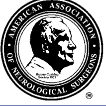
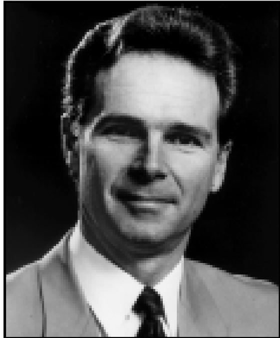


The American Association of Neurological Surgeons and Congress of Neurological Surgeons Joint Section on

Cerebrovascular Surgery

Editor: Philip E. Stieg, PhD, MD **Issue 4 ◆ Volume 2**

Chairman's Message



Steven L. Giannotta, MD

One of the more exciting projects undertaken by the Joint Section on Cerebrovascular Surgery (JSCVS) in recent memory is the upcoming combined Meeting with our interventional colleagues in the American Society of Interventional and Therapeutic Neuroradiology (ASITN). Considering our recent successes with free-standing Meetings in San Antonio in 1996 and Anaheim in 1997, it is logical to conclude that our meeting in Orlando in February will be even more so. Bob Harbaugh from the Joint Section and Michel Mawad from the ASITN are coordinating both the scientific and social programs with the help of Laurie Behncke and her staff from the AANS office. As in the past, we have scheduled the Meeting immediately adjacent to the American Heart Association (AHA) Stroke Meeting so that we can continue to enjoy a cross fertilization of ideas and attendance. Orlando in February is an appealing site and the combined format of cerebrovascular surgery and interventional neuroradiology should bring the attendance close to 600 individuals.

The format will include both separate and combined interventional and surgical sessions. Substantial time has been allotted for the plenary session giving greater opportunity for the presentation of new information. I look forward to seeing you all in Orlando.

Editor's Comments

Philip E. Stieg, PhD, MD

We hope that you find this issue of the newsletter informative and educational. As you will see, the JSCVS is extremely active in multiple arenas. The 2nd Annual Meeting of the JSCVS was a success, as reported by Robert Harbaugh, and the Section is busy planning our next Annual Meeting, which will be held in conjunction with American Society of Interventional and Therapeutic Neuroradiology. We hope that you all can attend the February, 1998 Meeting in Orlando, Florida.

In addition to our Annual Meetings, the JSCVS will be having two days of meetings on Monday, September 29 and Wednesday, October 1 at the CNS Annual Meeting in New Orleans, Louisiana. Dr. Robert Solomon has provided a review in this newsletter of these meetings, which promise to be thought-provoking and exciting.

Joshua Bederson, MD, has also interviewed Professor Eugene Flamm on the treatment of severe aneurysmal subarachnoid hemorrhages. We feel that it is useful for our readers to draw upon the experiences of someone as experienced as Dr. Flamm and we think you will find the interview interesting.

We are always open to opinions and suggestions. Please forward any comments directly to me. My e-mail address is pestieg@bics.bwh.harvard.edu. As always, please consider membership in the section.

In This Issue

Mark Your Calendar for the JSCVS Third Annual Meeting in Lake Buena Vista, Florida, ... 2

Carotid & Aneurysm Outcome Databases Available on **NEUROSURGERY://ON-CALL®** 3

Secretary's Corner 3

CNS Meeting Plans for New Orleans in September 1997 4

JSCVS Second Annual Meeting in Anaheim, CA a Great Success 7

An Interview with Professor Eugene Flamm—The Treatment of Severe Aneurysmal Subarachnoid Hemorrhage 8

Summary of Members 10

Mission Statement 10

Mark Your Calendar for the 3rd Annual Meeting of the JSCVS February 1–4, 1998, Hilton Hotel, Lake Buena Vista (Orlando), Florida

Robert E. Harbaugh, MD, FACS

Plans for the Third Annual Meeting of the JSCVS are well under way. This will be the first meeting held jointly with the American Society of Interventional and Therapeutic Neuroradiology (ASITN). The Meeting will begin with an opening reception on Sunday, February 1, 1998, and the scientific sessions will be conducted from February 2-4.

The first day of the Meeting will begin with a session on the basic science of cerebrovascular disease. Molecular genetics, angiogenesis, vascular control and signaling endothelial response, hemodynamics of aneurysms, and the integration of basic science and clinical practice will be discussed by some of the leading researchers in these fields. Following this basic science section, a case presentation format on the treatment of intracranial aneurysms will be held. Once again, internationally recognized experts on both the surgical and endovascular treatments of intracranial aneurysm will participate in this panel discussion.

Following the discussion, a Presidential speaker, who will be chosen by Dr. Giannotta, will make a half hour presentation on a topic of his or her choice. This presentation will be followed by ten luncheon seminars on various cerebrovascular disease topics. Participants are encouraged to bring along cases to present to the moderators and discussants in these luncheon seminars.

