Innovative Approaches in Treating BTK CLTI: How to Cross, Access and Treat.

Session Moderator: Dr. Michael Lichtenberg

12:30 – 12.43 Next Generation Occluded Vessel Access with Innovative Tools
Speaker: Dr. Ash Sastry

12.43 – 12.56 When Conventional Infrapopliteal CLTI Treatment Options are Not an Option: Exploring the Safety and Efficacy with Spur RST
Speaker: Dr. Michael Siah

12.56 – 13.09 How to Improve DCB Performance in BTK CLTI patients: Clinical Benefits of Using the Spur System
Speaker: Dr. Daniel van den Heuvel

13.09 – 13.15 Discussion & Close
All

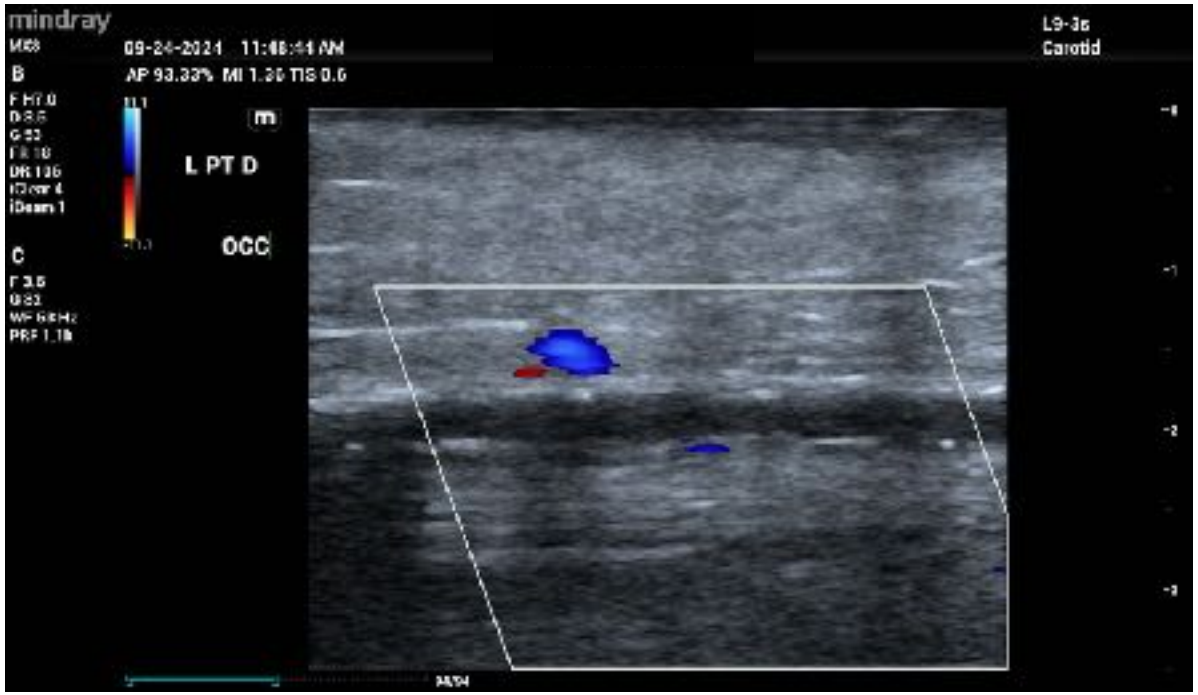
Next Generation Occluded Vessel Access with Innovative Tools

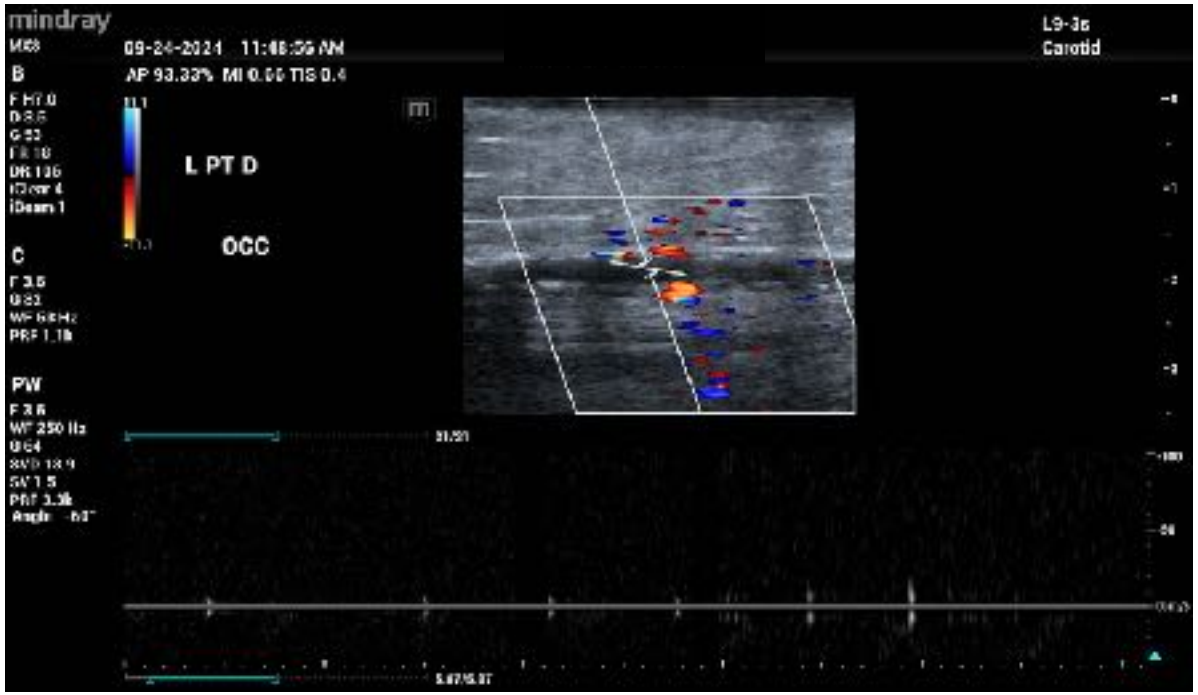
Dr. Ashwani Sastry

Disclosures

Reflow Medical, Aveera Medical

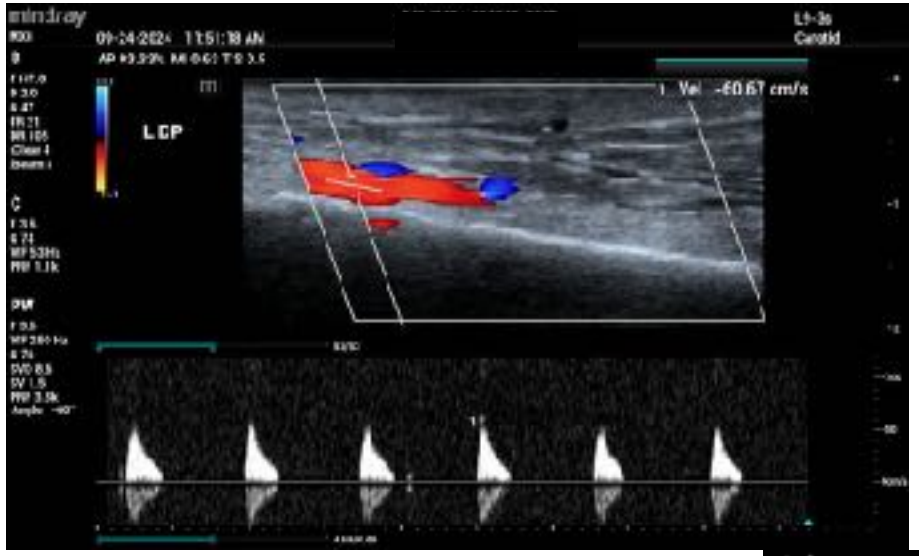
Case 1 – 85 y/o w/ plantar foot ulceration – posterior circulation



