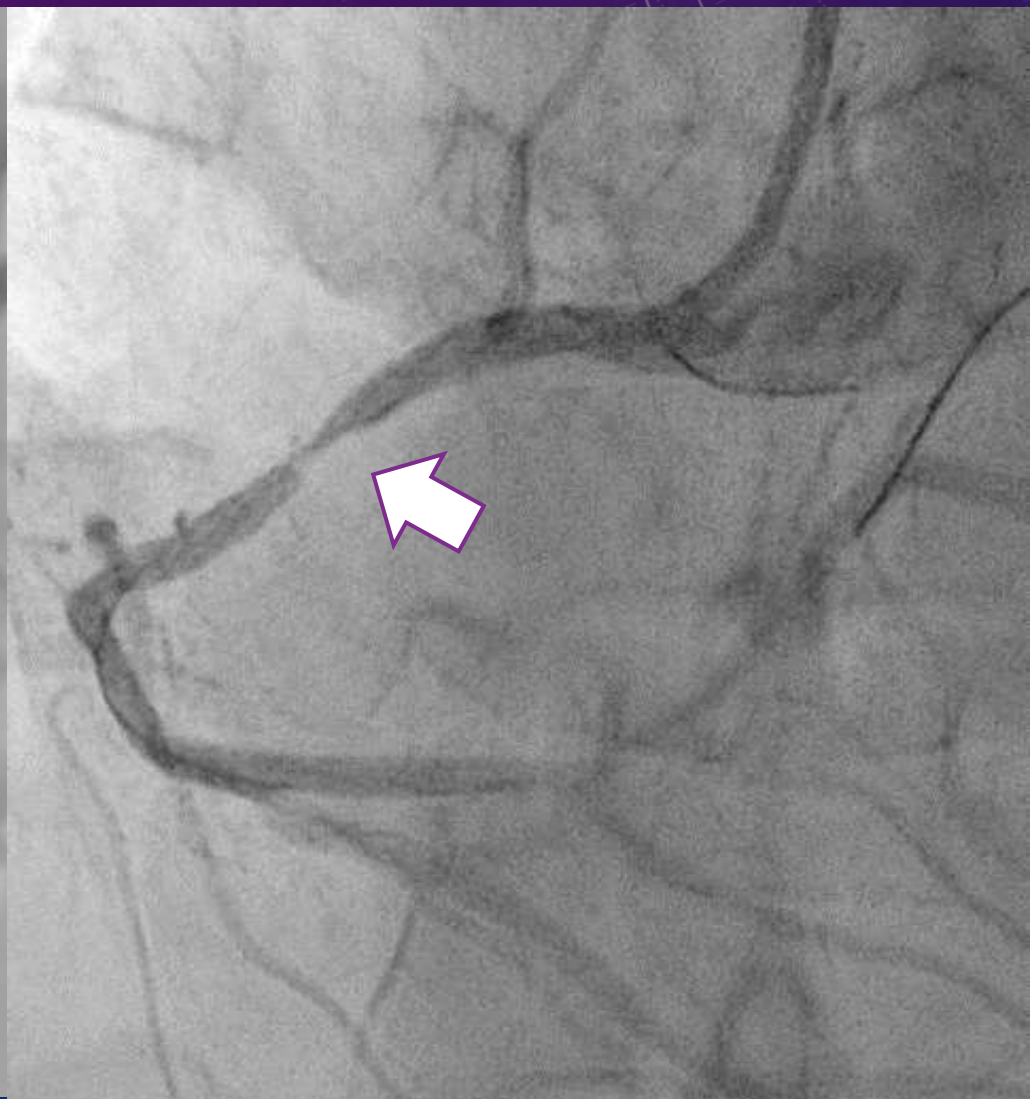


# RCA





# RCA – Rapid growing of plaque

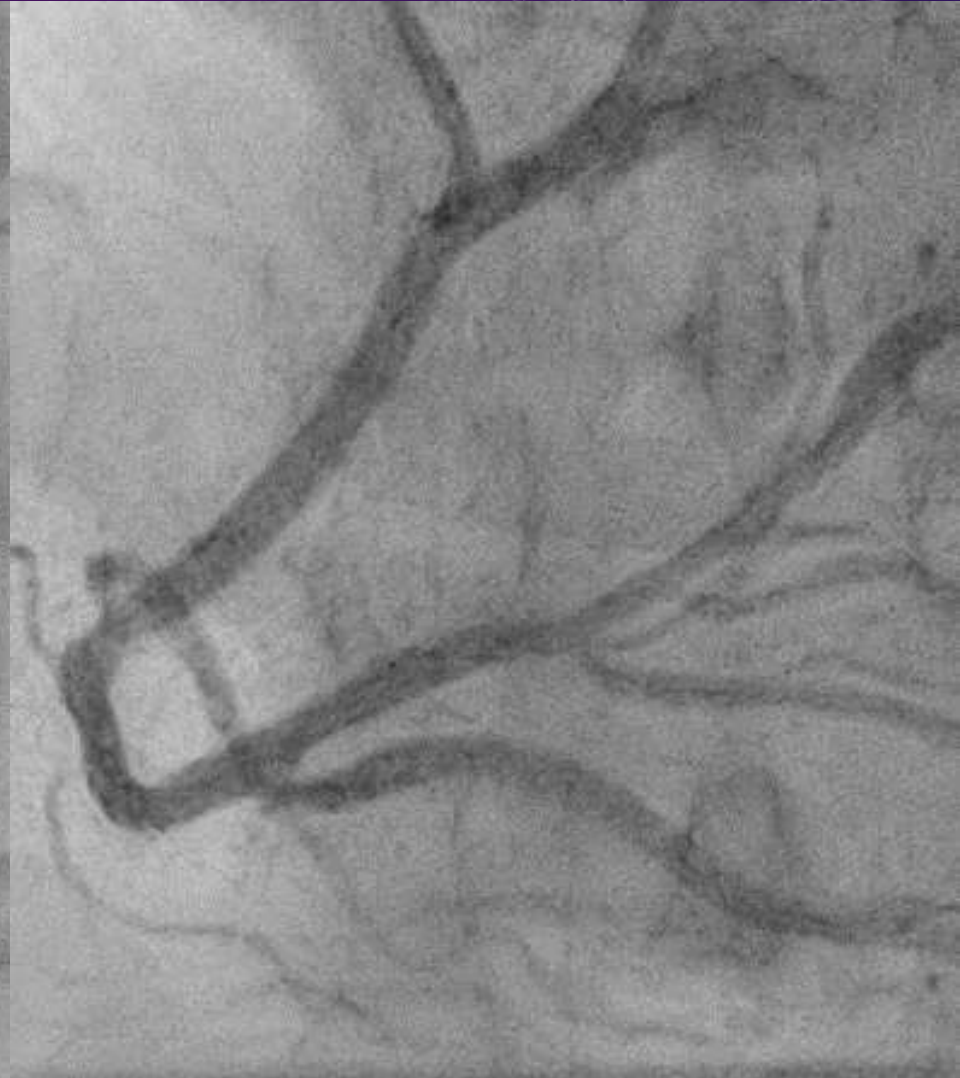


8 weeks before

**Pre-dilated: Hiryu 3.25x10mm 10atm**

**BRS: Absorb 3.0x18mm**

**Post-dilated: Hiryu 3.25x10mm 24 atm**

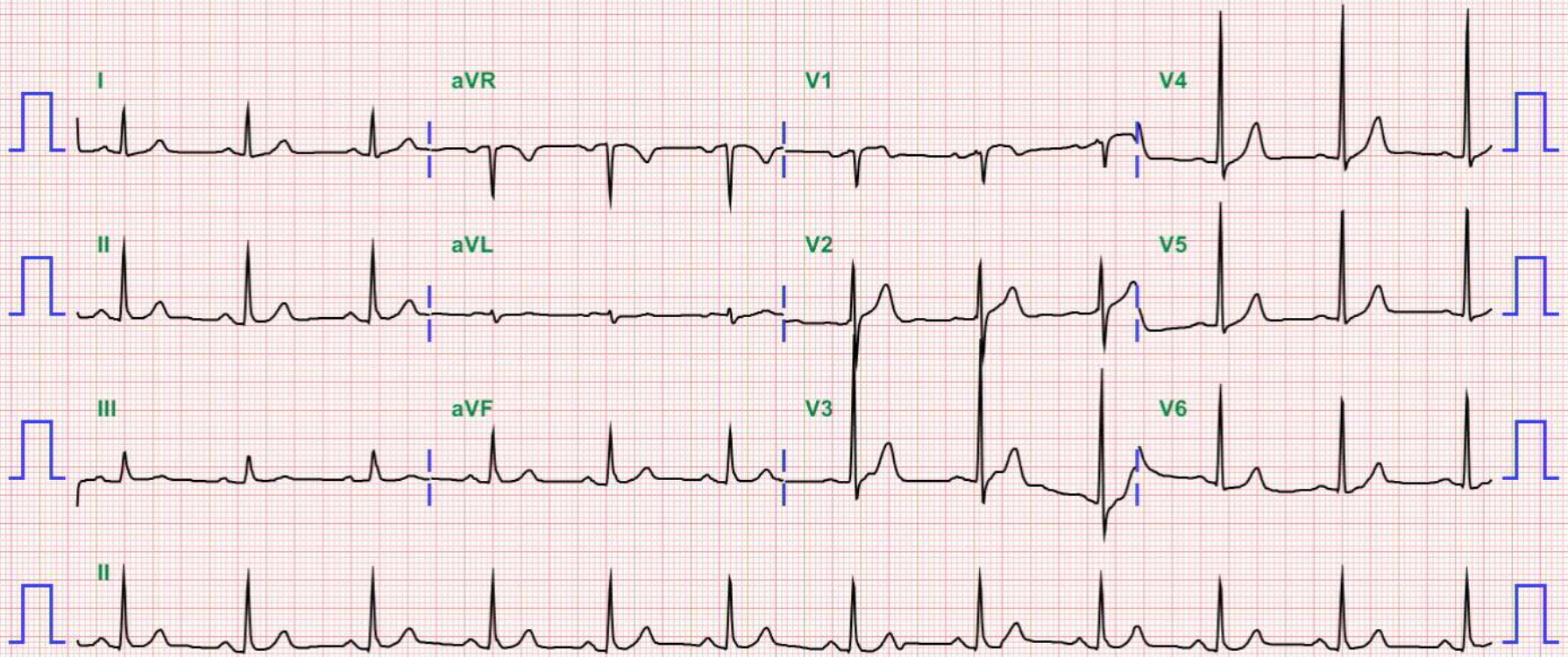


The background is a dark blue gradient with faint technical diagrams, including circular gauges with numerical scales and arrows. A prominent white dashed rectangular box with rounded corners is centered on the page.

Totally free form chest pain..



