

Most Fearful Complication I Have Ever Experienced

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Disclosure

potential conflicts of interest

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I don't have any potential conflicts of interest

Introduction

I have ever seen many PCI complications, slow/no flow, dissection, acute / subacute occlusion, coronary/Aorta perforation, residual device and so on.

My colleague presented this complication case at other conference. This is the my most fearful case that I have ever experienced.

The smallest mistake is the beginning of the very long nightmare.

Case Presentation

Patient : Late 50's , Male

Diagnosis : CCSⅢ

Target Lesion : RCA #1 with severe calcification

Coronary risk factor : HT, DL

UCG findings :

EF 63%, asynergy @ post~lateral wall hypokinesis, mild AR

Renal function:

S-Cr 0.87mg/dl , eGFR 72ml/min/1.73m² (G2)

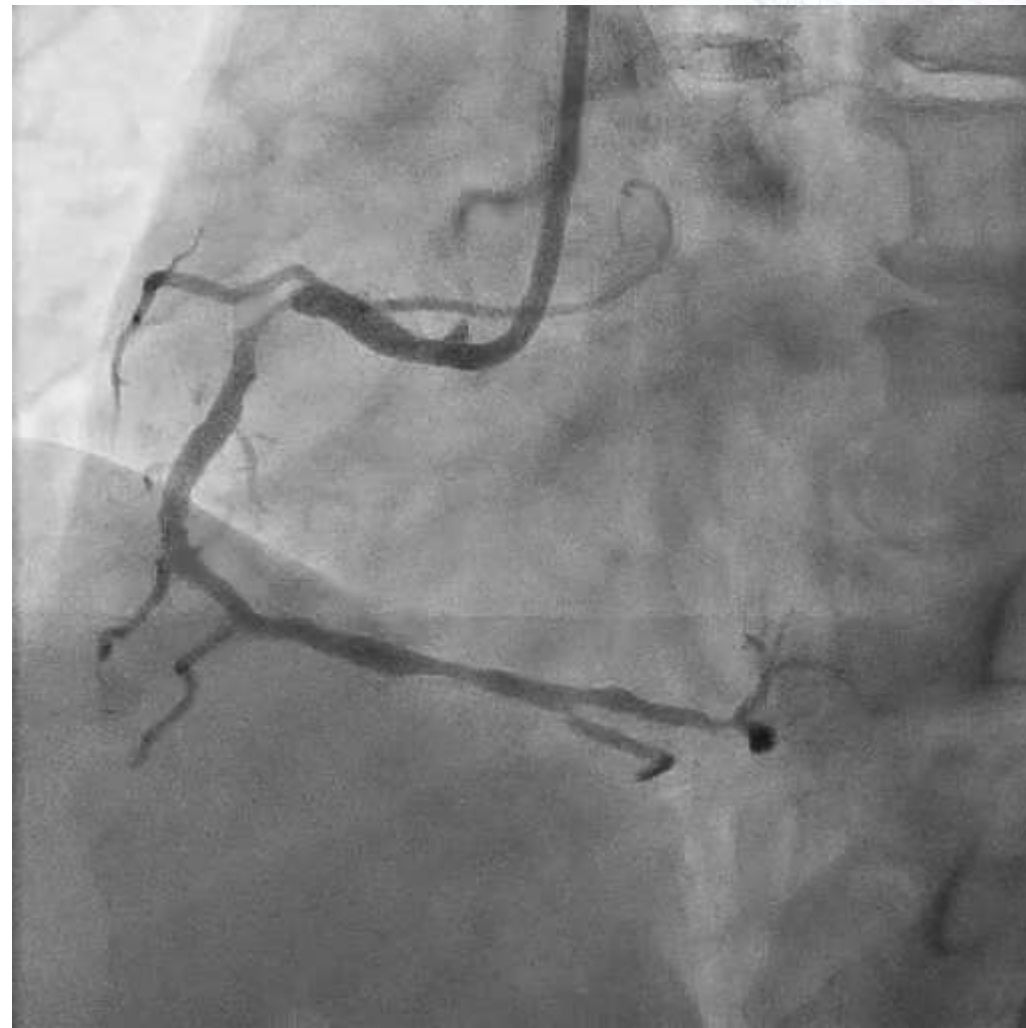
Prior Intervention :

2018/12/2 #13 100% → CoCr-EESφ2.75×23mm

/12/18 #6 90% → Rota 1.75mm → ZES φ3.5×38mm

Strategy

Rota / Cutting balloon / DES



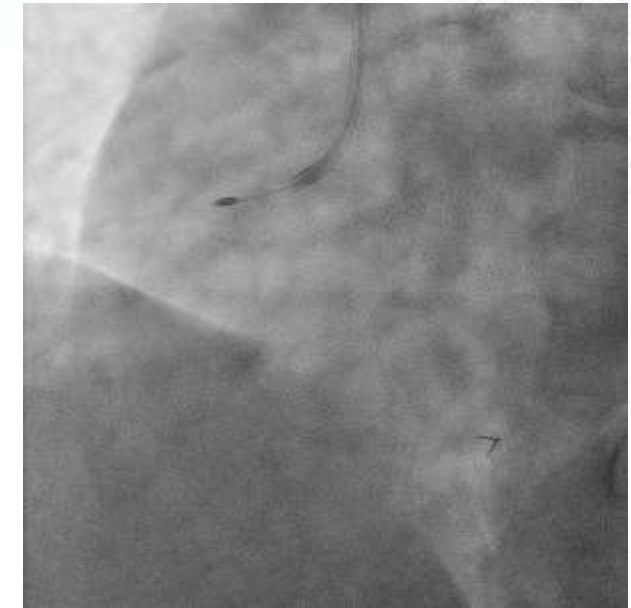
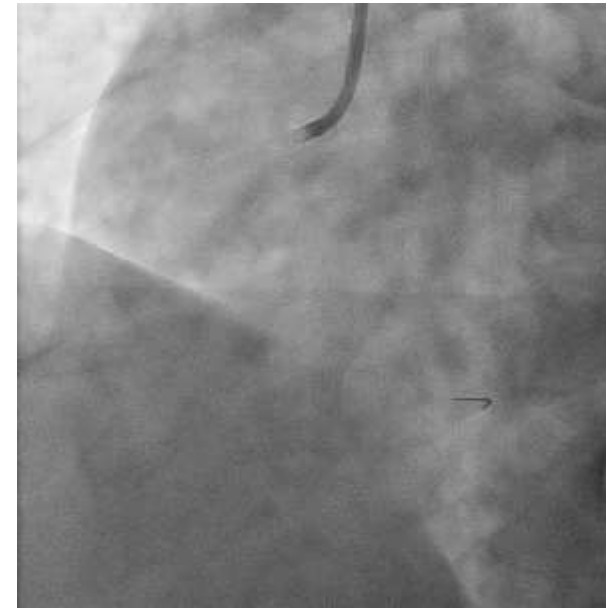
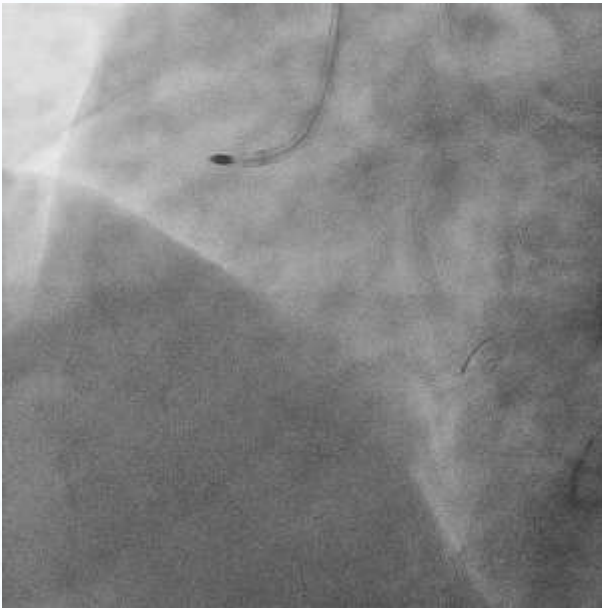
Rotational Atherectomy

Plat form
Check the coronary flow

1.75mm Burr not pass @ 200krpm

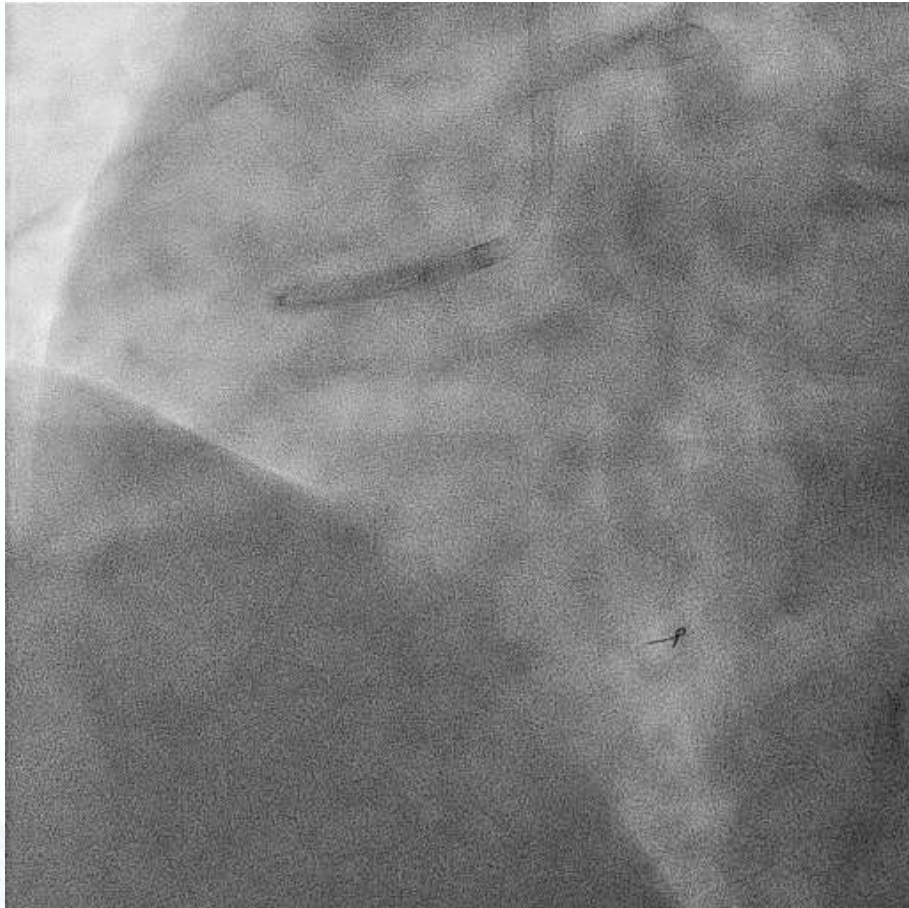
After 1.75mm ROTA
Check the coronary flow

