

# ***Never celebrate so early***

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# Case Presentation



76 years old male presenting by angina class III



History of previous unsuccessful trial to CTO RCA one month ago.

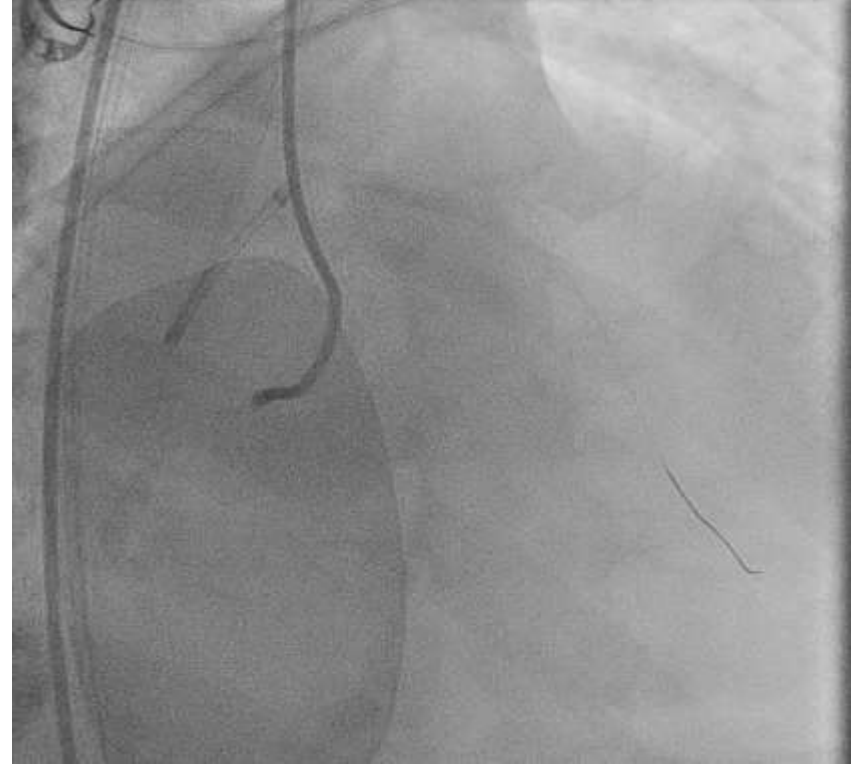
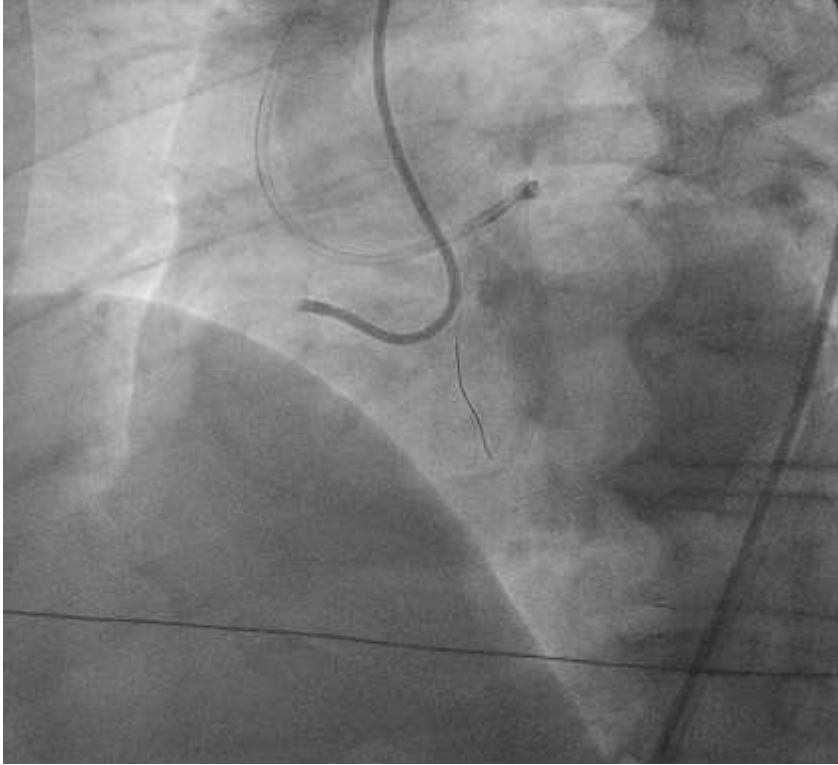


Inverted T wave II, III, aVF .



