



COMPLEX PCI 2018

Rescue retrograde approach after severe dissection from PCI to CTO RCA

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CASE DESCRIPTION

Brief History:

63 year old Thai male

Risk Factors:

DM

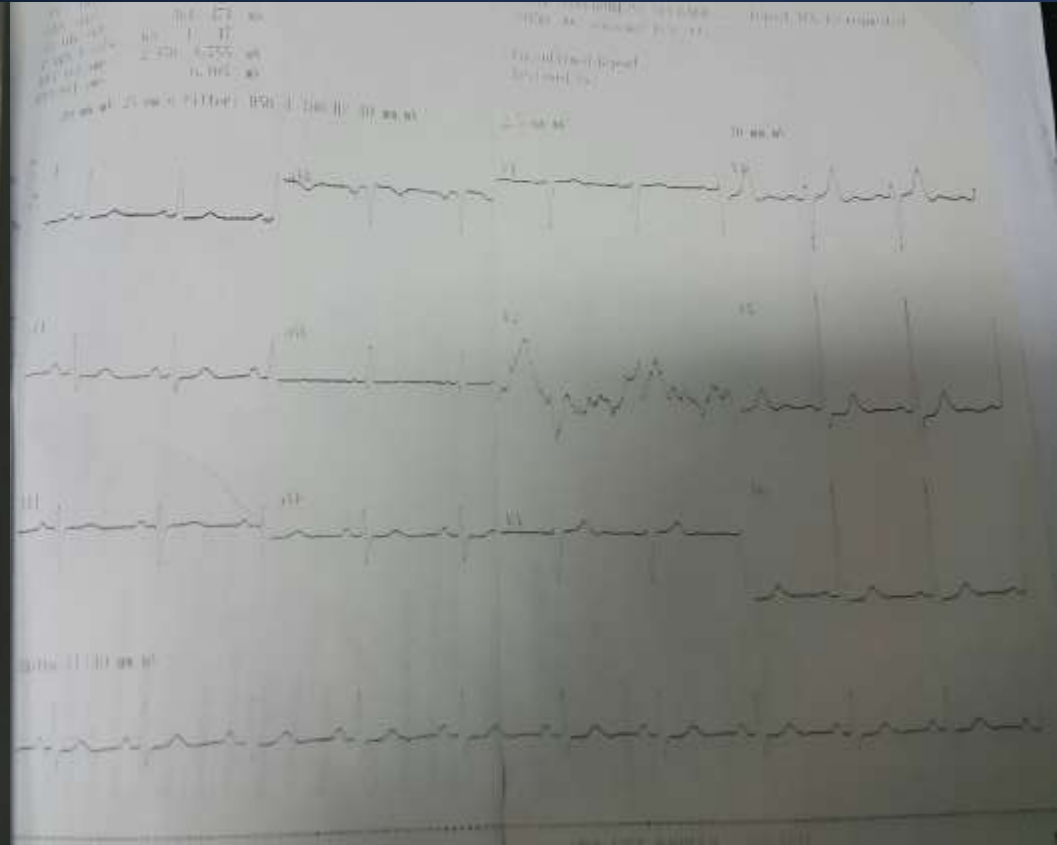
HT

ESRD on regular hemodialysis

Present State: Symptoms and Signs

Chest pain during hemodialysis for 4-5 months

CASE DESCRIPTION



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Investigations:

Biochemistry :

