David E. Allie, MD

A renowned cardiothoracic surgeon shares his experiences adopting and adapting new endovascular techniques.

What is the patient focus at the Cardiovascular Institute of the South (CIS)? Is there a particular vascular problem in which CIS excels? I expect the vascular areas CIS has excelled in have varied through the years with the evolution of treatments. From the mid 1980s to the early 1990s, our cardiac surgical department was nationally recognized and this remains so today. Simultaneously, our cardiology staff were first-tier, phase 1 investigators in both the first coronary and iliac stent trials utilizing Palmaz stents. The first coronary stent placed in the US was performed by Craig Walker, MD, with me as a "stand-by" surgeon in Houma, Louisiana. During the last decade, and especially the last 5 or 6 years, CIS has excelled in the endovascular treatment of PVD and especially infrainguinal SFA and infrapopliteal disease causing critical limb ischemia (CLI). Our "head-to-toe" approach has taught us about the very high incidence of symptomatic and asymptomatic PVD associated with coronary artery disease. Early recognition of this association allowed us to begin treating PVD with endovascular techniques well before most clinicians. Treating PVD gave our patients the best overall outcomes.

Why has CLI been a focus of CIS? Is the patient population growing? Is this problem particularly acute in the Louisiana area? CLI has been a focus for CIS out of necessity and because, unfortunately, no one else has focused on it. True to our "head-to-toe" treatment approach, we treat the toe. We positioned ourselves for comprehensive cardiovascular care, and over the years we saw cardiac patients or post-CABG patients who were not able to ambulate or rehab after successful cardiac care due to infrainguinal PVD, and many ended up with amputations. We focused on CLI because it was a patient care issue for us to optimize our outcomes. A decade ago, we began to see a sharp increase in CLI in our local patient population. The lifestyle of our endemic patients unfortunately is prone to PVD and CLI when considering the great, but unhealthy, foods a genetic component for PVD and diabetes, and a high incidence of smoking. The incidences of CLI and amputation are statistically growing worldwide at alarming rates, becoming a global epidemic. We need a global focus on CLI. Our inaugural international CLI Summit will be held October 26-27, in Miami, Florida, at which world authorities on CLI from all disciplines will share information.

What changes have you observed in treating these patients? Have outcomes improved, stayed the same, or gotten worse? We are seeing recent changes in the treatment of CLI, and I believe overall outcomes are improving. I think there are several major reasons for these welcome changes, which include education, enhanced awareness, and new technology. Some recent work that we have done has identified that more than 50% of the estimated 170,000 to 180,000 amputations performed yearly in the US are done so without any vascular evaluation, including an ankle-brachial index. We need to change this "pathway to amputation" in CLI to a "pathway to revascularization" and limb salvage. This change will require multidisciplinary education for the primary care physicians, podiatrists, wound care centers, and all our primary healthcare givers who first see the CLI patient. The terrible impact of an amputation to the patient, family, and our overall society must be recognized and emphasized.

Please discuss your level of interest regarding CTA. What changes in imaging are most affecting the way you practice medicine? Imaging is one of the new and improved technological tools that affect how we at CIS diagnose and treat our cardiac and especially PVD patients. Two years ago, we acquired two 16-slice CTA units in our outpatient offices. Ten months ago, we upgraded them both to 64-slice units. CTA has been one of the most revolutionary technologies I have witnessed in the last 2 decades when it comes to the overall aspects of patient care from diagnosis, to treatment planning and definitive treatment, and follow-up. From the PVD standpoint, we prefer CTA on every patient before an endovascular or surgical treatment. CTA has almost completely replaced traditional angiography in our PVD patients, and we have found it to be highly accu-

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rate in CLI and I believe has resulted in improved outcomes and care. We are using new 64-slice protocols to optimize our accuracy in CLI, and the SFA and infrapopliteal information is particularly helpful. The two most impressive aspects of peripheral CTA is the speed at which the information is obtained and the fact that CTA allows us to plan and predict our surgical and endovascular treatment well beforehand. The actual peripheral scan times are now <30 seconds and we have streamlined our outpatient total procedure time to a mere 10 to 12 minutes. We have also greatly decreased the number of in-hospital patient complications such as bleeding, hematomas, and pseudoaneurysms. We are even creating 64-slice CTA protocols for optimizing infrapopliteal imaging in CTA.

