

A backwards kick to RCA CTO

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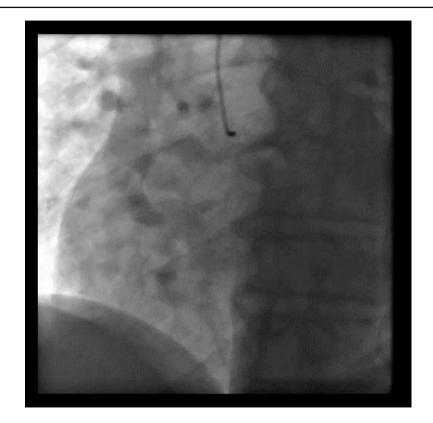
Aswan Heart Centre, Magdi Yacoub Foundation Aswan, Egypt

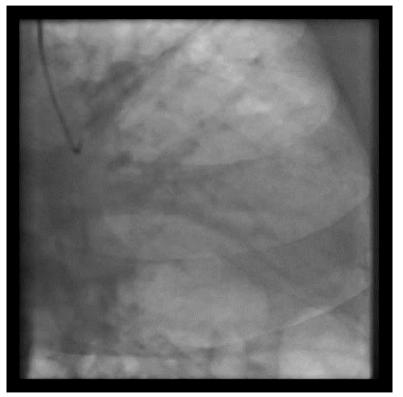
Case Presentation

- 69 Year old, gentleman, DM, HTN, angina, CCS class III.
- CA showed MVD, proximal LAD long severe stenosis
- RCA CTO (anomalous origin from LCC) engaged with JL 4 catheter



Coronary angiography







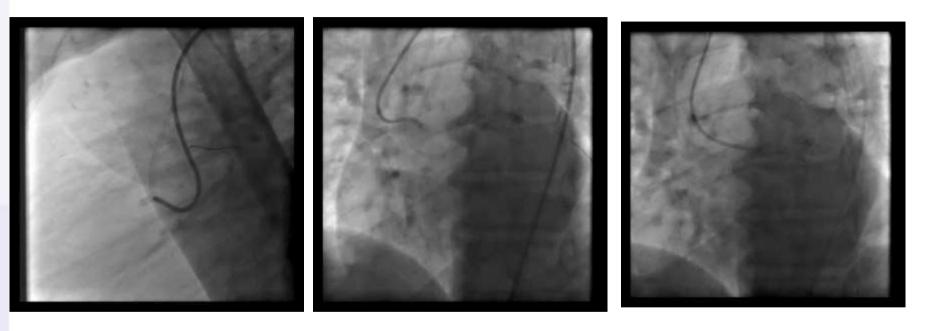
Clinical Challenge

- > Heart team decision : PCI due to frailty
- PCI to LAD was done
- What is the best setup in RCA CTO?





