



# Retrograde CTO PCI Challenging case

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I, Luis Areiza Trujillo DO NOT have a financial interest / arrangement or affiliation with one or more organization that could be perceived as a real o apparent conflict of interest in the context of this presentation.

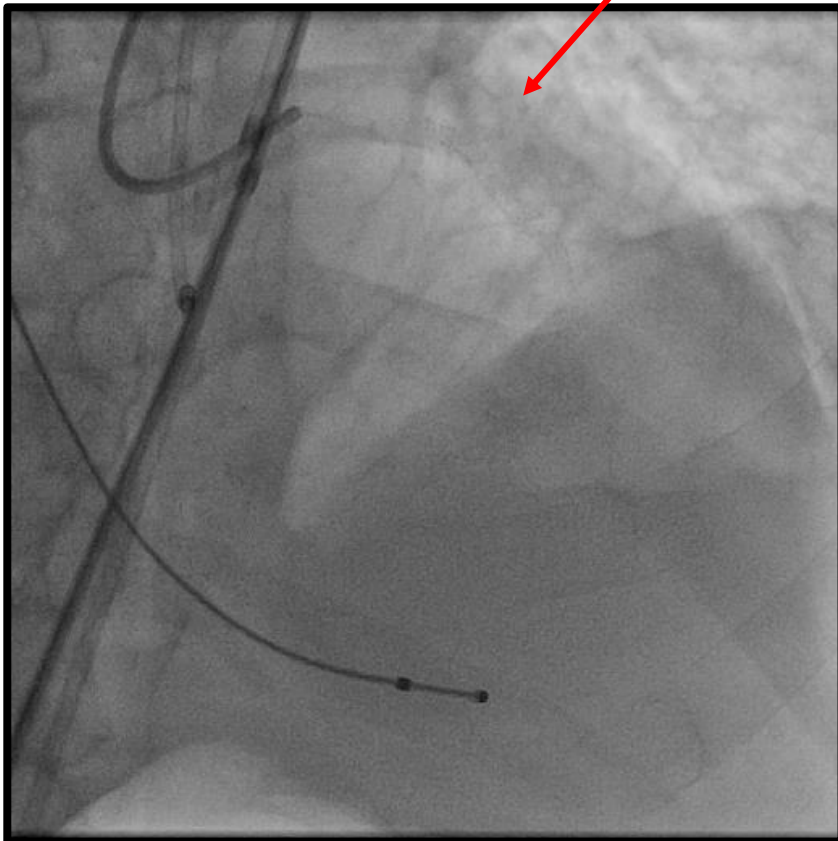
- 74-year-old Male
- Diagnosis :Unstable angina and Heart failure.
- Past medical history: Angioplasty and stents implantation in RCA 2015 and LAD (2020), stage V chronic kidney disease and COPD.
- Transthoracic Ecocardiogram showed Left ventricle with moderate eccentric hypertrophy, slightly decreased systolic function, LVEF: 45%. Generalized hypokinesia.

## Coronary angiography and CTO Intervention plan

LAD Stent ok

Good interventional colateral chanel

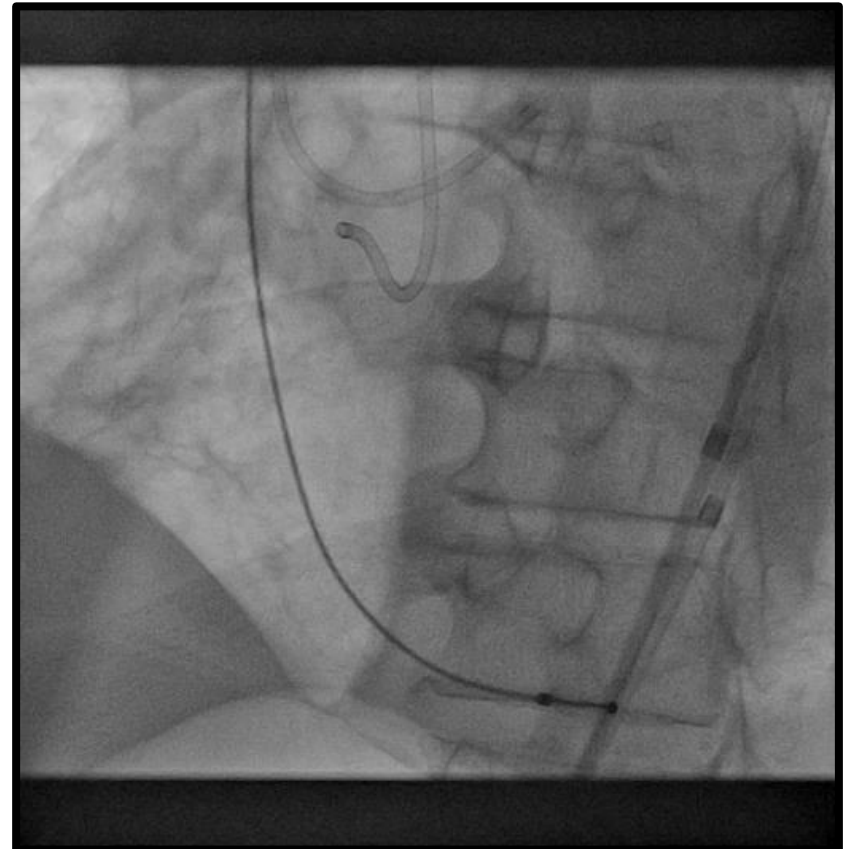
Distal RCA vessel is well visualized with  
filling by LAD septals



