MLCTO ACADEMY
RESEARCH · EDUCATION

Scare to success in CTO case

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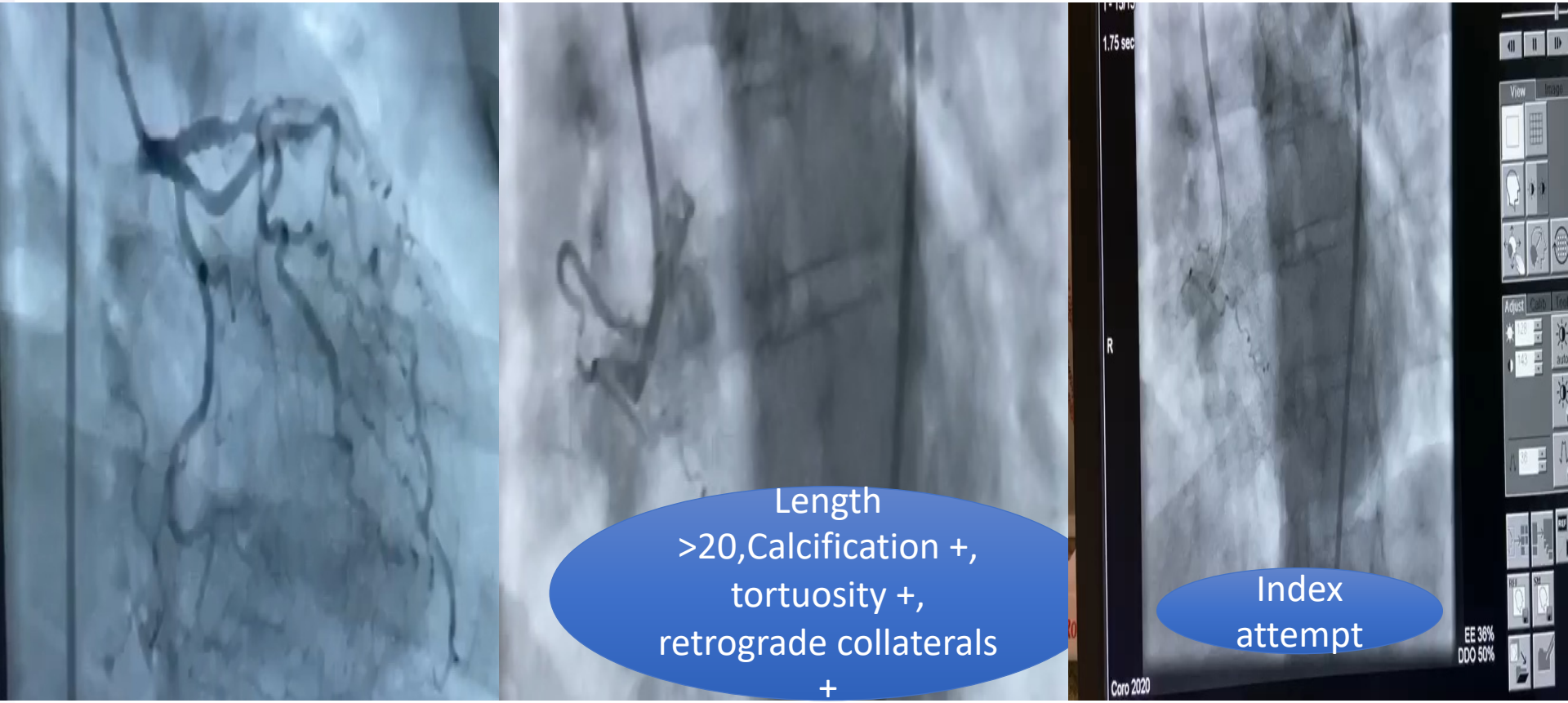
Clinical background :

62 year old female
Prior IWSTEMI (Thrombolysed)
CAG in June 2019 – Diffuse ostioproximal RCA followed by CTO of proximal RCA.
PCI to RCA attempted antegradely – Fielder XT – R, gaia 2, however entered false lumen and could not be trecked into true lumen despite multiple attempts,and had perforation which got sealed with balloon tamponade. in view of high contast load and radiation load, procedural complication, procedure was abandoned.

Index procedure



Patient continued to have effort angina NYHA class 3 despite real aggressive medical management. LVEF : 55% with no scarring in RCA territory.

