

Endovascular Symposium I

Featured Lectures

Novel Wiring Tips for SFA-CTO

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CTO crossing devices



Crosser - Bard



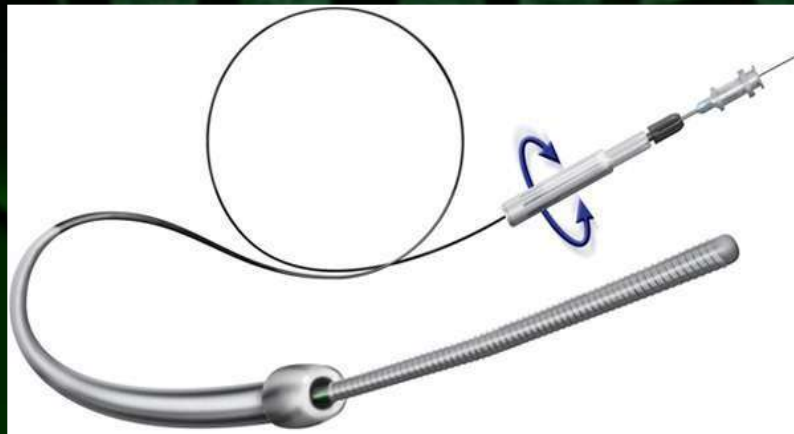
Frontrunner - Cordis



WildCat - Avinger



TruePath - Boston



Viance - Covidien



Ocelot - Avinger

Re-entry devices



Outback - Cordis



Pioneer - Medtronic



Enteer - Covidien



Offroad - Boston

The truth is that Japanese EVT field is still in the Stone Age. What we can use for peripheral intervention are **guidewires, balloons** and several **self-expandable nitinol stents**.

Because of that, we had to brush up our wiring skill to the maximum, and at the same time, we needed to develop new wiring methods in order to improve the initial success rate of EVT for the long SFA occlusive diseases.

Wiring methods for long SFA-CTO lesions

Antegrade wiring

Tactile sensation-guided wiring

Duplex echo-guided wiring

IVUS-guided wiring

Bi-directional wiring

Trans-collateral angioplasty (TCA) 2007

Direct SFA puncture

Front puncture (Omote-pun) 2009

Poorman's Outback Method (POB) 2009

Side puncture (Yoko-pun) 2011

Distal puncture

Frontal Popliteal Puncture (Omote hiza-pan) 2013

Popliteal puncture (Ura-pun)

Tibial puncture

DP puncture

Frontal Popliteal Puncture

Omote hiza-pan

Case : 80's male

Diagnosis: PAD (Rutherford 3), Leriche syndrome

Intervention history: Axillo-bifemoral bypass at 2008

Right side graft was occluded

EVT for aorto-iliac CTO at Oct.15, 2014

EVT for left SFA-CTO at Oct. 21, 2014

Risk factor: CKD (Stage 3A)