CTO Righ coronary artery / J-CTO Score 2

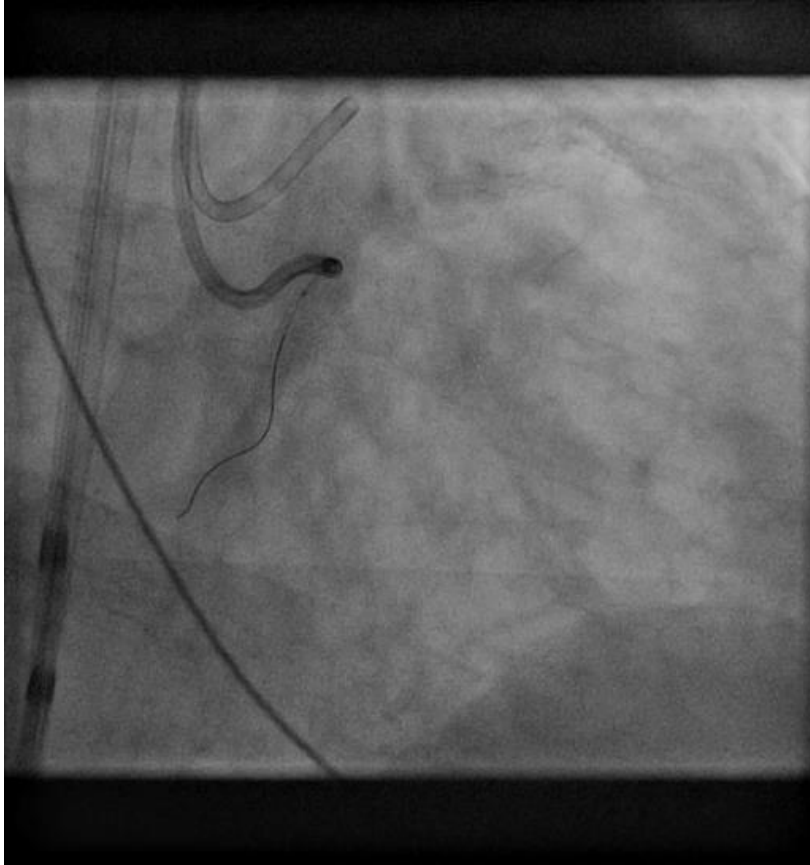
Occlusion length >20 mm

Blunt proximal cap

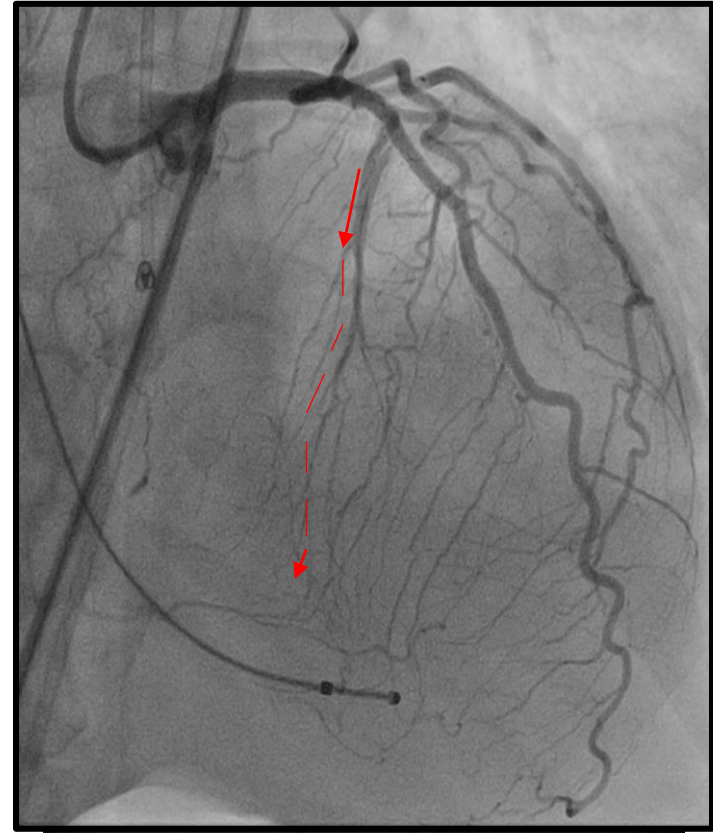


# Angiographic assessment Collateral connection CC1

Gaia second was in subintimal space



Quickly transitioned to  