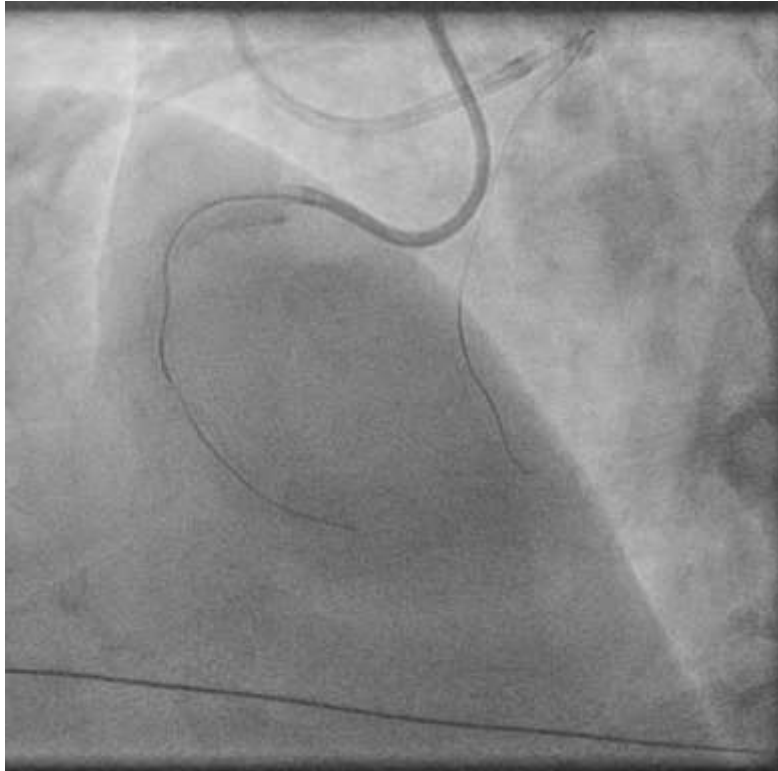
EF 50%, hypokinetic posterior wall.

