

Various EVT techniques for long SFA CTOs

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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

Spine position

2. Trans-collateral angioplasty (TCA)

➤ Retrograde based technique

1. Distal puncture

a. Frontal SFA (Omote-pun)

b. Side POP (Yoko-pan)

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Spine position

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➤ Retrograde based technique

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} Spine position

2. Trans-collateral approach (TCA)

IVUS guided wiring

Eagle Eye® Platinum ST



1. IVUS guided antegrade wiring

Guiding catheter



2. IVUS guided parallel wire technique

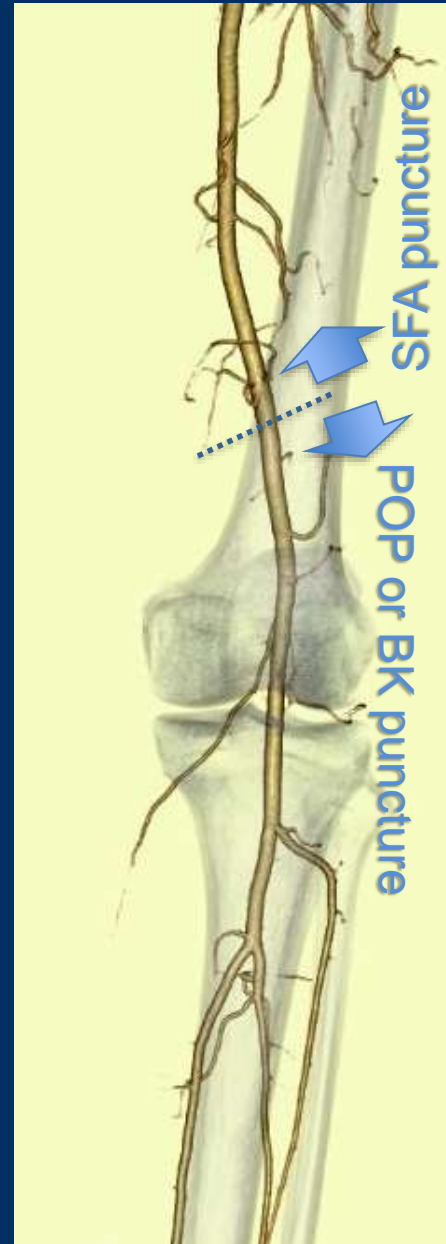


3. IVUS guided retrograde wiring



Distal puncture

Puncture site (Left SFA)



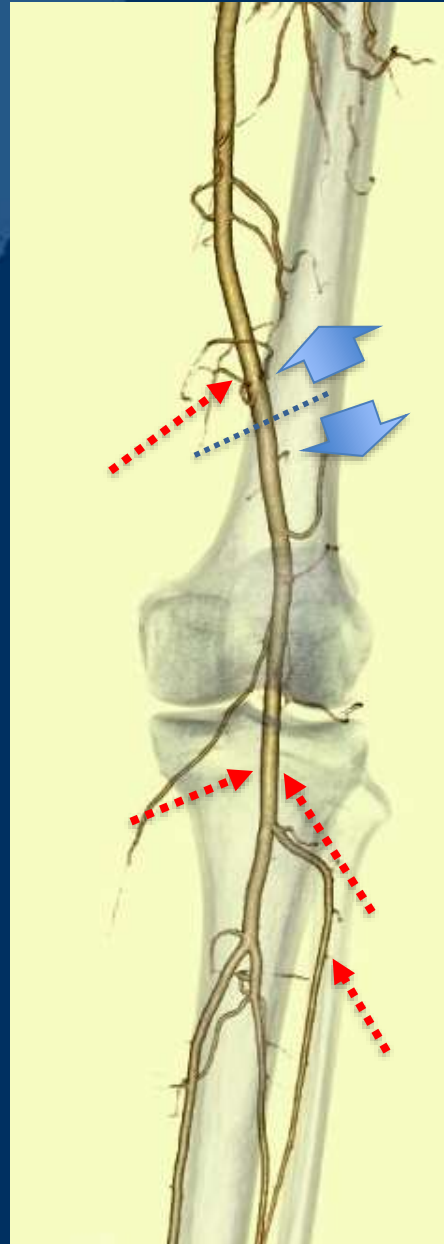
Puncture site (Left SFA)

Medial puncture

Lateral puncture

Frontal SFA
(Omote-pun)

Side POP
(Yoko-pun)



Frontal POP
(Omote Hiza-pun)

Hi-tibial
(Hi-ATA)

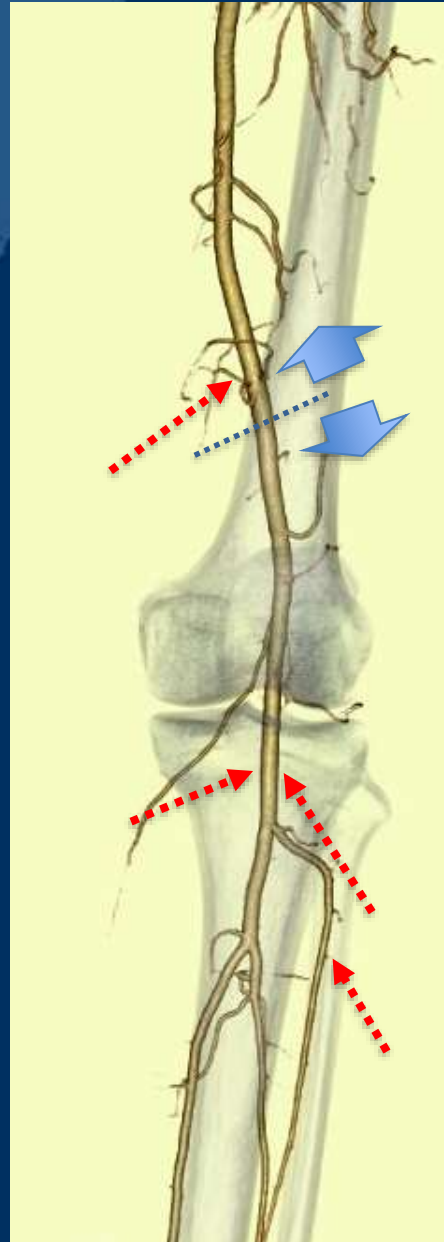
Puncture site (Left SFA)

