Ostial chronic total occlusion recanalization Challenging case

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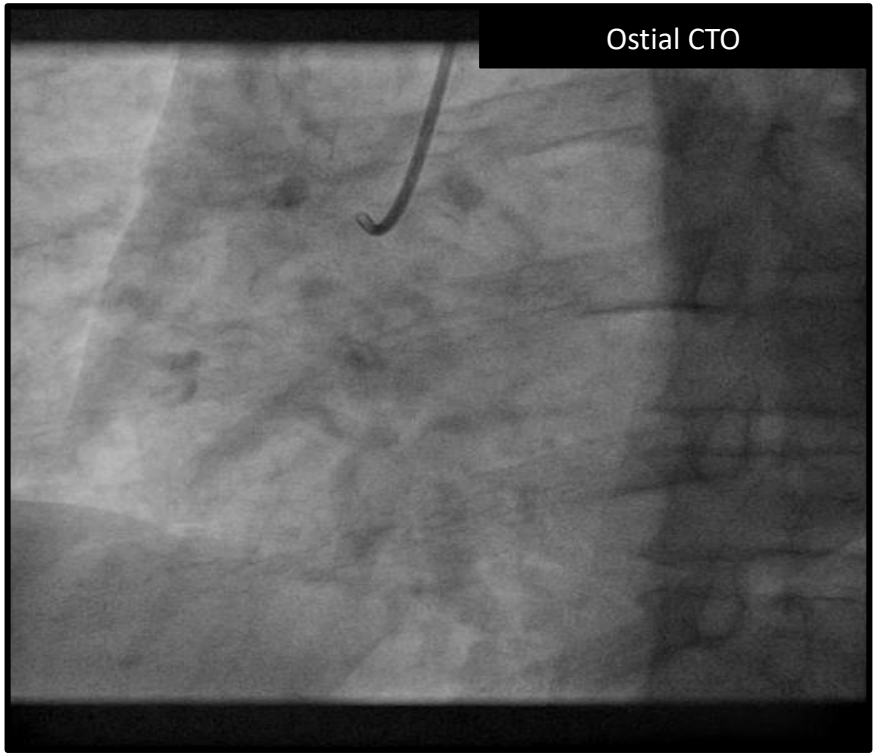
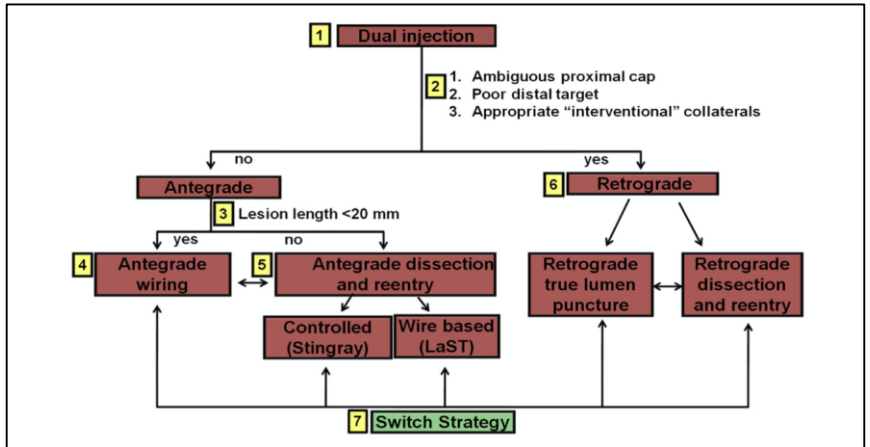
Disclousure Statement of Financial Interest

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.

Clinical Case

- 53 year-old Male
- History of diabetes, obesity and COPD
- Patient was admitted for Unstable angina
- TTE: LVEF: 45%.

