Various EVT techniques for long SFA CTOs

Yoshinori TSUBAKIMOTO, M.D., Ph.D.
Department of Cardiology, Japanese Red Cross Kyoto Daini Hospital, Kyoto, JAPAN
Disclosure

Speaker name: Yoshinori TSUBAKIMOTO

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
Techniques to recanalize SFA CTOs

- Antegrade based technique
- Retrograde based technique
- Other technique
Antegrade based techniques

1. Knuckle wire technique (0.035 or 0.018-inch wire)

2. Tactile sensation guided wiring (0.014-inch wire)

3. Calcium guided wiring (0.014-inch wire)

4. Duplex ultrasound guided wiring (0.014-inch wire)

5. IVUS guided wiring (0.014-inch wire)
Antegrade wiring failure

Retrograde approach
Retrograde based techniques

1. Distal puncture
   a. Frontal SFA (Omote-pun)
   b. Side POP (Yoko-pan)
   c. Frontal POP (Omote hiza-pun)
   d. Hi ATA
   e. DPA / Peroneal / PTA

2. Trans-collateral angioplasty (TCA)
Retrograde based technique

1. Distal puncture
   a. Frontal SFA (Omote-pun)
   b. Side POP (Yoko-pan)
   c. Frontal POP (Omote hiza-pun)
   d. Hi ATA
   e. DPA / Peroneal / PTA

2. Trans-collateral angioplasty (TCA)
➢ Retrograde based technique

1. Distal puncture
   a. Frontal SFA (Omote-pun)
   b. Side POP (Yoko-pan)
   c. Frontal POP (Omote hiza-pun)
   d. Hi ATA
   e. DPA / Peroneal / PTA

2. Trans-collateral approach (TCA)
1. IVUS guided antegrade wiring

2. IVUS guided parallel wire technique

3. IVUS guided retrograde wiring
Distal puncture

Puncture site (Left SFA)
Frontal SFA (OMOTE-pun)

- Puncture (RAO: medial)
- Confirm (LAO: lateral)
- Wire insertion
- MC insertion
Frontal POP
(OMOTE Hiza-pun)

Puncture (LAO: lateral)
Confirm (RAO: medial)
Wire insertion
Other techniques

1. Reentry technique
   a. Reentry device
   b. Needle guided reentry
      = Poor man’s outback (POB)
   c. IVUS guided reentry

2. Against calcium
   a. Pierce technique
   b. Wire tail attack
Other technique

1. Reentry technique
   a. Reentry device
   b. Needle guided reentry
      = Poor man’s outback (POB)
   c. IVUS guided reentry

2. Against calcium
   a. Pierce technique
   b. Wire tail attack
Needle guided reentry
= Poor man’s outback (POB)
Poor-man's Outback
IVUS guided reentry

Difficult to reentry
Representative Cases
Case 1.
69 y.o. M
IC (R3), DM, HT
SFA proximal

IVUS guided parallel wiring

IVUS
SFA distal
Case 2.
82 y.o. F
IC (R3), DM, HT

Initial DSA
Antegradepreparation
Frontal SFA puncture (Omote-pun)  V18 insertion
Retrograde wiring with IVUS guidance
Case 3.
63 y.o. F
IC (R3), HT, HL
Corsair PV + 014 Ragalia
Various techniques should be acquired in order to achieve successful intervention for the SFA-CTO.

Our antegrade technique is based on tactile sensation guided. In addition, duplex echo or IVUS guided wiring technique became popular recently.

In retrograde approach, distal puncture in supine position is basically performed. Also, trans-collateral angioplasty is a useful option and sometimes re-entry techniques are required.
Thank you for your attention

Yoshinori TSUBAKIMOTO, M.D., Ph.D.
Department of Cardiology, Japanese Red Cross Kyoto Daini Hospital, Kyoto, JAPAN
Various EVT techniques for long SFA CTOs

Yoshinori TSUBAKIMOTO, M.D., Ph.D.
Department of Cardiology, Japanese Red Cross Kyoto Daini Hospital, Kyoto, JAPAN