Medial puncture

Lateral puncture

Frontal SFA
(Omote-pun)

Side POP
(Yoko-pun)



Frontal POP
(Omote Hiza-pun)

Hi-tibial
(Hi-ATA)

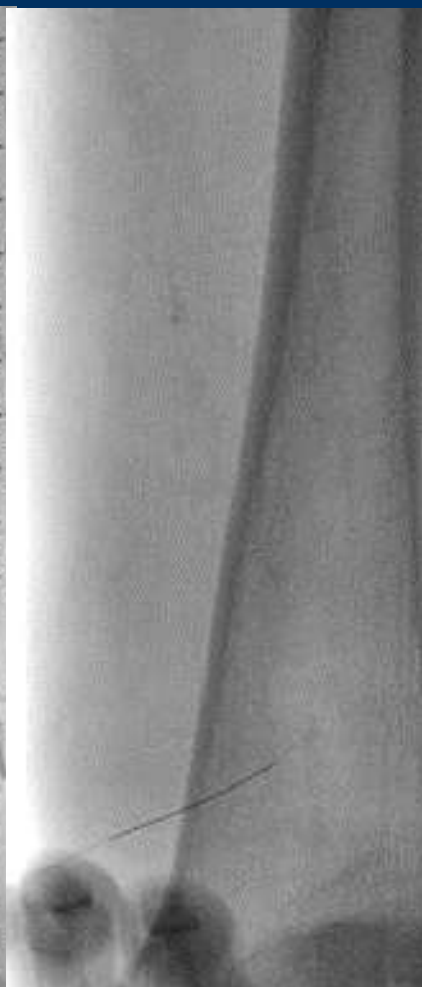
Frontal SFA (OMOTE-pun)



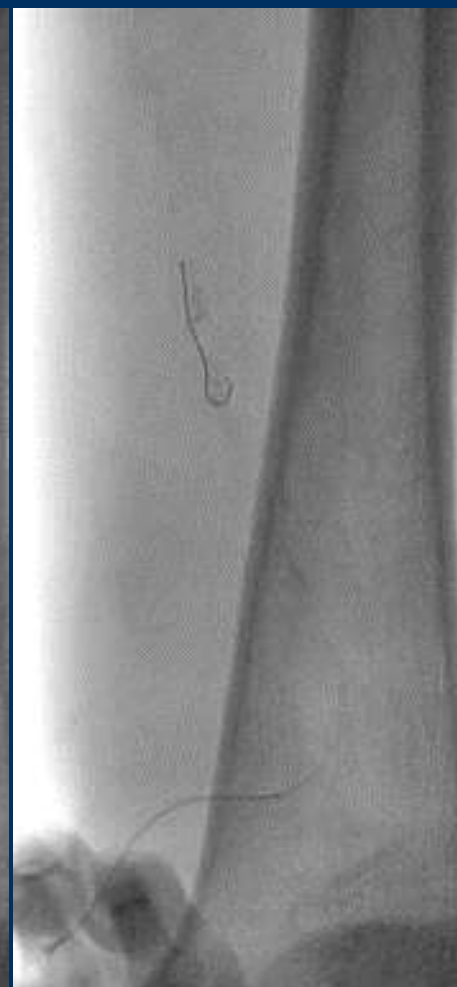
Puncture
(RAO: medial)



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)

