Guidewire escalation strategy for BTK CTO lesions

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COI Disclosure

Speaker name:

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I have the following potential conflicts of interest to report:

- Consulting; BD, Boston Scientific, COOK, Medtronic, Century Medical Inc., Cordis, NIPRO, OrbusNeich
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s): Honorarium: Abbot Vascular, Asahi Intecc., Boston Scientific, BD, COOK, Cordis, KANEKA, NIPRO, Medtronic, OrbusNeichi, Terumo
Why does the GW escalation strategy need?

✓ Many CTOs often have micro-channels
✓ Polymer jacketed guidewires often negotiate the channels.
✓ However, fibrous or calcified lesion is difficult to pass
✓ CTO GWs (drilling type or penetration type) are necessary
✓ Step by step procedure is more safe than direct use of CTO GWs
All CTO have a chance to micro channel passage

Slipping technique with Polymer-jacketed GW

✓ Regalia XS (Cruise)
✓ Chevalier floppy
✓ Command
✓ Jupiter FC
✓ V18 control
Differentiate the Penetration & Drilling

Tapered core
Tapered & Non-coated tip

- Astato XS series (12 or 40gf)
- Naveed4 TP (10gf)
- Jupiter TP (45gf)
- Chevalier TP series (~30gf)

Non-tapered core, non-tapered tip
No polymer jacked

- Treasure XS12, Halberd
- Jupiter X (MAX)
- Ruby series
- Naveed4 Hard
Slipping with polymer jacket GWs

Is Calcium guide wiring possible?

NO

Narrowing loop can be considered

CTO Drilling GWs

Fail

CTO Penetration GWs

Fail

Consider retrograde

YES

CTO Penetration GWs

Fail

Consider retrograde
Slipping w/ polymer jacketed GW

✓ Slipping through the micro-channel is basic technique for CTO
✓ With polymer jacketed lop-tip weighted GWs (V18 control, Gladius, Regalia XS, Command etc.)
✓ Sufficient back-up is necessary
Drilling with CTO GW

✓ Non-tapered, non coated, high weighted tip GWs
✓ Better trackability, tactical feeling
✓ Stay inside of the vessels
✓ Dedicated for fibrous and/or mixed CTO component.
Ca navigation: Penetration GW

✓ Penetration GW have tapered & high weighted tip (9 to 60gf)
✓ Easily go outside without resistance
✓ Long-segment wiring without any guidance is dangerous
✓ Ca guided wiring may be reasonable
Narrowing loop with PJGW

✓ Narrowing loop is not always good option

✓ Keep the GW loop as small as possible
  (smaller than expected occluded vessel diameter)

✓ Sometimes directly pass the CTO

ASAHI Gladius MG14/18 PV ES

Low Tip load GW (3gf)
70s Female, W1, I2, Fl0, clinical stage: 3
Dorsal artery CTO

✓ Ipsilateral antegrade approach
✓ Antegrade approach with 0.014-inch polymer jacket GW (Gladius MG PV)
✓ Back-up support of Corsair PV micro catheter (2.6-Fr)
Corsair PV + Gladius MG → Jupiter S6
Polymer jacket first GW could not pass the CTO
Halberd 0.014-inch GW

- Halberd 0.014-inch CTO-GW
- Superior directional control with excellent torque transmission and high penetration.

- Tip load 12gf
- With ACT ONE
Balloon angioplasty (1.5mm → 2.0mm)
Summary of the procedure

✓ Dominant ATA-dorsal system
✓ First GW could not pass the lesion
✓ Challenging BTA CTO was negotiated with 0.014-inch CTO wire
✓ Balloon angioplasty was done with a 2.0x40mm semi compliant balloon
✓ Final angiography shows good result
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Slipping with polymer jacket GWs

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