AHA Recommendations

Fighting Heart Disease and Stroke
Recommendations of the AHA Stroke Positioning Task Force

William E. Strauss, MD; William H. Thies, PhD; Rose Marie Robertson, MD; Harold Adams, MD

“Fighting heart disease and stroke” has long been the mission as well as the slogan of the American Heart Association. Today, with the dramatic and parallel breakthroughs that have advanced treatment of both diseases, our mission and slogan have never been more true.

To be candid, of course, for many years physicians in our own organization and elsewhere have seemed almost disinterested in stroke—believing perhaps that they should devote their energies to conditions more susceptible to therapy. Many have also not recognized the extent to which the AHA has been committed to this disease: Stroke is the leading medical journal in the field, the eighth most-cited publication in the cardiovascular arena, and the most prominent journal devoted entirely to stroke. The AHA is the second largest supporter of research related to stroke, surpassed only by the National Institutes of Health. We devote millions of dollars to this research every year and have nearly tripled the number of grants being reviewed by the stroke study group in the last several years. We also host the largest annual scientific gathering devoted to stroke: our 23rd Annual Conference on Stroke and Cerebral Circulation attracted over 1500 attendees to Orlando this past February. The promotion of education and advocacy by means of the Stroke Connection—a combination of a toll-free hotline, magazine, and stroke club—supports the needs of the stroke survivors and their families.

These achievements stated, the AHA Board of Directors has felt the need to review this organization’s ongoing commitment to stroke. The decision to reevaluate reflects many factors. America is aging, and the population affected or potentially affected by the disease continues to expand. Most important, it has become increasingly apparent that the two overwhelmingly most common presentations of life-threatening vascular disease—coronary artery disease and atherothrombotic cerebrovascular disease—share the same risk factors, pathophysiology, and now therapeutic approaches.

The last two decades have demonstrated that atherothrombotic pathophysiological mechanisms underlie the most common form of cardiac disease—coronary artery disease—and are the most prevalent etiology of stroke. Not surprisingly, the same risk factors exist for each disease, with three being key: hypertension, smoking, and dyslipidemia. Perhaps even more important, data now demonstrate that by modifying these factors we can reduce the risk for stroke as well as heart disease.

After advancing age, hypertension has long been recognized as the factor that most closely correlates with the development of stroke,1 playing a role in several underlying mechanisms. At least 17 randomized trials2 have demonstrated the morbidity and mortality benefits associated with the treatment of hypertension. Indeed, studies3 have shown that reducing blood pressure apparently has a greater impact on reducing cerebrovascular events than it does on reducing coronary events, at least with the agents employed.

Although the benefits for coronary disease associated with lowering elevated cholesterol levels, chiefly LDL cholesterol, have been widely recognized for some time,4,5 until recently the implications for stroke have been less clear. Recently, however, two studies demonstrated a highly significant and clinically relevant reduction in the incidence of stroke in patients treated with HMG-CoA reductase inhibitors.6,7

Remedial approaches for coronary and cerebrovascular disease have similarly evolved in parallel. Surgical revascularization of carotid artery stenosis actually predates coronary bypass by over a decade,8 and revascularization has been approached in both territories using the same armamentarium of stents and balloons.

All this progress acknowledged, the greatest impetus for dramatically changing our attitude toward the therapy of stroke has come from the successful treatment of acute ischemic stroke. A number of new approaches, including such neuroprotective agents as glutamate antagonists, glycine antagonists, and antioxidants/free radical scavengers, hold substantial promise and are under investigation.1

The most important advance has been the acute use of thrombolytic therapy. The advent of this therapy in the 1980s revolutionized the treatment of patients experiencing myocardial infarction. Similarly, use of such therapy in patients suffering an acute ischemic stroke is clearly effective. This breakthrough has energized the field and at the same time dramatically highlighted the need to ensure that physicians understand the value of the new therapy. This education should extend as well to patients, their families, other health care professionals, and the general public.

As we educate, we must of course remain mindful of the dangers of oversimplification. There are at least three major

From the Cardiovascular Division, VAMC, West Roxbury, Mass, and Harvard Medical School, Boston, Mass (W.E.S.); Stroke Division, American Heart Association, Dallas, Tex (W.H.T.); Department of Medicine, Vanderbilt Medical School, Nashville, Tenn (R.M.R.); and Department of Neurology, University of Iowa, Iowa City, Iowa (H.A.).

Correspondence to William E Strauss, MD, Cardiology, VAMC, 1400 VFW Parkway, West Roxbury, MA 02132.

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types of stroke: thromboembolic, subarachnoid hemorrhage, and intracerebral hemorrhage. While we are entering an exciting era when therapies are available for the treatment of acute stroke, such therapies must be employed carefully as well as expeditiously. Misdiagnosis can be disastrous.

Stimulated by increasingly obvious demographic changes and by an expanding pool of research that shows the parallels between cardiac and cerebrovascular disease, the AHA is committed to pursuing its full mission. That commitment will affect how we organize our programs, how we spend our money, and how we ask volunteers to devote their time.

- The Board has already created a Stroke Division and assigned a senior member of the staff to lead this effort. The Board has also created a committee to monitor AHA activities and ensure that stroke-related programs receive the proper degree of attention.
- AHA research grants will be more widely advertised. Here, as elsewhere, we must recognize the common interests shared by cardiologists and neurologists. Grants should promote research that addresses the causes and treatment of both conditions equally.
- Advocacy will be enhanced by partnering with other professional and not-for-profit organizations.
- Fundraising efforts will reach out to a broader population.

As we make these and other changes, it is essential that we recognize that this is a time of exciting opportunity. Change can seem threatening. But evidence abounds that heart disease and stroke are indeed profoundly linked. It is only fitting that the American Heart Association continue to lead, that we continue to live up to our motto: fighting heart disease and stroke.

References

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