Lessons From the Coronary Space for Peripheral Chronic Total Occlusion Therapy: An Interview With William Lombardi, MD

Interview by Jennifer Ford

At the 2016 New Cardiovascular Horizons meeting in New Orleans, William Lombardi, MD, from the University of Washington, delivered a keynote address in which he called on peripheral vascular clinicians to shed their preconceived notions and join together to develop a consensus for therapy. Dr. Lombardi and his colleagues undertook a similar endeavor by creating a group of physicians to develop an algorithm for treating coronary chronic total occlusion (CTO) in a new way. “I don’t look at an angiogram to decide whether I can treat a patient,” he told attendees; “I let the patient tell me if they need to be treated.” Vascular Disease Management spoke with Dr. Lombardi about his treatment algorithm and how it could translate to peripheral therapy.

**VDM: What is the message you want to get across to attendees?**

**Lombardi:** There’s a large underserved patient population, and not because they wouldn’t benefit from revascularization; the problem is they can’t be revascularized because of technical challenges. A lot of these technical challenges revolve around the way that we educate physicians. When I started in the world of coronary CTOs, I would attend a meeting and see an esteemed panel of 10 physicians giving 10 different opinions on the same case, and some of them didn’t even do what they were talking about. What I started to realize was that the educational model was a challenge because it was designed for physicians to be well known and for companies to support them, not as much for educating others to take care of patients. It’s similar today with CLI and peripheral interventions.

We developed a small group of people who were not very well known, and with a rebel maneuver we started to build what we called a “hybrid algorithm.” The concept behind the algorithm was that anatomy didn’t dictate whether we treated a patient or not, Symptoms dictated whether to treat the patient. So this group of 13 people began attending meetings and delivering a consistent message together. For example, “If this is what the anatomy looks like, I will start with this,” or “If that doesn’t work, then I would do this.”
That construct then allowed us to educate physicians on how to perform the procedures.

**VDM:** And that was because you already had a consensus?

**Lombardi:** We forced ourselves to have a consensus and to be consistent in our educational policies. That same thing needs to happen in peripheral therapy. There are many technologies and techniques, but there is no consistency in application.

One of the things I say is there are only 4 ways to fix a vessel – antegrade, retrograde, in the true lumen, or in the subintimal space. In the end that’s all you need to know how to do. So, if we can make this easier to understand, then physicians will be able to develop skill sets. As they build skill sets, they will challenge more complex anatomy. As they challenge more complex anatomy, they can help more patients. These are the steps to success. It’s a shift in the mentality of how to move a specialty forward.

**VDM:** What were some of the lessons that you learned in the coronary space?

**Lombardi:** One is that you have to manage industry really well. We want to stop industry from selling devices and get them to sell a therapy. Industry should understand that there are places where their devices are good places where their competitors’ devices are better. They need to be okay with that. So that’s the first thing – you have to have enough strength of character to talk to industry about letting the clinician make the decisions.

The second piece is you have to avoid the trap of fame and fortune. You need people who care more about teaching and patients. So you have to make sure that you have the right group of people working collaboratively to move it forward. You also need physicians who are willing to proctor in an active way. We want proctoring to be an interactive process where the experienced clinician offers tips on techniques and helps hone the decision-making process. We should help new operators become comfortable with the feel and the look of new devices and techniques, because that enables them to continue to do cases when we are not around. This changes the paradigm of educating physicians in once they have completed training and are in practice in the real world.

**VDM:** And that could translate to peripheral therapies.

**Lombardi:** It could, but there are a lot of economic, academic, and institutional barriers that must be faced. What we really need to be focused on is patients and training physicians.

**VDM:** What do you think is the biggest hurdle that the interventionalists might face going forward with this model?

**Lombardi:** The biggest hurdle is ego. We tend to think we’re the greatest in the world at what we do because that is the way our “world” is set up. In my cath lab, I can consider myself the greatest in the world because I don’t see anybody else do anything, and I don’t actually compare myself to anyone else.
The other thing is that we have to stop doing procedure-based registries, because all that shows is a procedure. To know whether somebody is really good or not, you have to look at disease state. For example, I know an excellent vascular surgeon who says he has never had a patient undergo a below-knee amputation. But in his hospital, they still do many below-knee amputations, so in my book he’s not doing a very good job because what he’s talking about is his practice only. But this needs to be about a population. We need to do a better job at looking at disease-based registries and understanding differences in outcomes. Then we can work on breaking down barriers that are limiting patient access to therapies that we know can benefit them.

**VDM:** So it’s okay to fail sometimes?

**Lombardi:** One of first rules of life is you have to fail, and the second rule is if you don’t attempt to conquer, you never will. You learn far more from a failure than you do from a success, but we’ve gotten wrapped up in needing to succeed. You don’t have to succeed. What you have to do is get better and be able to deliver what patients need.

When we got into CTOs we saw what we called cherry picking. What we noticed was that a lot of our colleagues, to protect their success rates, were passing on certain cases or refusing certain cases. The patient need is the same. We look at our failures as a means to improve.

Another piece of advice for interventionalists is to stop worrying about surgery. It’s not about bypass. It’s so much easier to do a bypass than it is to do a complicated endovascular repair, but that’s not really the problem. The problem is that people don’t get treated at all, so there’s too much focus on procedure vs procedure rather than on outcome of the patient and the disease state. That’s where we’ve gone in CTO. We don’t care about bypass surgery. I have no problem with surgical bypass. Surgeons are my best referrers and the reason is because we’re not competitors. We do the same thing. We do it in a different way, and that’s okay. Some patients do better with surgery. Some do better with stents. Some do better with both, so you have to get past that and focus on treating the patient.

What you want is a program, not an operator. You want a patient center, not a procedure center. And what you want to focus on is patient outcomes. Team-based care flies in the face of the traditional model where one operator practices in a silo. I ask myself, “If this patient were my mother, what would I do?” My parents are not people to compete over. They just need whatever care is best for them. Competition is based on individuals’ egos, economic incentives that are misaligned, and institutional ego.

The mindset of the physicians in this space was developed a long time ago, and they are still basically functioning like people who carry giant brick cell phones. There has been no growth. The surgeon is afraid of endovascular intervention and the interventionalist is worried about surgery. We need to examine the reasons behind this fear, develop new data, and figure out what the patient needs.

**VDM:** Do you think this will be controversial?

**Lombardi:** I hope so. It certainly has been in
the coronary space. This is disruptive, but we’re trying to do the right thing for the right reasons. Unfortunately, there are a lot of pieces in medicine that are misaligned.

What you need to focus on is core values. These ideas are controversial because it’s a culture change and a mindset change. It takes years for that to occur, but without someone out front, change is impossible. It’s a bell-shaped curve. There are innovators, early adopters, mid adopters, late adopters, and naysayers. Where do you want to be on the curve? If you don’t have the innovators and you don’t have the early adopters, then it doesn’t work.