



Cerebrovascular Surgery

Editor: Philip E. Stieg, PhD, MD

Issue 4 ♦ Volume 1

Chairman's Message



Steven L. Giannotta, MD

The non-surgical treatment of stroke has entered a distinct growth phase. The recent introduction of intravenously effective thrombolytics combined with the advent of separate billing codes for such treatment has dramatically raised the collective consciousness of neurologists and other practitioners to recapture this previously unattractive group of patients.

Invasive treatment paradigms are also changing. Arterially delivered thrombolytics have been shown to be effective when given within a six hour time limit. Preliminary results suggest that balloon angioplasty may be effective in certain instances of carotid bifurcation atherosclerosis. Where does this flurry of activity leave the neurosurgeon?

Traditionally content to perform a modest number of carotid endarterectomies and to evacuate the occasional intracerebral hemorrhage secondary to the overzealous use of anti coagulants, we have watched our involvement in stroke management dramatically diminish since the days of the EC/IC bypass. Indeed, within the Medicare population we perform less than 10 percent of the endarterectomies, leaving the overwhelming majority for our vascular and cardiovascular brethren.

Attempts are being made to obtain government funding for two angioplasty and carotid stenting trials. If successful this will temporarily reduce further the piece of the endarterectomy pie that we now enjoy. If future trials show enough efficacy, that reduction could be on a more prolonged basis. In response, the Joint Section on Cerebrovascular Surgery Executive Council has established a task force to develop tactics and guidelines for the reemergence of the neurosurgeon as the leader in institutionally based or community based management of stroke. Formal recommendations will be made in the near future, but in the meantime, strategies should be two-fold.

First, neurosurgeons should take a leadership role in establishing an early response team for stroke patients in their local institu-

tion. Organizing appropriate personnel including emergency room, neurology, interventional neuroradiology, nursing and imaging as well as publicizing the availability of these services to the public and to EMS services will go a long way to increasing the visibility of such a team in the community.

Second, assuming that one or both of the angioplasty and stenting trails is funded, each of us should assess our capabilities of participating. For most of us, this will involve the identification of an interventional neuroradiologist with angioplasty and stenting capabilities. For a few of us it might involve seeking extra training along with a neuroradiologist in the technique, especially in those communities where the service is unavailable.

In order to facilitate participation in the trails, a model Institutional Review Board proposal will be developed with appropriate background material, treatment paradigm, risks, and benefits. This should be available to our membership within the next month. Using the power of the World Wide Web, we plan to interview neurosurgeons who have developed successful institutionally based stroke teams for tips on organization and management. Read this publication for further developments.

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AANS/CNS Support National Rapid Response Stroke Program

The American Association of Neurological Surgeons (AANS) and Congress of Neurological Surgeons (CNS) were among more than 50 organizations invited to participate in the National Symposium on Rapid Identification and Treatment of Acute Stroke sponsored by The National Institute of Neurological Disorders and Stroke (NINDS) on December 13 in Washington, DC. This unprecedented gathering brought together more than 400 medical professionals involved in the diagnosis, care, and treatment of acute stroke.

The goal of the symposium was to lay the foundation for a national consensus plan for rapid stroke treatment. During the day-long conference, participants created a blueprint for the following areas: Pre-hospital emergency medical care systems, emergency department response to stroke, acute hospital care, health care systems, and public education.

Representing organized neurosurgery at the symposium was Marc R. Mayberg, MD, President of the CNS and Professor of Neurological Surgery at University of Washington School of Medicine in Seattle. A total of 20 neurosurgeons from across the country participated in the deliberations.

In concert with the symposium, the AANS and CNS jointly issued a public statement supporting the establishment and maintenance of national programs to promote the rapid identification and emergent therapy for stroke and recommended several policies to promote and improve the emergency treatment of patients with acute cerebrovascular conditions, including:

- ◆ A national program to promote the establishment of community stroke centers, where a designated multi-speciality team can rapidly assess and treat patients with brain attack.
- ◆ Development of training programs and in-field treatment protocols in cerebrovascular disorders for emergency technicians.
- ◆ Comprehensive national and community public awareness programs concerning symptoms and early signs of brain attack.

- ◆ Increased funding for research in cerebrovascular diseases in the following areas:
 - Basic research: Including mechanisms for ischemic brain injury, pathophysiology of cerebral blood vessels, and neuro-protective agents
 - Clinical research: Including the development of clinical trials to test the efficacy of medical and surgical therapies for acute ischemic and hemorrhagic stroke.
- ◆ Development and application of treatment guidelines and outcome measurement instruments for acute cerebrovascular disorder.
- ◆ Establishment of stroke centers of excellence combining clinical and basic research in stroke
- ◆ Support of the Brain Attack Coalition.

In a press release distributed to media covering the symposium, Dr. Mayberg said, "Medical systems have not been adequately attuned to the quick and effective response that stroke requires. Further, there has been a general lack of understanding of stroke and its symptoms, not only among the lay public, but to a great extent within the health care field itself. Overall, stroke patients have often been considered as moderate-to-low priority in emergency rooms.