1.75mm → 1.5mm burr
Check the coronary flow

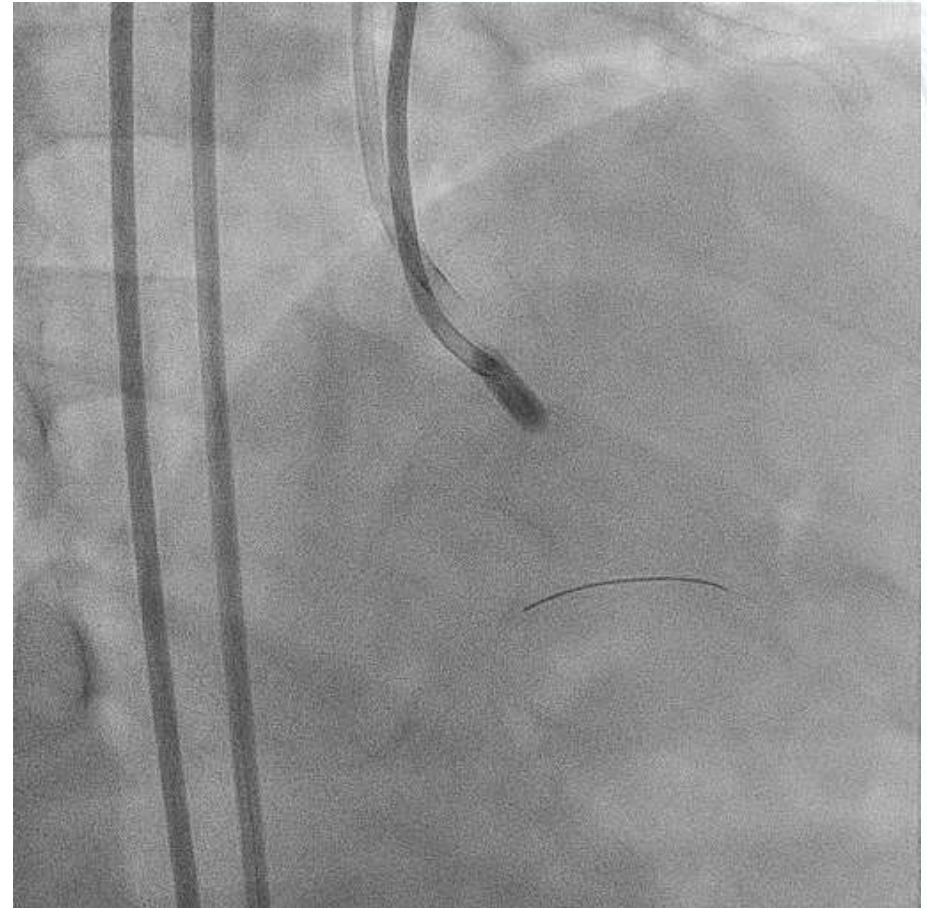


Approach : Rt.femoral artery
Guiding Catheter : 7Fr. Launcher JR4.0
GuideWire: ROTAWIRE floppy
ROTAPRO 1.75mm

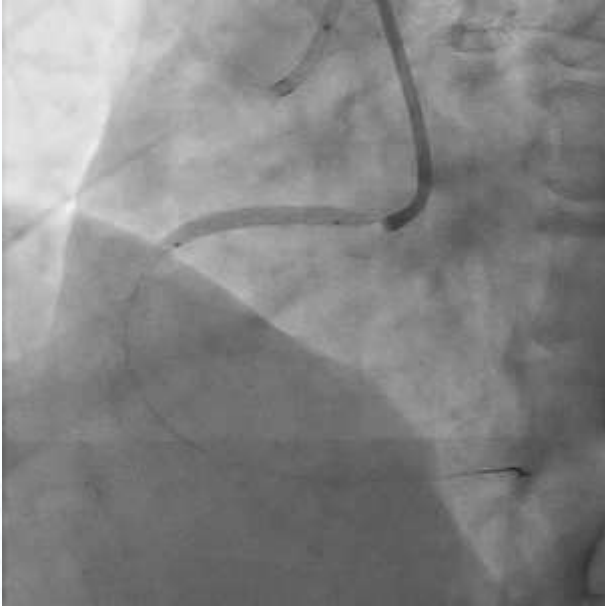
Bail out (hemostasis)



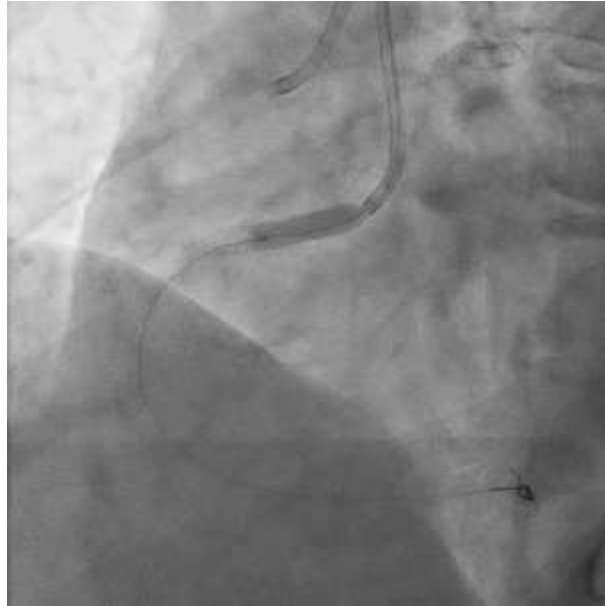
Perfusion BC : Ryusei $\phi 3.5 \times 20\text{mm}$



Bail out (hemostasis)



Covered stent : GRAFTMASTER $\phi 2.8 \times 26\text{mm}$

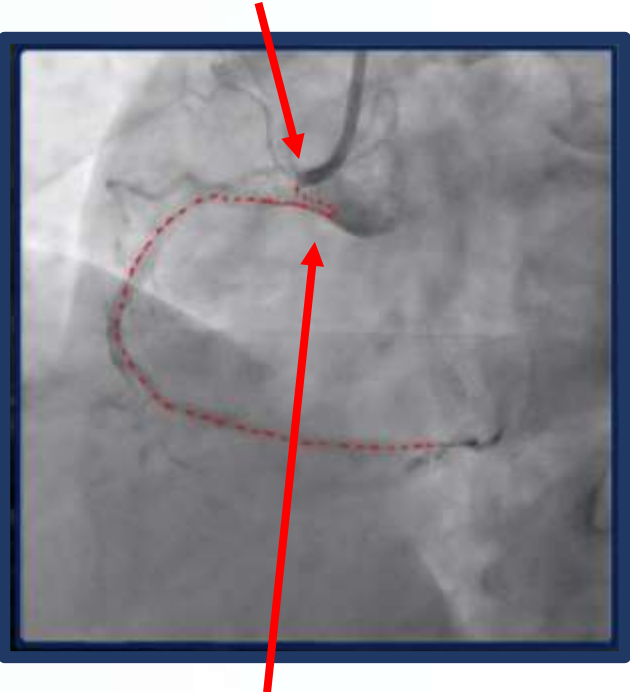


Post dilataion : NC balloon $\phi 5.0 \times 15\text{mm}$



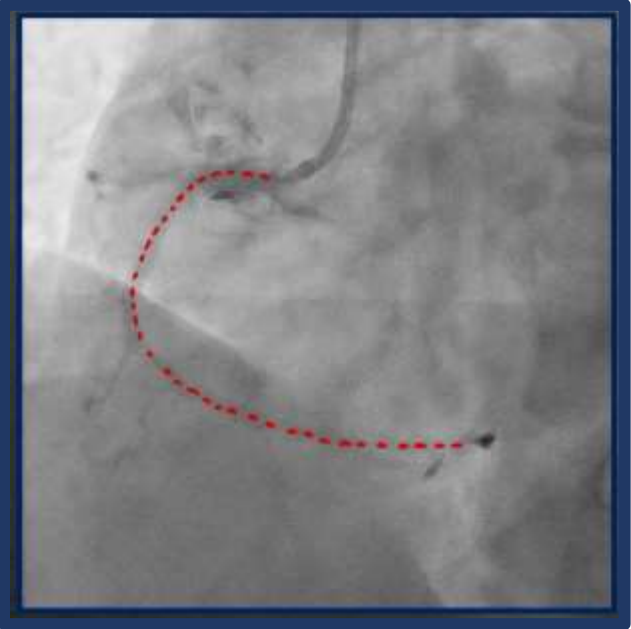
What happened ?

The guiding catheter was not engaged into RCA



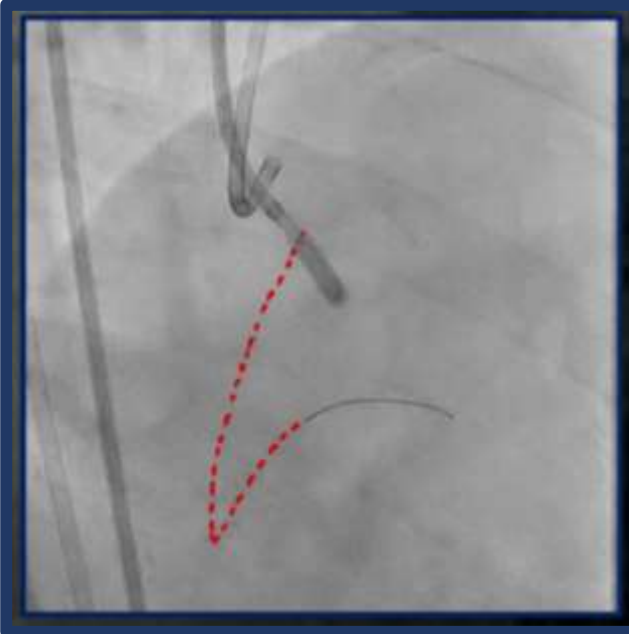
The Rotawire (red dotted line) probably **protruded** to an outside of the RCA (Aorta)