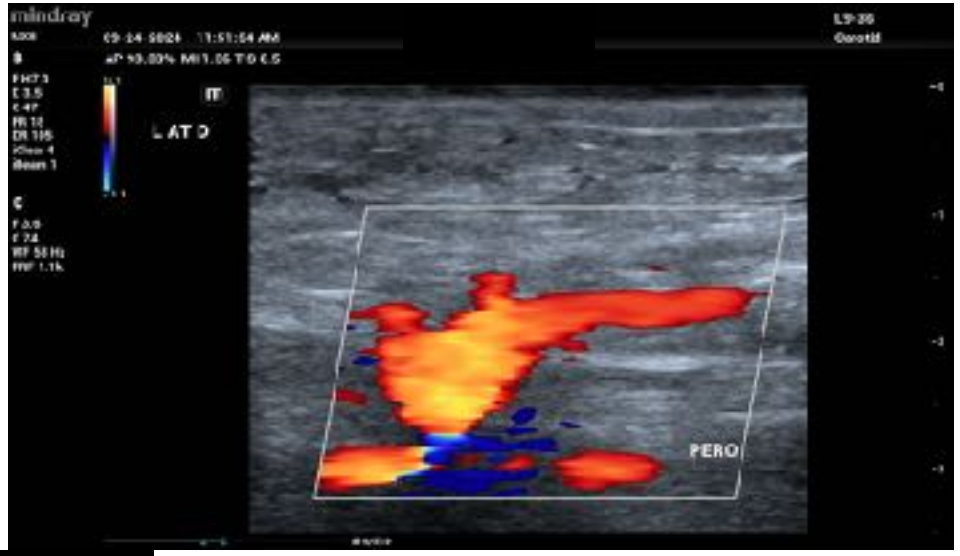


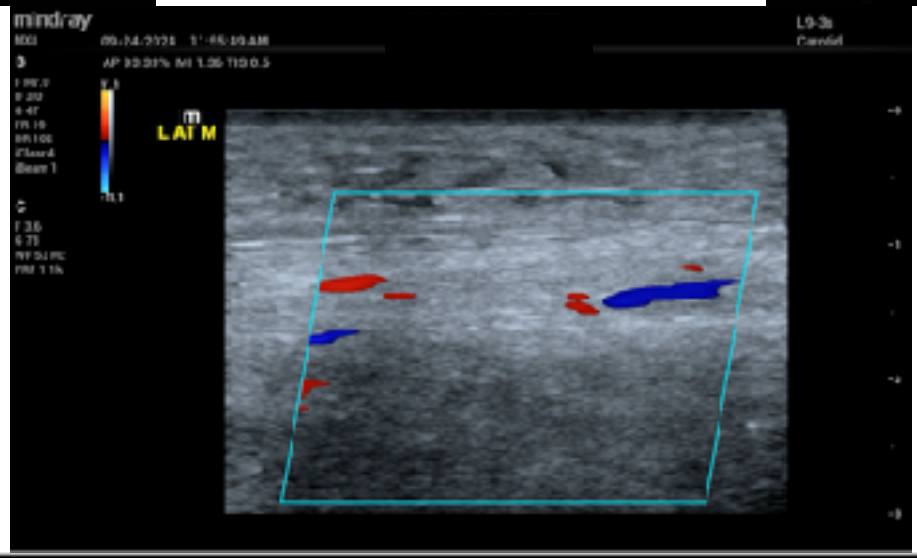
Calcific occlusion of posterior tibial artery

