

# Case presentation

## Hole in the wall

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# New hole in the Wall

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## **General data:**

- Female patient
- 49 years
- Rheumatoid arthritis

## **Risk factors:**

- Dyslipidemic
- hypertensive

- CABG x 2 (LIMA to LAD, SVG to LCX) 5 months back
- Exertional angina class III for one month

# Investigations

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## Laboratory tests

- S. creat. 0.6 mg%
- HB 5.2 gm%
- HbA1c 4.9 %
- Cholesterol 140 mg%
- **LDL 68 mg%**
- TG 105 mg%
- HDL 48 mg%
- E GFR 102 ml/min

## ECG:

- Poor R wave progression

## Echocardiography:

- EF 45%
- SWMA at rest (apex, anterior, anterolateral and posterolateral hypokinesia)

# CT Coronary angiography

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## Multivessel disease:

High grade stenosis mounting to total occlusion of the left main

Occluded SVG to OM

Patent LIMA to distal LAD with significant anastomotic stenosis

Diseased proximal RCA

No other grafts

# CT Coronary angiography

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Done through the right femoral artery complicated by pseudoaneurysm (Ultrasound guided occlusion)

Total occlusion of the left main with failure of engagement

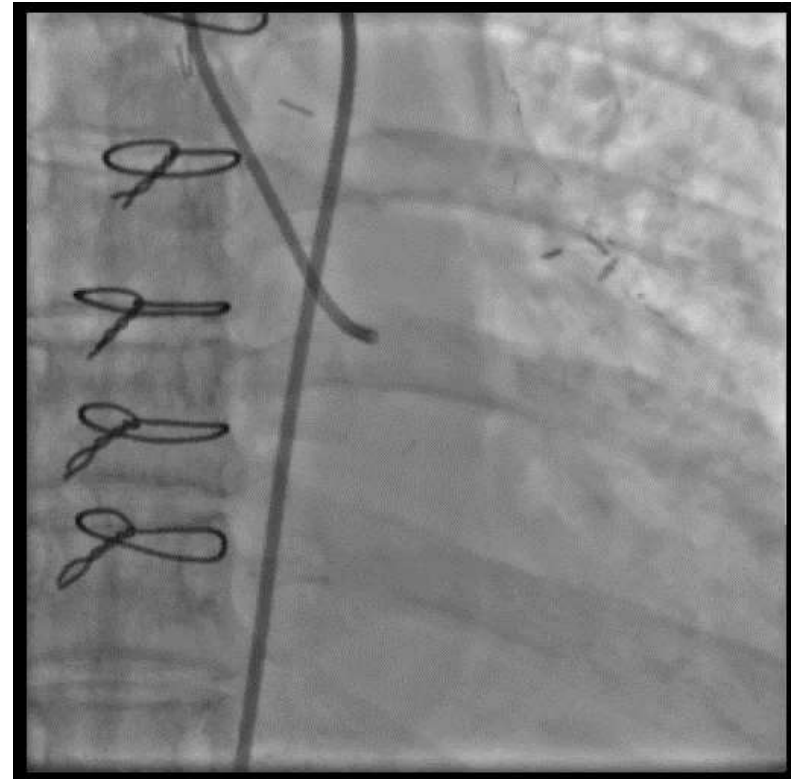
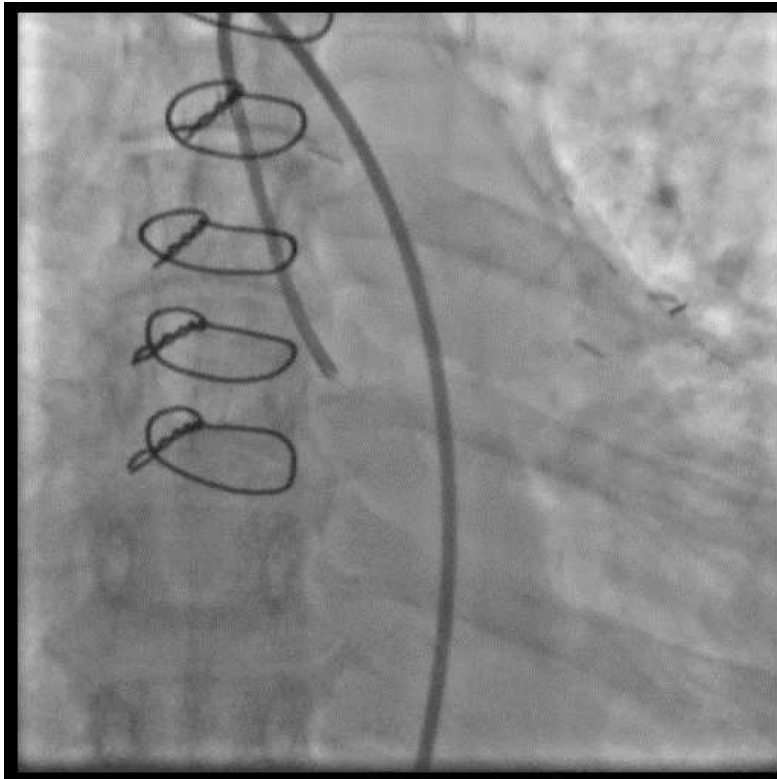
Significant anastomotic stenosis of the LIMA to LAD, filling of the left system from the LIMA

No other grafts

No visible collaterals from RCA to left system

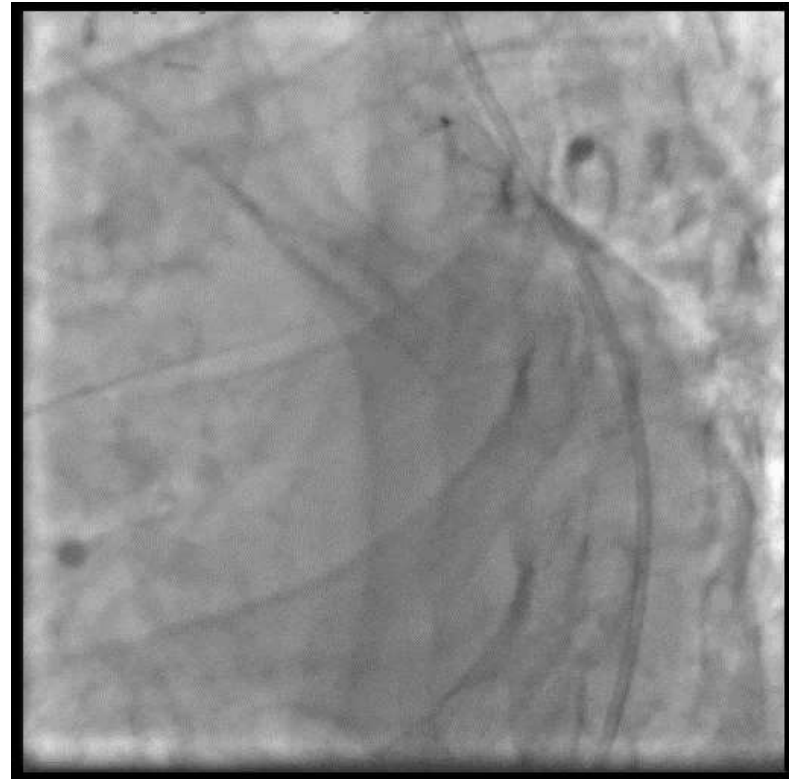
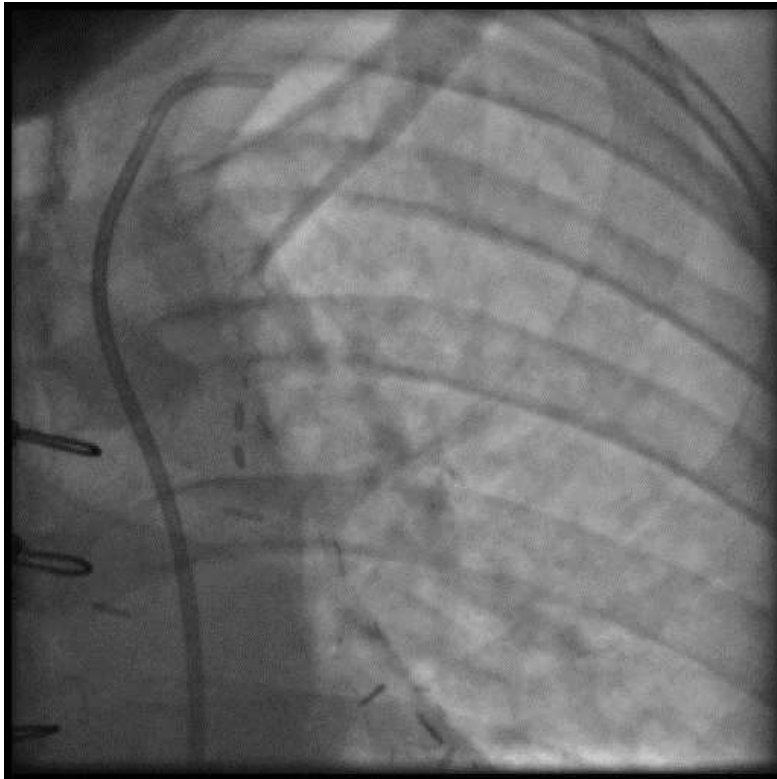
# Angiography