"Now we know that getting the patient with stroke into the hands of competent medical care, quickly, can make a difference. Best of all, we have effective therapies for improving patient outcome. But, to change how we deliver stroke care, a coordinated, national effort is needed. The NINDS symposium represents an important step toward accomplishing this goal."

The full text of the policy statement and press release can be viewed on **NEUROSURGERY://ON-CALL™**, the AANS/CNS Web site on the Internet. The site can be found at: <http://www.neurosurgery.org>. The NINDS material is located in the Clinical Topics/Cerebrovascular section.

Secretary's Report

Issam Awad, MD

Under the leadership of Chairman Stephen Giannotta, MD, past Chairman L. Nick Hopkins, MD, past Secretary/Treasurer Christopher Loftus, MD, and myself, the AANS CNS Joint Section on Cerebrovascular Surgery (JSCVS) is more vibrant, has more members in all categories, is more involved in projects and activities on behalf of the subspecialty and is more fiscally secure than at any time in the past.

Our first Annual Meeting last year in San Antonio was a smashing success, and left us in a position to undertake important professional, scientific and educational activity in years to come. We have initiated a long-term reserve fund with a strategic plan of minimizing risks to the Section and patient organizations with expanding activities and projects. Our Danaghy Lectureship Fund and the Galbraith Award

Fund have been bolstered and will remain secure for the foreseeable future. Additional research awards and fellowships will be maintained for at least one additional year through the generous sponsorship of Bayer Corporation, Pharmaceutical Division and of Pharmacia and Upjohn, Inc., respectively.

Plans for our second Annual Meeting in Anaheim, California, February 4-6, 1997, are set. Linda Sternau, MD, and the Organizing Committee have put together a stellar scientific program, focusing on controversies, decision-making, surgical technical aspects, and plenty of consultant interface and case discussions. We received a record number of abstract submissions, and there will be a wide opportunity for oral presentations, posters and technical exhibits — all focused on neurovascular surgery and related topics.

(continued on page 3)

Changes Proposed for Section Rules and Regulations

Several changes have been proposed for the Rules and Regulations of the AANS/CNS Joint Section on Cerebrovascular Surgery. These will be presented to the membership for approval at the Joint Section meeting during The American Association of Neurological Surgeons Annual Meeting in Denver.

Please review the changes, as presented here, and be prepared for discussion. The changes are highlighted in bold type.

Article II Membership Qualifications Section 1

(B) Senior Member. Senior Membership may be extended to an Active Member who, upon reaching the age of 65 years **and /or having retired from their practice**, requests in writing to the Secretary-Treasurer to become a Senior Member. This requires approval of the Council and approval by 75 percent of the Active Membership attending the next business meeting. The dues are thereafter waived.

(C) Candidate Member. Candidate Membership may be extended to a resident **or fellow** in an approved neurological surgery residency program who is also a member of the AANS and/or CNS. When the candidate subsequently meets the appropriate criteria and upon receipt of the required application and references, Active Membership will be considered by the Membership Committee as outlined in Article VII-Section 1.c.

Article VI Meetings Section 1

(A) Meetings of the Executive Council and general membership shall be held in conjunction with the Annual Meetings of the American Association of Neurological Surgeons and the Congress

of Neurological Surgeons. A meeting of the Executive Council shall also occur during **either** the meeting of the Stroke Council of the American Heart Association **or the Annual Meeting of the Joint Section on Cerebrovascular Surgery**.

(D) Program Committee. The Chairman, with the approval of the Executive Council, will appoint a separate Program Committee for Section Meetings at the Annual Meeting of the AANS and CNS, as well as any free-standing meeting of the Joint Section. Each Program Committee for the Annual Meetings of the parent organizations will consist of three members. The Program Committee Chairperson shall serve as an ex-officio member of the Executive Council if he/she is not a member of the Council.

The Program Committee of the free-standing meetings shall consist of a Chairperson, and an Associate Chairperson, who will assume the duties of Chairperson for the meeting of the following year. The number of members appointed to the Program Committee shall be appropriate to carry out duties such as continuing medical education, local arrangements, abstract review, working budget, and preliminary program.

Each of the Program Committees will collaborate with the Annual Meeting and Scientific Program Committees of the respective parent organizations including the AANS, CNS, and AHA Stroke Council.

Secretary's Report (continued from page 2)

Our membership drive continues to thrive under the new leadership of Membership Chairman Christopher Ogilvy, MD. We are reaching out to any neurosurgeon in good professional standing, who holds membership in either the AANS or CNS, and a special interest and expertise in cerebrovascular surgery. An Associate Member category is available to colleagues in vascular neurology, neuroradiology, anesthesia, basic sciences and nursing. A Candidate Member category is available for residents, fellows and other neurosurgeons who are Candidate Members of either the AANS or CNS.

Our Section is working ahead of all other specialty sections on Outcome Assessment, under the leadership of Robert Harbaugh, MD, and there will be many exciting milestones soon crossed in this area. It is expected the Disease Specific Outcome Parameters will soon be subjected to prospective validation, aiming to establish a normative database of expected outcomes, adjusted for host factors, disease severity, and specific intervention. Another aim is to validate

relevant and independent significant variables among the host of codependent parameters affecting outcome.

