Successful endovascular treatment for BTK lesion using wire rendezvous technique and retrograde knuckle wire technique by collateral approach

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Disclosure

Speaker name:
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I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

- I do not have any potential conflict of interest
What is Wire rendezvous technique?

- Bidirectional approach using two guidewires and microcatheters to recanalize for long CTO.
What is Wire rendezvous technique?
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Antegrade approach for recanalization is not successful.
What is Wire rendezvous technique?
What is Wire rendezvous technique?
What is Wire rendezvous technique?

Retrograde approach for recanalization is not successful.
What is Wire rendezvous technique?
What is Wire rendezvous technique?
What is Wire rendezvous technique?

- Advance antegrade wire and retrograde micro into CTO lesion.
What is Wire rendezvous technique?
What is Wire rendezvous technique?

- Advance antegrade guidewire into the retrograde microcatheter (Rendezvous).
What is Wire rendezvous technique?
What is Wire rendezvous technique?
What is Wire rendezvous technique?

- Advance antegrade micro beyond CTO segment.
What is Wire rendezvous technique?

- Advance antegrade micro beyond CTO segment.
What is Wire rendezvous technique?

- Exchange antegrade guidewire
What is Wire rendezvous technique?
What is Wire rendezvous technique?
What is Wire rendezvous technique?

- Perform PTA.
What is Wire rendezvous technique?
What's the key benefits?

- Minimize subintimal tracking
- Less traumatic for recanalization
- Goose neck wire is not necessary
- Much higher recanalization rate of long CTO
What is benefit of knuckle wire technique?
What is benefit?

Knuckle wire could be advanced within the sub-intimal space without perforation.
What is benefit?
The loop could be advanced within the sub-
intimal space without causing perforation.

Technical success rate 86%
Clinical success rate 80%
Using 0.035 inch wire

Case

- Female / 80 year-old
- C/C : Ischemic rest pain
  (Fontaine classification: III, Rutherford category 4)
- P/Hx : DM, HL – 7 years ago->Medication Tx
  - Percutaneous Coronary Intervention – 6 years ago
  - Laparoscopic cholecystectomy – 7 years ago
  - Stenting for bilateral SFA stenosis – 1 years ago
  - Stenting for bilateral CIA stenosis – 1 years ago
CTA
long CTO of left BTK lesion 80F
long CTO of left BTK lesion 80F
My strategy in this case

- Firstly I try to cross ATA occlusion using microcatheter and 0.014 inch guidewire by antegrade approach.
- After recanalization I try to cross peroneal artery occlusion using knuckle wire technique by retrograde collateral approach.
- And finally I planed to cross peroneal artery occlusion using Rendezvous technique.
Recanalization of left ATA occlusion
POBA for left ATA

Rapid Cross 2.5/3mm x 21cm
(Medtronic Inc, Minneapolis, MN)
POBA for left Popliteal artery

Rapid Cross 2.5/3mm x 21cm
POBA for left popliteal artery

Rapid Cross 2.5/3mm x 21cm
Post POBA
Collateral approach

Prominent Bta
GT 0.014 inch 45 angle
Rendezvous Technique

Retro: prominent Bta, GT 0.014 inch 45 angle
Ante: prominent NEO 135cm
Cross the lesion
POBA for peroneal artery occlusion

PTA balloon 3mm x 15cm
POBA for peroneal artery occlusion

PTA balloon 3mm x 15cm
ABI
Pre : 0.57
Post : 0.90

Post
Conclusion

Wire rendezvous and retrograde knuckle wire technique by collateral approach may be safe and effective for the long CTO of BTK lesion.
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