ABI: Right -not measurable

Left - 0.86

Target lesion: Right SFA-CTO

Control angiography

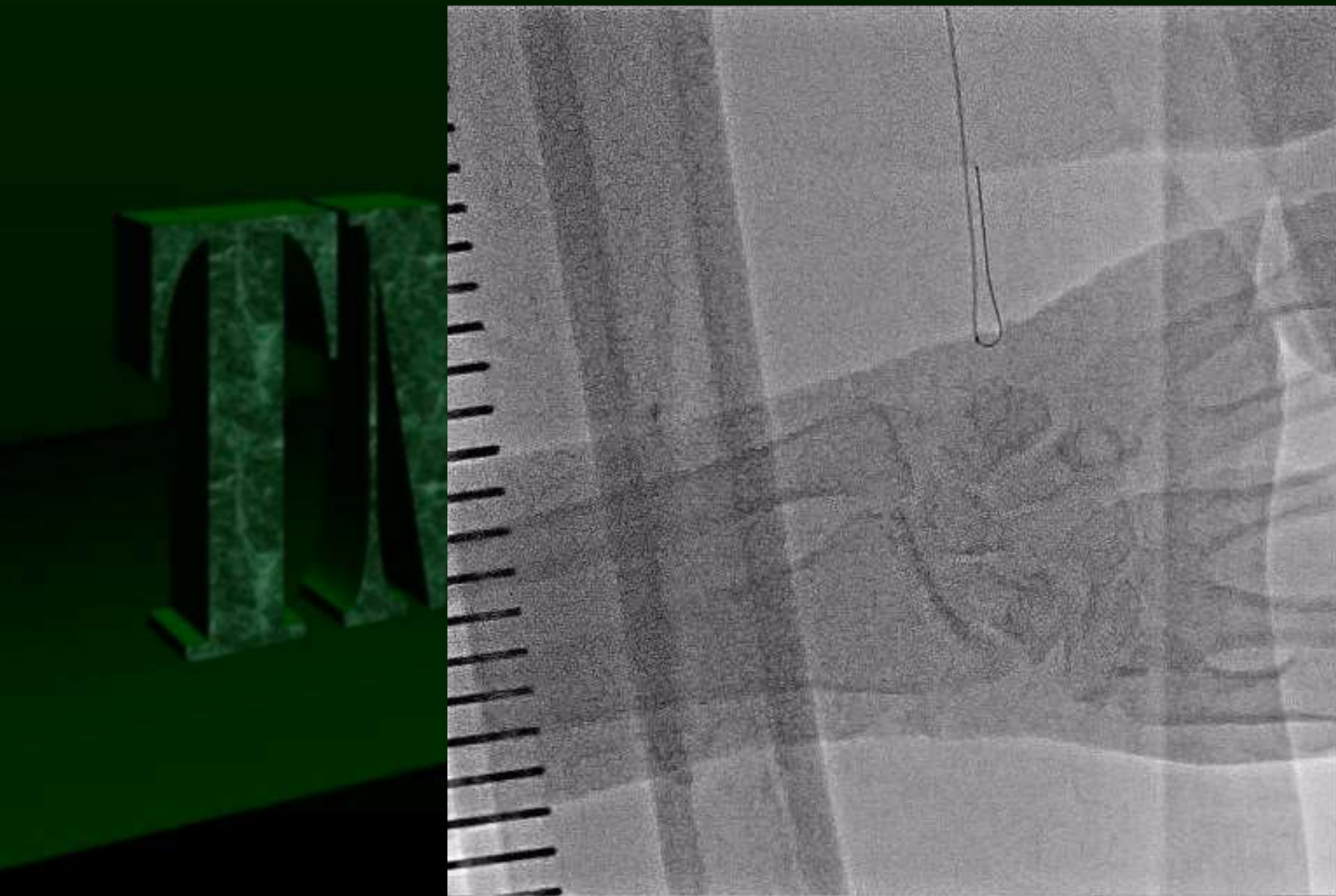


Wiring into the SFA-CTO

Astato XS9-12
Tapered 0.014" guidewire
Tip weight is 12g
Asahi Intecc



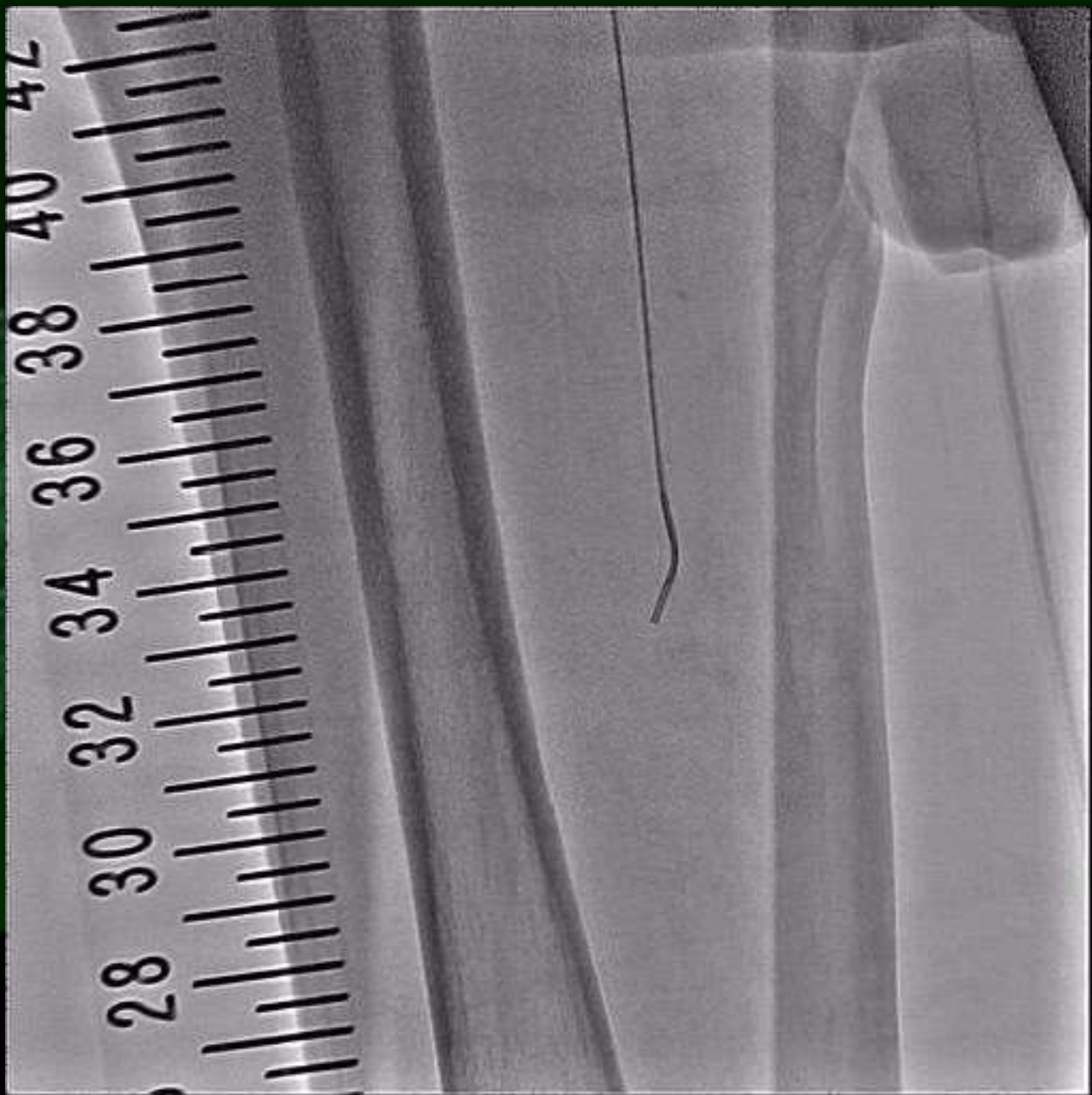
Knuckle wire technique using 0.014" guidewire



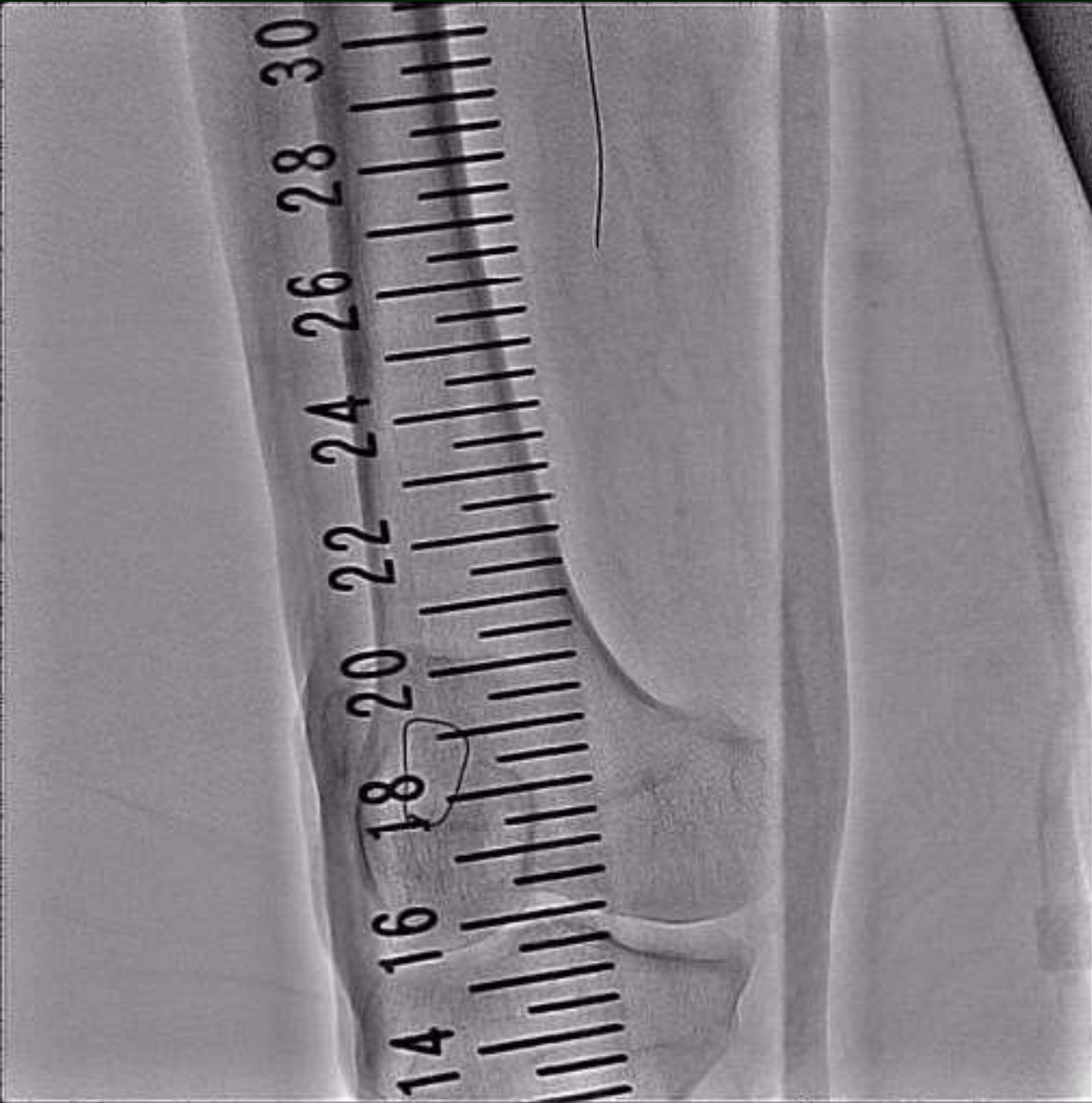
Knuckle wire technique using 0.035" Terumo wire