There are profound implications of this work on the scientific credentialing of our work, as expected by us, our patients and third party payers. We are working closely with outcomes initiatives of the parent organizations, the American College of Surgeons and other entities to provide subspecialty and disease relevant input, and to avoid duplication.

The JSCVS is committed to enhancing professional, educational and research activities related to neurosurgical treatment of cerebrovascular disorders. The talents and energy of all neurosurgeons must be mobilized to this end. To help with these efforts, we encourage you to get involved in Section activities and projects. If you have any questions, you may reach me directly by calling my office at (203) 737-2096 or by e-mail at issam.awad@yale.edu

Position Statement on Carotid Angioplasty and Stenting

Marc Mayberg, MD

Co-Chairman Joint Task Force on Carotid Endarterectomy



Marc Mayberg, MD

The treatment of internal carotid stenosis at the cervical carotid bifurcation has significantly evolved over the last 40 years. Recent randomized prospective controlled trials have shown carotid endarterectomy to be safe, efficacious, and superior to the best available medical therapy for symptomatic carotid stenosis. In these trials, carotid endarterectomy provided a profound protection

against subsequent ipsilateral stroke in patients with high-grade (>70 percent) stenosis (2,7,8). The stroke risk reduction was realized early after surgery, persisted over extended periods of time and was independent of other risk factors.

For asymptomatic stenosis, there is suggestive evidence that carotid endarterectomy may also be of benefit in preventing stroke. In two randomized prospective trials, the risk of ipsilateral stroke (1) or ipsilateral ischemic events (3) were reduced by endarterectomy compared to best medical treatment in selected patients with moderate to high-grade stenosis. For both asymptomatic and symptomatic trials, the efficacy for carotid endarterectomy depended in large part upon acceptable levels of perioperative morbidity and mortality by participating surgeons.

Carotid angioplasty and stenting have recently emerged as an alternative to carotid endarterectomy. Preliminary reports suggest that carotid angioplasty and stenting can be performed with low risk and excellent angiographic results (4,5). These retrospective analyses were characterized by a lack of data concerning presenting symptoms, the role of other neuroimaging procedures and detailed pre- and post-treatment neurological examination. In addition, long-term follow-up on these patients is not yet available and the risk of restenosis for this procedure is as yet unknown. Recent studies have demonstrated the superiority of stenting over balloon angioplasty alone in the coronary arteries (6).

Currently, the Health Care Finance Administration does not provide reimbursement for carotid angioplasty and stenting, presumably because the procedure is as yet unproven. Furthermore, the United States Food and Drug Administration considers the sale of stents for use in the carotid arteries illegal.

We concur that the indiscriminate use of unproven technology for an unproven procedure is unwise. The long-term effects of placing a stent in the carotid artery are unknown, especially because the carotid artery is routinely subjected to degrees of mobility and compressibility not observed for other common arterial stent sites. The safety of carotid angioplasty and stenting remains unknown; angiography alone in the cohort of patients with cerebrovascular disease is associated with morbidity in the range of 1 percent (1,8). A number of additional critical questions regarding carotid angioplasty and stenting remain unanswered:

- ◆ Will carotid angioplasty and stenting result in an unacceptable incidence of embolic cerebrovascular accidents?
- ◆ Will currently used stents eventually erode through the carotid artery wall?
- ◆ Will metal fatigue result in stent fracture?
- ◆ Will restenosis be a major problem in the carotid artery?
- ◆ Can carotid angioplasty and stenting match the excellent levels of safety and efficacy achieved for surgery in the carotid endarterectomy trials?

These and other equally important questions can only be answered by rigorous scientific study and analysis, and the application of this technology to testing by randomized prospective controlled trials.

Within the next 12-18 months, several medical device manufacturers will have available stents specifically designed for application in the cervical carotid bifurcation, and a number of investigators will have accumulated experience in the performance of carotid angioplasty and stenting. At that time, a National Institutes of Health-sponsored randomized prospective controlled trial will likely begin enrolling patients. The answers to the above questions should be forthcoming within a few years after commencement of the trial.

In the meantime, carotid endarterectomy remains the treatment of choice for most patients with carotid artery stenosis. It is important to remember, however, that the benefits of carotid endarterectomy may be lost if perioperative morbidity and mortality exceed 3 percent in asymptomatic patients, or 6 percent in symptomatic patients.

In patients who have a high risk for complications from a carotid endarterectomy, there may be a role for a less invasive procedure such as carotid angioplasty and stenting. Examples of these high-risk groups might include patients with the following conditions: Multiple comorbidity's (such as severe coronary artery disease with unstable angina), severe intracranial stenosis in the distribution of the affected carotid artery, recurrent carotid artery stenosis after endarterectomy, radiation-induced stenosis, and cervical carotid bifurcation lesions at C 1-2 (9).

As new technology and operative experience evolve, it may be reasonable to consider carotid angioplasty and stenting as an alternative to carotid endarterectomy for these high-risk patients, where the complications of carotid endarterectomy may exceed the potential benefits. At present, the application of carotid angioplasty and stenting should be restricted to patients enrolled in an IRB-approved and carefully monitored registry.