Case 1 – 85 y/o w/ plantar foot ulceration – anterior circulation

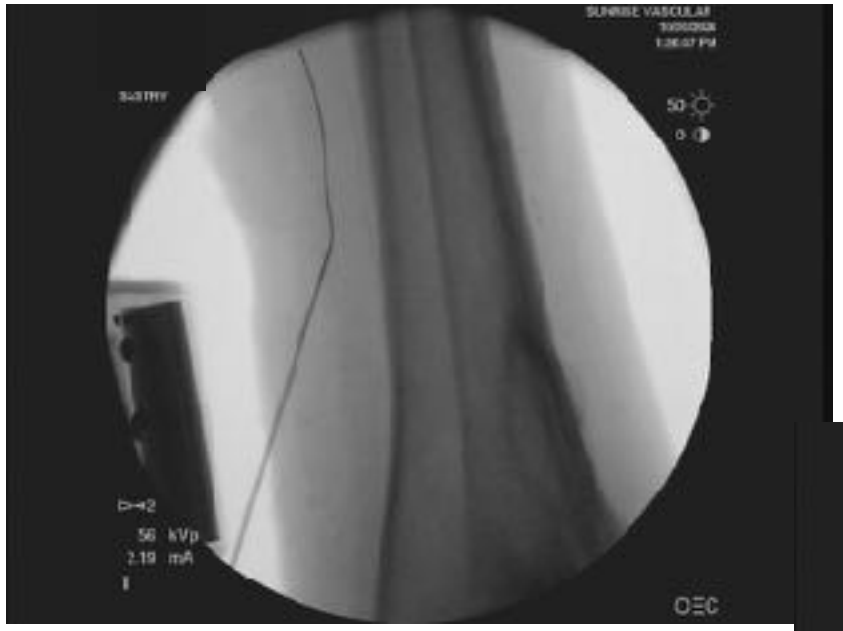


Suspected occlusion of ATA with peroneal reconstitution



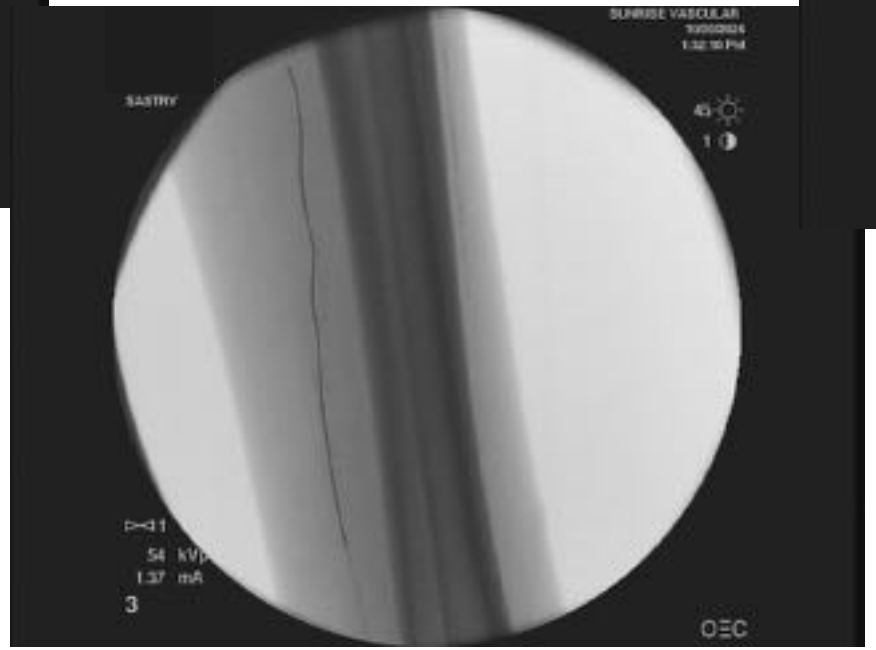


No prior angio – Occluded Vessel Access is Completely Safe



EVUS + Fluoro guidance, 018 wire

Easy crossing of long segment calcific occlusion



Crossing Devices for Complex Tibial Anatomy

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CROSSING CATHETER

REFLOW spex® LP

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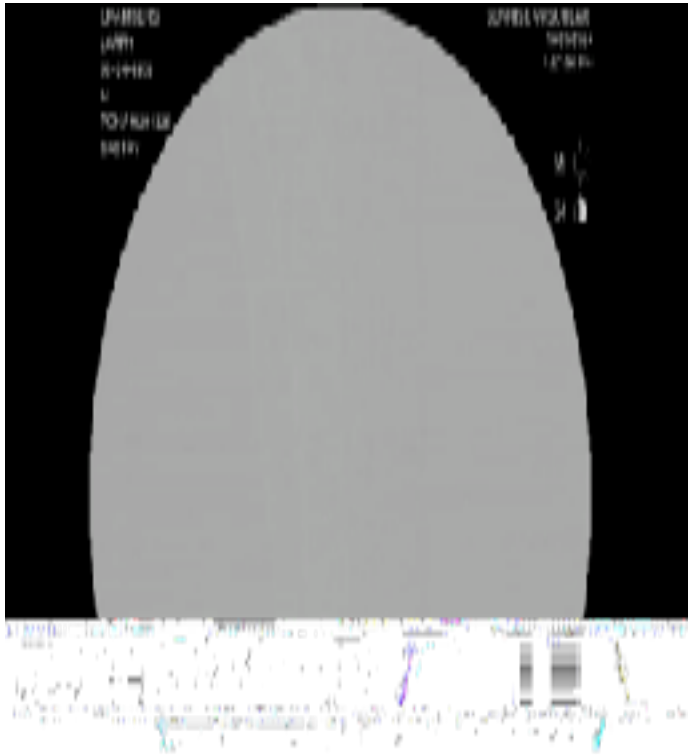
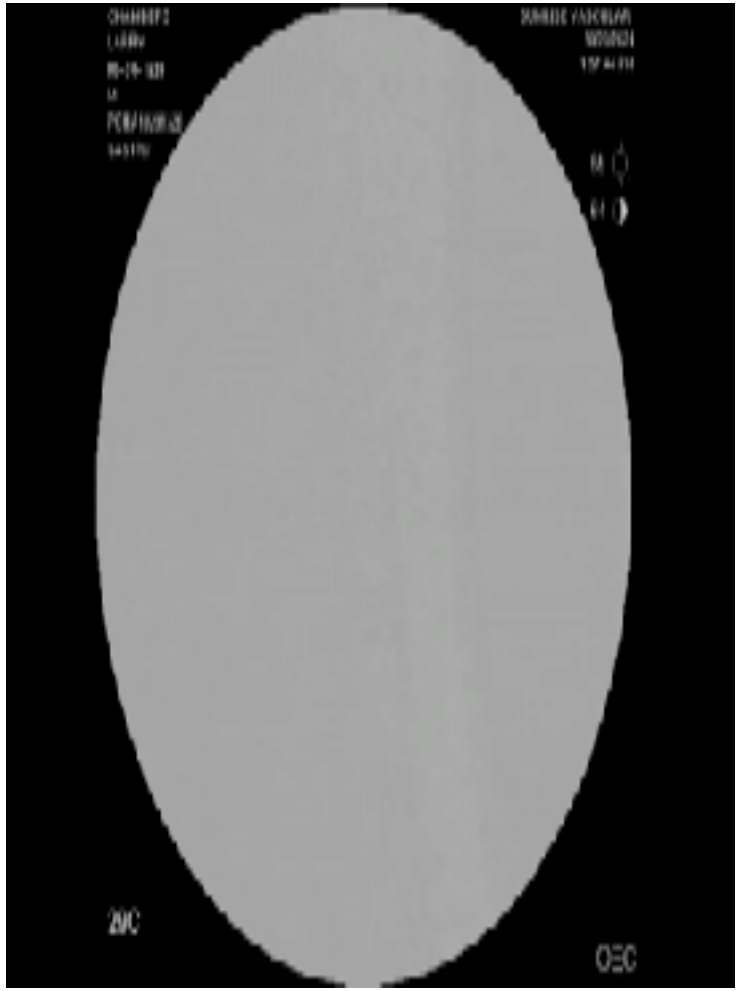
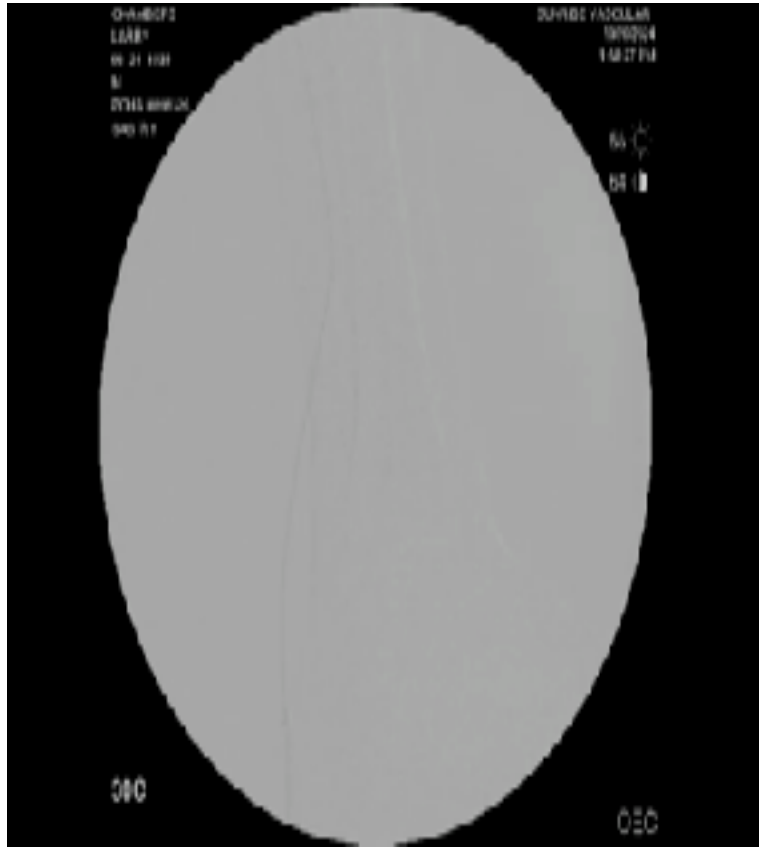
Selective Angiography Via Spex 018 at Popliteal Level

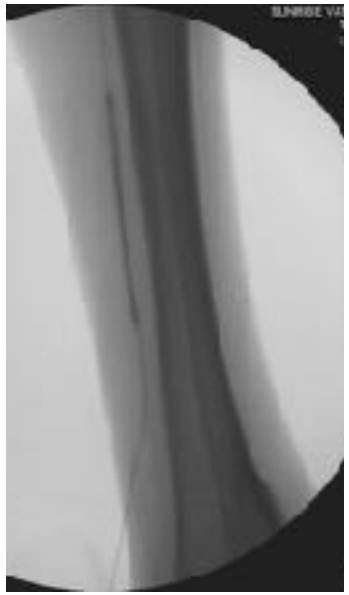
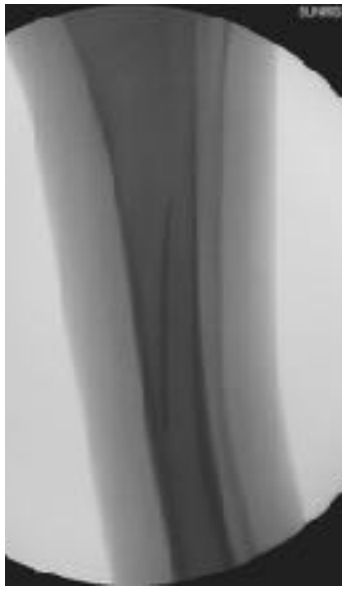
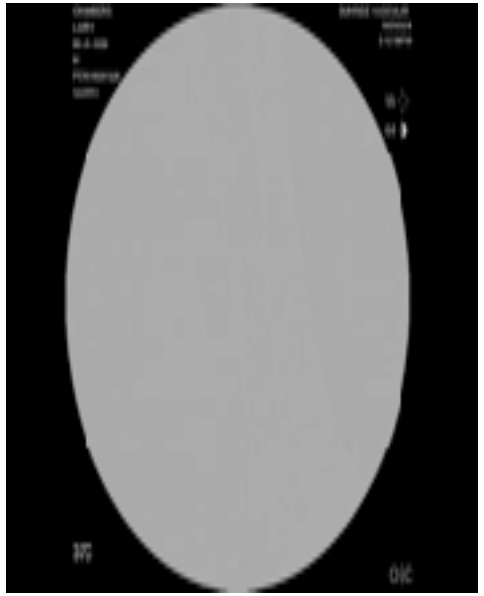
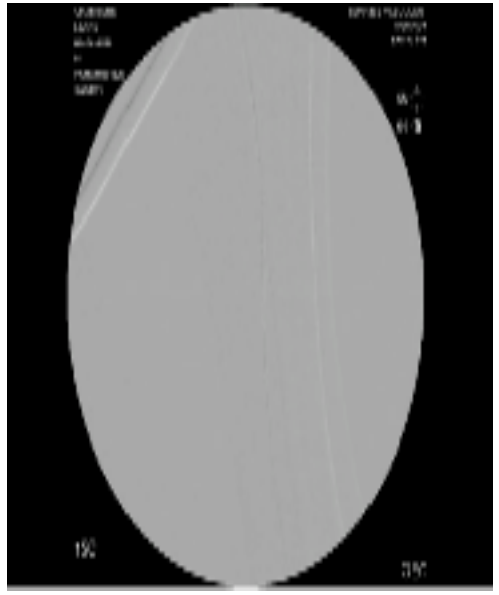




