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New Stent Platforms & Daily Practice *Case Presentation*

Oscar A. Mendiz.MD.FACC.FSCAI

Chief Cardiology & Cardiovascular Institute
Chief Interventional Cardiology Department
Board of Directors Hospital & Favaloro University
TCT Associated Director
SCAI Board of Trustees

Disclosure

O Mendiz. MD.

Medtronic: Consultant
AstraZeneca: Speaker

Core Wire and CST

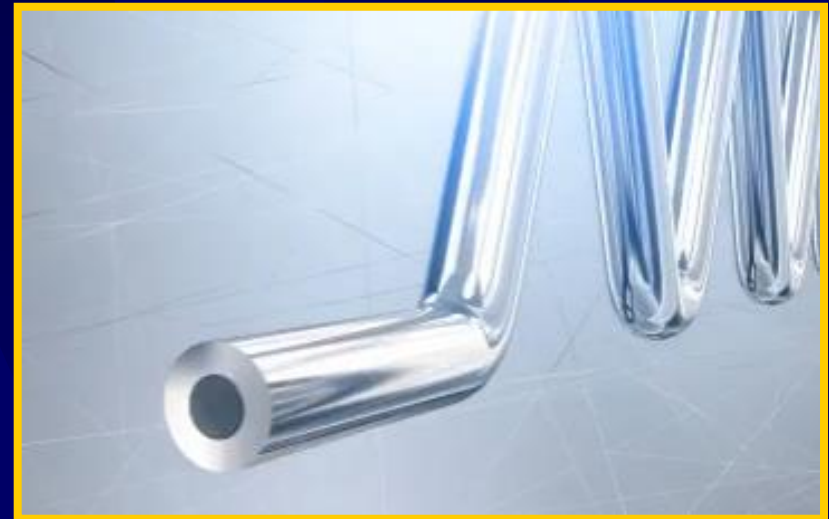
Core Wire and Continuous Sinusoidal Technologies

- The combination of CST and Core Wire Technologies allows for:

- Improved deliverability and conformability based upon the flexible design (CST,) enhanced radiopacity and thinner struts (Core Wire)

- Builds upon the CST-technology utilized by the Resolute Integrity platform product

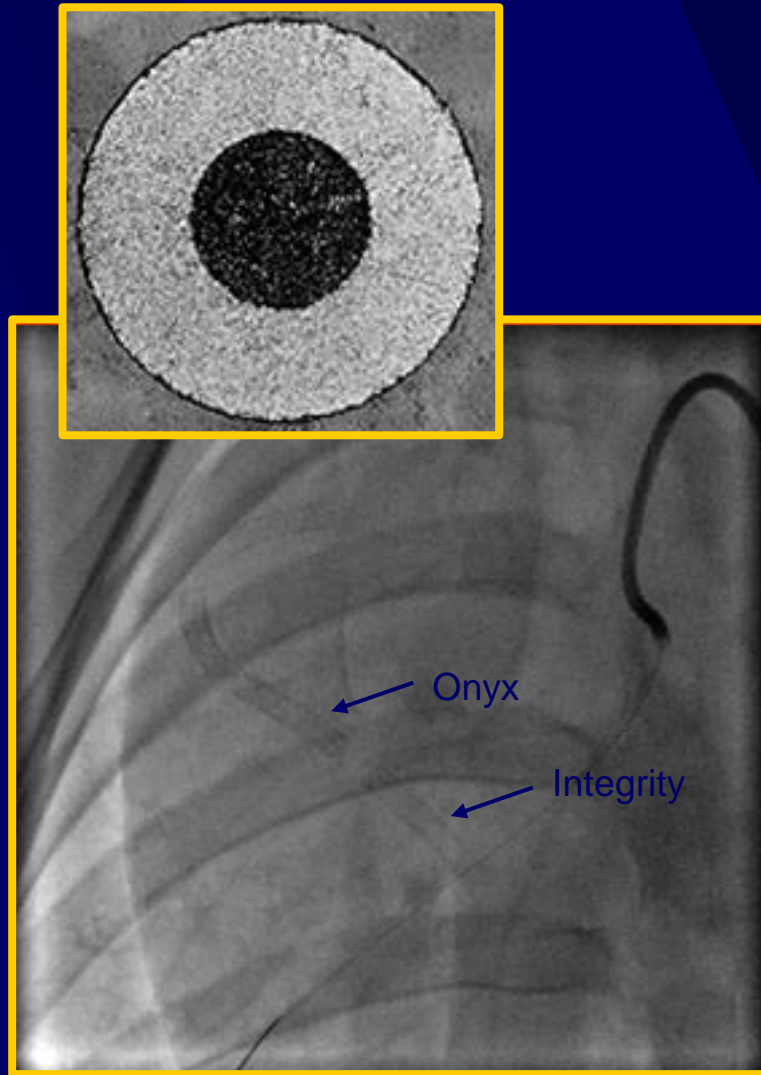
- Allows for a thinner struts with no compromise in radiopacity or overall structural strength



- Improves deliverability and acute performance

Core Wire Technology

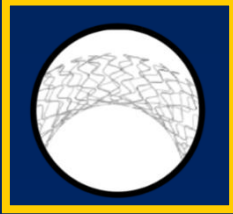

Enhanced Radiopacity



- The Cobalt alloy shell of Resolute Onyx™ maintains the mechanical performance and structural strength of the stent material while core material allows for improved visibility
- Enhanced overall radiopacity helps contribute to improved acute performance

Top image for illustrative purposes only - not representative of final product

Comparing Core Wire and CST

	Integrity/ Resolute Integrity	Resolute Onyx
		
Deliverability (Animal Model)*	-	15% improvement on Integrity/Res Integrity
Radial Strength (Bench Model)*	-	Equivalent to Integrity/Res Integrity
Radiopacity	-	More radiopaque than Integrity/Res Integrity
Strut Thickness*	91 µm	81 µm
Crossing Profile*	1.12 mm	1.04 mm
Longitudinal Deformation Resistance	-	15% reduction in catch rates (bench test) vs Integrity/Res Integrity

* Measured on 3.0 x 18 stents

CTO Case

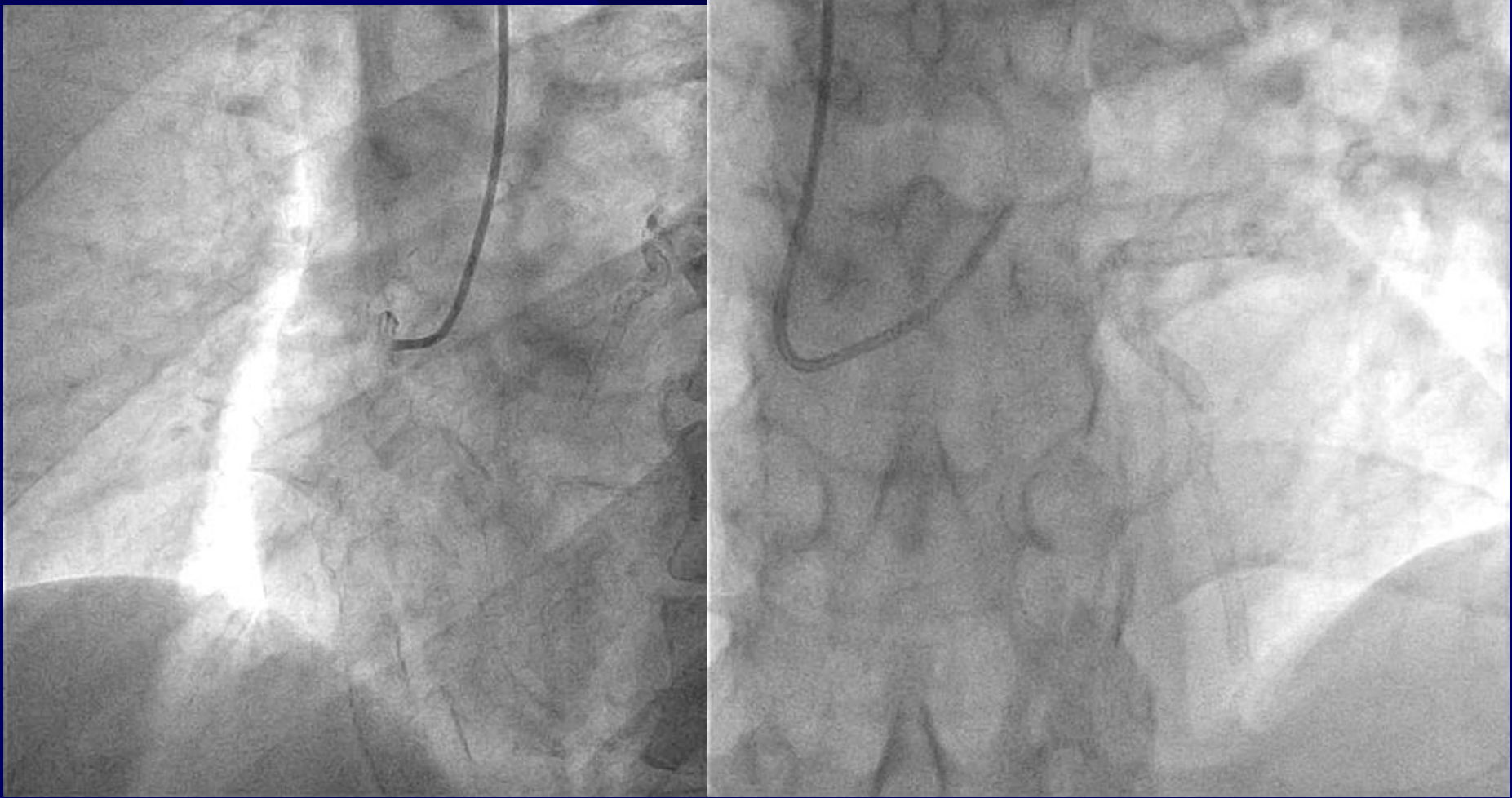
- 54 yr male.
- Risk Factors: HTN
- History:
 - Prior LAD and LCx Stenting.
- Clinical Presentation:
 - 4 months of angina (CFII)
 - Nuclear stress test positive for inferior and lateral wall ischemia with normal EF (SSS>10%).
- Angiography:

CTO Case: Angiography



Angio Findings:
LCx Instent Restenosis
CTO of RCA
LAD stent without rest.