Organized neurosurgery has always been a leader in developing and evaluating new technology and innovative techniques. We look forward to any new technology that will benefit patient care and reduce costs. On the other hand, new technology must not be fully embraced until it has been proven safe and efficacious. We welcome the opportunity to participate in rigorously designed scientific trials to evaluate this potentially exciting new technology.

(continued on page 5)

Quality Assurance 1996: An Update

Robert E. Florin, MD

Chairman Joint Committee on Assessment of Quality

Why bother with questions about the quality of health care when we have reached such a high level of technical and scientific achievement in the capabilities of our health system? Following are some answers.

Quality vs. Cost

The first answer is that many of us are concerned about the adverse effects on quality because of efforts to reduce the cost of health care services. These efforts have used a variety of techniques including reductions in insurance coverage, special coverage for high risk illnesses, reduced payments to providers, collecting providers into competing managed care organizations, using primary care physicians as gatekeepers, at risk contracts for care, utilization review, and profiling or report card that rate the use of resources by providers. Despite the absence of adequate studies of the effect of these techniques on quality, the pressure to reduce costs continues unabated, and is now supported strongly by large employers/purchasers in order to contain their overhead costs.

Quality vs. Unexplained Variations in Care

A second answer deals with the explosion of knowledge about the methods to measure and improve the quality of care. Some students of quality issues argue that cost reduction and quality improvement are not incompatible when a system is developed to incorporate new techniques and science into quality measurement and improvement. These new techniques and science include the application of the tools of epidemiology to clinical settings to identify and explain the wide variation in the process and outcomes of care among similar patient populations treated for the same problem but located in different settings. The results of this type of analysis have revealed that for many common conditions and services, physicians don't know "what works and what doesn't work."

In many situations, physicians base decisions on their training and experience rather than using empirical information that could guide their choices more scientifically. The discovery that much of medicine is not based on good scientific foundations has eroded the scientific

credibility of the profession and encouraged policy makers and purchasers to promote rapid changes in the organization and financing of health care that underlie our fears for quality.

Outcomes Research

The recognition of the importance of variation in practice patterns, combined with a need to understand how such variation affects outcomes, has led to the creation of new measures of quality with emphasis on improved function by patients. Tools for assessing the functional levels of patients have been developed along with methods to examine their values and preferences for various functional states. These tools are now in use by many health plans and often comprise a major portion of the basis for their judgments about the quality of the services provided in achieving a particular outcome.

Quality and Information Technology

The use of modern information technology, including computer networks, systems analysis and high speed communications, has facilitated the acquisition and analysis of many types of data in refinement of quality measures. The feedback available to physicians by such technology is helping to improve their decision-making and effectiveness in use of resources.

Quality Management Technology

We have the opportunity to use modern management techniques, widely applied in advanced industries and manufacturing, to improve performance and increase efficiency while reducing the frequency of errors that occur in our present systems. The net effect can result in an improvement in quality by focusing on improving the process rather than a punitive "bad apple" strategy.

It is appropriate for physicians to resist unproven efforts to reduce the cost of care because of the threat to quality. However, it is inappropriate to resist the current changes in quality assessment and management when these changes are based on well developed science and technology that shows a better way to do "what works."

Position Statement on Carotid Angioplasty and Stenting (Continued from page 4)

References:

1. ACAS (Executive Committee for the Asymptomatic Carotid Atherosclerosis Study) *Endarterectomy for Asymptomatic Carotid Artery Stenosis*. JAMA, 1995; 273:1421-1428.
2. European Carotid Surgery Trialists' Collaborative Group. *MRC European carotid surgery trial: interim results for symptomatic patients with severe (70-99%) or with mild (0-29%) carotid stenosis*. Lancet 1991; 337:1235-1243.
3. Hobson R, Weiss D, Fields W, et al. *Efficacy of Carotid Endarterectomy for Asymptomatic Carotid Stenosis*. N Engl J Med 1993; 328: 221-227
4. Iver SS, et al: *Elective Carotid Stenting*. J. Endovas Surg 1996; 3: 105-106.
5. Kachel R : *Results of balloon angioplasty in Carotid Arteries*. J Endovasc Surg; 1996; 3: 22-30.
6. Kimura T, Et al: *Three year follow-up after implantation of metallic coronary artery stents*.
7. Mayberg MR, Wilson SE, Yatsu F, et al: *Carotid endarterectomy and prevention of cerebral ischemia and symptomatic carotid stenosis*. JAMA 1991; 266: 3289-3294.
8. NASCET (North American Symptomatic Carotid Endarterectomy Trial Collaborators): *Beneficial effect of carotid endarterectomy in symptomatic patients with high-grade stenosis*. N Eng J Med 525: 445-453.
9. Sundt TM Jr, Sandok BA, Whisnant JP: *Carotid Endarterectomy: Complications and Pre-Operative Assessment of Risk*. Mayo Clin Proc: 1975 50: 301-306.



