

PHYSICIAN COMMENTARY

Methodologies for Treating PAD/CLI and the Importance of Product Selection

A Discussion with Dr. Vamsi Krishna*

As the severity of disease presented in PAD/CLI patients becomes increasingly complex, product performance, design, and reliability have become critical to procedural success. In this interview, Dr. Krishna discusses his approach to assessing PAD/CLI patients, his strategies for below-the-knee interventions and therapy, and his preferred product selections for varying lesion morphologies.

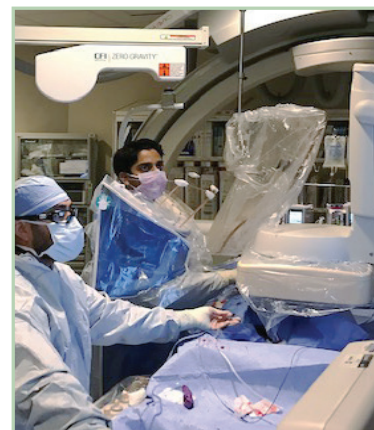
Tell us a bit about your background and your experience with the interventional program in Austin.

Dr. Krishna: I trained at UCLA for medicine and Cedars Sinai for cardiology. When I was at Cedars Sinai, this was during the boom of structural heart disease. Most of my training was in complex coronary and complex structural, not really focusing on endovascular interventions or critical limb ischemia. I went to UCLA for interventional fellowship work where I continued in a structural-predominant program.

Then I came to Austin thinking I was going to build this complex CTO program. But surgical programs were quite heavy, patients were getting more bypasses than interventions, and the role of complex interventions was present but maybe not to the extent seen on the East or West coasts.

A lot of patients I was seeing had diabetes with wounds or PAD, one of the clear risk factors for this type of disease process. I decided to go to a few Terumo courses since I was already a 100% radialist. From there I learned that a lot of the skills I already had in the coronary space, especially in CTOs, fit right in with treating CLI.

Before you know it, I went from a structural coronary interventionalist to a coronary peripheral expert. I quickly became very facile with different wires, different sheaths, and different techniques. I started to publish some of this data, as well as speak at national and international forums about some of the skills I had developed, especially around, imaging, sizing of tibial vessels, alternative access, radial to peripheral, ulnar to coronary interventions for CTOs, distal radial access, etc.



Discuss how you assess your PAD patients on the spectrum of claudicants through complex critical limb ischemia

Dr. Krishna: That's an important distinction. In claudication, the goal is to relieve symptoms, perhaps by treating the SFA, in order to decrease the pressure gradient by utilizing techniques like atherectomy, balloon angioplasty, appropriate sizing, and potentially stent, if necessary. However, for critical limb ischemia, tissue loss, or resting foot pain, then treating the SFA alone is not going to be enough. In those cases, being able to treat both the inflow and outflow are absolutely crucial for success, and improving the toe/brachial index is going to be critical. Your ultimate goal is to fix the angiosome and get as much pressure down to the foot.

Elaborate on your strategies for below-the-knee interventions

Dr. Krishna: For anyone that is developing a claudicant or critical limb program, having excellent imaging is the key. I gauge a lot based on the ultrasound. I think having great imaging and a great understanding of the patient before they get into your lab, is the key to success.

In my experience, using alternative access can help increase your success rate. Antegrade access is a very powerful tool for BTK CTOs. When you are dealing with disease that complex, you are going to need the ability to deliver more force. The advent of the 0.018" NAVICROSS® makes it exceptionally powerful in the tibial space, for its ability to be used in both antegrade and retrograde access. In my opinion, using the NAVICROSS® is a must for anyone doing complex interventions.



Discuss your product choices for different morphologies, lesion length, or difficult access

Dr. Krishna: The peripheral space, unlike the coronary, is very calcified and very unforgiving. Meaning that your wires will get damaged, kinked, and nicked much easier due to the burden of the calcium and disease. I find that the Terumo products are much more resistant to kinking and much more deliverable once you cross.

Using the 0.035" Glidewire Advantage® as your basic wire in every case is, in my opinion, a must for anyone that is doing complex interventions.

Typically, many doctors use the Boston Scientific V-18™ ControlWire™ Guidewire but the 0.018" GLIDEWIRE ADVANTAGE TRACK™ wire offers so much more. GLIDEWIRE ADVANTAGE TRACK™ wires give you the power and pushability needed to navigate and cross complex, multi-focal CTOs, maintain access, and deliver interventional devices, whereas V-18™ gets trashed in those types of procedures.



GLIDEWIRE ADVANTAGE TRACK™
pre-procedure



GLIDEWIRE ADVANTAGE TRACK™
post-procedure



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Disclosure: Dr. Krishna is a consultant to Terumo Medical Corporation.

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*The above are the personal expressions of opinions and experiences of Dr. Vamsi Krishna. Individual experience and results may vary by practitioner.