CTO Case: First Angiography



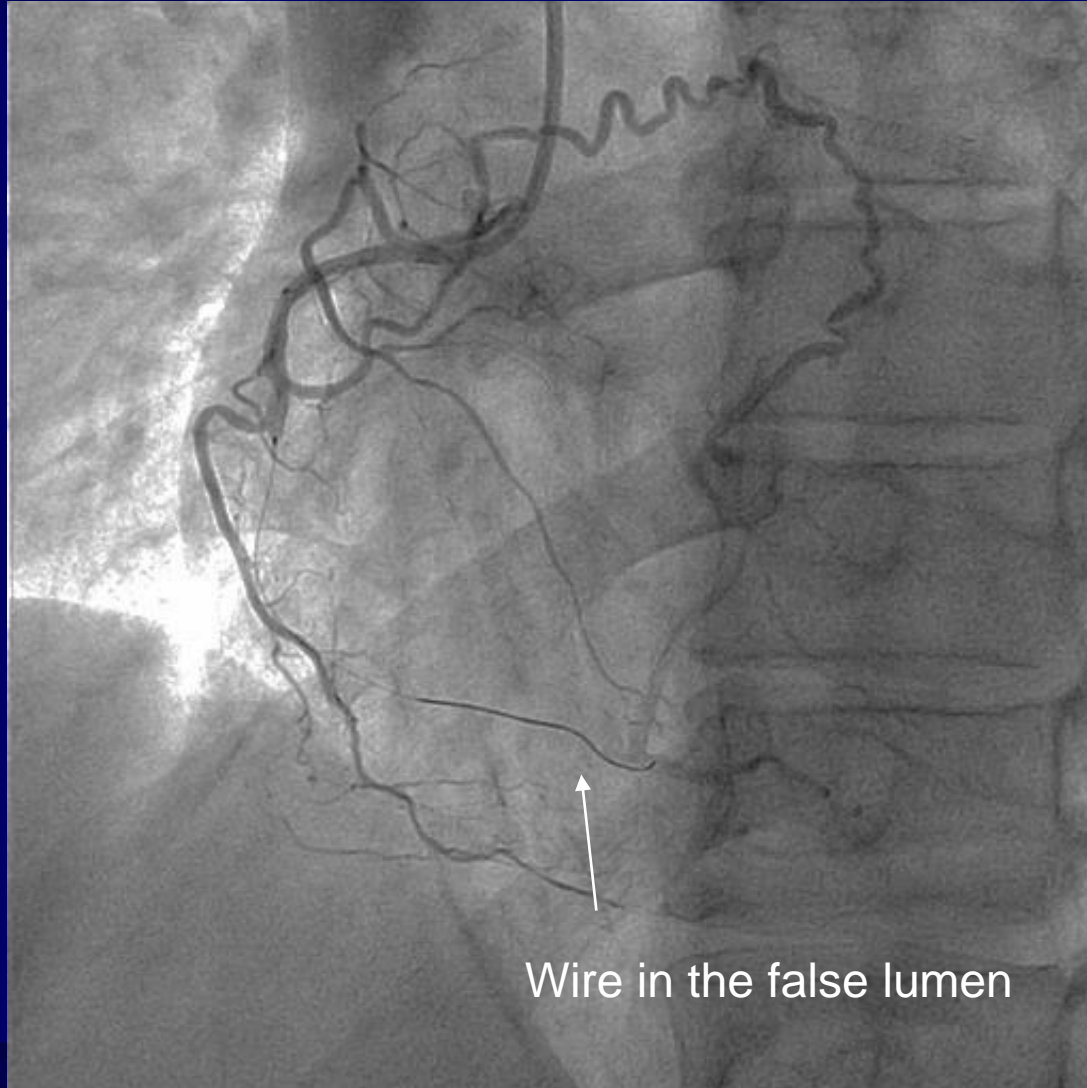
CTO Case

- Decision Making Process:
- Clinical Situation:
 - RCA CTO
 - Young pte with severe angina and positive stress test.
- Medical Treatment:
 - Refractory
- CABG:
 - Would have been an option
- PCI:
 - Challenging long CTO at RCA and focal ISR in LCx

CTO Case

- We decided PCI

CTO PCI



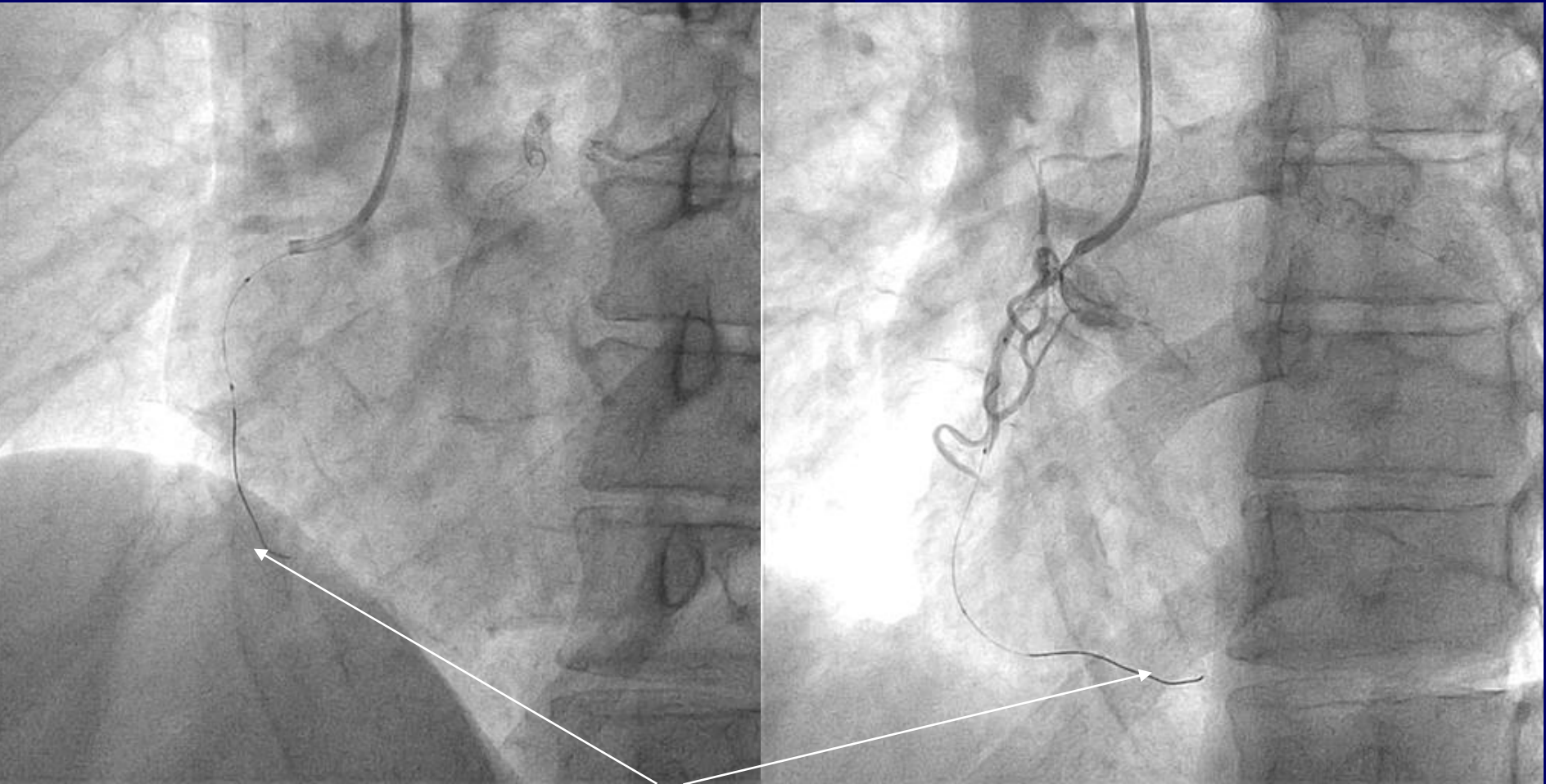
● PCI by Antegrade Approach:

- Radial Access 6Fr
- OTW microcatheter
- Wire escalation.

Several Unsuccessful Attempt

New Devices non available
TruePath®- Non-available
FrontRunner?? Not used
Others??

CTO PCI



Wire in the false lumen

CTO Case

- What would have been your choice and which strategy in case of PCI?



- What would you have done at this point?

CTO Case

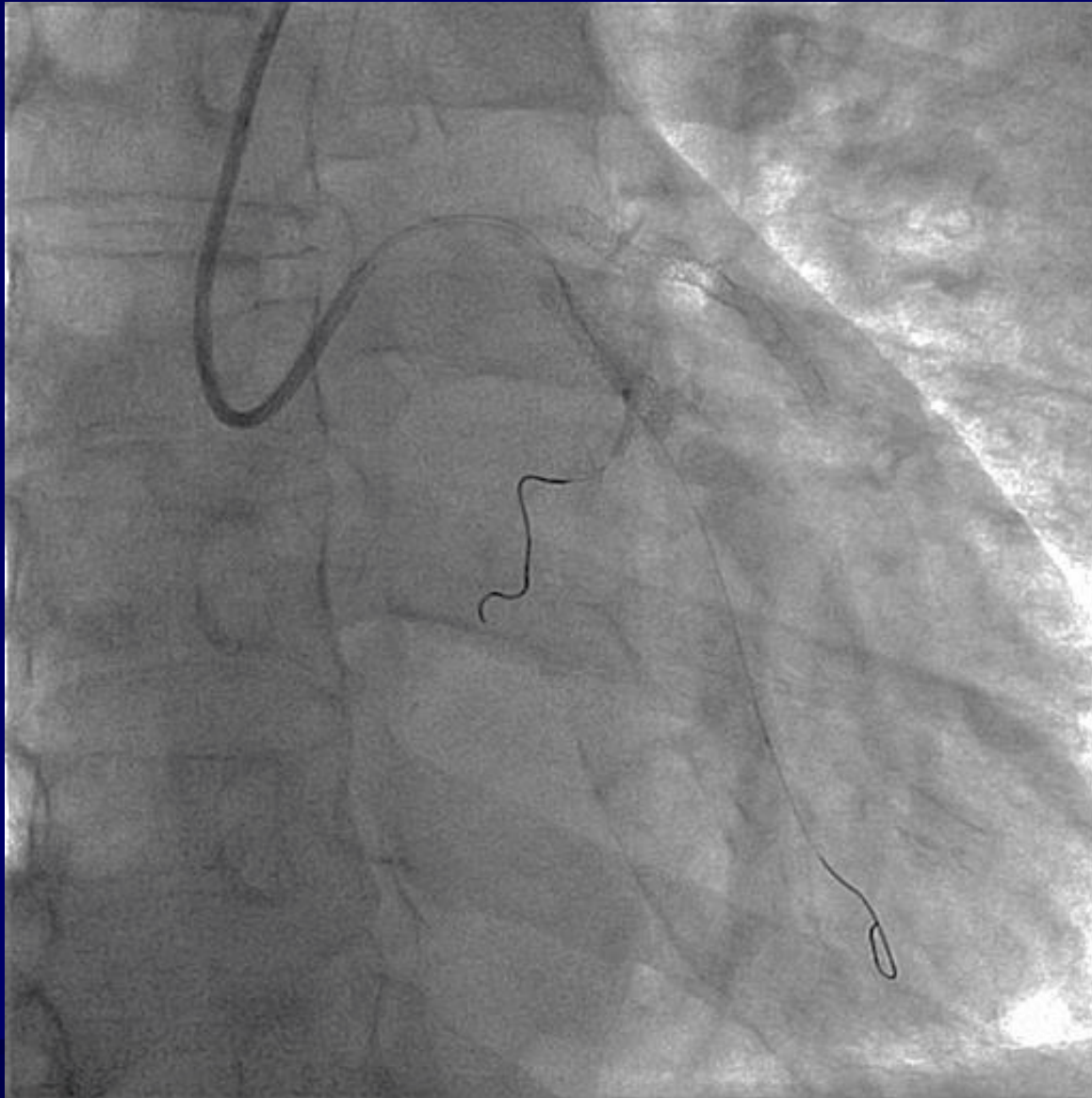
● Potential Choices:

