

INTERVIEW

Shockwave Intravascular Lithotripsy for Calcified Aortoiliac Occlusive Disease

An Interview With Daniel Clair, MD

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At the 2024 VEITH Symposium, Daniel Clair, MD, from Vanderbilt University Medical Center in Nashville, Tennessee, gave a presentation entitled “Value of Shockwave IVL for Calcified Aortoiliac Occlusive Disease Treatment and for Facilitating Large Bore Access With Narrowed Calcified Iliac Arteries.” VDM spoke with Dr Clair about his presentation and how IVL can improve patient outcomes.

What patient characteristics make Shockwave IVL beneficial for treating calcified aortoiliac occlusive disease?

In particular, patients who have a significant arc of calcification around the iliac arteries, and very much if they have calcium that extends into the lumen, which will potentially prevent full expansion of the iliac stents. Calcific disease in the iliac arteries is extremely common, and it is very unusual that you don't have to do something in order to fully expand the stents that you are placing.

Are there any limitations to IVL for treating calcified aortoiliac occlusive disease?

IVL now is currently used on-label before the stents are placed. There are reports of it being used afterward, and it is actually very effective, but there isn't a study to look at IVL and its compatibility with either uncovered or covered stents.

Can you discuss the long -term outcomes or follow-up data on patients who have undergone IVL?

There are no long-term data other than the Disrupt PAD III data, which show that there are very good short-term outcomes for these patients; in patients who have transcatheter aortic valve replacement and transcatheter aortic valve implantation, there is a markedly reduced risk of the need for stenting. So, this may be a mechanism by which you can treat patients and avoid stents, even in the iliac system if you are interested in doing that.

How does IVL compare with traditional methods in terms of efficacy, safety, and recovery time?

I don't think it adds anything to recovery time, and I don't think, because it is a balloon-based therapy, that it is really very different than anything that is done right now. I do think that it is more effective at fully expanding stents in a calcified environment, but again there are no comparative data to really prove that.

In facilitating large-bore axis, how does IVL affect procedural cases and success rates, especially in patients with severely calcified arteries?

Calcium is the biggest inhibitor to advancing large-caliber devices. Size matters, but calcium is more important. I have used balloons and dilators, and when those have failed, I have used IVL and have been able to introduce the devices. There is no question in my mind, and I think for other interventionists who are using IVL now, that it is, right now, the best method to prepare a calcified artery for delivery of a large-caliber device. ■