Retrograde approach

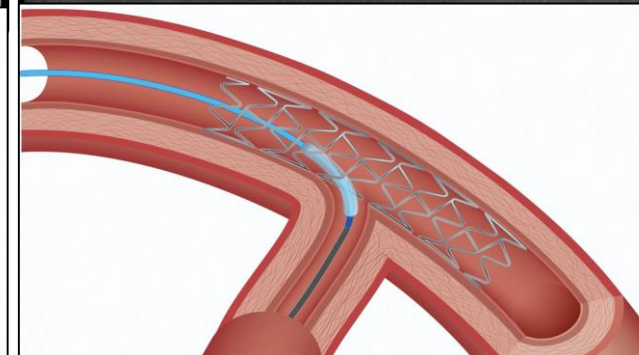
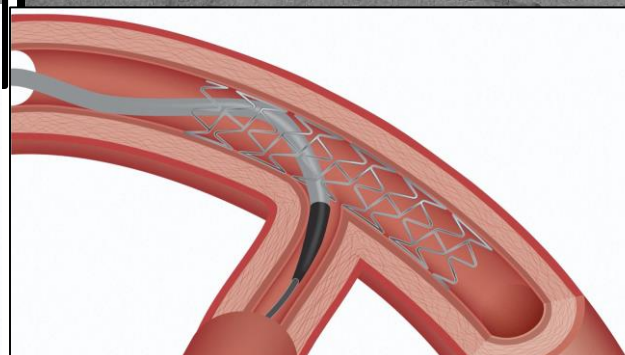
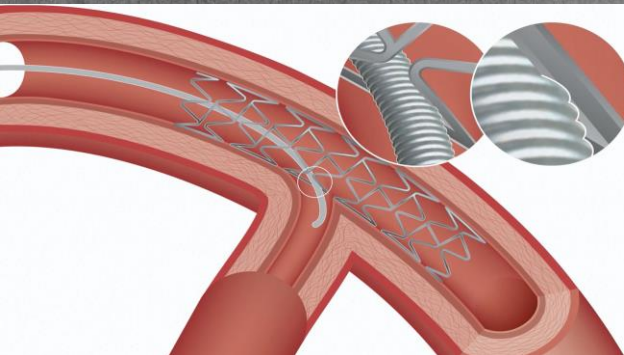
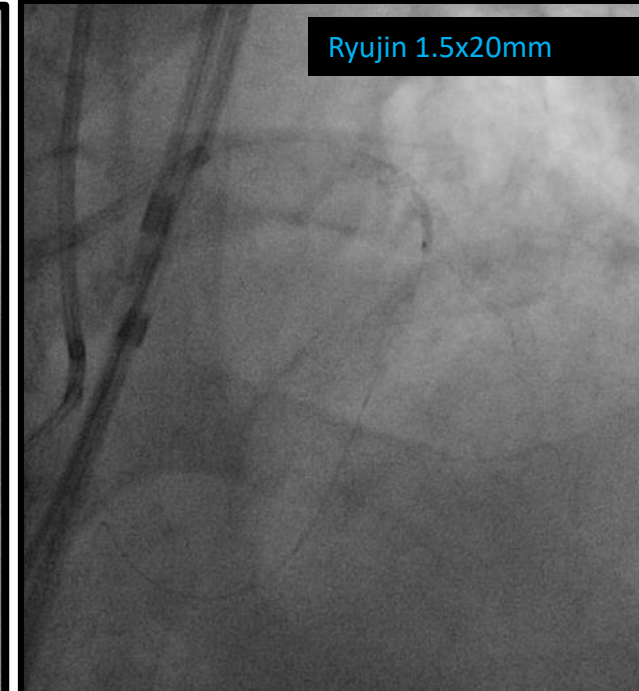
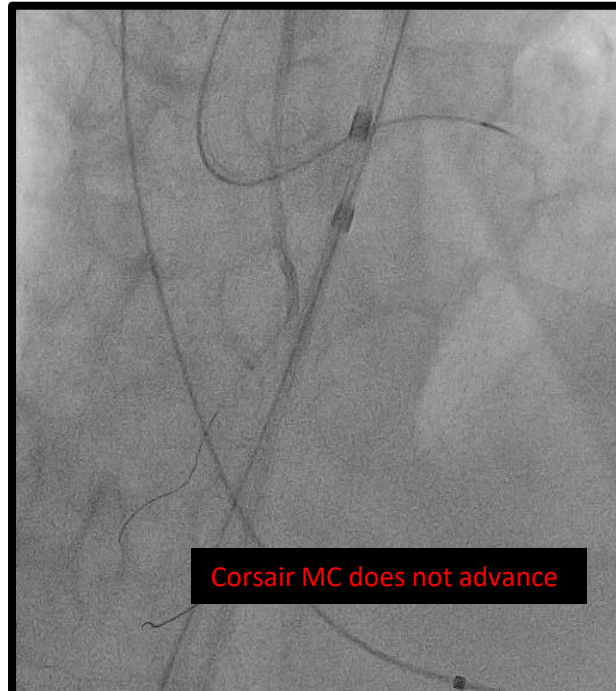
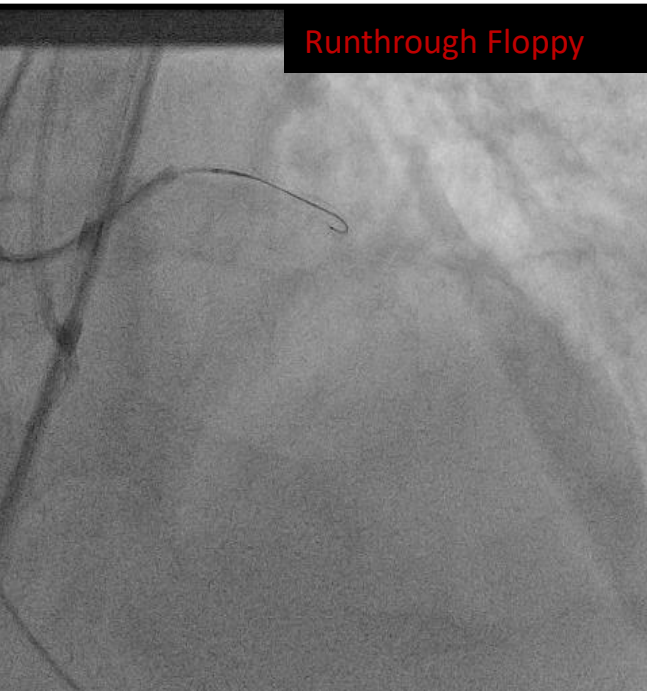