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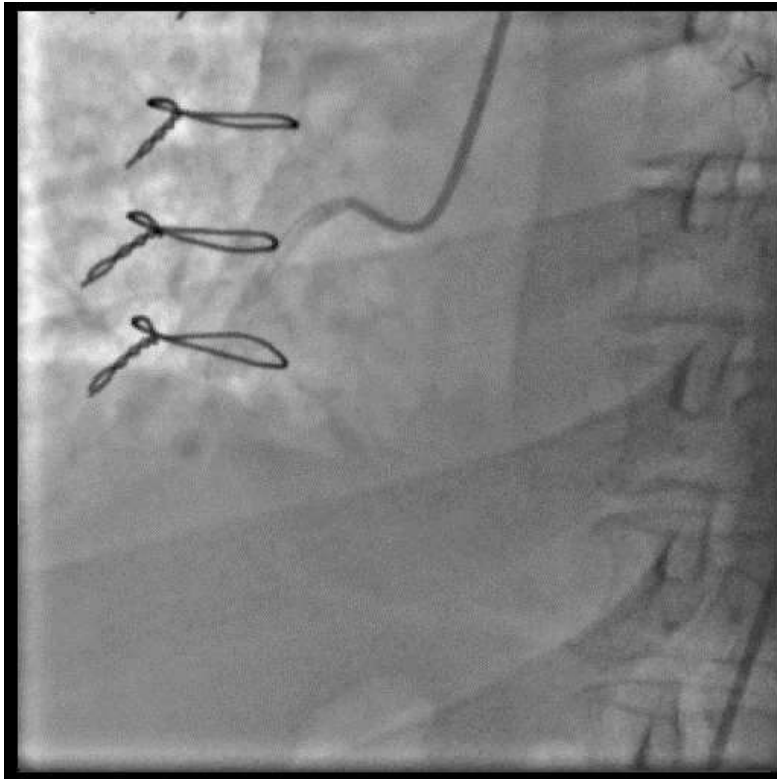
# Angiography

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# Angiography

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# Heart Team



**PCI**



**Redo  
CABG**

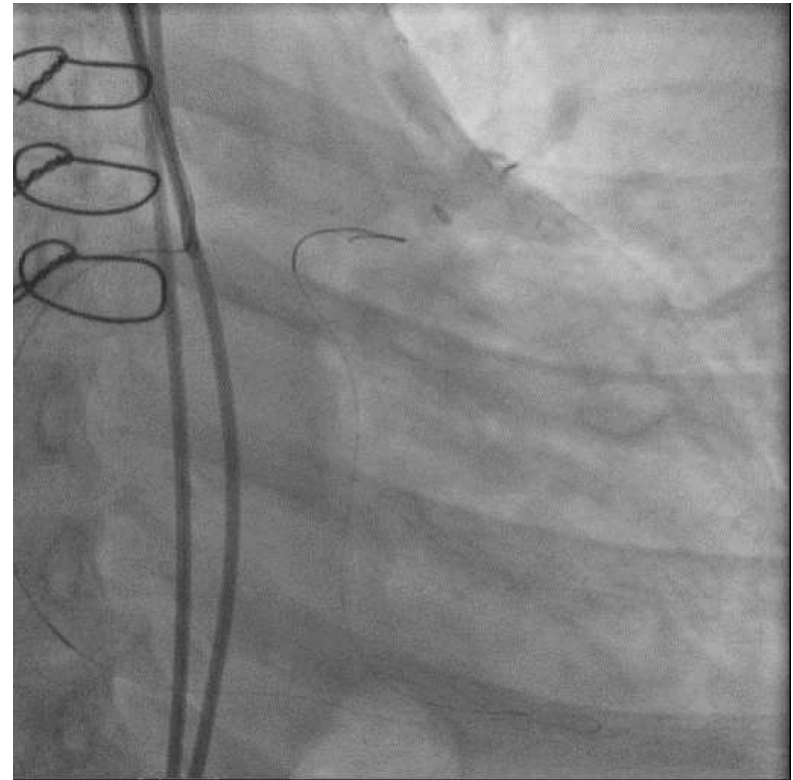
# Preparation

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- Access: left femoral 7F, left femoral 6F (right femoral pseudoaneurysm, absent right radial pulse, weak left radial with failure of cannulation)
- Guides: JR4 6F for LIMA, AL 0.75 6F for the RCA, XB3.5 7F for left main
- Microcatheters (Caravel 150 cm, teleport 150 cm)
- Snare: 20 cm
- Wires: Sion black, Gladius EX14, RG3

# Retrograde crossing from RCA to LCX (Sion black / teleport 150 cm)

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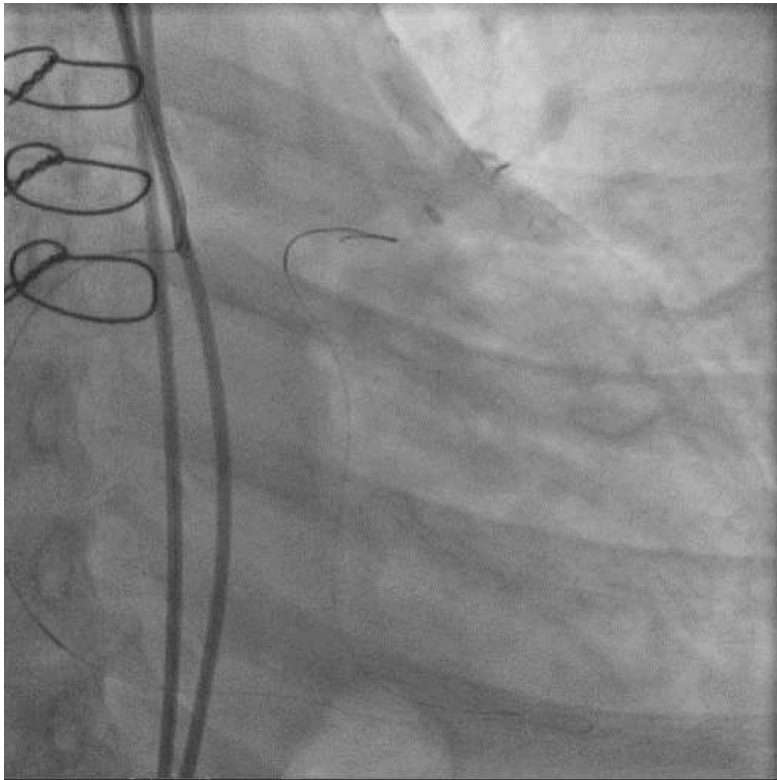


1<sup>st</sup> problem:

Abrupt occlusion of the  
RCA (Guiding catheter  
induced)