↑
Due to push the burr



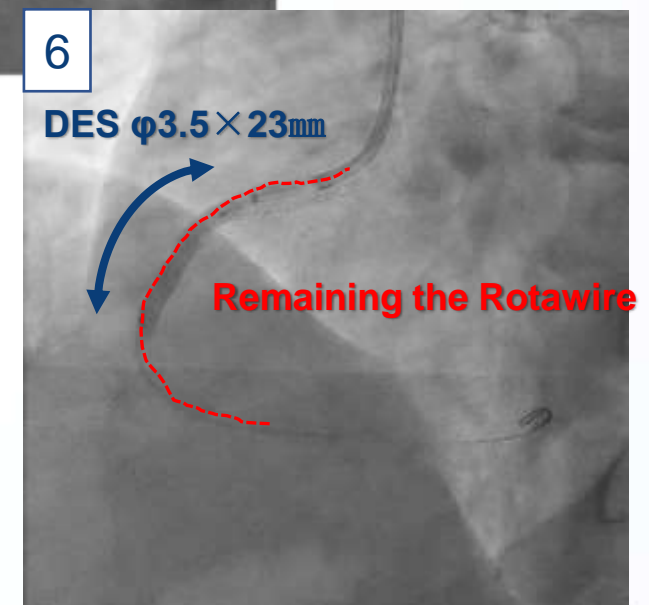
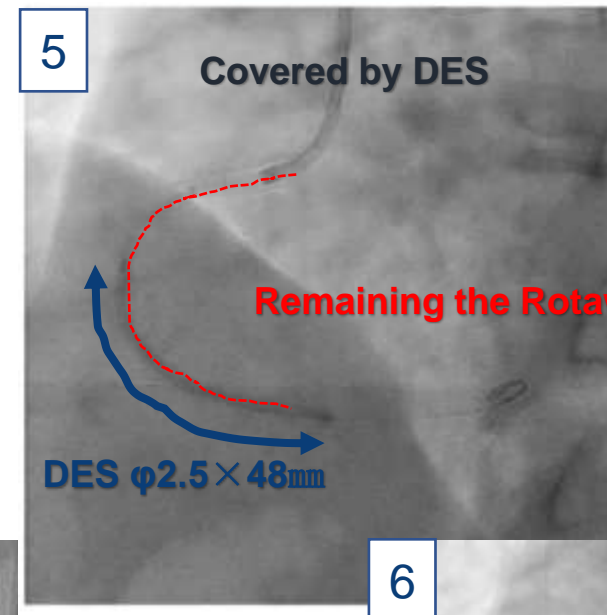
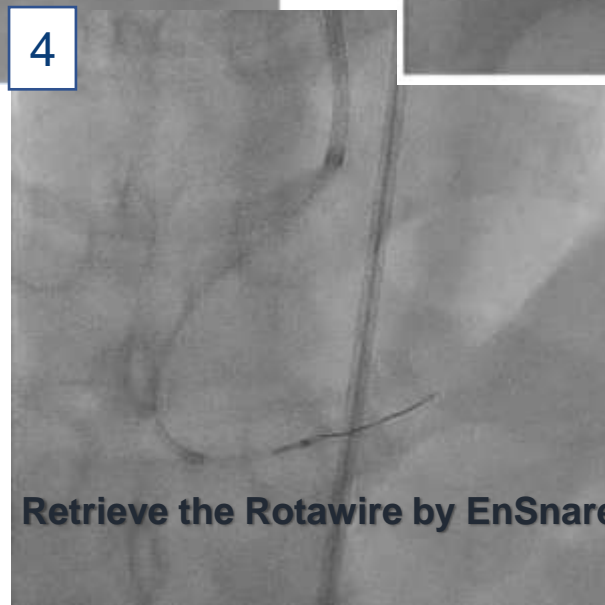
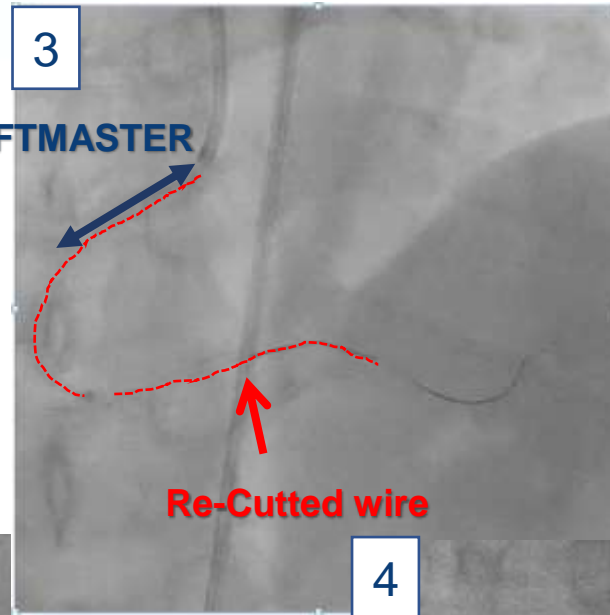
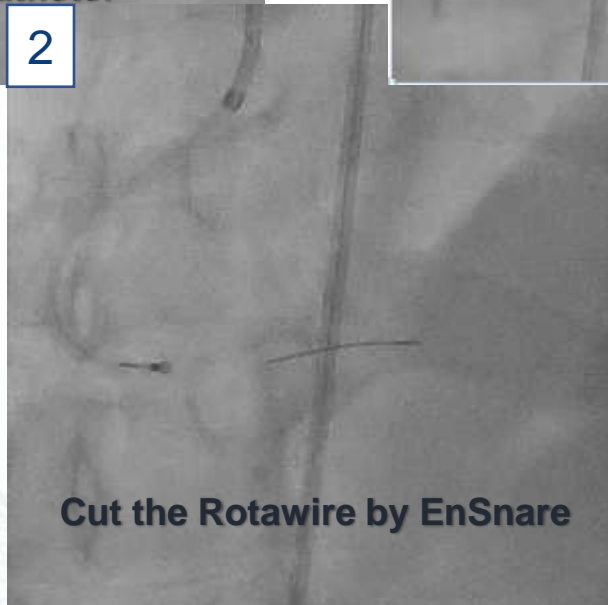
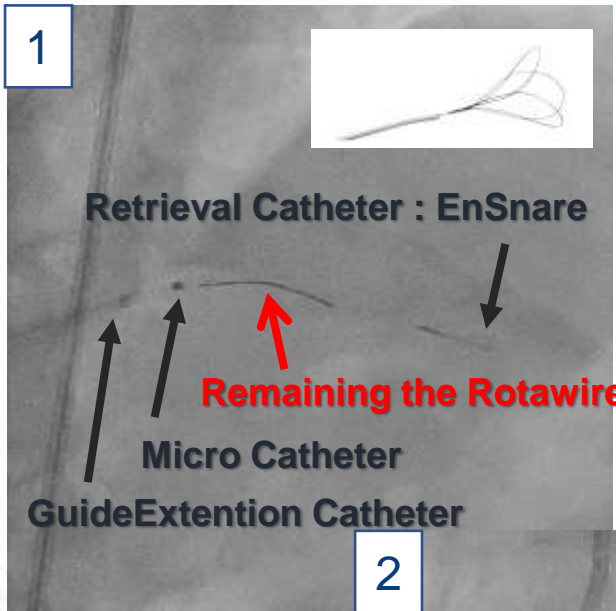
The activated burr easily cut the wire

↓
Dive into the myocardium !



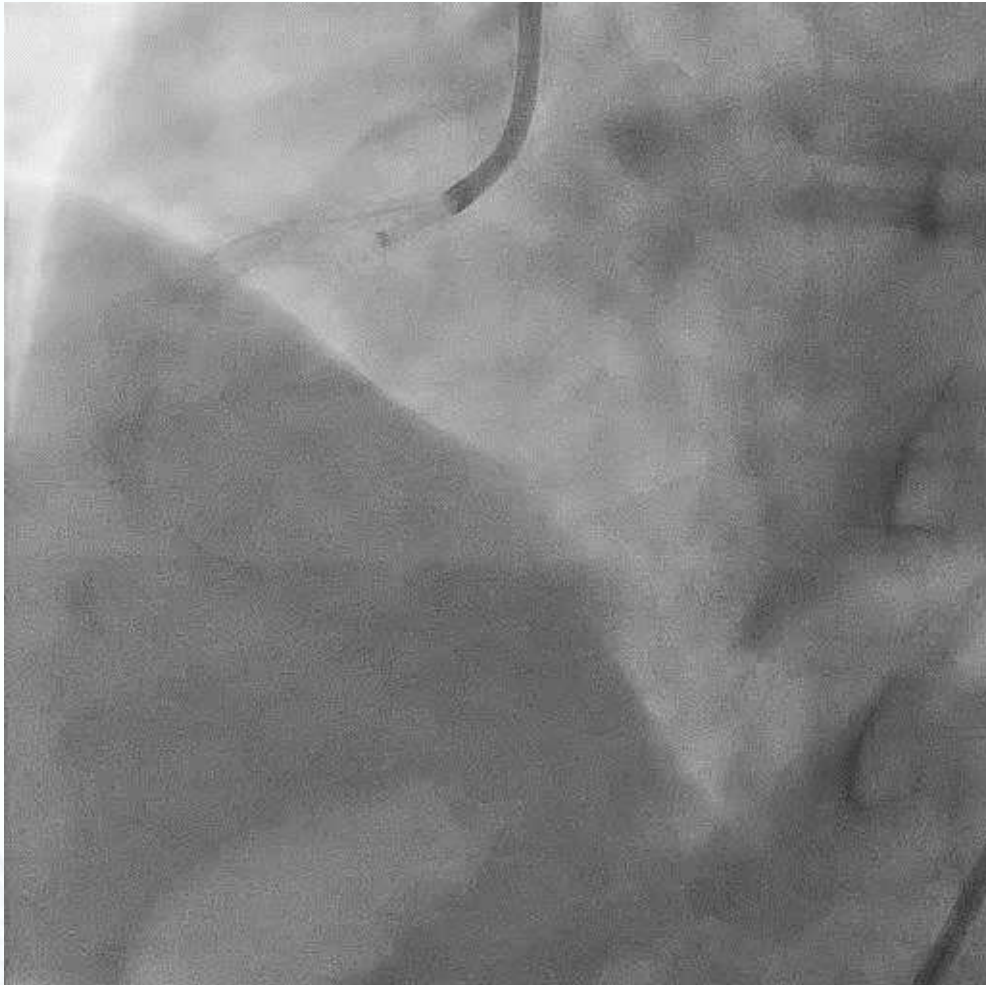
Perfusion balloon luckily advanced into same lumen. Hemostasis was got, but perforation site was dilated.