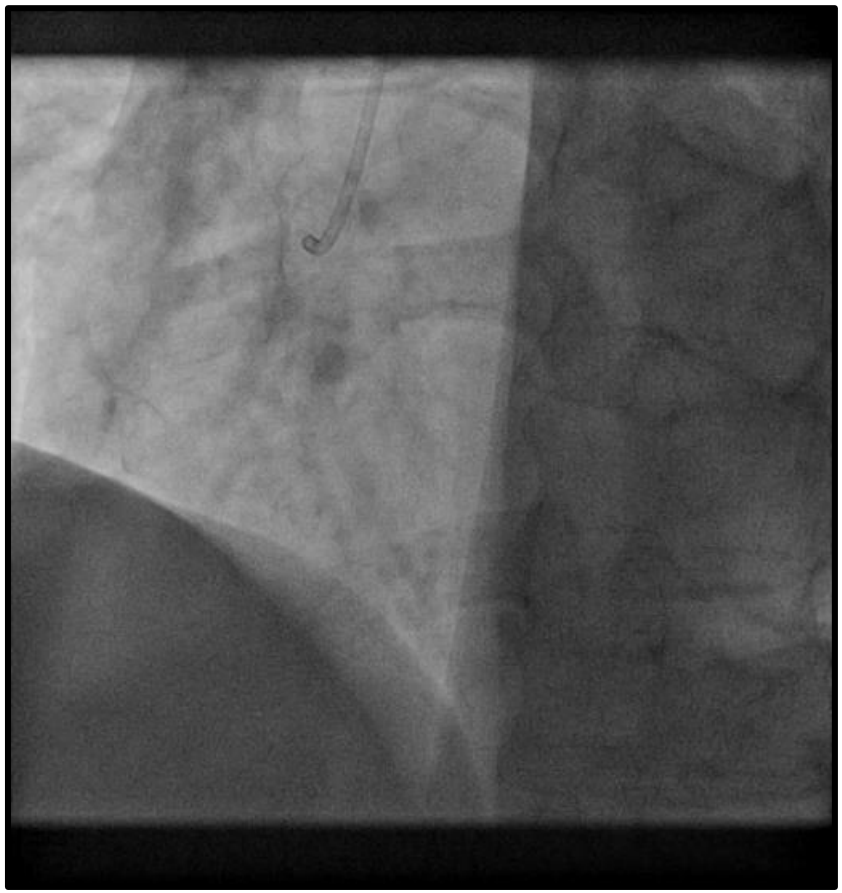




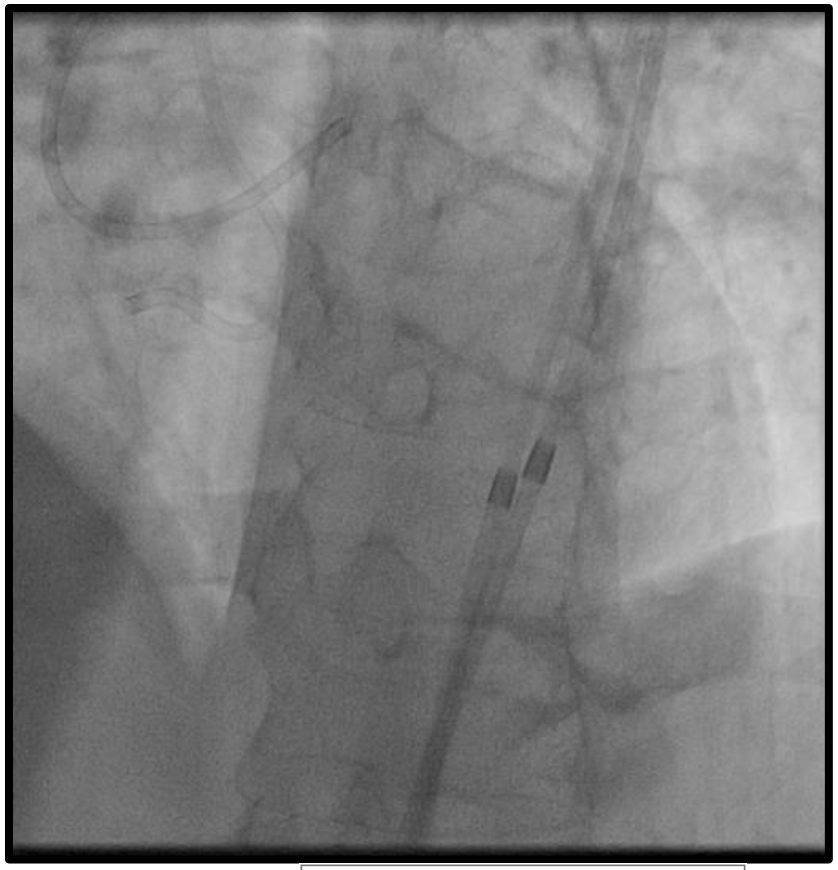
JACC: CARDIOVASCULAR INTERVENTIONS VOL. 8, NO. 2, 2015

Coronary angiography
JCTO SCORE 1 (occlusion length >20 mm).

Ostial lesion and Ambiguous proximal cap



Dual injection coronary angiography



Progress complication score 3

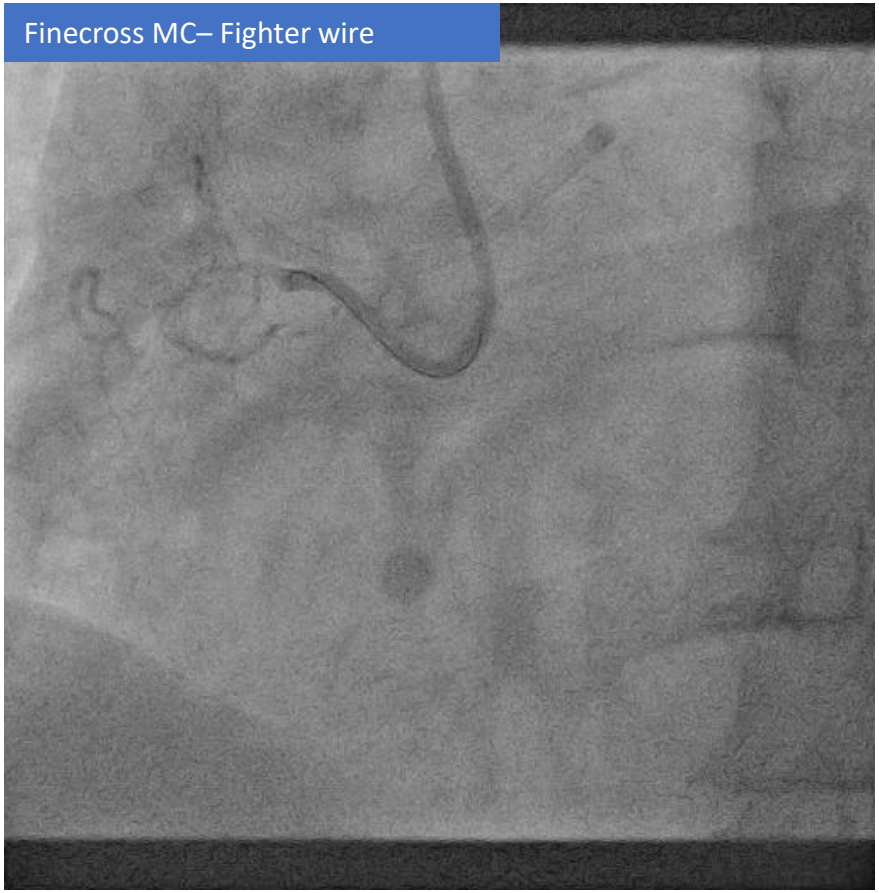
Score	In-hospital MACE
0 - 2	0.2%
3 - 4	2.0%
≥ 5	6.6%