BUN 95 Cr 10.5 GFR 4.3

Hct 34 % plt 142,000

K 4.25

Troponin T negative

Echo : concentric LVH . LVEF = 51 %

: hypokinesia inferior wall

: normal valves

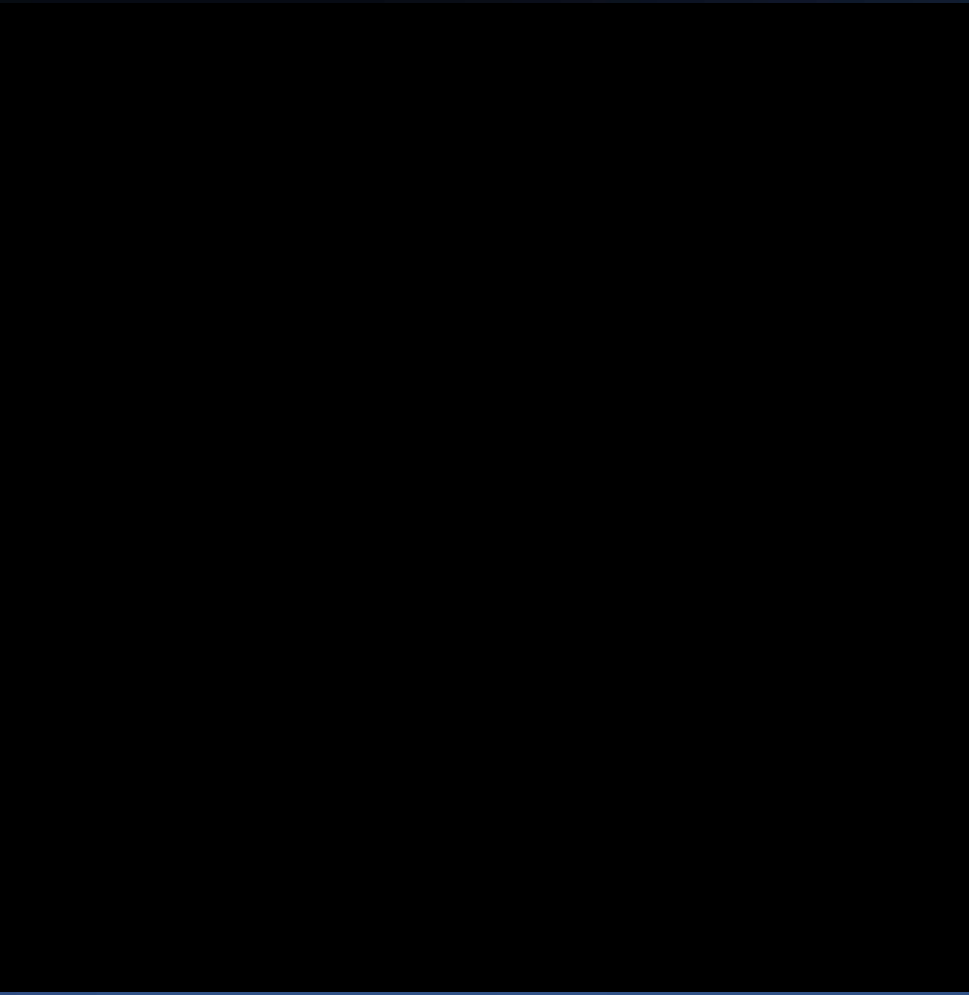
: no pericardial effusion

: no thrombus

Imp : unstable angina

CAG





CAG

LM : non significant stenosis

LAD : non significant stenosis , collateral to
dRCA through septal channel

LCX : 70 % mid LCX stenosis

RCA : 100 % pRCA , CTO with blunt stump , unclearly of micro
channel , minimal bridging collateral , CTO cross the
proximal curve of RCA and long lesion more than 2 cm

Imp : DVD

SYNTAX score 11 : low

J- CTO score 3 : high

Patient strongly refused to CABG

Schedule PCI to RCA 2 week later after 1st angiogram



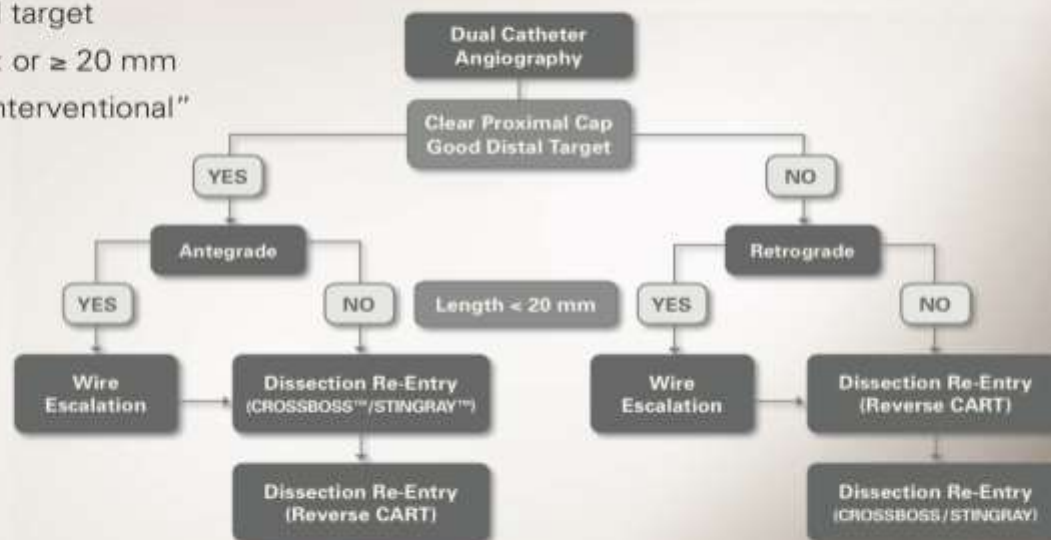
Schedule PCI to RCA 2 week later after 1st angiogram

- Bilateral femoral artery approach
- Single plane cath lab
- both long sheath 7F
- ASA 81 , clopidogrel 75 mg (> 2 week)
- Heparin 6000 U (100 U/kg)
- AL1/7F Medtronic Laucher 100 cm for RCA
- EBU 3.5/7 F Medtronic Laucher 90 cm for LCA

