Stroke in the new millenium

H. Hunt Batjer, M.D.,¹ Ralph Dacey Jr., M.D.,² and Michael T. Lawton, M.D.³

¹Department of Neurological Surgery, Northwestern University Feinberg School of Medicine, Chicago, Illinois; ²Department of Neurosurgery, Washington University School of Medicine, St. Louis, Missouri; and ³Department of Neurosurgery, University of California, San Francisco, California

We entered the 21st century with great optimism that cerebrovascular disease, both ischemic and hemorrhagic, would fall off the radar as a major public health issue. There was a generalized sentiment that open surgery would dwindle in importance and be replaced almost completely by minimally invasive and endovascular techniques. Neither of these predictions has come to pass. Hemorrhagic stroke continues to afflict high numbers of people earlier in life, in general, than ischemic stroke and the incidence is actually increasing in many centers as a result of the newer blood-thinning cardiac medications. Our public awareness efforts have improved regional triage networks, and more and more patients are presenting with acute cerebral ischemia within the critical therapeutic windows. On the technical side, numerous new device advances have occurred for the delivery of highly complex endovascular interventions. And the same is true on the open surgical side, with very creative new revascularization techniques becoming mainstream in all of the major centers.

This issue of Neurosurgical Focus provides a potpourri of offerings ranging from new information regarding the natural history of ischemic and hemorrhagic states, advanced imaging as it relates to evolving case selection criteria, evidenced-based results for medical and surgical therapies, and updates on when more traditional endovascular and surgical strategies should be utilized. The editors hope that these papers are informative to the readership and help improve outcomes from these often disastrous conditions. (DOI: 10.3171/2011.4.FOCUS1199)