# Retrograde approach

Runthrough wire through struts to first septal artery

Struts dilatation with ryujin balloon



## Retrograde approach Collateral Wire Crossing

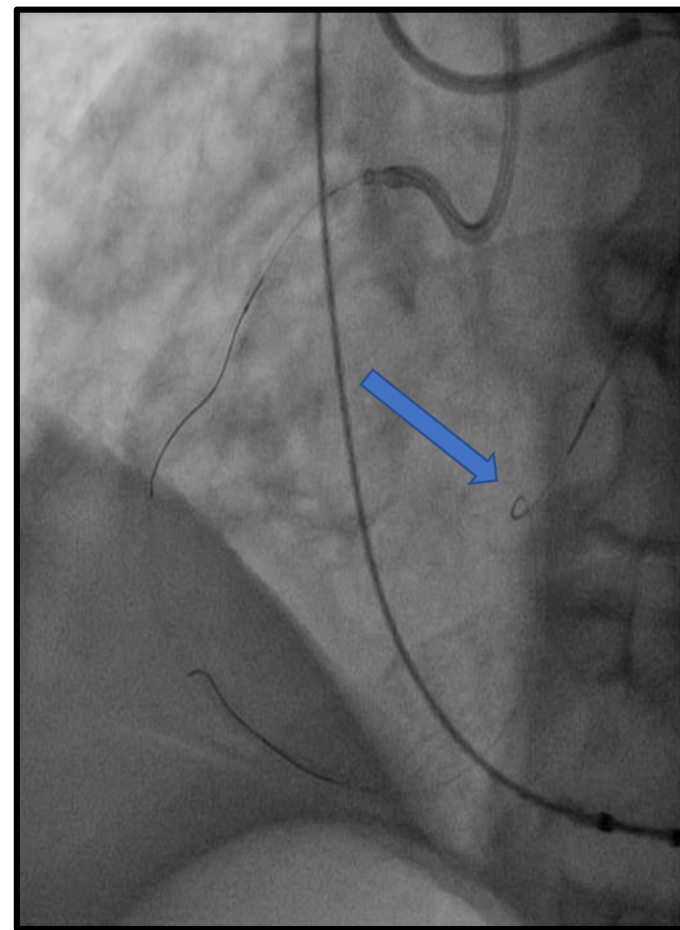
MC Corsair advance



Exchanged the wire for a sion black



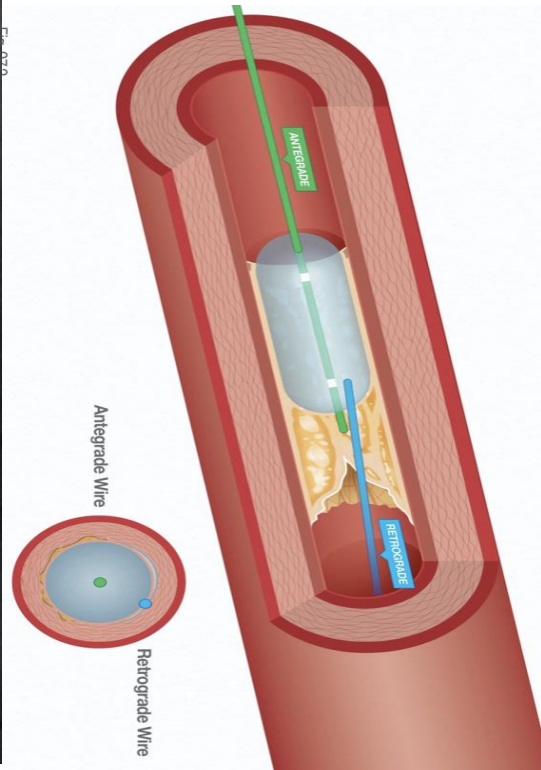
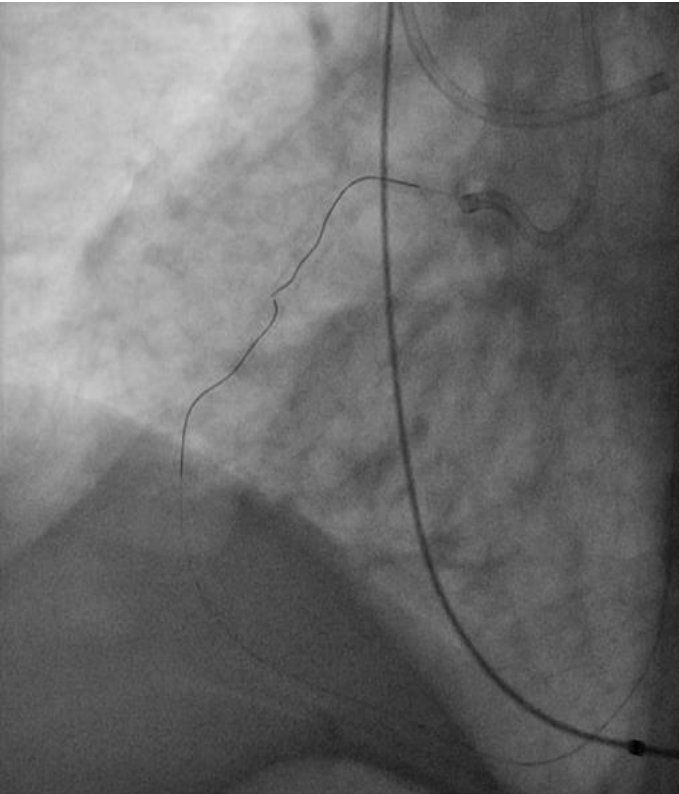
Microcatheter does not cross