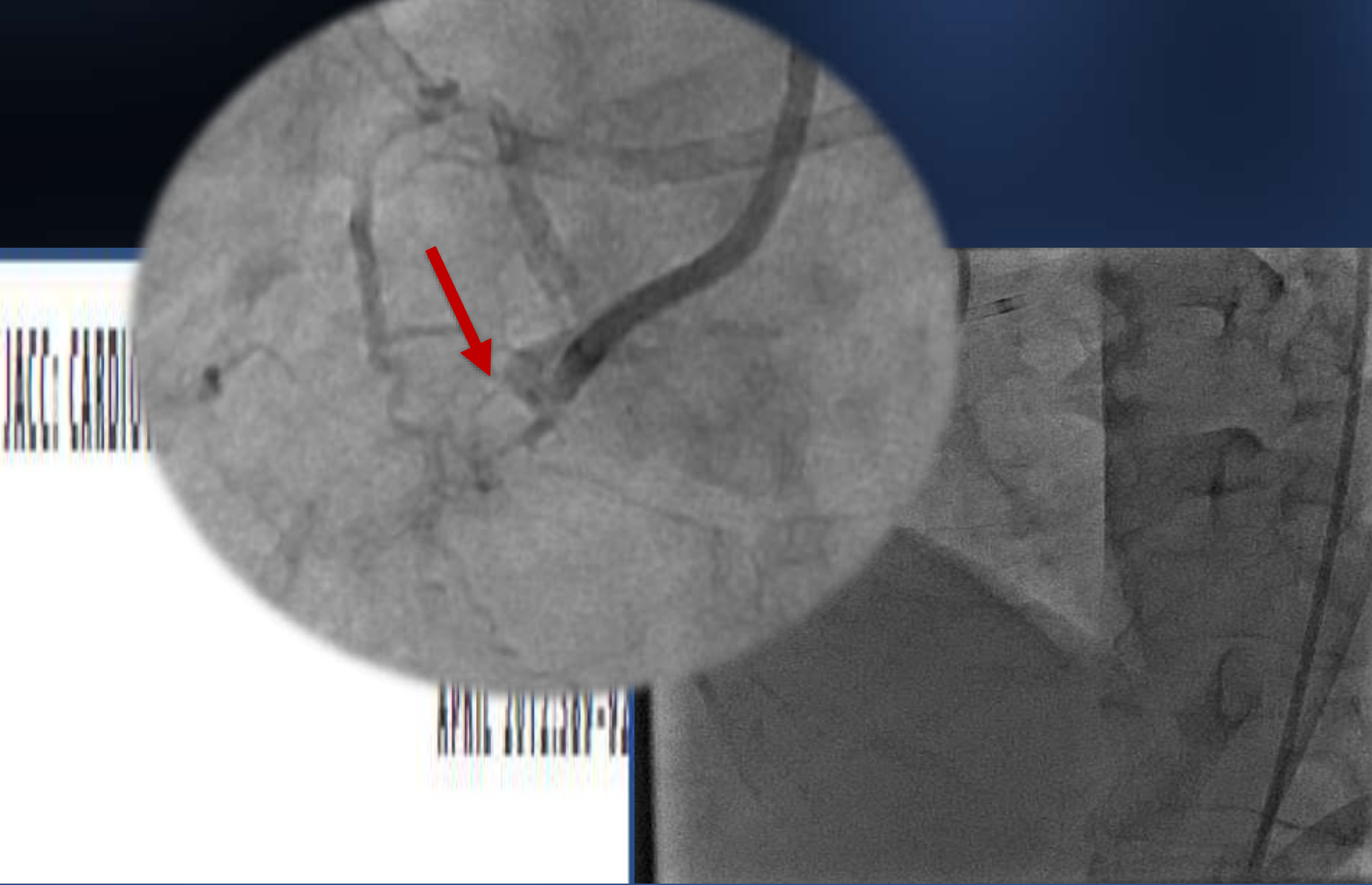
Hybrid Algorithm for CTO PCI¹

Angiographic Characteristics Dictate Strategy

- 1 Proximal cap clear or ambiguous by angio +/- IVUS
- 2 Quality of distal target
- 3 Lesion length < or \geq 20 mm
- 4 Suitability of "interventional" collaterals



Please see reference ends for presentation information.



Filder XT + Corsair MC 135 cm → Failed
 Gaia 2nd → Failed to pass to true lumen



Filder XT



- Tip load 0.8 g
- Tip radiopacity 18 cm
- Polymer sleeve length 16 cm
- Tip outer diameter 0.23 mm (0.009 inch)
- SLIP-COAT® coating over the spring coil
- PTFE coating over the shaft

Polymer sleeve, providing excellent lubricity and trackability in tortuous vessels. The tapered tip provides extreme precision for the treatment of complex lesions such as sub-total occlusions and long diffused lesions.

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Asahi Corsair Microcatheter

Cat No.	O.D. of Distal Shaft (mm/Fr)	O.D. of Proximal Shaft (mm/Fr)	Tip I.D. (mm/inch)	Shaft I.D. (mm/inch)	Usable Length (cm)	Recommended G.W. (mm/inch)	Max Pressure (kPa/psi)
CSW135-26N	0.87/2.6	0.93/2.8	0.38/0.015	0.45/0.018	135cm	0.36/0.014	2,070/300
CSW150-26N	0.87/2.6	0.93/2.8	0.38/0.015	0.45/0.018	150cm	0.36/0.014	2,070/300

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Result : severe dissection with chest pain 5/10 with stable vital sign