Resolution of the Challenge

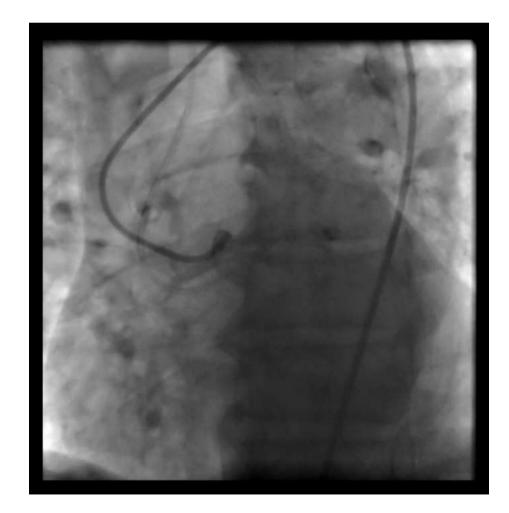


 Many guiding catheters (AL1, AR2, XB 3.5 & XB 4) all failed to engage the RCA



Resolution of the Challenge

- > The only setup that worked
- (JL for RCA)
- (XB) for contralateral injection

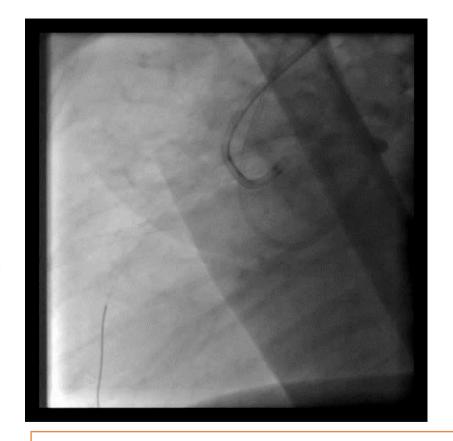


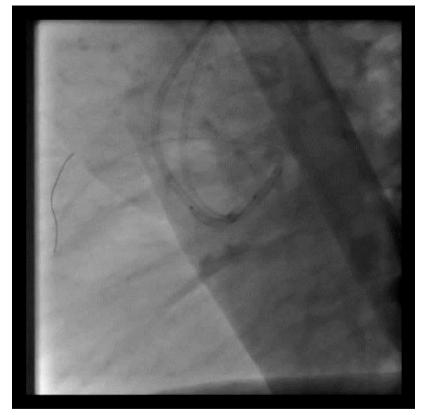




1ry cath. Position Engagement with zero support

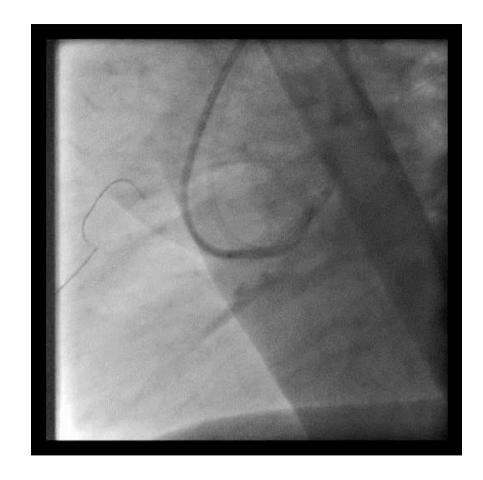


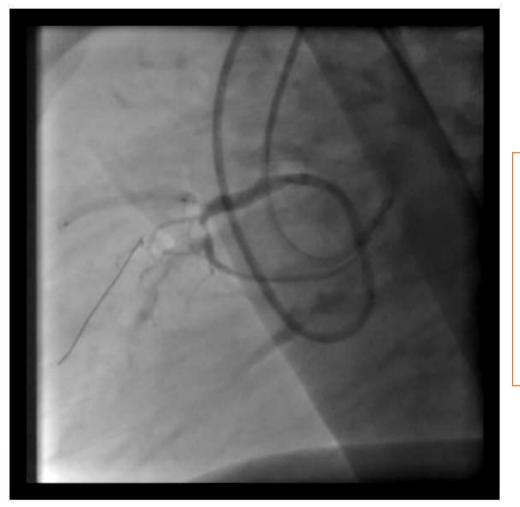




Sion black wire was steered into RV branch, Anchoring balloon compliant 3.25x30 mm at RV branch







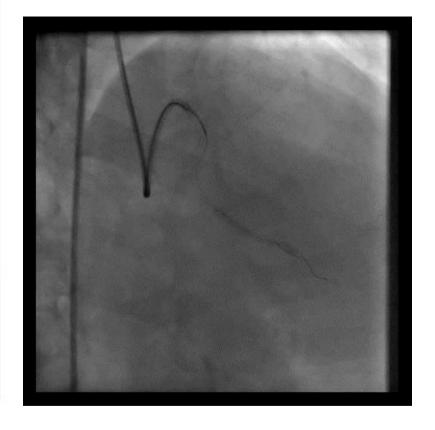
- Fortunately, the wide AO. Root accommodated that deep JL position
- Sion black wire was steered into RV branch, Anchoring balloon compliant 3.25x30 mm at RV branch