- Stop the procedure and send Pte for elective CABG
- Retrograde Attempt:

Retrograde Access:

- 1-No good septal collaterals (LAD Stenting,)
- 2-GOOD sub-epicardial collateral, but also jailed by previous stent with restenosis

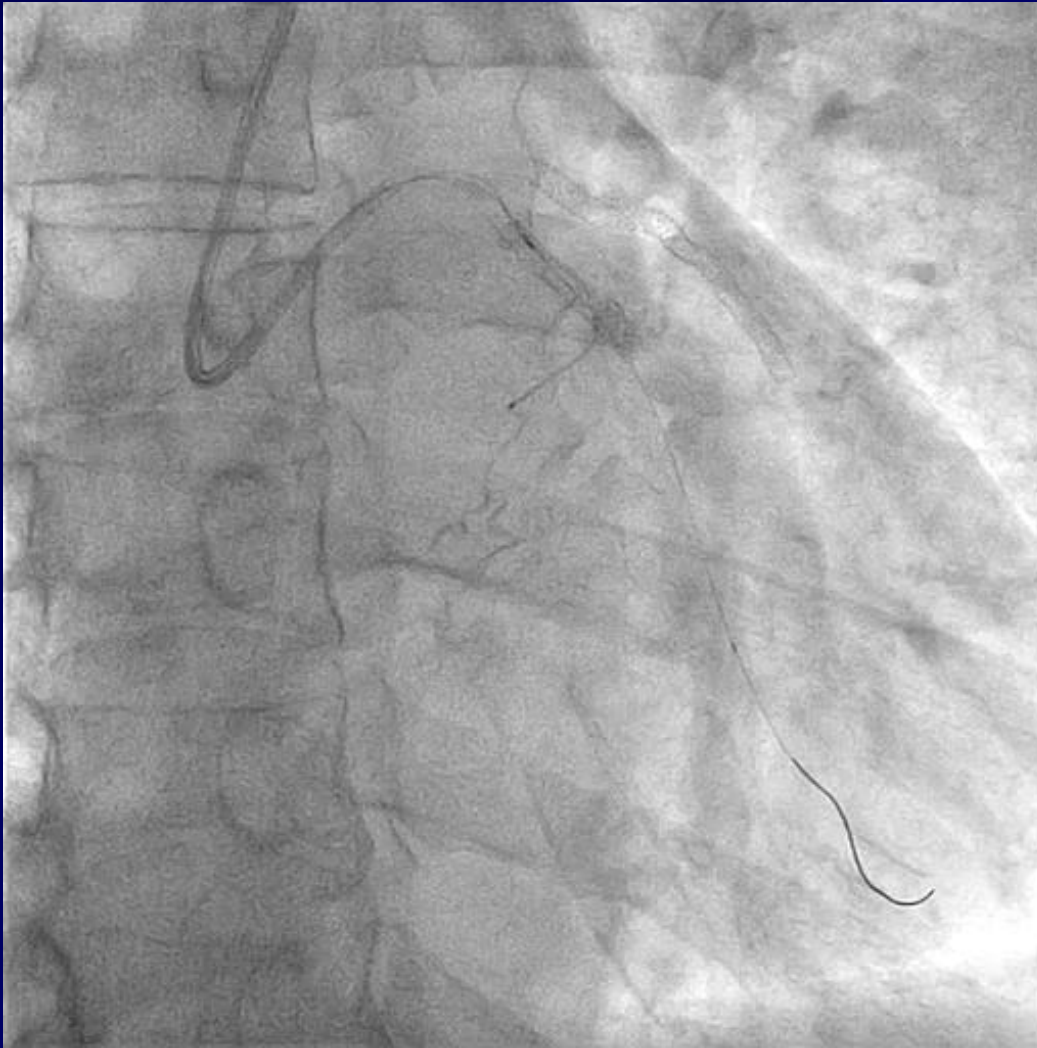
CTO PCI



PCI by Retrograde Approach:

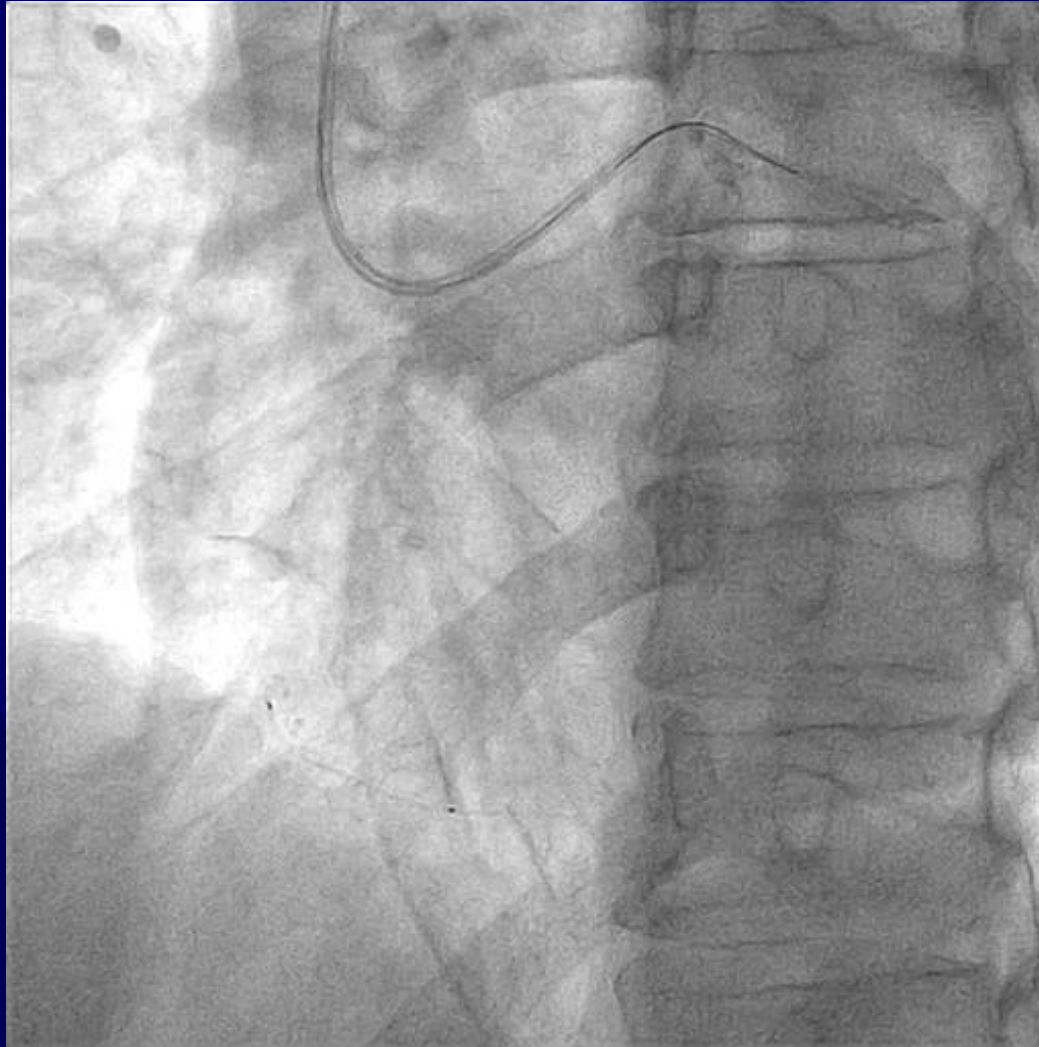
- Bilateral Radial Access 6Fr
- 1st Marginal wire for protection and gently predilatation.
- OTW microcatheter
- Wire: Sion Blue®.