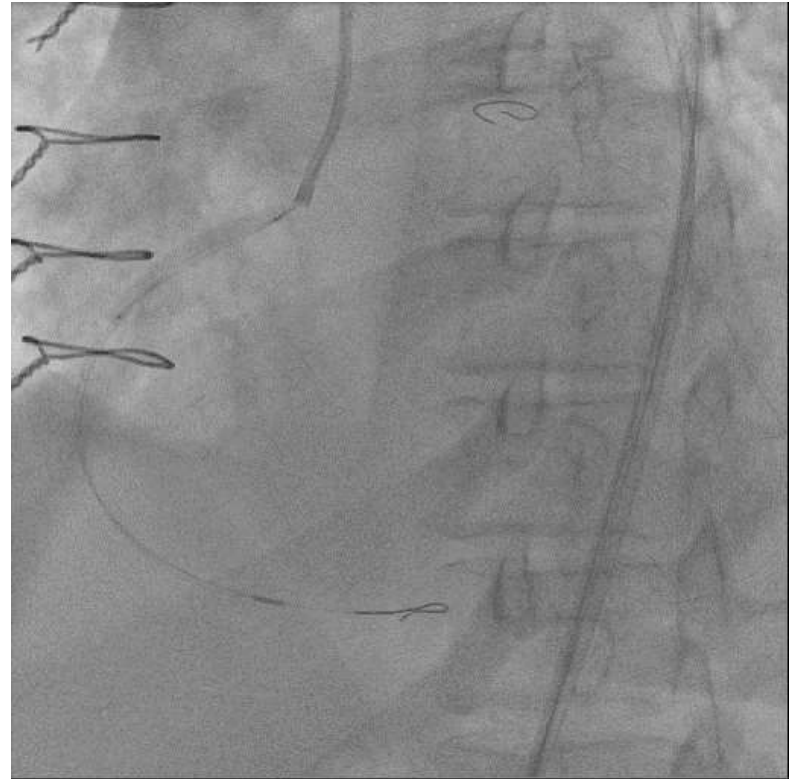
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What should I do ?



# PTCA by 3x20 mm balloon

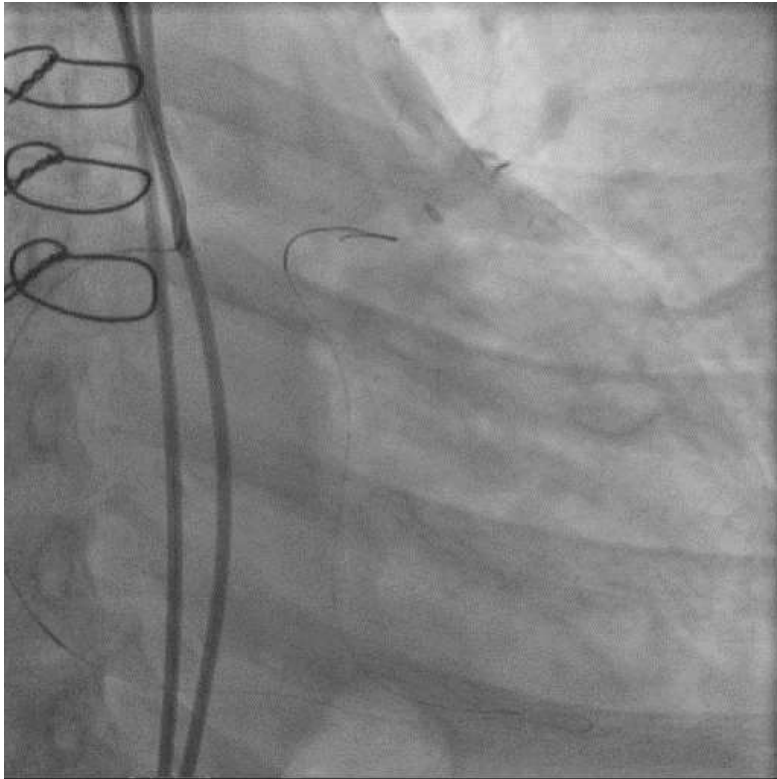
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2<sup>nd</sup> problem:  
Microtheter not crossing

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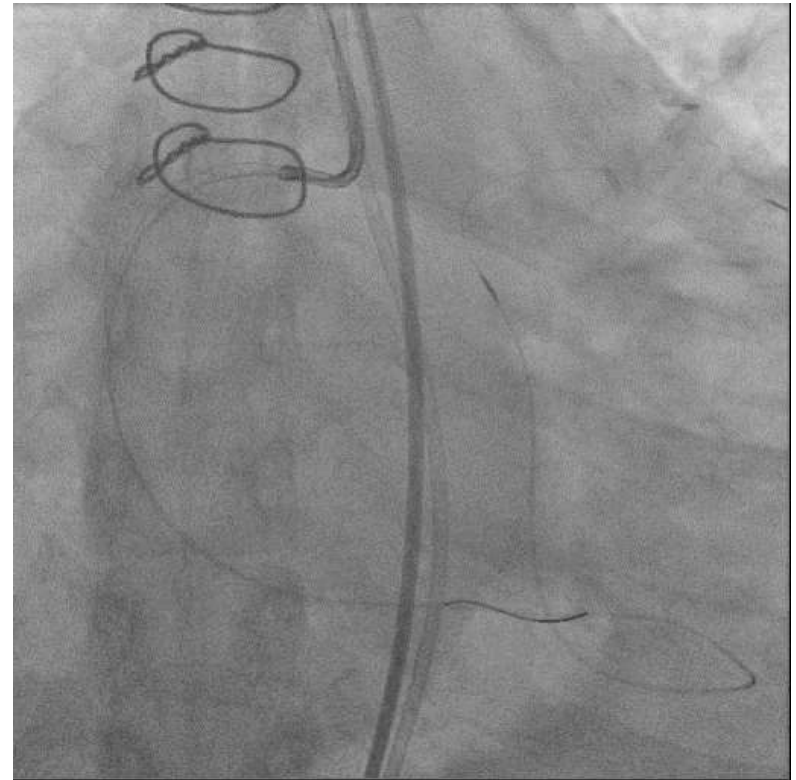
What should I do ?





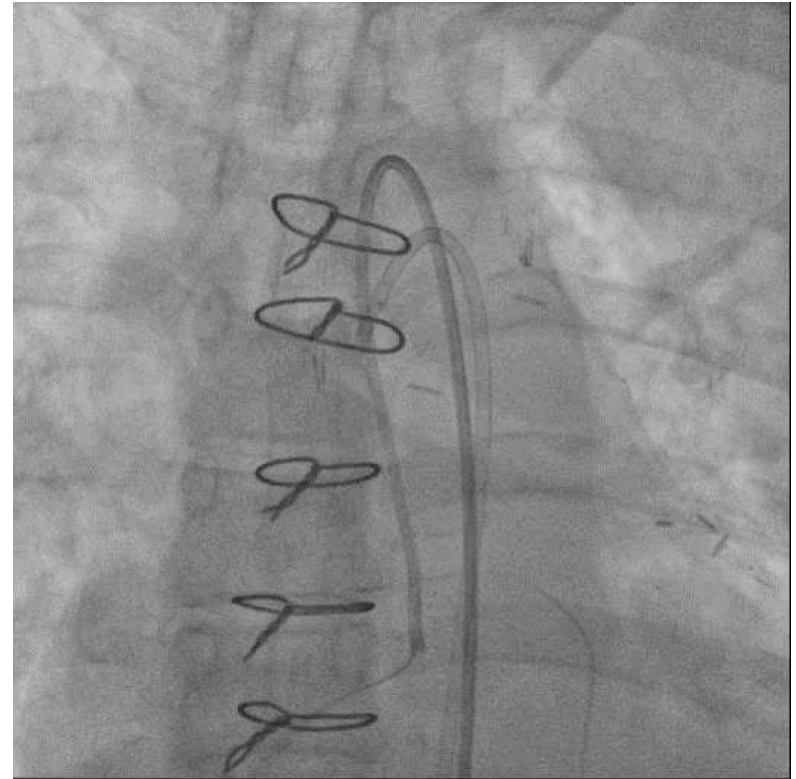
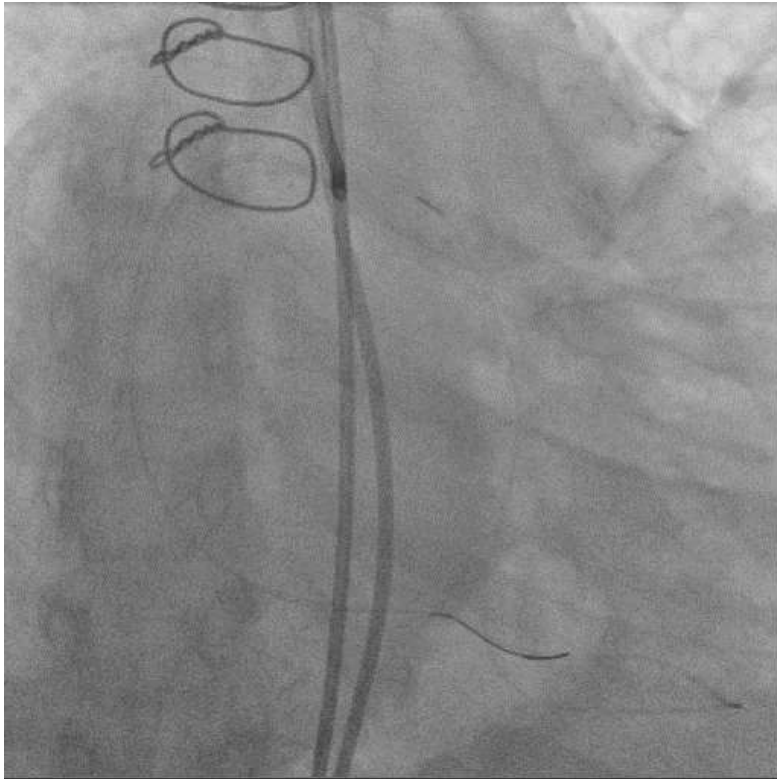
# Caravel 150cm for crossing