CA

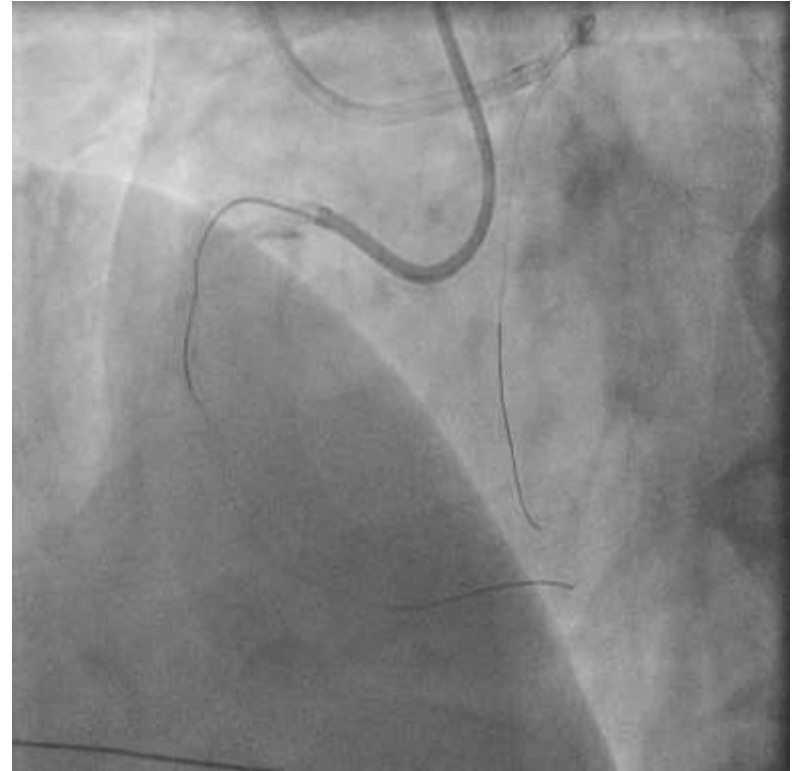


Bifemoral sheath, AL1 Guiding for RCA, XB 3.5 for LM  
JCTO score 2

# Strategy

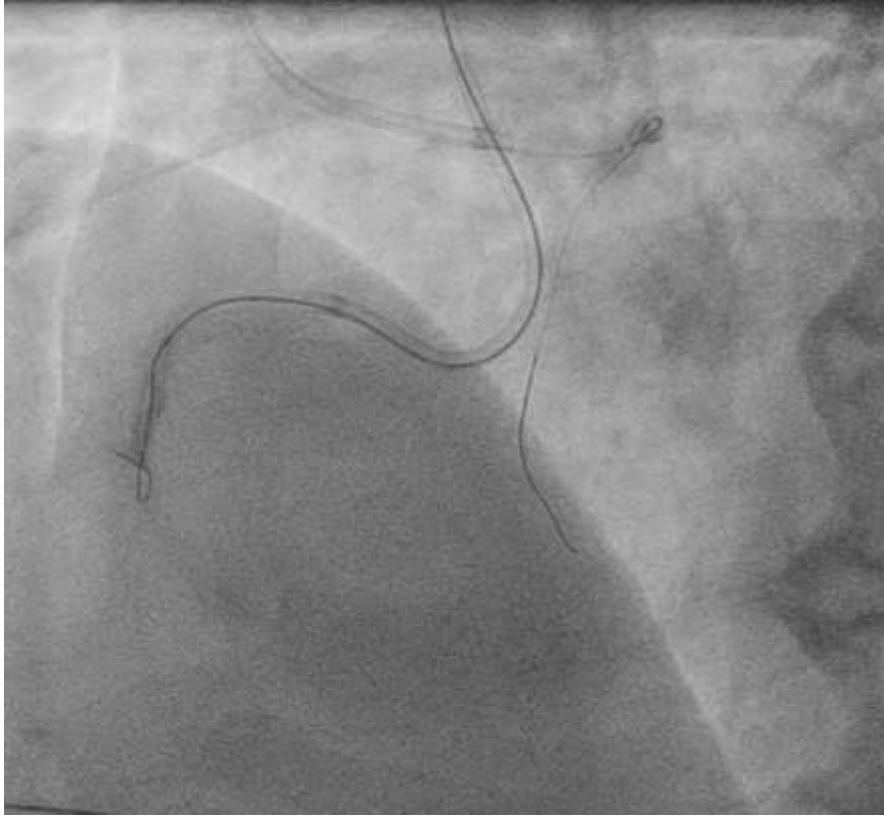


AWE Pilot 150 and MC Corsair XS

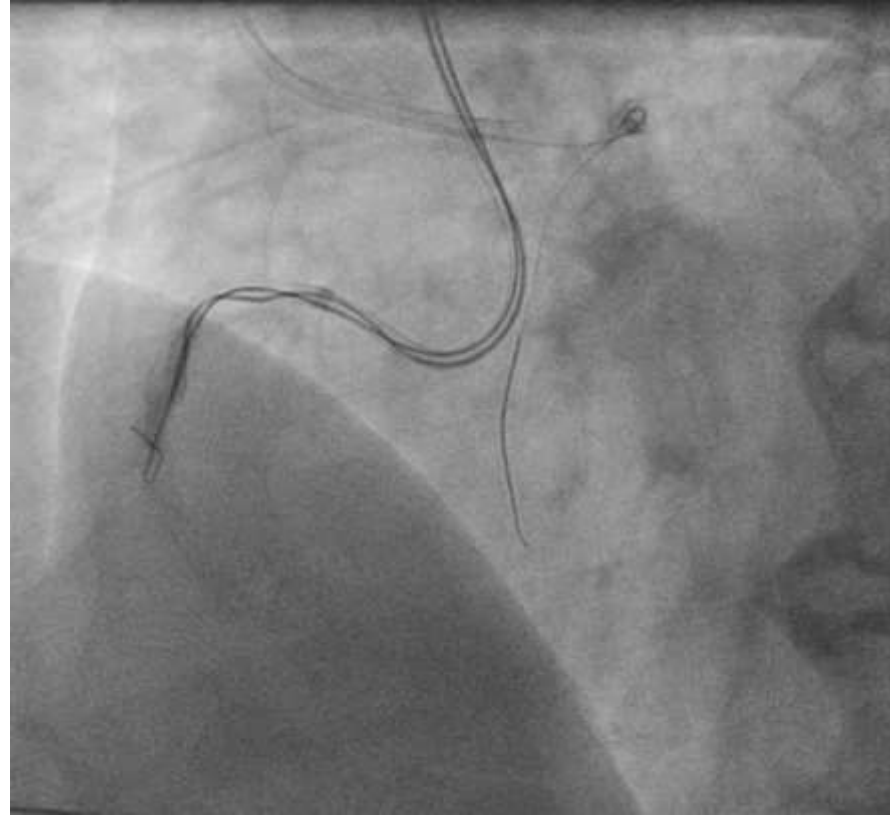


Easy job, wire passed the lesion but the MC failed to pass

## PCI

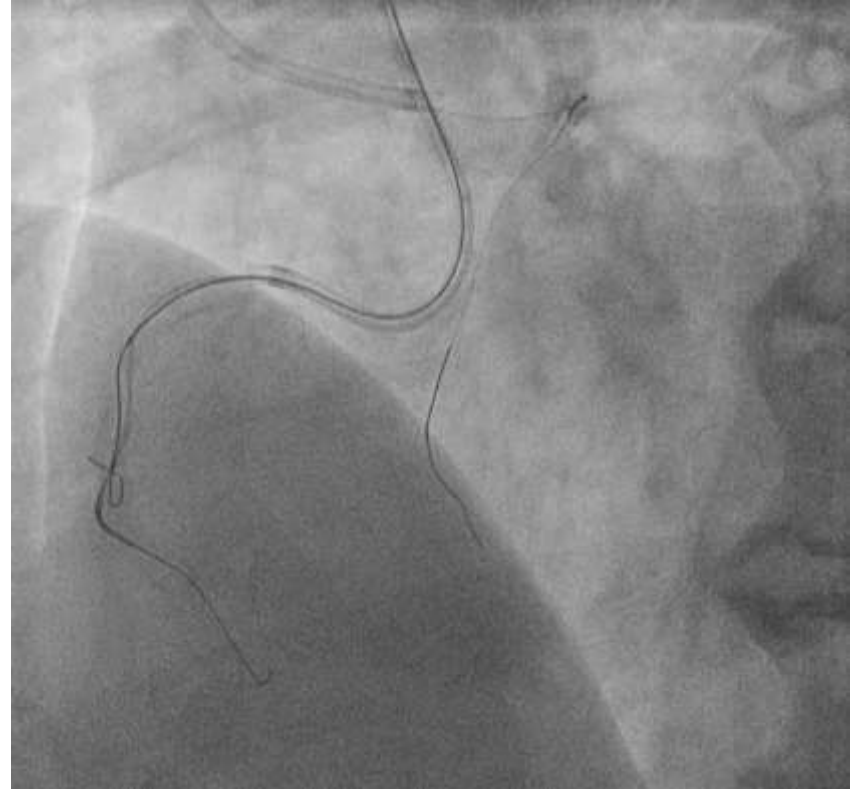
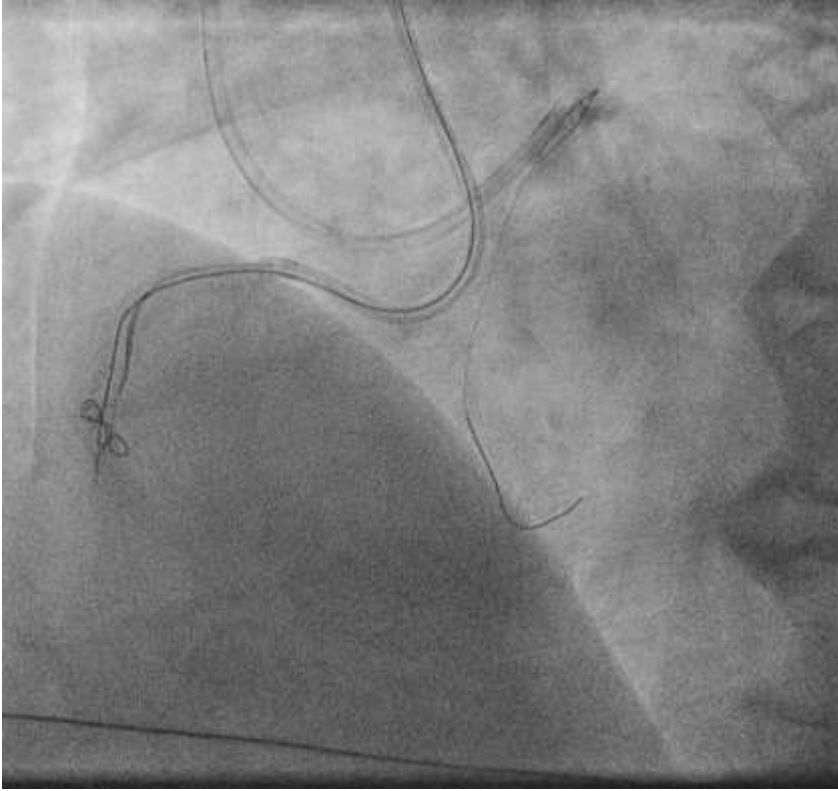