Joint Section on Cerebrovascular Surgery of the AANS and CNS



Application for Membership

A. Biographical Material

Name: _____
 Birth Place: _____ Birth Date: _____
 Home Address: _____ Office Address: _____

 Fax: _____ Phone: _____ Fax: _____ Phone: _____

B. Memberships and Certificates

Date of Completion of Formal Neurosurgical Training _____/_____/_____
 Date of American Board of Neurological Surgery Certification _____/_____/_____
 Date of Fellowship in Royal College of Surgeons (Neurosurgery) of Canada _____/_____/_____
 Are you a member of:
 The American Association of Neurological Surgeons? Yes ___ No ___
 Congress of Neurological Surgeons? Yes ___ No ___
 American Medical Association? Yes ___ No ___
 Stroke Council of the American Heart Association? Yes ___ No ___

C. References

Please provide letters of reference from two members of the Joint Section on Cerebrovascular Surgery highlighting your activity/involvement in cerebrovascular surgery. Indicate below (name and address) from those whom these references will be received:

1) _____
 2) _____

D. Curriculum Vitae

Please enclose a current Curriculum Vitae with your completed application.

E. Describe your current interest and activities in cerebrovascular surgery (unless clearly evident in your Curriculum Vitae).

F. Please enclose a check in the amount of \$50.00, made payable to The Joint Section on Cerebrovascular Surgery of the AANS/CNS.

G. As soon as all required materials are received, your application will be reviewed by the Membership Committee, and submitted to the Executive Committee for consideration and approval before final voting/approval by members of the Joint Section.

H. Completed application, Curriculum Vitae, letters of reference, and application fee should be mailed directly to:

Joint Section on Cerebrovascular Surgery
 Dept 77-2418
 Chicago, Illinois 60678-2418

 Signature of Applicant

Cerebrovascular Session Scheduled for 1997 AANS Annual Meeting

Plans for 65th Annual Meeting of The American Association of Neurological Surgeons, to be held April 12-17, 1997 in Denver, are well underway and an outstanding Cerebrovascular Scientific Session is scheduled. The program will be held Tuesday, April 15, from 2:45 to 5:30 p.m. and will concentrate on the surgical management of posterior circulation aneurysms and a multidisciplinary approach toward intracranial AVMs.

Highlights of the Cerebrovascular session include a Special Lecture on the "Treatment of Basilar Artery Aneurysms," by Duke Samson, MD, and a Symposium on the "Management of Arteriovenous Malformations," led by moderators Philip E. Stieg, MD, and Warren R. Selman, MD.

There are also six outstanding research papers, including: "The Natural History of Cavernous Malformations: A Prospective Study;" "Selection of Cerebral Aneurysms for Treatment with GDC Coils, Preliminary Experience;" "Outcome and Efficacy of Endovascular and Surgical Treatment of Intracranial Aneurysms: Insights from a New Grading Scale;" "Intra-Arterial Acute Stroke Management, A Community Hospital Experience; Routine Cerebral Angiography After Clipping of Ruptured Aneurysms: A Cost-Utility Analysis;" and "A Proposed Classification for Prediction of Symptomatic Vasospasm Following Aneurysmal Subarachnoid Hemorrhage."

The Section business meeting will conclude the session.

There are also dozens of cerebrovascular-focused papers, poster sessions, breakfast seminars and clinics planned throughout the AANS Annual Meeting. Registration materials should be delivered in the beginning of February. Be sure to register early to insure a place in the sessions of your choice.



Denver, Colorado. Photo courtesy of the Denver Metro Convention & Visitors Bureau.

Research Update: Finding Funding

Cordell Gross, MD

Research funding for cerebrovascular investigations is progressively requiring some innovative searching. The National Institute of Health (NIH) is funding RO1 proposals at an all-time low percentile ranking and the near future doesn't look much better. This "corner" of the *Cerebrovascular Section Newsletter* is designed to help in the search for alternative extramural funding so neurosurgeons can continue to push back the frontiers of science in spite of an ever-decreasing centralized pool of dollars. In the first few installments, I am going to focus on the basic strategies for applying for research grants.

For novice investigators, it is well to remember that there are funds available specifically for you at the local, state and national level. All sources have submission deadlines and are usually not flexible. Learn and adhere to the rules of the funding source you are attempting to tap.

At the local level, most universities have start-up funds available for junior investigators. These are undirected, generic research moneys that usually do not go to support salary. These funds range from \$1,500 to \$7,000. This might seem a bit paltry when investigations are actually expensed out, but every cent counts today.

In medical schools, these funds are often administered through the Dean's office, and in a university setting, these funds are usually administered through the Provost's office. Make some calls. Frequently these are competitive within the institution, but the effort is worth it if only for the experience of putting ideas on to paper in a persuasive manner. Writing a fundable proposal is not a trivial skill. If you don't get it on the first try, you will likely be more eligible the second time in. Remember, every dime you do not have to ask your chairman for is a bonus.

At the state level, the American Heart Association (AHA) has chapters that distribute funds to basic science efforts. The Stroke Council is a subsidiary of the AHA and has a legislative commitment to sponsoring research in cerebrovascular disease. These funds are definitely competitive with proposals being peer reviewed at the state level. The proposal format is loosely patterned after NIH grants and submitting is excellent practice. These grants can garner up to \$15,000/year for 2-3 years, which is almost enough to pay an entry-level technician in some environments and certainly adequate to pay for half of a technician's time.