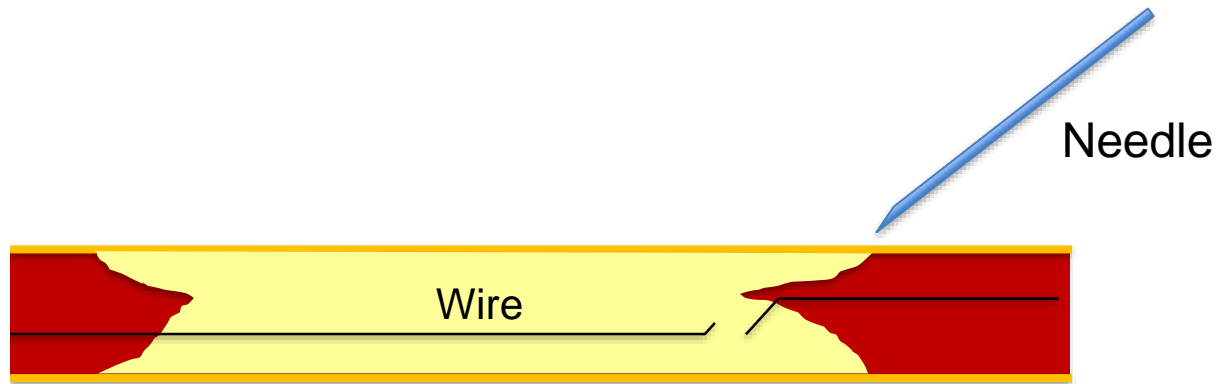
c. IVUS guided reentry

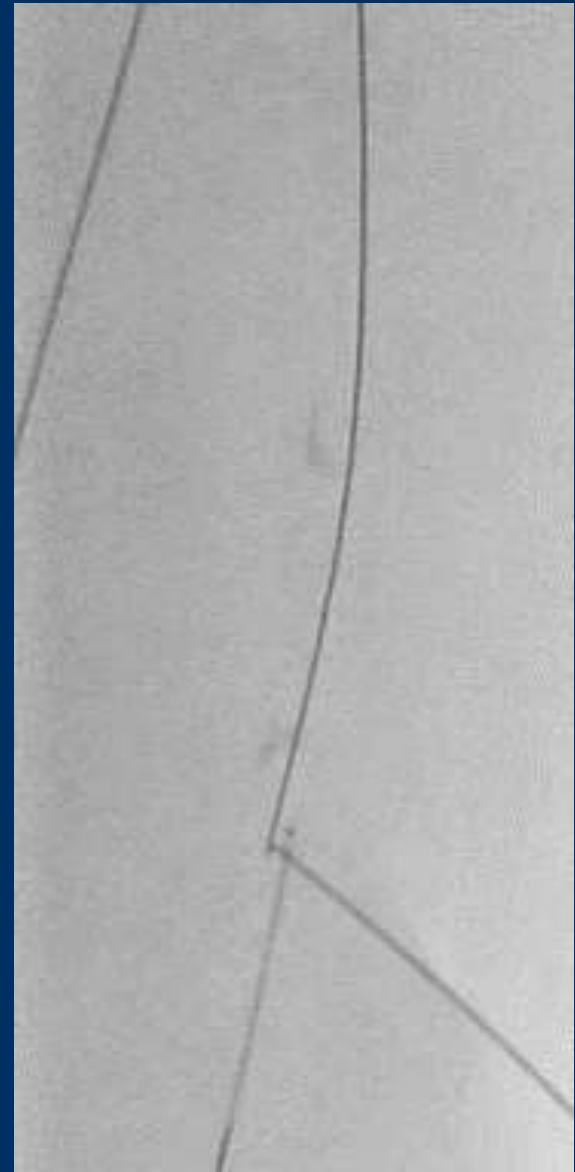
2. Against calcium

a. Pierce technique

b. Wire tail attack

Needle guided reentry
=Poor man's outback (POB)