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# Gladius EX14 for penetrating LM osteum

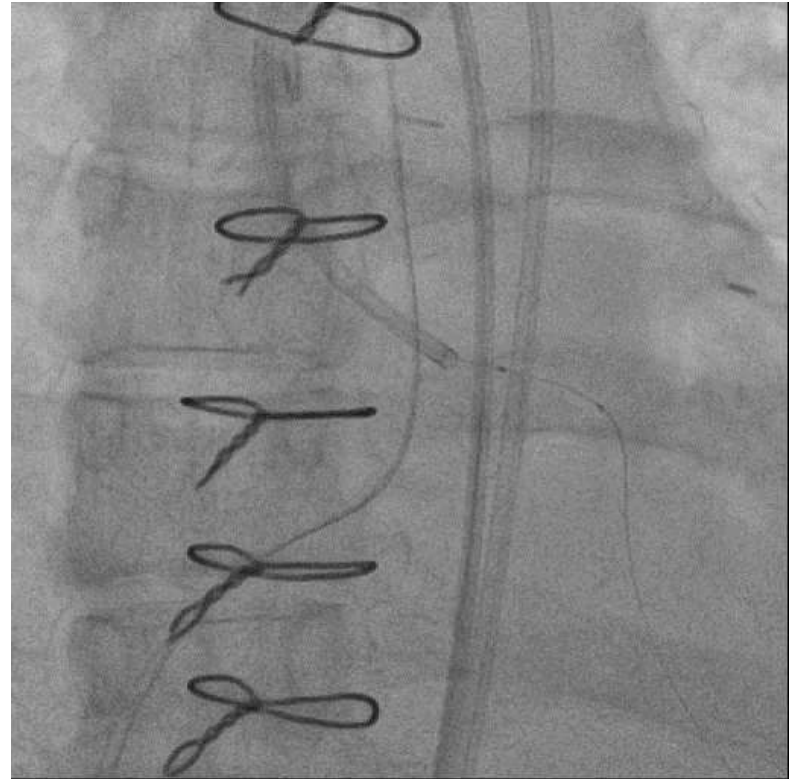
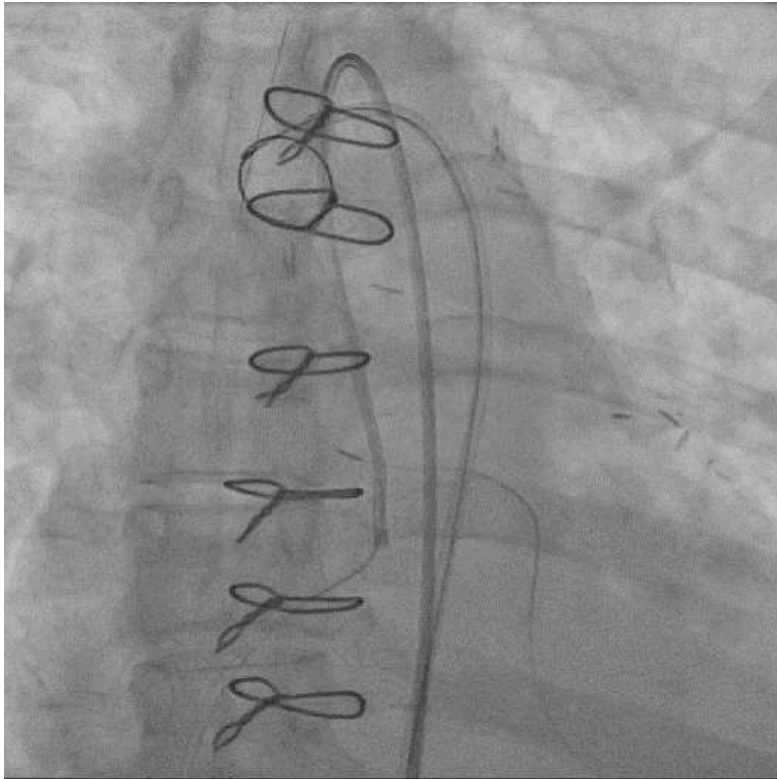
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# Snaring of RG3

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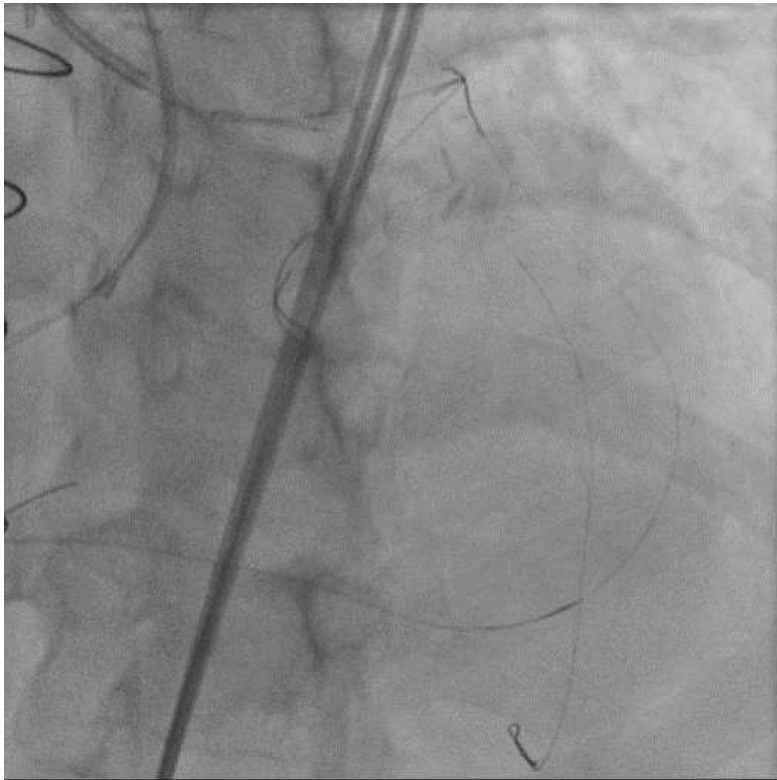
# PTCA

