Retrograde access for recanalization of complex femoro-popliteal occlusions: technical specifications and results in 100+ consecutive cases

Deep dive session:
lower limb interventions

Erwin Blessing, MD, FESC
SRH Klinikum Karlsbad-Langensteinbach, Germany
Disclosure

Speaker name:
Erwin Blessing

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)

X I do not have any potential conflict of interest
Technical specifications

**Sheath access:**
CFA: crossover, antegrade
Brachial artery: retrograde

**Retrograde access:**
Angiographic guidance
21 G needle (4, 7, 12 cm)
V 18 wire (Boston Scientific)
Cook CXI 0.018” support
4-6 F sheath (rarely)
CTO/Reentry Device: Outback, Wingman (rarely)
“snaring” technique, wire externalization
Haemostasis: blood pressure cuff or balloon dilatation
Patient population

January 1<sup>st</sup> 2015 – January 25<sup>th</sup> 2016
93 consecutive cases
Out of total 849 interventions: 11%
Average age: 73.6
Male/female: 61/32
Claudicants: 38 (40.9%)
CLI: 55 (59.1%)
Procedural specifications

**Primary access site:**
Brachial artery: 8
Common femoral artery: 85 (Crossover: 58  antegrade: 27)

**Puncture site:**
Distal SFA: 35  Direct stent puncture: 4
Peroneal artery: 25
Anterior tibial artery: 12  (1 antegrade)
Dorsal pedal artery: 9
Posterior tibial artery: 8
Bypass: 2
Deep femoral artery: 1
Popliteal artery: 1
Multiple access sites: 2
Sheath: 7  Sheathless: 86
Procedural specifications

Recanalized artery:
- Femoropopliteal only: 44
- BTK only: 14
- Multilevel: 22
- Bypass: 5
- Common femoral artery / Iliacs: 2

Adjunctive therapy:
- PTA only: 16
- DEB only: 14
- Stents: 56 (mainly Supera)
- Outback: 10 (direct balloon puncture: 2  retrograde: 2)
- Wingman: 1
Acute outcome, technical success

Successful retrograde access: 93/93 (100 %)
Successful wire passage: 86/93 (92 %)
Successful adjunctive therapy: 86/93 (92 %)
Complication rate: 1/93 (1.1 %): haematoma at retrograde access side (distal SFA) after accidental sheath luxation, prolonged hospital stay, fully resolved
Reasons for failure

Trying to be too smart;

Occlusion of anterior tibial artery with good collateralization

Punktion der A. tib. anterior
Conclusions

Retrograde access for complex femoropopliteal and below the knee occlusions:

high technical success rate
low complication rate
might help to reduce procedure time
might help to reduce cost (less need for reentry devices)
Retrograde access for recanalization of complex femoro-popliteal occlusions: technical specifications and results in 100+ consecutive cases

Deep dive session: lower limb interventions

Erwin Blessing, MD, FESC
SRH Klinikum Karlsbad-Langensteinbach, Germany