Angiogram after CTO crossing



Re-entry was tried using 0.014" guidewire



Frontal Popliteal Puncture: Control angiography

Right anterior oblique 30



Frontal Popliteal Puncture: Puncture

Introducer Needle
20G 105mm needle
Medikit Japan



Frontal Popliteal Puncture: Advance guidewire

Cruise (Regalia)
0.014" Plastic jacket wire
Tip weight is 1g
Neos Japan



Frontal Popliteal Puncture: Advance micro-catheter

Prominent-NEO
0.014" compatible micro-
catheter, 60cm
Tokai Medical Products



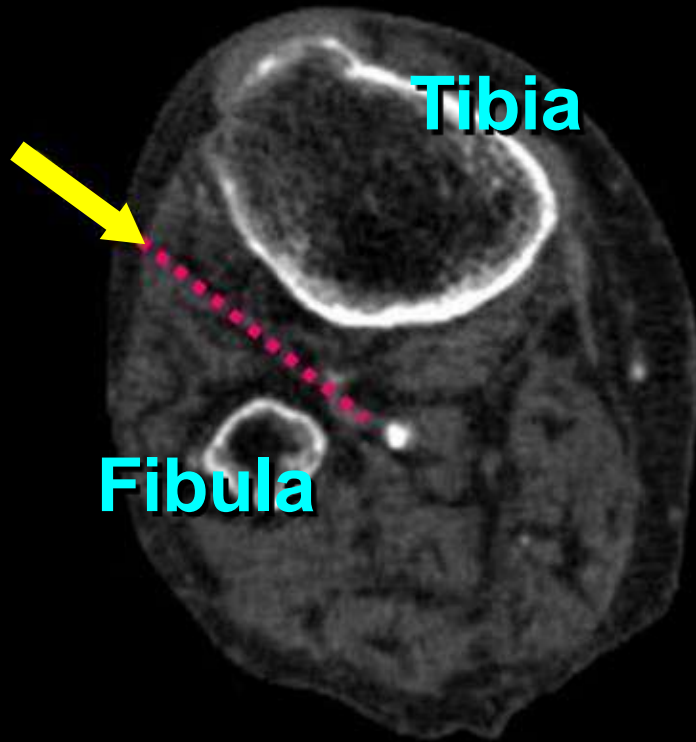


Knee

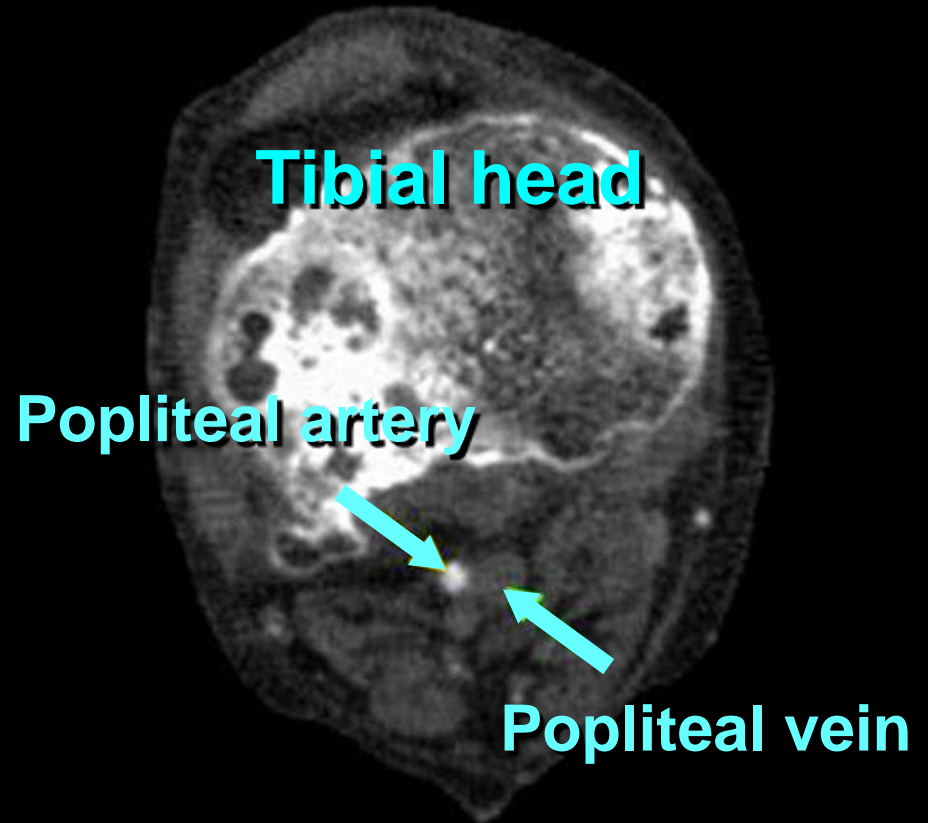
Head ←

→ **Foot**

Pathway of the puncture needle



Axial image of the puncture point



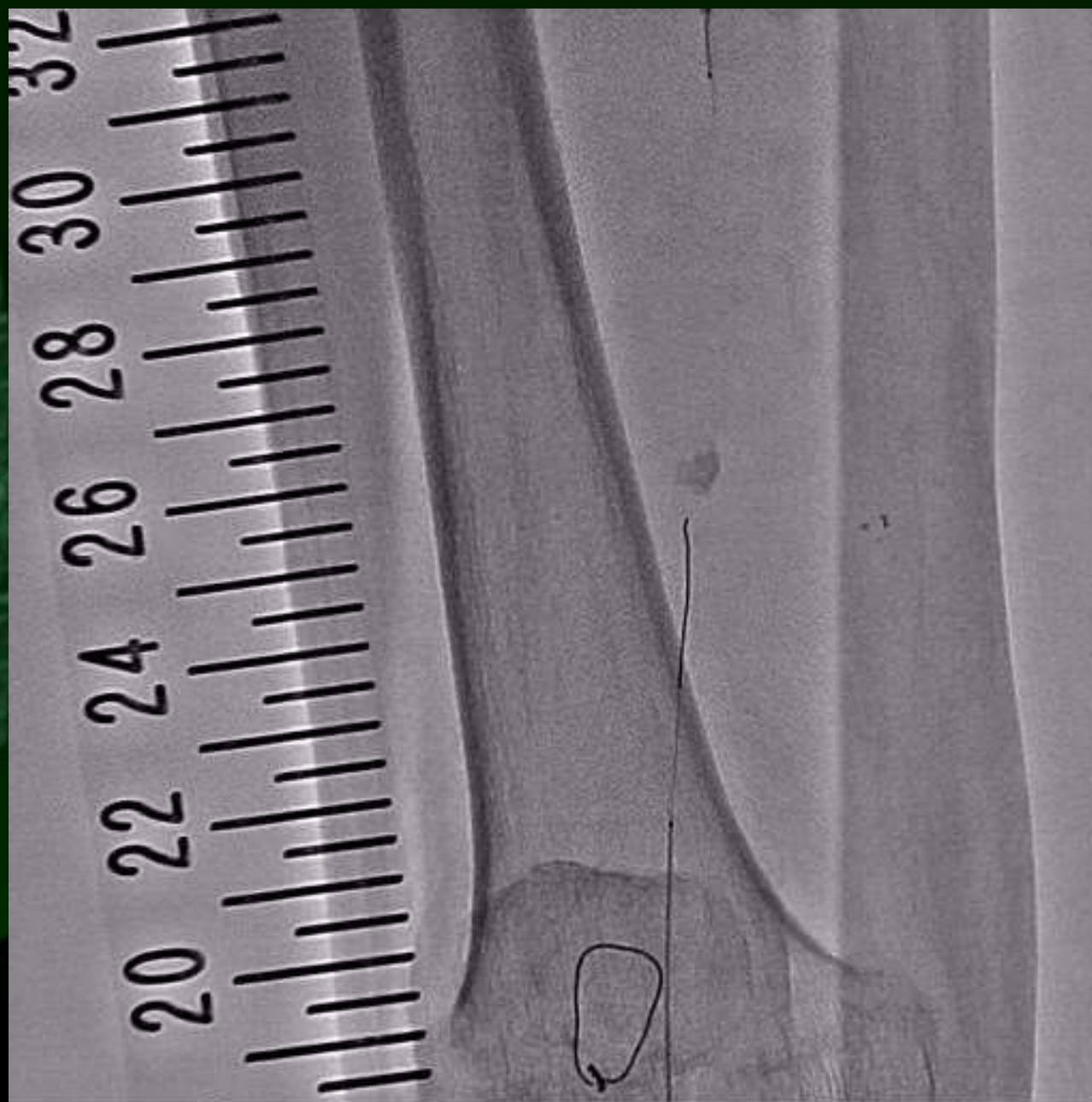
Axial image of the entry point

Retrograde wiring to the SFA/POP-CTO

Chevalier-floppy
0.014" plastic jacket wire
Tip weight is 2g
Cordis Japan

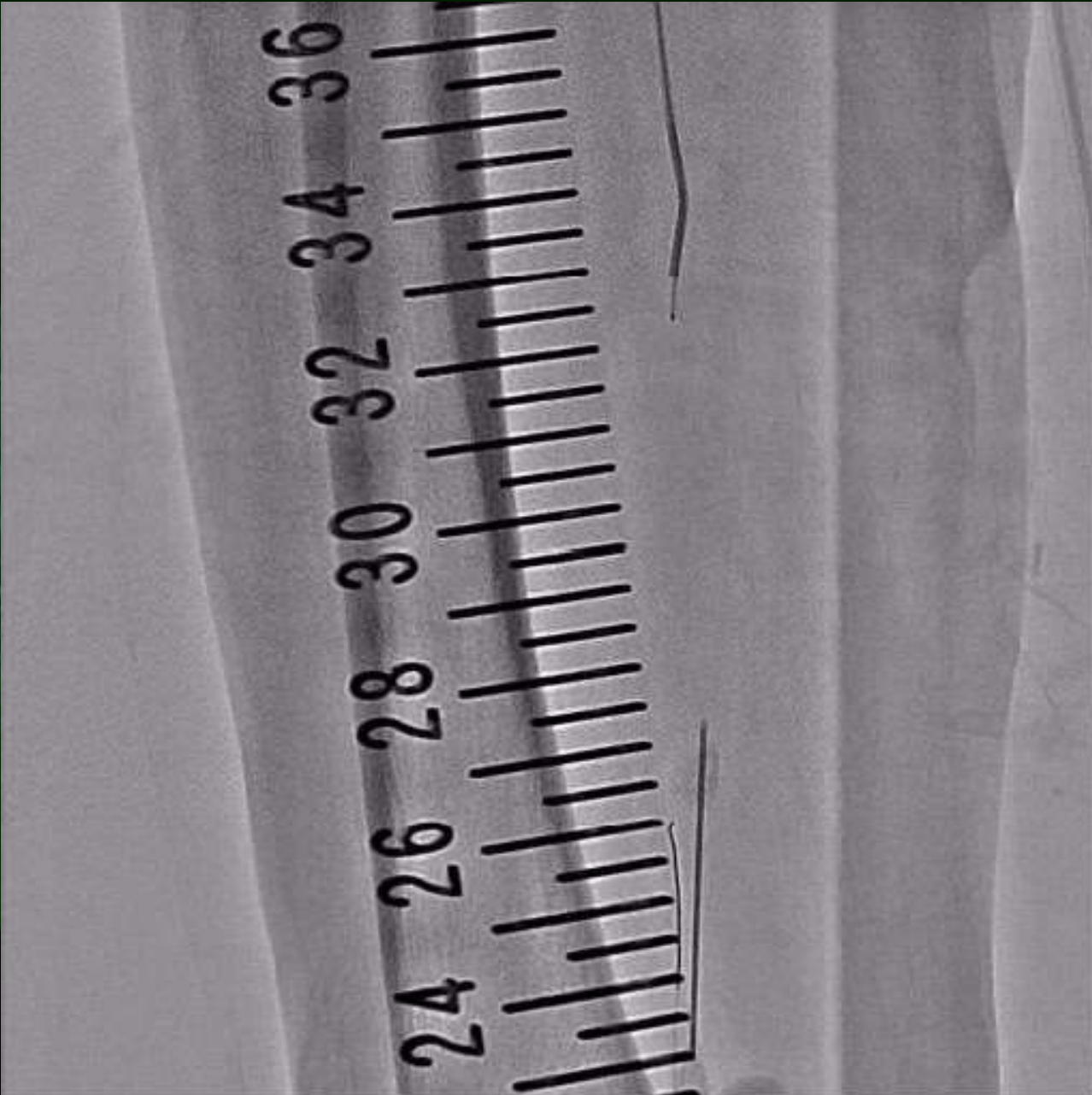


Angiogram of distal SFA



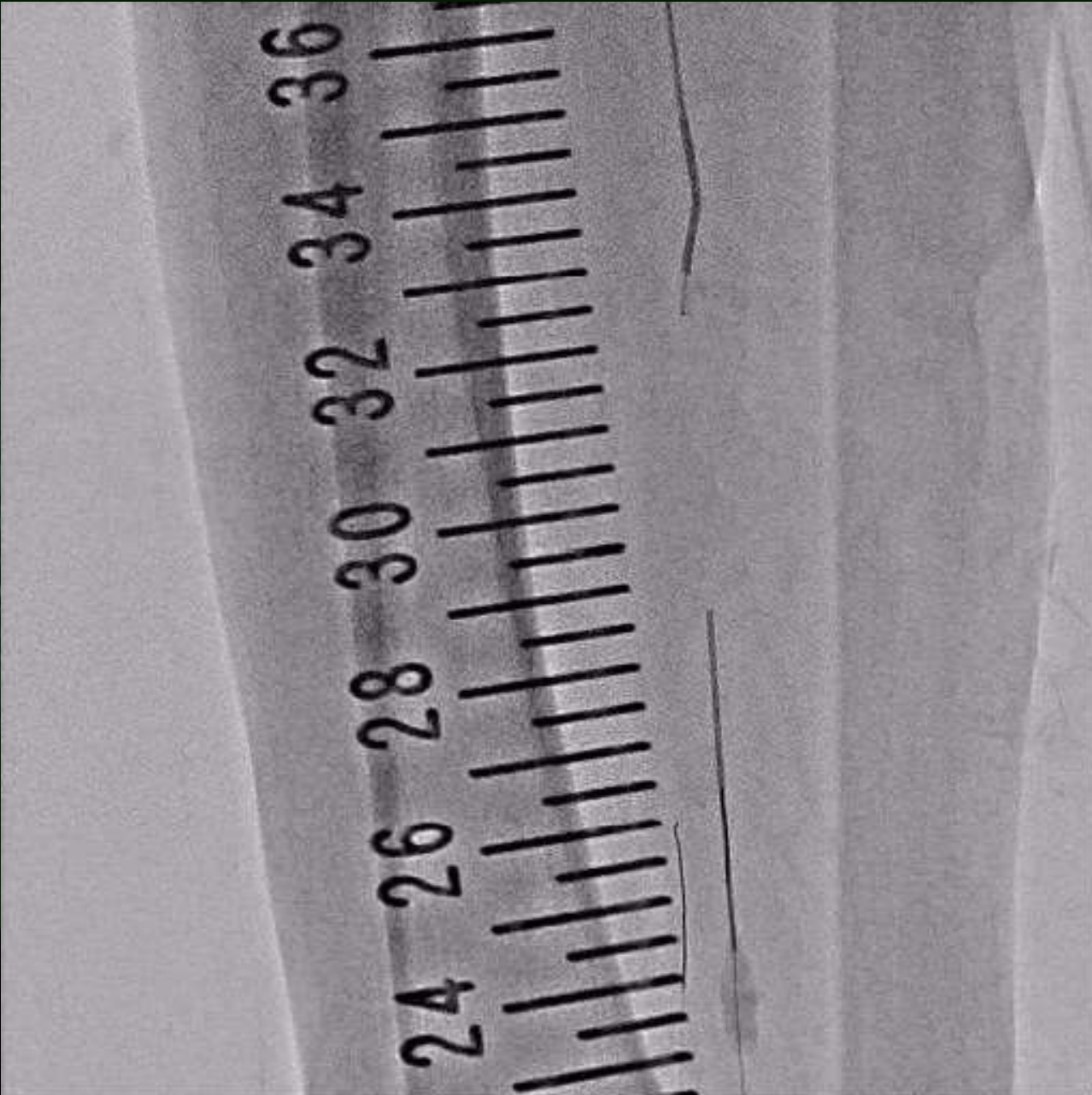
Frontal SFA Puncture: Puncture

