

**Challenging Case Competition with
Experts' Focus Review II-3
Endovascular Intervention**

**Hybrid Approach
for a Complex BTK Lesions
Retrograde Wiring via Exposed
Dorsalis Pedis Artery**

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Case : 80's female

Diagnosis: PAD (Rutherford 5)
DM, CHF, AS, CKD (HD dependent)

Intervention history: Left FP bypass (10 years ago)

SPP: Right dorsal 5mmHg, plantar 32mmHg
Left dorsal 11mmHg, plantar 35mmHg

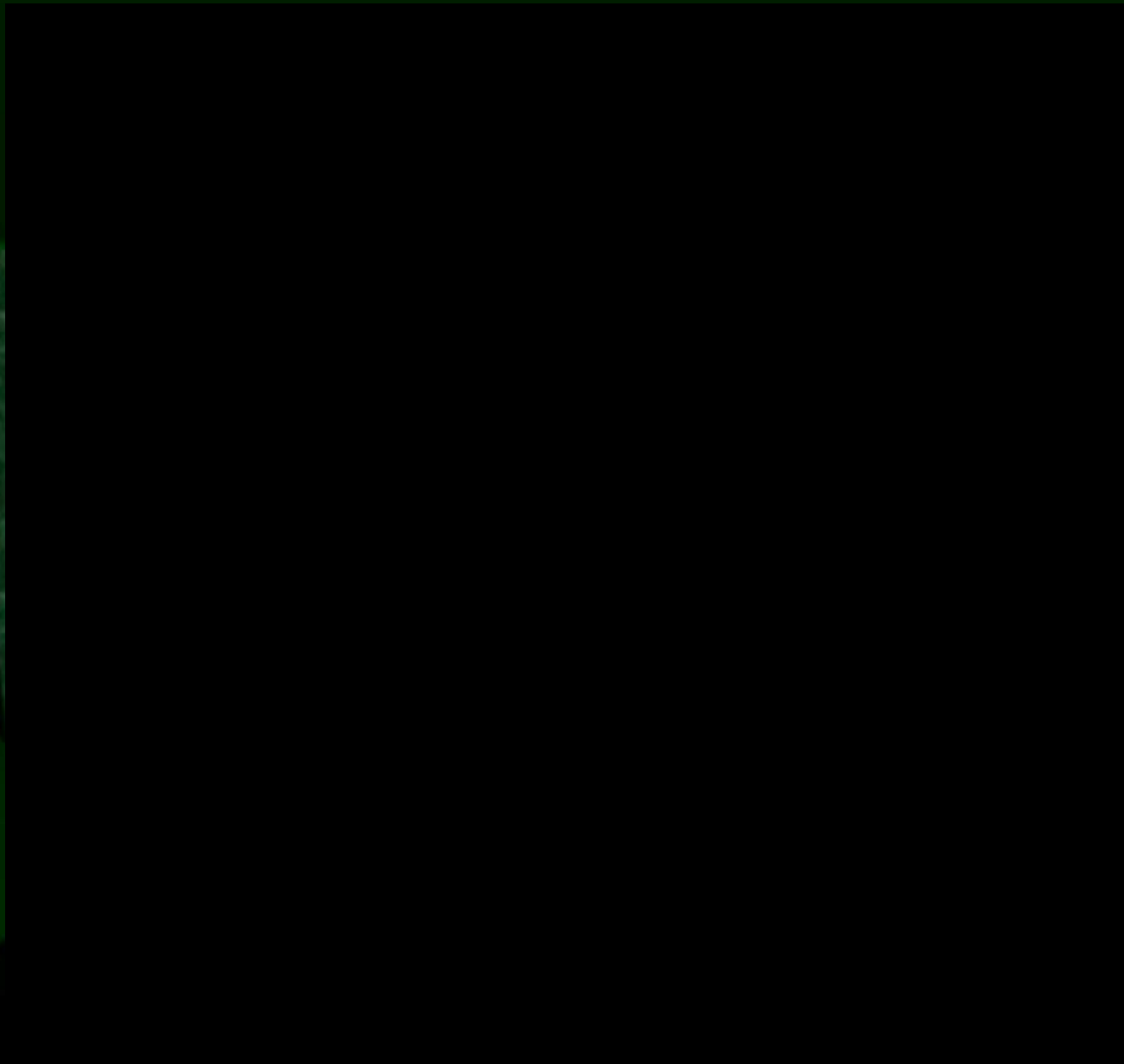
Target lesion: Left BTK lesions



Control angiography of left lower limb



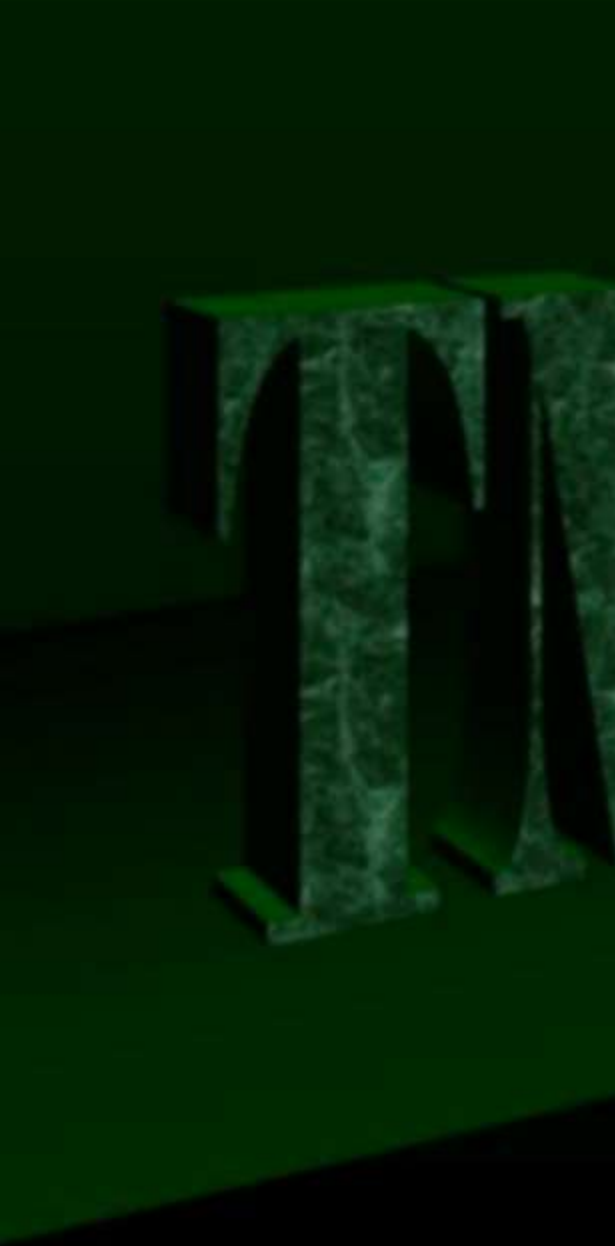
POBA for the stenosis at the proximal anastomosis



