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The outgoing SVS President discusses the impact of CAS on vascular surgery, and how the specialty must adapt to progress.



The Cordis Carotid Stent System recently received a recommendation for approval with conditions from an FDA panel, bringing carotid artery stenting to the brink of approval in the US. What should be the prerequisites for the certification needed to perform this procedure? I

think anyone that desires to perform carotid stenting should be an experienced interventionalist with substantial knowledge of patient care. Since carotid stenting is a new procedure, the interventionalist must have expertise in some other vascular bed, and percutaneous interventions should be a significant part of his or her practice. A thorough knowledge of stroke and its associated risk factors, particularly management of hypertension, is also desirable. The interventionalist should also be familiar with the use of antithrombotic and antiplatelet agents. Lastly, the interventionalist should have access to a facility with appropriate imaging capabilities.

What are your thoughts on the argument in favor of including a minimum number of cerebral angiographies in such prerequisites? I think such an inclusion puts the focus on the wrong issue, and that the emphasis on cerebral angiography is self-serving. The data demonstrate that cerebral angiography is potentially dangerous, and we all know that. Vascular surgeons abandoned using cerebral angiography on a routine basis for carotid endarterectomy many years ago. I think the issue of carotid stenting is not whether or not you can do a cerebral angiogram, it is whether or not you can safely deliver a stent to a target and deploy it accurately. The only data on the need for angiographic experience as a prerequisite for doing carotid stenting comes from CREST; it is important to note that there was no requirement for a threshold level of diagnostic angiograms, and the results of the lead-in phase have been excellent.

How will the approval of carotid artery stenting impact the field of vascular surgery? That's a very tough question. Vascular surgeons who are experienced in percutaneous interventions are good candidates for learning carotid stenting because they have all the other ingredients. No one would claim that this should be the entry-level procedure, and no one would support the immediate transition between endovascular aneurysm repair and carotid stenting. Vascular surgeons must become adept in other target areas with less associated risk, and then segue into the more advanced procedures like carotid stenting. For those vascular surgeons who have not taken that step, who have not gone to the pain or trouble of learning percutaneous interventions, carotid stenting could be a devastating event. On the other hand, those vascular surgeons with percutaneous expertise can learn carotid stenting and increase the treatment options for their patients.

In the years leading up to and including your term as president of Society for Vascular Surgery, what changes did you observe in the nature of vascular surgery and what changes do you anticipate in the future? Most vascular surgeons and all of organized vascular surgery went through a period of denial claiming that percutaneous angioplasty and stenting could not work, was not durable, and would not replace open surgical repair. After all, the concept of fracturing a plaque and having a patent artery was contrary to everything we believed. We knew for certain that plaque disruption caused thrombosis. Obviously we were wrong, and interventions with balloons and stents have proven to be quite effective and durable.

The period of denial for the majority of vascular surgeons is over, and while reluctant at first, many have embraced percutaneous interventions as an important therapeutic tool. I am encouraged that so many of the younger vascular surgeons have taken up the challenge of percutaneous interventions, and without question, there is a new excitement about our specialty.

Looking beyond the advent of carotid artery stenting, what are some of the defining issues that will affect vascular surgery? The most significant problem we face now is our difficulty recruiting qualified candidates for our training programs. I believe that the major roadblock is the requirement to train in general surgery first.

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We must be able to recruit enthusiastic, young people in medical school. We must educate them about what vascular surgeons do and how they contribute to patient care.

I think that this is at the heart of the independent-board movement. We have spent a lot of time and energy on this effort and unfortunately, it is one for which the time has not arrived. While I have been a vocal proponent of those ideals, I think that at this point in time, our best option is to take advantage of the opportunity to become a primary certificate within the framework of the American Board of Surgery. That would be a means by which we could eliminate the need to complete general surgery training, and I think that's a big first step.

While independence is a great concept, I'm concerned that we don't have the infrastructure in place to take on the responsibility of training from day 1 following medical school. The current proposal allows us to partner with the general surgeons and have two co-equal certificates—a vascular certificate and a general surgery certificate. As things evolve, particularly as the need for abdominal vascular procedures disappears, that might change. For now, I believe it is the best course of action.

How difficult will it be to make this partnership a reality? It's hard to say. Most of the people who are practicing vascular surgery don't really care about this issue. They hear the term "independent board," and they think it's going to solve all of their issues with reimbursement and cardiologists doing carotid stents, and none of that is true. An independent board will only deal with training and certification. If we can accomplish that same thing, painlessly, by enacting this deal we've worked out with the American Board of Surgery, I think we can devote all of our other energies into training the workforce to do the kinds of things that everyone is so concerned about.

Let's further discuss the next generation of vascular surgeons. In your presidential address at the 2004 meeting of the Society for Vascular Surgery, you addressed the decreasing number of medical school students who are opting for a career in vascular surgery. What specifically needs to be done to change that trend? The medical students have to be exposed to contemporary vascular practice, and that's not happening right now. The students should see an endovascular aneurysm repair or a thoracic or abdominal aneurysm repair. I think what they tend to see, when they do get exposure to vascular surgery, is a person with a dead foot, pus coming out of the toe, and that's

not terribly appealing to a medical student. But, take that student to a cath lab where a vascular surgeon is doing a percutaneous revascularization of the femoral artery or an aortic endograft; these procedures are very exciting and are associated with minimal morbidity. After experiencing vascular surgeons performing these procedures, the students go home with a more favorable impression. I think we could more efficiently sell vascular surgery if the medical students saw some of the newer methods in addition to conventional surgical approaches.

What does vascular surgery need to do to put that sales pitch into practice? The approach has to go through the curriculum committees of the medical schools. A primary certificate or an independent board would give us more standing. Independence is not the whole story because cardiology is not an independent board, and medical students certainly receive ample exposure to cardiology training. It goes beyond that. Lobbying at the medical school curriculum level must be done. There needs to be an outreach of vascular surgeons to medical students. My daughter is a fourth-year medical student right now, and there's no question that the most attractive rotations to her were those in which the attendings spent time with the medical students. We have to do a better job in that regard.

You recently moved from Rochester to Lenox Hill. How was that transition? I've been welcomed here. I am busy recruiting surgeons and building my own practice. New York City is intense, and I'm having a great time. I am working with one of my past fellows, Vic Pamoukian and that has allowed me to do some of the administrative tasks that take up a good part of my day. I've had the opportunity to work with Sri Iyer, who is a gifted interventionalist and a wonderful doctor. Gary Roubin is coming back in August, and we are looking forward to building a prominent integrated program.

What are some of the characteristics that make the care provided at Lenox Hill unique? The interventional cardiologists, led by Jeff Moses, have built an incredible model of patient care beginning with intake and ending with patient instruction and discharge the next day. This is all about the patient. Marty Leon and the Cardiovascular Research Foundation have provided a high level of research activity in both cardiac and vascular areas that we hope to build on. While Jeff and Marty are leaving sometime this summer to go to Columbia, we hope to maintain the high standards that they established during their tenure here. ■