CTO PCI



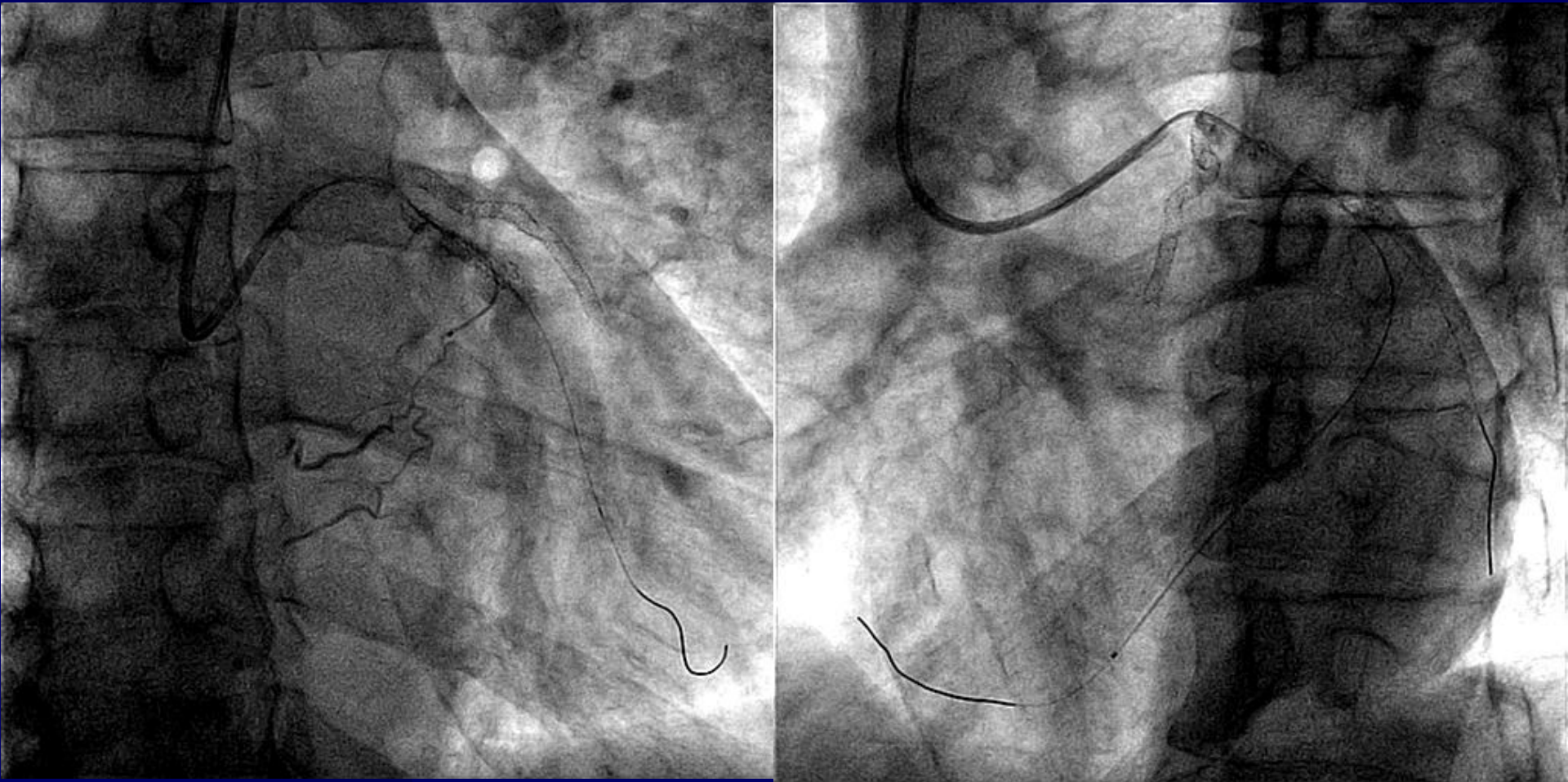
1st Marginal protection
Gently stent balloon predilatation
Wiring epicardial collateral

CTO PCI by Retrograde Access



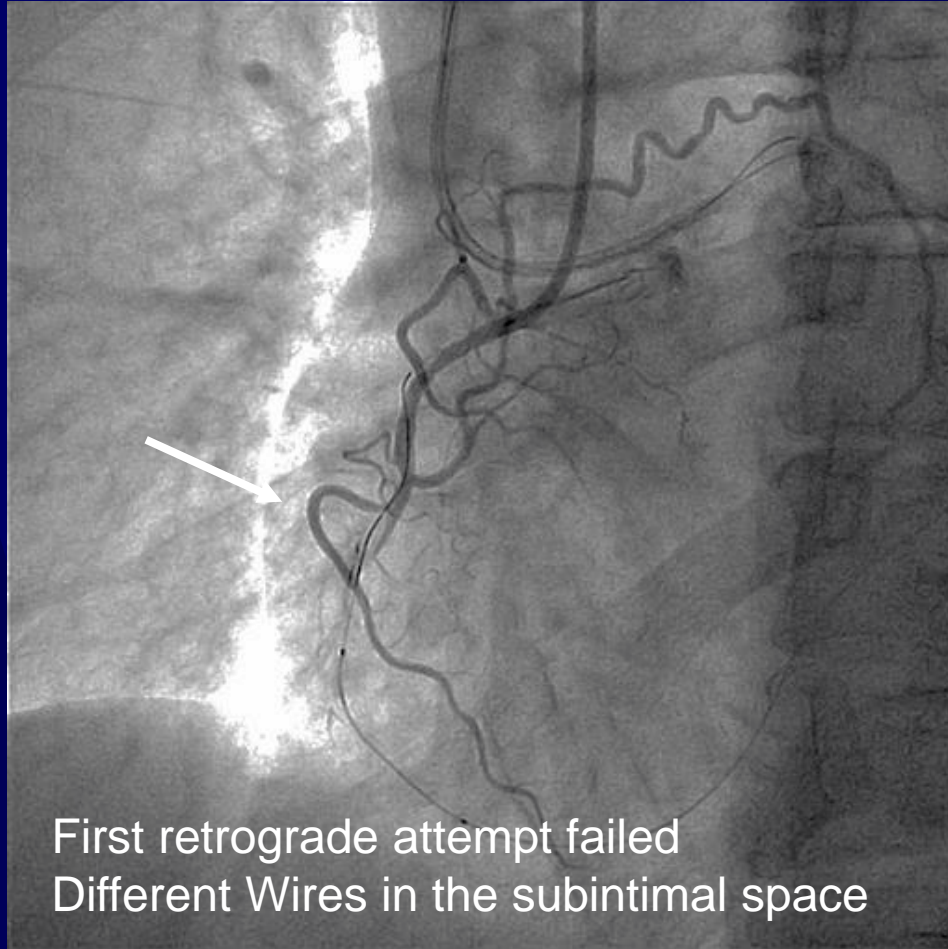
Micro-catheter (*Excelsior*®) and Sion Wire retrograde access

CTO PCI by Retrograde Access



Micro-catheter (*Excelsior*®) and Sion Wire retrograde access

CTO Retrograde Recanalization



CTO PCI by Retrograde Access

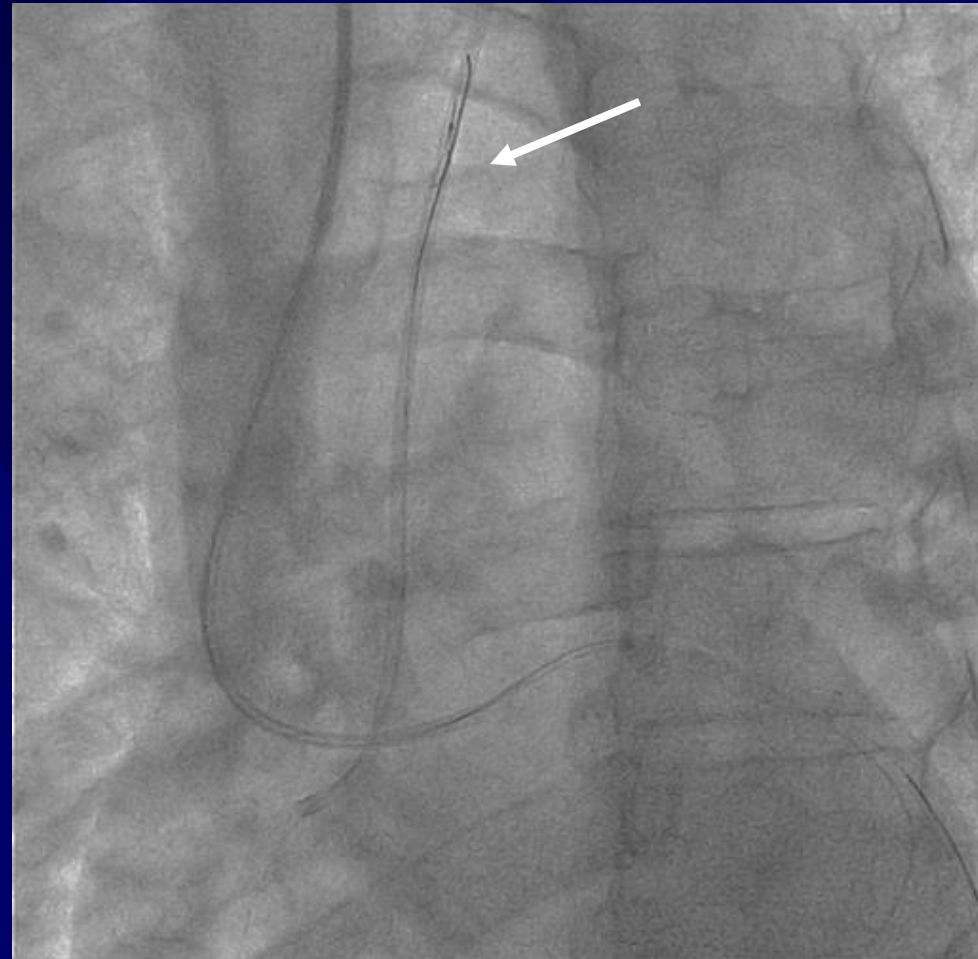
Potential Options:

1-CART or rCART

But Limited experience with both techniques

-2° attempt with a retrograde stiffer wire

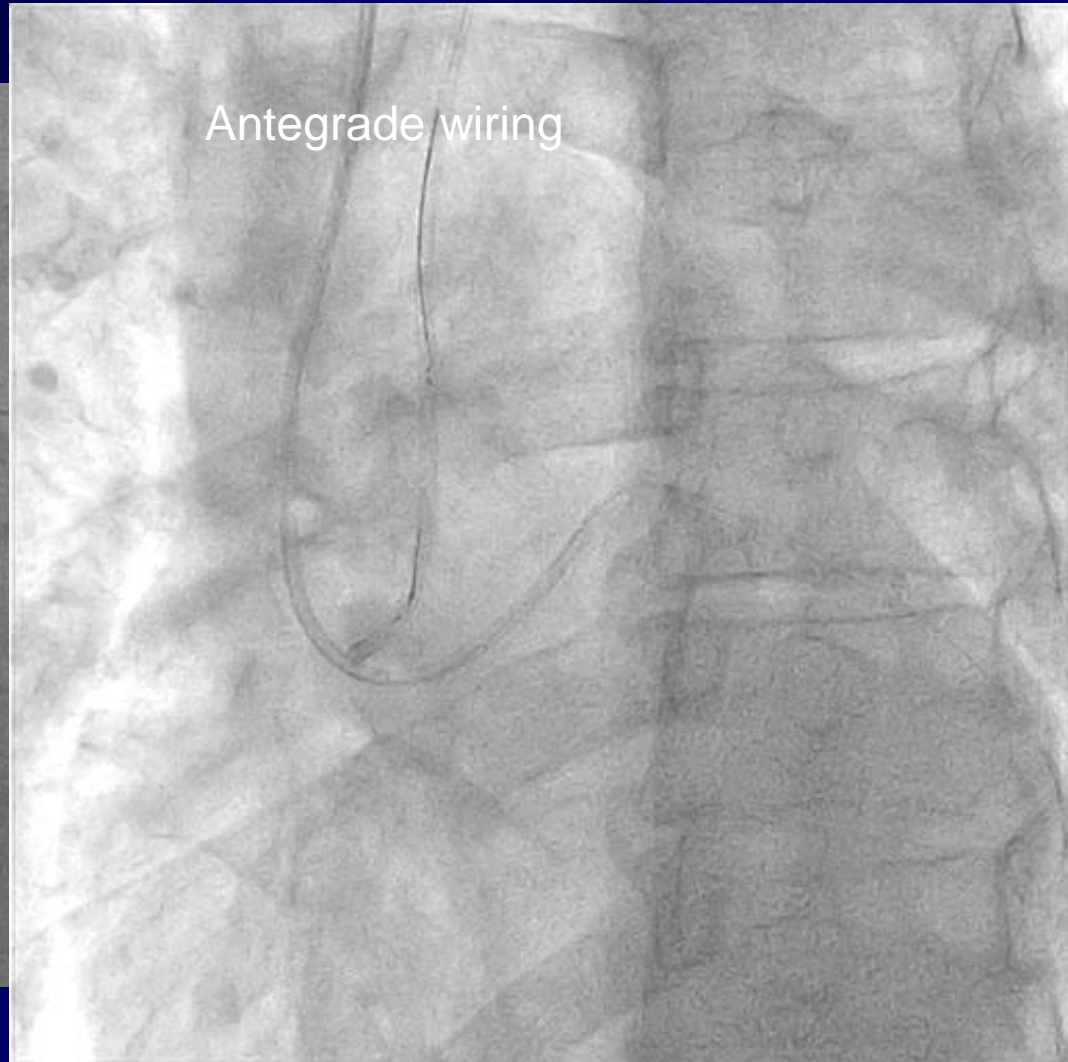
Successful 2nd attempt crossing using a Cross-It 200 which was introduce into RCA Guiding catheter



CTO PCI by Retrograde Access



CTO PCI by Retrograde Access



Externalization wires like Viper Advance, R350 or RG3 are not available so.....

CTO stenting



Resolute Onyx 3.0 * 38

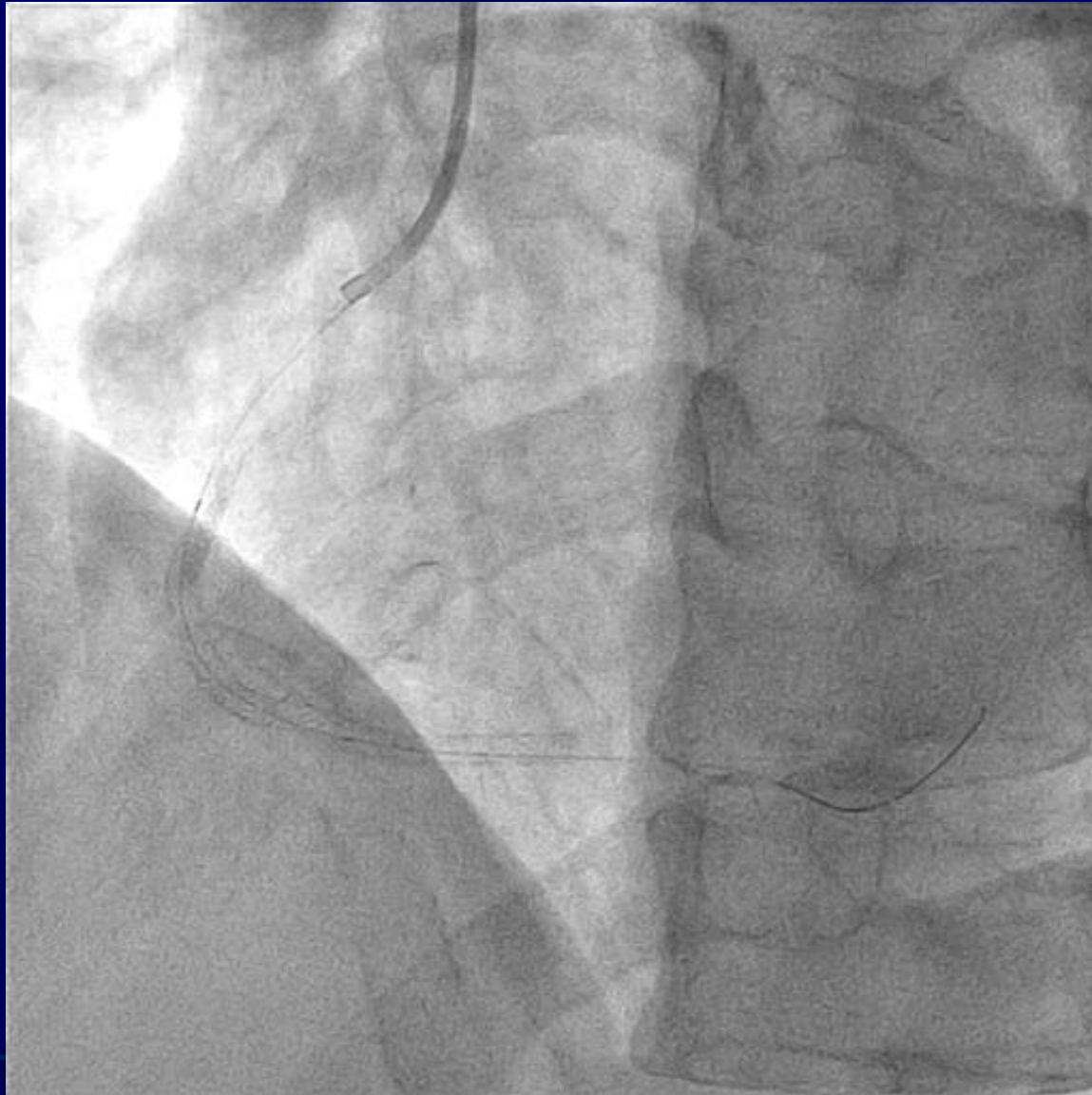


Resolute Onyx

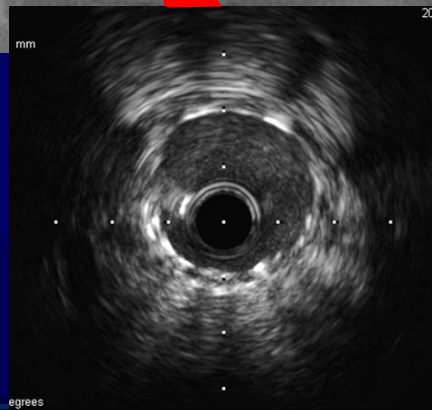
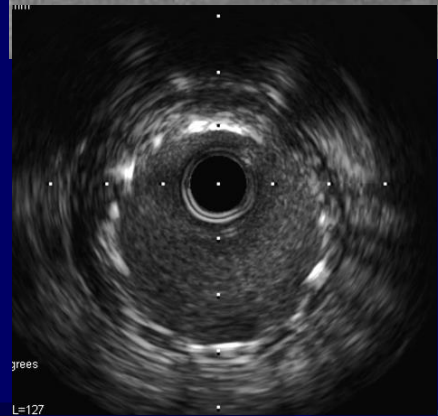
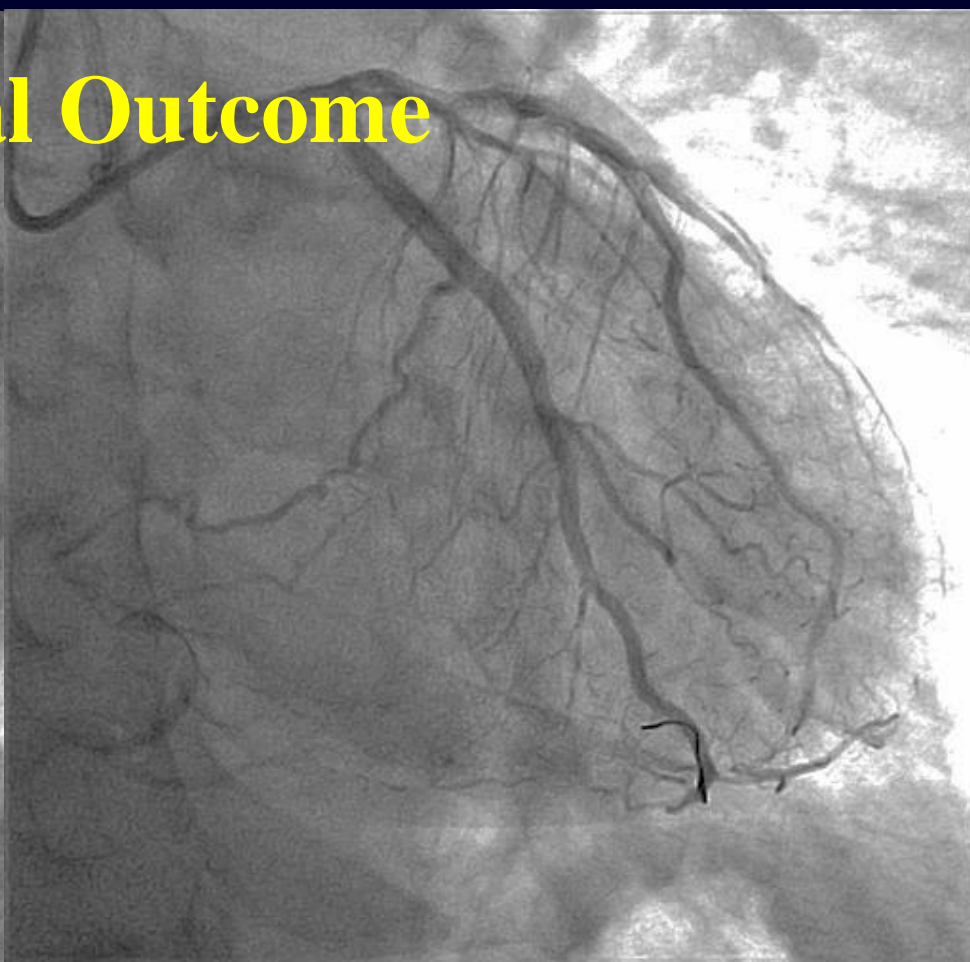
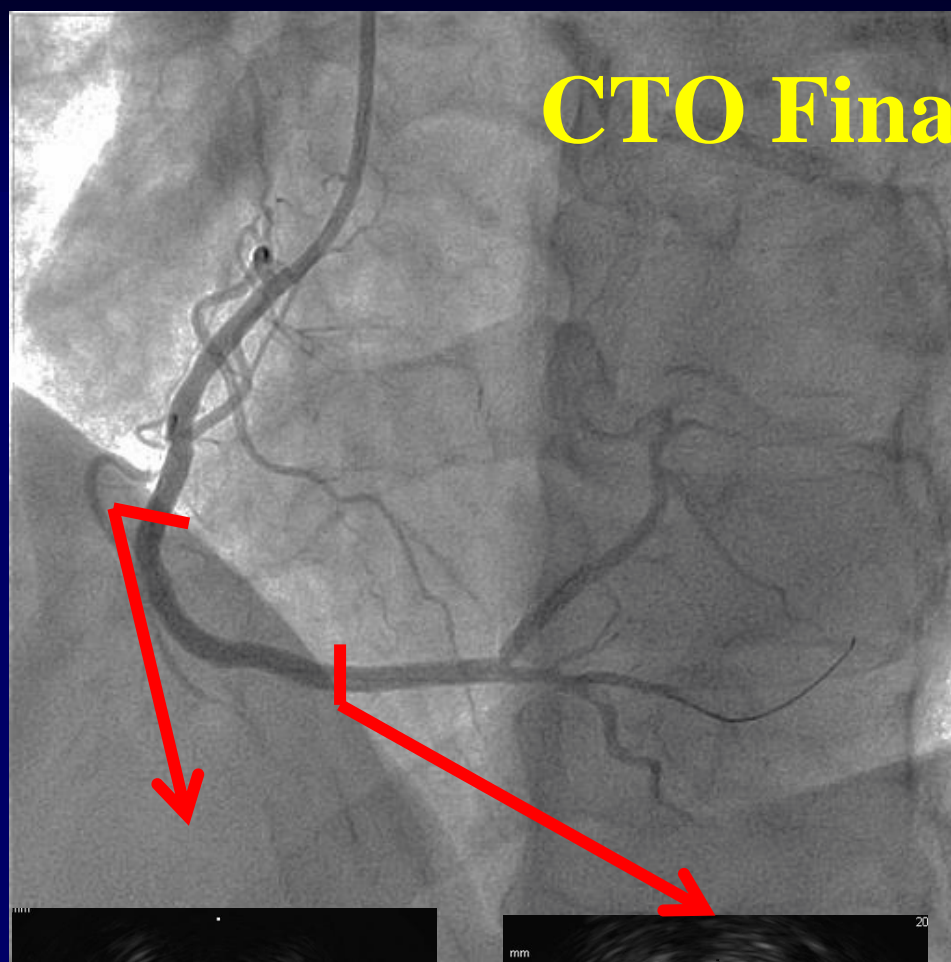