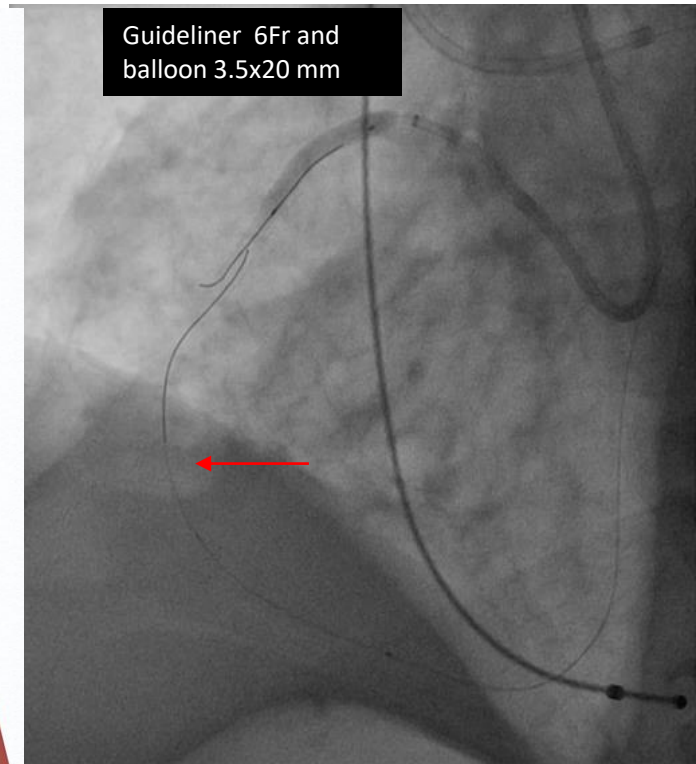


# Reverse cart

Advance the wire to distal CTO  
Marker Wire technique

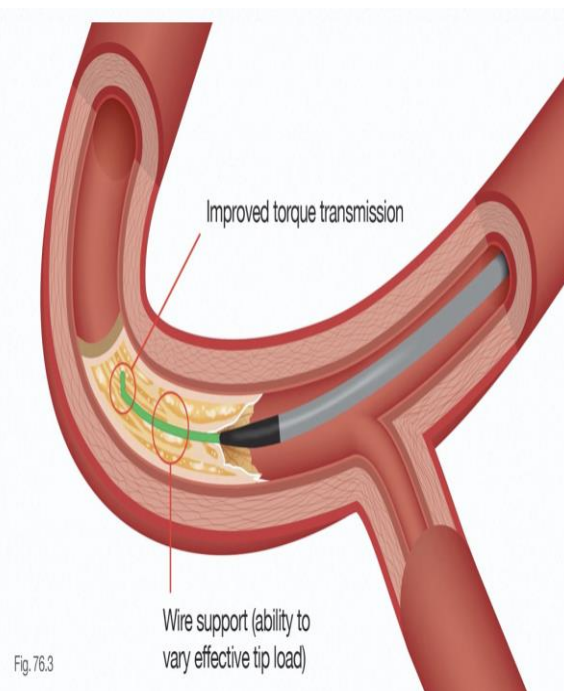
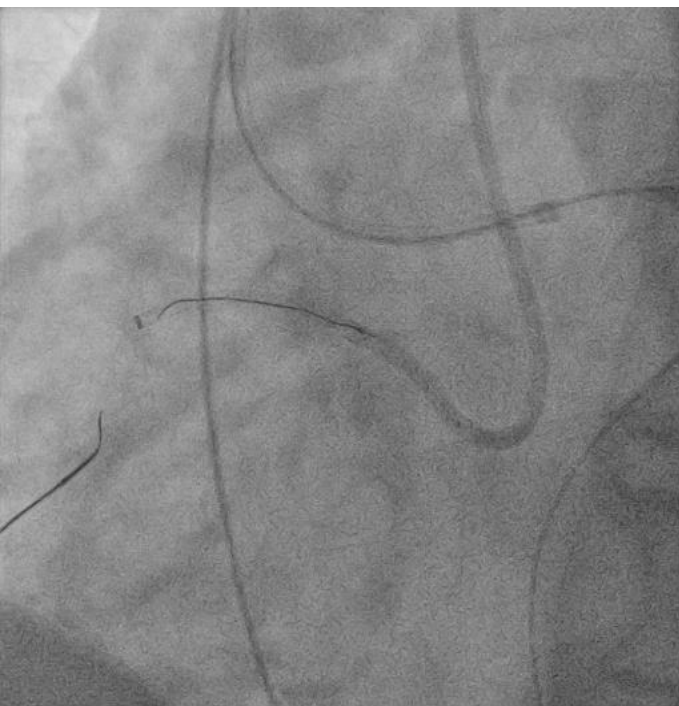


Guideliner was advanced into the proximal RCA  
Angioplasty balloon 3.5x20 mm

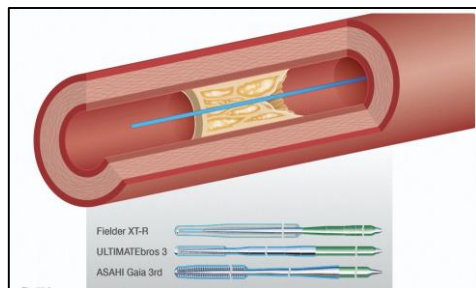
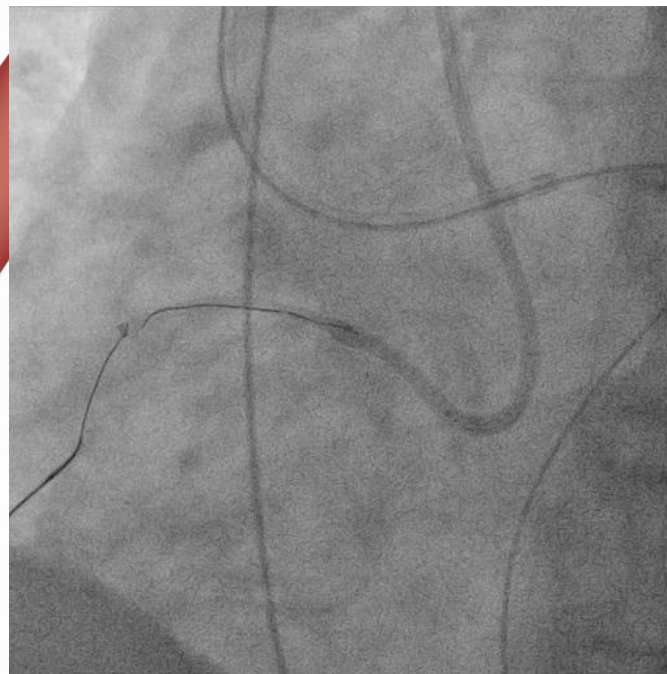