Echo : no pericardial effusion
ECG : not change

Asahi Corsair Microcatheter

Cat No.	OD of Distal Shaft (mm/Fr)	OD of Proximal Shaft (mm/Fr)	Tip I.D. (mm/inch)	Shaft I.D. (mm/inch)	Usable Length (cm)	Recommended G.W. (mm/inch)	Max Pressure (kPa/psi)
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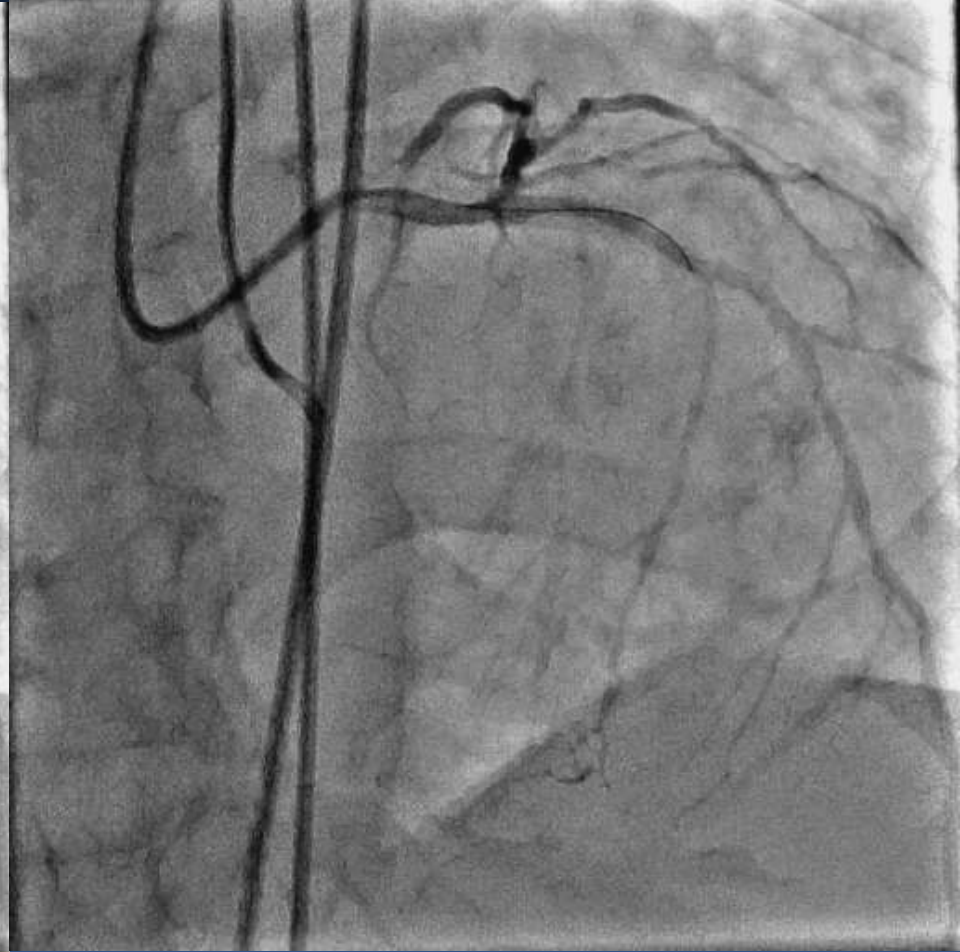
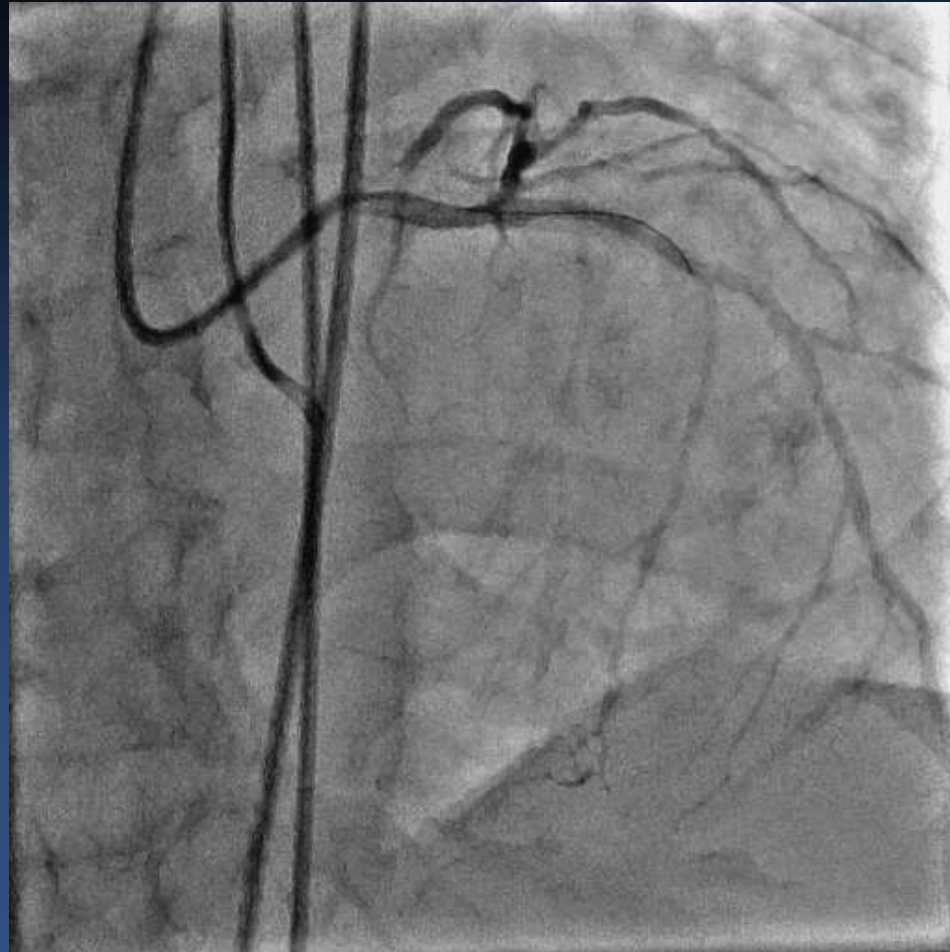
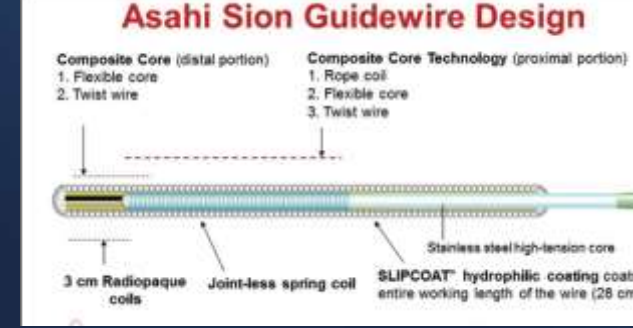
Result : severe dissection with chest pain 5/10

What should I do next?

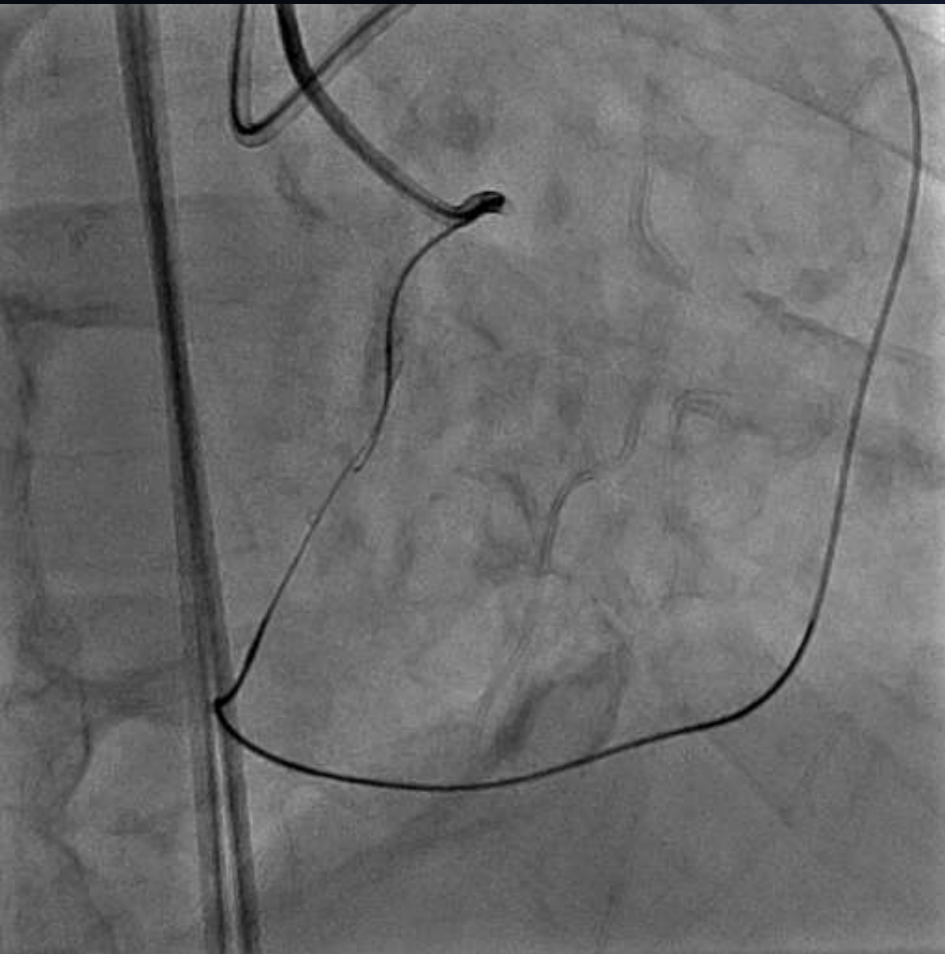
1. Stop
2. Change technique
3. Change operator