Selective Angiography – Reconstitution Distal to Access



Angioplasty, Optimize Long Segment Occlusion

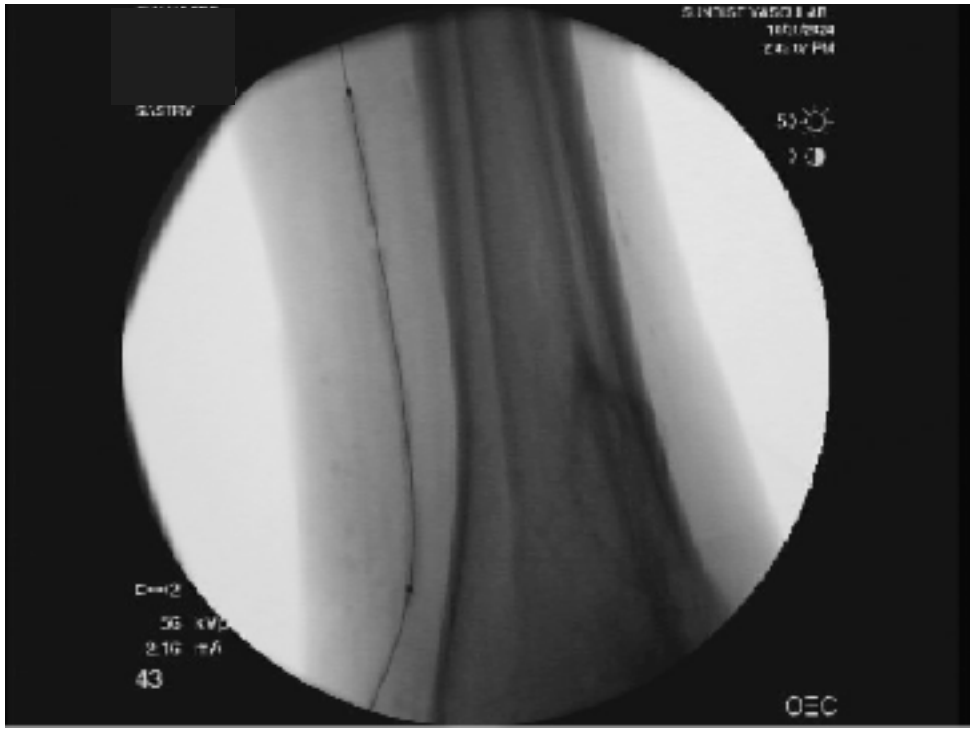





Second True Lumen Access to Complete Procedure

EVUS guided access of distal reconstituted segment

018 workhorse wire with good support easily traverses
Short segment occlusion

Stasis band or manual compression of proximal acccess

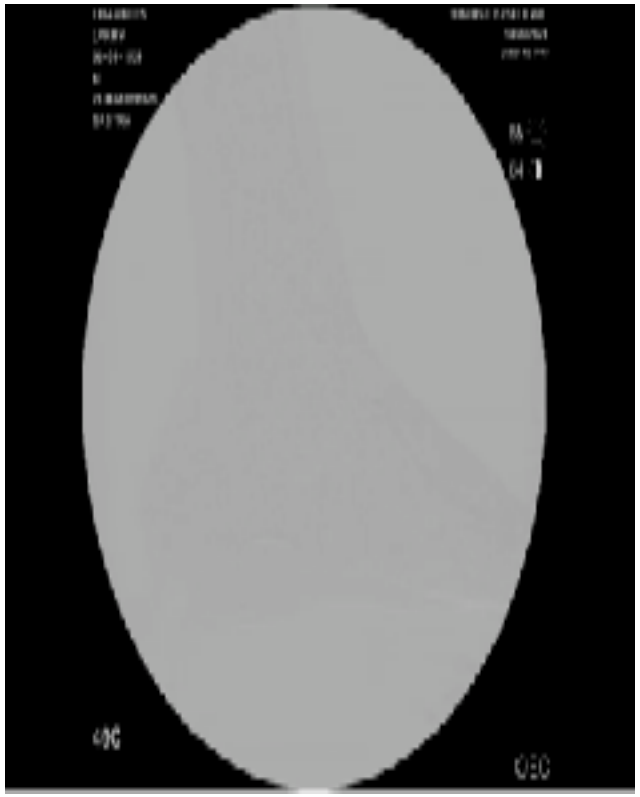


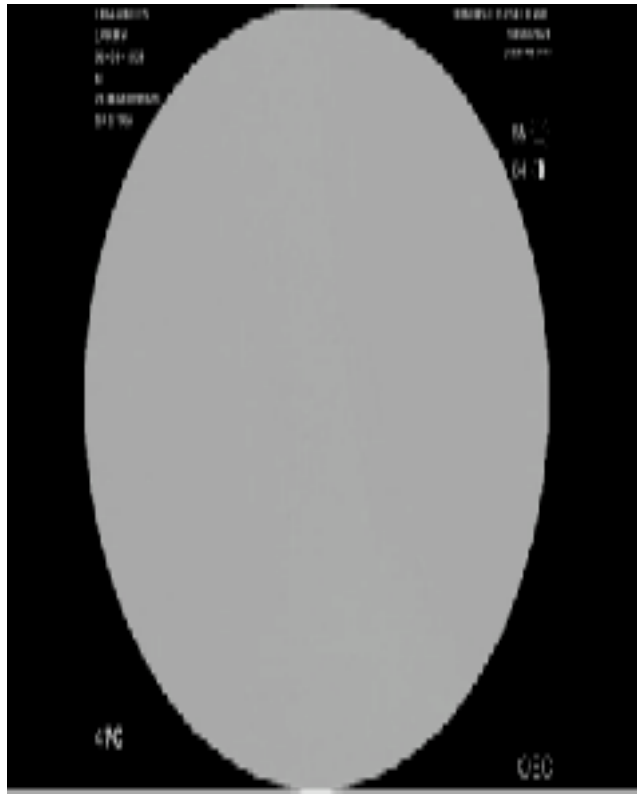
018 balloon (40 or 80 mm) over the wire sheathless compared to minimum Sheath O.D. 1.8 mm