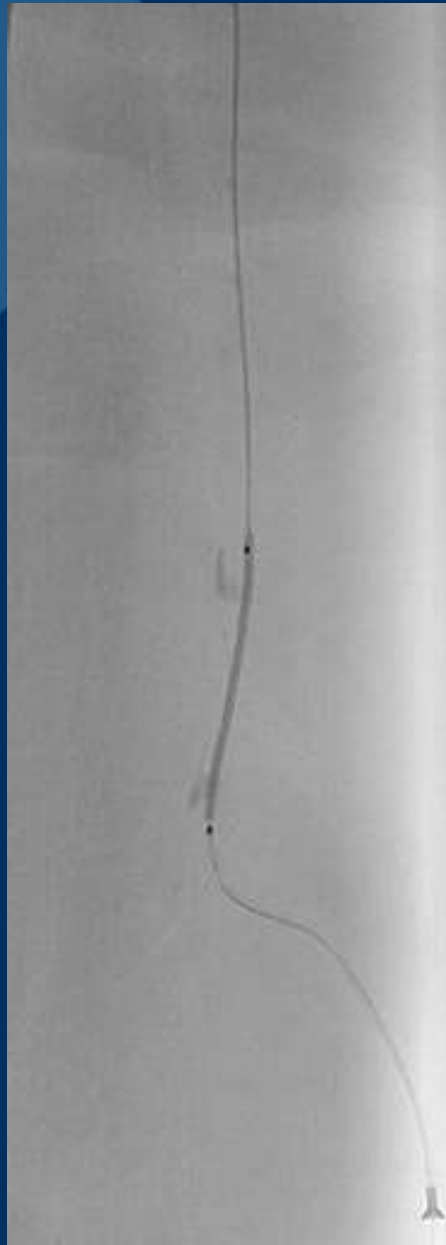




Poor-mans' Outback



BADFORM



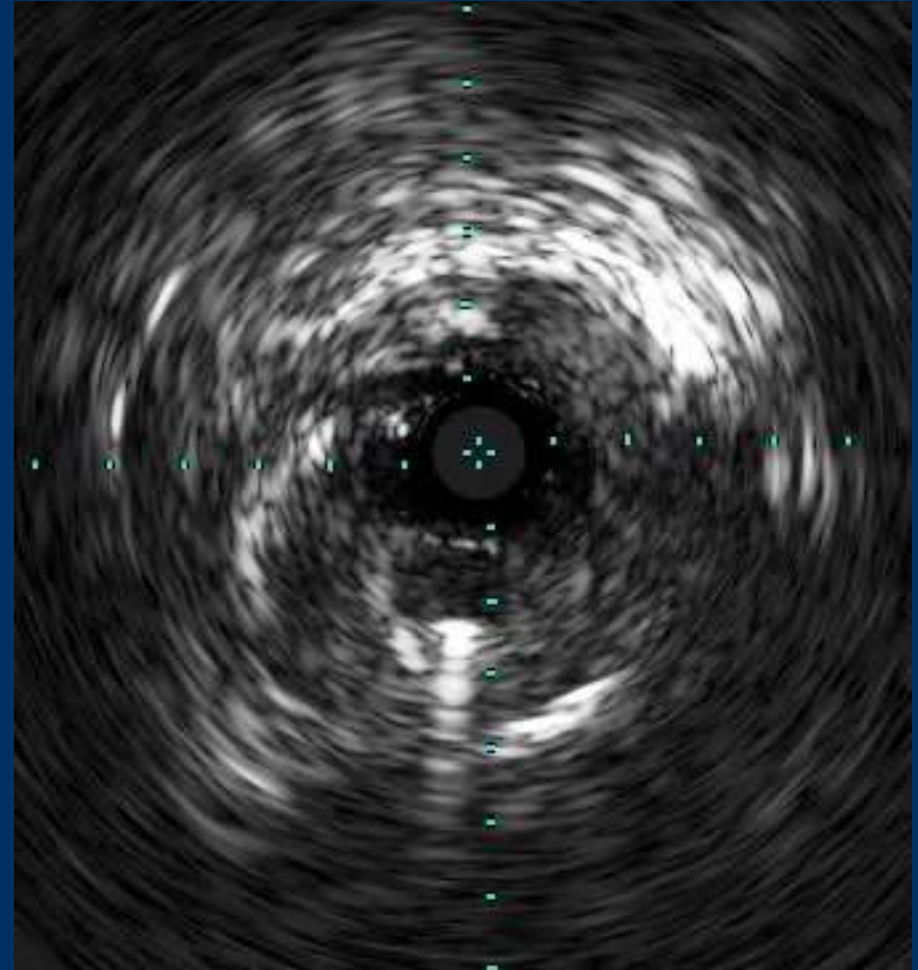
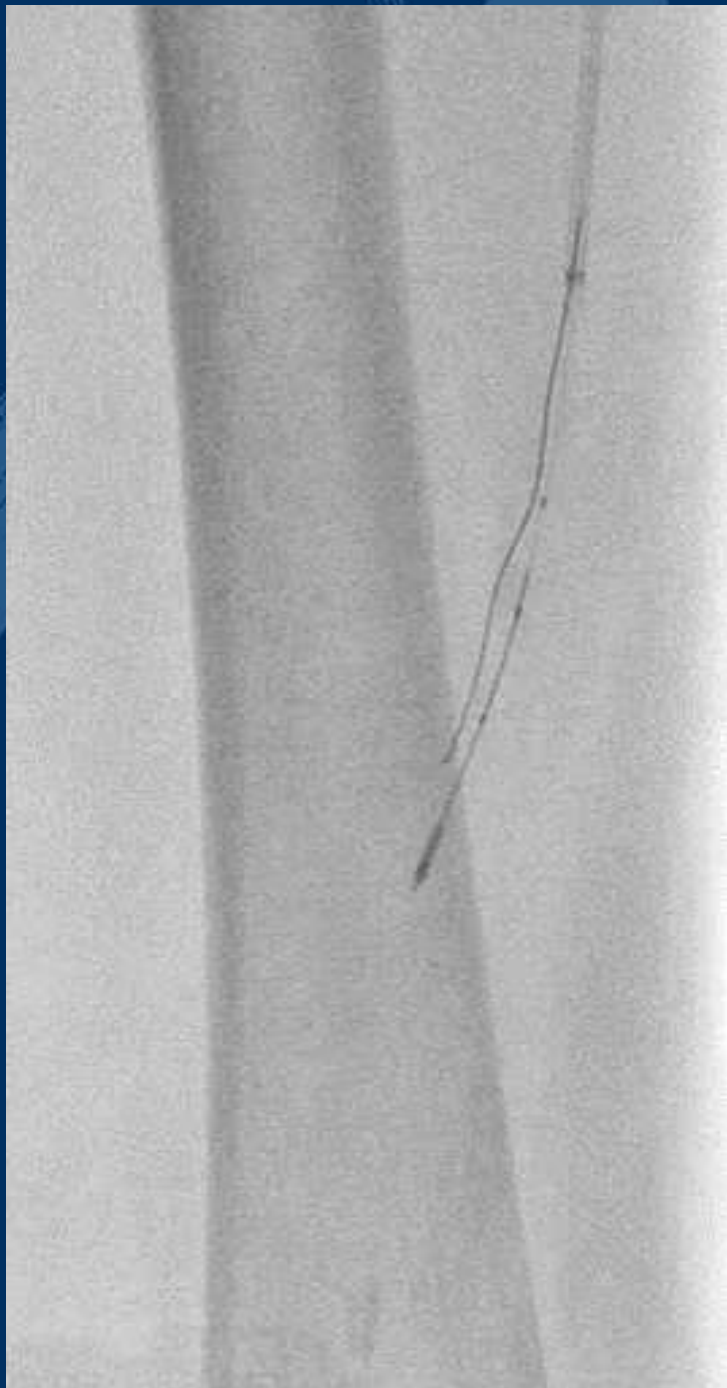
POBA1.5mm



