

Coronary CTOs

The past year in interventional cardiology has been filled with great controversy. Reports suggesting excess risk for drug-eluting stents have been supplanted by multiple trials demonstrating improved late mortality with drug-eluting versus bare-metal stents. The recently presented COURAGE trial data demonstrate that PCI is effective in reducing the ischemic burden in stable coronary artery disease and that reductions in ischemia are associated with lower mortality rates. These events have overshadowed the celebration of the 30th anniversary of the first PTCA procedure by Andreas Grüntzig on September 16, 1977. In the 30 years since the procedure was introduced, our field has overcome one limitation after another. Improvements in technique and technology have diminished restenosis, virtually eliminated emergency CABG surgery for failed procedures, and made embolic protection for saphenous vein graft intervention routine. For our concluding issue of *Cardiac Interventions Today's* 2007 exciting premiere year, we bring you coverage of one of the most challenging lesion subsets: coronary chronic total occlusions (CTOs).

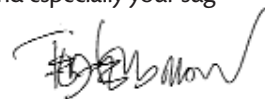
Etsuo Tsuchikane, MD, PhD, opens our featured content with a compelling overview of retrograde wiring techniques to achieve successful recanalization. This approach is a combination of using the retrograde collateral route with the retrograde wire-crossing technique. Dr. Tsuchikane reviews several techniques to perform after successful wire passing, including the retrograde wire-crossing technique, kissing-wire technique, knuckle-wire technique, and the CART technique. His insights will help both operators who are just beginning and also those with considerable experience to use these approaches for CTO therapy. Next, John E. Coletta, MD; Etsuo Tsuchikane, MD, PhD; Ravi Nair, MD; Daniel I. Simon, MD; and Marco A. Costa, MD, PhD, show how IVUS is an integral part of CTO recanalization. IVUS is key for identifying coronary anatomy. The investigators describe the reaches of IVUS, from the well-known use as a tool for balloon and stent size selection to the less-considered use as an aid when treating CTOs using the false lumen method, the branch vessel method, and for salvage PCI. Although there is still demand for more development of IVUS for coronary imaging, it promises to be a far-reaching tool for CTO treatment. Joseph A. Quash, Jr, MD, and Richard R. Heuser, MD, FACC, FACP, FESC, stress the usefulness of optical coherence reflectometry in coronary CTO treatment. They review the history of optical coherence

reflectometry and explain how the growing technology will ensure greater success rates for treating CTO lesions. They describe the best candidate for treatment and the importance of knowing when and when not to treat these difficult-to-cross lesions. William L. Lombardi, MD, FACC, FSCAI, and Noah J. Jones, MD, conclude our cover feature with consideration of the economic impact of CTO interventions, supporting that reduced profit should not dissuade interventionists from providing a therapy that has potential benefit to patients. The required skills for CTO intervention will translate to non-CTO cases and thereby improve competence in other subsets, giving this procedure deserved economic justification.

We are honored to present our first Society Update department article by Issam Moussa, MD, and Joseph De Gregorio, MD. By highlighting presentations by the Antonio Colombo Alumni Association at the 1st Annual Innovation in Interventional Cardiovascular Therapy

meeting, they show us the trends in evidence-based medicine and cite the difficulties of matching individual patient needs with collective patient data. Drs. Moussa and De Gregorio support the statement that evidence-based medicine should incorporate external evidence with individual expertise without neglecting careful patient selection. In our Techniques article, Ronald P. Caputo, MD, FACC, FSCAI, compares early experience with PCI to today's standards and calls for reconsideration of the transradial approach. Dr. Caputo stresses that as operator experience increases, interventional cardiologists will be obliged to consider transradial PCI. We finish the year with an interview with the President of the Society for Cardiovascular Angiography and Interventions, Bonnie H. Weiner, MD. She discusses the goals of the society and what to expect at the annual meeting. Dr. Weiner also addresses the difficulties of large, randomized trials, such as COURAGE, and explains the SCAI's position on this trial's results.

We have appreciated your audience throughout our inaugural year and trust you will continue to enjoy *Cardiac Interventions Today* in 2008, when we begin the New Year with a comprehensive review of management complications. Please send your comments and especially your suggestions for future topics. ■



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