Combined Antegrade & Retrograde Approach In A Proximal RCA CTO

Dr Charles Chan, MB, FRCP, FACC Gleneagles Hospital & National Heart Centre, Singapore

Case History

- 50 y.o. male
- Unstable angina for 2 weeks
- CAD RISKS: Hypertension, smoker, dyslipidaemia
- 2Decho: LVEF normal, no SWMA
- CAG in July 2014: LMT Normal, LAD Mid 25%, LCX Prox 90%, RCA Prox 100%

PCI TO LCX WITH 3.0 X 16 MM PROMUS

Staged procedure to RCA in August 2014

Pre-PTCA Angiogram (LAO)



Pre-PTCA Angiogram (AP Cranial)



Wiring Septal Branch With a Fielder FC Wire/Finecross Microcath



Successful Wiring Of Septal Collateral Branch



Retrograde Wire in RV branch



Antegrade Crossing With Ult Bros 3 Gm and Buddy Wire



Antegrade Crossing With Ult Bros 3 Gm and Buddy Wire



Antegrade Crossing With Buddy Wire



Antegrade wire in False lumen



Antegrade Wire in False Lumen



Finecross Microcath Advanced to MRCA



Microcatheter Injection



Retrograde Successful Wire Crossing With Ult Bros 3 Gm



Successful Retrograde Wire Crossing



Retrograde Wire Successful Advanced into RCA Guider



Externalized Wire/Antegrade Wire



After 2.0 mm POBA With RG3 Wire



POBA With 3.0 mm balloon



Recrossing Antegradely After POBA



Removal of Retrograde Wire Inside Finecross Microcatheter



Removal of Retrograde Wire Inside Finecross Microcatheter



Distal RCA Stenting With 3.0 x 11 mm BM NF



Ostial to Mid RCA stenting With 3.0 x 24 mm BM NF



Final Result



Final Result



Conclusion & Keypoints

- Combination of Antegrade & Retrograde Wire crossing similar to Parallel or Seesaw wires techniques
- Identify the correct septal collateral
- Always remove retrograde wire inside the microcatheter to prevent "salami slicing"

Wiring Septal Branch



Wiring Septal Branch



Wiring Septal Branch