# 1 year later...



RE1002

Speed: 25 mm/sec

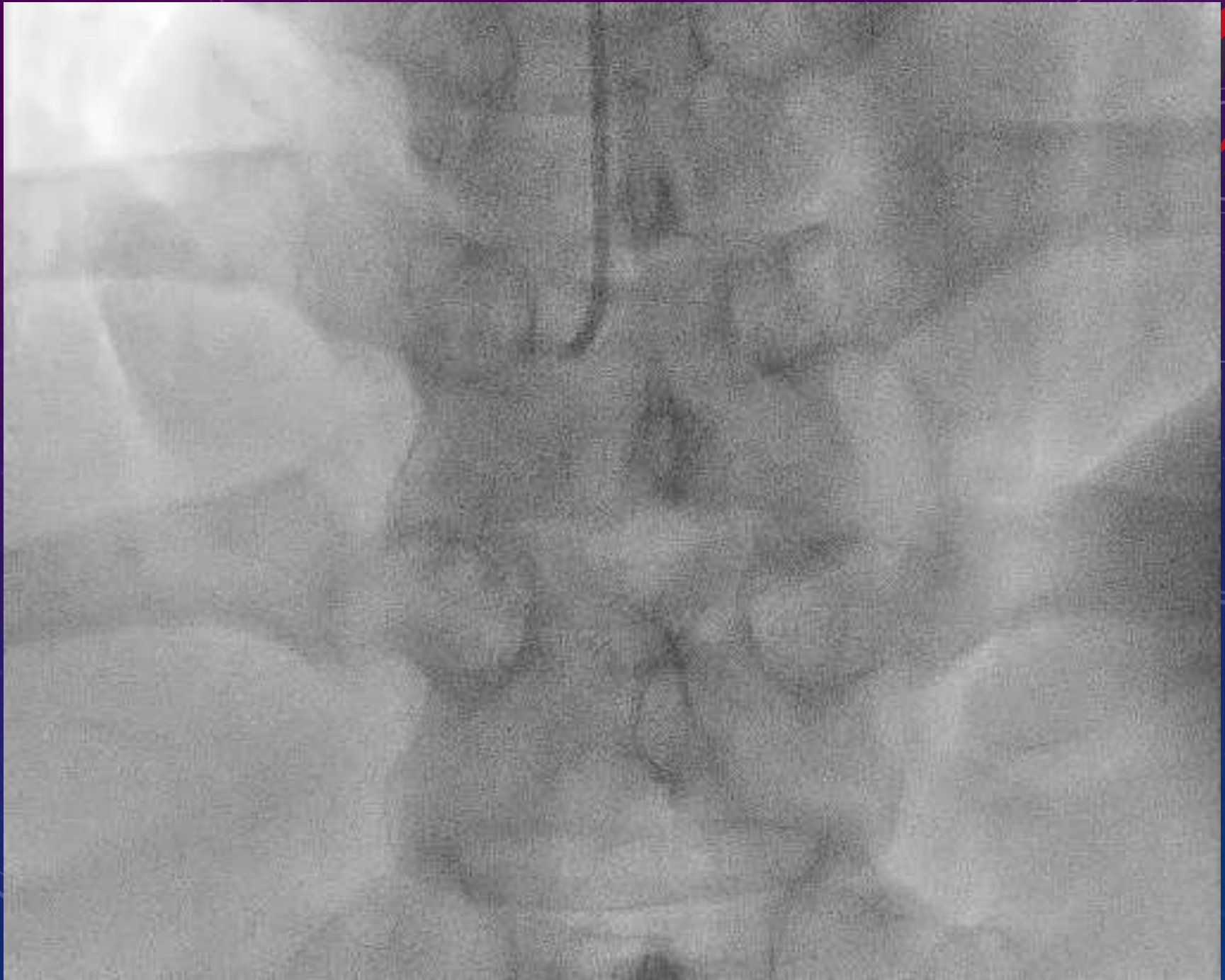
Limb: 10 mm/mV