Wire crossing

IVUS guided reentry





IVUS guided reentry



Representative Cases

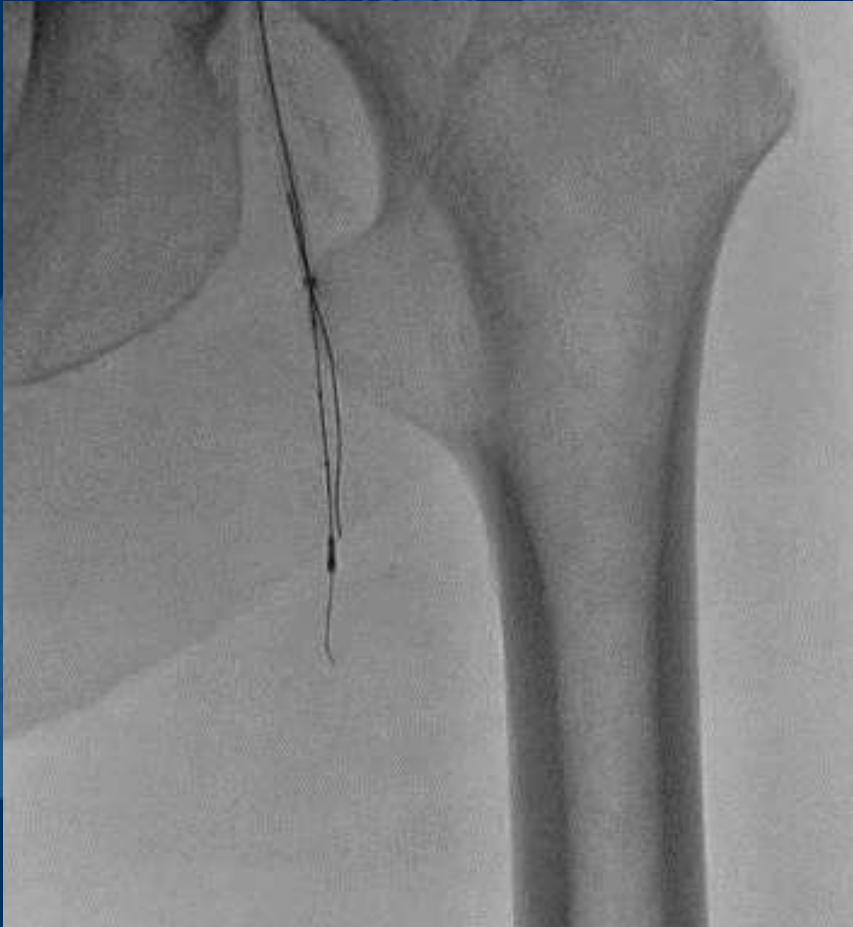
Case 1.

