Structural Heart and Peripheral Vascular Interventions: Can You Do it All?

At the American Heart Association Scientific Sessions in Dallas, a flyer appeared under my door. It was like those animated, high-tech greeting cards of Elvis singing “Blue Hawaii.” However, this one was not only animated but asked personalized questions—“Are you an interventional cardiologist?” and then, “Did you know that the coronary artery intervention market is decreasing and is projected to decrease further?” or something like that. I don’t know for sure since I gave this addictive card to my 5-year old grandson who plays it over and over. The point was an advertisement for a new product but the hook was to have the interventional cardiologist (not necessarily my 5-year old grandson) reflect on the decreasing “market” in coronary work and the increasing “opportunity” in peripheral interventions. Physicians usually feel more comfortable with words like “need” and “care,” rather than “market” and “opportunity,” but it’s a free country. The truth is, as in your face as this ad is, the message the ad wants to convey is not without evidence. Coronary interventions have become more mature, and with the improved technologies, reduced restenosis, and aggressive medical therapies coupled with an ample supply of interventional cardiologists in most areas (but not all), there is a definite reduction in the number of appropriate procedures needed to be performed by many of our colleagues. Of course, interventional cardiologists are, in my view, well positioned physicians to care for patients with atherosclerotic disease from intervention to prevention. For many, comprehensive cardiovascular care is their main professional activity. But, for our cath lab addicted members, a day without scrubs is like a day without “sunshine.” (Although as I think about it, the sun seldom shines in the cath lab.)

What about the expanded practice of peripheral vascular and structural heart disease? There is no doubt that these components of cardiovascular medicine are becoming critical to interventional cardiology. The submissions to this journal in both areas continue to expand dramatically. Driven by the explosion of valve interventions, defect and atrial appendage closure, renal denervation, as well as new technologies in extra cardiac arterial and venous interventions, we have created cover categories for the journal for coronary, structural heart, and peripheral vascular interventions. This issue of JACC: Cardiovascular Interventions reflects this, focusing on structural heart and peripheral vascular disease issues. As these components of interventional cardiovascular medicine expand, how is quality to be maintained and improved? When we started the American Board of Internal Medicine (ABIM) interventional cardiology boards in the late 1990s, some of these things were being done and taught but the field has expanded dramatically since then. Training programs have responded to this need for training in various ways. Some have developed a 2-year program, feeling that the coronary experience should not be diluted and requiring the extra time for training in the other components. Others have developed specialized tracks after a first basic year of interventional cardiology then branching into either structural heart disease or peripheral vascular disease concentrations. Other programs have developed one or the other subspecialized areas based on their own faculty and facility capabilities. Many programs maintain a 1-year experience with varying exposure to noncoronary interventions. The ABIM has not developed subcertification within interventional cardiology, but it seems that graduates are being employed based on their training and the needs of the hiring institution or practice.

None of this addresses the interventional cardiologist in practice who is considering expanding his or her capabilities. How does the established interventionalist become an expert in structural heart interventions or peripheral vascular interventions? Those expecting an answer in this column will be disappointed because it is a conundrum. The days of see one, do one, teach one are gone, and should be. Training programs for practicing interventionalists don’t seem to exist. Industry is obviously interested and the societies (American College of Cardiology and the Society for Cardiovascular Angiography and Interventions) could team up to provide training which would be
expensive for the “teacher” and “student.” Who would pay? Industry is motivated. Can industry support for training be done in the era of “sunshine laws?” Necessity is the mother of invention, or at least the stepmother, and I am sure solutions will be found. But if methods of obtaining expertise are developed, who should be doing the procedures? Certainly not everyone. The reason peripheral vascular tracks are not developed in many ABIM training programs is that the volume is not sufficient and, therefore, the cases would be cannibalized from the first-year fellows. As exciting as valve interventions are, there is general consensus that this experience must be concentrated—a wise decision insisted on by industry and the Food and Drug Administration. For any specialized procedure, there should be the realistic expectation that an adequate ongoing volume will be sustained for that operator. Practices may need a large number of physicians capable of performing primary angioplasty so as to cover call schedules (hopefully with highly skilled expertise for complex or complicated cases available as backup). However, there is no need for everyone to be performing non-coronary procedures. So the concentration of expertise is important. Volume does matter!

It seems counterintuitive that the very low volume operator who has little to do in the cath lab should be the one to take up peripheral or structural heart interventions. It is more likely that the highly experienced interventional cardiologist who has performed thousands of coronary cases will also be the most skilled to take up the new procedures. Whoever does expand his or her practice must have, or be able to develop, referral sources adequate to maintain a volume of activity that will ensure that expertise and quality is maintained. This may not fit neatly with the “market” or the “opportunity,” but hopefully as the field evolves, optimal solutions to meet the “need” for “care” can be found.

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