Learning Antegrade Dissection and Re-entry

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Stingray Balloon
The Hybrid Algorithm for CTO PCI

provisional approaches

1. Clear proximal cap
2. Good Distal Target

Dual Catheter Angiography

Antegrade

- yes
- no

- Wire escalation
- Dissection Reentry (crossboss-stingray)

Retrograde

- yes
- no

Wire escalation

- Dissection Reentry (reverse CART)

- Wire escalation
- Dissection Reentry (reverse CART)

- Dissection Reentry (crossboss-stingray)
Wire Escalation

Fielder XT

Clear Path and Target
CONFIANZA PRO 12g

Unclear Path and Target, +Tortuosity
PILOT 200

Antegrade Dissection ReEntry

Dissection Method
CROSSBOSS

Reentry Method
STINGRAY

Retrograde Dissection ReEntry

Dissection Method
KNUCKLE WIRE

ReEntry Method
REVERSE CART

Refractory
Strategy

AWE antegrade wire escalation  ADR antegrade dissection reentry  RW retrograde wiring  RDR retrograde dissection reentry

Mean no. strategies 1.5+-0.7
We now know enough to deliver high-value educational courses

CTO Mastery

Structured approach to learning

Learning without structure (you might get there in the end)
Greater chance of success = Hybrid Skills
• Skillsets are taught
• Skills are acquired
Skillsets should be:

• Teachable
• Reproducible
• Successful
• Understandable
Follow these clear steps...

Step 1. Basic interventional skills
Step 2. CTO analysis
Step 3. Antegrade skills
Step 4. Retrograde skills
Step 5. Dissection re-entry skills
Step 6. Hybrid skills

>90% success
Wire Subintimal the new approach
Case Presentation

• Bifurcation
Putting it together
Challenges to overcome

• Wire Subintimal
• Failure to get the Crossboss started
• CrossBoss gets stuck at, or goes into side branch
• Failure to re-enter with Stingray guidewire
• Questions of whether re-entry with stingray wire is correct
• Hematoma formation
Conclusions

• Skillsets are teachable if you allow yourself to be taught
• Practice when it is easy.
• You must commit to avoid hematoma
• The more skillsets you have the better and more efficient you will be