Resolute Onyx 3.0 * 38 mm

CTO stenting: Final Angio



CTO Final Outcome



Complete revascularization!!!

False Assumptions about CTO

- CTO is well collateralized and therefore there is minimal impact on quality of life and prognosis.
- CTO is a closed vessel and therefore not at risk for/or during ACS/AMI.
- CTO outcomes are more benign than non CTO coronary disease.
- CTO PCI is associated with unacceptably high complication rate.

All Very Popular in Argentina

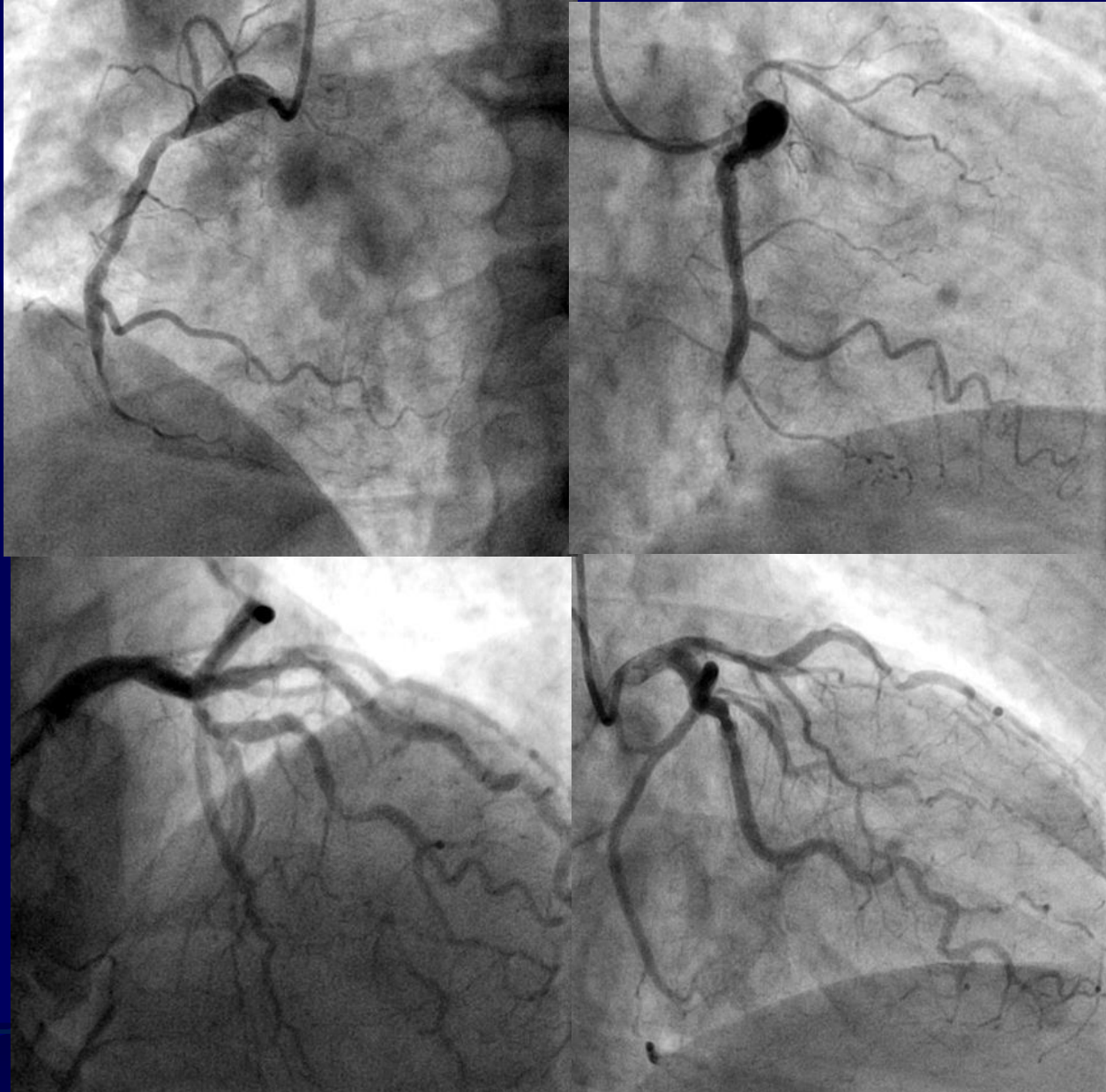
However

- CTOs affect Ptes' quality of life and prognosis; mainly in those with MV disease and High Ischemic Burden.
 - *This presented Pte would benefit*
- CTO Ptes are usually undertreated.
 - *It is usually like that in LATAM, due to lack of reimbursement, tools and High volume operators.*
- There is some evidence supporting survival benefit for CTO-PCI in asymptomatic Ptes with ischemic burden >10%
- We may save money, time and complications with full CTO toolbox availability and sponsored proctored programs in LATAM

CASE 2: MV Disease (CH 637063)

