The current standard of care for deep-vein thrombosis (DVT) could soon be changing, according to Mark J. Garcia, MD, FSIR. Vascular Disease Management interviewed Dr. Garcia for his input on the current and best treatment for chronic DVT.

Q: Could you describe the current treatments available that are providing the best results for DVT?

A: Currently, the standard of care for DVT is anticoagulation with a graded elastic compression stocking. However, the ATTRACT trial is currently under way, comparing standard of care medical therapy to endovascular clot removal, either by standard catheter-directed lytic therapy or by pharmacomechanical techniques using devices to augment clot removal by combining the lytic agent with the mechanical device. The results, however, are still several years from being finalized.

For years, it's been accepted practice at institutions treating acute DVT to treat patients with catheter-directed lytic therapy. With these mechanical devices, we've been seeing that you can more quickly and readily remove that clot and either decrease the time for catheter-directed lytic therapy or reduce the need for lytic therapy altogether. By reducing the need for lytic therapy, we can reduce the risks that are associated with thrombolysis.

Q: What important points are you sharing about DVT treatment here at VEITH this year?

A: I was asked to talk about tips and tricks that we use for successful recanalization of chronic DVT. At the SIR annual meeting, I reported on our single-center registry of 122 patients that showed that we were able to successfully cross lesions with clots up to 12 years old. Of the 122 limbs, we were successful in crossing the occlusion in 120 of the cases and we restored flow in 118. Our follow-up Doppler patency is remarkable when you think that the belief has traditionally been that once you've had chronic clot, it can't be treated except with the standard of care. And we're really changing that whole mentality.

This work is in the early stages, but the good news is there is help out there, and patients who are suffering from chronic DVT and post-thrombotic syndrome don't need to just sit back and watch their limb be destroyed by this chronic blockage.

Q: What are the limitations to chronic DVT treatment?

A: The real limitation is getting across the occlusion. As I tell our patients when we meet in the office for evaluation, if you can get across the occlusion, you can make a difference. It is rare that if we get across the occlusion, we can't restore flow. However, that clot can sometimes be rock hard, so you may have to use different tricks, but if you compare that to a life of loss of work and decreased quality of life, I think it's worth trying to restore flow.

Q: What are a few of the techniques that you're using to restore flow?

A: We discussed the difficulties in gaining access, with trying to get the wire across the clot and possibly using sharp recanalization techniques or support catheters. When we successfully cross the clot, we balloon and crack the chronic thrombus or atretic vein and then place the ultrasound-accelerated thrombolysis system overnight to get deeper drug penetration during lysis.

It has always been the belief that after a month or two of persistent DVT, you
can’t achieve thrombolysis, and what we’re showing is that’s not the case. We are bringing patients back the next day and in the many of these cases there is restored flow.

**Q:** Do you have a favorite patient case that comes to mind?

**A:** Yes. We saw a 65-year-old female who had a hysterectomy in 1998. During the hysterectomy, they ruptured her iliac vein. They called the surgeon in to try to repair it. They were unable to repair the vein so they ligated the iliac vein closed. When she woke from anesthesia, her leg was painful and swollen; she developed extensive thrombosis of the entire leg. For 12 years she was treated with anticoagulation and elastic compression stockings, and she was told there was nothing more that could be done. This woman had no quality of life. She couldn’t stand by a stove to cook for 5 minutes, couldn’t play with her grandkids.

She was evaluated by a vascular surgeon colleague who referred her to me. We talked and I said I was willing to give it a shot if she wanted and we did. We were successful in getting across the entire occlusion, did our standard treatment—what we just talked about—and we restored flow overnight. I just saw her for her 2-year follow-up and she’s still open. She is extremely happy and has a great quality of life: biking, exercising, using the treadmill. She smiles and is nothing but full of thanks and praise for what we were able to do.

**Q:** Is there anything else that you think that I might have missed that you wanted to share about chronic DVT?

**A:** I think the most important thing is to get the message out, not just to patients but to the medical community, that the idea that nothing can be done for these patients is not true, and that the standard care of anticoagulation and elastic compressions stockings, is passé. We’re going to change that mentality, just as I believe we are in the midst of changing how acute DVT and pulmonary embolism are treated.

We are making huge strides toward ablating the whole venous sequelae of post-thrombotic syndrome and hopefully venous stasis ulcers. If we can convince the medical community and interventionalists to take on this work, even though it can be very challenging and time-consuming, we can show them that patience and perseverance and a passion for wanting to help these patients really matters.

Mark J. Garcia, MD, FSIR, is the medical director of Christiana Care’s Center for Heart & Vascular Health Peripheral Program and section chief of Vascular & Interventional Radiology. Dr. Garcia reports consultancy to and travel reimbursement from EKOS Corporation and Bayer HealthCare, as well as honoraria and educational compensation from Bayer HealthCare.