Meticulous attention to marking access point to avoid ballooning arteriotomy

Prolonged inflation 3-4 min, additional heparin, deflate stasis band if used

High Dose Nitroglycerin and Final Angiogram via Balloon





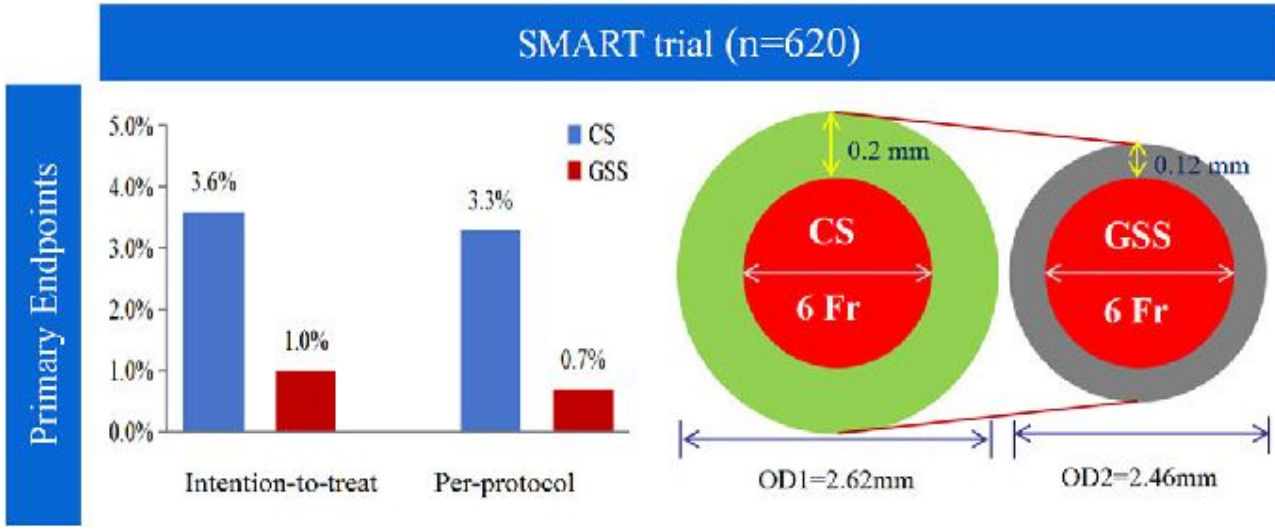
Advantages of the Approach

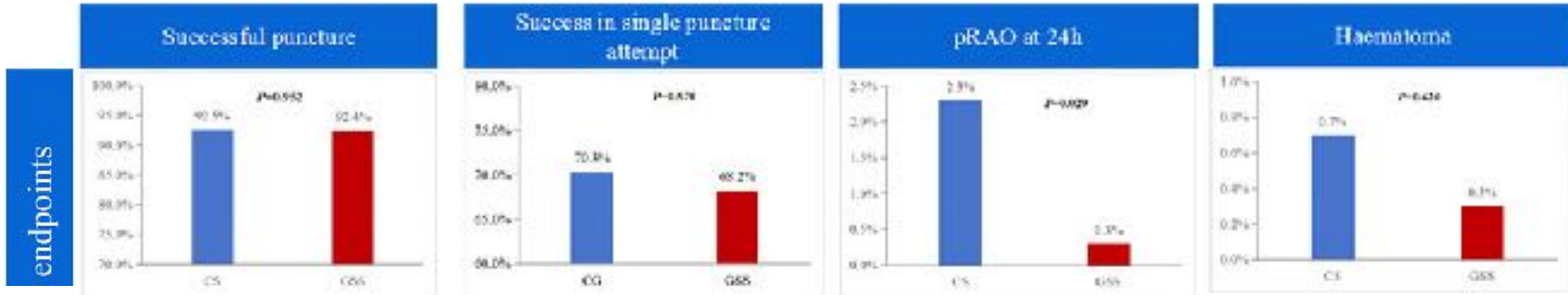
Safely perform revascularization via primary pedal approach even with unknown anatomy.

- Visualize anatomy via selective injection at the popliteal level and formulate the treatment plan accordingly
- No risk of vessel damage / occlusion at the access site
- No risk of bleeding at the access site

Mechanism to perform revascularization via pedal access and utilize 5, 6 Fr equipment without risk of damage / occlusion of the tibial vessel (since accessed vessel is already occluded)

- Femoral DCB (5Fr – 6 Fr), Large Bore atherectomy, for SFA / CFA (5Fr / 6 Fr), Covered stents, Iliac stents (6 Fr)
- Multiple clinical trials of radial access demonstrate decreasing risk of radial artery occlusion with decreasing sheath size
- Given that 0.018 low profile balloon is ~ 1mm O.D., minimal risk of occlusion at the distal most access point



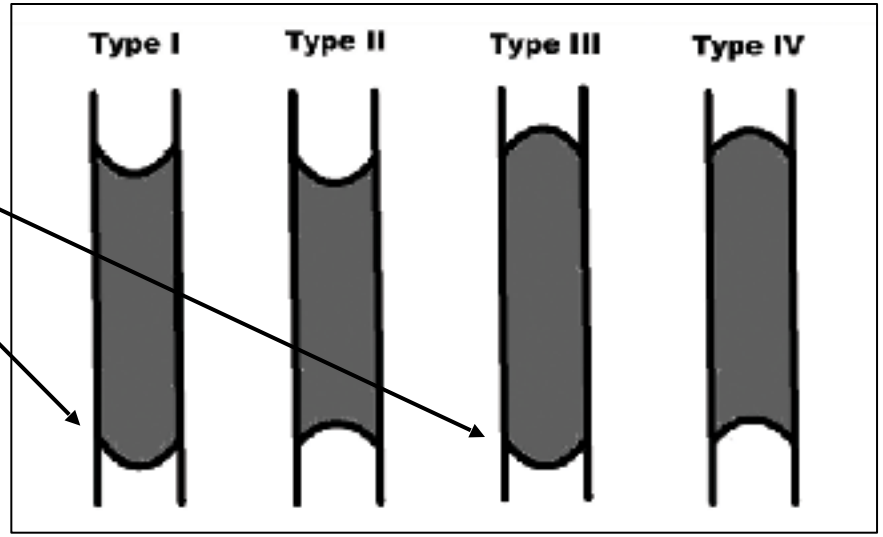


Advantages of the Approach

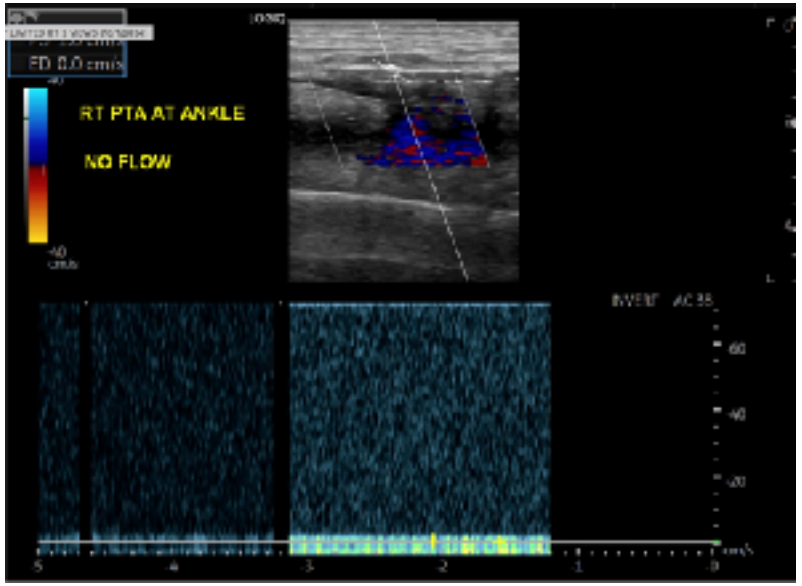
Most efficient mechanism for treating long segment tibial occlusion