Change to retrograde approach

Sion wire + corsair 150 cm through septal channel



COMPLIANT 2015 Sion, Fielder XT, Gaia 2nd Pilot 150 → unpass distal CAP



leave Retrograde wire as marker

Gaia 2nd, Pilot 150 + cosair 135 cm antegrade wiring → Failed

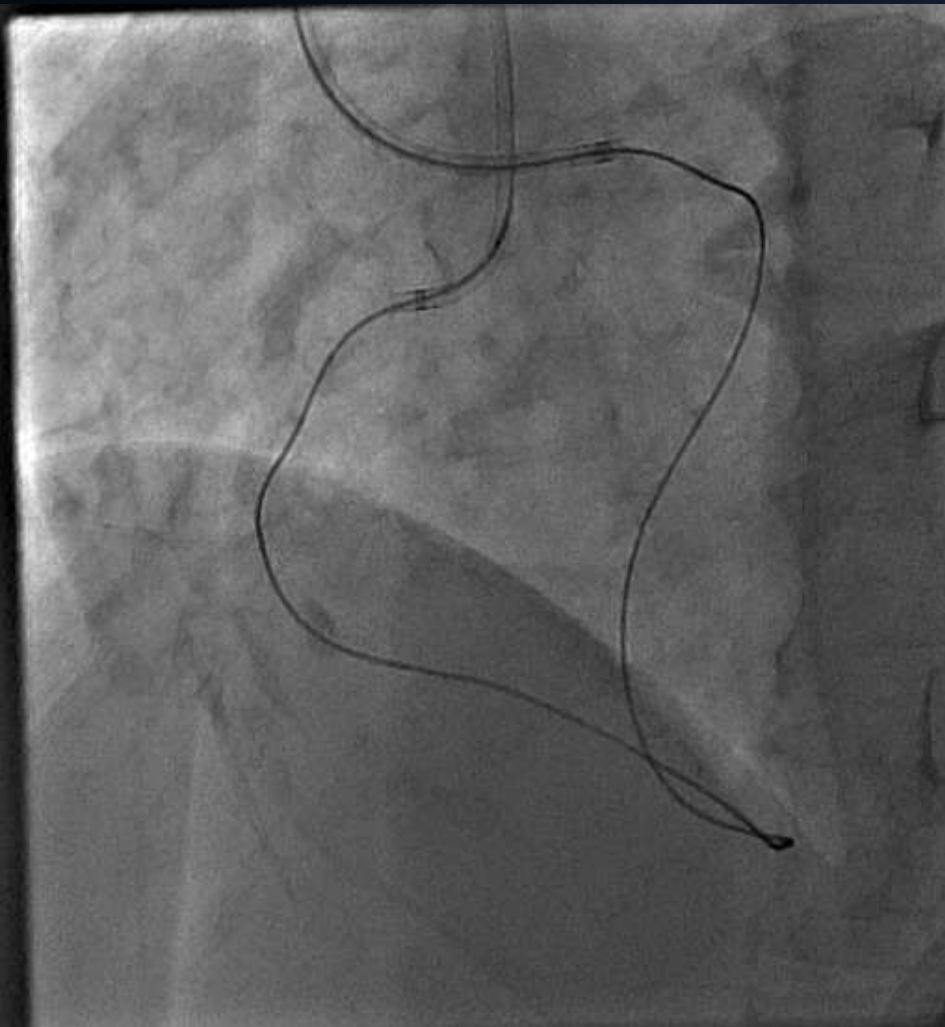
AL₁@ RCA was kick off then change GD to JR₄/7F

Reverse CART was done with 3.0 x 20@8atm balloon at mRCA



Retrograde Pilot 150 could pass to pRCA and antegrade guiding

Retrograde wire was tapped with 2.0 x 20 balloon @ 14 atm and retrograde corsair could advance to antegrade guiding