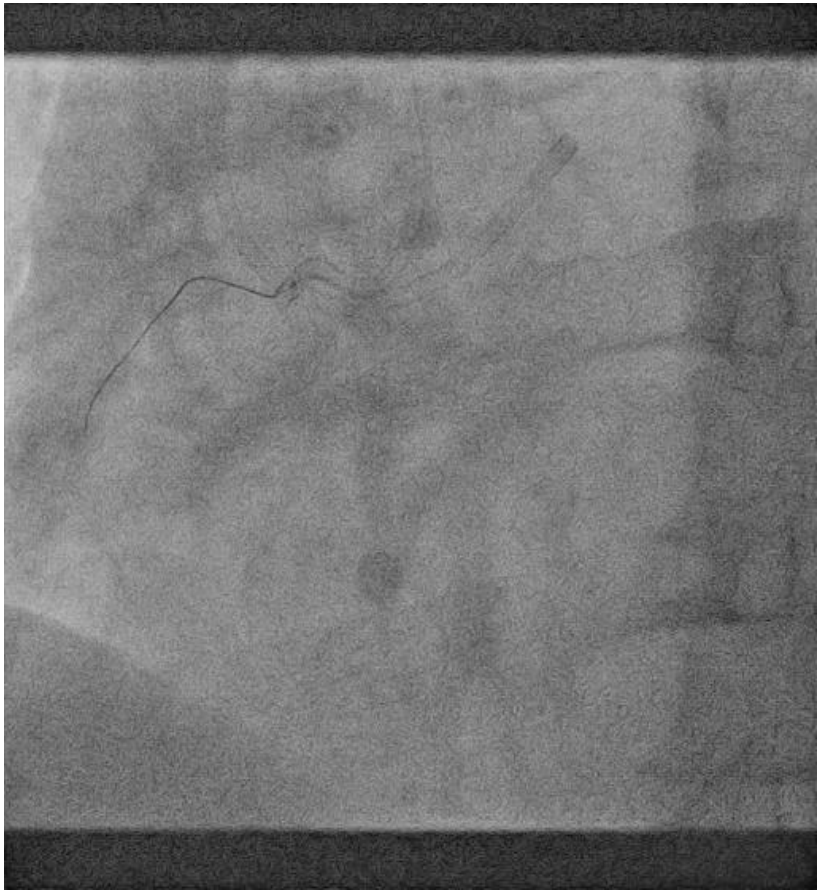
Danek et al., JAHA 2016 (In press)

Antegrade approach

Quickly transicioned to Retrograde approach

Finecross MC– Fighter wire



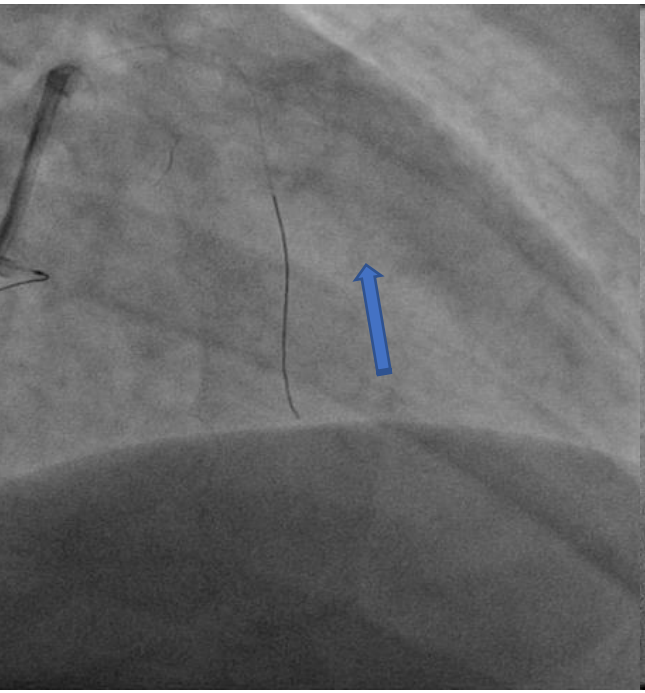


The fighter wire was entering in all these small collateral chanels

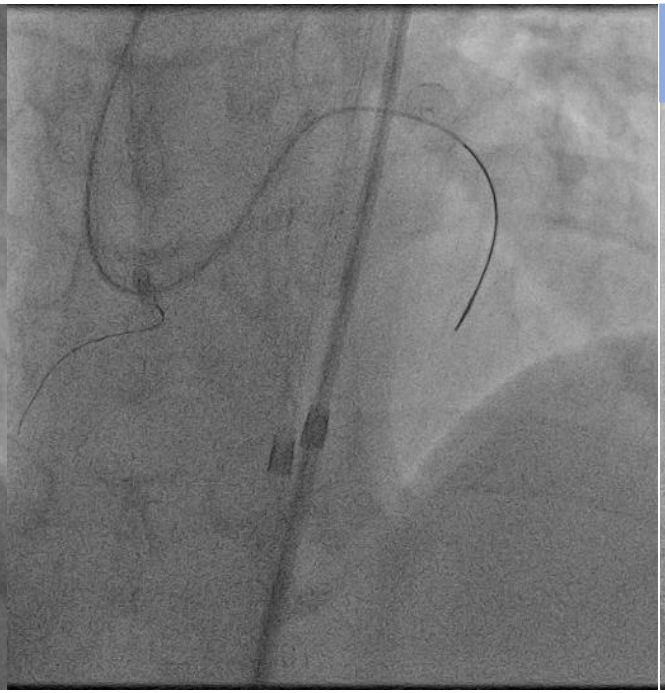
Advaced the wire to that point, but is it the true lumen or a collateral chanel ?
We had poor support with antegrade catheter

