Options For Treating CLI

This month we return to the topic of critical limb ischemia (CLI) and the evolution of less invasive techniques to treat it. To open the discussion, Drs. Jeffrey H. Freihage, and Robert S. Dieter review the past, present, and future of CLI management. Although surgical bypass has historically been the gold standard for treatment, the higher morbidity and mortality rates associated with surgery, the frequent lack of venous conduit, and poor distal target vessels have bolstered a strong interest in the further development of endovascular therapies for CLI.

Early diagnosis and management of CLI are essential to optimize the chances of limb salvage. An area where we often fall short of the mark is in the hospitalized, critically ill patient. Case studies provided by my colleague David L. Dawson, MD, describe how to recognize and manage the risk factors and complications that can lead to limb ischemia in hospitalized patients.

As the need for advances in CLI treatment grows, the past few years have led to a proliferation of endovascular therapies designed to better treat complex infrainguinal occlusive disease. We will review many of these techniques for you and try to provide guidance on how to make best use of them in your practice. Michael C. Nguyen, MBBS, and Lawrence A. Garcia, MD, provide an overview of recent advances in excisional atherectomy and discuss how this technique has aided the treatment of CLI. Rajesh M. Dave, MD, explains the role of orbital atherectomy and shares two cases from the OASIS trial.

Along with a look at the current status of the VIVA I/XCELL trial by Krishna Rocha-Singh, MD, FACC, FSCAI, the Cypher BTK and LACI trials are the crux of a pair of articles by Dierk Scheinert, MD; and Craig Walker, MD, FACC, FACP, and Vinod Nair, MD, FACC. Dr. Scheinert provides an update on drug-eluting stents in the tibial arteries and discusses 2-year results from the Leipzig Cypher BTK registry. Also, Drs. Walker and Nair provide an update on excimer-laser–assisted angioplasty in the context of the LACI trial, which demonstrated that excimer laser use has facilitated high rates of technical success in crossing and treating complex arterial occlusive disease.

There is still an important role for balloon angioplasty, particularly with the development of more advanced balloon technologies. Lanfroi Graziani, MD, takes a look at the new generation of long (>10 cm) balloons for treating diabetics and non-diabetics. Low-profile, flexible, long balloons have become an indispensable adjunct for revascularization in the most difficult cases. Vinod Nair, MD, FACC, and Peter S. Fail, MD, FACC, FACP, point out that with the availability of newer balloon modalities, such as cutting balloons and cryoplasty, limb salvage can be achieved in a larger percentage of patients. They also emphasize the multidisciplinary approach and the need for these patients to be closely followed after the procedure with input from a vascular surgeon, podiatrist, internist, and/or infectious disease specialist, along with a wound-care team.

In our Imaging & Diagnostics column, Matthew J. Eagleton, MD, and Jonathan L. Schaffer, MD, MBA, share their experience in updating their vascular surgery operating room. We've added something new this month, with the introduction of a Perspectives column, to provide a stage for thought leaders to share their outlook on the current state of medicine. James D. Joye, DO, President of VIVA Physicians (VPI), kicks things off with a discussion of how this non-profit organization is making a difference.

An interview with Alan H. Matsumoto, MD, caps our August issue. Dr. Matsumoto, a leading interventional radiologist, explains the strength of multidisciplinary documents, the 5-year outlook for venous thromboembolic disease, and why technology has an impact on decision making.

I hope that as the summer winds down, this issue has provided you with a thoughtful look at the issues facing our growing population of CLI patients. As this patient base grows, so too must our skills and tools in treatment.

Best wishes,

John R. Laird, Jr, MD