Introducer Needle
20G 105mm needle
Medikit Japan



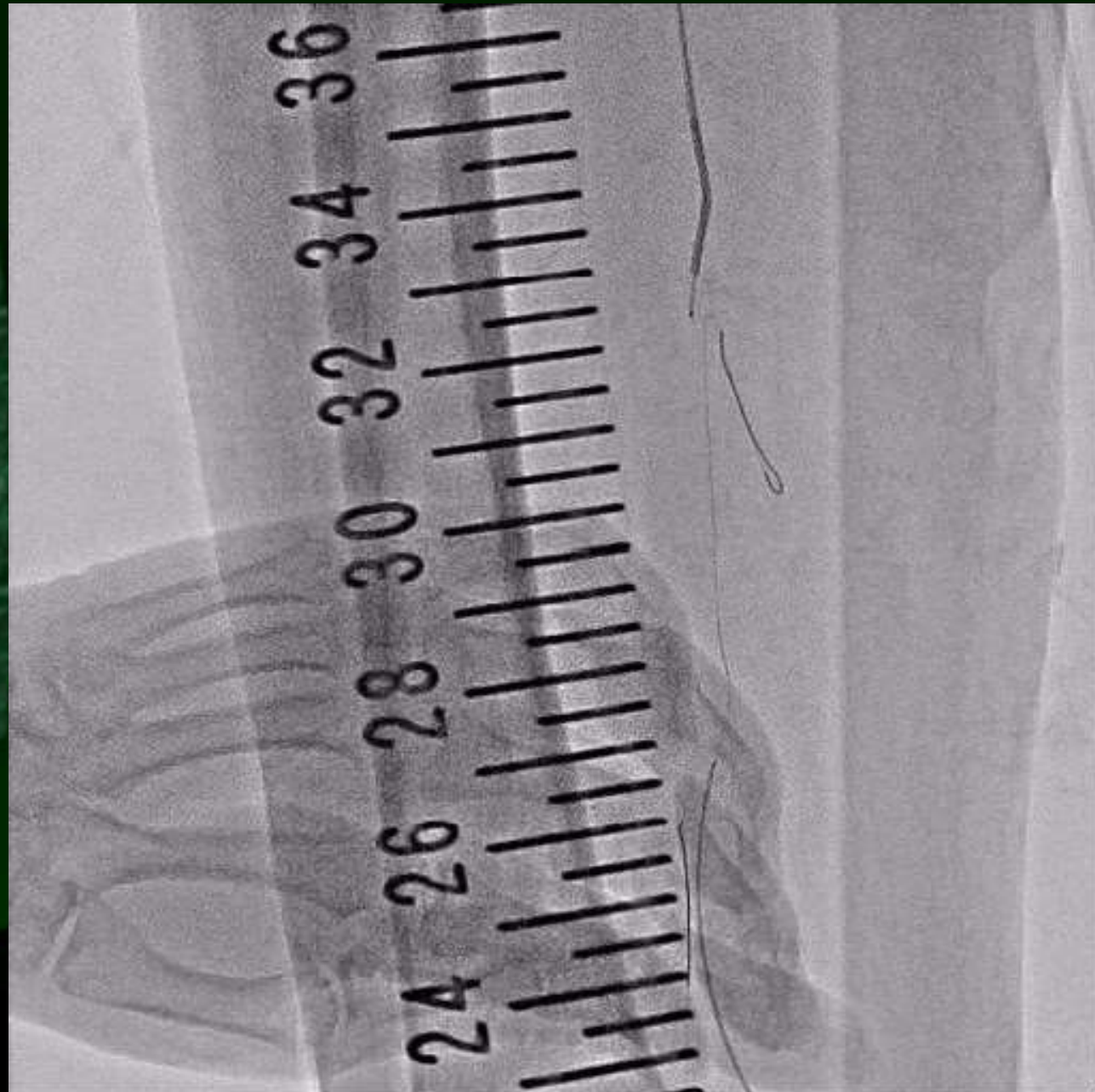
Frontal Popliteal Puncture: Advance guidewire

Cruise (Regalia)
0.014" Plastic jacket wire
Tip weight is 1g
Neos Japan



Frontal Popliteal Puncture: Advance micro-catheter

Prominent-NEO
0.014" compatible micro-
catheter, 60cm
Tokai Medical Products



Retrograde wiring to the SFA-CTO

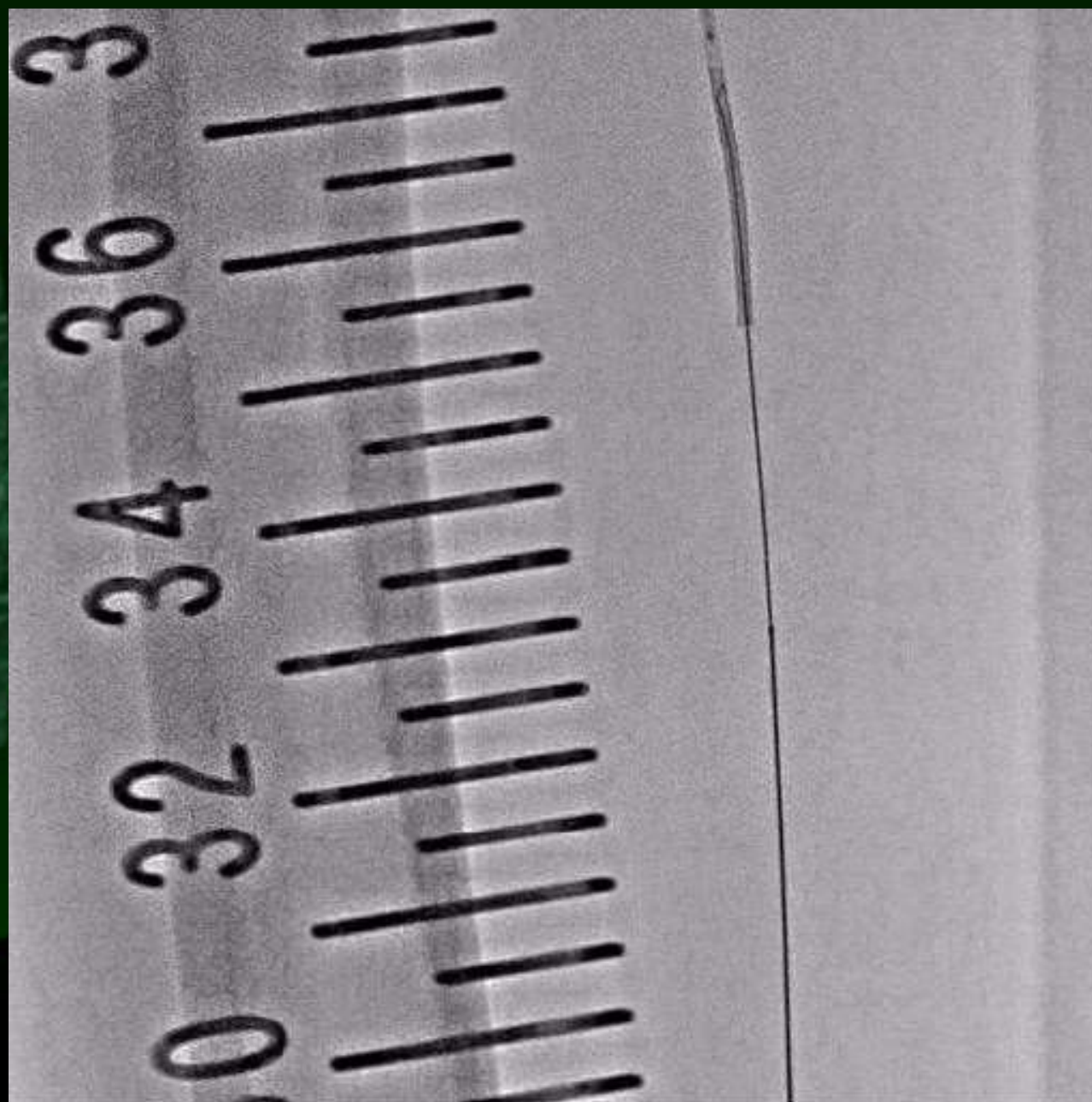
Astato XS9-12
Tapered 0.014" guidewire
Tip weight is 12g
Asahi Intecc