PTCA where microcatheter failed to cross but unfortunately we lost the distal wire position



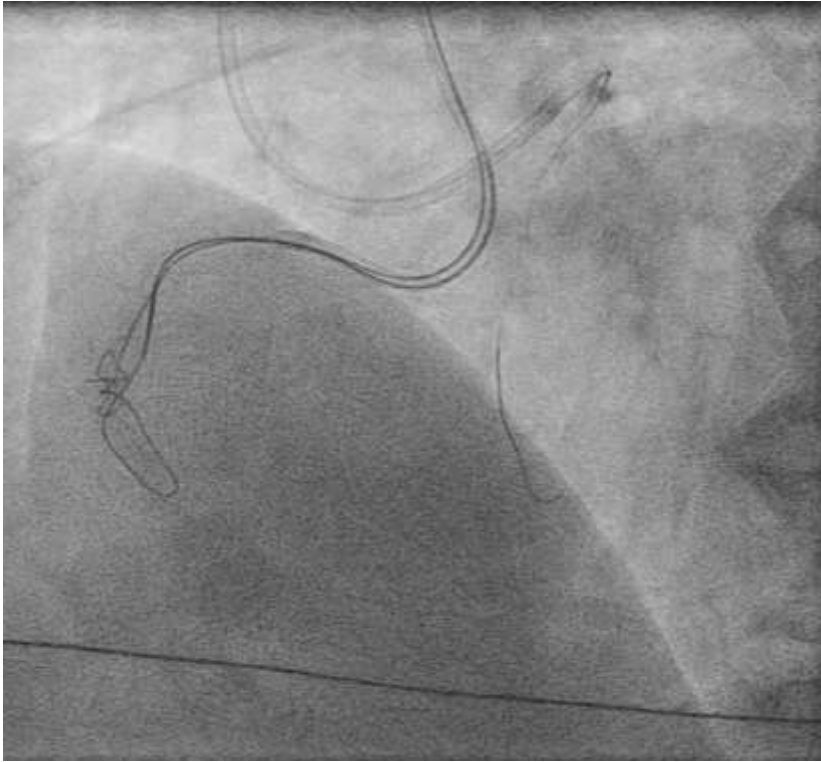
Different techniques parallel wire, knuckle.