Bail Out (retrieve the remaining the wire)

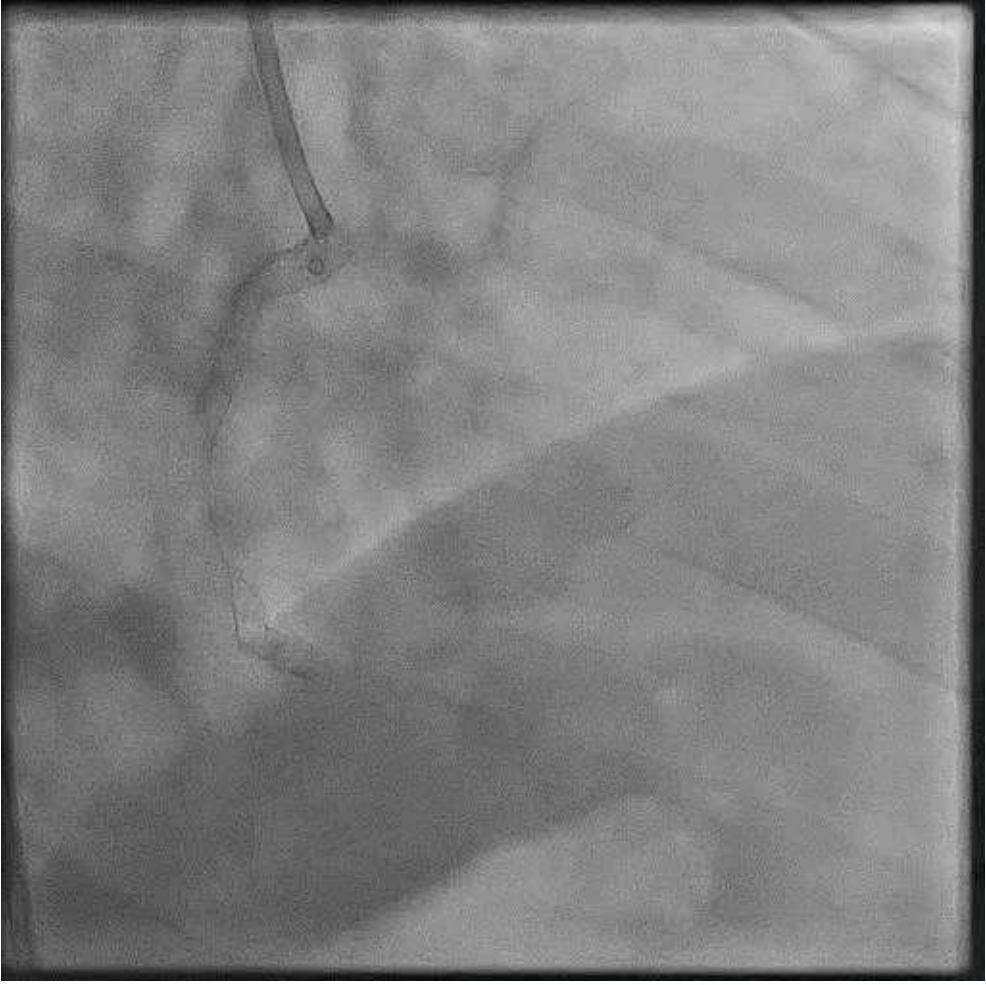


Final CAG

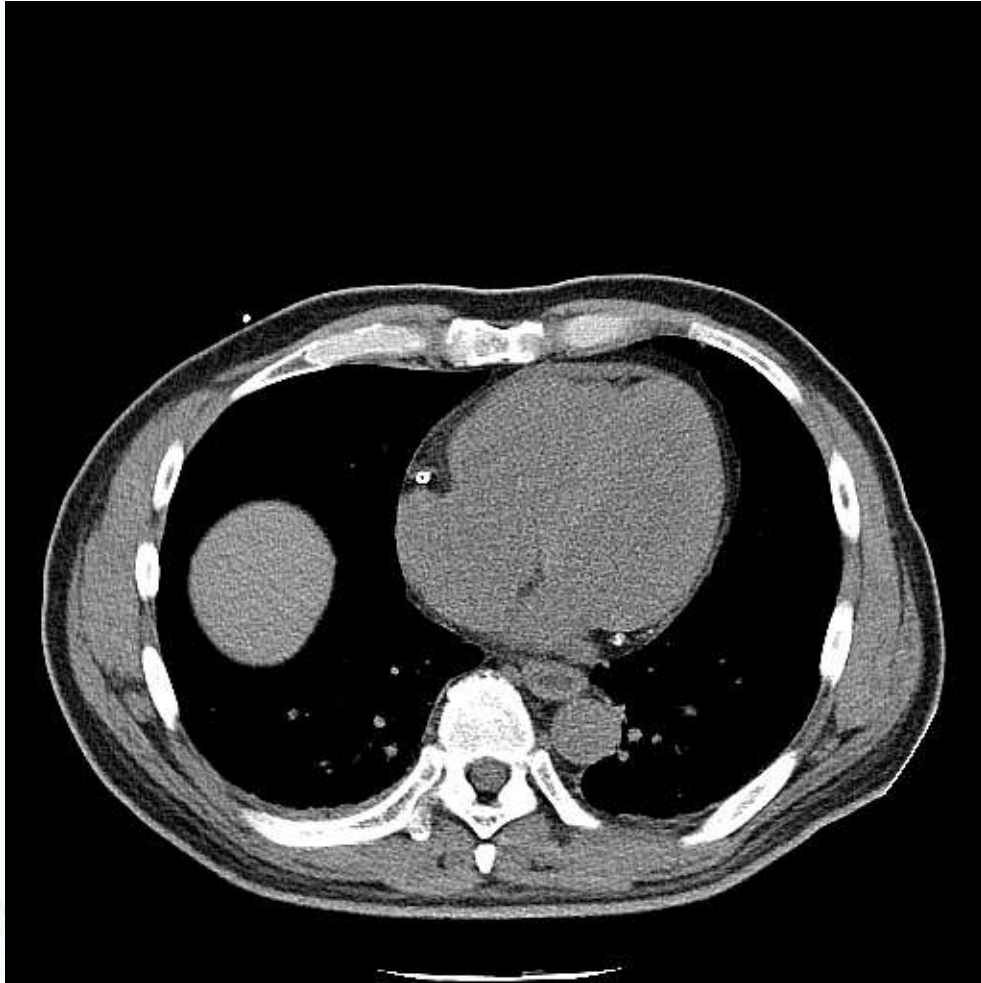
LAO



RAO



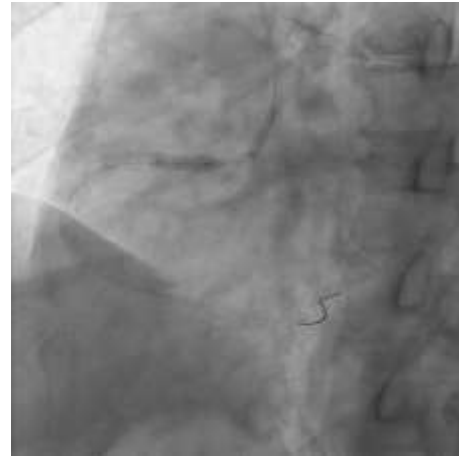
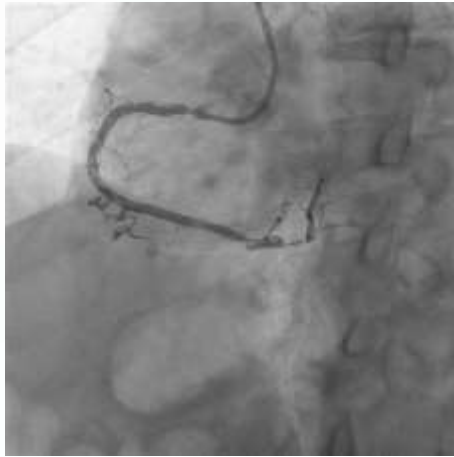
1day after PCI Cardiac CT



The Nightmare are not over...

TLR

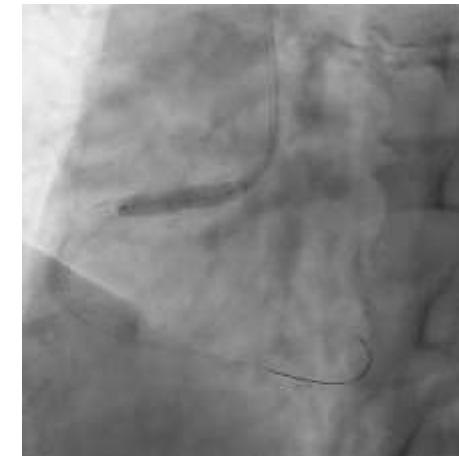
1st. TLR
13M after PCI



4.0mm CBA

4.0mm DCB

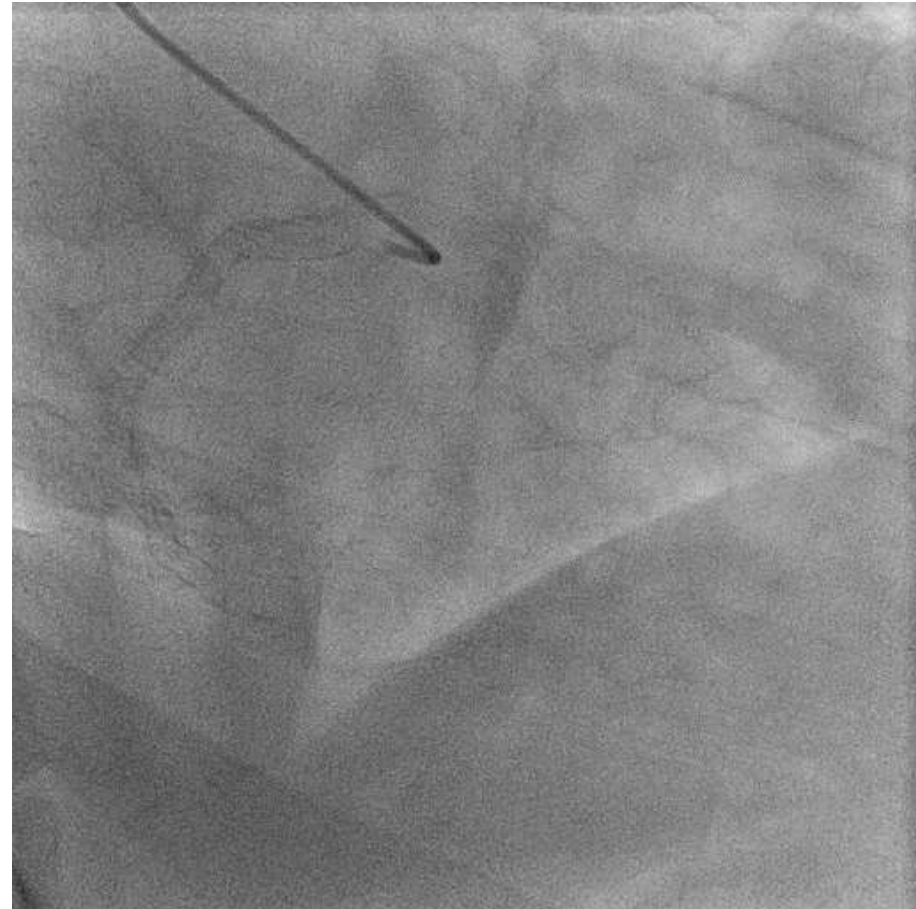
2nd. TLR
20M after PCI



4.0mm CBA

4.0mm DCB

He admitted due to Chest discomfort 1M after 2nd TLR 2020.10.29(1M after 2nd TLR)