69 y.o. M

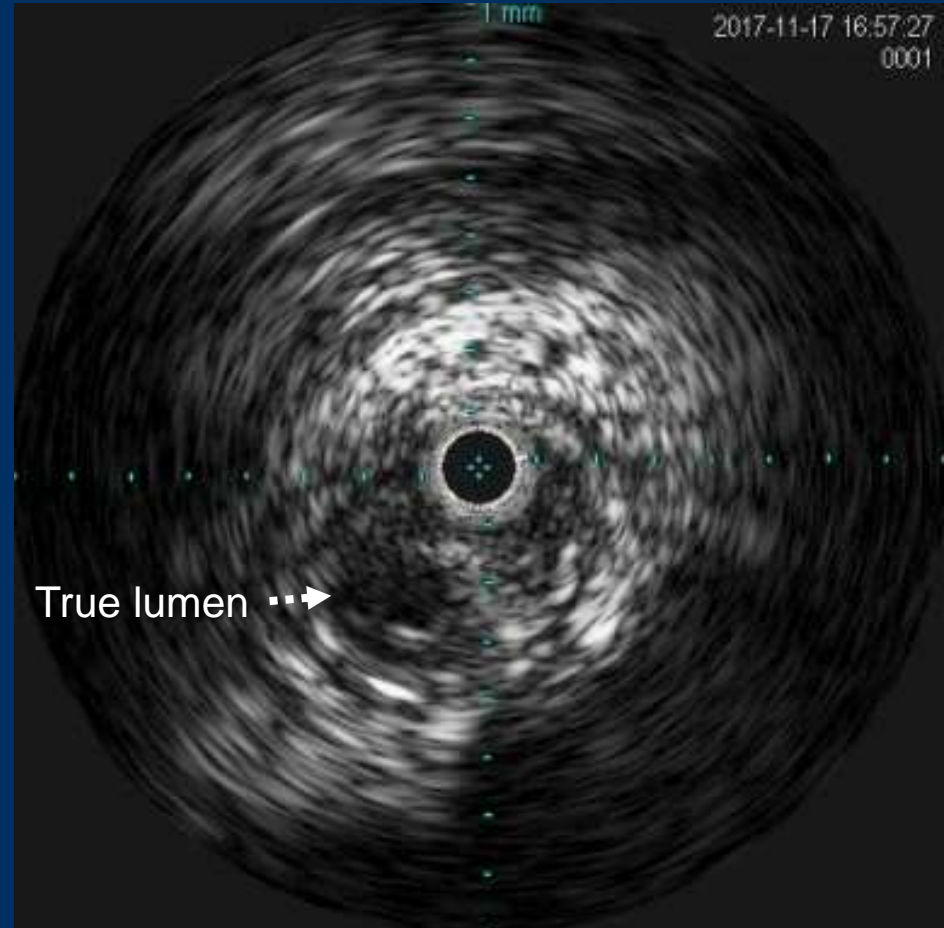
IC (R3), DM, HT



SFA proximal



IVUS guided parallel wiring



IVUS

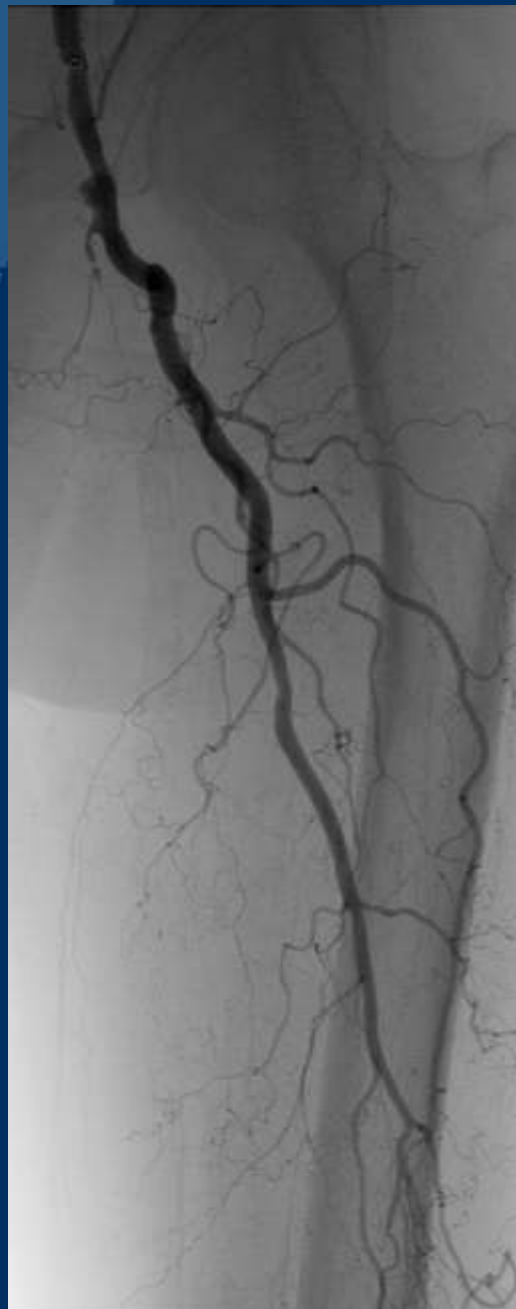
SFA distal



Case 2.

