

Focus on Vascular Imaging

In a field that is as driven by technology as endovascular intervention is, there will always be a significant push from physicians and industry alike to produce increasingly advanced devices and techniques, with the ultimate goal being constant improvements in patient care. As next-generation platforms have emerged, we have seen great improvements in endovascular technologies, but few—if any—devices have experienced the degree of evolution that vascular imaging modalities have. In recent years, this progress has been simply astounding, and in this issue of *Endovascular Today*, we are fortunate to have a group of the world's leading experts in vascular imaging presenting their experiences using today's most advanced technologies.

We open with an exciting look at peripheral vascular CTA, as well as an overview of the latest CTA technologies. David E. Allie, MD, and coauthors share their extensive experience, noting that peripheral vascular CTA has become an indispensable clinical tool for treating patients with peripheral vascular disease. Bart E. Muhs, MD, PhD, and colleagues show how MR, one of the safest imaging techniques, is useful for both TEVAR and EVAR, highlighting four-dimensional phase-contrast MR velocity as an innovative technique to evaluate hemodynamics before and after EVAR and TEVAR.

Multimodality imaging holds a valuable role in pre-operative planning and patient selection, according to Vikash R. Goel, MS; Anil Ambekar, MD; and Roy K. Greenberg, MD. Their article states, however, that the reaches of multimodality imaging are yet to be seen. Marshall E. Benjamin, MD, describes how, when his university merged with a private hospital, he was able to

design a state-of-the-art endovascular suite. Next, I provide a review of the pros and cons of IVUS imaging for endovascular procedures, assessing the various applications for IVUS and evaluating some of the disadvantages, such as added procedure time and reimbursement drawbacks, as well as its merits.

For nearly 50 years, transcatheter digital subtraction angiography had been the gold standard to evaluate occlusive disease and infrainguinal arterial circulations. However, Peter H. Lin, MD, et al explain that multidetector technology has improved CT imaging. They compare this modality to other various noninvasive imaging modalities, concluding that, with further refinement, its diagnostic usefulness will increase. We cap off our imaging feature with an article by

Patrick Peeters, MD, and colleagues, who describe what future catheterization labs will include, stressing the importance of an integrated suite.

This issue contains several additional interesting focal points. We have a special section on varicose vein interventions and practice building, with articles featuring José I. Almeida, MD, FACS, RVT; Jeffrey K. Raines, PhD, RVT; and James L. "Bo" Johnson II, MD, FACS. In their FDA Insights column, Dorothy B. Abel and Angela C. Smith explain medical device labeling, a subject that seems simple but can become complicated without proper understanding. We are also excited to share a variety of illustrative case presentations.

Our issue concludes with an interview with Manish Mehta, MD, my former fellow, a brilliant interventionist/surgeon, and a great friend. Dr. Mehta discusses advancements in aortic repair, the importance of community awareness, and how interventionists, including the next generation of vascular surgeons, can prepare for the future. ■



A stylized, handwritten signature in black ink, appearing to read 'Takao Ohki'.

Takao Ohki, MD, PhD, Chief Medical Editor