Retrograde approach

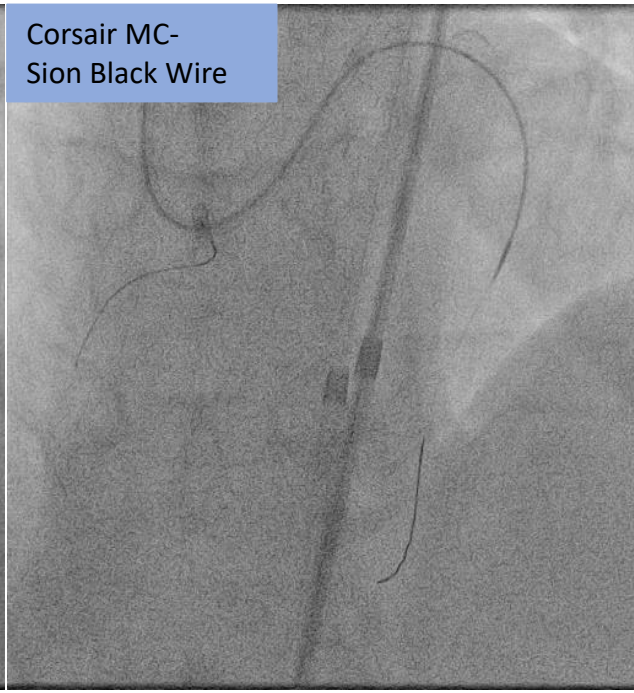
Firt septal, small vessel



Second septal



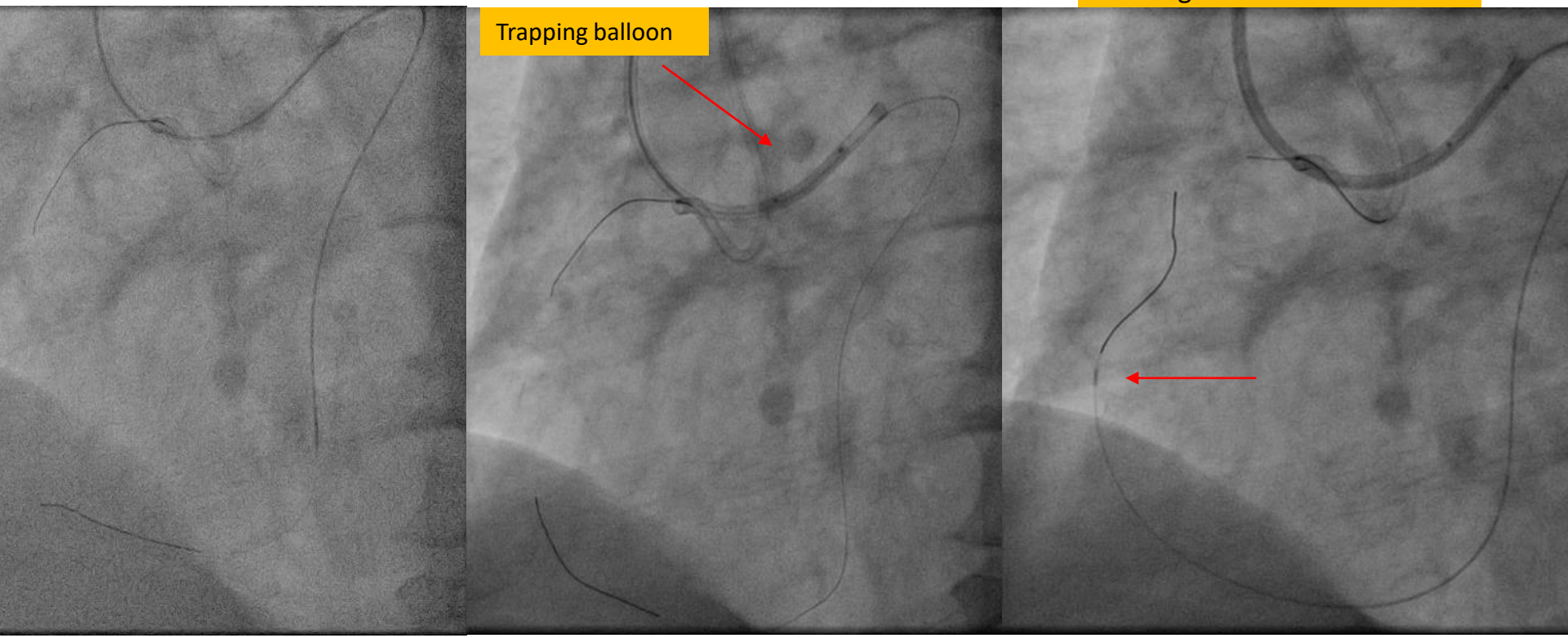
Surfing septals



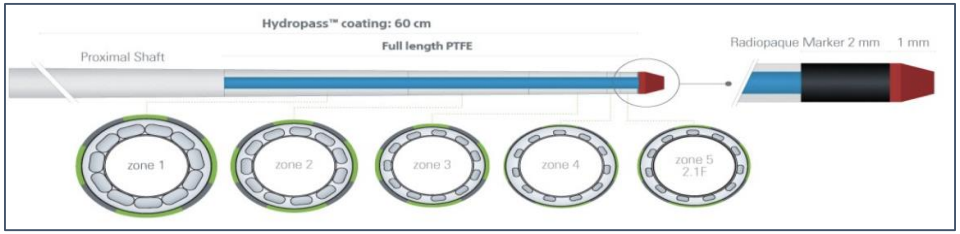
Retrograde approach

Corsair does not advance

Exchanged for Mamba Flex MC

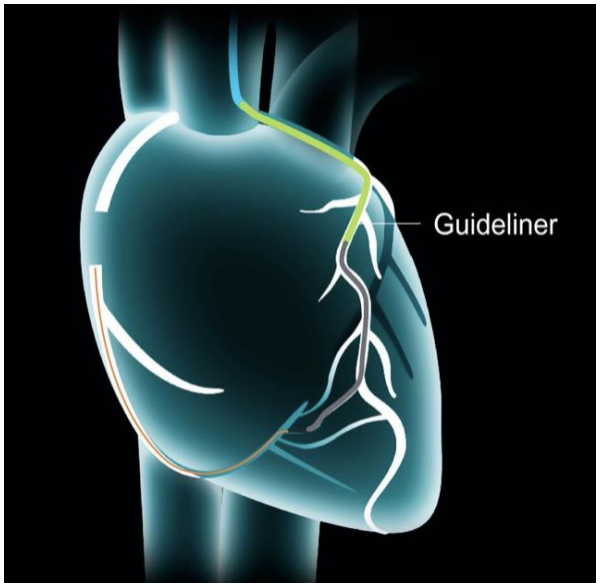