# PCI



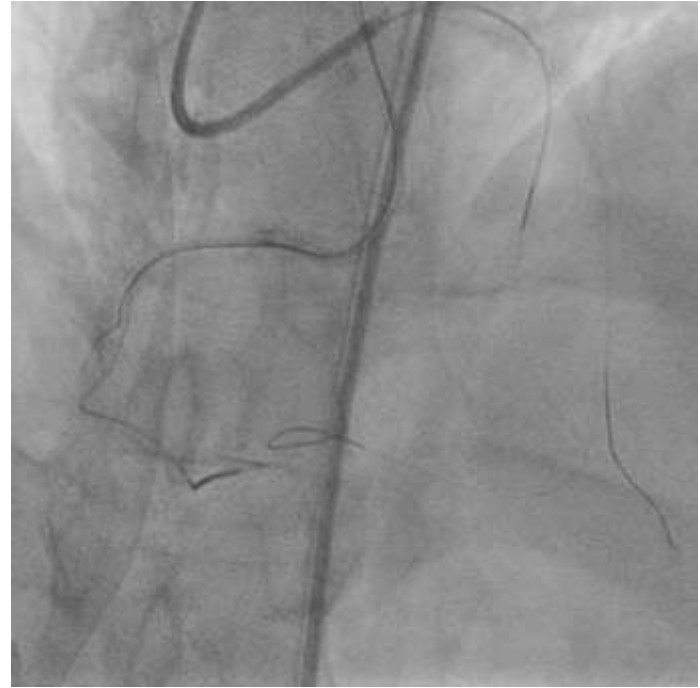
Changing MC and wires but no progress

# PCI



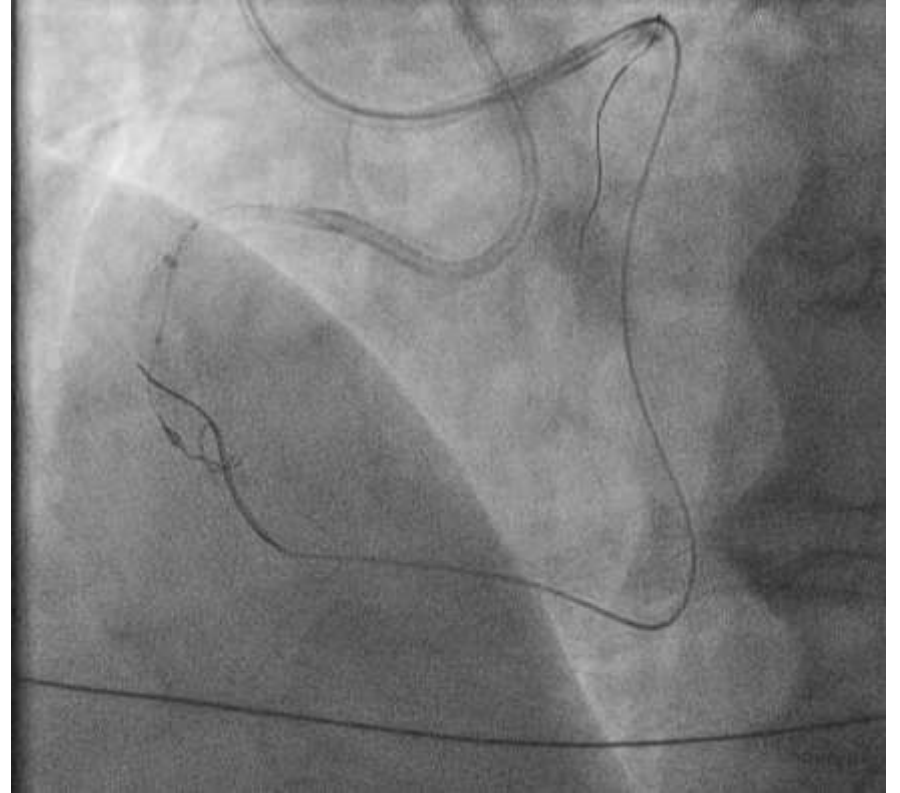
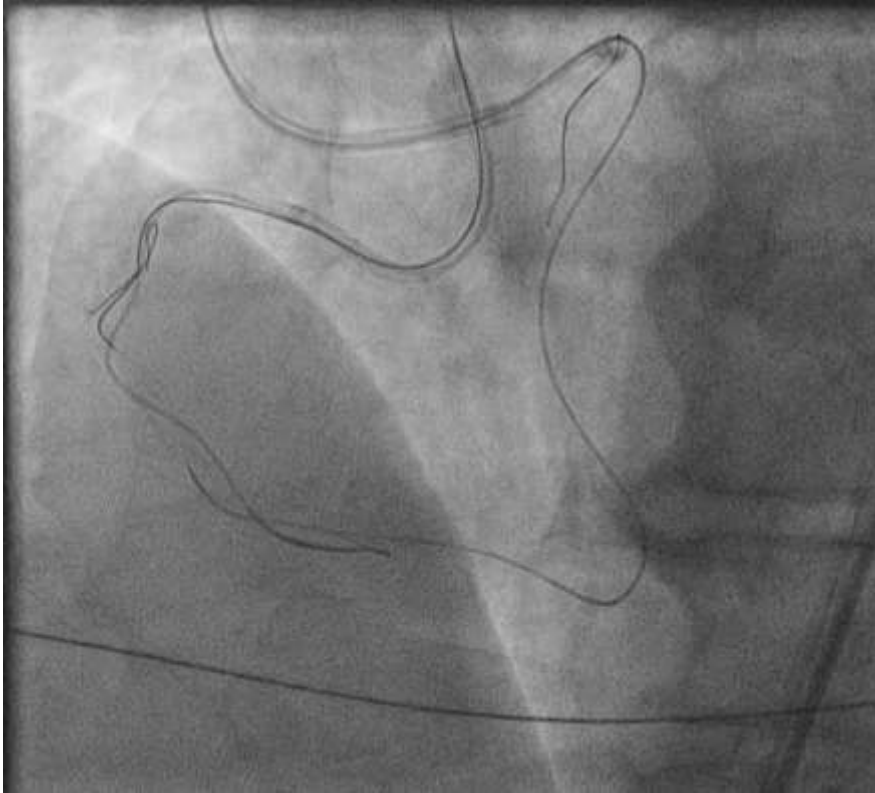
Knuckling using different wires

