

CLI: In Focus



Over the past few years, it has been customary to dedicate a spring issue of *Endovascular Today* to the management of critical limb ischemia (CLI). This year's issue on CLI largely focuses on

imaging-related issues, highlighting the various state-of-the-art imaging modalities currently available and how preprocedural and intraprocedural imaging can assist in optimizing planning and help improve outcomes and reduce complications.

Vlad A. Alexandrescu, MD, and colleagues begin our CLI coverage with a detailed description of the characteristics of ischemic and venous wounds and how to differentiate these lesions from each other. They explain how they use various imaging techniques and noninvasive and invasive tests to better diagnose and treat arterial and venous ulcers. Next, Fadi Saab, MD; Vinayak Subramanian, BS; and George L. Adams, MD, describe the characteristics of guidewires and present techniques that can be used to successfully cross and treat chronic total occlusions. Thomas Zeller, MD; Mahmood Razavi, MD; Ramon Varcoe, MBBS; and Marianne Brodmann, MD, weigh in on our Ask the Experts question regarding the problems related to the endpoints currently used in below-the-knee clinical trials and offer insights on the ways they can be improved upon.

Next, Francesco Liistro, MD, describes how extravascular ultrasound can be incorporated into below-the-knee interventions. Extravascular ultrasound can be an important tool to measure true vessel diameters, detect flow-limiting dissections, and help decide whether device size escalation or the use of additional techniques is necessary. Andrew Holden, MBChB, then discusses cone-beam CT and use of angiography-based techniques to evaluate CT perfusion during CLI interventions. Biraj B. Bista, MD, and John Moriarty, MD, review state-of-the-art CT angiography, how to improve treatment plans for CLI

with multiple detector CT and dual-energy CTA, and discuss benefits and shortcomings of various types of image reconstruction, including maximum intensity projection, volume rendering, and multiplanar and curved planar reformatted images.

I (JCvdB) contribute a review of both traditional and innovative techniques of noncontrast-enhanced MRA for the diagnosis and procedural planning of CLI. Among the newer techniques, there is a focus on the extensively researched quiescent-interval single-shot technique. To complete our coverage on CLI, Marco Manzi, MD, and Luis M. Palena, MD, describe their approach to using CO₂ angiography in assessing diabetic patients with CLI. They describe the procedural steps employed and discuss preliminary study results for CO₂ angiography in diabetic patients performed at their center.

Additional coverage includes an article by Katharine L. Krol, MD, who responds to a reader question requesting clarification on the difference in coding for vertebroplasty versus vertebral augmentation. Dr. Krol outlines the specific codes needed, what each mean, and when physicians should use a code. She also clarifies coding and payment details regarding sacroplasty that has caused some confusion.

Finally, in our featured interview, Christoph A. Nienaber, MD, shares his thoughts on existing methods for aortic dissection care and those under development, hurdles to establishing regional care centers to treat aortic disease, and the recent findings published by the International Registry of Aortic Dissection organization, among other topics. ■

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