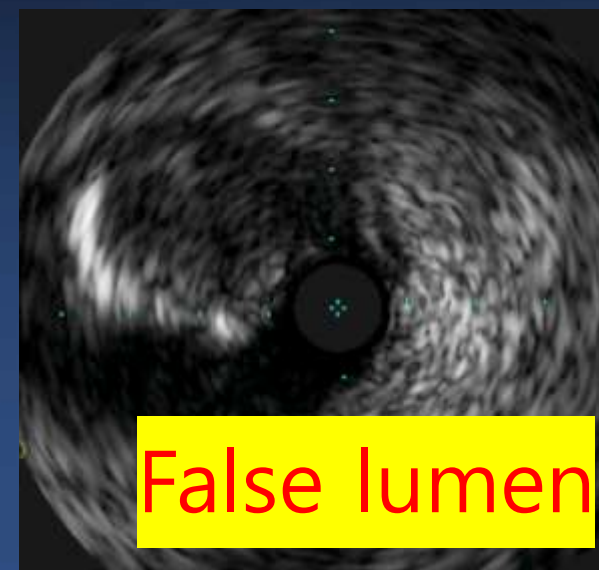
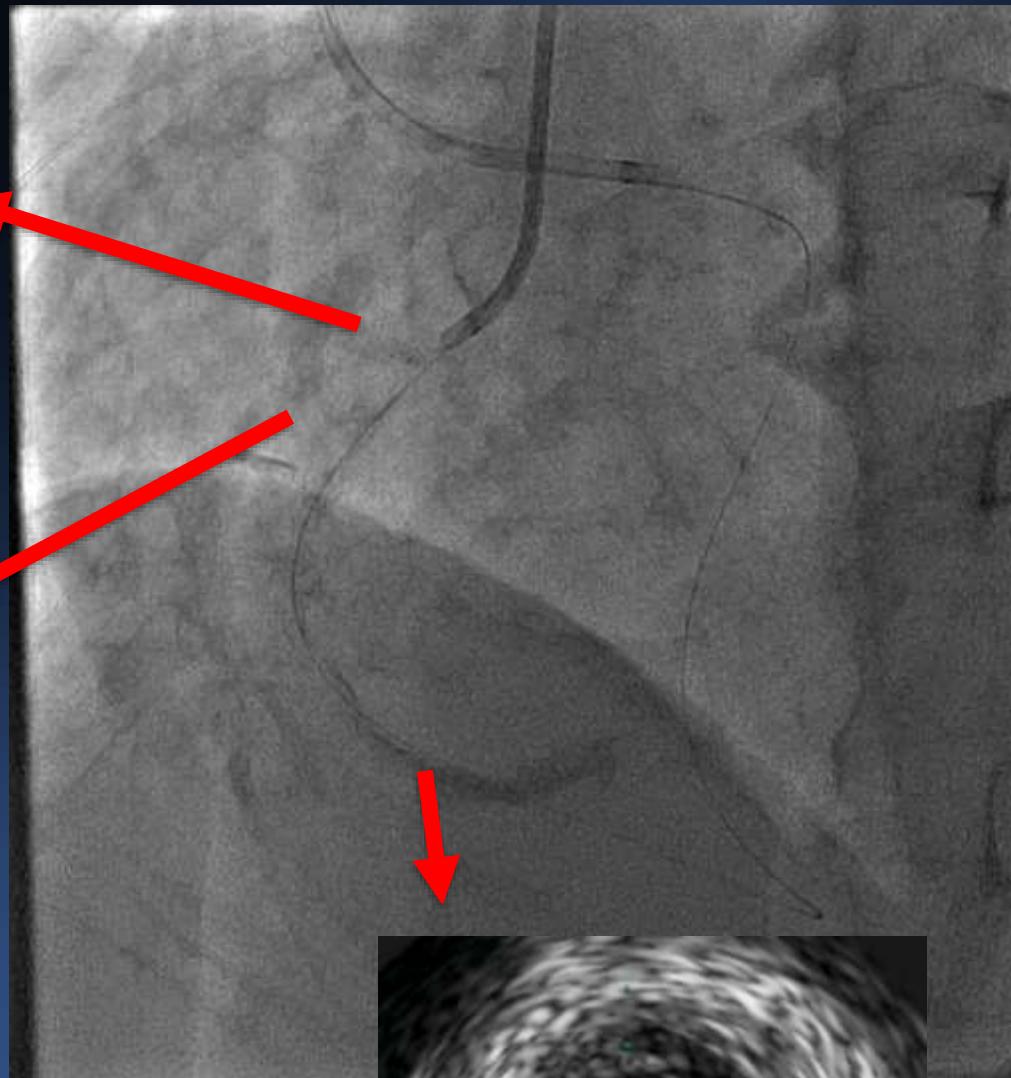
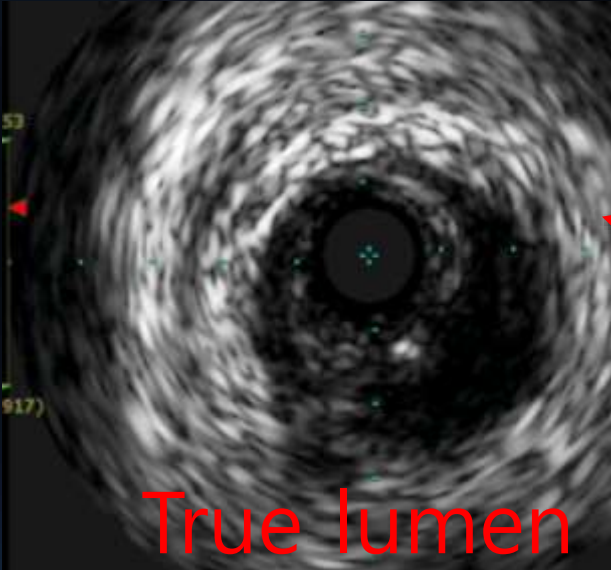