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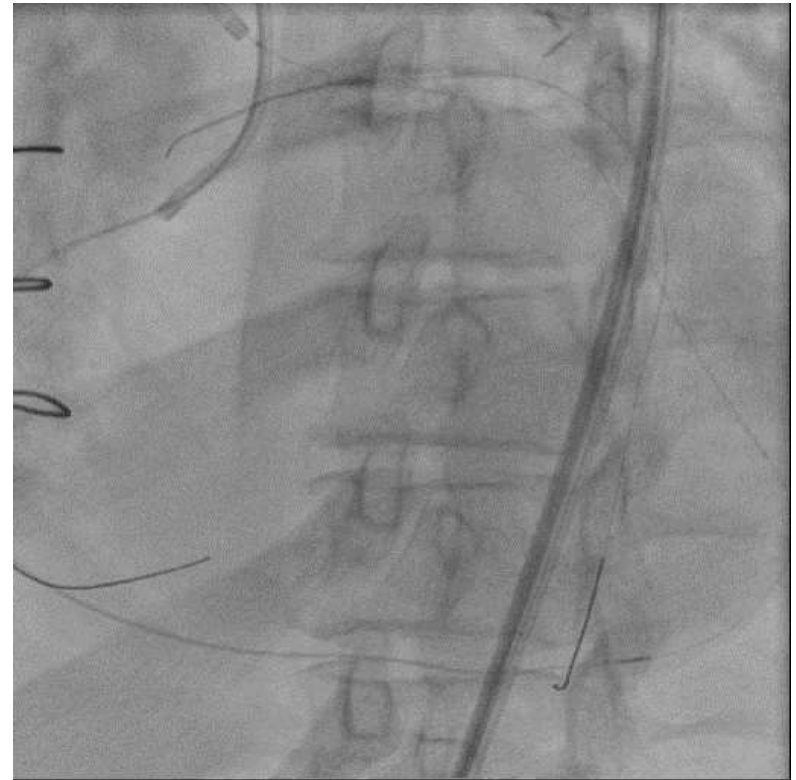
# Osteal LM Stenting (4x12 mm)DES

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# Post dilatation (5mm NC Balloon)

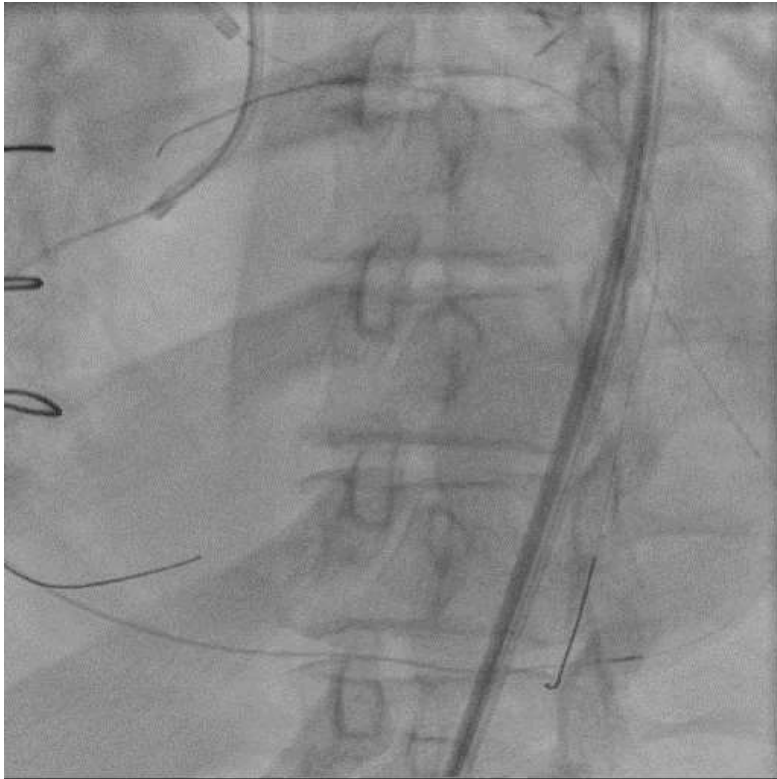
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3<sup>rd</sup> problem: Disengagement of the guiding catheter

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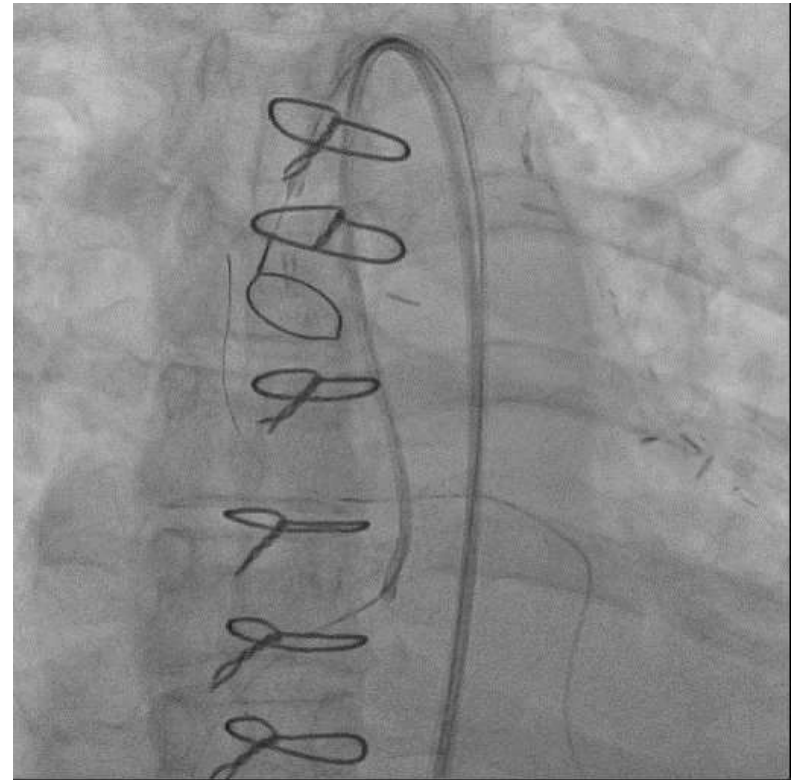
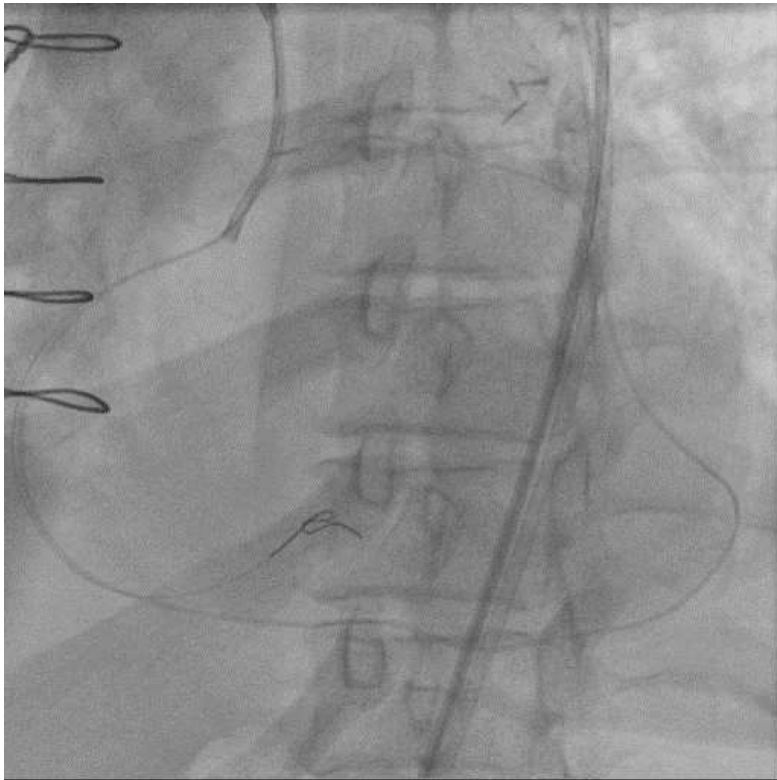
What should I do ?





