

Zeroing in on Coronary Imaging and Lesion Assessment

This issue of *Cardiac Interventions Today* focuses on lesion assessment and imaging modalities. The subject is timely in view of the increased emphasis we are seeing on clearly defining coronary ischemia prior to interventions.

We begin with an overview of how intravascular ultrasound imaging, in addition to angiography, can be valuable for evaluating left main disease, as described by Rodrigo Bagur, MD, and Stéphane Rinfret, MD, SM, FRCP(C).

In recent years, fractional flow reserve has become an increasingly popular imaging technique for coronary stenosis assessment. Frederick St. Goar, MD; James Min, MD; Bon-Kwon Koo, MD; and Charles Taylor, PhD, explain CTA-derived coronary FFR and this technology's ability to obtain patient data without a cardiac cath lab. Mouhamad H. Abdallah, MD; Carlos Sanchez, MD; and Massoud A. Leeser, MD, FACC, FSCAI, then detail the ways in which FFR can be beneficial for assessing various types of complex lesions.

For the best possible outcomes after transcatheter aortic valve replacement, multimodality imaging is crucial. Sachin S. Goel, MD; Paul Schoenhagen, MD; E. Murat Tuzcu, MD; and Samir R. Kapadia, MD, explain how the use of fluoroscopy, echocardiography, and multidetector computed tomography can aid in preoperative planning and intraprocedural guidance.

Next, we have a look at optical coherence tomography as a tool for optimizing stent evaluation from Giulio Guagliumi, MD, FESC, and Vasile Sirbu, MD. In the article, the authors describe the discriminating power of this imag-

ing tool to supplement coronary angiography for improved outcomes.

We also delve into the world of structural disease with a review of the current status of randomized trials for patent foramen ovale closure from John D. Carroll, MD, and Michael S. Kim, MD. In light of the recent publishing of the CLOSURE I results, Principal Investigator Anthony J. Furlan, MD, also weighs in on the rationale behind the study's design and the potential impact this trial could have on clinical practice in the future.

Transeptal puncture has recently experienced a reemergence due to the development of transcatheter therapies for atrial fibrillation and mitral valve disease. Damien Kenny, MD, and Clifford Kavinsky, MD, review the basics of this technique for ensuring safe puncture.

Sunil Rao, MD, shares his experience with the SAFE-PCI trial and findings that may affect future treatment for women. We also speak to Sameer Mehta, MD, FACC, MBA, who tells us why and how he decided to limit his practice solely to percutaneous coronary intervention for acute MI.

We close the issue with an interview with Steven L. Goldberg, MD, who shares his insights about clinical study on functional mitral regurgitation treatment and developing a medical philosophy based on individualized care.

As always, we hope you find these reviews useful to help keep up with the large volume of recently published interventional cardiology literature. Our goal is to synthesize current literature and bring together what is new in a subject area. Please let us know if we are meeting our objective, or if you have suggestions for future issues. ■



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