Learning from CTO Cases

TAREK RASHID, MD
AINSHAMS UNIVERSITY
Approach to CTO

AWE
1. Clear proximal cap
2. Clear distal target
3. Length < 20 mm

ADR
1. Defined prox. Cap
2. Clear distal target
3. Long lesions > 20 mm
4. Lack of collaterals
5. Increased complexity

Retrograde
1. Ambiguous prox. Cap
2. Appropriate interventional collaterals
3. Long and calcified CTO

Steps to cross CTO

• Dual catheter injection
• Deliver the microcatheter/OTW balloon to the proximal cap
• Establish the "base of operations"
• Crossing strategies
  • Wire choice
  • Wire tip-shaping
  • Wire handling
• Ensure wire is in the true lumen distally
• Re-entering the true lumen (if in the false lumen)
• Exchange for a soft-tip workhorse wire
• Special scenarios
Take Home messages

- Dual catheter injection is mandatory
- ACTs should be closely monitored and maintained above 350 sec. specially for retrograde approach
- Microcatheter/OTW balloon should be routinely used specially with stiff wires
- Ensure that the wire is in the true lumen distally by different methods
- In the setting of ACS/NST/STEMI no CTO interventions
- IVUS is very important especially in osteal CTOs
- Microcatheter/OTW balloon should be routinely used specially with stiff wires
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- Microcatheter/OTW balloon should be routinely used specially with stiff wires
- Ensure that the wire is in the true lumen distally by different methods
- In the setting of ACS/NST/STEMI no CTO interventions
- IVUS is very important especially in osteal CTOs
- Double lumen catheters are useful special in CTOs with bifurcations
- Guiding catheter extension is an important device in your CTO toolbox being used in a different scenarios
- Re-entering the true lumen is facilitated by using Stingray Balloon
- Exchange for a soft-tip workhorse wire is crucial to avoid distal perforations
- DCB can be used for treating distal CTOs
- Graft stent penetration inside the coronary vessels can be done safely using a Stiff wire (Conquest Pro, Pro 12, Hornet 14, progress 200, Astato XS 20, Astato XS 40)