82 y.o. F

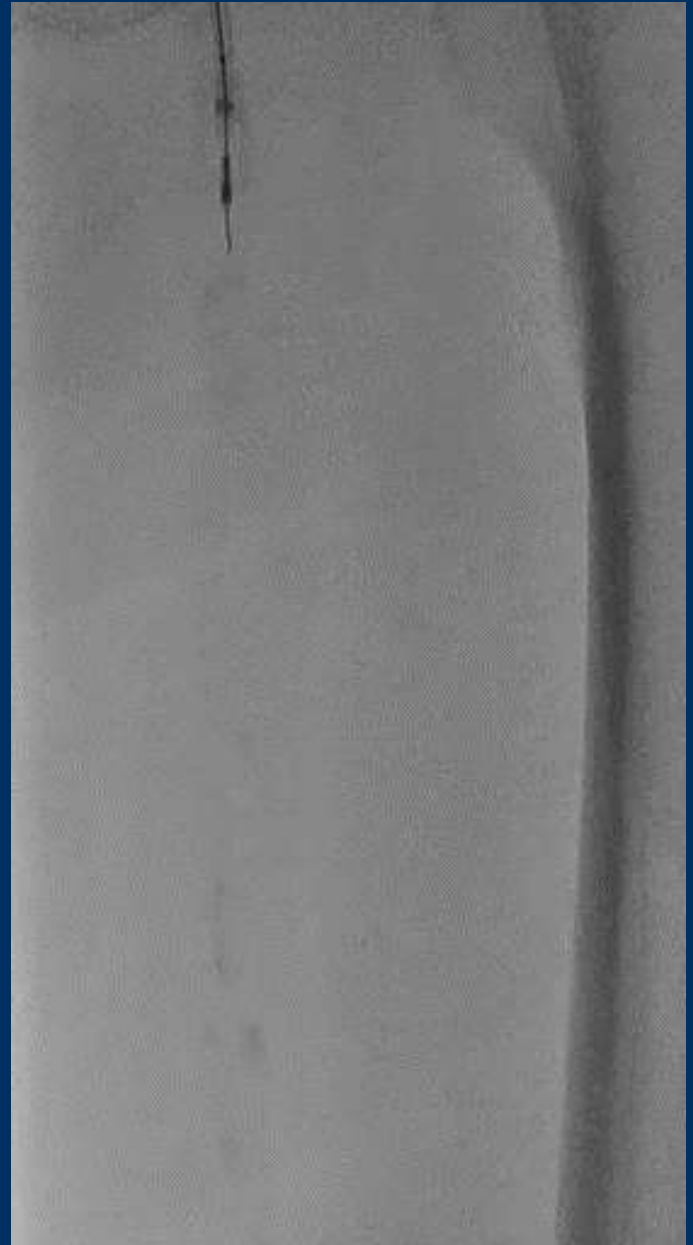
IC (R3), DM, HT

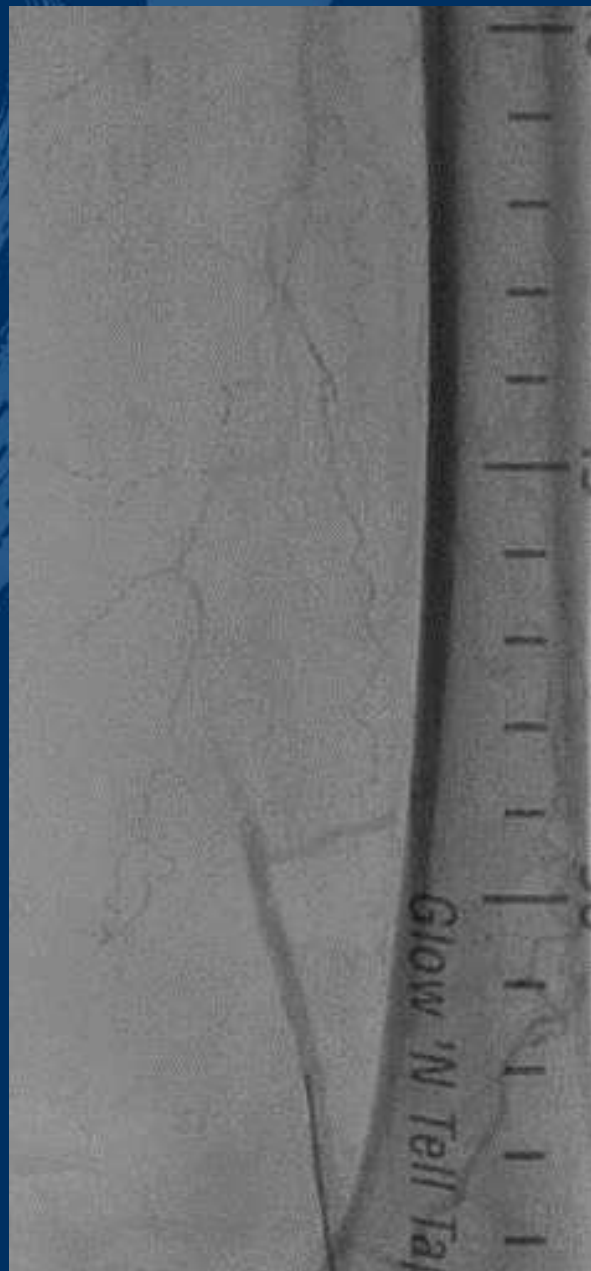


Initial DSA



Antegrade preparation

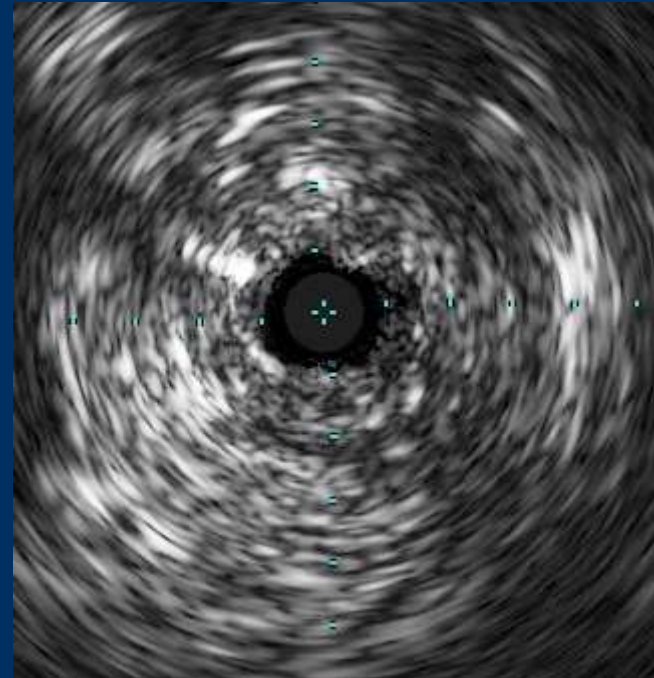
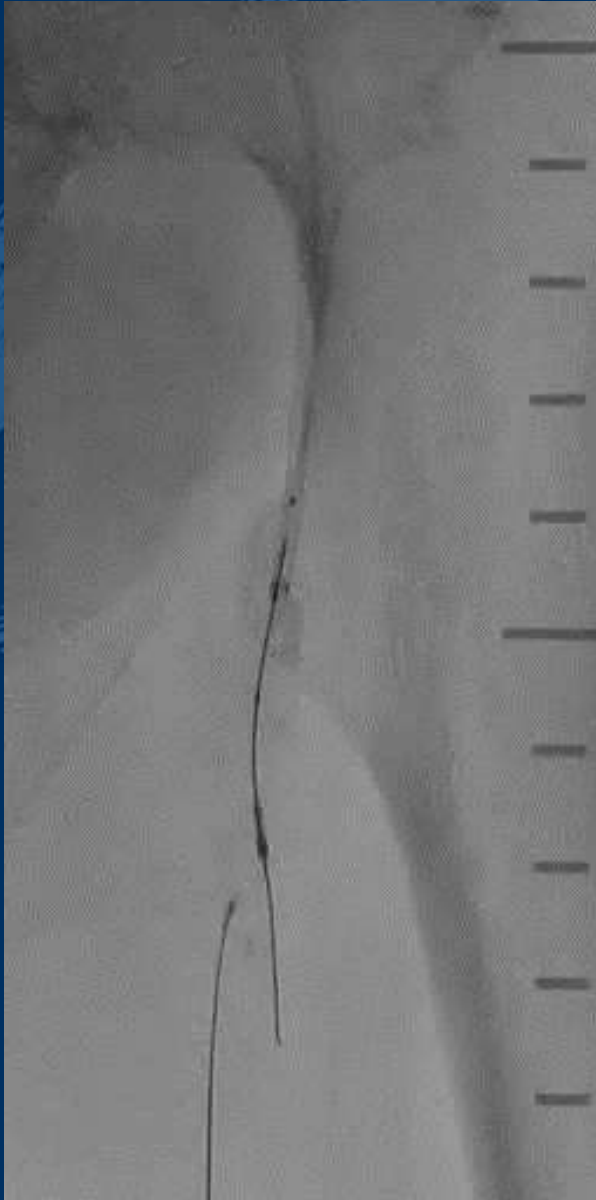




Frontal SFA puncture
(Omote-pun)