JCTO score : illdefined proximal cap, CTO length > 20 mm, no calcification, tortousity ++, prior failed attempt : score : 4

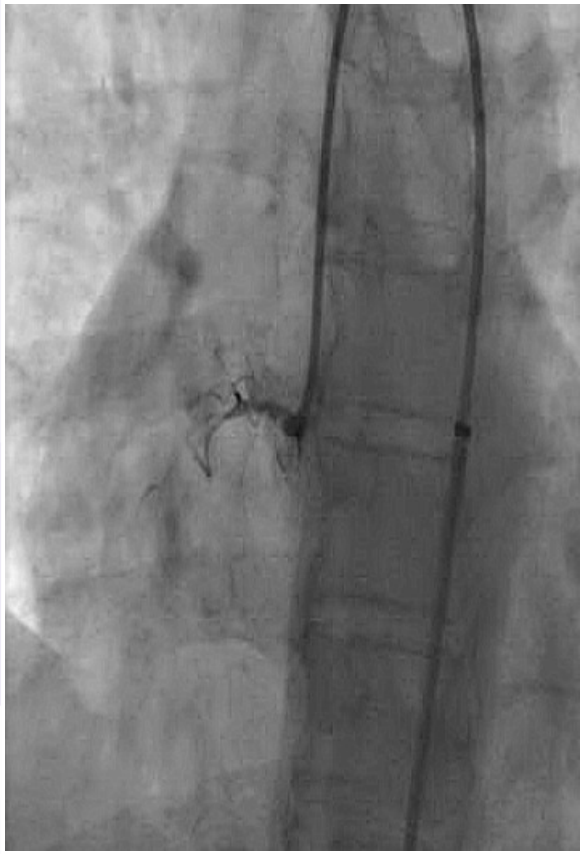