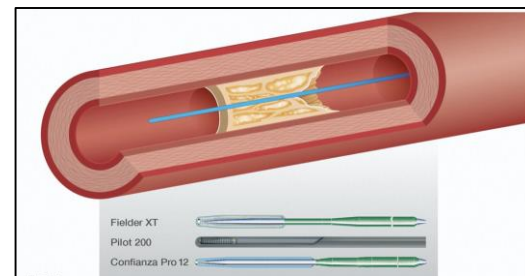
Gaia Third wire was advanced across the lesion, crossing the distal cap and entering the proximal RCA ( heavy tip load 4.5 g)



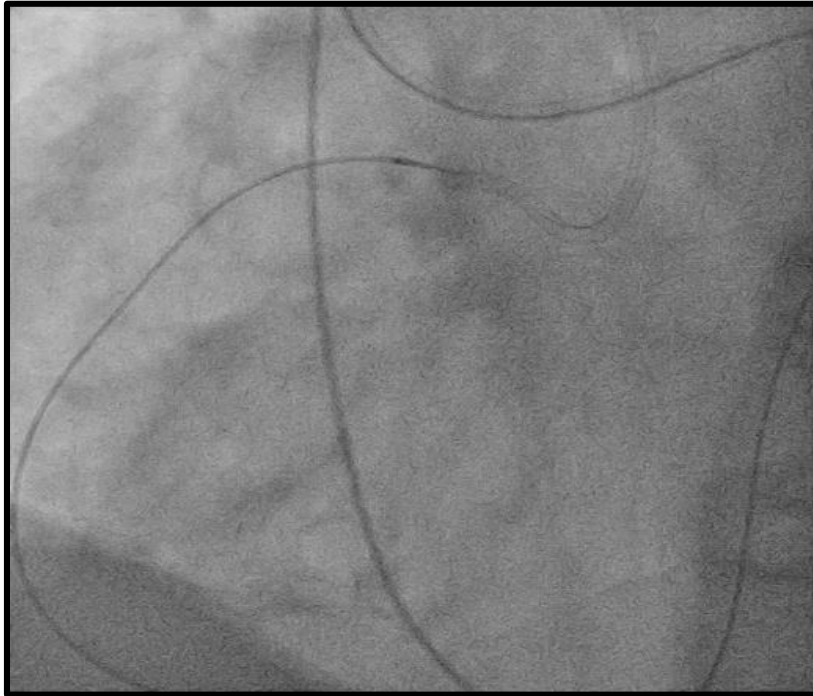
Advanced the wire into the antegrade catheter



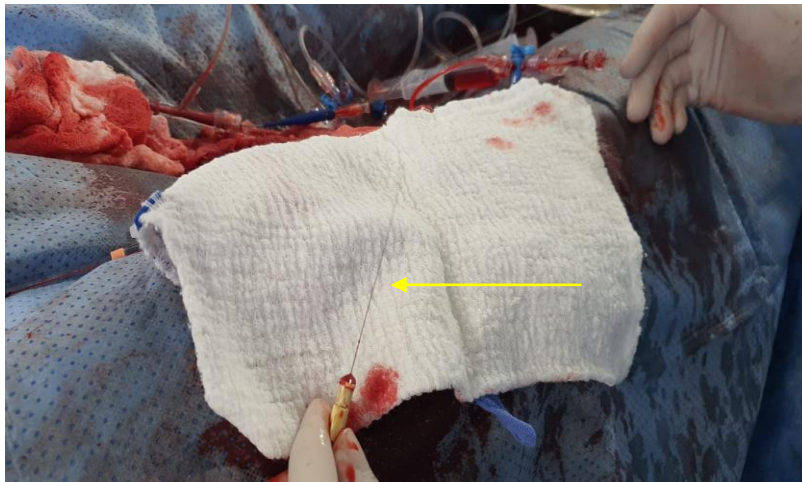
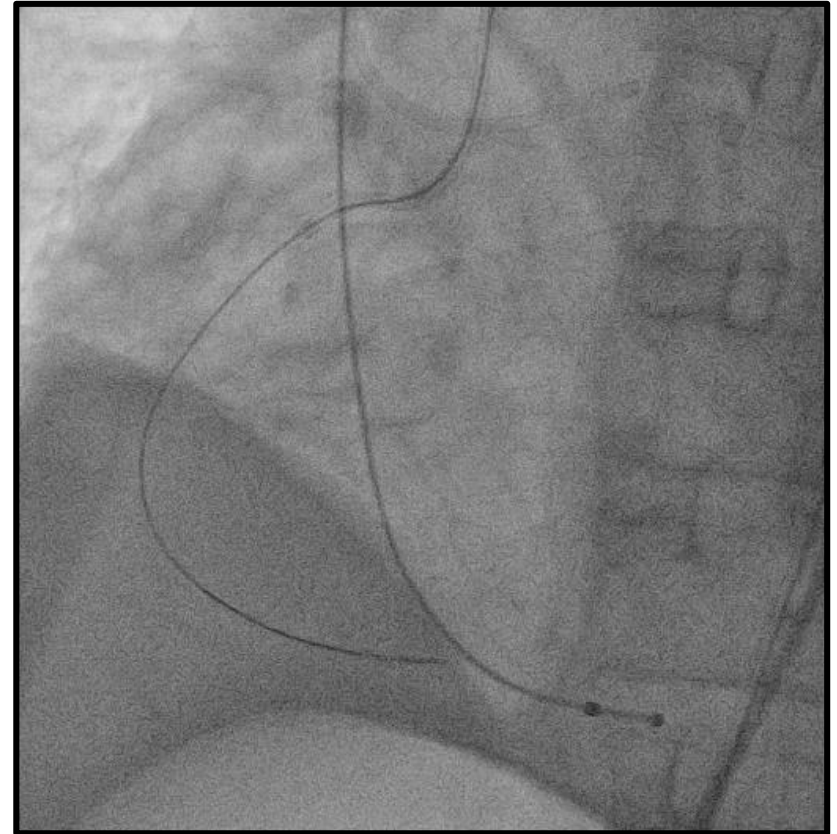
A guide to mastering retrograde CTO PCI, J Spratt