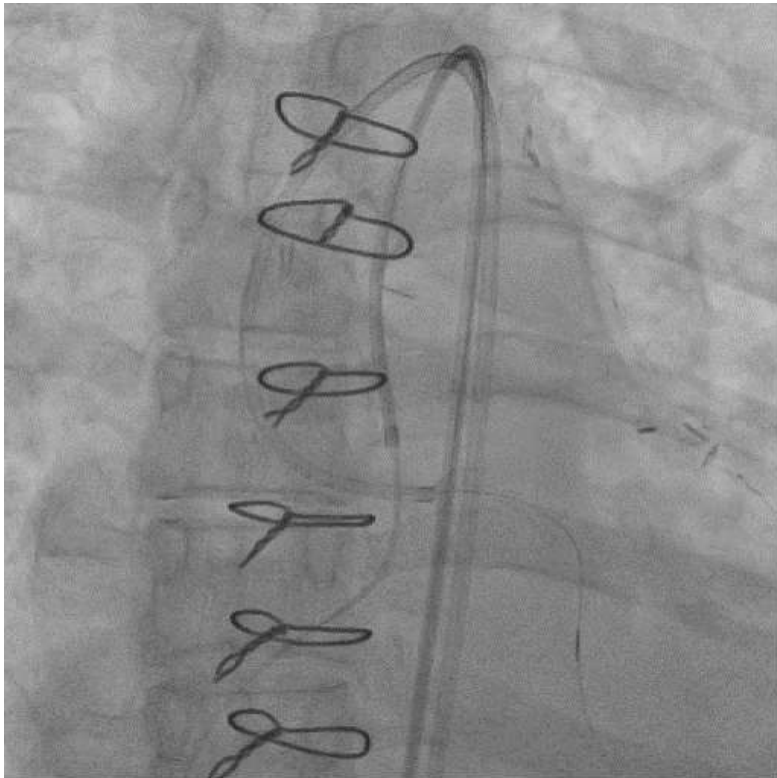
# 2<sup>nd</sup> time Retrograde crossing (preventing stent fracture)

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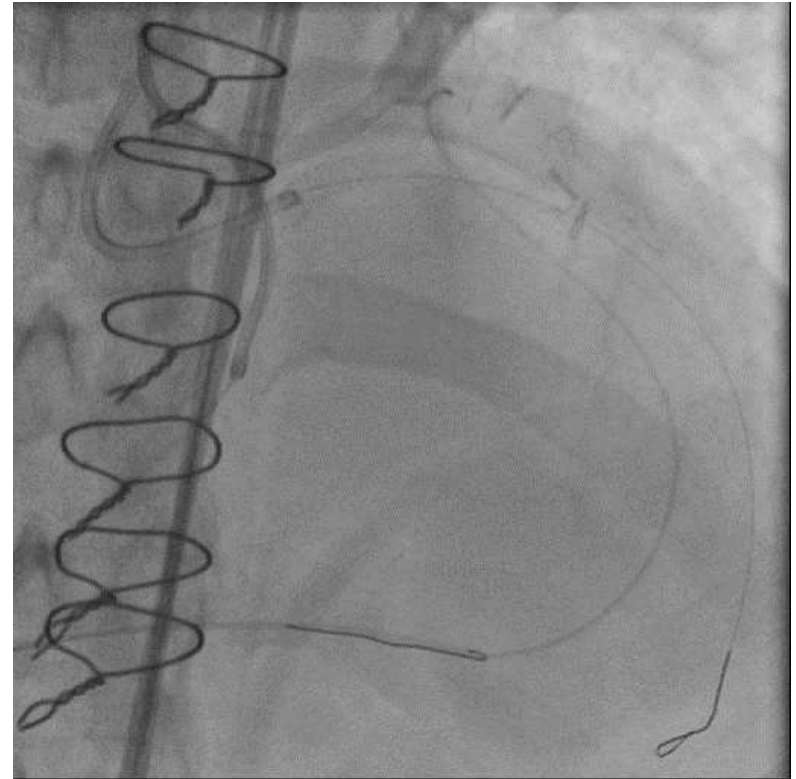
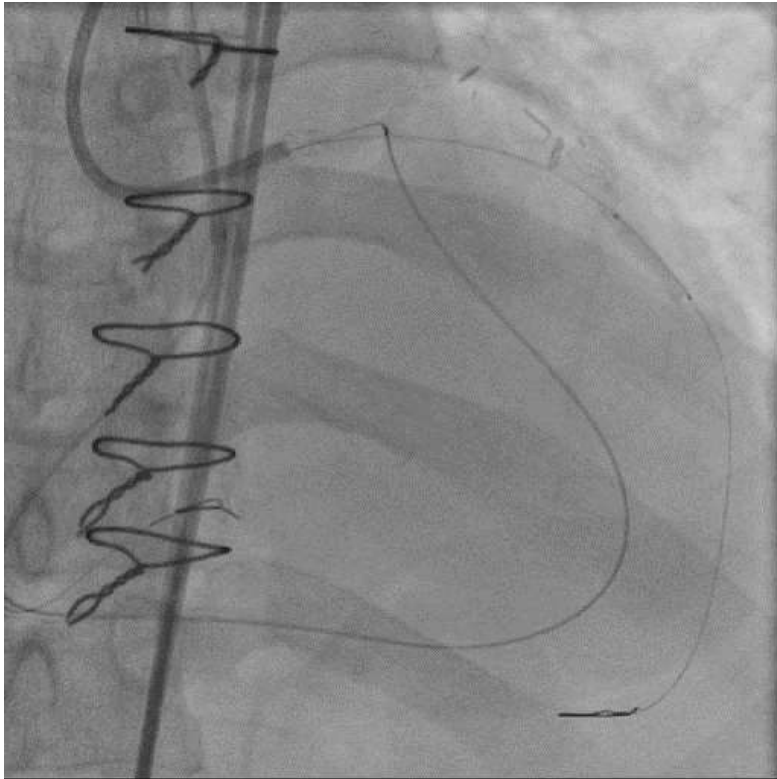
Re-snaring of the retrograde wire