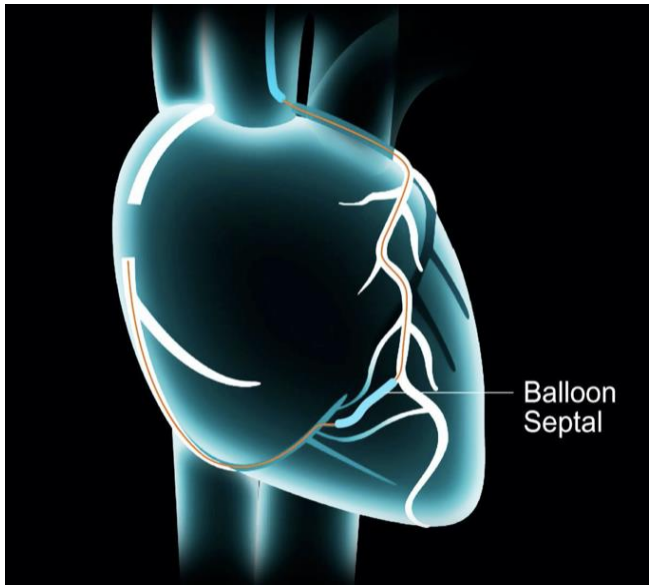
Crossing profile 2.1 Fr
BOSTON

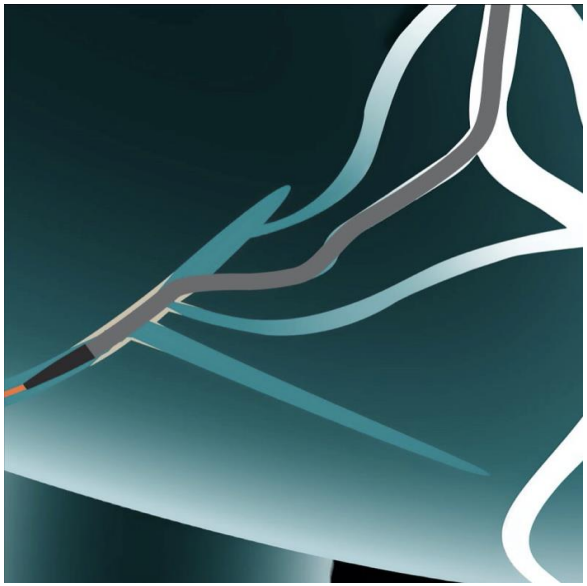


Retrograde Microcatheter does not advance

Ballon 1.2 or 1.5mm, by 20 mm, no more than 4 atm



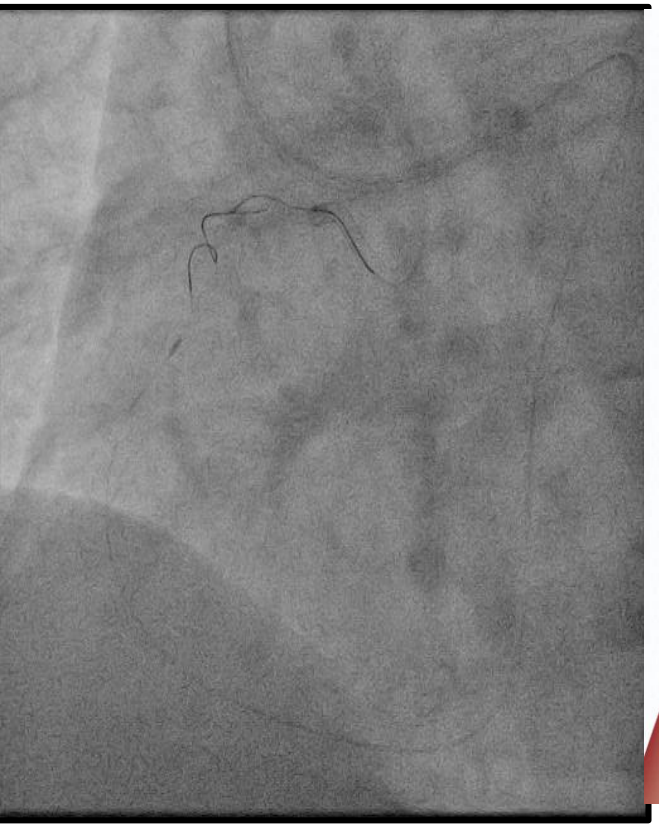


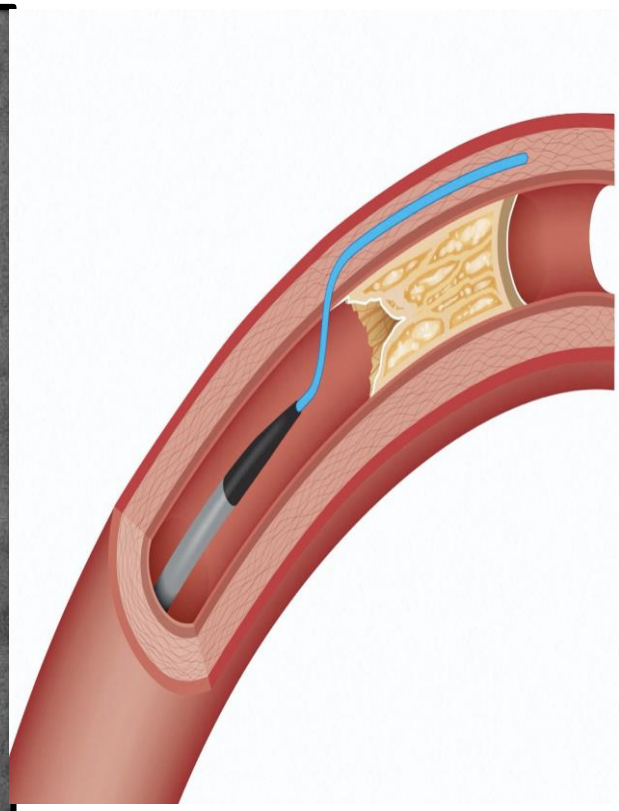


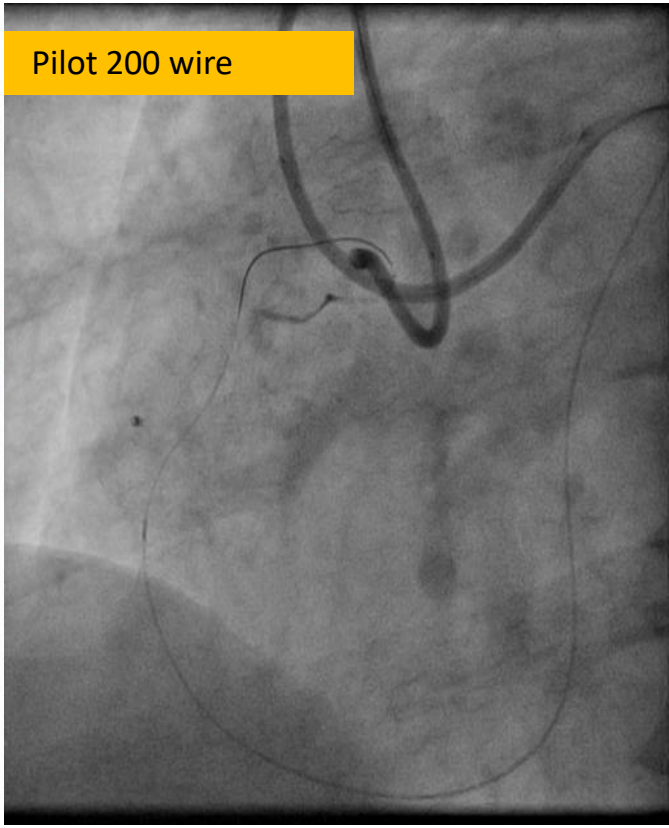