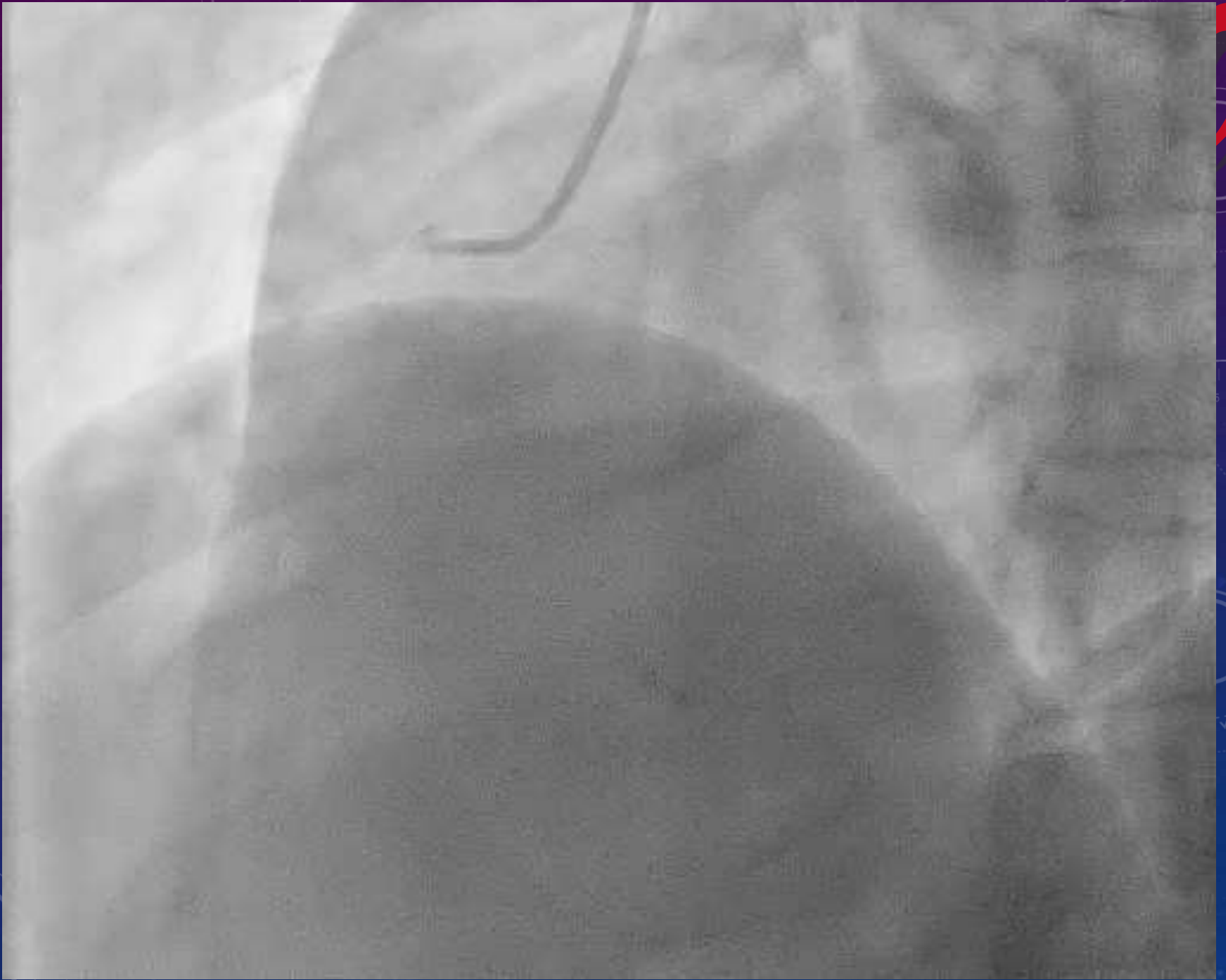
Chest: 10 mm/mV

F 60~ 0.05 - 150 Hz W