V18 insertion



Retrograde wiring
with IVUS guidance



Rendezvous



Completion DSA

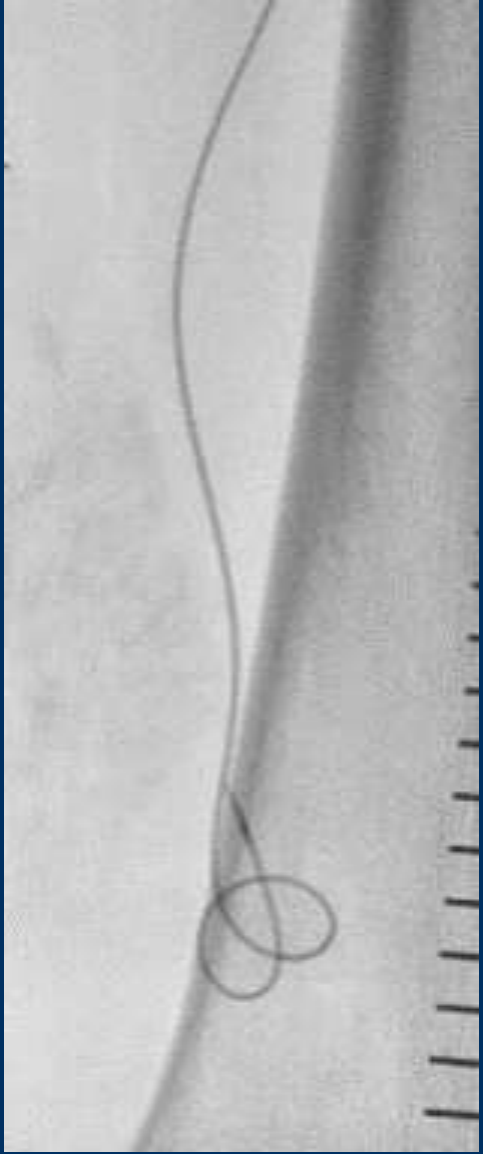
Case 3.

63 y.o. F

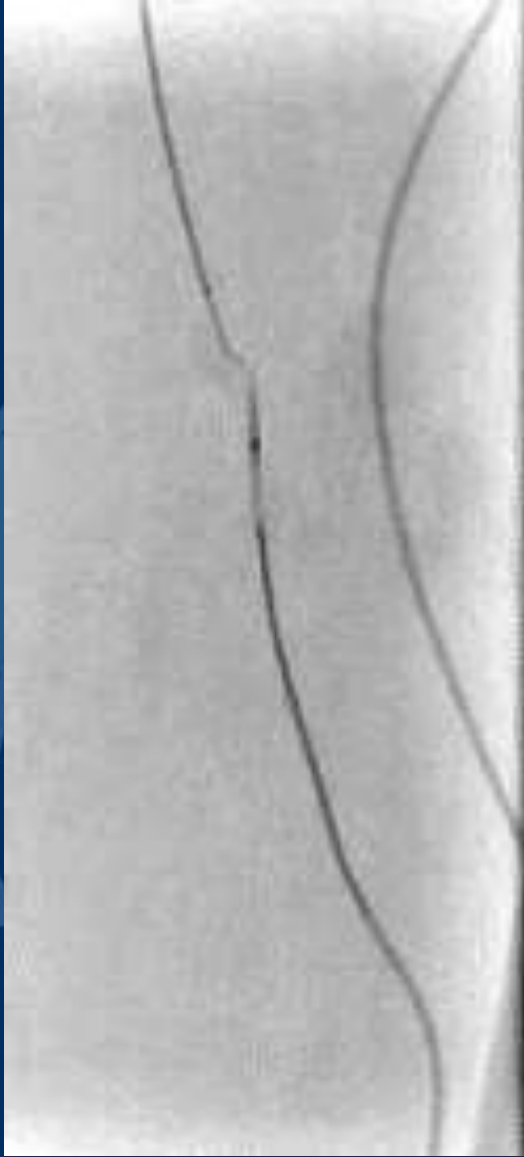
IC (R3), HT, HL



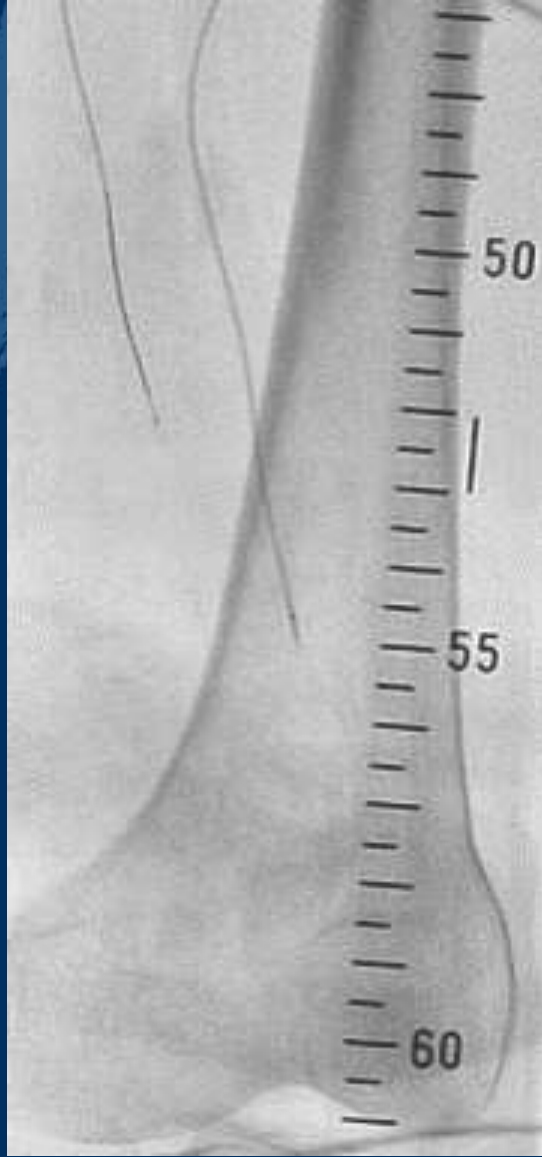
Collateral channel (DFA)



Corsair PV + 014 Ragalia



Rendezvous



Wire cross

Summary

- ✓ 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.

The logo for LINC, featuring a stylized red and orange flame or ribbon shape above the letters LINC.

LINC

Thank you for your attention

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