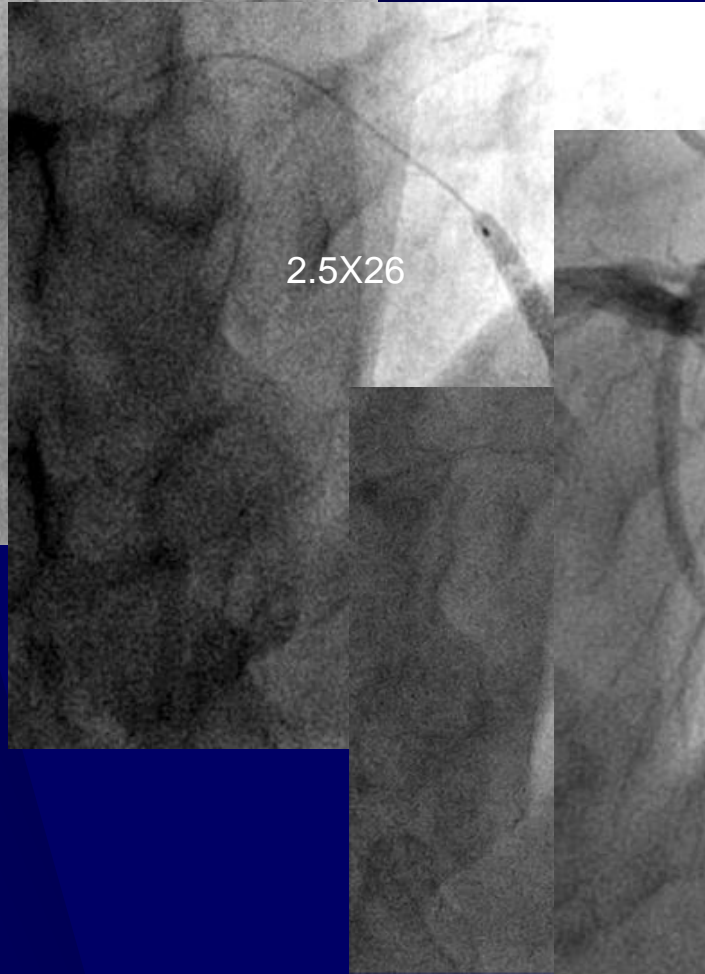
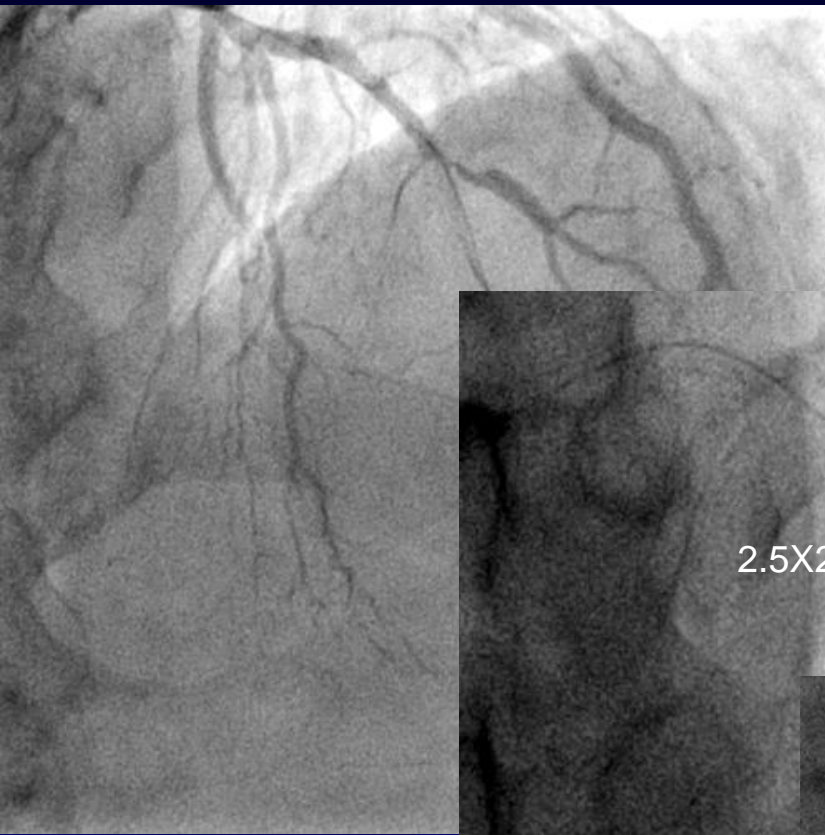
- Male 64 years old.
- Risk Factors: HTA, DSP, Obesity.
- History:
 - Chronic AF (treated with Ribaroxaban)
 - NSTEMACS, (2010). PTCA LCx
- Clinical Presentation
 - NSTEMACS
 - ECG: ST depression anterolateral wall.
 - Echo-LVEF 52%
 - Angiography: MVD
 - Syntax Score 27
 - EuroScore_{log}: 2.4%

MV Disease PCI:



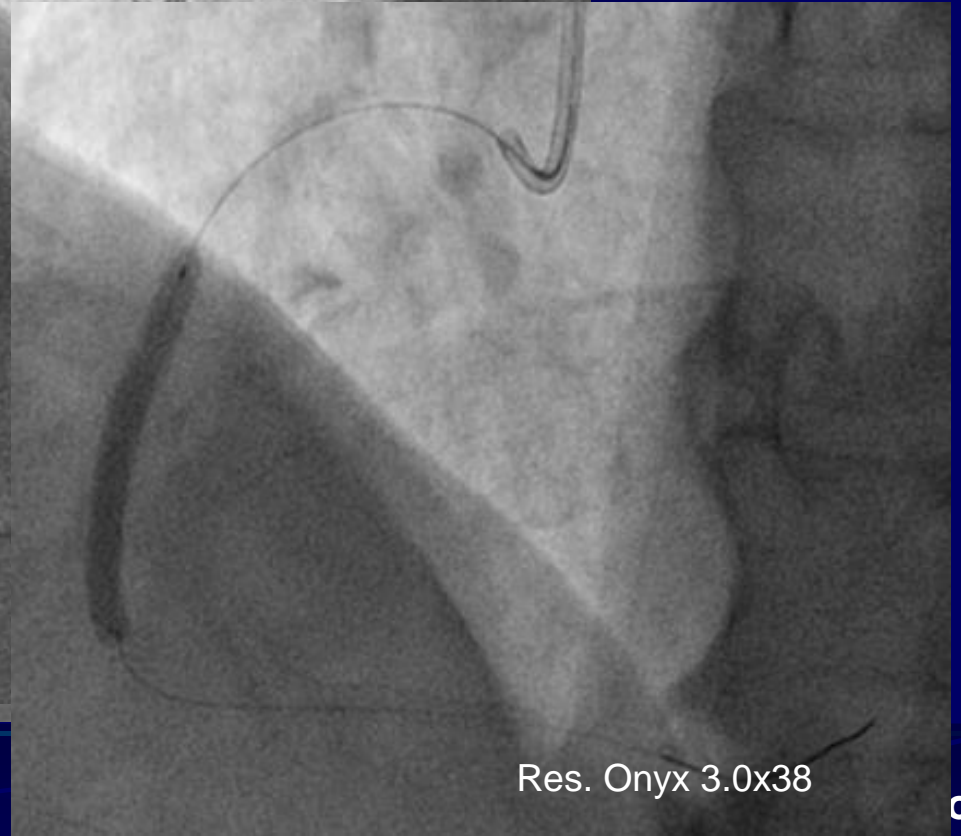
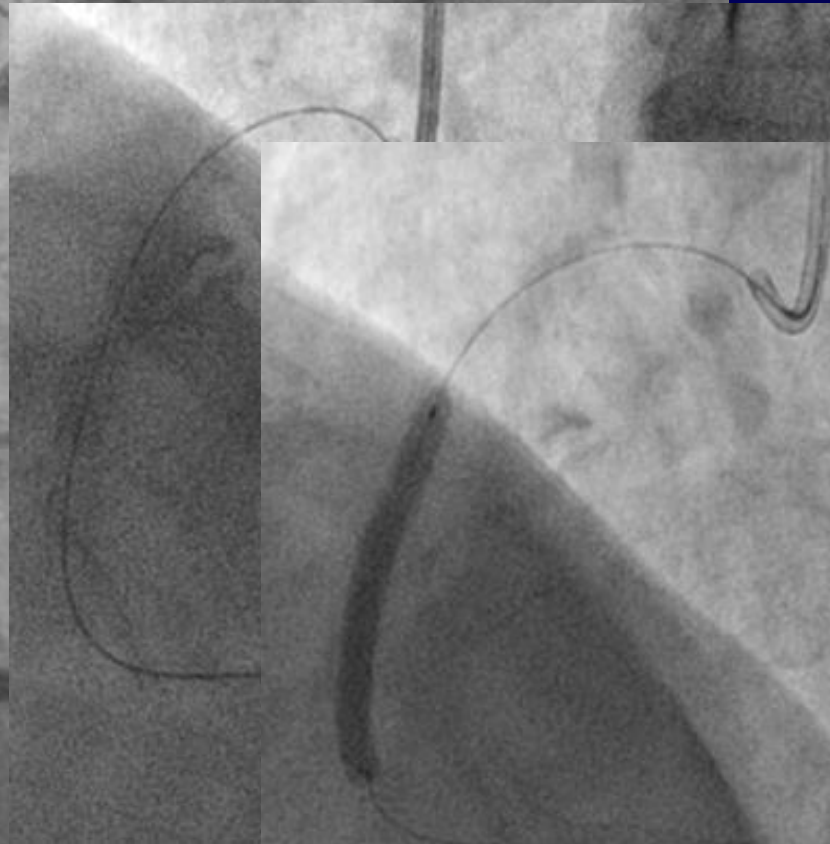
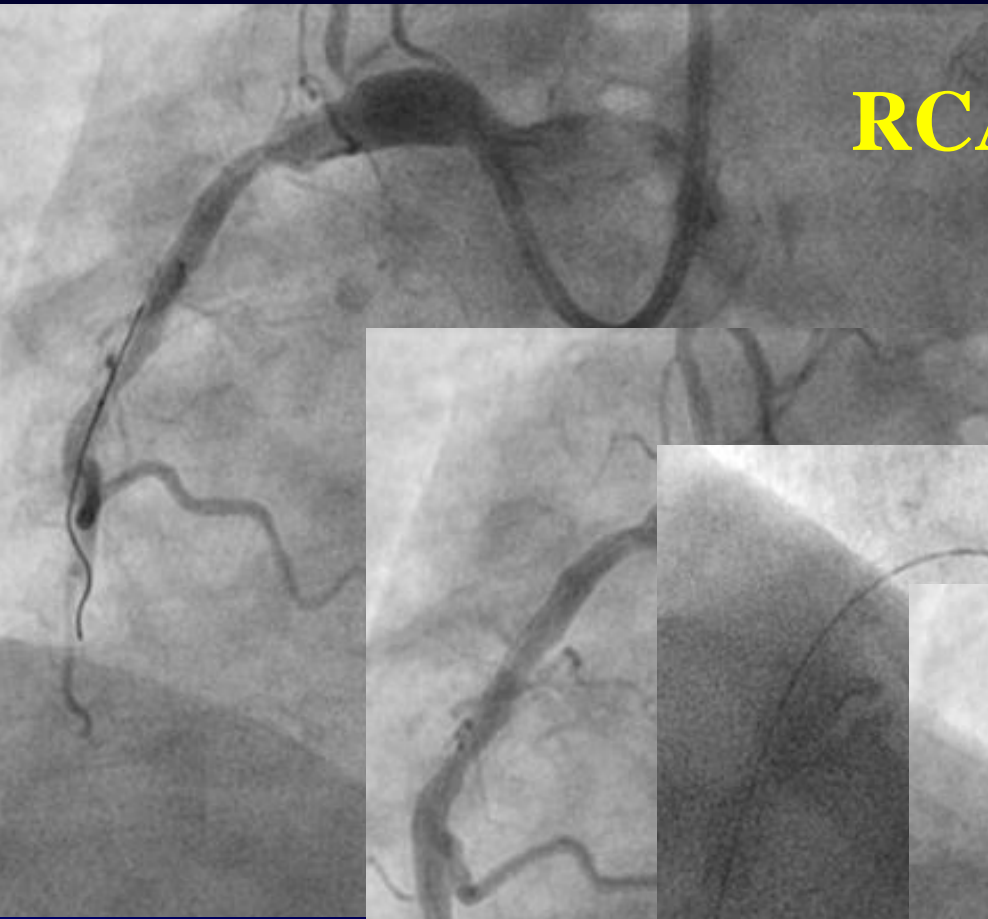
LAD-diag PCI