# *Shift to retrograde*

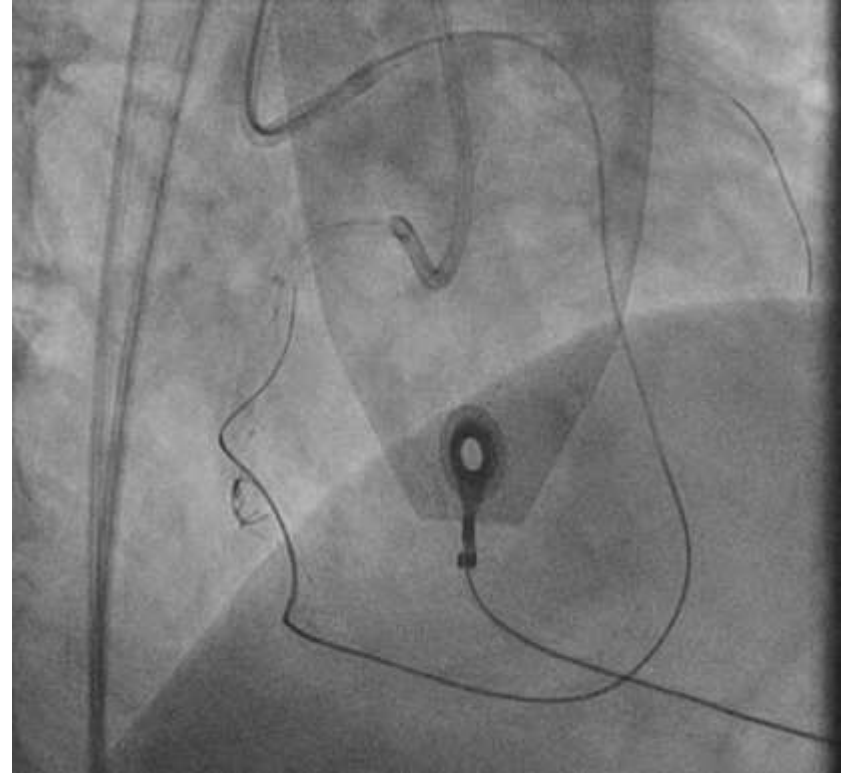
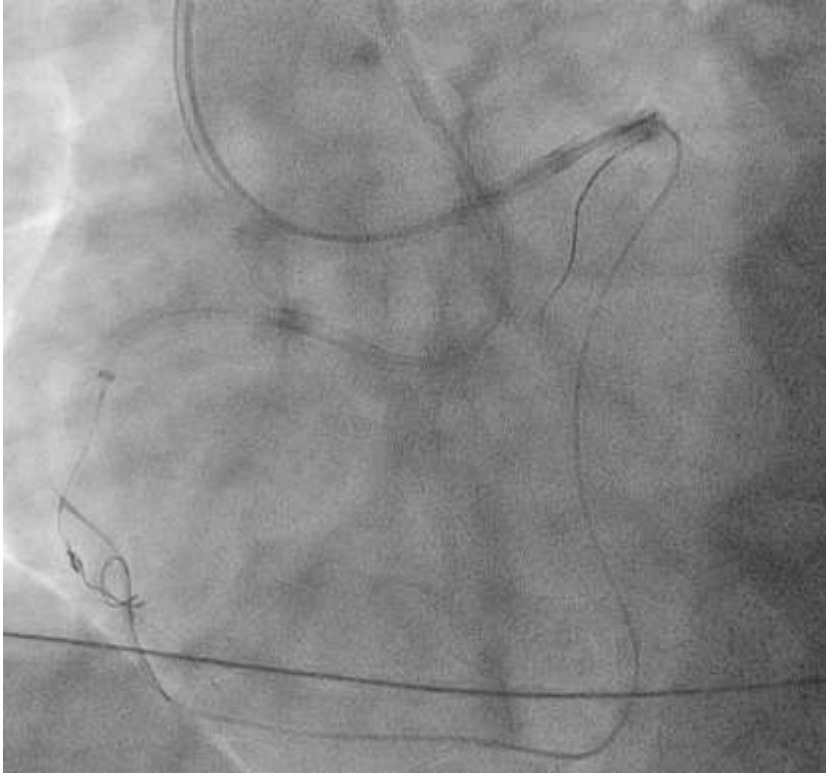