At the national level, NIH is still a very worthwhile source in the form of FIRST or R29 awards. These are a hefty \$350,000 paid over 5 years; \$50,000/year for salary support and designed to allow clinicians to develop a laboratory program. Limited, if any, preliminary data is needed, but I can tell you, having reviewed many of these grants, they are EXTREMELY well written. The success is predicated on your ability to demonstrate a current, in depth knowledge of the field from which you develop your hypothesis driven proposal.

If you have Internet access, the following addresses might prove helpful:

<http://www.bms.com/squibb/look/grants.html>
<http://www.biospace.com>
<http://www.acc.org>
<http://www.ahaf.org>
<http://www.amhrt.org>

I will expand on these resources in the next installment. In future discussions we will also deal with the Office of Sponsored Programs as a resource, developing a relationship with the National Institute of Neurological Disorders and Stroke and networking to get your science accomplished.

Second Joint Section Annual Meeting to Be Held in Anaheim

Philip E. Stieg, PhD, MD

The Joint Section is extremely excited about the Second Annual Meeting, which will be held February 4-6, 1997, at the Disneyland Hotel in Anaheim, California. The meeting has been coordinated by Dr. Linda Sternau and promises to be exciting, informative and thorough.

The first day will focus on emerging strategies of aneurysm care. Prepared lectures will be given by leading neurosurgeons and interventional radiologists on surgical and interventional techniques for management of intracranial aneurysms. Case presentations will also be given in order to increase dialogue and discussion.

A multi-modality approach for the treatment of arteriovenous malformations will be discussed on the second day. Again, leading clinicians from both neurosurgical and interventional disciplines will provide lectures. Case presentations and open papers will also be presented.

This year, the Joint Section is also adding expert consultant luncheons focusing on a myriad of intracranial and spinal vascular problems. It is our hope this will be a continued part of the Section Annual Meeting.

An afternoon session on carotid stenosis will also be presented. A status report on carotid endarterectomy will be reviewed and the more controversial data regarding angioplasty and stenting will be presented. This promises to be an exciting segment and we hope many of you will participate.

The final session will focus on aggressive care for cerebral ischemia. We are certain you will find the lectures and open paper sessions to be provocative and thought provoking. Recent developments in the management of carotid occlusive disease promise to lead to intense conversation and discussion. There is still considerable debate regarding the optimal management of intracranial aneurysms and arteriovenous malformations. The dialogue between neurosurgeons and interventional radiologists continues and we hope this meeting will provide the forum for these discussions. We look forward to your participation in the meeting.



Disneyland Hotel in Anaheim, California

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American Heart Association
Fighting heart Disease and Stroke

22nd International Joint Conference on Stroke and Cerebral Circulation

Sponsored by
the Stroke Council

February 6-8, 1997
Disneyland Hotel
Anaheim, California

Information may be obtained
through:

American Heart Association
Scientific and Corporate Meetings
7277 Greenville Avenue
Dallas, TX 75231-4596
Phone: (214) 706-1100
Fax: (214) 373-3406
Email: wandap@arnhl.org

Record Attendance at the Joint Section Scientific Session in Montreal

Joshua B. Bederson, MD

The Joint Section Scientific Session held at the 1996 Annual Meeting of the Congress of Neurological Surgeons (CNS) enjoyed record-high attendance. Of particular interest were several presentations on new developments in the field of carotid endarterectomy.

The recent publication of the "Asymptomatic Carotid Atherosclerosis Study" (ACAS) has led to a resurgence of carotid endarterectomies, with a doubling of CEA rates in New York and other states. Population studies suggest that over two million people in North American and Europe harbor lesions similar to those reported in the ACAS. At the same time, new endovascular technology is rapidly developing with the potential of providing a less invasive alternative to surgery. It is, therefore, no wonder that the topic of carotid endarterectomy generates such intense interest among cerebrovascular surgeons. In this year's Scientific Session, the invited lecturers focused entirely on carotid endarterectomy with a special emphasis on controversies.

Christopher Ogilvy, MD, reviewed the indications for conventional cerebral angiography as part of the preoperative work-up and presented his experience with noninvasive imaging prior to carotid endarterectomy. David G. Piepgras, MD, gave a penetrating review of the world literature on asymptomatic carotid atherosclerosis, providing a sophisticated interpretation of the ACAS results and cautioning against indiscriminate use of CEA in the absence of clear cut indications.

Christopher Loftus, MD, provided a thorough and detailed review of carotid endarterectomy techniques with an outstanding pictorial description. Joseph Zabramski, MD, discussed many of the controversial issues surrounding adjuncts during carotid endarterectomy. Finally, Nicholas Hopkins, MD, gave an electrifying talk on the current status and future of endovascular treatment of carotid stenosis.

The Open Scientific Session was kicked off by this year's Galbraith Award winner, Phil J. Porter, MD, whose work in Toronto on the cost effectiveness of radiosurgery for AVM's was a model of organization and in this day of outcomes analysis, was particularly relevant.