INFINITT CIS



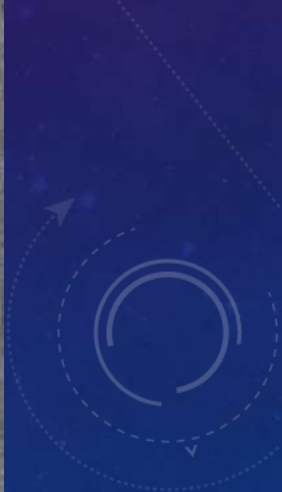
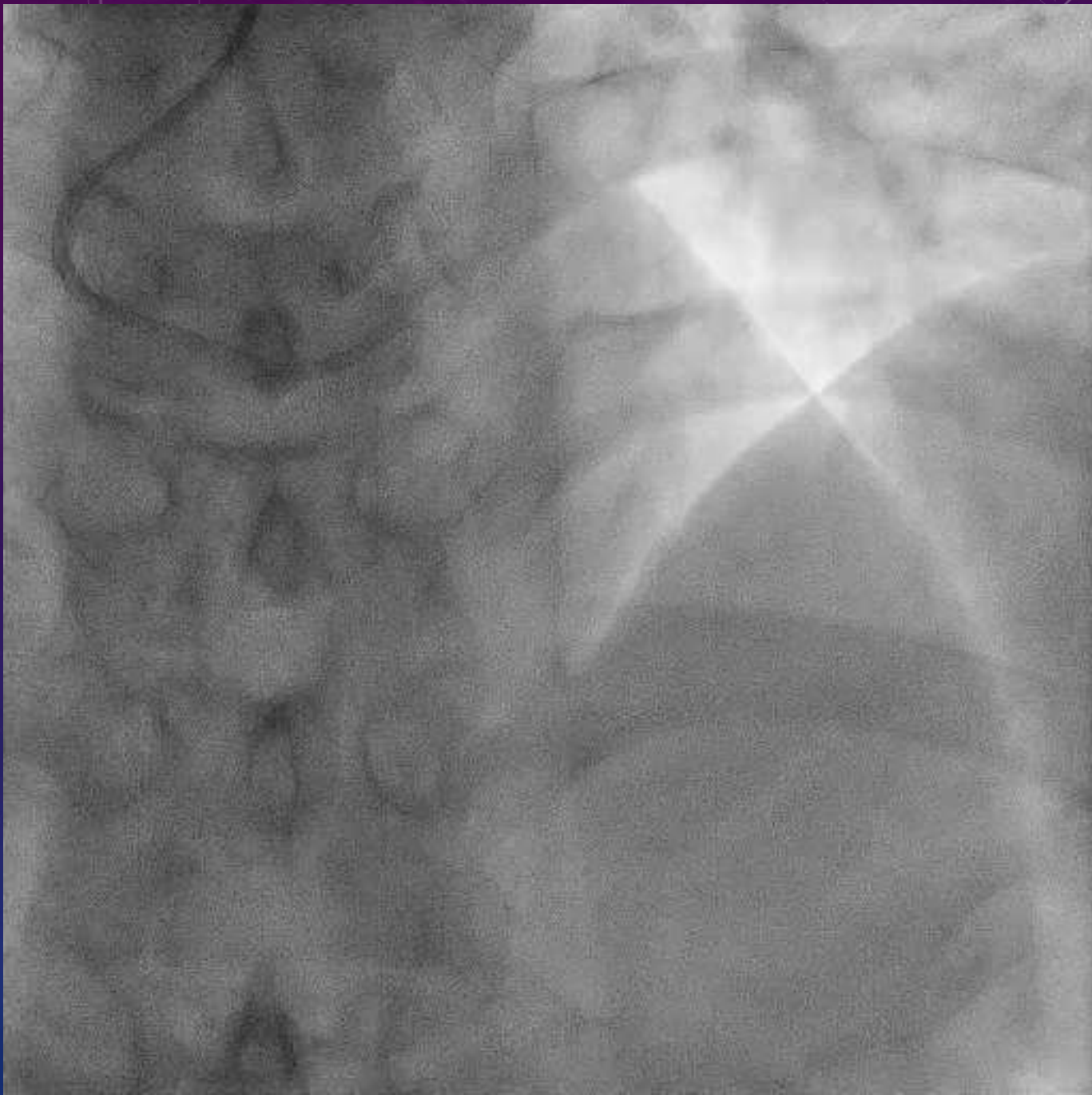