A guide to mastering retrograde CTO PCI, J Spratt

Retrograde Wire Escalation

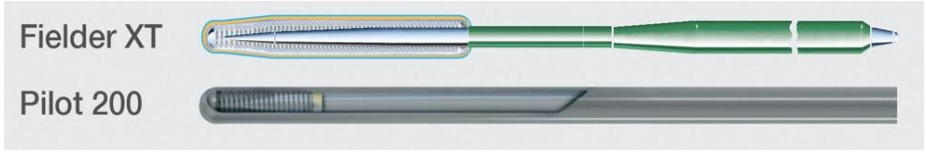
Wire was in subintimal space







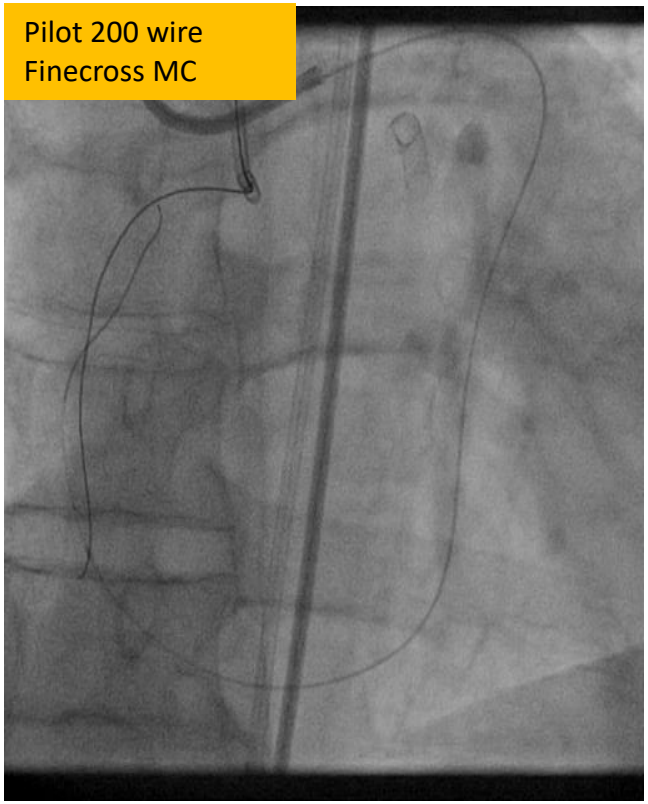
Sion black exchanged for Pilot 200 wire



Antegrade approach
Marker Wire

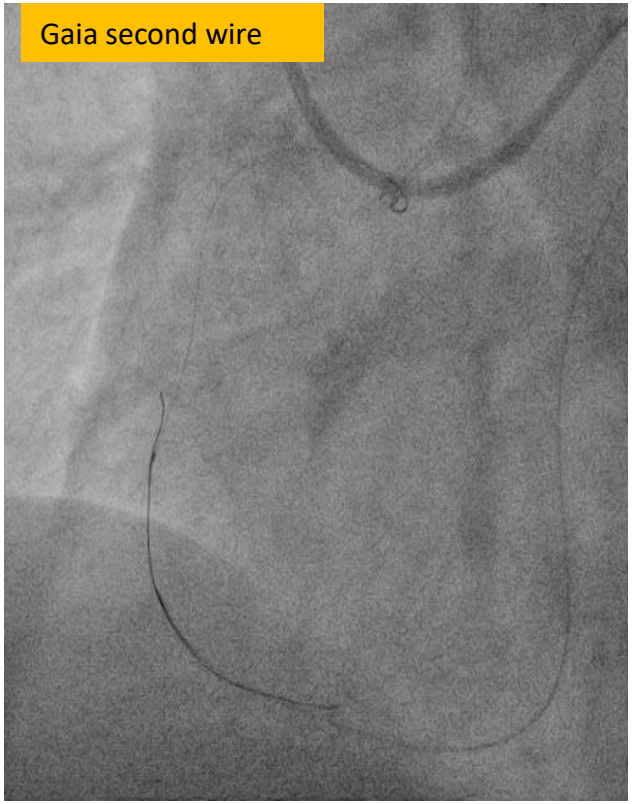
Antegrade and retrograde wire subintimal