# Externalization RG3 330 cm (hidrofilic coating wire)



Advance workhorse wire to distal RCA



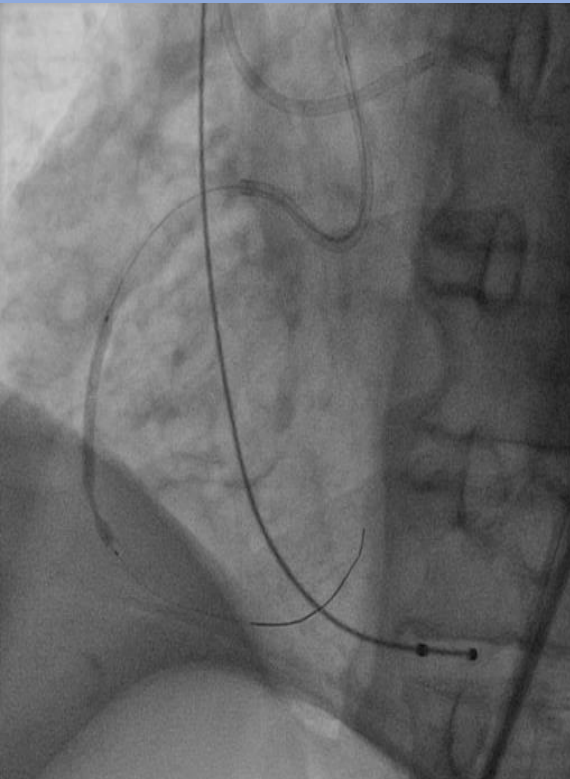
RG3 Wire was externalized through the antegrade guide catheter and right artery sheath