Post dilatation 5mm NC balloon



# PTCA by 3x15 mm cutting balloon

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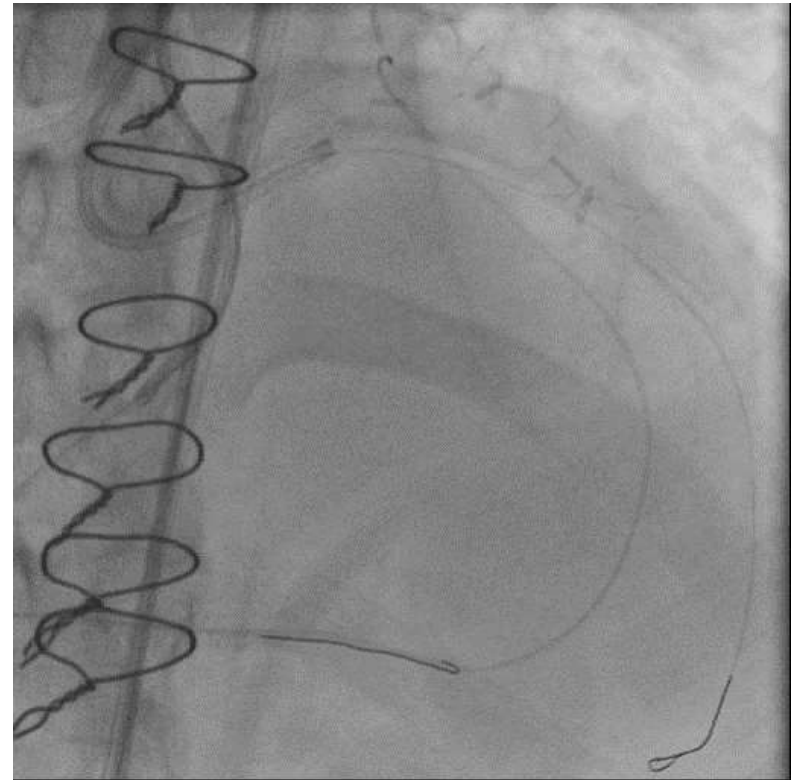
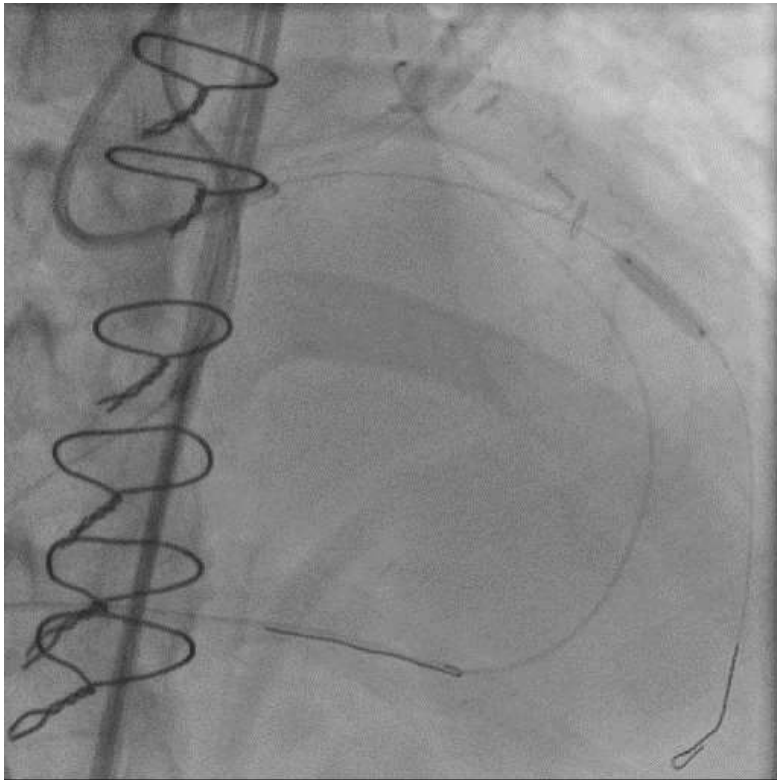




Mid LAD stent 3x12 DES

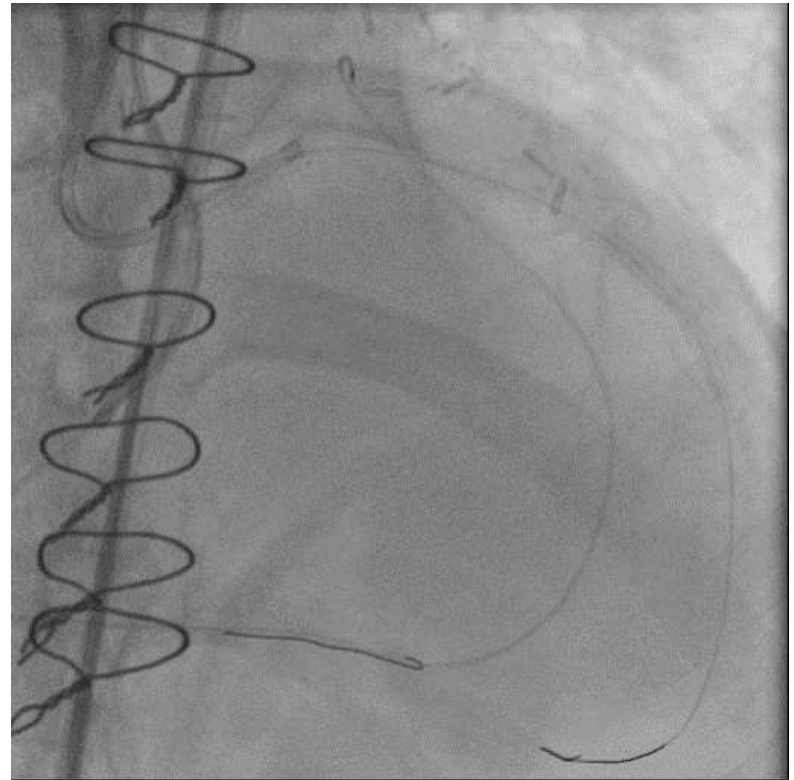
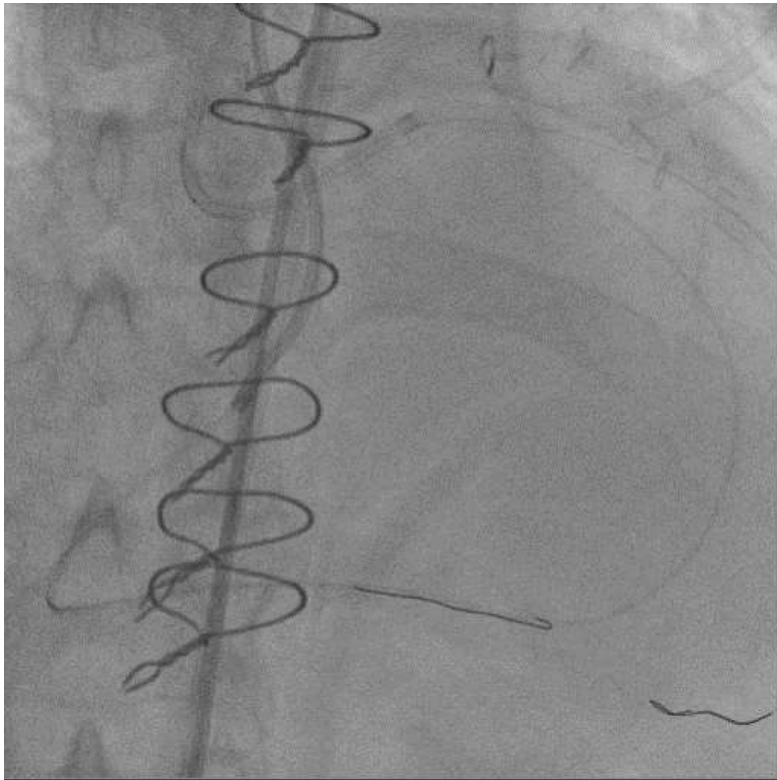
4<sup>th</sup> problem:  
Distal edge dissection

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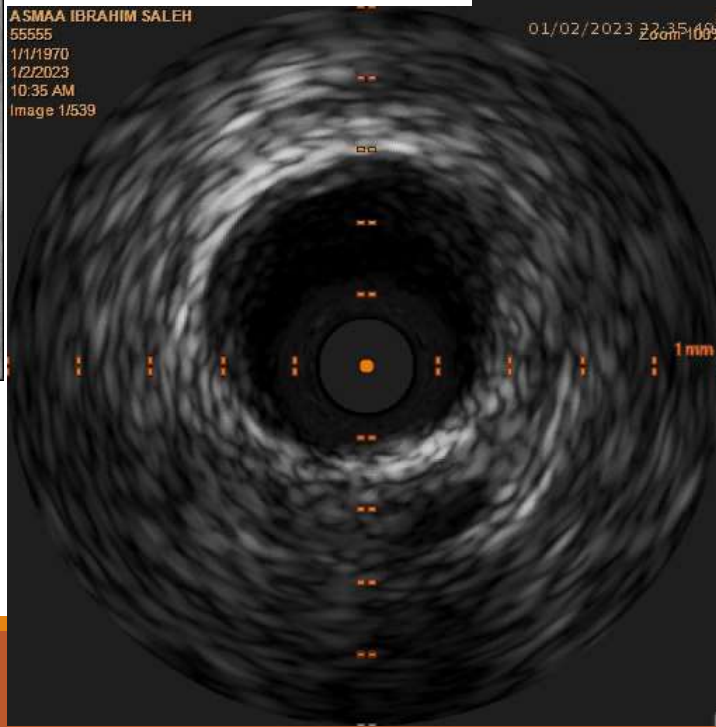
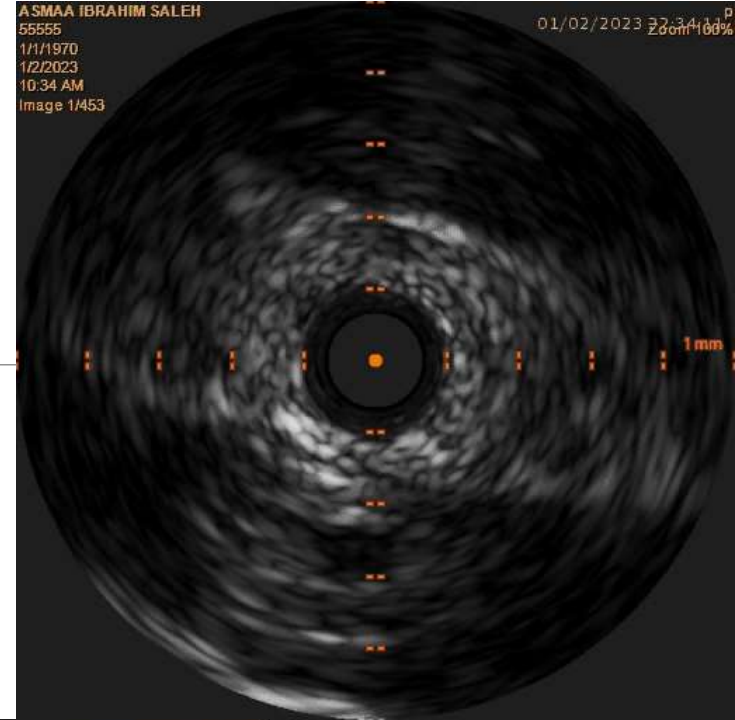


