

# Assessing Carotid Stenting

Three years ago, the first carotid artery stenting (CAS) system was approved for use in the US, and since then, it has continued to face ongoing debate against the proven gold standard, carotid endarterectomy (CEA). As technology and operator experience progressed, CAS became an attractive treatment alternative in patients with carotid occlusive disease and patients who are deemed high risk for CEA. CAS has endured the scrutiny of clinical trials, a thorough FDA review, and several years of availability, yet it still faces significant barriers to widespread dissemination, including CMS reimbursement, proper patient selection, and optimal training for operators. This issue of *Endovascular Today* examines the current state of CAS and provides you with updates on the trials and currently available devices.

The CAS versus CEA debate opens our issue. In their article, Peter H. Lin, MD, et al appraise current prospective randomized clinical trials studying CAS versus CEA. At the present time, it remains unclear which patient cohorts will definitively benefit from each intervention, although the perceived advantages of percutaneous interventions compared to open surgical reconstruction hold true in CAS when compared to CEA, including avoidance of surgical incision, decreased procedural discomfort, decreased patient anxiety, and avoidance of general anesthesia.

The factors contributing to the slower-than-anticipated growth of CAS in the US is the focus of an editorial by Gary S. Roubin, MD, PhD. Dr. Roubin argues that we need to move forward using the large prospective data sets available from the multicenter, postmarketing registries. This real-world, community experience has provided exceptionally valuable data.

William A. Gray, MD, points out that the number of patients in various postmarket surveillance registries now exceeds 10,000, easily representing the largest prospective collection of data in carotid therapy. He stresses that, although the randomized trials will be critical in developing the comparative data for CAS and CEA in the standard-surgical-risk patient and should be supported whenever possible, the CAS registry data, both previous and future, will continue to provide important insights into this therapy.

We also feature a debate between John H. Rundback, MD,

of the TACIT trial, and Sumaira Macdonald, MD, of ACST-2, regarding the necessary elements to evaluate the current state of the art for treating asymptomatic carotid stenosis. The supporters of TACIT feel that all outstanding questions regarding carotid therapy could be answered in this important single trial.

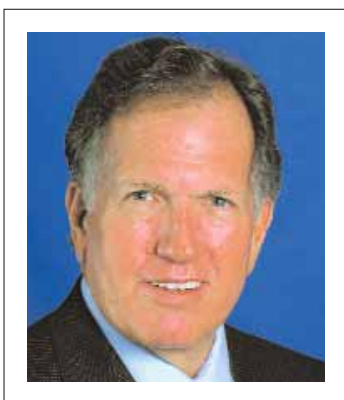
An update on the CREST trial is provided by Susan E. Hughes, BSN, and coauthors. Enrollment for CREST, the largest randomized clinical trial in progress that compares CEA and CAS for the prevention of stroke, should be completed in mid-2008, and follow-up should be completed in mid-2009. In addition, we have included a CAS clinical trial chart and a CAS device chart to illustrate the progress of this therapy.

In our Pharmacology department, Ravi K. Veeraswamy, MD, and Ross Milner, MD, discuss the results of the WAVE trial, which concluded that using warfarin and an antiplatelet agent did not offer any advantage over antiplatelet therapy alone in terms of preventing stroke, death, or ischemic complications in the cardiac or peripheral vascular beds, but it did lead to an increased risk of bleeding and its attendant complications. The authors believe that it is likely that this report will significantly

alter clinical practice and skew practitioners away from dual therapy with anticoagulation and antiplatelet therapy in patients with peripheral arterial disease.

A featured interview with Kenneth Ouriel, MD, completes this month's issue. Dr. Ouriel, previously Chairman of Surgery at the Cleveland Clinic, is now working with the Cleveland Clinic and Sheikh Khalifa Medical Center in Abu Dhabi. He discusses his new project, the challenges and benefits of working in the UAE, and the exciting pace of medical progress there.

I hope you'll enjoy our annual review of the current state of CAS. As operator experience and technology improvements continue to accelerate, and we can expect to see the status of CAS progress accordingly in the coming months. ■



Barry T. Katzen, MD, Chief Medical Editor