Snare the retrograde
wire into the antegrade
catheter

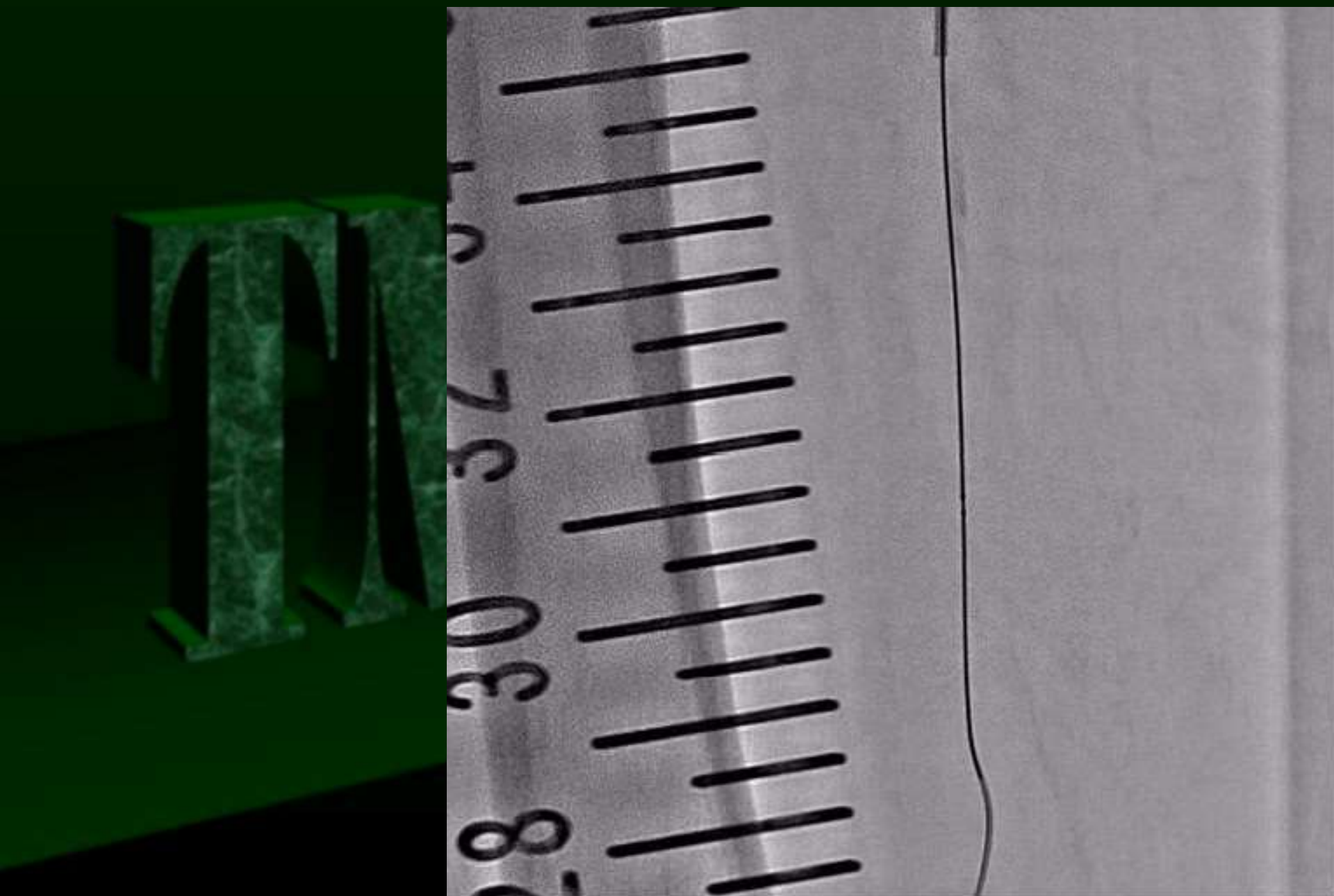


Guidewire Rendezvous Technique

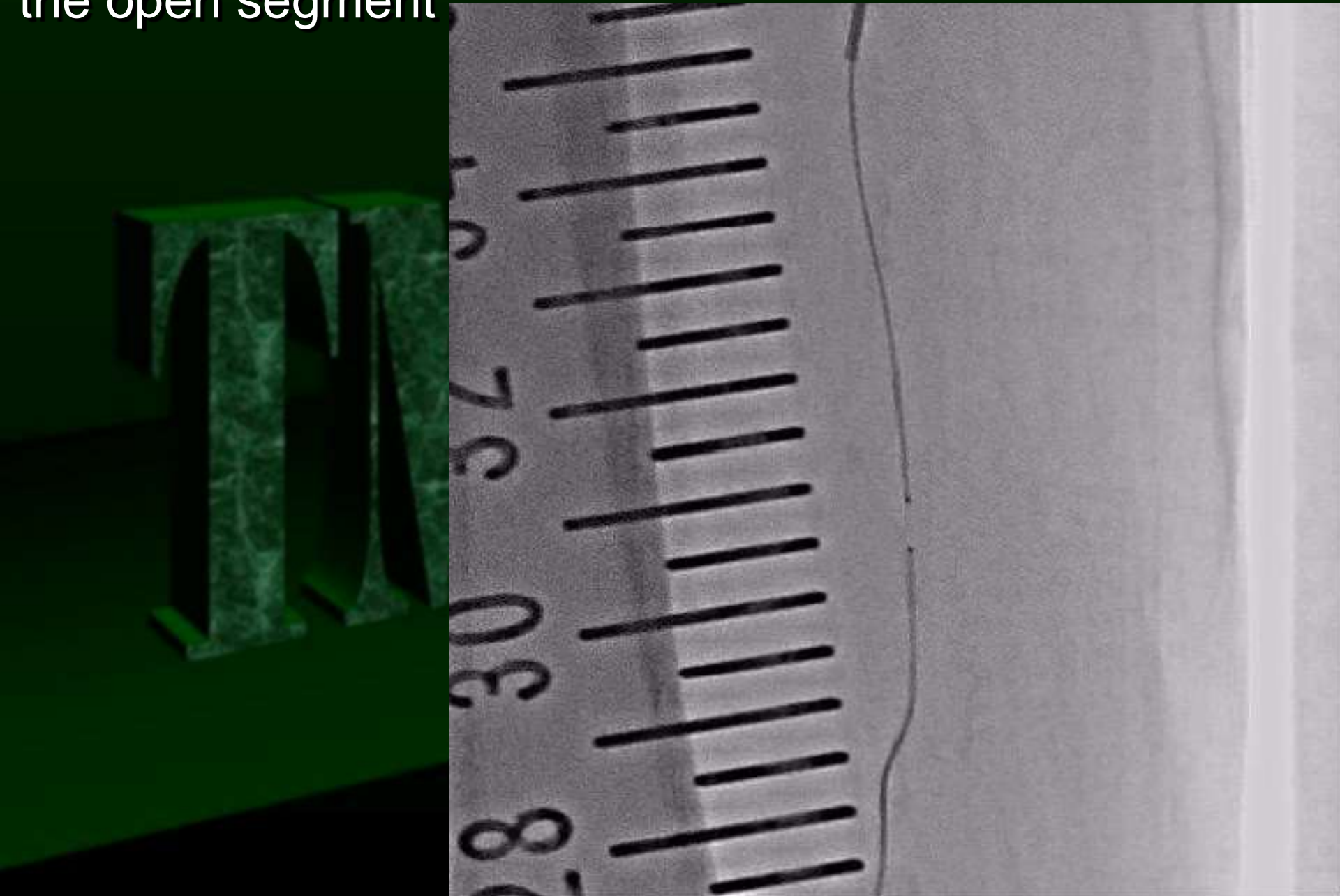
Advance the retrograde wire into the antegrade micro-catheter within an angiographic catheter