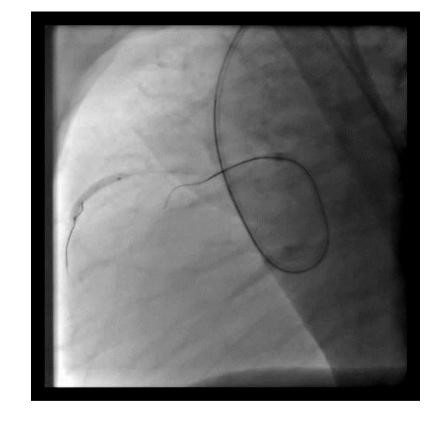




➤ Backward engagement of RCA

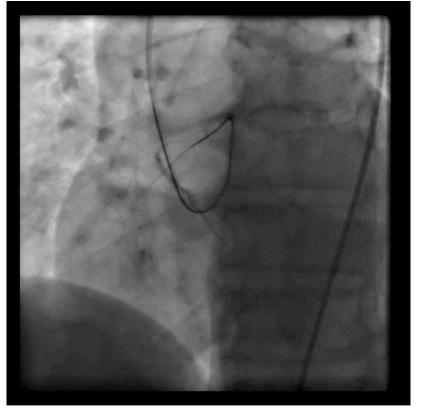


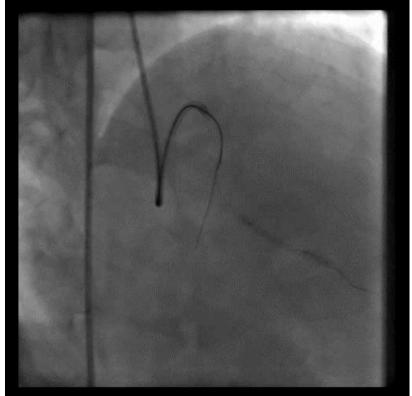




• Escalated to Gaia II that went in the extra plaque space and failed to re-enter distally.



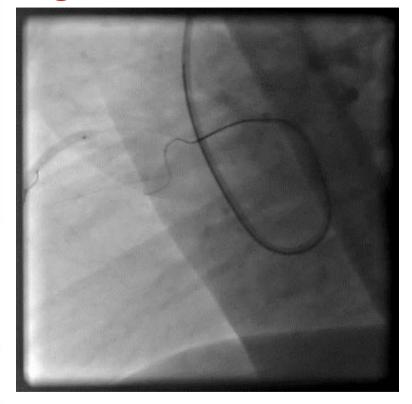


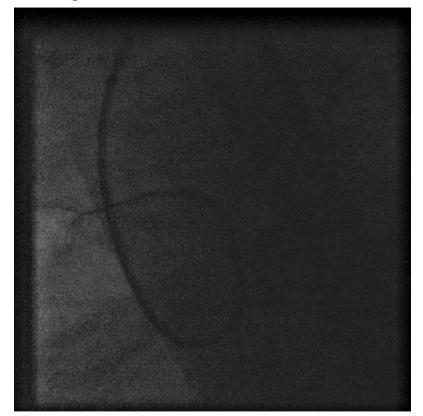


- Corsair Pro135 microcatheter (MC)
- Fielder XT-R that failed to cross the proximal cap



