**USE OF OPTICAL COHERENCE TOMOGRAPHY IN TREATING A CHRONIC TOTAL OCCLUSION FROM A VIETNAM WAR INJURY**

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**Clinical Presentation:** A 67-year-old Vietnamese male with a history of a gunshot wound to the right lower extremity complicated by laceration of the femoral artery requiring emergent surgery and salvage in the Vietnam War. Currently, the patient is complaining of pain in the right lower extremity during exercise consistent with claudication. A previous left heart catheterization revealed a complete total occlusion of the right superficial femoral artery (SFA).

**Intervention:** A catheter with a glidewire was advanced both retrograde from the right dorsalis pedis access and antegrade from the left femoral artery access for crossing of the remainder of the occlusion to allow the two sets of glidewires to meet in a sub-intimal plane. A balloon was then used to pre-dilate the proximal SFA lesion with good expansion. The retrograde glidewire was advanced through the subintimal plane using a reverse cart technique through this dilated tract into the common femoral artery where the wire was then redirected into the destination sheath to externalize the glidewire out of the left common femoral artery access. Balloon angioplasty was performed on the entire SFA chronic total occlusion (CTO) using the same balloon. Subsequent angiogram revealed mild extravasation of contrast at the segment of adventitial and subintimal crossing in the mid SFA. A self-expanding covered stent was then deployed through the entire length of the proximal to mid SFA CTO and post dilated using another balloon. Final angiogram revealed excellent angiographic result with brisk flow through the entire SFA CTO segment into the distal SFA and preserved 2-vessel runoff into the right foot.

**Conclusion:** This procedure was extremely complex, requiring revascularization of the right SFA CTO through a segment of ligated vessel from a prior war injury for successful revascularization with a partial atherectomy, balloon angioplasty, and stenting. The procedure duration was over a period of 2.5 hours with good results. During follow-up in the clinic patient experienced resolution of claudication symptoms in his right lower extremity.