Following the luncheon seminars, abstract presentations will be scheduled for the rest of the afternoon. The early evening will be devoted to a poster session and wine and cheese reception with the exhibitors.

On the second day of the conference, February 3, the initial session will be devoted to innovations in the management of cerebrovascular disease. There will be presentations on topics such as:

- hemodynamics and modeling of intracranial aneurysms;
- innovations in diagnosis and surgical planning;
- advances in aneurysm treatment devices;
- the use of intraoperative cerebral protection;
- new advances in angiographic techniques; and
  innovations in surgical approaches for cerebrovascular lesions.

Again some of the leading clinical investigators in the country have been invited to make these presentations.

Following this session, a case presentation format on the management of AVMs is scheduled. This session will involve both endovascular therapists and cerebrovascular surgeons in an open exchange regarding evaluation and treatment of vascular malformations of the nervous system. A Presidential speaker to be chosen by the ASITN will then make a presentation.

Ten additional luncheon seminars will be held on this second day of the conference, and abstract presentations will be held following the seminars. Various options to enjoy the many attractions in the Orlando area will be offered for the evening.

Lake Buena Vista Hotel

The third day of the Meeting will begin with a session on outcomes analysis of cerebrovascular disease. There will be a presentation of the status and future directions of outcomes studies for the treatment of vascular malformations of the nervous system, intracranial aneurysms, and extracranial cerebrovascular disease. Following this session, there will be a third case presentation panel, dealing with ischemic cerebrovascular disease. After this panel, there will be an awards ceremony for both Bayer and Target Therapeutics. This Meeting will also feature the first annual Luessenhop lecture, which is being funded by Target Therapeutics.

A lunch with the exhibitors at the Meeting is planned for the third day, followed by a joint abstract presentation. Abstracts submitted to both the JSCVS/ASITN will be presented and discussed.

We are very excited about the potential of this meeting to be the premier Annual Meeting for the treatment of cerebrovascular disease. If you have any questions regarding the third Annual Meeting, you may direct them to me at 603/650-8732 or e-mail robert.e.harbaugh@Hitchcock.org.

Secretary's Corner

Issam Awad, MD, MS.c., FACS

The Joint Section on Cerebrovascular Surgery remains on firm financial footing, thanks in part to solid fiscal performances at two consecutive Annual Meetings. A long-range Reserve Fund has been established, and the Galbraith and Donaghy funds have been replenished. A new Luessenhop Fund has been created through the generous donation of an educational grant from Boston Scientific (Target Therapeutics) to support an annual Alfred Luessenhop Lecturer at the Section Annual Meeting. The Section has received renewed commitment for the continuation of the Bayer Grant. Discussions are under way to broaden the scope of this research award to include proposals encompassing the range of cerebrovascular research, as well as to potentially allow house staff and junior residents to qualify.

Plans are underway for the third Section Annual Meeting to be held during February, 1998 in Orlando, Florida. *(See page 2 for further details.)* We have secured an outstanding hotel venue, which will allow easy access to Disney World parks, enhancing the value of the meeting for families and allowing for a winter getaway.

Numerous other Section initiatives remain on track, as highlighted in various reports in this newsletter. These include a special Interventional Task Force, which is examining all facets of the clinical and professional relationship between neurosurgeons and interventional neuroradiologists, while fostering the new career track of endovascular neurosurgeons. The Outcomes Committee has moved rapidly to formulate outcomes measures for occlusive cerebrovascular disease and intracranial aneurysms. A model project will aim to validate these parameters on the Internet, using **NEUROSURGERY://ON CALL**®. More about the progress of this exciting initiative is reported directly by Dr. Harbaugh on Page 3.

The 1997 CNS Annual Meeting in New Orleans will include for the first time two afternoon sessions organized by the Cerebrovascular Section. The sessions will allow for oral presentation of a record number of abstracts, brief discussion of a limited number of exceptional posters, and an outstanding symposium focusing on the neurosurgeon's role in acute ischemic and hemorrhagic stroke care. Dr. Robert Solomon is to be congratulated on organizing this outstanding program.

Plans are already underway for the 1998 AANS Annual Meeting in Philadelphia, where Dr. Robert Ojemann has been chosen to be the Donaghy Lecturer. This will prove to be another exciting program organized by the Section, under the diligent responsibility of Dr. Joshua Bederson.

The Cerebrovascular Section has more members, and is more vibrant and more involved in every facet of professional, clinical, research and educational activities in cerebrovascular surgery than at any time in the past. It is braced to represent the voice of neurosurgeons involved in the treatment of cerebrovascular disease, at a time of tremendous opportunities and challenges facing our profession. Under the leadership of Section Chair, Steven Giannotta, senior cerebrovascular leadership is more active with the younger vibrant generation of the Section in facing our challenges and charting future activities. A serious long-range planning strategy under the direction of Chair-Elect, Christopher Loftus, has been energized to complement ongoing and short-term projects, to ensure optimal standing of the Cerebrovascular Section in the fulfillment of its Mission.