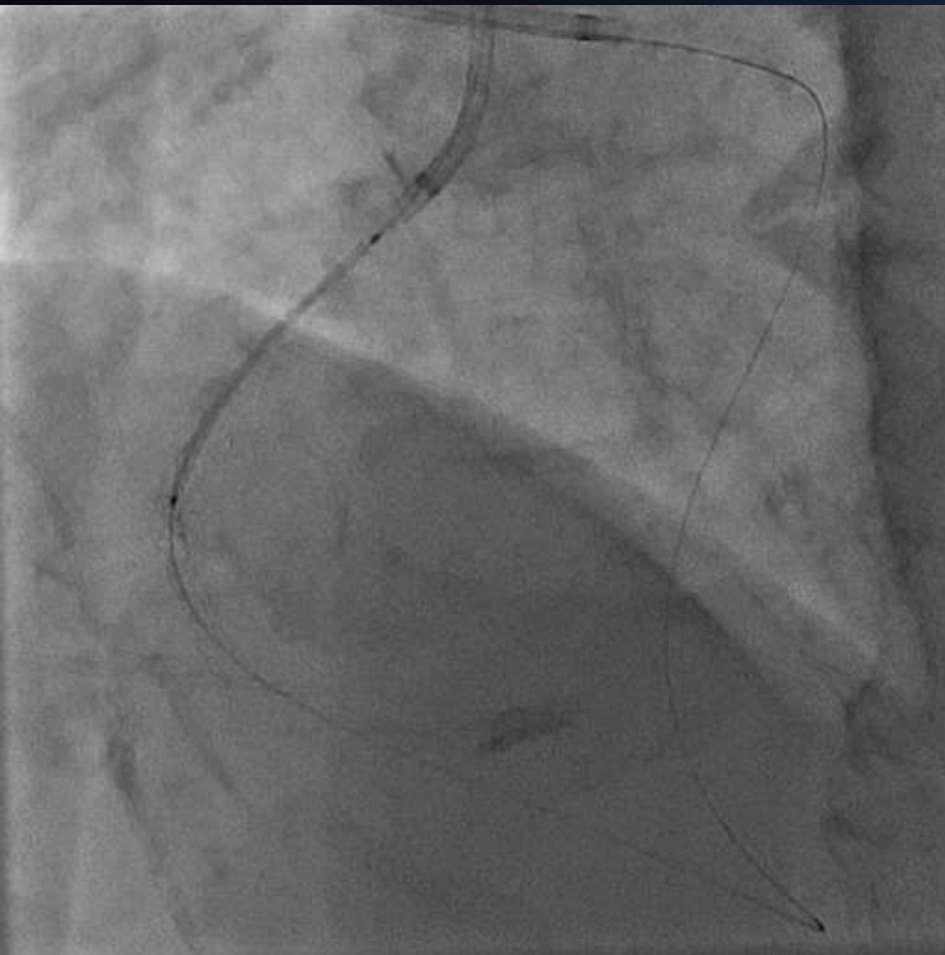
No RG₃

Retrograde wire pilot 150 was
change to BMW 300 cm and
externalization

After dilated with 1.5 x15 and 2.0 x 20 balloon
(make some mistake by antegrade injection)







Stent implantation

Biomatrix flex DES 4.0 x 36@14atm

Biomatrix flex DES 3.5 x 33@16atm

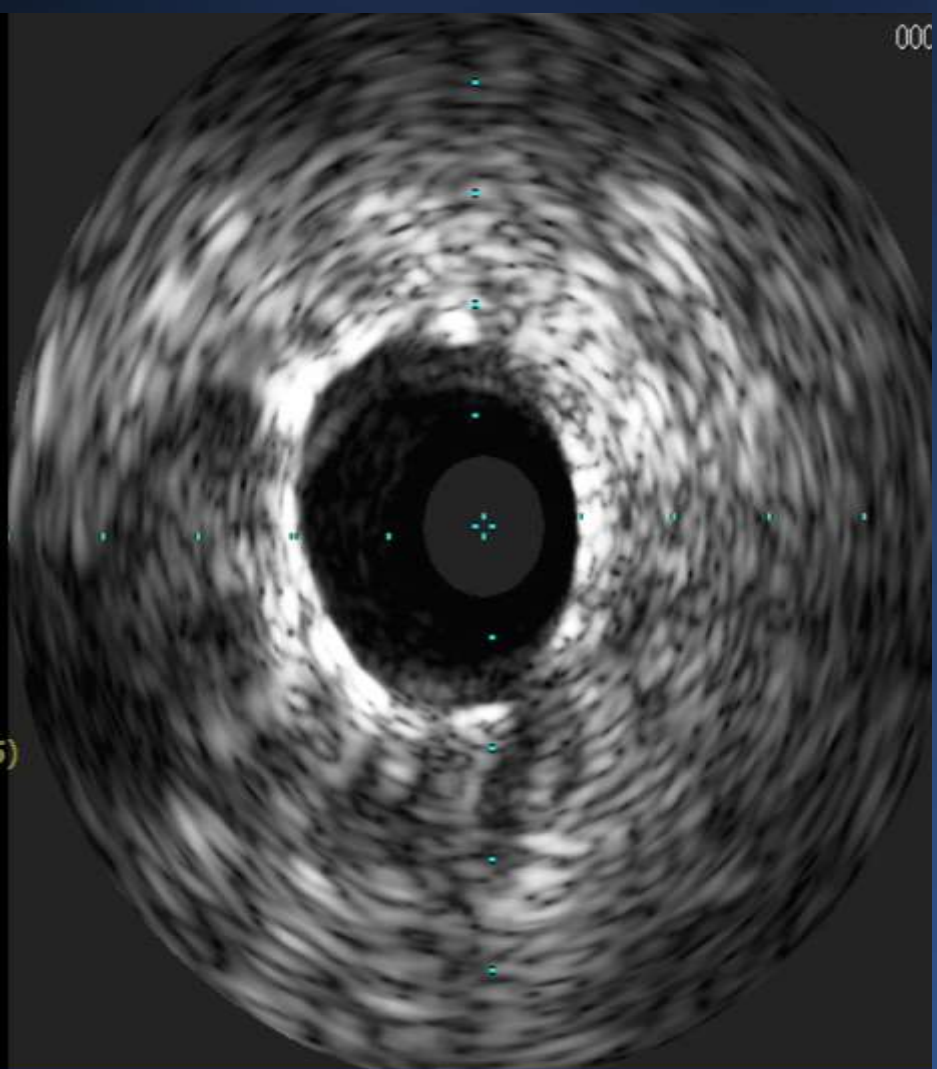
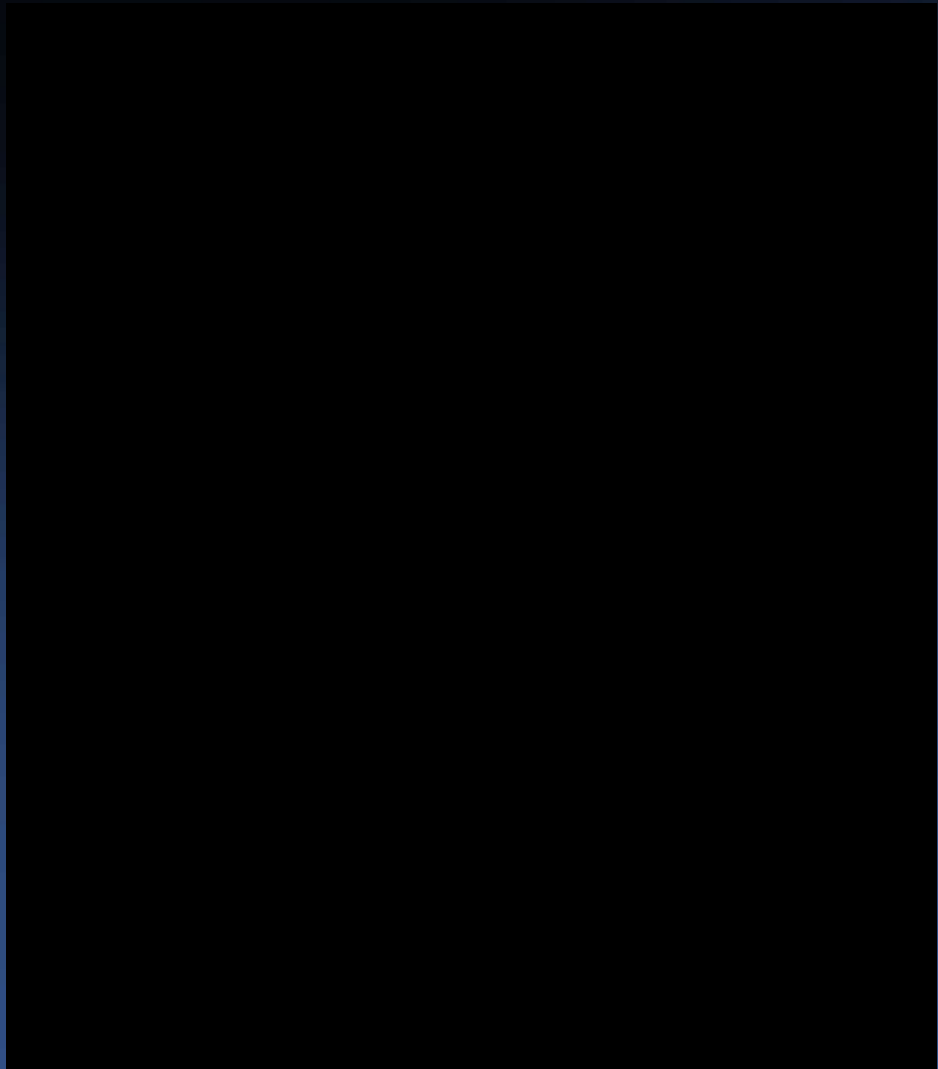
Biomatrix flex DES 3.0 x 28 @ 16 atm