Other highlights of the Open Scientific Session included a fascinating paper by Michael T. Lawton, MD, from the Barrow Neurological Institute which provided a unique insight into the mechanisms of angiogenesis in the formation of arteriovenous malformations. An exciting new grading system for aneurysmal subarachnoid hemorrhage was presented by Dr. Ogilvy.

The Scientific Session of the Joint Section of Cerebrovascular Surgery continues to provide a forum where controversial issues can be openly discussed and exciting new developments often receive their first public display. The excitement and great interest in these sessions reinforces the importance of the Joint Section in this rapidly evolving field.

THE SECOND ANNUAL MEETING OF THE JOINT SECTION ON CEREBROVASCULAR SURGERY

Jointly Sponsored by The American Association of Neurological Surgeons

February 4-6, 1997

Disneyland Hotel - Anaheim, California

(Immediately precedes the American Heart Association's
Conference on Stroke and Cerebral Circulation)



PROGRAM HIGHLIGHTS:

Emerging Strategies in Aneurysm Care • Treatment for Arteriovenous Malformations • Carotid Stenosis • Aggressive Care for Cerebral Ischemia • Daily Luncheon Seminars • Scientific Posters • Commercial Exhibits • Fellowship Awards • Social Events

INVITED FACULTY:

Issam A. Awad, MD • Julian E. Bailes, Jr., MD • Joshua B. Bederson, MD • Alex Berenstein, MD • Thomas Brott, MD • Arthur L. Day, MD • Jacques E. Dion, MD • William A. Friedman, MD • Van V. Halbach, MD • Robert E. Harbaugh, MD • Grant B. Hieshima, MD • Randall T. Higashida, MD • L. Nick Hopkins, MD • S.J. Peerless, MD • David G. Piepgras, MD • Robert H. Rosenwasser, MD • Duke S. Samson, MD • Warren R. Selman, MD • Robert F. Spetzler, MD • Philip E. Stieg, MD • Charles M. Strother, MD • Christopher M. Wallace, MD • Jay Yadov, MD • Herman Zeumer, MD



Steven L. Giannotta, MD
CV Section Chairman

FOR MORE INFORMATION, CONTACT:

Joint Section on Cerebrovascular Surgery Meeting Office
22 South Washington Street, Park Ridge, Illinois 60068-4287
847/692-9500 • Fax 847/692-2589
info@neurosurgery.org

<http://www.neurosurgery.org/meetings/sectmeet/summary.html>

These PDP courses are of special interest to the cerebrovascular neurosurgeon:

♦ **NEW in 1997** ♦

Extracranial Carotid

Reconstruction – Hands-On

May 30-31 ♦ Rancho Mirage

Course Chairman: Christopher M. Loftus MD, FACS

Faculty: Issam A. Awad MD, Steven L. Giannotta MD, Robert E. Harbaugh MD, Marc R. Mayberg, MD, & Fredric B. Meyer, MD

**1997 Reimbursement Update for
Neurosurgeons**

February 28-March 1 ♦ Las Vegas;

August 22-23 ♦ Chicago;

October 24-25 ♦ Philadelphia;

November 16-19 ♦ Maui

**A Proactive Approach to
Managed Care:**

Strategies and Solutions

June 21-22 ♦ Cleveland;

November 7-8 ♦ Palm Beach

**Neurosurgical Critical Care for
Neurosurgeons, Neuroscience
Nurses & Physician Assistants**

June 5-7 ♦ Philadelphia

For more information or to register, call the Professional Development Department at (847) 692-9500, or email info@aans.org.
For a complete course schedule, visit our Web site: www.neurosurgery.org.

Update on Work of Fellowship Recipients

Philip E. Stieg PhD, MD

The Joint Section on Cerebrovascular Surgery would like to congratulate past recipients of the Upjohn Resident Fellowships in Cerebrovascular Disease. These grants have allowed individuals to pursue their research interests, and the Joint Section Executive Council is extremely happy to inform the general membership of their productive efforts.

In 1994, Robert M. Freidlander, MD, from the Massachusetts General Hospital completed his work on basic mechanisms of Interleukin 1-B converting enzyme mediated programmed cell death. David J. Langer, MD, from the University of Pennsylvania, worked on the development of non-viral gene delivery systems to the central nervous system.

In 1995, Robert S. Carter, MD, from Massachusetts General Hospital, focused on genetic therapies targeting the vascular endothelium. J. Paul Elliott, MD, from the University of Washington, studied modulation of brain sodium channels by C-AMP dependent phosphorylation by ischemia.

We also look forward to hearing about the research efforts of John Davis, MD, from Johns Hopkins Hospital, and Daniel Yoshor, MD, from Baylor College of Medicine. They were the 1996 recipients and their reports will appear in future publications.

Once again, congratulations to the recent recipients. We also want to express the Joint Section's appreciation to Pharmacia and Upjohn, Inc. for its continued support of cerebrovascular research.