# *Retrograde*

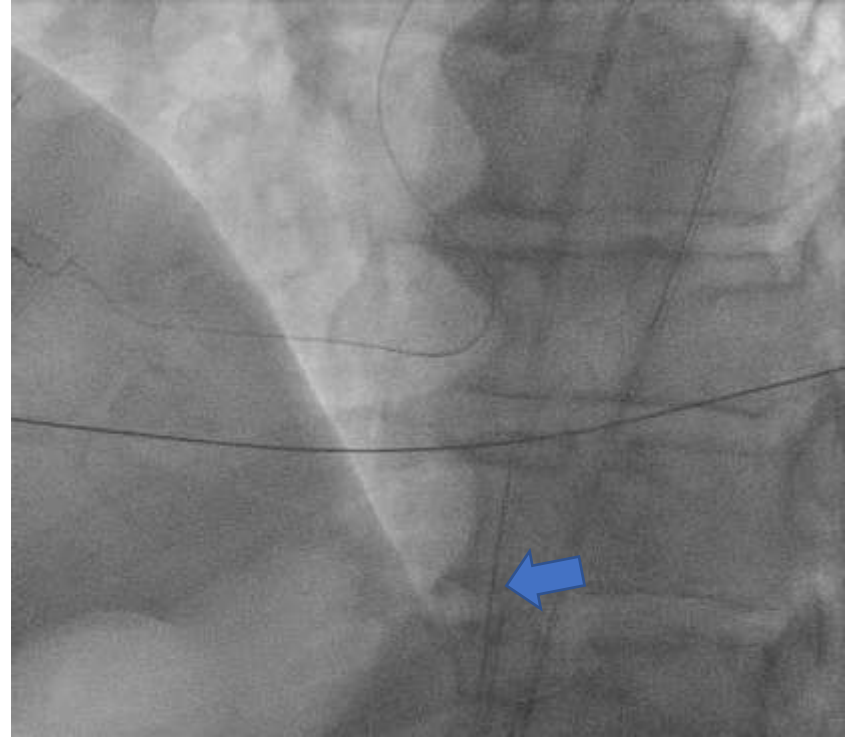
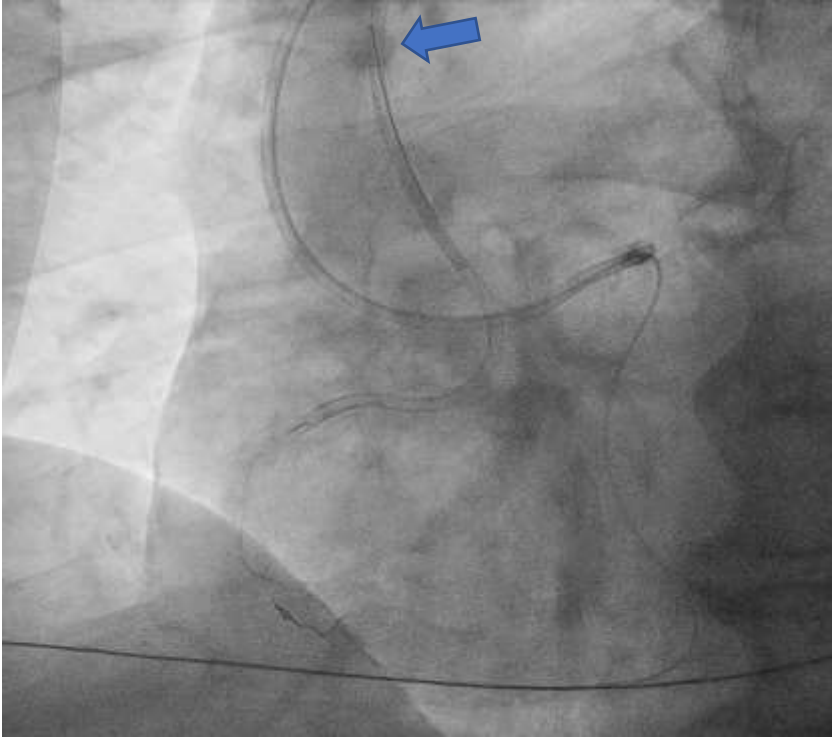


# Retrograde



Reverse CART

## *Trouble shooting started*



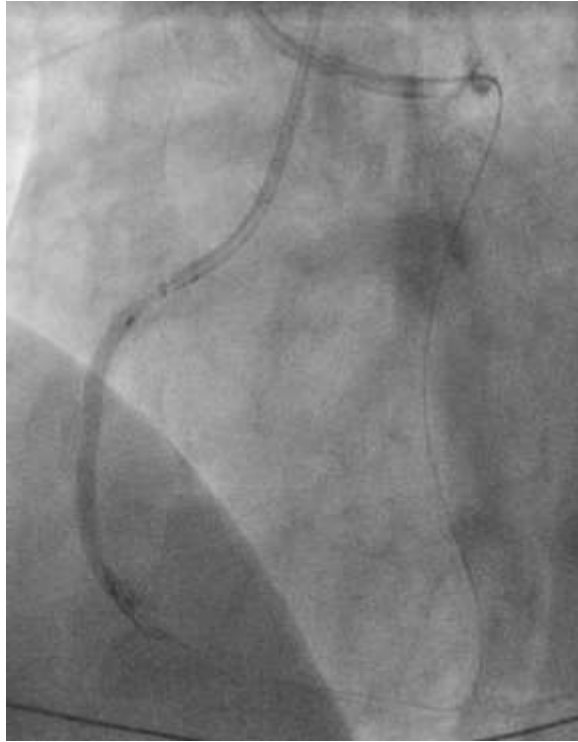
The RG3 wire failed to move forward and there was severe resistance while trying to push until it was stuck distally in descending Aorta