Change to 190 cm BMW wire

post dilated with

NC 3.5 x15@20atm

NC 4.0x15 @16atm



- Total contrast Visiplaque 150 ml
- Fluoroscopic time 110 min
- procedure time 215 min



Now

- Regular F/U
- No chest pain during HD
- FC I - II
- F/U echo 3 month after PCI EF = 62 %
No RWMA

Conclusion

- Dual angiography remains the cornerstones of decision making in CTO PCI
 - Angiographic parameters are assessed
 - Proximal CAP morphology
 - CTO length
 - Distal vessel size/bifucation of distal cap
 - Retrograde conduit location and suitability
- Hybrid approach with early change between strategies enable CTO crossing in more efficient and safe way and time
- Still lacking experience and need more learning for CTO PCI

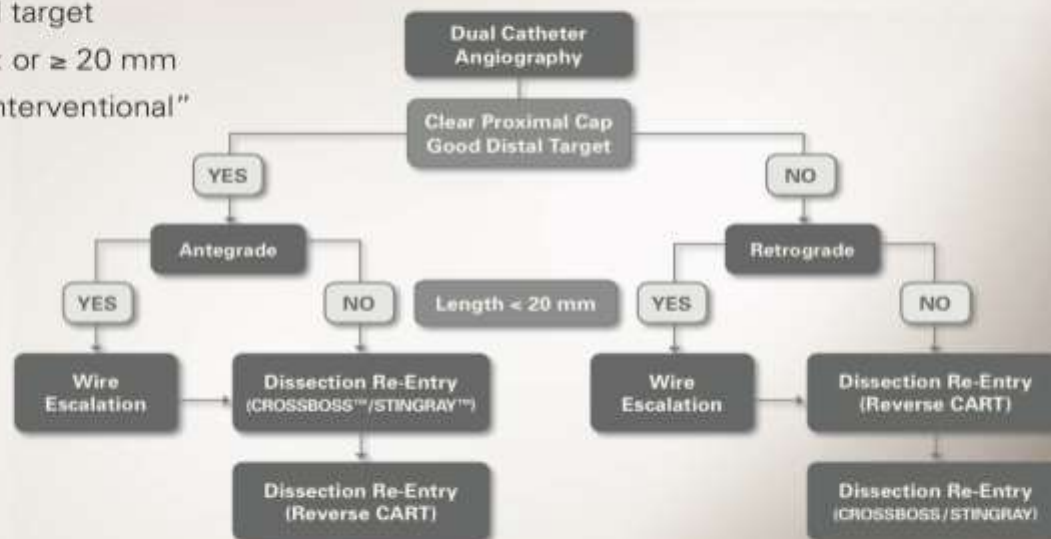
Thank you



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Please see reverse side for promotional information.