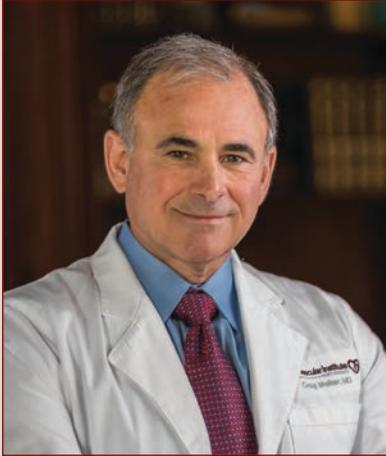


Managing Thrombotic Occlusion in Covid-19 Patients



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Hello and welcome to the September 2020 edition of *Vascular Disease Management*. I have chosen to comment on Dr. Nicolas Shammam's article "Management of Thrombotic Occlusion of the Femoropopliteal Artery and Proximal Tibial Vessels in a Covid-19 Patient Using the Auryon Laser."

In this case report Dr. Shammam describes the treatment of a presumed thrombotic occlusion of a distal SFA, popliteal, and posterior tibial artery in a Covid-19 positive patient that was confirmed by intravascular ultrasound. The patient's anterior tibial and peroneal arteries were totally occluded. The occluded segment was crossed into the distal posterior tibial artery utilizing a Cook Approach wire and a CXI support catheter. Following crossing, the Approach wire was exchanged for a Spartacore support wire. He then slowly advanced the Auryon solid-state 355nm wavelength Nd:YAG 2mm laser with an aspiration port to photoablate and aspirate the entire occluded segment. This established a channel within the totally occluded segment without major embolization, without distal protection device utilization. He noted that less than 100 cc's of blood was aspirated. This was followed by dilation with a size appropriate to the vessels with Lutonix DCB's resulting in an excellent final clinical and angiographic result.

Previous reports of laser-facilitated arterial thrombotic treatment success utilizing a different 308 nm excimer laser without aspiration have suggested that laser energy may be particularly useful in treating thrombus as well with low rates of embolization. In this case report a different laser wavelength coupled with aspiration was utilized.

This case report is impressive in the treatment of this acute thrombotic occlusion with poor outflow in a Covid-19 positive patient as these patients represent a difficult cohort of patients to treat safely and effectively. An increase in acute thrombotic occlusions are being reported in Covid-19 patients and these patients have been difficult to manage. This case report demonstrates an excellent outcome in this difficult presentation. Further study in similar patients is warranted to determine the widespread applicability of this technique in patients presenting with acute thrombotic occlusions whether or not these occlusions are related to Covid-19 positivity. We will need to determine if acute and chronic outcomes are improved in a wide cohort of patients.