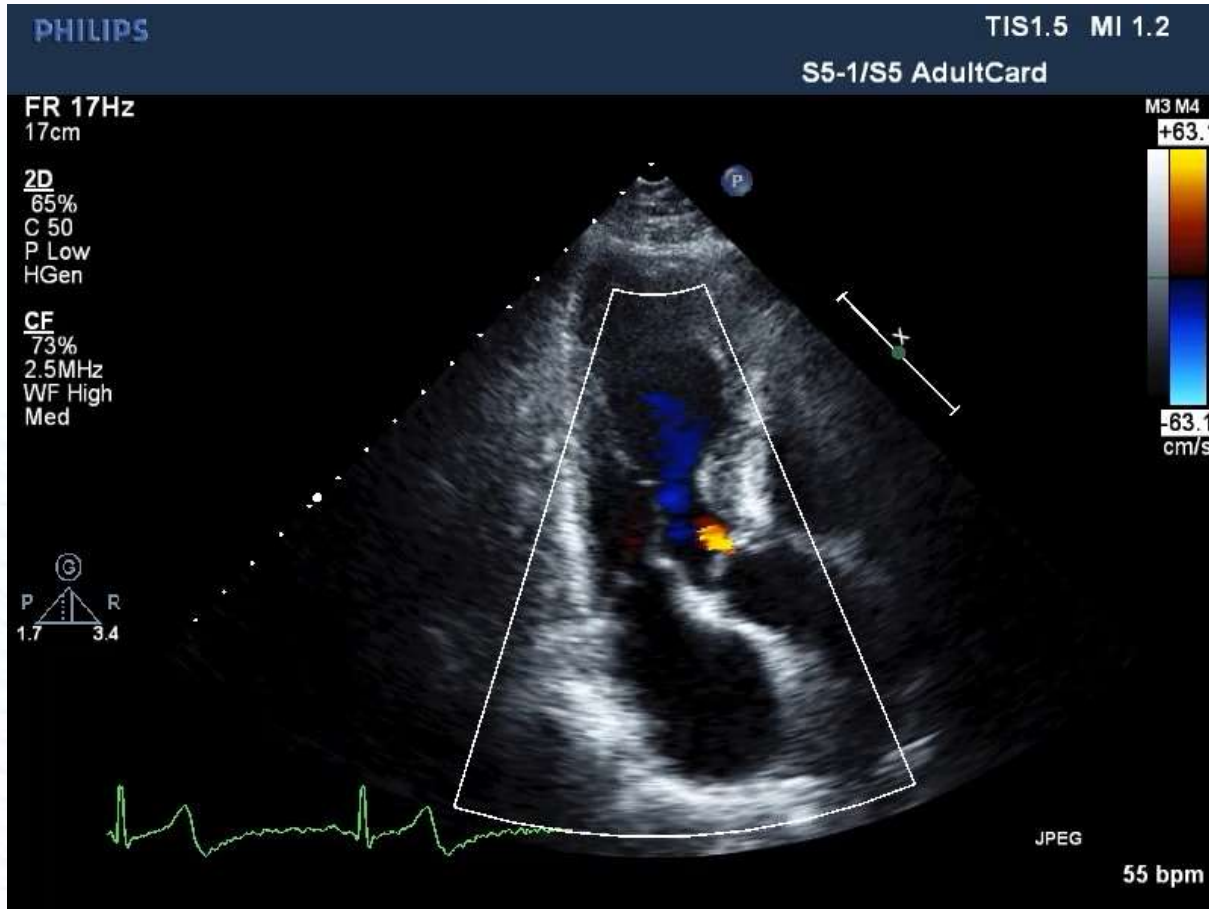
UCG (TTE)

