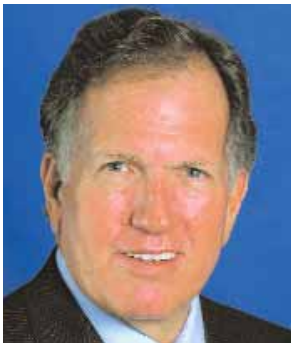
Neurovascular Therapies

Patients in need of neurovascular intervention present some of the most significant challenges faced by today's vascular care teams. Most of these patients, particularly those who have suffered strokes, require immediate intervention, making an already difficult procedure into a time-sensitive situation. Accordingly, physicians treating these patients must be well versed in today's devices and drug options, understand the intricacies of the associated anatomy, and have carefully honed procedural techniques.



Although many interventionists do not treat stroke or other intracranial disease states, awareness of current options and trends in therapy are critical for all vascular interventionists and staff. Prompt and efficient diagnosis and referral can mean the difference between an excellent, live-saving outcome and the inability to effectively intervene. Whether you offer comprehensive neurovascular therapy in your community, are looking to do so in the future, or simply wish to better understand the available options your colleagues might utilize, we hope the insights provided by the following expert physicians are of interest to you.

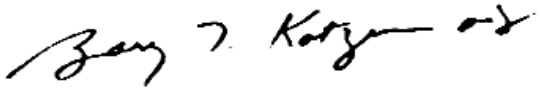
First, Alex Abou-Chebl, MD, overviews the endovascular treatment of acute ischemic stroke, reviewing the pathophysiology and treatment options and reminding us that patient selection remains of utmost importance. Next, Gerald Wyse, MD, discusses his experiences using mechanical thrombectomy options for treating acute stroke patients. Lee R. Guterman, PhD, MD, and Kenneth S. Smerka, RPA-C, provide a review of some of the available devices for the treatment of intracranial stenosis, sharing techniques to avoid procedural pitfalls.

Elad I. Levy, MD, et al, share their experience with simulation training at the University of Buffalo Department of Neurosurgery, asserting that simulation is a useful training tool for neuroendovascular therapy. To cap our cover feature section, Amit Mahajan, MBBS, MD, and Ketan R. Bulsara, MD, present a review of the use of intracranial stents to treat atherosclerotic disease and aneurysms.

In our Imaging & Diagnostics department, Olusegun O. Osinbowale, MD, and Yung-Wei Chi, DO, review the preferred modalities for the diagnosis of renal artery disease. Their thorough overview offers great insight and an array of supplemental images and tables. We also present a Challenging Cases discussion in which Shakeel Usmani, MD; David J. James, MD; and Issam D. Moussa, MD, describe the treatment of bilateral renal artery stenosis in a patient with refractory hypertension and pulmonary edema. Next, we have an update from the Peripheral Vascular Surgery Society, in which Tina R. Desai, MD, FACS, explains the organization's purpose and enrollment requirements.

In our closing interview, Daniel Clair, MD, discusses CMS's decision to limit reimbursement expansion for carotid artery stenting, as well as what he learned about embolic protection devices as principal investigator of the EMPiRE trial.

Acute stroke therapy represents one of the greatest opportunities for further clinical development and improved patient outcomes. As always, we hope you find this issue of *Endovascular Today* filled with lively discussions of current trends and events in our exciting field. ■



Barry T. Katzen, MD, Chief Medical Editor