

Spex® and Wingman™ a Winning Combo to Cross a Long Peripheral CTO

CASE HISTORY

An 83-year-old male with past medical history of diabetes, hypertension, coronary artery disease, a prior bypass, and peripheral artery disease, including right lower extremity chronic limb threatening ischemia (CLTI) with a non-healing right foot ulcer with osteomyelitis lasting greater than 12 months (Figure 1), and a previously treated common femoral artery (CFA) with endarterectomy, returned for right superficial femoral artery (SFA) and tibial chronic total occlusion (CTO) intervention.

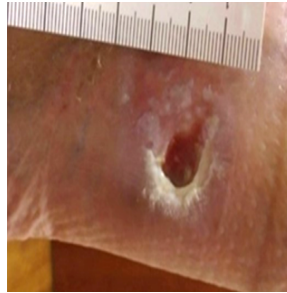


Figure 1

PROCEDURE

Primary pedal approach was chosen due to anatomy and patient's frailty. Ultrasound-guided access was obtained to the right anterior tibial (AT) artery. A 5F Prelude® sheath was placed into the right distal AT. Prior ultrasound and baseline angiogram showed tandem occlusions of the right SFA and right popliteal arteries all way to the P3 segment with very heavy calcification, and occlusion of the proximal portion of the AT and posterior tibial (PT) arteries (Figure 2). The occlusion in the proximal right AT was traversed with a Command™ 0.014" wire and a Spex® LP 14 support catheter. The popliteal occlusion however could not be traversed due to heavy calcification, despite wire escalation. Balloon angioplasty of the proximal AT was used in an attempt to modify the plaque and facilitate crossing, which was also unsuccessful.

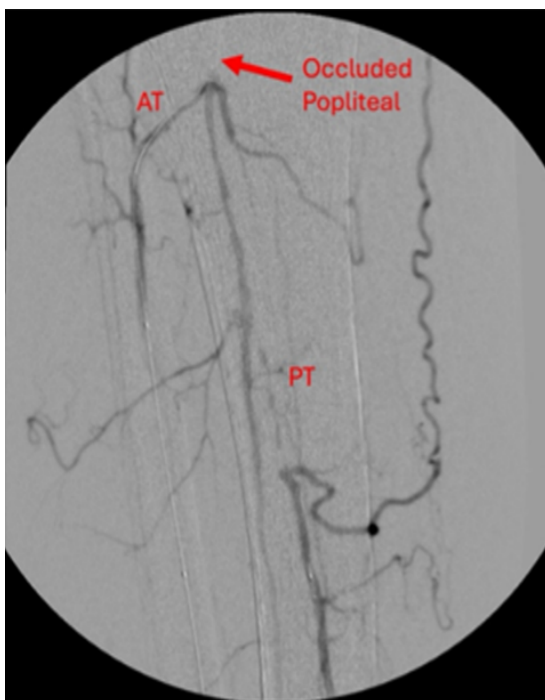


Figure 2

PHYSICIAN



Ashkan Karimi, MD, FACC, RPVI

Interventional Cardiologist, Peripheral Endovascular Interventionalist at Carient Heart & Vascular

Dr. Karimi is an Interventional Cardiologist and Vascular Interventionalist who applies advanced endovascular techniques for limb salvage. He completed an Internal Medicine residency, followed by Cardiology, and Interventional Cardiology fellowships at the University of Florida. Dr. Karimi is also the Director of the Healogics UVA Prince William Hospital Wound Care Center.

"Good tools to have in the CLTI toolbox for tough cases like this."

PRODUCTS USED



Spex® Provides Support for Wingman™ to Cross

A second pedal access was obtained in the right distal PT artery and another 5F Prelude sheath was placed in the right PT. The occlusion in the right proximal PT was traversed with a Command 0.014" wire and Spex LP 14 support catheter; however, was still unable to penetrate the heavily calcified popliteal occlusion. Balloon angioplasty of the right PT was performed to facilitate the passage of a Spex 35 Shapeable Support Catheter with a Wingman™ 14C Crossing Catheter telescoped through. This combination allowed for enough support and penetration power to cross the popliteal occlusion (Figure 3). Using a Command 0.018" wire and Spex LP 18 support catheter, the remainder of the popliteal and SFA occlusions were traversed.



Figure 3

CASE CONCLUSION

After successful crossing, balloon angioplasty of the right SFA, popliteal, tibioperoneal trunk, AT, and PT were performed with appropriately sized balloons, based on intravascular ultrasound measurements. Due to dissection at the ostium of the right SFA, a 7mm x 100mm Absolute Pro™ stent was placed (Figure 4). There was an area of dissection in the P3 segment of the popliteal artery which was treated with balloon angioplasty alone due to location (Figure 4 blue arrow). At the conclusion of the case there was robust pulsatile flow through the right PT retrograde sheath. Both pedal access sites were closed. Follow up right lower leg ABIs improved to 0.78 from 0.31 and TBI improved to 0.37 from 0.12 prior to intervention. The wound was completely healed in two months (Figure 5).

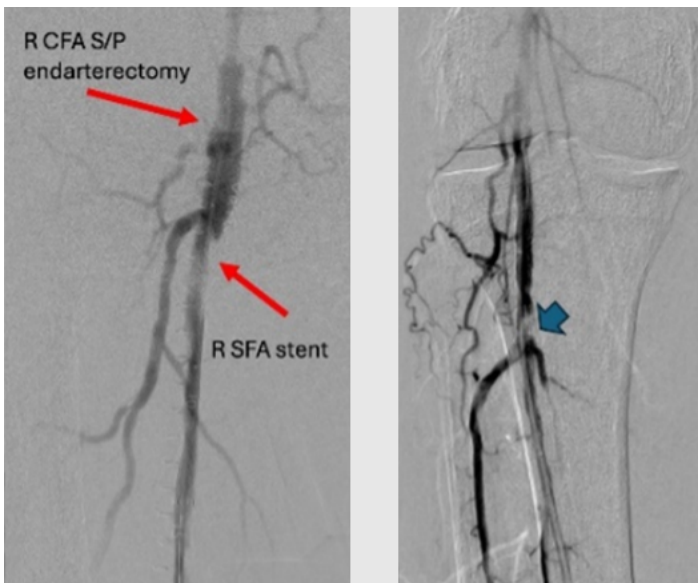


Figure 4



Figure 5