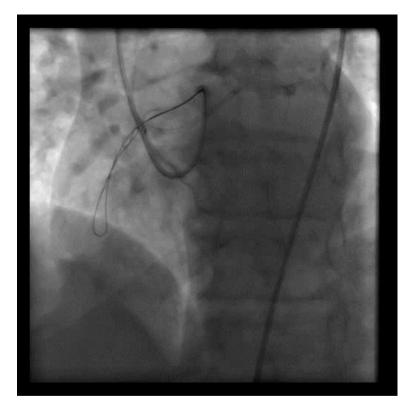
Algorithm to overcome difficulty

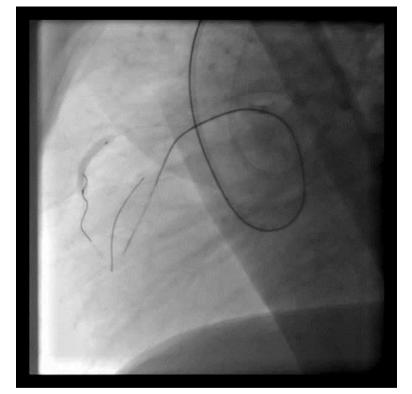




• Shifted to ADR. Knuckled XT-R,

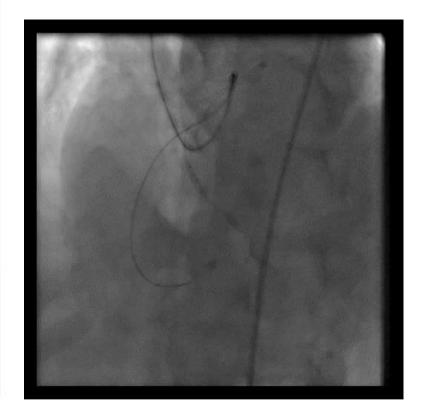


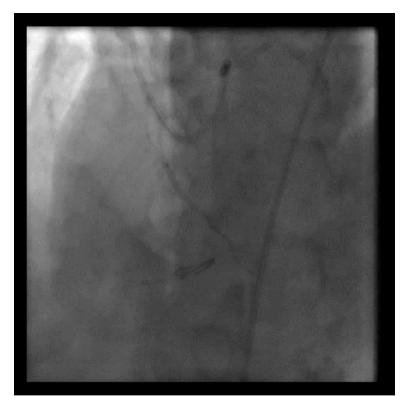




- Gaia II & CP 12 trials for wire-based reentry failed.
- The Guiding could not accommodate device for re-entry (Recross MC)
- Carlino technique for re-entry
- STAR into PDA & PL (bailout after reaching maximum contrast and radiation limit)

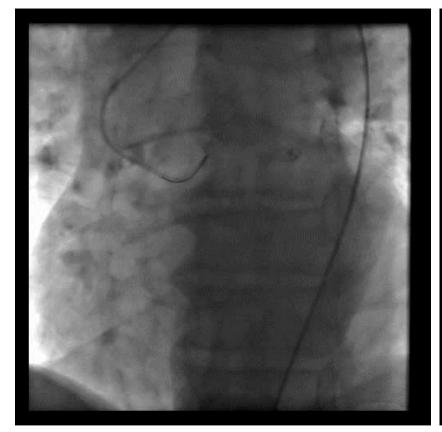


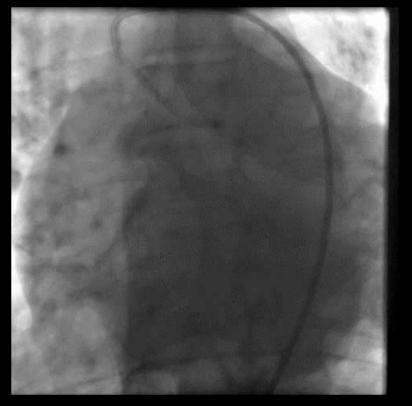




- STAR technique into PDA/ PL, staged predilatation
- TIMI grade III flow at PDA/PL
- Investment procedure
- Planned for second session after 8 weeks