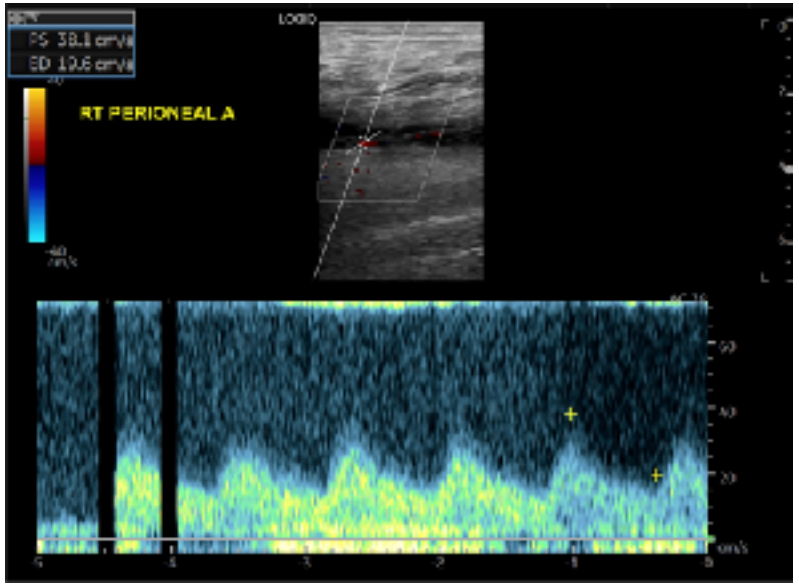
- Can “get to work” immediately from the time of access in cases of tibial occlusion, rather than having to access femoral and set up.
- Unlike traditional occluded vessel access this method allows retrograde crossing of both long segment tibial occlusion as well as retrograde crossing of short segment distal occlusion, instead of having to distal segment from above to complete the procedure – highly time efficient
- Occluded vessel access tends to be more efficient for crossing occlusions than either antegrade or retrograde approach, and can be made even more successful by liberal use of EVUS

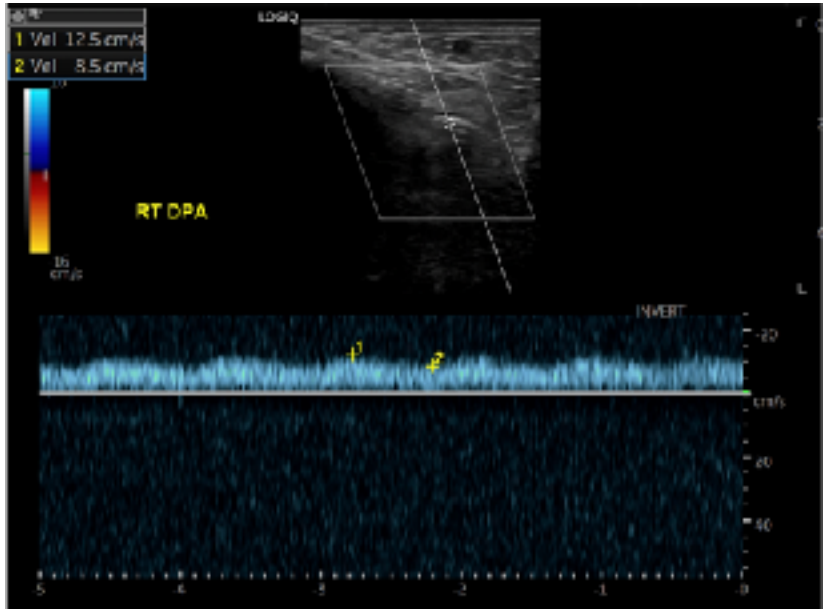
Accessing occluded segment eliminates any effect from unfavorable retrograde cap (Type I and III) and ensures luminal position from the start



Dual Access / Double Balloon Can Also Be Performed







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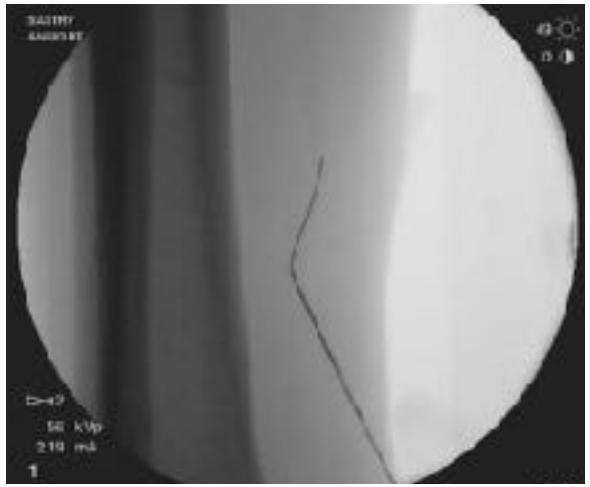

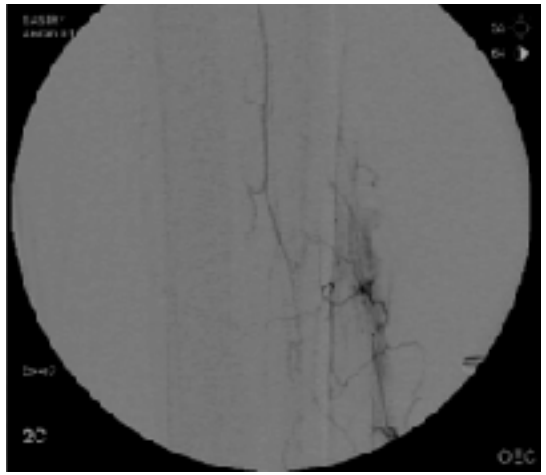

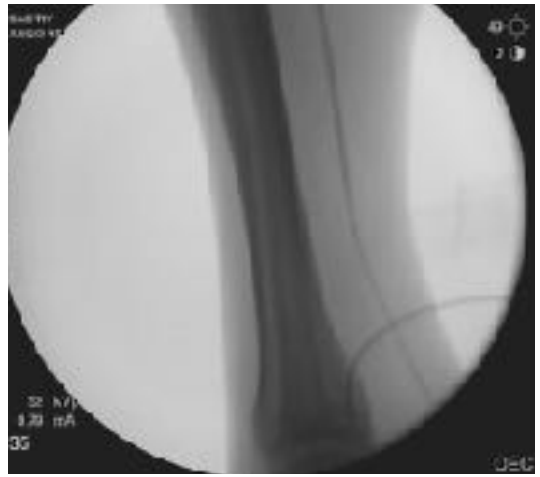

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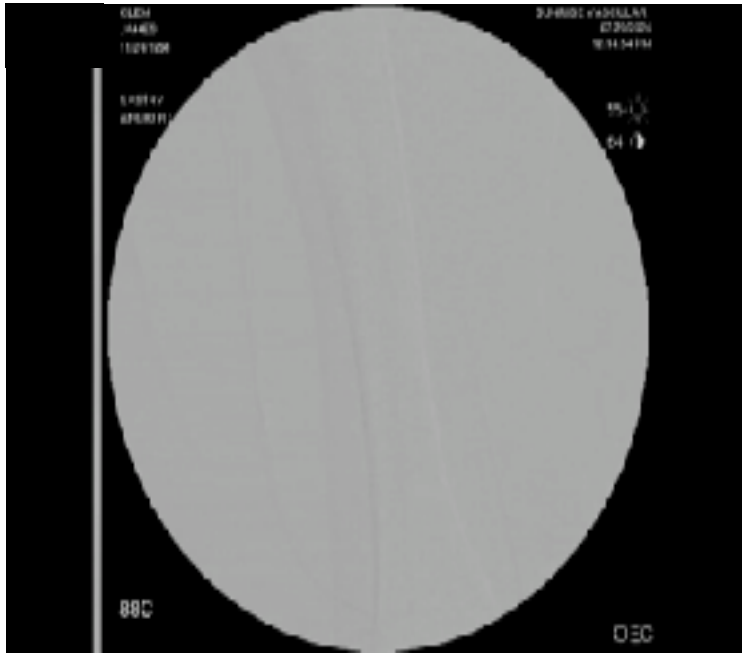