## *Trouble shooting continue*



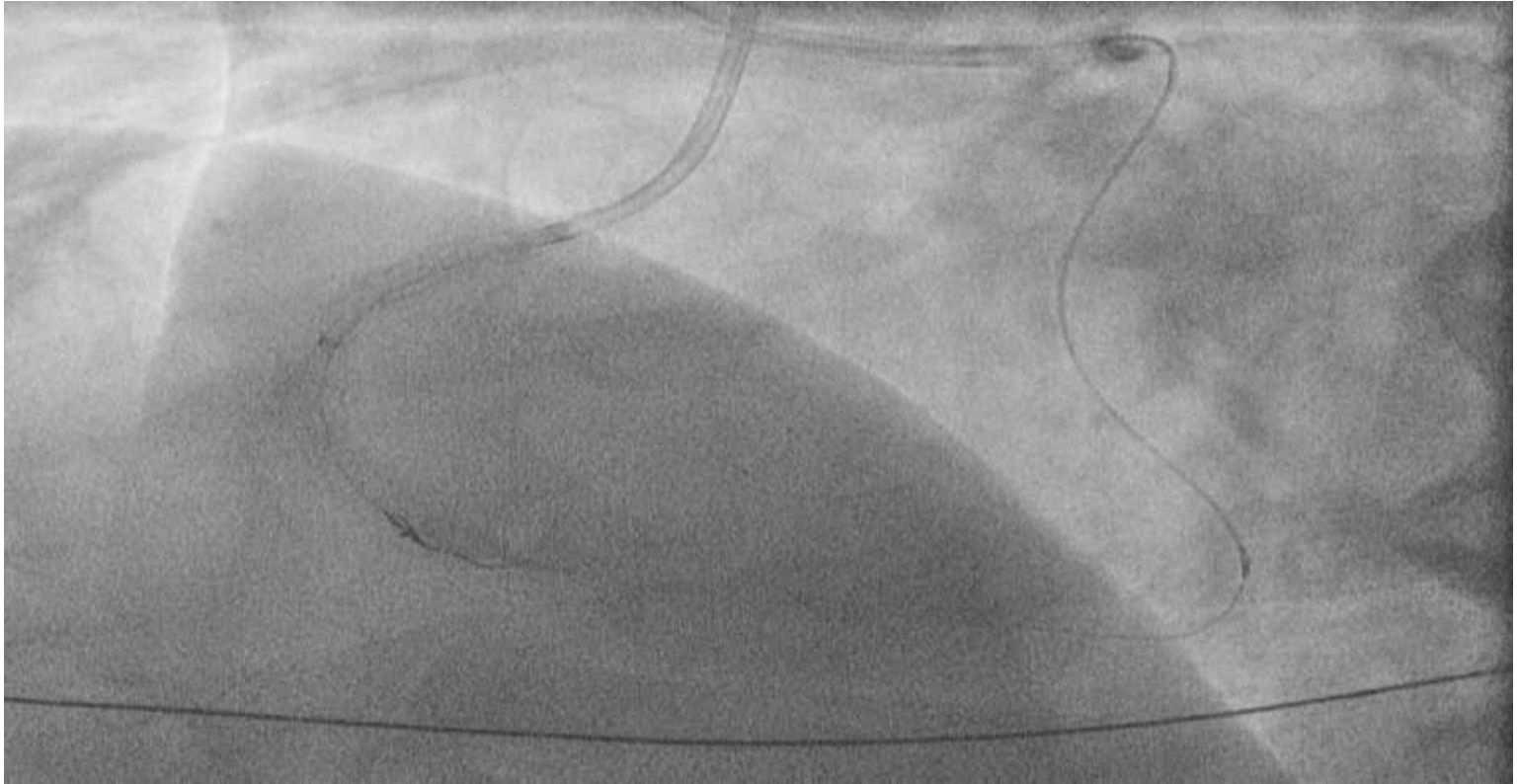
While trying to manipulate the RG3 wire we lost the antegrade Gear and the RG3 still in descending Aorta and that patient had severe chest pain and collapsed. So we tried to snare it.

# *PCI*



We succeeded to externalize the RG3 with the snare and we managed to cannulate RCA over the RG3 and we did PCI to RCA

# *Final result*



# Take home message

## Steps of Retrograde Chronic Total Occlusion Percutaneous Coronary Intervention

### 10-Remove externalized wire

Ensure CC is always protected with a microcatheter when the guidewire is withdrawn

### 9-Treat the CTO

Balloon and stent over the antegrade limb of the externalization wire



### 8-Wire externalization

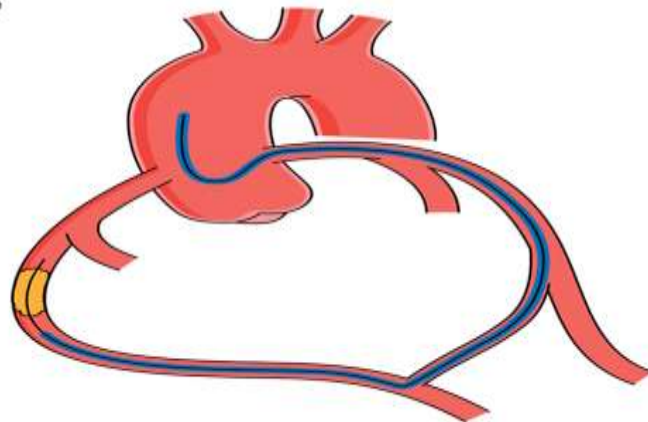
R-350 or RG3 externalization wire

### 7-Cross the CTO

- 1-Retrograde wiring
- 2-Retrograde dissection/reentry (CART, reverse CART, confluent balloon)
- 3-Marker for antegrade wiring



### 1-Decide to go retrograde



### 6-Cross the collateral with microcatheter

- If difficulty encountered:
- 1-Increase guide support
  - 2-Torqueable microcatheters
  - 3-Lower-profile microcatheters
  - 4-Septal collateral dilation with small balloons (1.0-1.5 mm)

### 2-Select the collateral

- 1-Dual Angiography
- 2-Septals and SVGs preferred to epicardials
- 3-Preferred CC: large, non-tortuous, no reverse bends)

### 3-Reach the collateral



- 1-Workhorse guidewire (often with double bend)
- 2-Microcatheter

### 4-Cross the collateral

Suoh 03 preferred for tortuous collaterals

### 5-Confirm guidewire position