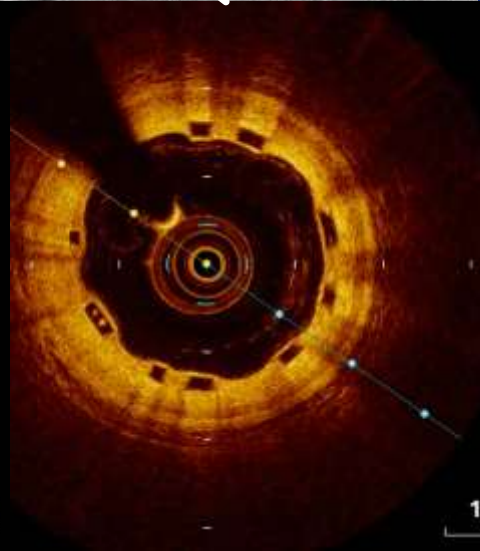
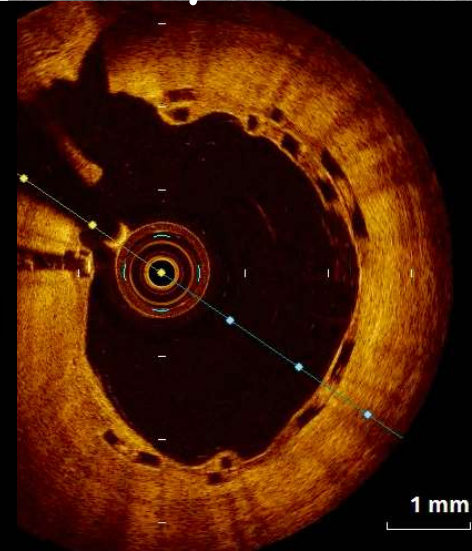
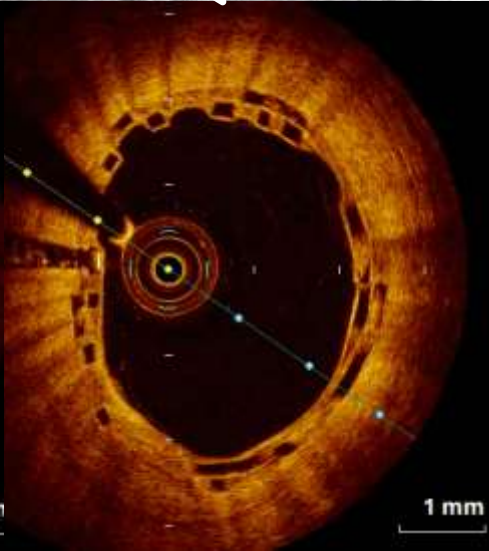
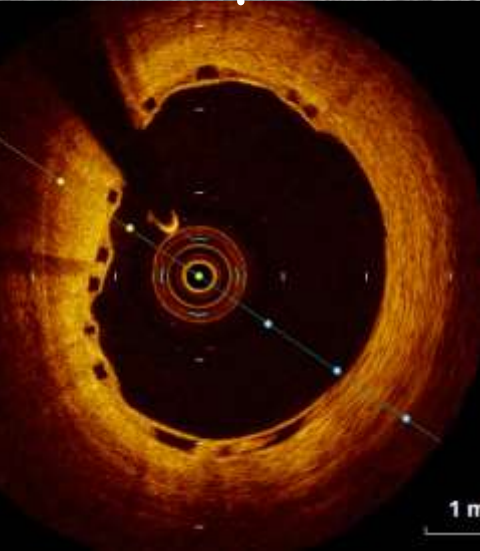
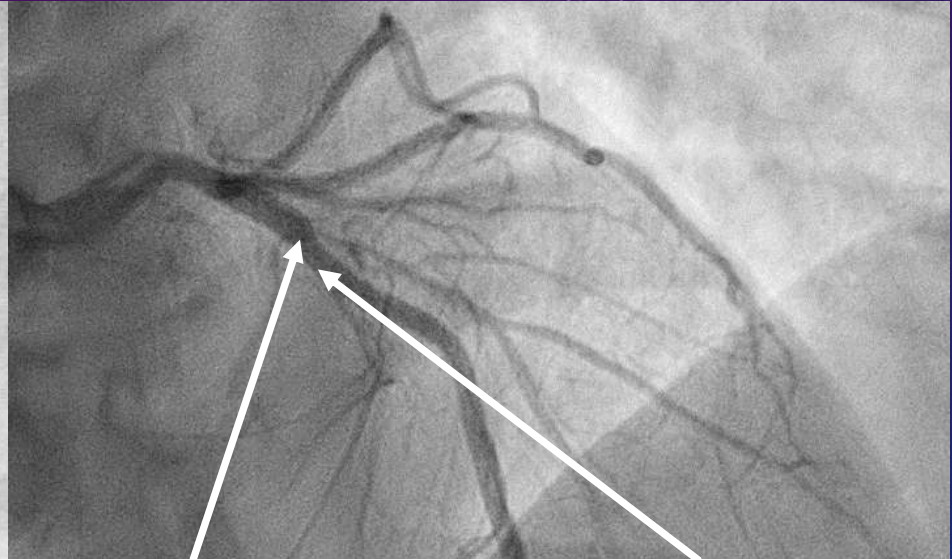
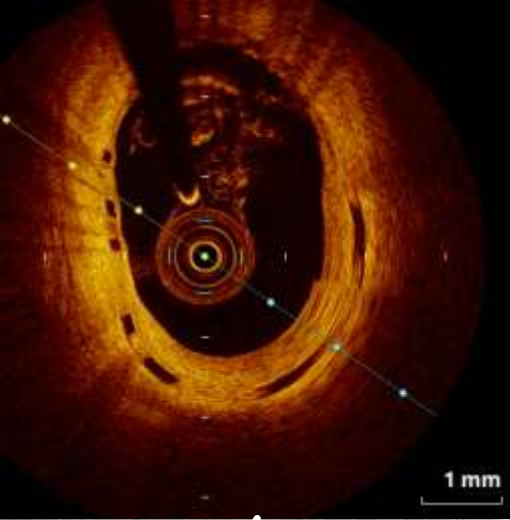