Carotid and Aneurysm Outcomes Databases Now Available on NEUROSURGERY://ON-CALL®

Robert E. Harbaugh, MD

The Outcomes and Guidelines Committee of the JSCVS has developed reporting instruments for outcomes analysis of patients with carotid artery disease and intracranial aneurysm. Grant Sumake, MD, has converted these instruments to a Java-based relational database available on **NEUROSURGERY://ON-CALL**®, the AANS/CNS Web site.

The program allows individual practitioners to keep a local outcomes database, and will eventually allow for data to be submitted to a national database.

I would like to request that anyone with an existing computerized relational database involving patients with intracranial aneurysm or carotid artery disease, please consider downloading this data to the databases on the **NEUROSURGERY://ON-CALL**® Web site.

Databases in the Excel format would be easiest to convert to the Java-based program, but databases in other formats would be considered as well.

Data on disk can be sent to:

Robert E. Harbaugh, M.D., F.A.C.S.
Director, Cerebrovascular Surgery Section of Neurosurgery
Dartmouth-Hitchcock Medical Center
One Medical Center Drive
Lebanon, New Hampshire 03756

Data submitted electronically by way of e-mail can be sent to:

robert.e.harbaugh@Hitchcock.org

If you have any questions regarding this project, please feel free to contact me by the two above addresses or by telephone (603) 650-8732.

Congress of Neurological Surgeons Meeting Set for New Orleans, September 28–October 2, 1997

Robert A. Solomon, MD

The Joint Section on Cerebrovascular Surgery program for the 1997 CNS Annual Meeting has been finalized and is as follows:

Monday, September 29

2:30–2:45 PM — *James Grotta*
Controversies and indications for the surgical treatment of acute intracerebral hemorrhage.

2:45–3:00 PM — *Joe Zabramski*
Surgical approaches to intracerebral hemorrhage: sterotaxis, craniotomy, and thrombolytic treatment.

3:00–5:30 PM — *Open Scientific Session* as outlines by the Scientific Program Committee.

Wednesday, October 1

2:30–2:45 PM — *Neil Martin*
ICU management of patients with stroke and intracerebral hemorrhage along with timing of surgical intervention.

2:45–3:00 PM — *Douglas Chyatte*
Indications and techniques for decompressive craniectomy for thromboembolic stroke.

3:00–5:30 PM — *Open Scientific Session* as outlined by the Scientific Program Committee.

Learning objectives for the Monday session include: identifying indications for the surgical treatment of acute intracerebral hemorrhage, as well as the various surgical and medical approaches to intracerebral hemorrhage.

Learning objectives for the Wednesday session include: learning acute care management strategies of patients with stroke and intracerebral hemorrhage. The indications and techniques for decompressive craniectomy for stroke will also be presented.

Other cerebrovascular highlights throughout the Meeting include:

Practical Clinics, Saturday, Sept. 27 and Sunday, Sept 28

002 **Carotid Surgery: Diagnostic and Techniques**
Course Director: M. Christopher Wallace

012 **Anterior Circulation Aneurysms**
Course Director: Thomas Origitano

026 **Posterior Circulation Aneurysms**
Course Director: Robert Solomon

028/032 **Intracranial Endoscopy**
Course Directors: David Jimenez, Paul Grabb

General Scientific Session I, Monday, 7:30 AM–NOON

Controversies in Neurosurgery
Arteriovenous Malformations:
The Case for Surgical Treatment, *Daniel Barrow*
The Case for Radiosurgery, *William Friedman*

Lunch Seminars, Monday, Sept. 29, NOON–2:30 PM

127/128 **Carotid Endarterectomy: New Advances from Indications to Stenting**
Moderator: Robert Harbaugh
Speakers: Frederic Meyer, Donald Quest, Robert Dempsey

129/130 **Aneurysms: To Coil or Clip?**
Moderator: Robert Rosenwasser
Speakers: L.N. Hopkins, Christopher Olgilvy, Kevin McGrail

131/132 **Management of Rolandic/Pericentral AVMs**
Moderator: Joseph Zabramski
Speakers: Michael Sisti, Issam Awad, Jeff Thomas

133/134 **How I Do It: AVMs**
Moderator: Philip Stieg
Speaker: Duke Samson

135/136 Cerebral Artery Aneurysms: Complication Avoidance
Moderator: H. Richard Winn
Speakers: Joshua Bederson, Winfield Fisher, Ralph Dacey