Set up : Bilateral femoral arteries

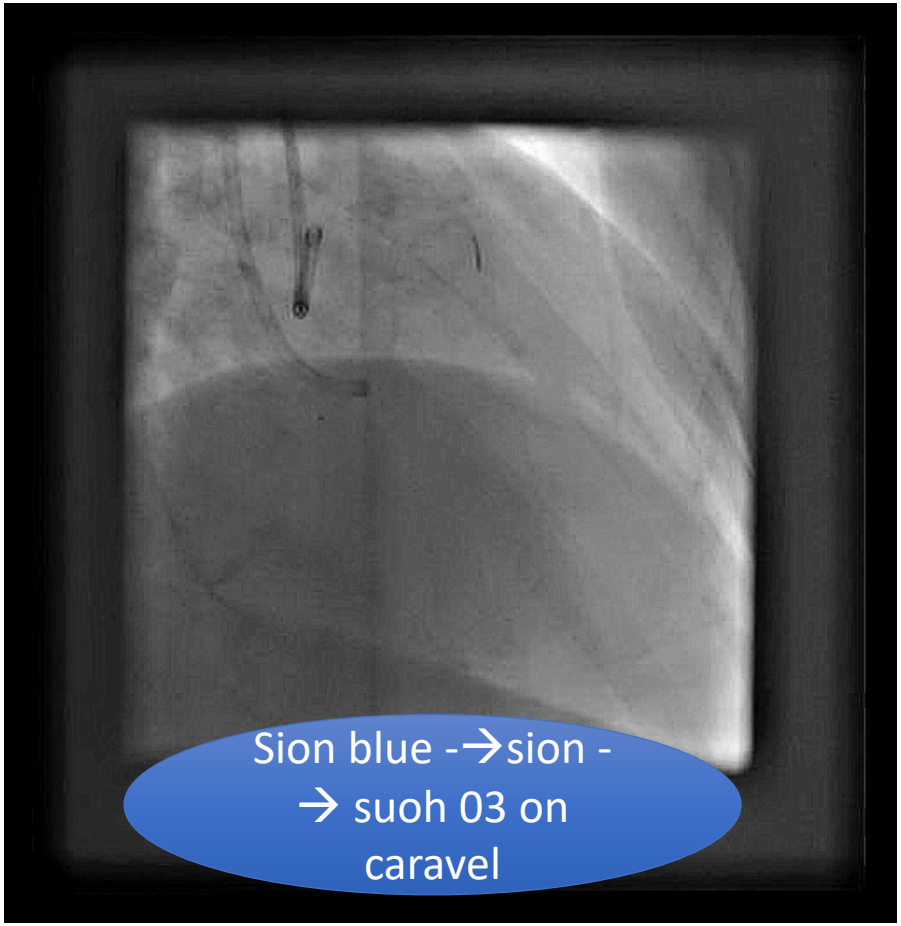
XB 3.5 7F

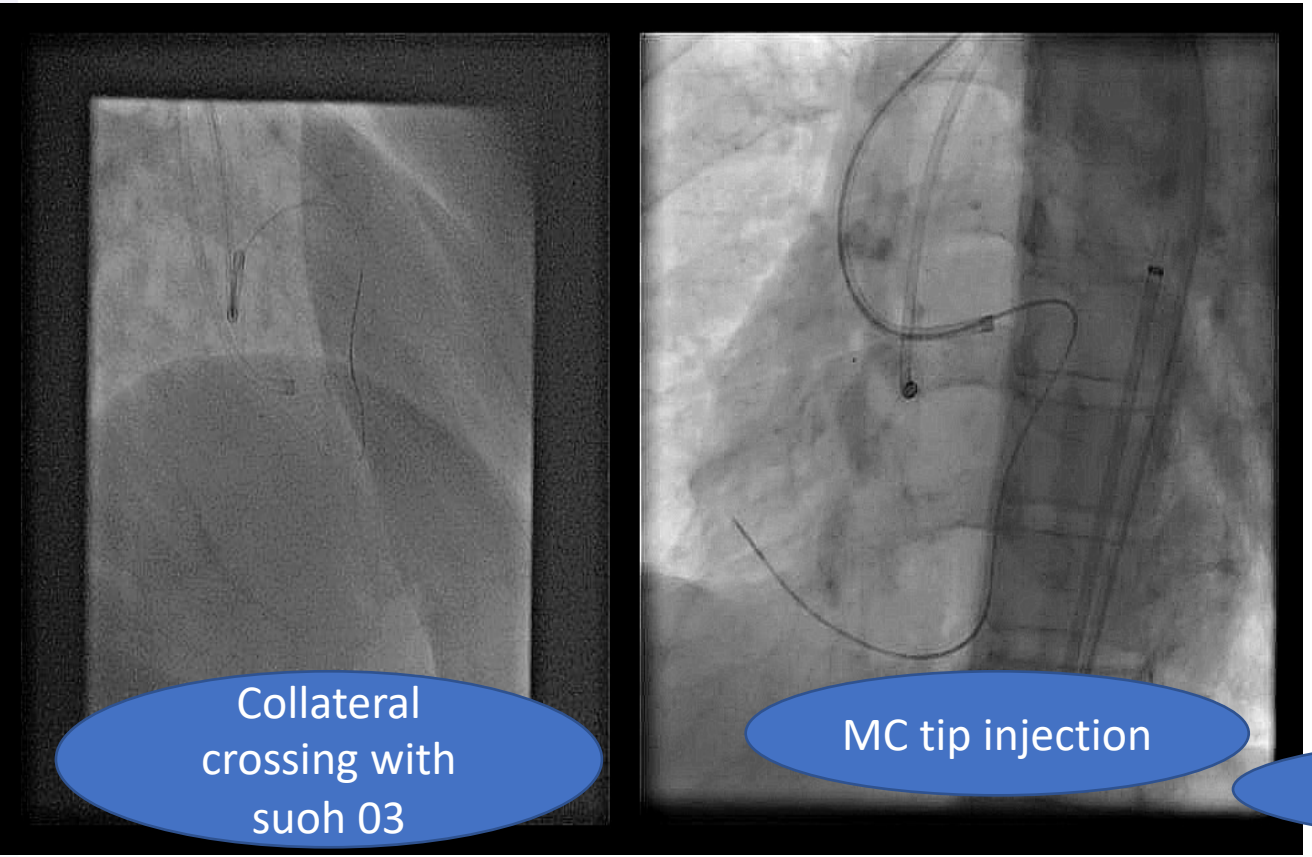
JR 3.5 7F (with 45 cm Long sheath)