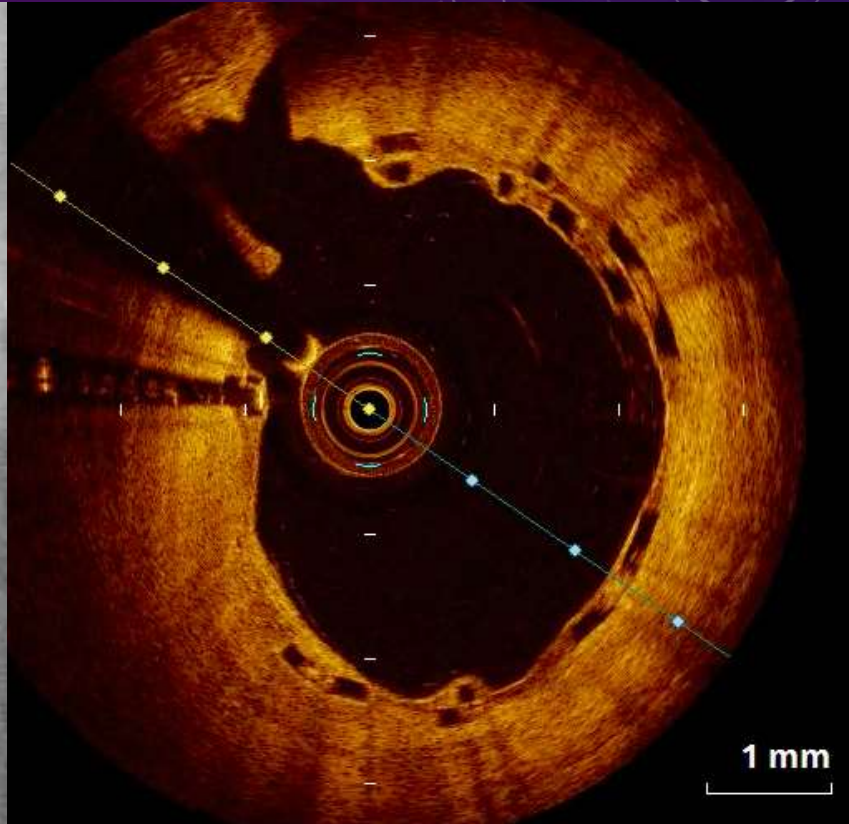




# LAD

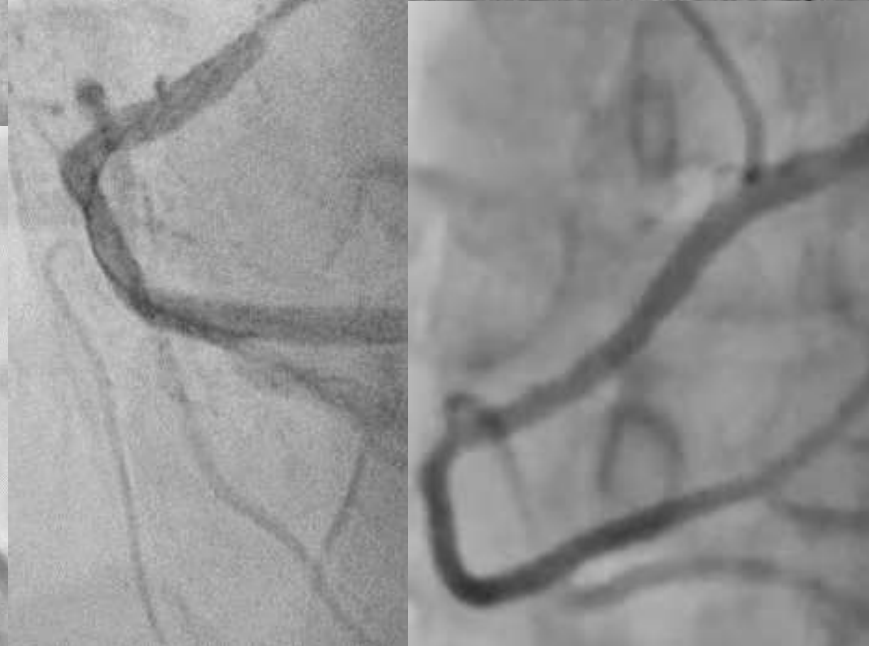
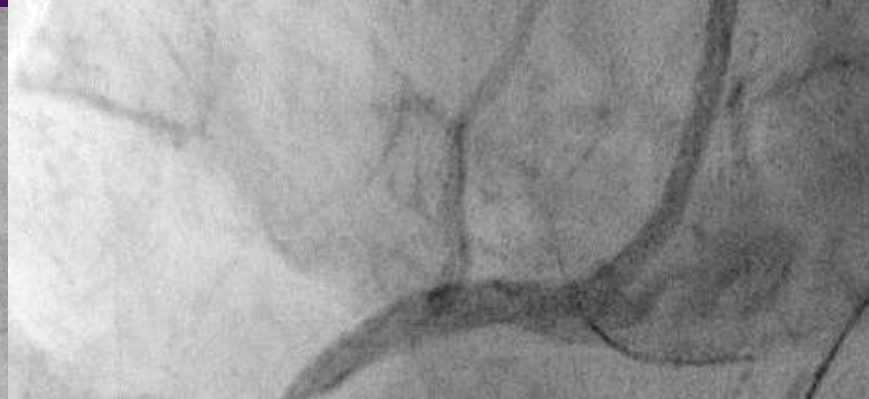


# Do PCI for D1 or Not?





# What Happened?



Within 2 months





# What Happened?



CAD  
STEMI s/p BRS to LAD

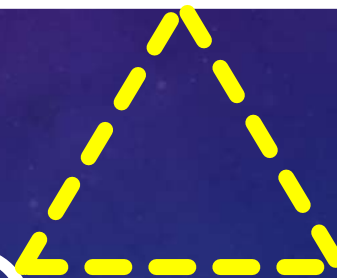
Bad stent  
landing zone

Increased risk  
of IST

Accelerated  
atherosclerosis

Thrombocytosis  
Max PLT: 1,074,000/uL

New onset DM  
HbA1c:6.8%





**Complex condition**

always brings

**Complex PCI**

&

Difficult in **Decision** making

As we learn more,

we can

**Make it Simple**

in

**Complex PCI**





*Absinzing Hong*

*Chon-Seng Hong M.D.  
Chi Mei Medical Center  
Taiwan*



*Life is Why  
Live & Learn*