Our experience with 64-slice chest and coronary CTA likewise has been very favorable, especially in several subsets of patients including those with known or unknown coronary artery disease with equivocal nuclear scans, in post-CABG patients, and younger patients with atypical chest pain syndromes. Coronary artery CTA is a bit more challenging with heart rate and rhythm issues and high coronary artery calcification levels, but I predict a significant emerging role for CTA in treating cardiovascular disease from head-to-toe. In the spirit of education, I would like to announce the creation of a newly formed cardiovascular CT society, the Society of Cardiovascular Computed Tomography (SCCT) of which the board of directors is composed equally of cardiology and radiology members, as is the general membership. This new society will be tasked with the challenges and issues of appropriate CTA credentialing and training, reimbursement, validation, and education. I would strongly suggest all your readers to register as members at www.scct.org.

You are a cardiothoracic surgeon who now specializes in endovascular care. How and why did you make that transition? As a classically trained cardiothoracic and vascular surgeon over 20 years ago, I was a resident before the era of stents but at the time of early balloon angioplasty. As a resident, I used to operate all night long on PTCA because of abrupt closures. Still, as a cardiothoracic surgical resident I thought there might be something to this and as a naïve resident I wanted to try it. When I finished my training and interviewed in the "real world," I learned the real truth—not only could surgeons not use balloons and catheters, the surgeons didn't even speak to the cardiologists. It was a rude awakening but I still thought this revolutionary approach would have merit, and I looked for a practice in which the surgeons and cardiologists were friends and clinical and equitable partners. To try to make a long story short, Craig Walker, MD, was starting a practice in Houma, Louisiana, which has grown into our CIS practice, and his visions were the same as mine because he knew he could not accomplish all his lofty goals without surgeons as equal partners. Most importantly, he knew that it was best for patient care.

What is happening in cardiothoracic surgery arena in general? Is this specialty eroding? I suspect there are approximately 4,000 practicing cardiothoracic surgeons in the US today. I would not say the specialty is eroding because it is still a great specialty and no one goes through more difficult years of training than cardiothoracic surgeons. It is my belief that this grand specialty has simply not been progressive, certainly not as progressive as the field of cardiology. Almost every cardiovascular treatment, from aortography to CPR, has surgical roots, and one by one these classical treatments have been replaced by catheter-based treatments, leaving the cardiothoracic surgeon with fewer treatment options. A cardiothoracic surgeon started this balloon and catheter revolution more than 40 years ago, when Thomas Fogarty, MD, as a resident tied a few "fly knots" on a urethral catheter using the finger of a surgical glove, creating the Fogarty balloon and launching endovascular therapy.

Please discuss the challenges New Cardiovascular Horizons faces this year and how are you addressing them? What is the focus this year? The initial challenges we faced this year are how to continue to improve and recreate the conference each year and provide provocative, pertinent, and yet new information to our audience. This was an even greater challenge this year because of several other conferences occurring within weeks of our conference. The competition for attendees is becoming fierce, with so many CME events and the physicians and healthcare providers having only a limited amount of time and resources available for education. To address this issue, we continue to emphasize the multidisciplinary focus of New Cardiovascular Horizons and have created multiple simultaneous educational sessions with renowned faculty and presentations not only for cardiologists, endovascular interventionists, and surgeons, but also for podiatrists, internal medicine, family practice, diabetology, nephrology, wound care specialists, RNs, PAs, NPs, and cath lab techs . . . the entire "multidisciplinary cardiovascular team."

However, the biggest challenge this year was the unforeseen tragedy of Katrina and the destruction of New Orleans, which has been our conference home since 1999. Hard decisions had to be made, and the entire conference will be relocated (100% intact with regard to dates and times, and to the agenda, faculty, and educational material) to the lovely Intercontinental Hotel Miami. ■