Only 1M

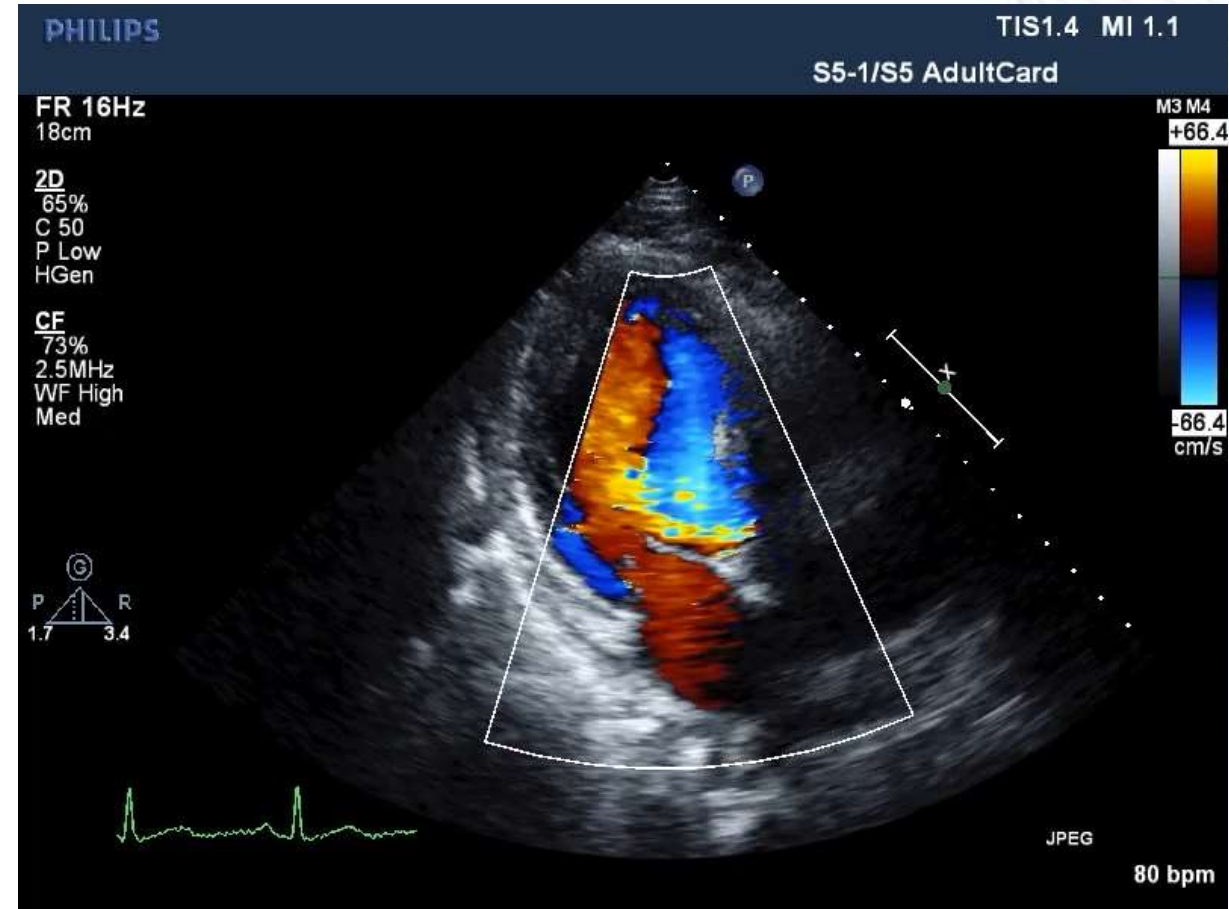


2020.9.19

2020.10.29

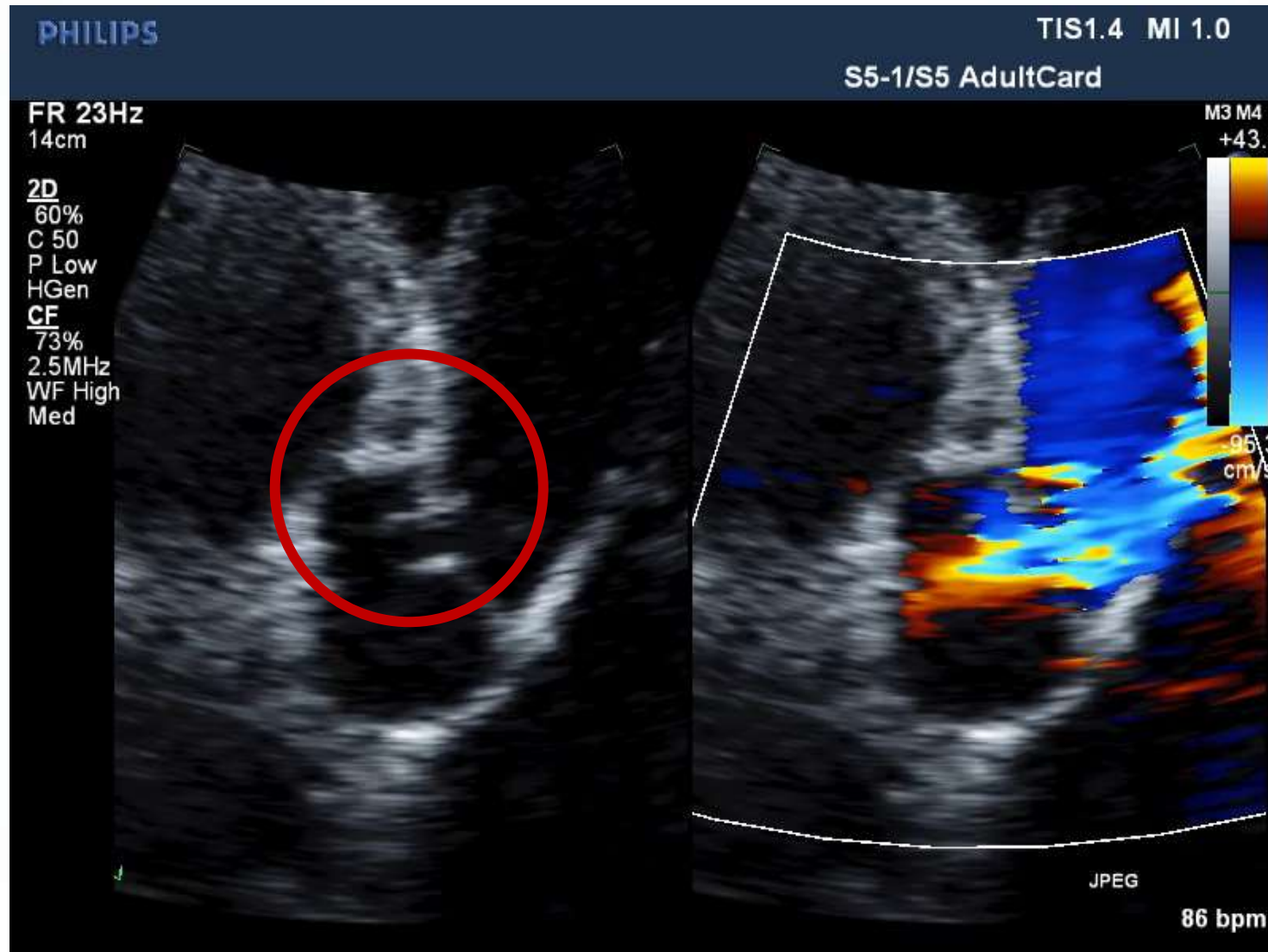


Mild AR



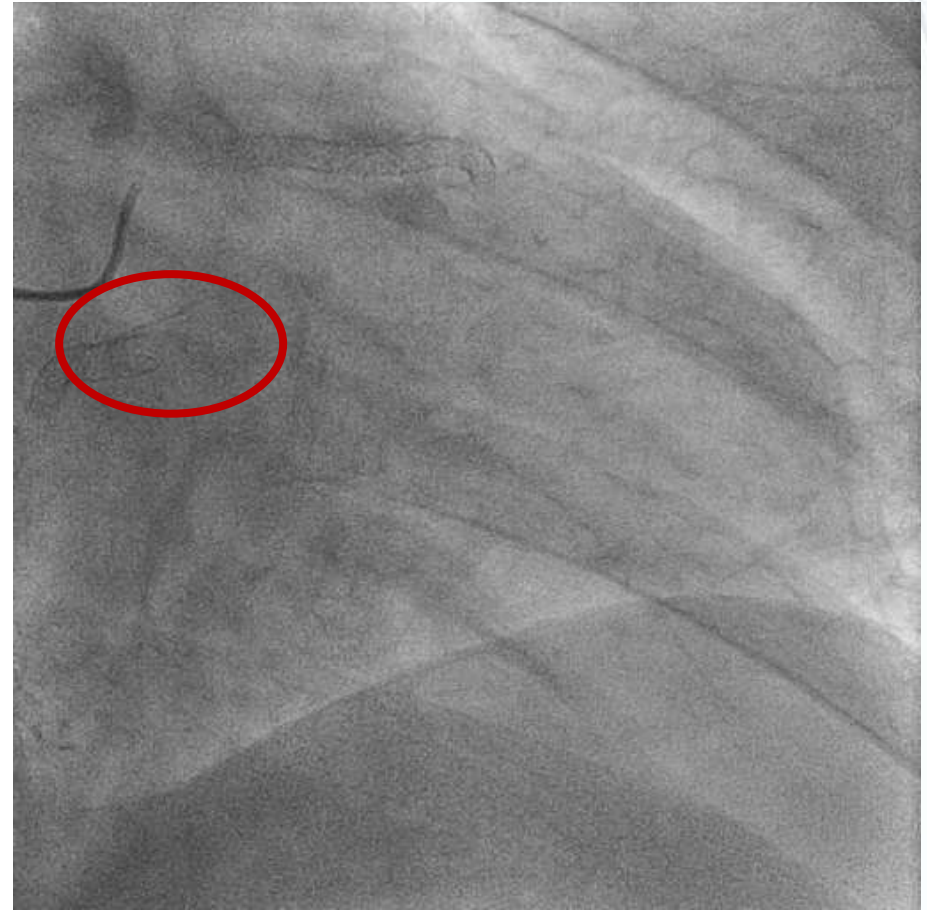
Severe AR

2020.10 (1 month after 2nd TLR)



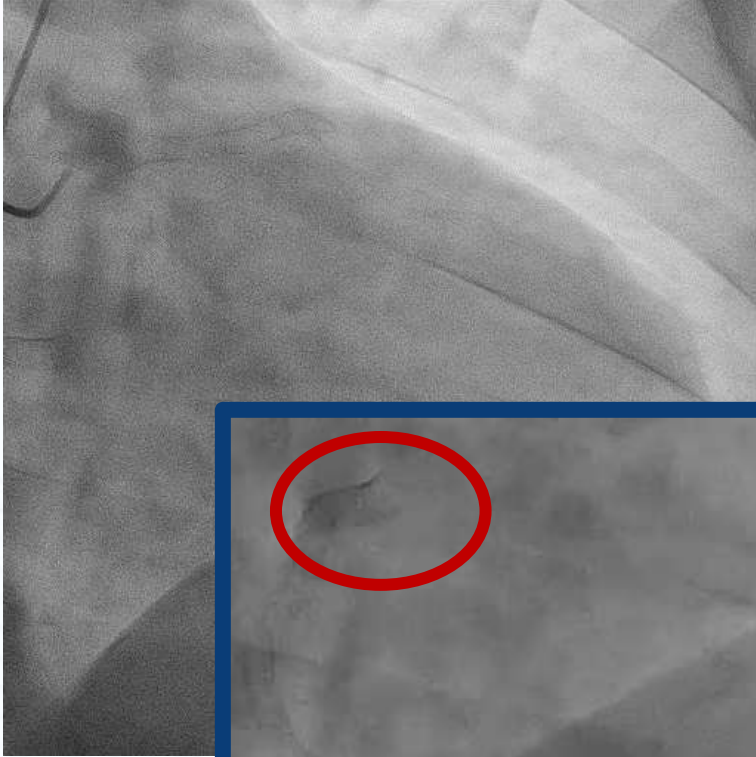
Looking back CAG

2020.10.29

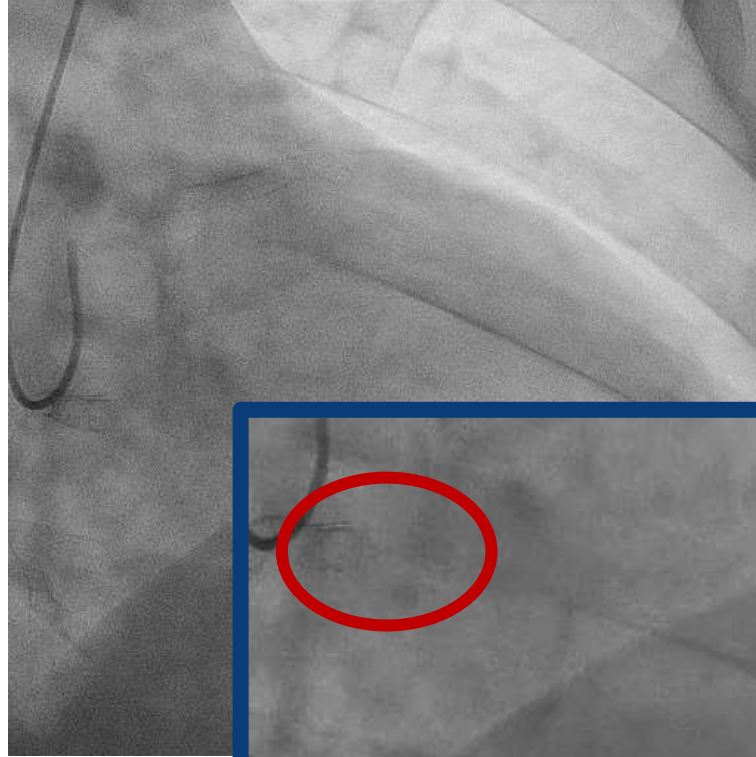


Looking back CAG

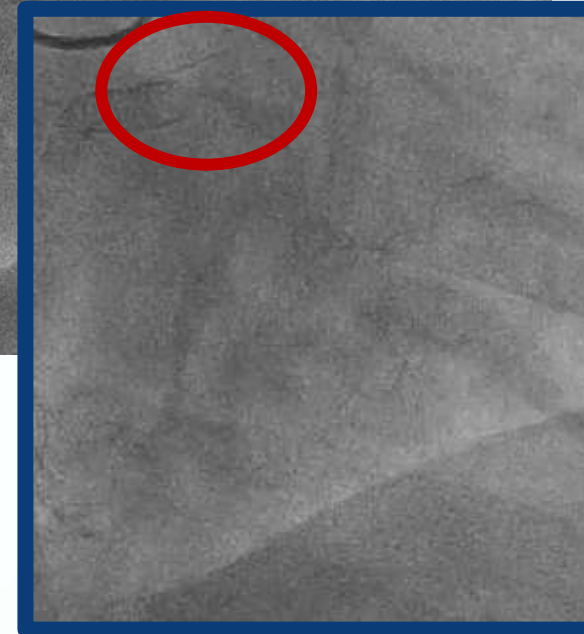
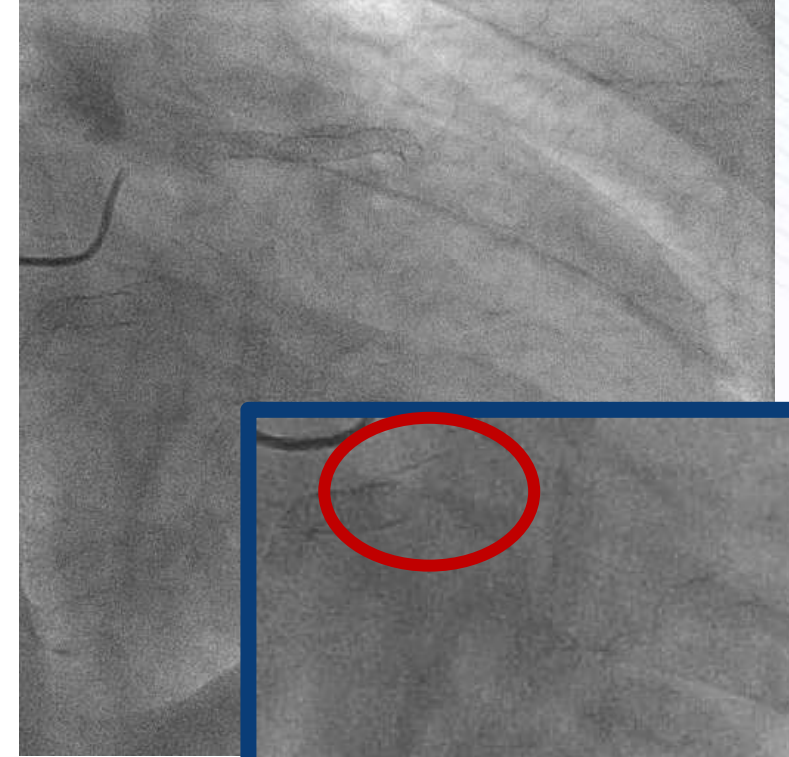
2020.3.19