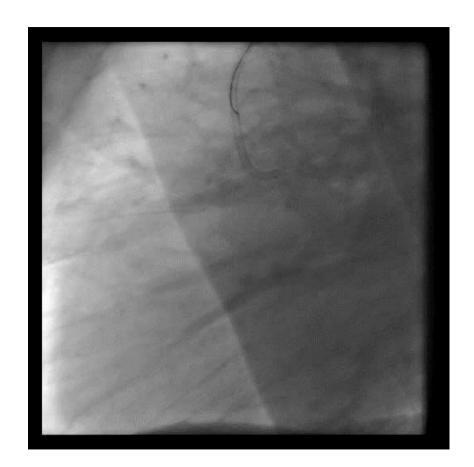






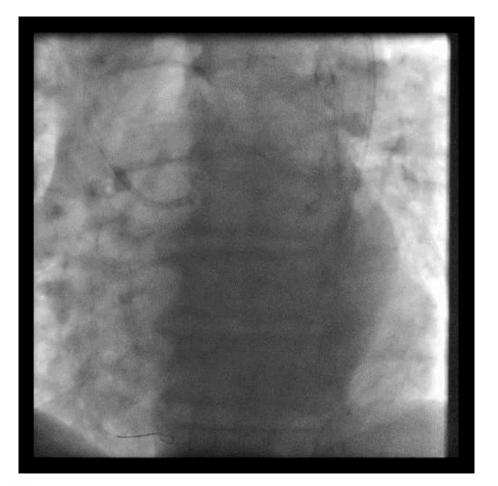


8 weeks later



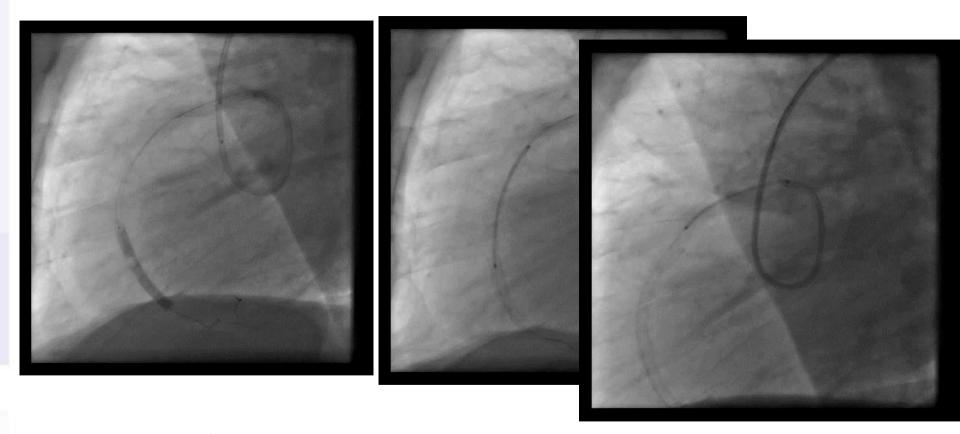
• Patent RCA after 8 weeks





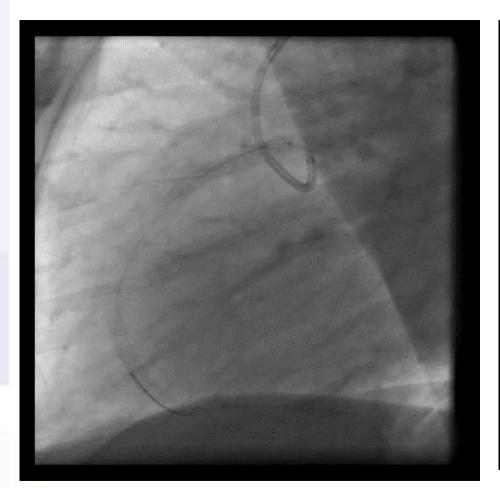
• Struggling with support, 1st stent delivered with distal anchoring technique & buddy wire

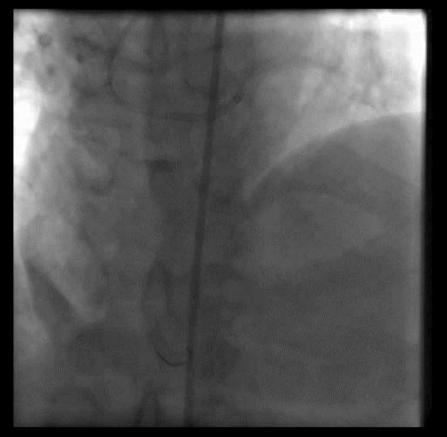




2nd stent deliver while jailing 1st buddy wire then removed









Key Learnings for the Operator and Team

- Difficulty in CTO PCI could be encountered at any step (engagement, wiring, Geer delivery).
- JL in this deep position offered the maximum support (think out of the box)
- Do not stuck in failure mode in CTO PCI
- STAR still works and investment procedure facilitates the subsequent procedure