2.75x 15mm for distal edge dissection

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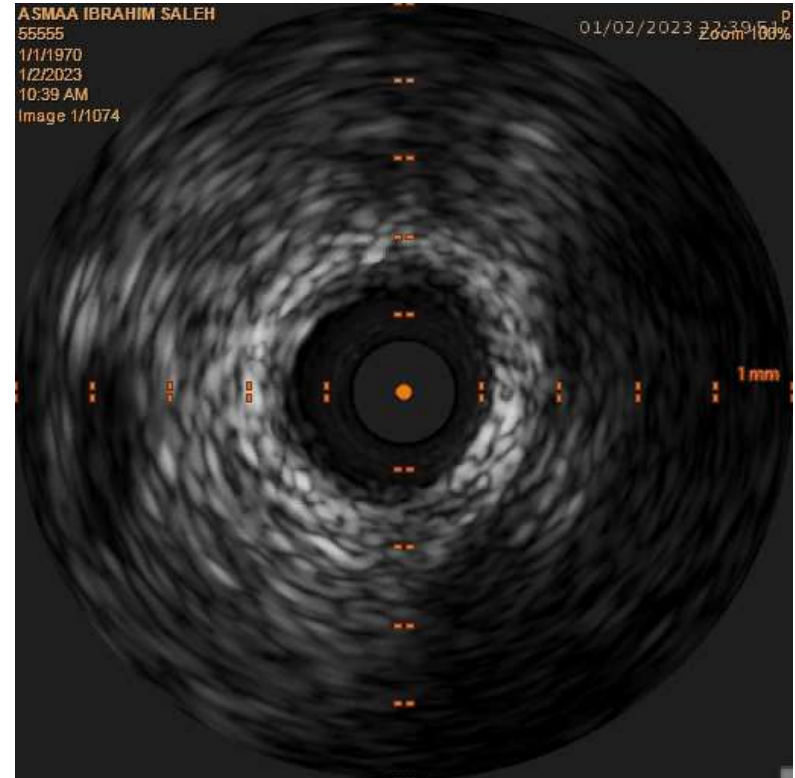
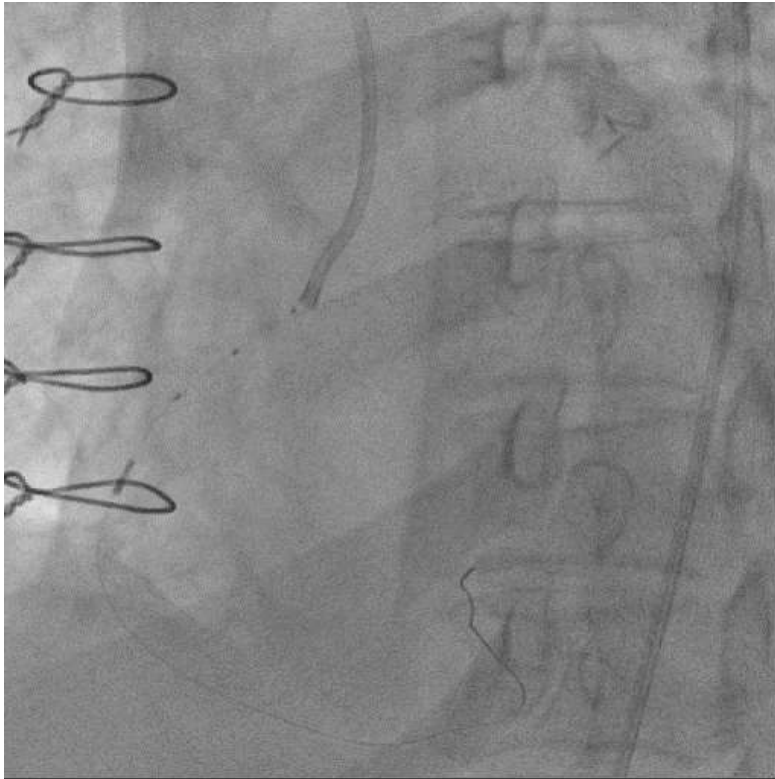


# IVUS



# IVUS FOR RCA

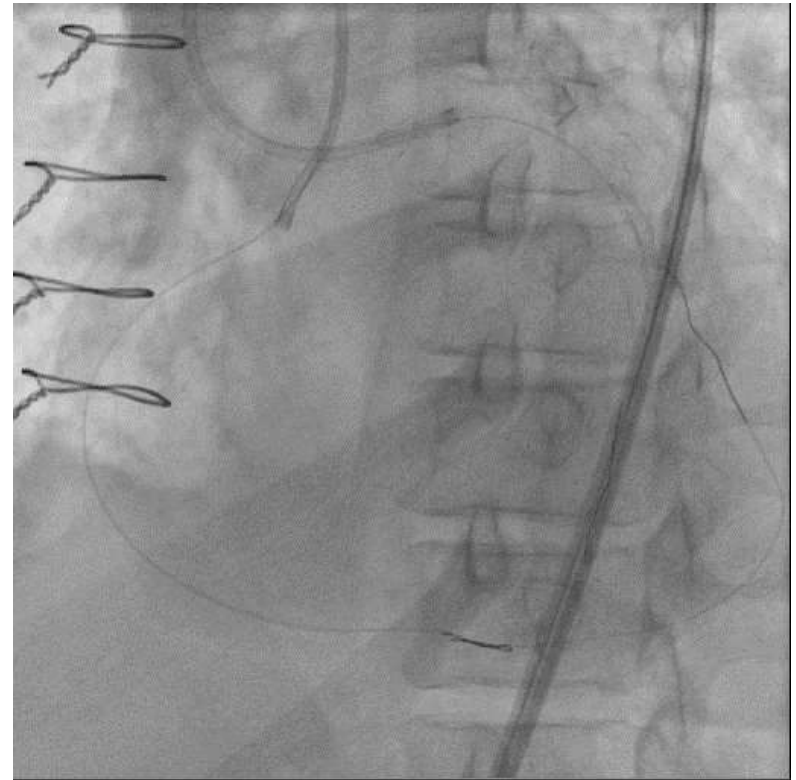
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# Final angiography

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# CONCLUSION

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Post CABG CTOs remain the most difficult coronary interventions with its unique challenges

LIMA graft failure is not common and usually a technical problem, treatment usually needs a cutting balloon at the anastomotic site

Haemodynamic support should be considered in those with LV dysfunction/single remaining vessel or graft

Isolated ostial left main stenosis can be better treated with single stent

**Thank You**

AHMED  
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