



Femoropopliteal and posterior tibial artery occlusion in CLTI



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Patient Background

A 65-year old male with a history of severe PAD developed rest pain involving the right lower extremity. Non-invasive testing demonstrated an ABI of .54 on the right limb. Duplex ultrasound confirmed severe occlusive disease of the superficial femoral and popliteal arteries. The anterior tibial and posterior tibial arteries were also occluded. His symptoms were consistent with critical limb threatening ischemia; therefore, he was scheduled for peripheral intervention.

Procedure

Left common femoral artery access was obtained, and the up and over technique was used to engage the right external iliac artery. The right lower extremity angiogram showed mild common femoral artery plaque and 100% ostial occlusion of the SFA with reconstitution at the distal posterior tibial artery.

A (6x45cm) *Destination* sheath was advanced over a *Magictorque* wire to selectively engage the right common femoral artery. Wire and catheter-based crossing strategies were used to successfully cross the occluded vessels into the distal posterior tibial artery. Laser atherectomy was then performed for plaque modification in the SFA and popliteal arteries using a 2mm *Turbopower* catheter. Drug coated balloon angioplasty was then used in the femoropopliteal segment using *IN.PACT* balloons with less than 20% residual stenoses.

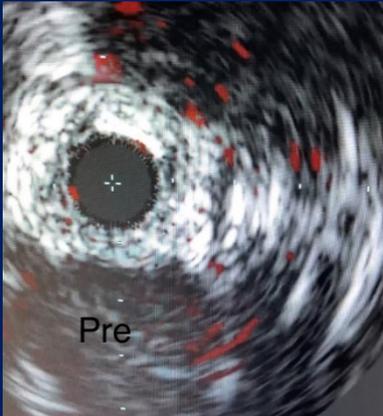


Posterior Tibial Treatment Details:

- **Pre-Treatment Stenosis:** 100%
- **Predilatation:** 2.0 x 100mm balloon
- **Serranator Treatment:** 3.0 x 120mm inflated to 6ATM for 120 seconds
- **Post-Treatment Stenosis:** 0%

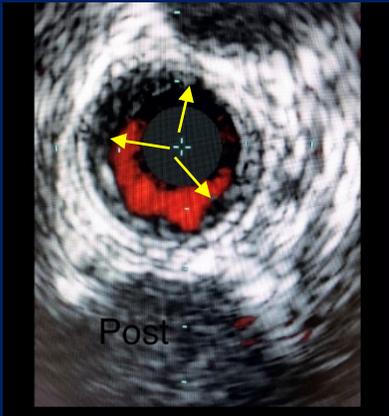
The tibioperoneal trunk and posterior tibial artery disease ranged 80mm in length and was pre-dilated with a (2.0x100mm) plain balloon with good expansion. Intravascular ultrasound (IVUS) demonstrated mildly calcified, severe stenoses in the TPT/PT with a reference vessel diameter of 3mm. A *Serranator* (3.0x120mm) serration balloon was then inflated to 6 atmospheres for 120 seconds in the affected vessels. Post-angioplasty IVUS showed minimal residual disease with visible trenches within the plaque originating from the serrated metal strips on the balloon. Subsequent angiogram showed 0% residual stenosis in the tibioperoneal trunk and posterior tibial arteries with brisk flow to the foot.

Pre-Angioplasty IVUS



The pre-treatment IVUS showed mildly calcified, occlusive stenoses in the tibioperoneal trunk and posterior tibial arteries.

Post-Angioplasty IVUS



The post-treatment IVUS showed minimal residual disease with visible trenches within the plaque originating from the serrated metal strips on the *Serranator* balloon.

Conclusion

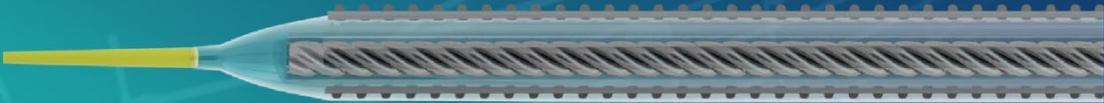
Final angiogram showed minimal residual disease in the SFA/popliteal and posterior tibial arteries. Serration angioplasty with the *Serranator* balloon in the TPT/PT vessels yielded substantial luminal gain with good blood flow and without dissection or the need for bailout stenting.

Available Sizes

2.5, 3.0, 3.5mm X 40, 80, 120mm
OTW / 0.014" Guidewire Compatible / 6F Sheath

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