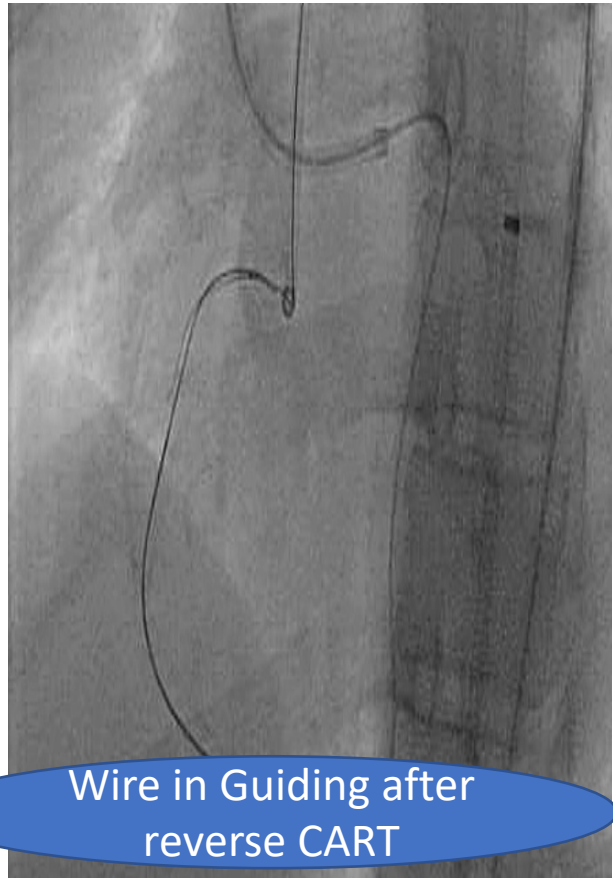
Brief attempt Antegradely with fielder XTR with finecross support, not successful.