2020.9.25

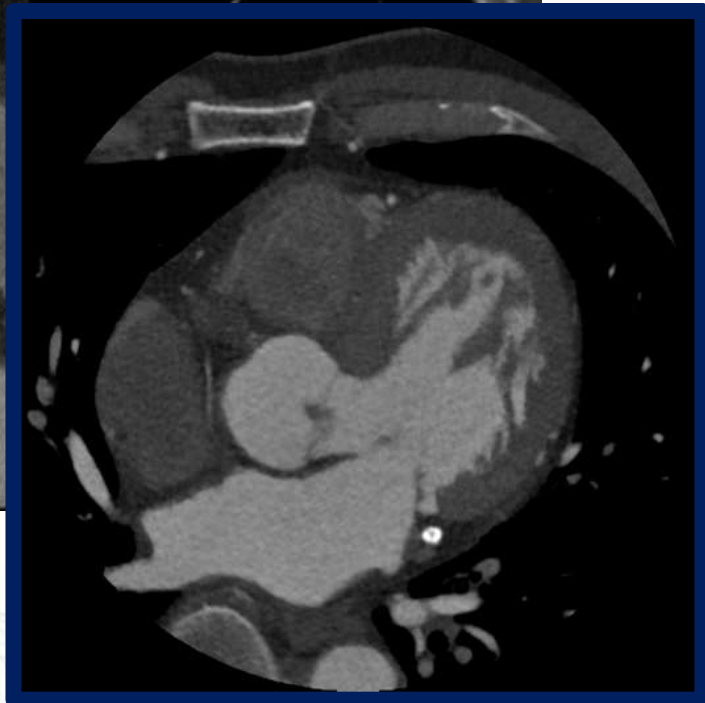
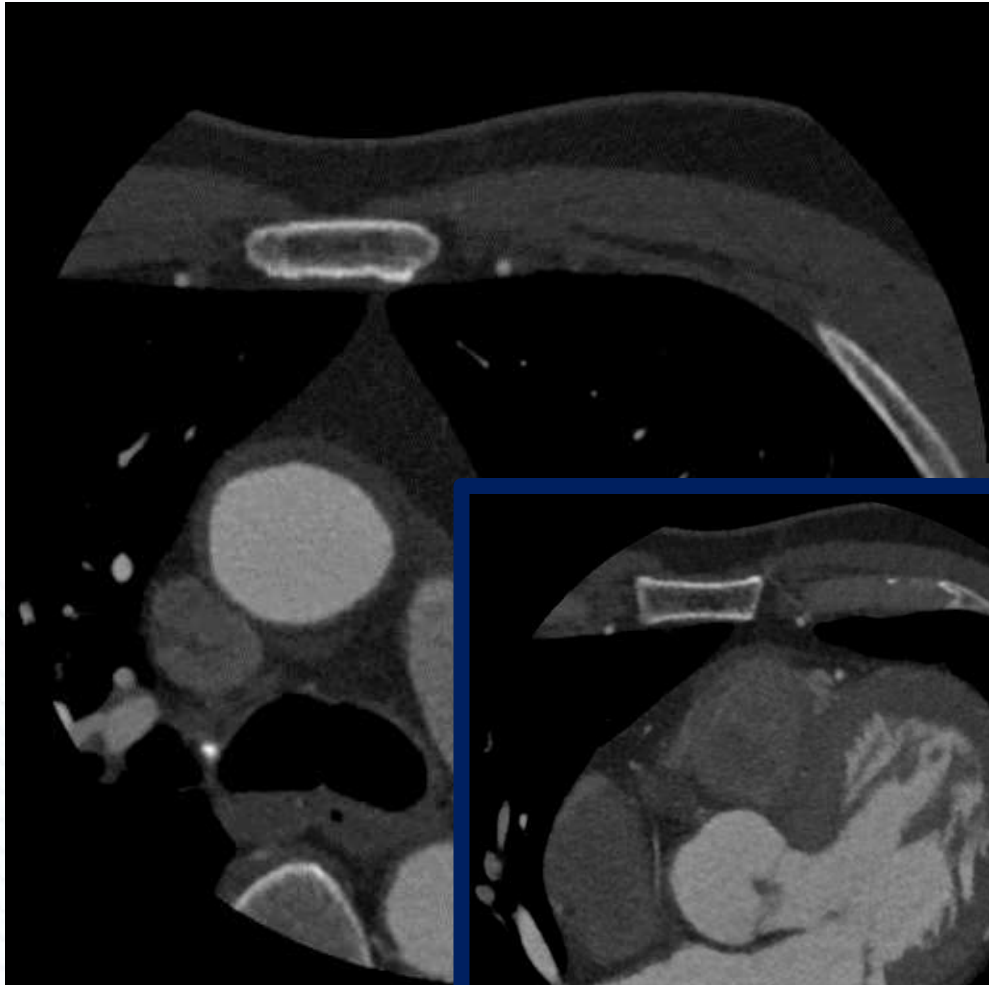


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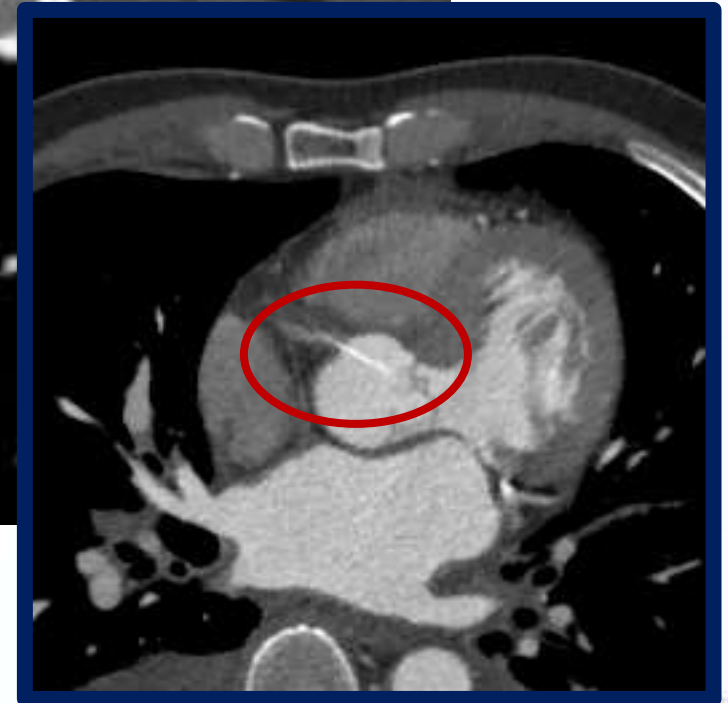
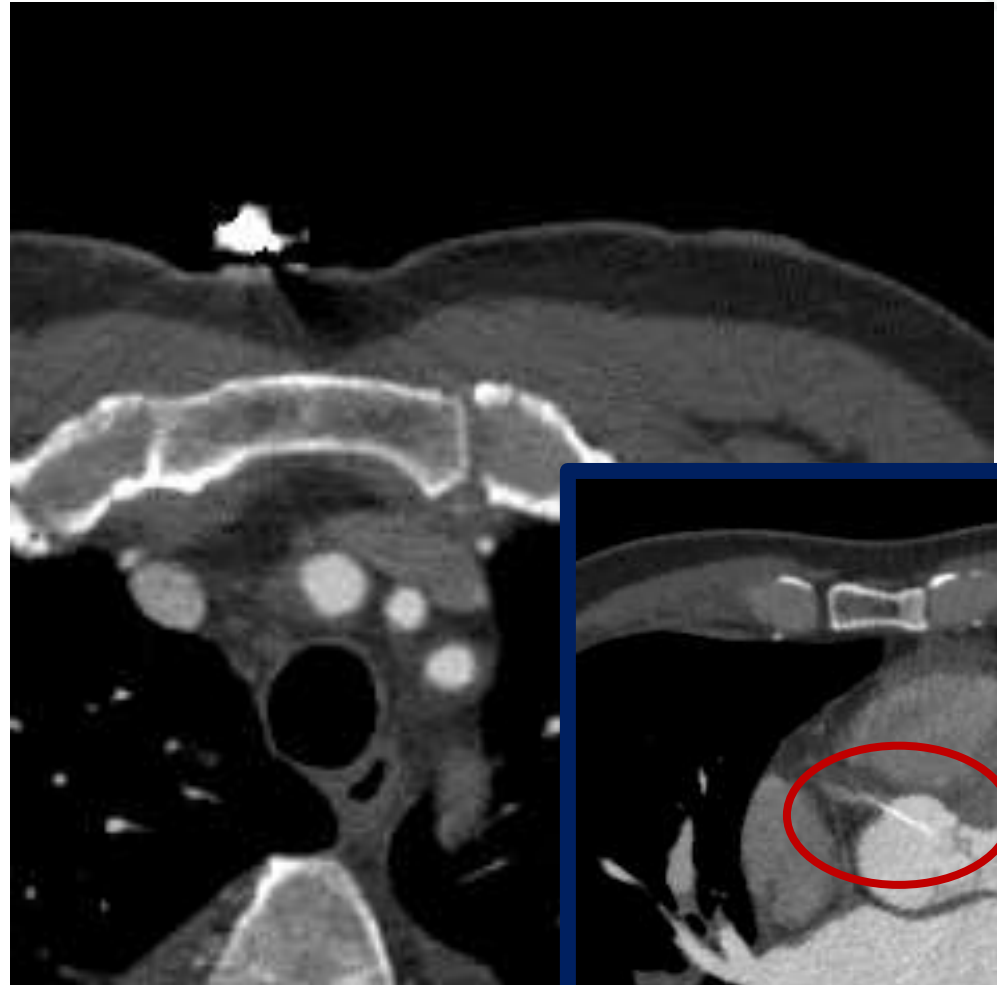