Advance antegrade micro-catheter into the open artery



Advance antegrade micro-catheter to the distal end of the open segment



Antegrade wiring

Astato XS9-12

Tapered 0.014" guidewire

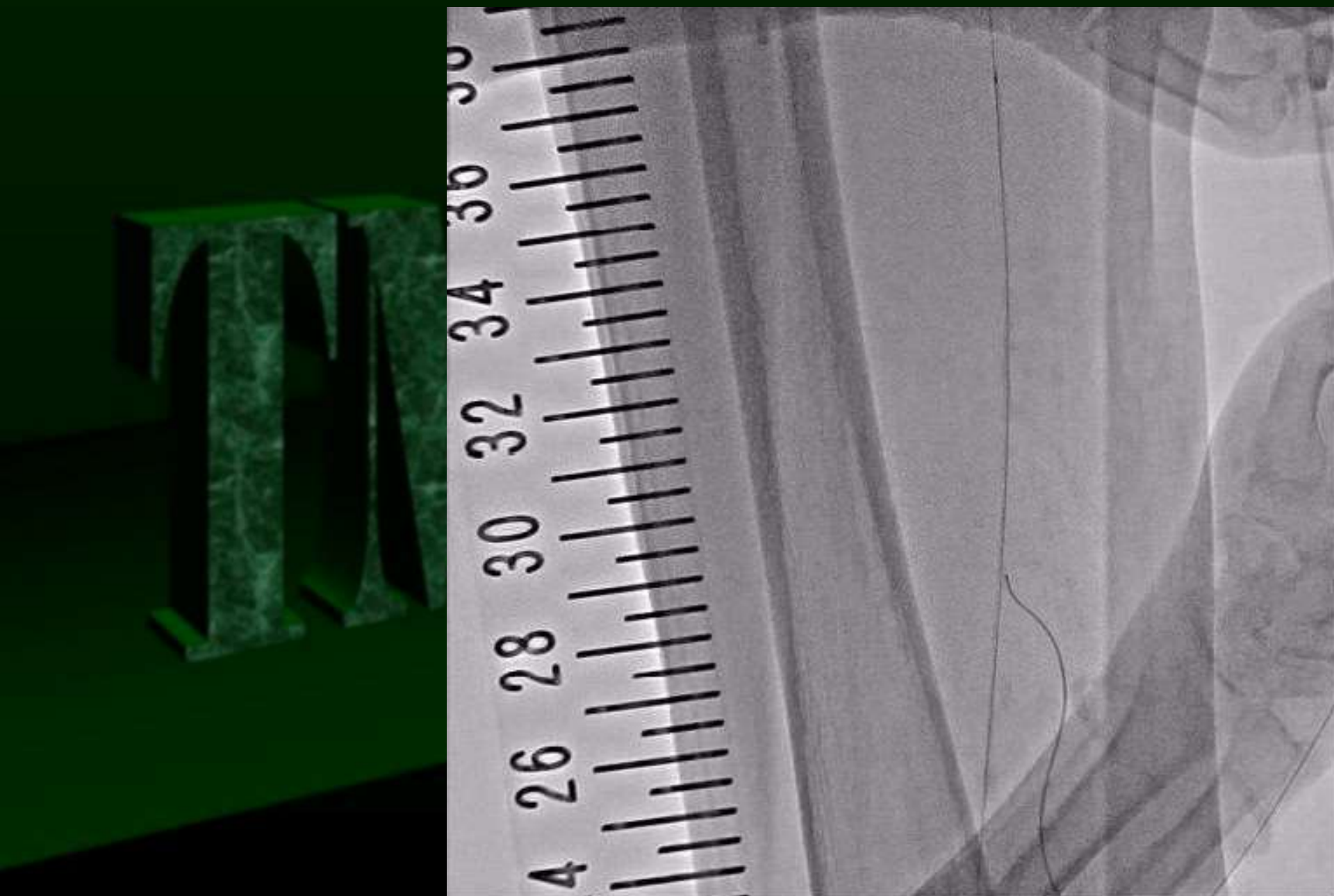
Tip weight is 12g

Asahi Intecc

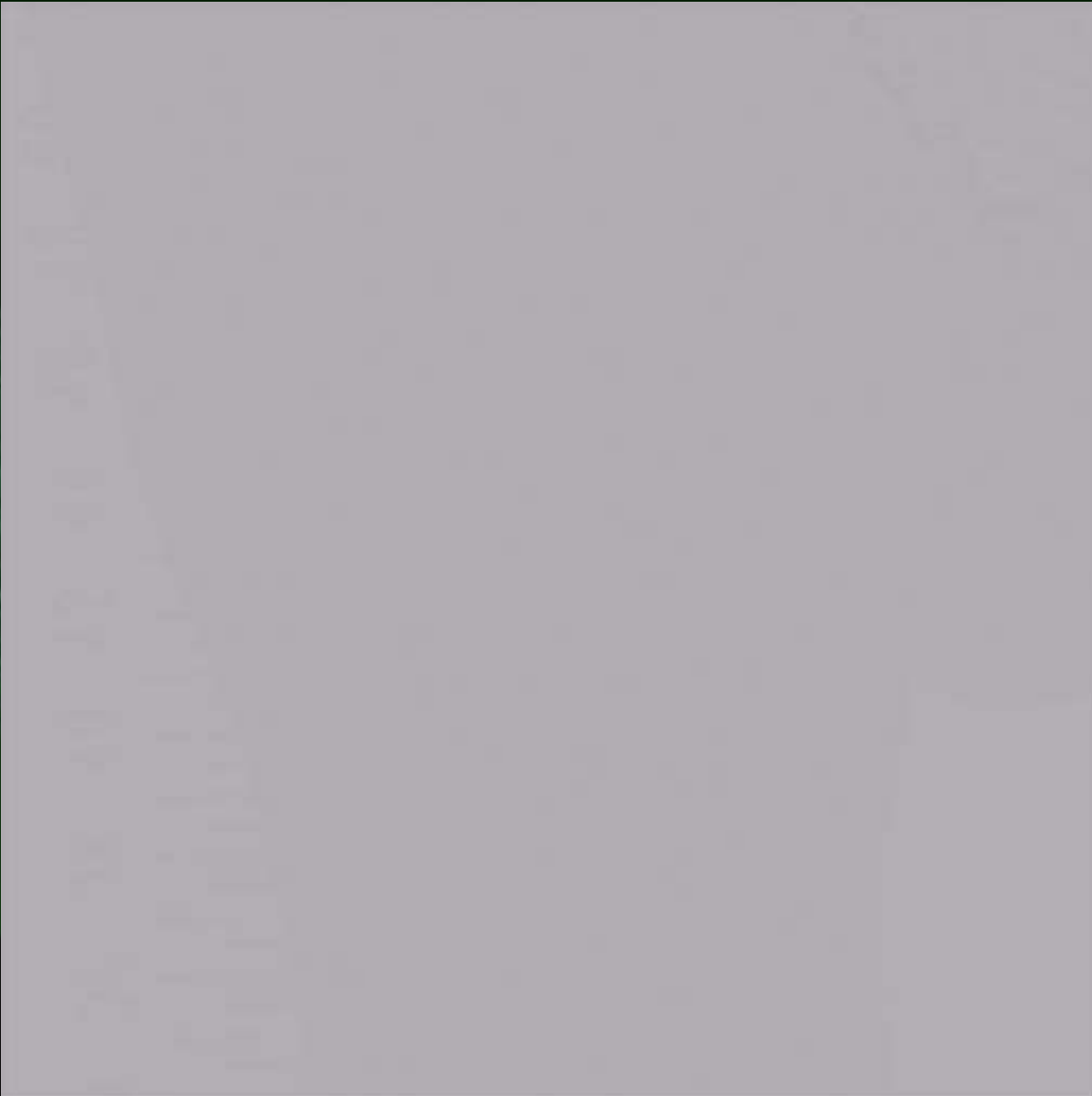
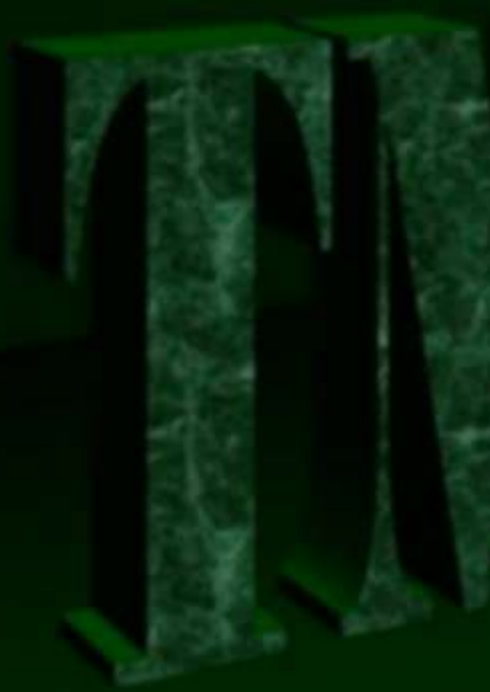
Kissing wire technique



