

Lesion Assessment

Since the inception of percutaneous intervention, imaging has driven our ability to both use and develop our therapeutic armamentarium. Our decision making is governed by our ability to see what we are dealing with and what we are doing. Just as flat panel x-ray has moved our therapy forward, echocardiography, computed tomography, and magnetic resonance modalities are an increasing part of our preprocedure assessment and procedure guidance. This issue of *Cardiac Interventions Today* highlights the contributions of imaging to the interventional landscape.

Fractional flow reserve is a unique and essential tool in the cardiac catheterization laboratory, and William F. Fearon, MD, explains its importance for today's interventional cardiologist. Lloyd W. Klein, MD, and Ronald J. Krone, MD, address the question of whether the AHA/ACC and SCAI lesion classification guidelines are still useful by looking at the history of angiography-based risk assessment models for coronary interventions, their current limitations, and how today's interventionist should carefully consider analytic systems.

Next, Federico E. Mordini, MD; Steven Smart, MD; and Ioannis Koktzoglou, PhD, review the literature on magnetic resonance imaging for plaque assessment, examining coronary as well as peripheral applications for this modality. Magnetic resonance imaging offers many advantages over other modalities, and the future for this modality's application in vascular imaging remains particularly promising.

We close our cover story with an article by Danny Dvir, MD, and Ran Kornowski, MD, FACC, FESC, who explore the new directions of intravascular imaging modalities for assessing coronary lesions. They point

out the limitations of conventional angiography and show us several novel modalities and how these options may facilitate early detection of vulnerable plaque, although pathological examination remains the gold standard.

This month, Zoltan G. Turi, MD, provides us with an update to his annual *Endovascular Today* Overview of Vascular Closure, including additional coronary commentary as well as technology

updates. We have also included useful charts on closure and assisted compression devices.

Jayant Bagai, MD, FACC, and David Zhao, MD, bring us their Tips & Tricks on how a "figure-of-eight" stitch can be used safely and effectively in a large number of cases after removal of large-caliber femoral venous sheaths during coronary interventions. This simple approach has great relevance as we utilize more and more large-caliber venous access sheaths for structural heart interven-

tions, and I have had success with it for venous lines up to 24 F. Sameer Bansilal, MD, MS; Samin Sharma, MD; and Michael Farkouh, MD, MSc, examine the current era of treatment for diabetic patients with multivessel disease, highlighting recent advancements with drug-eluting stents and medical therapies as promising options to treat this challenging subset.

We wrap up this issue of *Cardiac Interventions Today* with an interview with Mark A. Turco, MD, who discusses what needs to be accomplished next in interventional cardiology, particularly with drug-eluting stents and structural heart disease treatment options, and provides his opinions on medical therapy versus percutaneous coronary interventions.

I hope that this issue provides you with valuable insights for your practice, and we look forward to hearing your comments. ■



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