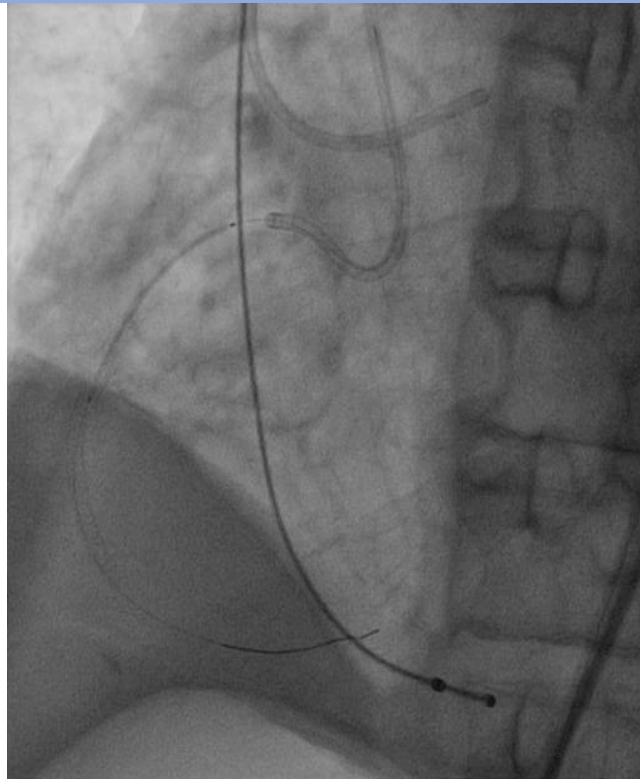
# Angioplasty and stents implantation

lesion was pre – dilated an three drug eluting stents were deployed

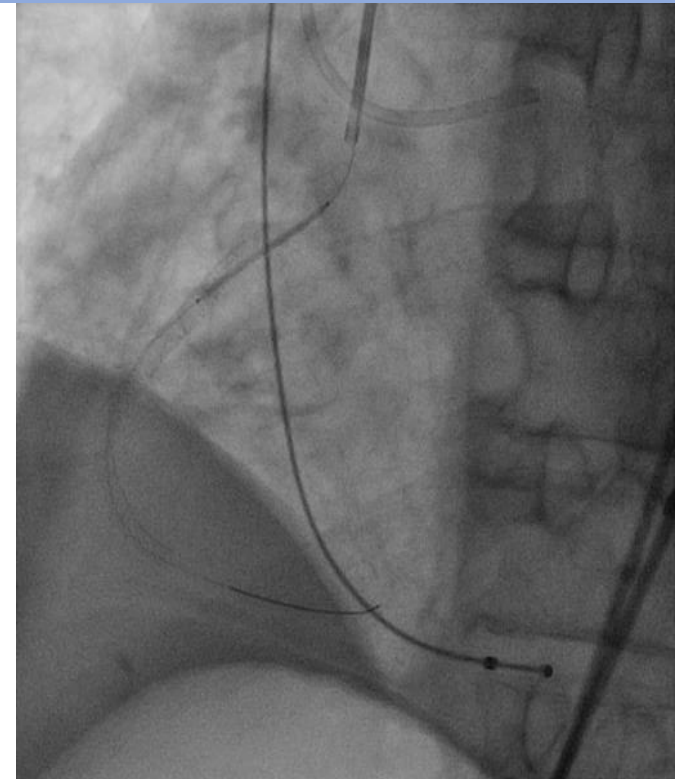
Synergy 3.0 x 38 mm



Synergy 3.5 x 38 mm

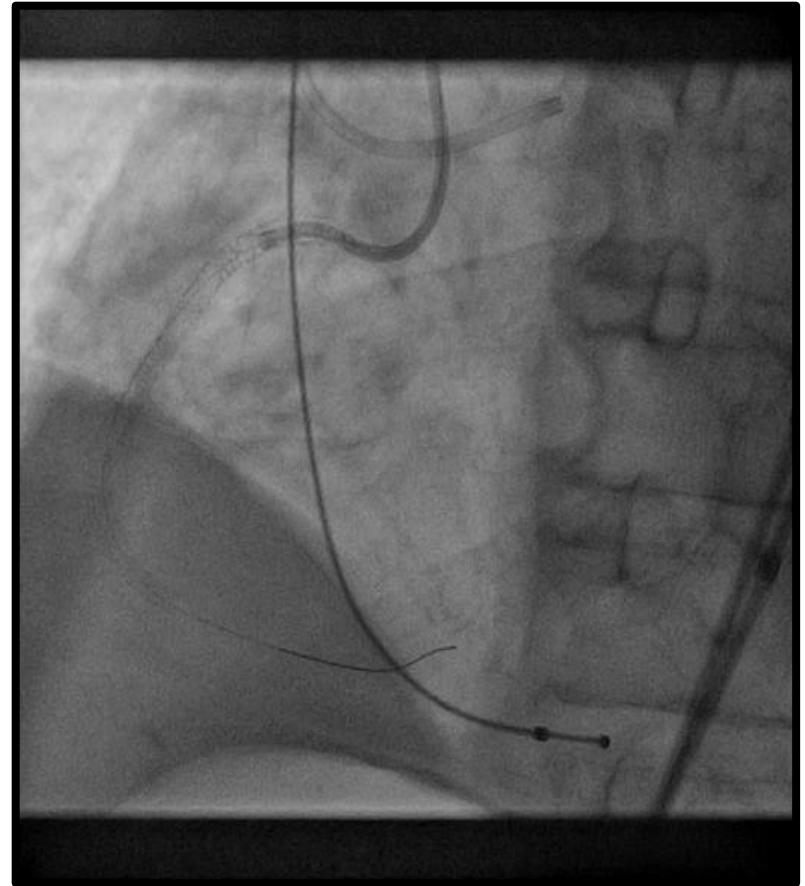
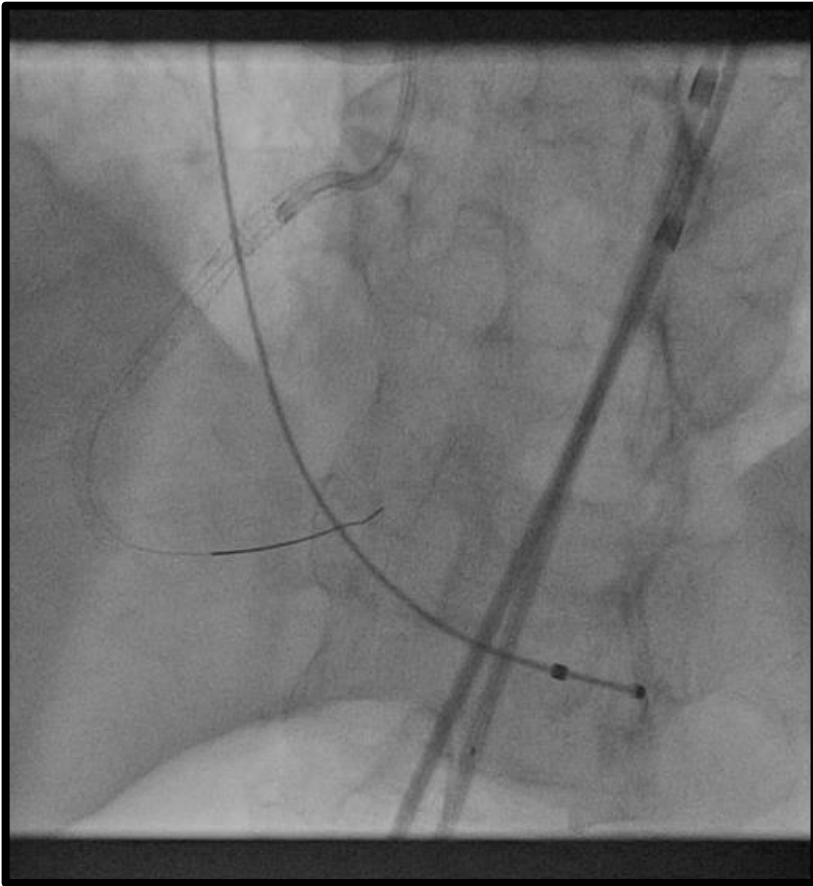


Synergy 4.0 x 28 mm



# Final result

No residual stenosis and timi III Flow – No evidence of dissection or perforation





# Take home messages

- The use of polymer coated wires, can reduce the equipment interaction with stent struts
- In these situation an early default to balloon dilatation is preferable
- Accessing a collateral chanel through stents struts can be challenging, but is a safe technique.