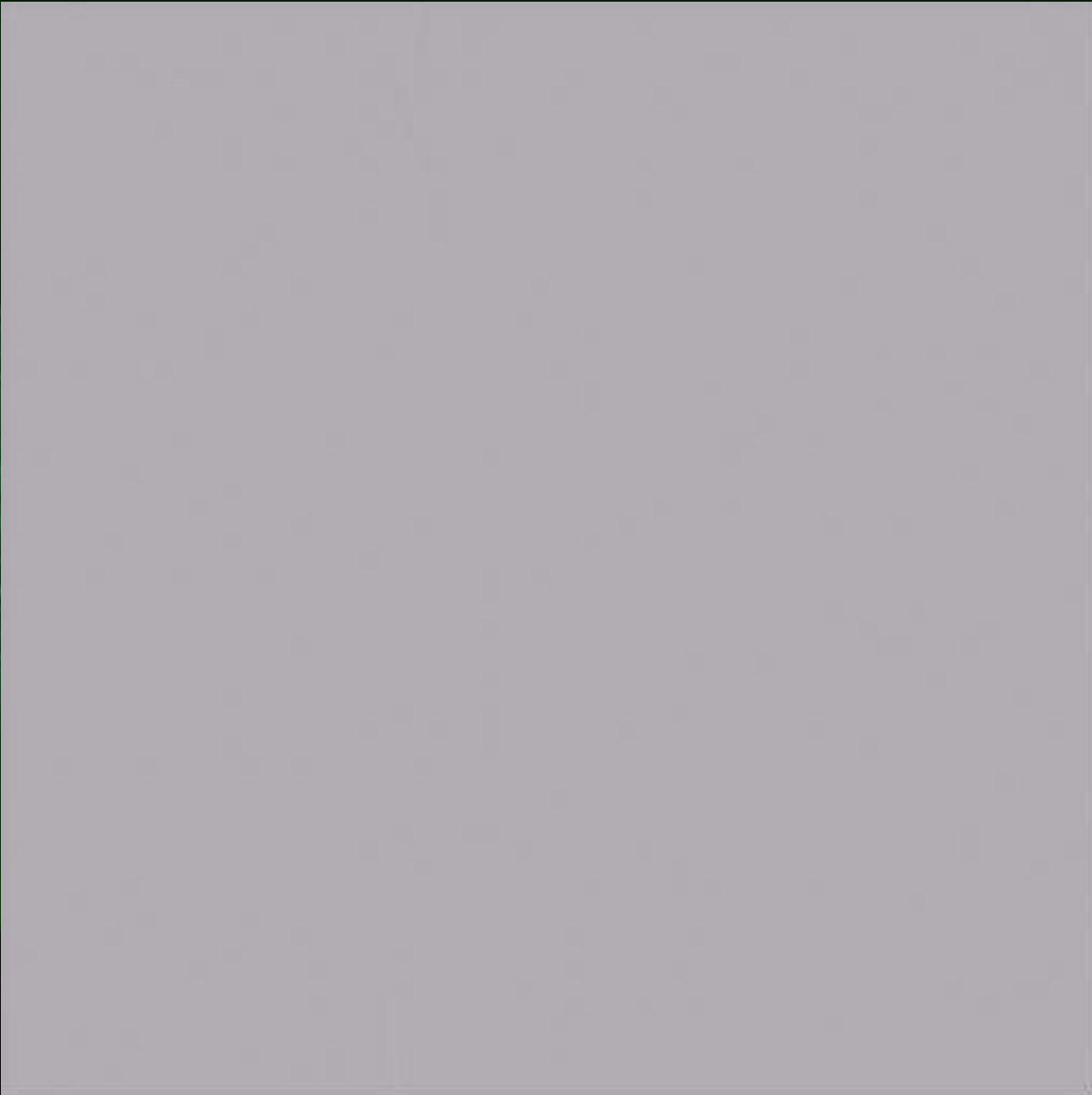
Hemostasis of two puncture point



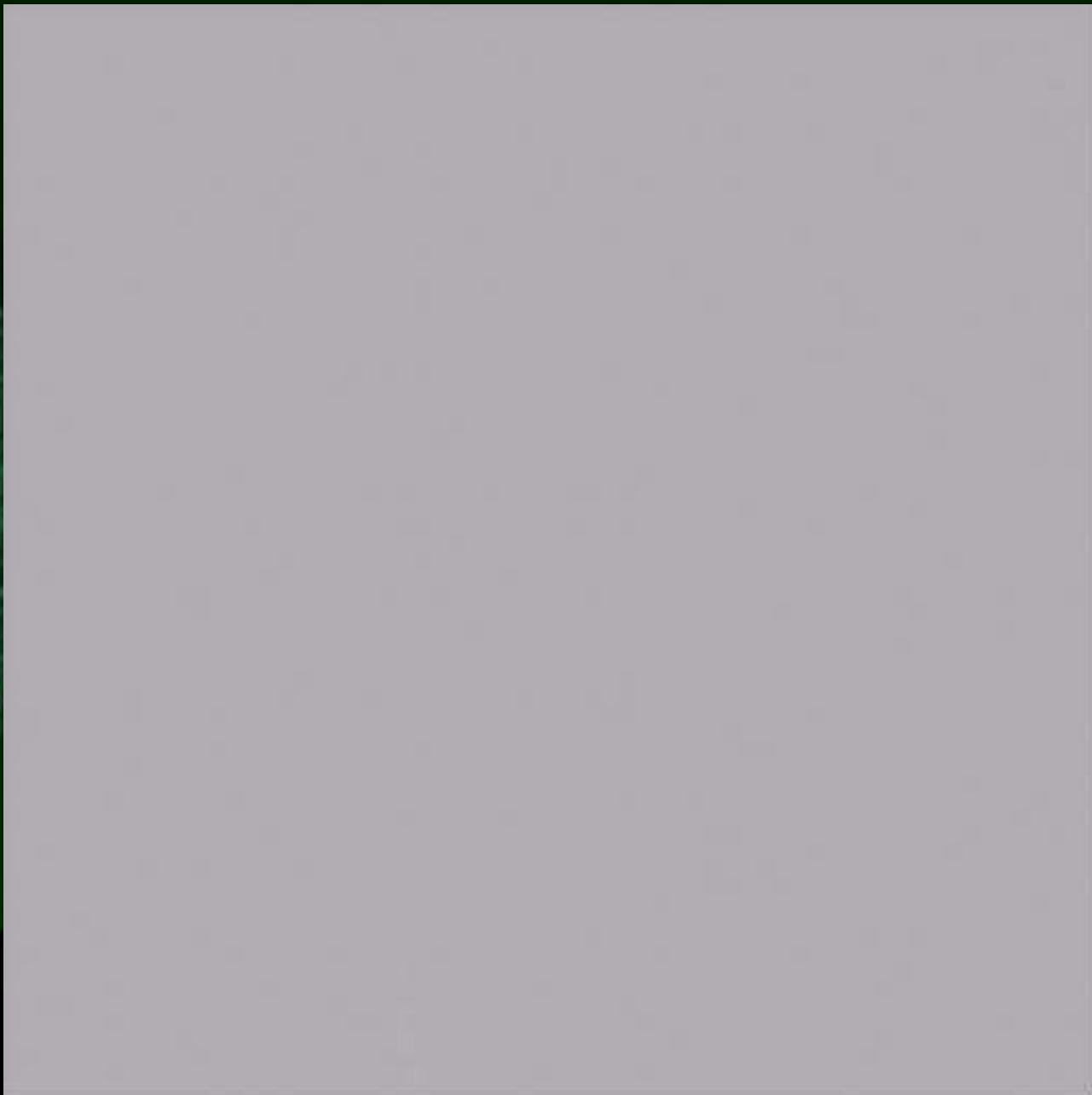
Final DSA: proximal SFA



Final DSA: mid SFA



Final DSA: distal SFA and popliteal artery



Take Home Message

By using the new puncture method, **Frontal Popliteal Puncture**, you can reach the popliteal artery (P2, P3 segment) without changing the patient's position whenever you need during the EVT procedure.

Frontal Popliteal Puncture is quite useful method to establish the setting of bi-directional wiring in the EVT for the femoro-popliteal occlusive diseases.