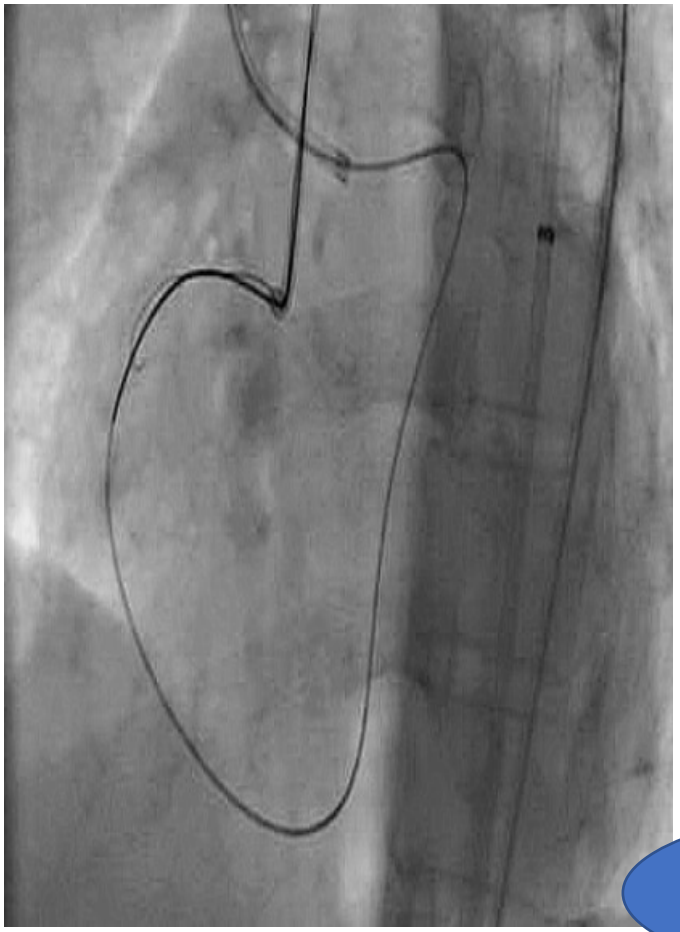
Retrograde attempt contemplated

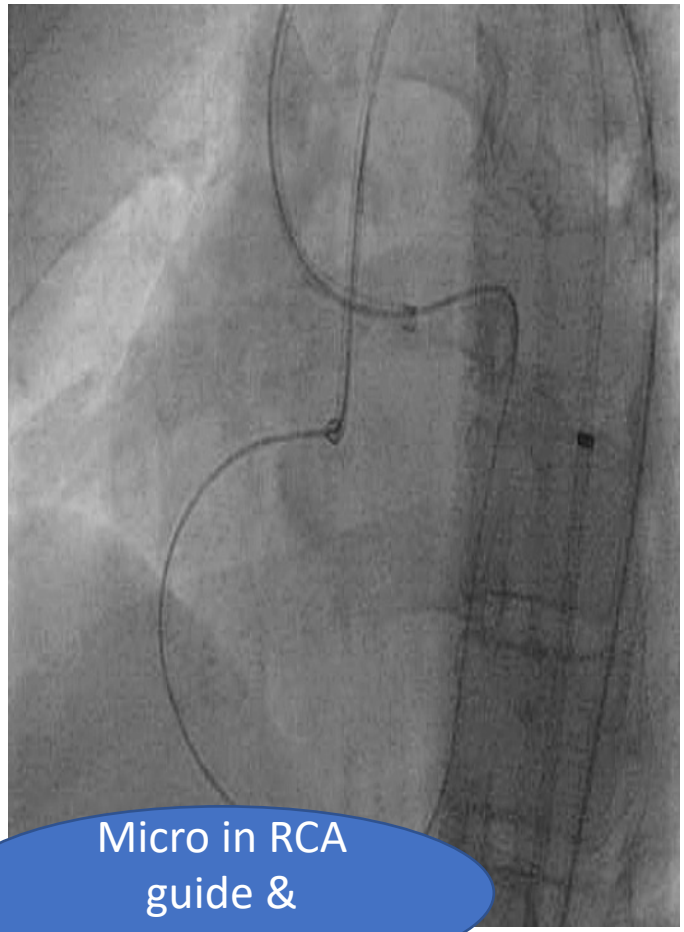



Sion blue -→sion -
→ suoh 03 on
caravel


Collateral crossing with suoh 03
MC tip injection


Wire in Guiding after reverse CART





Micro in RCA guide & externalisation

IVUS :

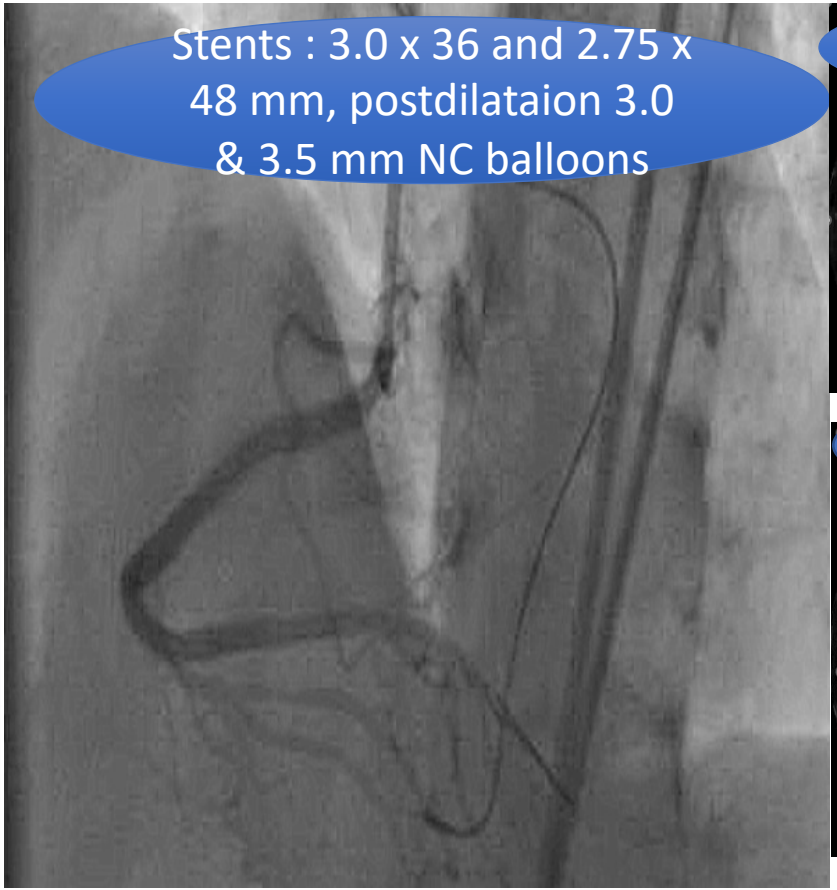
MLA : 2.8 sq mm in mid RCA in CTO segment