(Culotte Technique with Resolute Onyx)



RCA CTO Recanalization

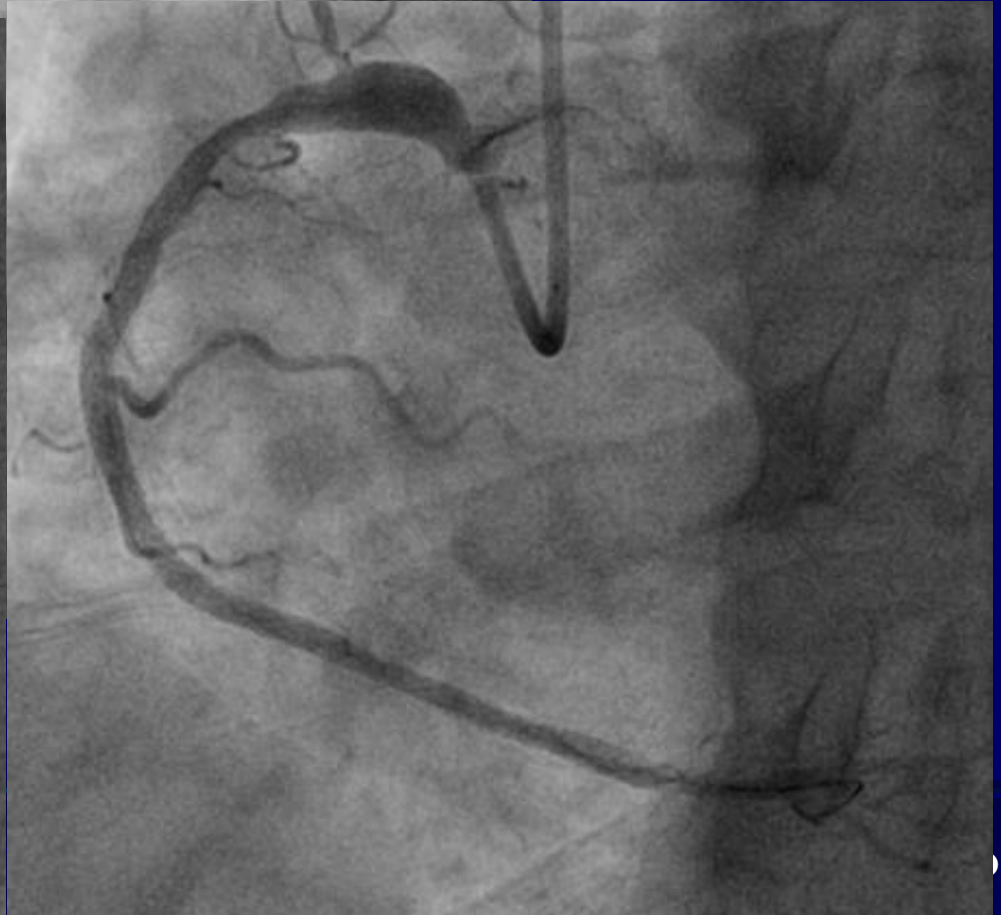
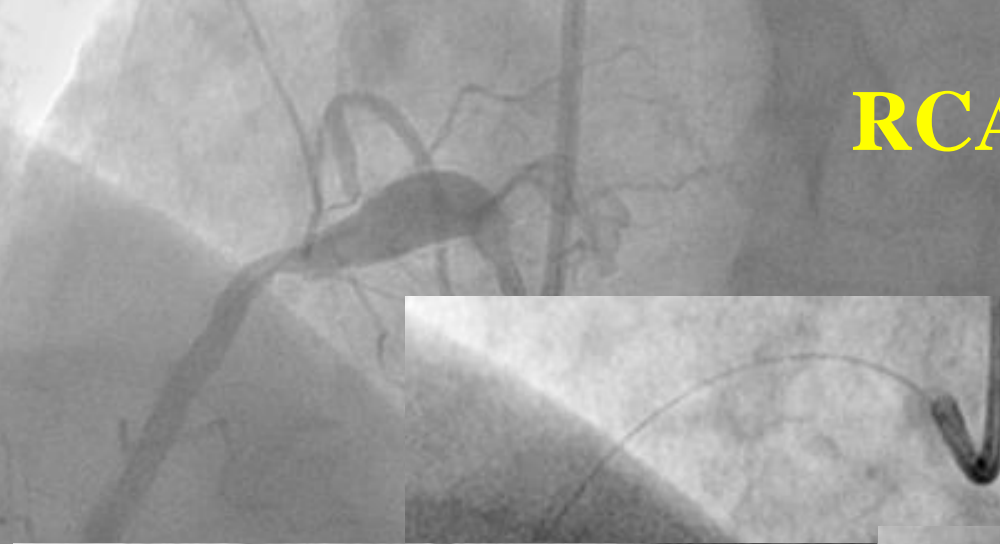
(Antegrade Approach)



Res. Onyx 3.0x38

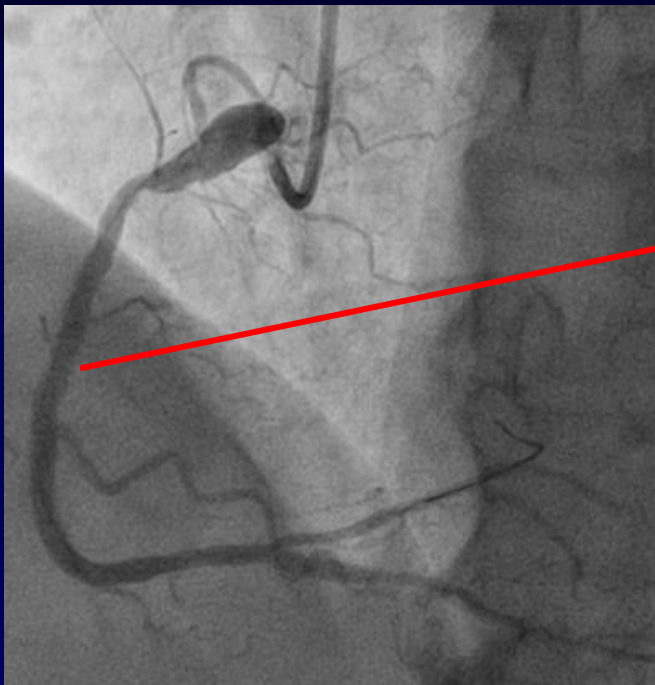
RCA CTO Recanalization

(Antegrade Approach)

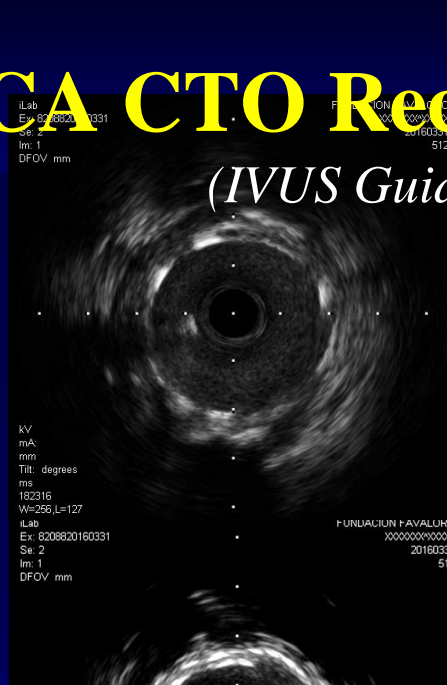


RCA CTO Recanalization

(IVUS Guided Post Dilatation)

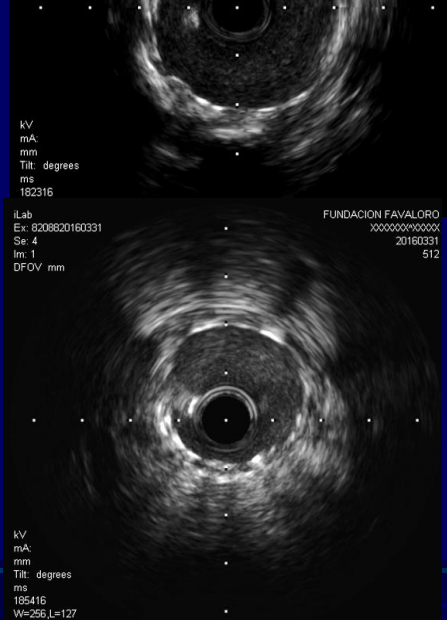
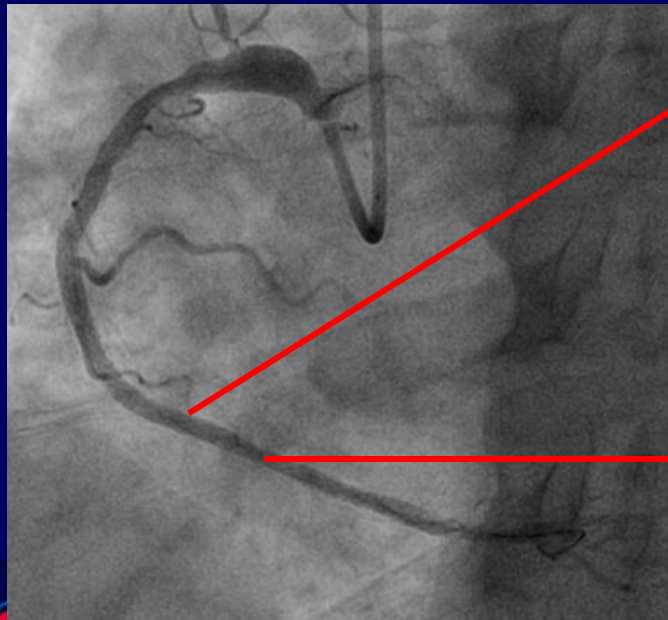


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Instituto de Cardiología y Cirugía Cardiovascular (ICYCC)

Hospital Universitario Fundación Favaloro

Meeting Planner: congreso@ffavaloro.org

Scientific Secretariat: cientifico@ffavaloro.org

ffavaloro.virtualmedica.com

Thank you for your Attention

See you in Buenos Aires



 @omendiz