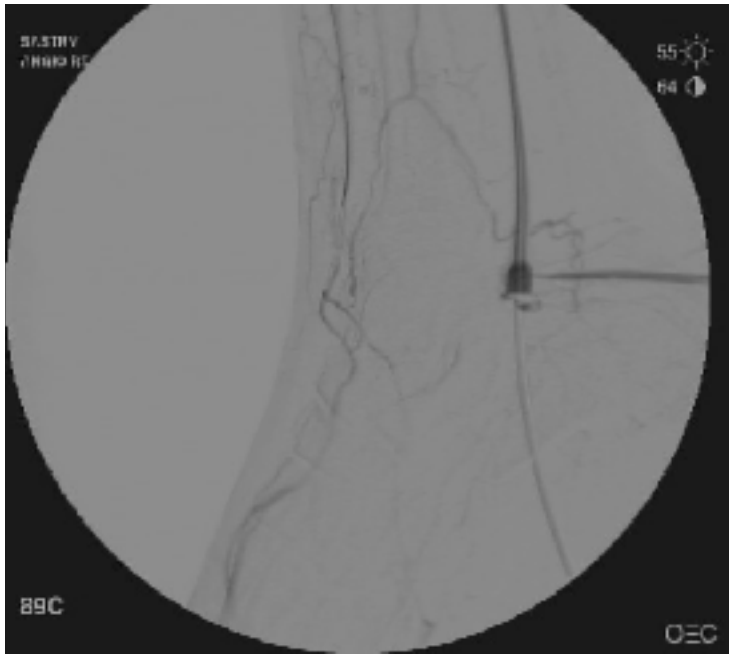

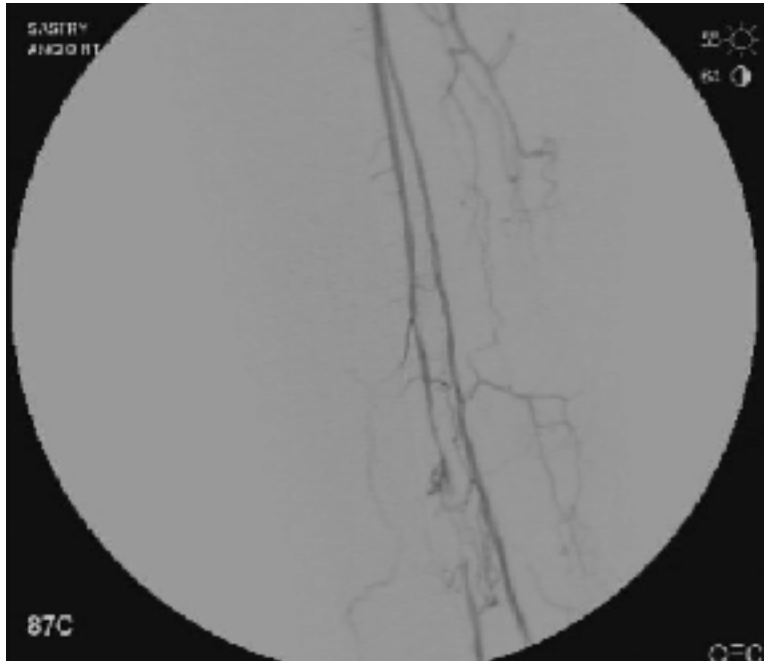

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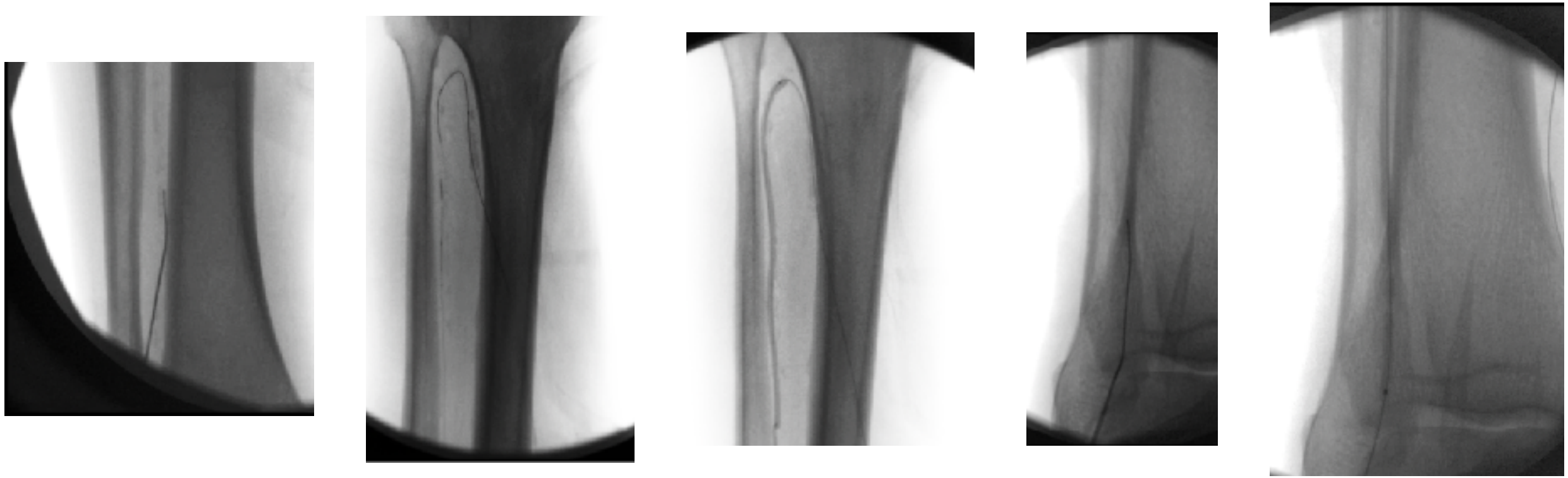

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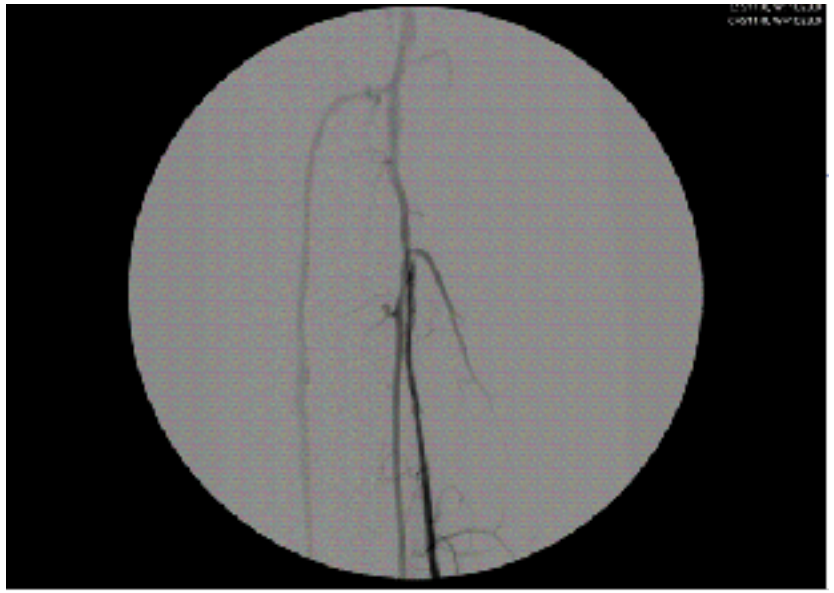