External compression at the non-dilated area



Angiography after POBA



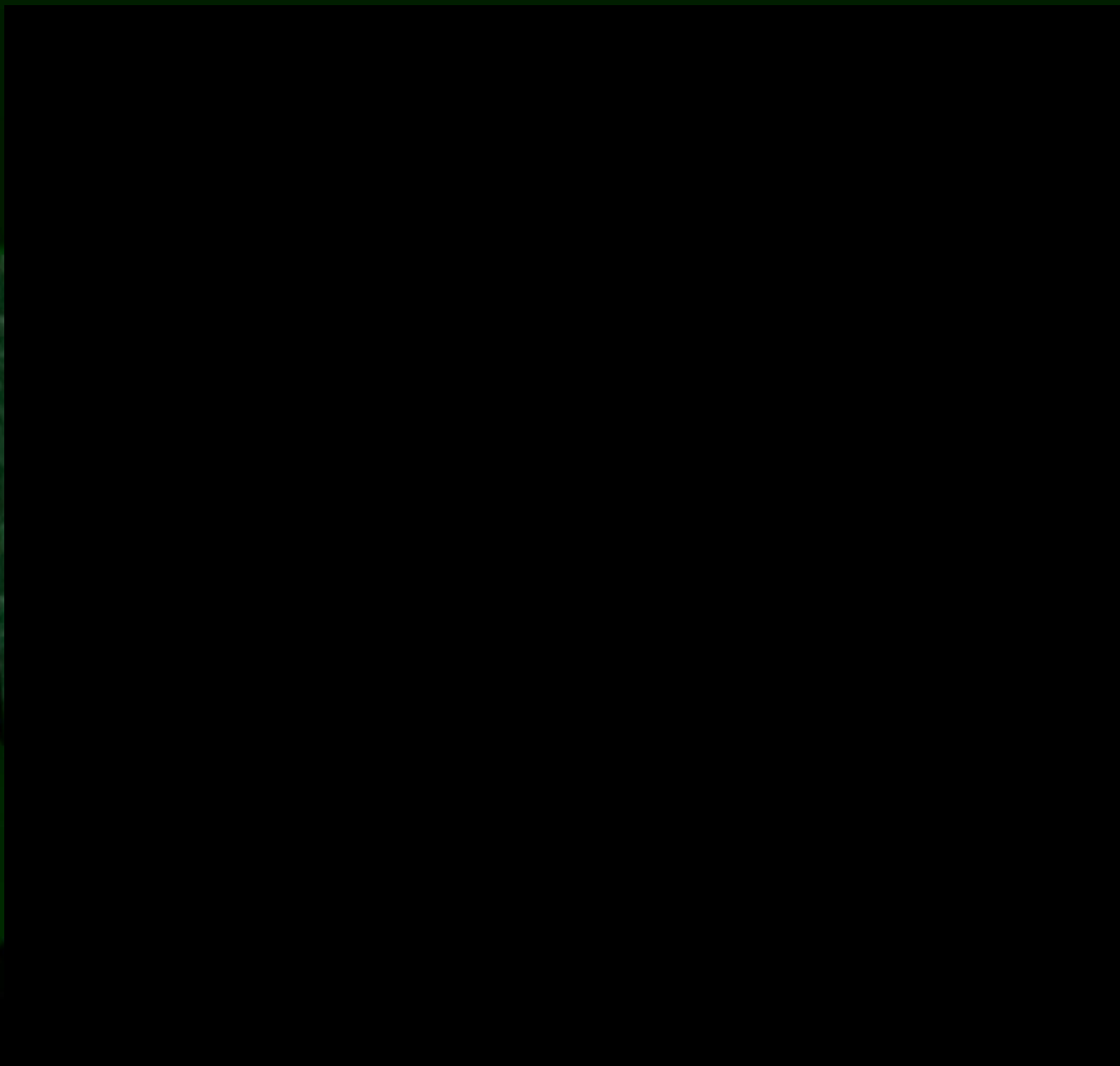
Angiography of distal SFA and POP



Angiography of BTK arteries



Angiography of distal BTK



Antegrade wiring for ATA-CTO



Antegrade wiring for ATA-CTO

Guidewire was stacked at the middle of ATA-CTO



Angiography of below-the-ankle area

A short segment of DP
was visible



Distal puncture at Dorsalis pedis artery

22G needle



A guidewire did not advance

Subintimal penetration or
arterial spasm

EVT was stopped at this
point



Control angiography (2nd session)