Cardiac CT

2020.9.19



2020.10.29

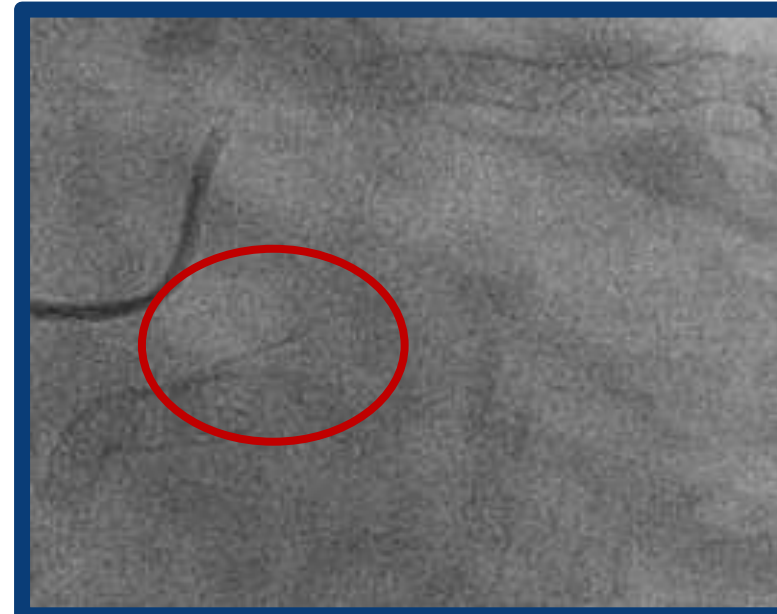


Cause of Severe AR

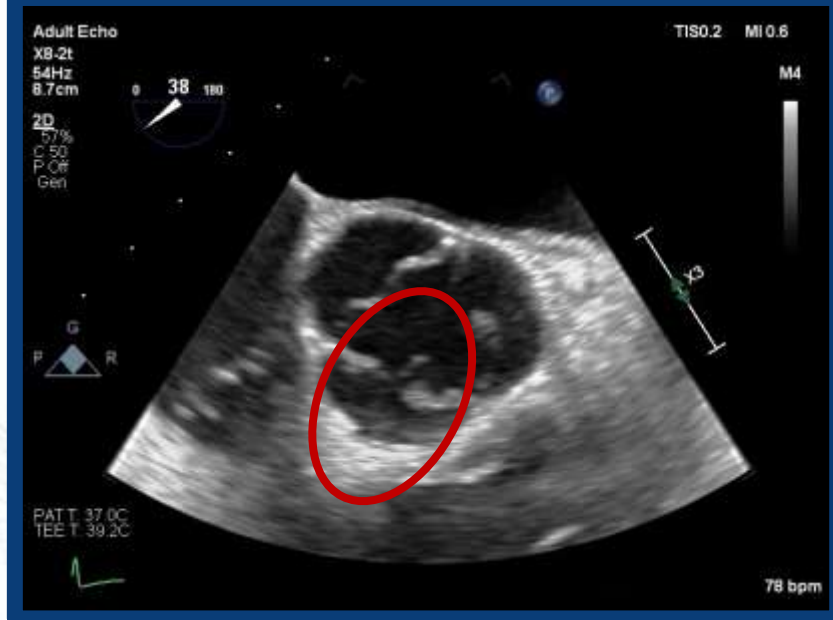
TTE



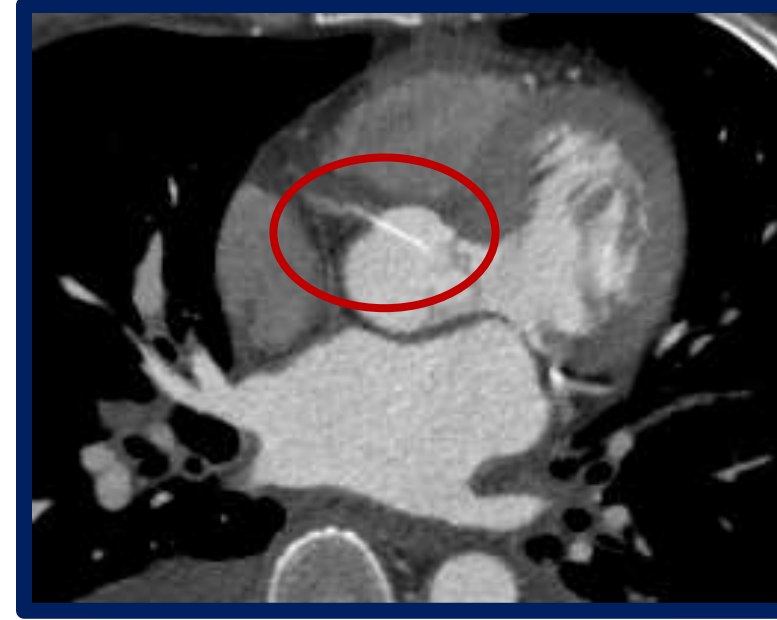
CAG



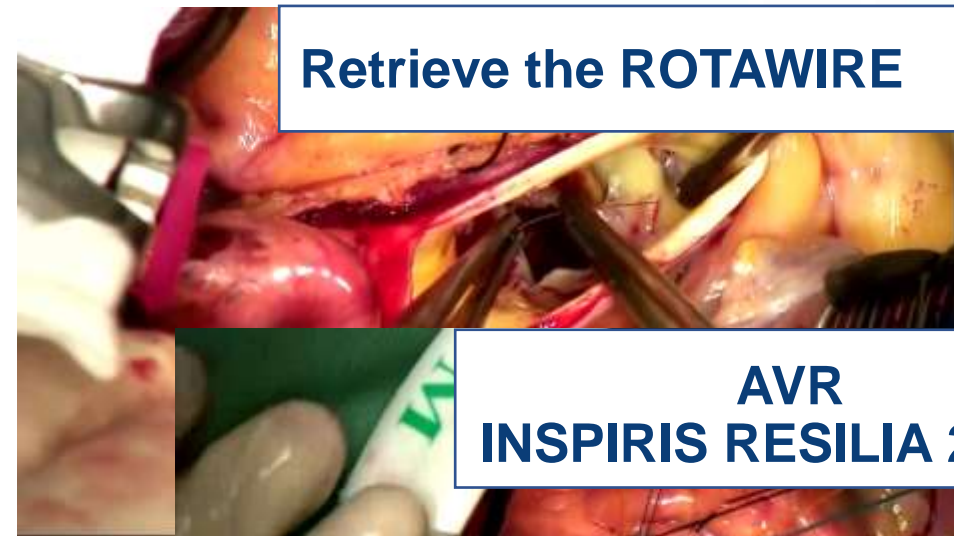
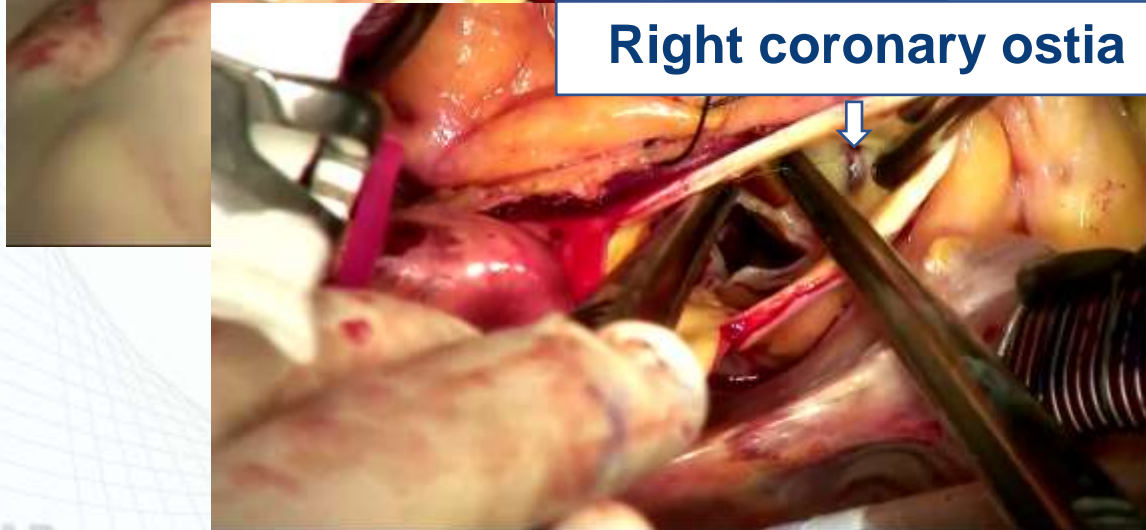
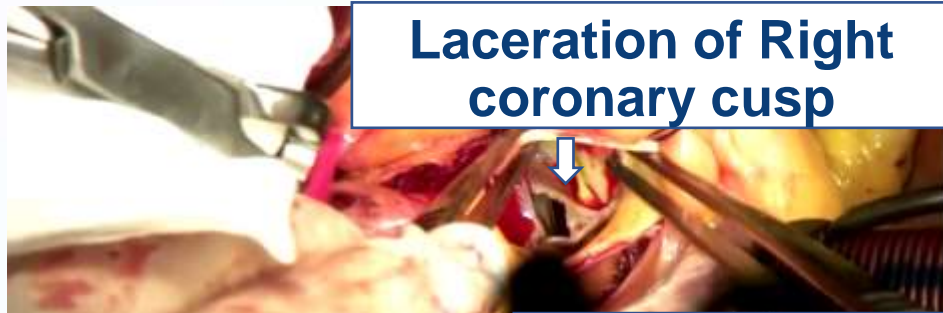
TEE



CT



Residual ROTAWIRE retrieve/AVR/CABG



Clinical course after ROTA perforation

- PCI : Rotational atherectomy for severe calcified proximal RCA was performed, but cutted Rotawire, made coronary perforation. Using stent graft, bailout was success.
→ **Must check the GC and Rotawire position (This is basic)**
- After 13M : 1st Restenosis was occur, TLR was done.
- After 20M : 2nd Restenosis was occur, TLR was done.
→ **Miss a little bit prolonged residual Rotawire (Do not make assumption)**
- After 21M : Severe AR was founded. Residual wire protruded to Aorta, and made laceration of Right coronary cusp. Receive AVR/CABG.
- Now He is well and free from symptom.

Take Home Message

- **One moment of inattention can cause serious complications and the long nightmare. Always be careful.**
- **Constant heartbeat and coronary artery motion can move the remaining wires that have been pressed to vessel wall by stent.**
- **Do not make assumptions. Careful, wide-eyed observation is necessary.**