Pilot 200 wire
Finecross MC

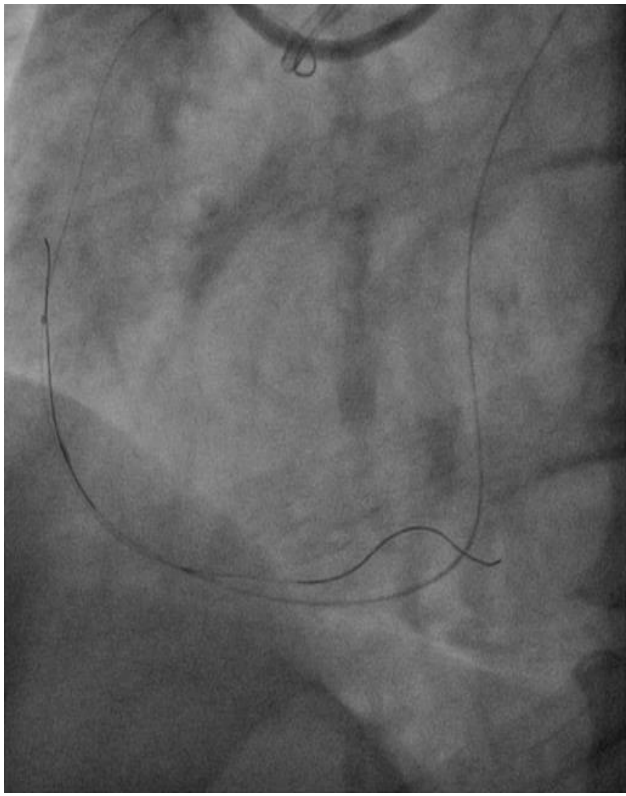


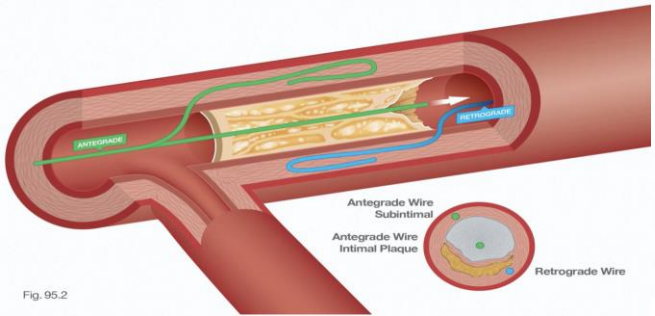
kissing wire technique

Gaia second wire



Check distal wire position





Cross de CTO with gaia second, and advanced the wire to distal Vessel

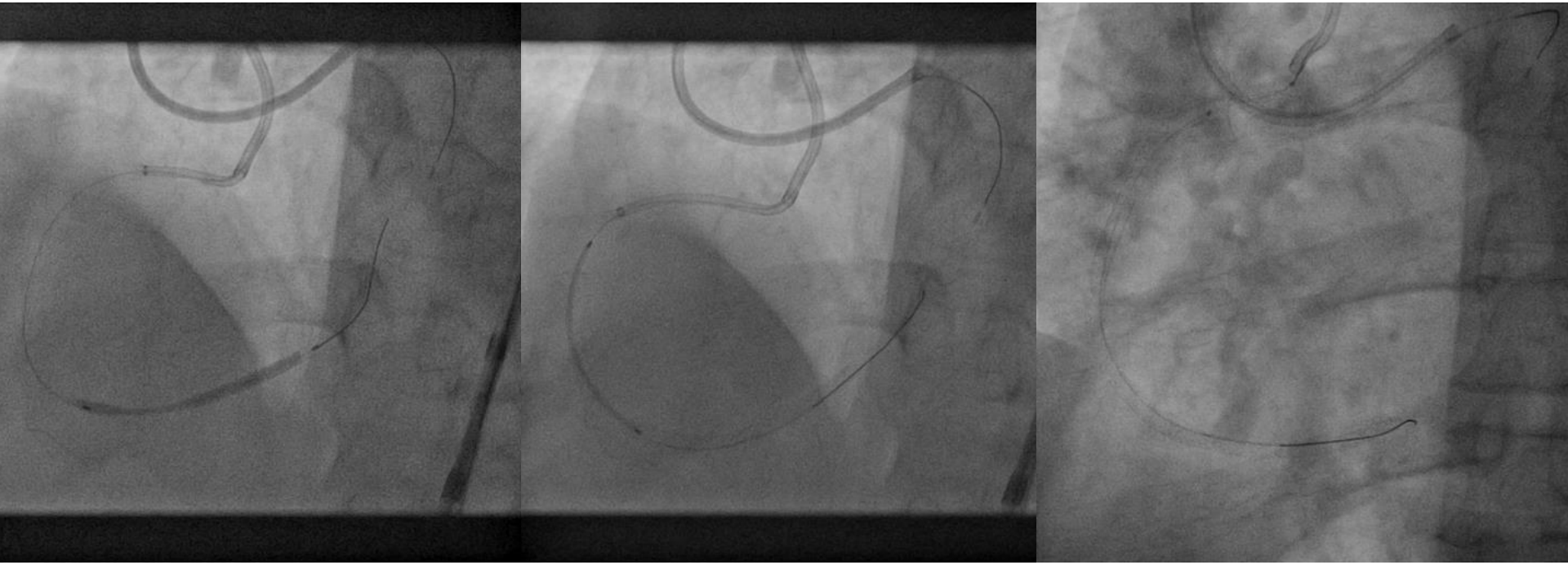
* always check orthogonal wiew with this wire, to avoid coronary artery perforation