Section Session at 1997 CNS Meeting To Focus on Surgical Management of Stroke

Philip E. Stieg PhD, MD

The AANS/CNS Joint Section on Cerebrovascular Surgery Scientific Session at the Congress of Neurological Surgeons Annual Meeting between September 28 and October 2, 1997 in New Orleans, Louisiana promises to be another event you will not want to miss.

The formal part of the meeting will focus on the surgical management of ischemic and hemorrhagic stroke. James Grotta, MD, will review the controversies and indications for the surgical treatment of acute intracerebral hematomas. Joseph Zabramski, MD, will review the surgical approaches to intracerebral hemorrhage, including stereotaxis, craniotomy and thrombolytic treatment. Neil Martin, MD, plans to discuss

intensive care unit management of patients with stroke and intracerebral hemorrhage, as well as discussing the timing of surgical intervention. Douglas Chyatte, MD, will review the indications and techniques for decompressive craniotomy in the treatment of thromboembolic stroke.

As our management of stroke, or "brain attack", becomes more aggressive, this will provide a timely review for the Joint Section membership regarding the surgical management of stroke. In addition to these lectures, there will be the presentation of submitted papers, as well as the bi-annual meeting of the Joint Section membership. We look forward to your participation in the meeting and we appreciate the efforts of Robert Solomon, MD, in coordinating the topic and speakers.

Membership Report

It has again been a productive year for increasing the membership within the Joint Section on Cerebrovascular Surgery. Included here are the names of new members voted into the group during the Joint Section Meeting in Montreal in October of 1996. We appreciate the efforts of the Membership Committee and look forward to the active participation of the new members within the Joint Section. Welcome.

New Members

Active:

Otmar Albrand, Dubuque, Iowa
Ismail Hakki Aydin, Erzurum, Turkey
Albert Capanna, Las Vegas, Nev.
Curt Doberstein, Providence, RI
James Ecklund, Washington, DC
John Gordon Frazee, Los Angeles, Calif.
Shoichiro Kawaguchi, Kashihara, Japan
Douglas Kondziolka, Pittsburgh, Penn.
John McGregor, Columbus, Ohio
Richard Mortara, Lexington, Ky.
Leonardo Moshini Picazo, Caracas, Venezuela

Marc Simard, Baltimore, Md.
Alex Valadka, Houston, Tex.
Richard Williams, Woodland Hills, Calif.
Philip Yazbak, Appleton, Wis.

Candidate:

Steven Chang, Stanford, Calif.
M Jerry Day, Huntington, W. Va.
Giuseppe Lanzino, Charlottesville, Va.
Michael Lefkowitz, Los Angeles, Calif.
Daniel LeMay, Los Angeles, Calif.

4th Annual Bayer Research Grant Program

Announcing \$50,000 in Research Opportunities in Neuronal Protection from Cerebral Ischemia and Outcomes of Cerebral Ischemia

Two \$25,000 grants will be awarded for original research in neuronal protection for cerebral ischemia and outcomes of cerebral ischemia.

- Sponsor:** Grants are provided by Bayer Corporation, Pharmaceutical Division, and Jointly sponsored by Bayer Corporation and the Joint Section on Cerebrovascular Surgery of the AANS and CNS.
- Selection:** Award recipients are selected by independent panel of physicians.
- Eligibility:** Applicants must be physicians in US institutions who will have completed their formal neurosurgical training by July 1997 or who have been in academic staff positions for no longer than 4 years.
- Research Results:** Research supported by Bayer Grants will be submitted for publication by the grant recipient.

Application Deadline: April 15, 1997. Grants will be announced by July 15, 1997.

To request an application, contact Bruce Leeb & Company by phone (201) 612-8919 or fax (201) 612-8920.

Congratulations to the 1996 Bayer Grant Recipients

Peter D. Leroux, MD
Department of Neurosurgery
NYU Medical Center

Donald M. Seyfried, MD
Department of Neurosurgery, CWRU
Henry Ford Health Sciences Center

Grant Selection Committee

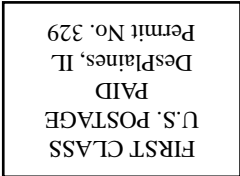
Steven L. Giannotta, MD, Committee Chair
LAC/USC Medical Center

Ralph G. Dacey, Jr., MD
Washington University School of Medicine

Warren R. Selman, MD
Case Western Reserve University

Linda L. Sternau, MD
University of Miami School of Medicine





AANS
Joint Section on Cerebrovascular Surgery
22 South Washington Street
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**Joint Section on Cerebrovascular Surgery
Newsletter**

Editor

Philip Stieg, PhD, MD

Daniel L. Barrow, MD

Thomas Brott, MD

Cordell E. Gross, MD

Newsletter Mission Statement

The newsletter is distributed to all members of the Joint Section on Cerebrovascular Surgery of the AANS/CNS. The purposes of the newsletter are to :

1. Promote communication among Section members.
2. Promote communication among the Section's Executive Council and the members.
3. Promote coordinated activities and a common purpose within the Section.
4. Inform the membership of research, educational and employment opportunities.
5. Inform the membership of new technical developments in the treatment of cerebrovascular disease.
6. Promote research, patient care and educational activities of the Section.