

Modern Imaging Modalities

This issue touches on a few great topics. Imaging has led the way in interventional therapy from the beginning. Without the advent of high-quality fluoroscopy systems, many of the procedures we perform easily today would be impossible. New device therapy for structural heart interventions requires additional pre- and intraprocedure imaging modalities, and this issue reviews the status of some of these important adjuncts. We also discuss the clinical importance of two recently published PCI trials, FAME and SYNTAX, and provide some perspective on their importance.

James A. Goldstein, MD, takes a look at coronary computed tomographic angiography (CTA) and how it compares to other imaging modalities—specifically IVUS and invasive angiography—concluding that CTA can and should be used to identify vulnerable plaque.

Eric Yamen, MBBS, FRACP, and David P. Lee, MD, discuss the FAME trial and the benefits of using fractional flow reserve to assess the need for revascularization in subjects with multivessel disease. Stephen G. Ellis, MD, then puts the FAME trial into perspective. This trial, which is intended to show how FFR performs against PCI, although carefully executed, leaves many questions unanswered. However, although there is still much left for discussion, this does not mean that the benefits should be overlooked.

Takashi Kubo, MD, PhD, and Takashi Akasaka, MD, PhD, discuss the advantages of optical coherence tomography and compare it to other coronary imaging methods such as IVUS, angiography, and angioscopy.

Eugenia P. Carroll, MD, and John D. Carroll, MD, examine technical advances in multidimensional coronary imaging and provide an overview of currently available technology, as well as the types of imaging interventionists can expect to see in the future.

Zahid Amin, MD; Qi-Ling Cao, MD; and Ziyad M. Hijazi, MD, review intracardiac echocardiography and its application in the diagnosis of structural heart defects. They show this modality's usefulness is various lesions and comment on its future purpose.

This month, Dr. Patrick Serruys and I discuss the state of the SYNTAX trial, comparing stenting with coronary artery bypass graft (CABG) surgery. The 1-year results show that CABG remains the standard of care, but the take-home message is much more than that, as we show in our discussion.

We conclude with a thoughtful interview with Dr. Zoltan G. Turi. He tells us a bit about his facility outside of Philadelphia, comments on his annual closure update, and looks to the future of interventional cardiology, noting what he sees on the horizon.

I hope you enjoy the issue and that it is consistent with one of our important goals to help distill the avalanche of new data in our field and synthesize new, clinically important information. ■



A stylized, handwritten signature in black ink, appearing to read 'Ted E. Feldman'. The signature is fluid and cursive, with a large, sweeping flourish at the end.

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