One week after the 1st
EVT

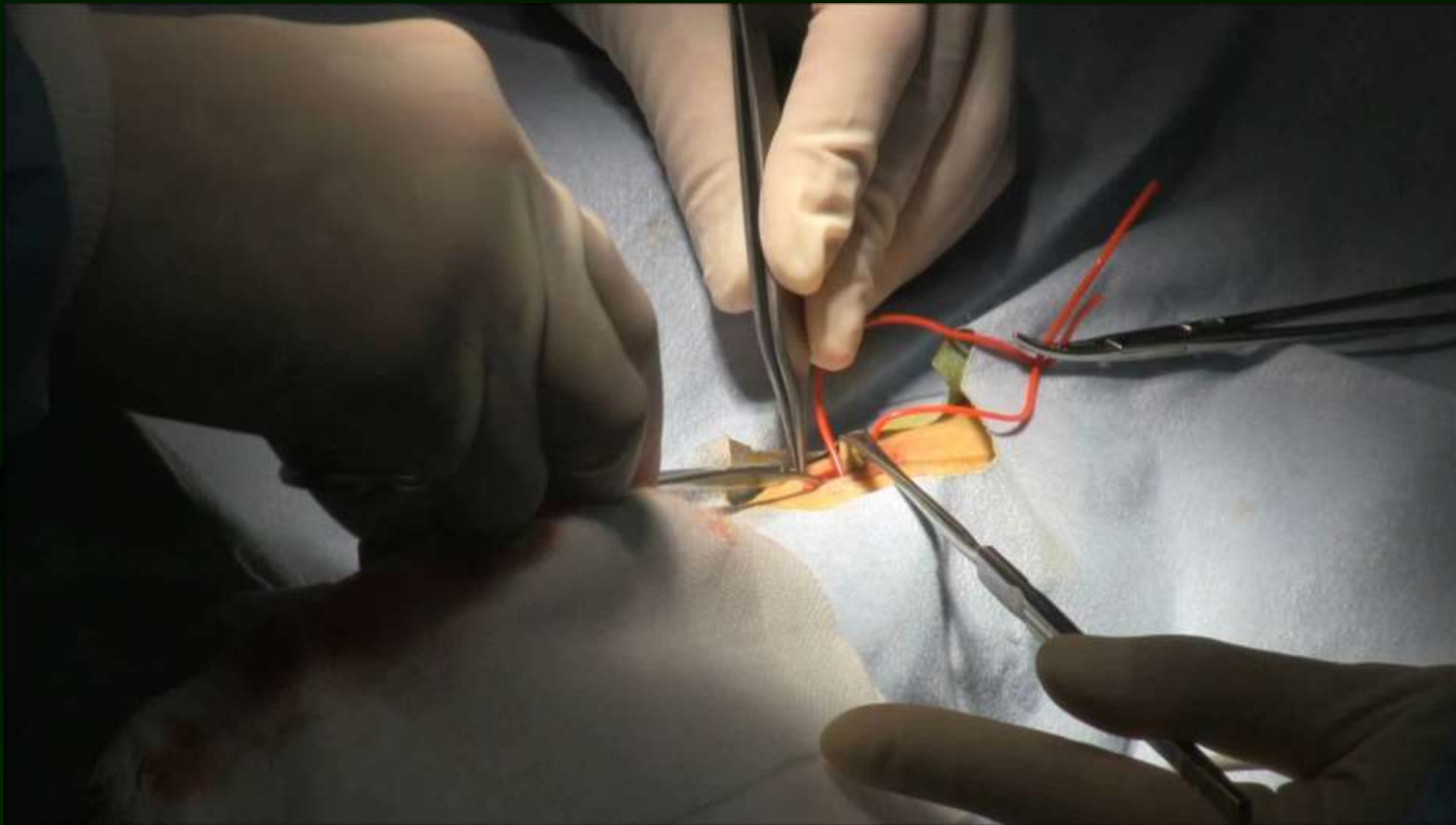


Marking for the position of DP open segment













Retrograde wiring from the exposed dorsalis pedis artery

Cruise (Regalia)



Advance an antegrade guidewire beyond the exposed area



POBA for ATA and dorsalis pedis artery



Final angiography (Proximal BTK)



Final angiography (Distal BTK)



Final angiography (Toe area)



Wound healing process



Admission



Just after 2nd EVT



10 days after 2nd EVT

Take Home Message

Surgical exposure of dorsalis pedis artery was necessary in order to advance a retrograde guidewire and to establish the bi-directional wiring setting.

When distal puncture technique failed due to poor distal run-off, surgical exposure of the distal segment might be the last option, and should be tried to obtain successful result.

Never give up!