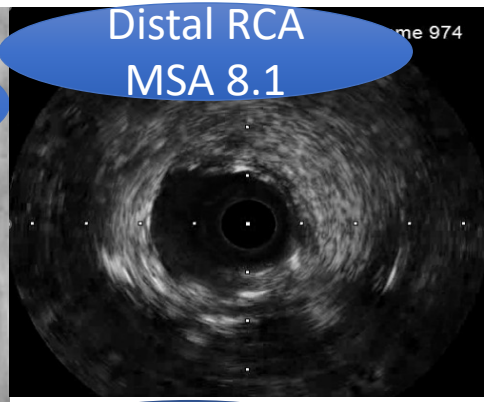
ostioproximal RCA 3.1 Sq mm

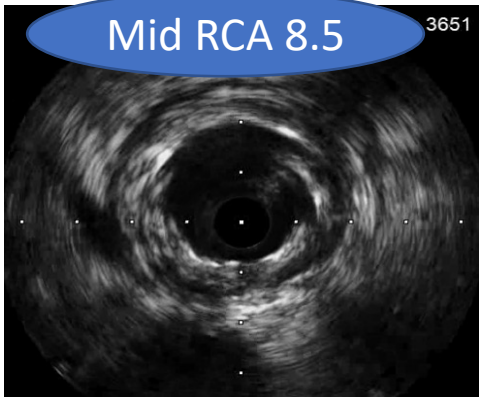
Distal RCA : 3.4 sq mm

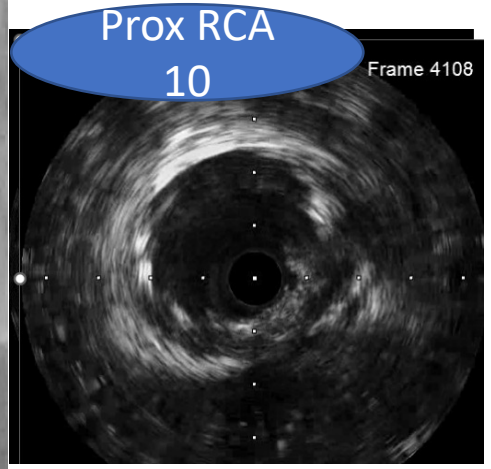
Vessel diameter : 3.5 mm-3.75 mm in ostioproximal segment

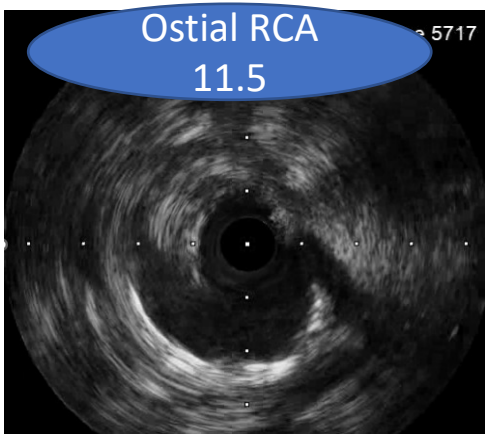
3.0 mm in distal RCA. 2.75 mm in PLV


Stents : 3.0 x 36 and 2.75 x 48 mm, postdilataion 3.0 & 3.5 mm NC balloons


Distal RCA
MSA 8.1


Mid RCA 8.5
3651


Prox RCA
10
Frame 4108


Ostial RCA
11.5
5717

If you plan or expect someone else to perform CTO PCI please perform baseline angiography properly so as to define length of CTO , proximal and distal caps and distal vessel, collateral supply and course, origin and insertions etc.

Read your angiogram properly giving adequate time, always plan your procedure, pen it down, keep plan B ready and documented.

Never ever do ad hoc CTO PCI.

Never ever attempt CTO PCI without contralateral access.

Donot dilate vessel unless you are sure about distal wire position→multiple projections and rotational angio, retrograde visualization must before pushing MC or balloon dilatation.

MINIMAL CONTRAST USE, FLUROTIME CAN BE ACHIEVED WITH OPTIMALS USE OF IVUS

LOW RADIATION DOSE CAN BE ACHIEVED WITH 4 FPS FLUORO AND 7.5 FPS CINE AND OPTIMAL USE OF COLLIMATION.