A guide to mastering retrograde CTO PCI, J Spratt

Angioplasty and stents implantation

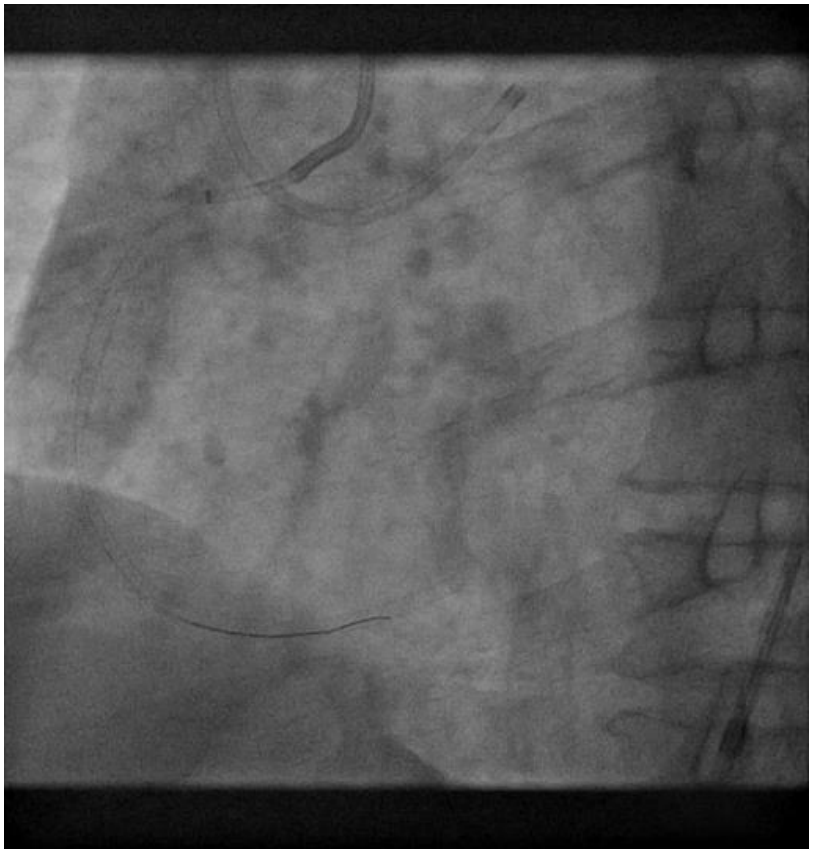
Lesion was pre – dilated an three drug eluting stents were deployed

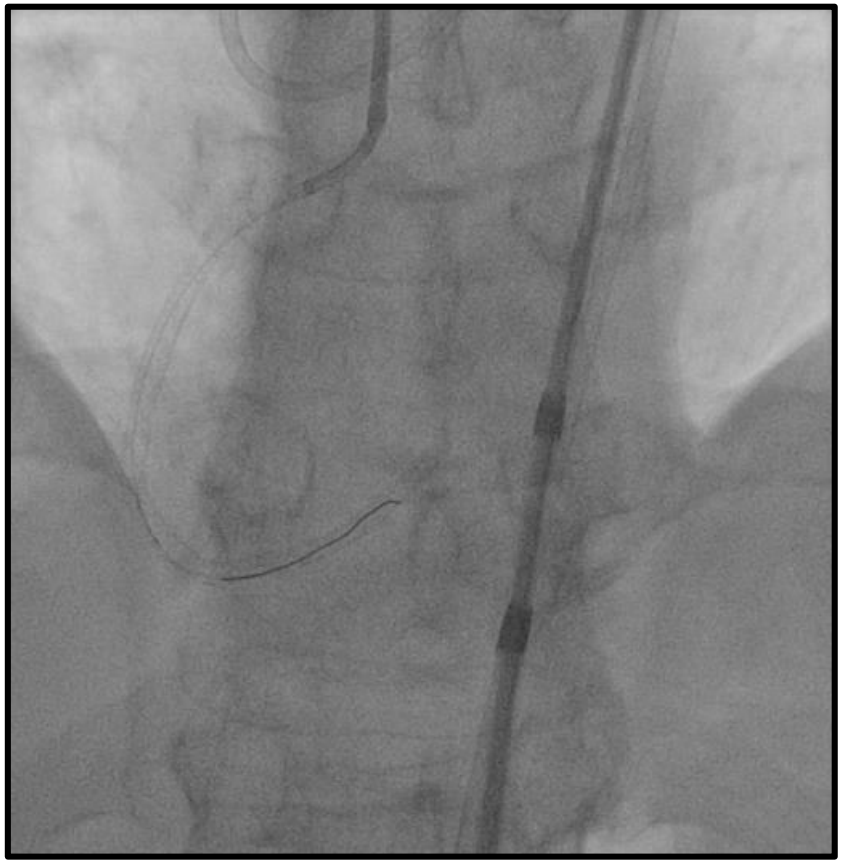
Xience Xpedition 2.5 x 48mm - Xience Xpedition 2.75 x 48mm - Xience Xpedition 3.0 x 48mm.



Final result

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





Take home messages

- Microcatheter does not cross the septal collaterals: 1. Use a guideliner 2. Septal collateral dilatation or 3. exchange for an MC with a better crossing profile.

- In antegrade approach of lesions with a lot adjacent collaterals, the use of IVUS or a retrograde angiographic marker as a reference is appropriate.

- Ostial chronic total occlusion recanalization will always be a major challenge in coronary intervention.