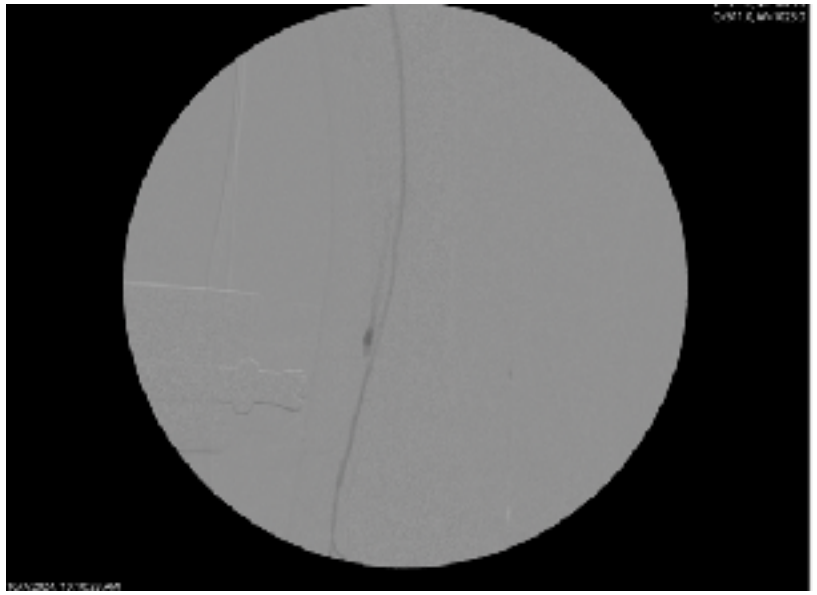

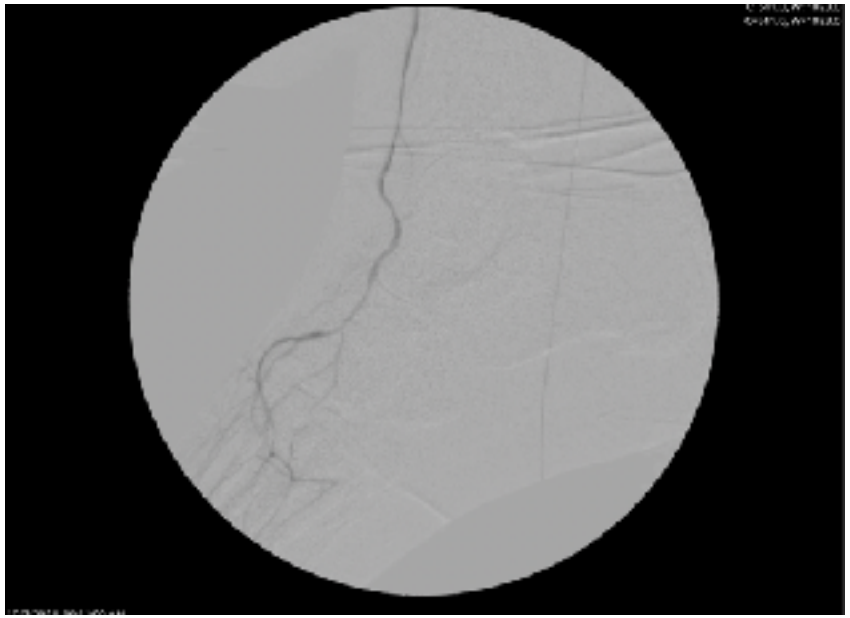

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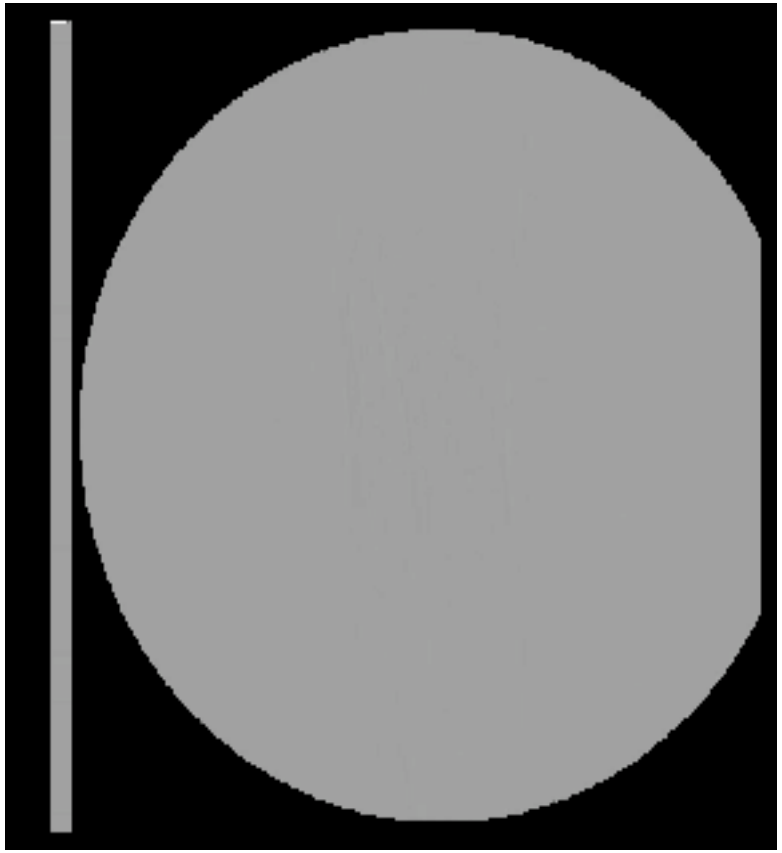

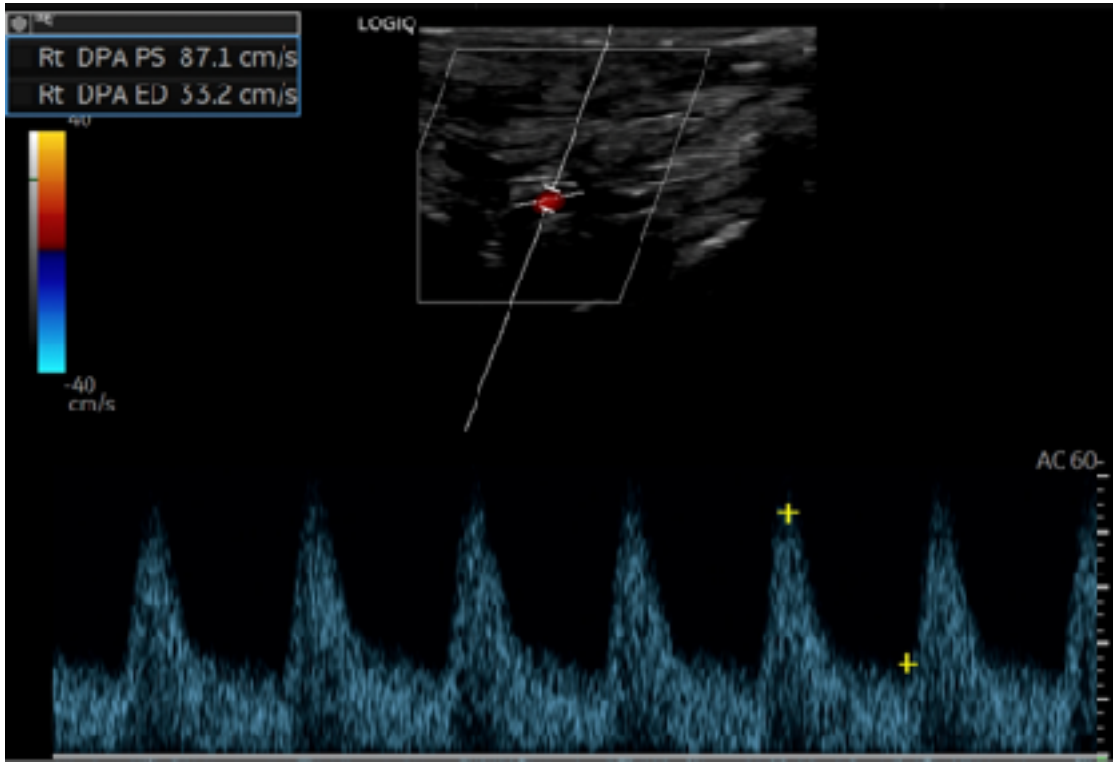

Potential Disadvantages of the approach

- Final angiography via balloon is not always very revealing – proximal vasculature is well seen but with spasm and small vessels, distal filling may not always be present
- Final evaluation via EVUS is imperative to evaluate flow
- Need to perform pedal access twice (challenging if not facile with pedal access)
- Crossing tibial occlusion as a prerequisite to obtaining angiographic images
- Pedal-Plantar loop and below the ankle intervention may be difficult or impossible if distal reconstituted vessel is very small