General Scientific Session II, Tuesday, Sept. 30, 7:30 AM–NOON

Stroke: Rapid Identification and Treatment

Magnitude of the Problem, Impact on Health Care, *Marc Mayberg*
Developing Effective Emergency Systems for Stroke, *Robert Swor*
The Neurosurgeon and the Acute Stroke Patient in the ER: Acute Management and Diagnostics, *Warren Selman*
Developing Critical Pathways for Stroke, *Issam Awad*
The Intensive Care Management of the Acute Stroke Patient: SAH, ICH, Acute Ischemic Stroke, *Neil Martin*
Indications for Emergent Surgical Intervention, *Roberto Heros*
Outcomes Science and Stroke, *Beverly Walters*
Research and Stroke, *Dennis Landis*
Stroke: The Neurosurgeon's Domain, *Arthur Day*

Luncheon Seminars, Tuesday, Sept. 30, NOON–2:30 PM

227/228 Treatment of Basilar Trunk Aneurysms
Moderator: Daniel Barrow
Speakers: Arthur Day, Gary Steinberg, Thomas Kopitnik

229/230 Giant Aneurysms
Moderator: Robert Solomon
Speakers: Duke Samson, Fernando Diaz, Stanley Barnwell

231/232 Cerebral Protection and Monitoring: When, What to Use
Moderator: Neal Kassell
Speakers: David Newell, Mary Gumerlock, Curtis Doberstein

233/234 Radiosurgery Versus Microsurgery for AVMs
Moderator: Neil Martin
Speakers: Roberto Heros, Douglas Kondziolka, Ladislau Steiner, Nabuo Hashimoto

235/236 How I Do It: Carotid Endarterectomy and Reconstruction
Moderator: Mark Camel
Speaker: Christopher Loftus

Joint Section on Pediatric Neurological Surgery, Tuesday, Sept. 30 2:30–5: 30 PM

Management of Stroke in Children, *R. Michael Scott*
Open Papers and Posters

Lunch Seminars, Wednesday, Oct. 1, NOON–2:30 PM

329/330 Consultant's Corner: Vascular
Moderator: H. Hunt Batjer
Speakers: Craig Van Der Veer, Frederic Meyer, L. Philip Carter

331/332 Brainstem Vascular Malformations
Moderator: Wink Fisher
Speakers: Douglas Kondziolka, Daniele Rigamonti, Daniel Wecht

333/334 Spinal and Dural AVMs
Moderator: Edward Oldfield
Speakers: Mark Hamilton, John (Sean) Mullen, Ali Krisht

335/336 How I Do It: Cerebral Revascularization
Moderator: Chandranath Sen
Speaker: Laligam Sekhar

General Scientific Session IV, Thursday, Oct. 2, 7:30 AM–NOON

Intracranial Aneurysms:
Moderator: *H. Hunt Batjer*
The Case for Surgical Treatment, *Neil Martin*
The Case for Endovascular, *Stan Barnwell*

New Orleans at night. NOMCVB. Photo by Susan Leavines

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

JSCVS 2nd Annual Meeting a Great Success

Robert E. Harbaugh, MD, FACS

The Second Annual Meeting of the JSCVS, held at the Disneyland Hotel in Anaheim, California, was chaired by Linda L. Sternau, MD. The Meeting proved to be a rousing success for the Cerebrovascular Section and was well attended by both neurosurgeons and interventional neuroradiologists.

The first session of the Mseeting was devoted to emerging strategies in aneurysm care. Presentations were made regarding reduction of misdiagnosis in subarachnoid hemorrhages, aggressive surgical therapy, endovascular therapy of intracranial aneurysms, and the complement of surgical and endovascular treatments. Case presentations and a panel discussion regarding aneurysm management were very well received. Open papers on the topic of aneurysm/subarachnoid hemorrhage were presented following this section.

The second day of the program was devoted to arteriovenous malformations (AVMs). Presentations on the natural history and indications for treatment, the surgical therapy of AVMs endovascular and radiosurgical therapy for AVMs, and combination therapies were made. The panel discussion with case presentations of AVM patients was very successful. Open papers regarding AVMs were also presented.

A highlight of the meeting was Dr. Giannotta's Presidential address, and the presentations of the Bayer and UpJohn fellowship awards. Expert consultant luncheons on all aspects of cerebrovascular disease were well attended, and positively evaluated by the meeting attendants.

A third session on carotid stenosis included papers on a status report of carotid endarterectomy, the use of angioplasty and stenting for carotid disease from both a cardiology and interventional neuroradiology perspective, endarterectomy versus angioplasty and stenting. A third panel discussion with case presentations on carotid artery disease was also very successful. Open papers were presented following the panel discussion.

The fourth, and final session, was devoted to aggressive care for cerebral ischemia. Papers on streamlining care from the emergency room following stroke, the use of endovascular therapy in ischemic cerebrovascular disease, and the role of surgery for these problems were presented. Open papers regarding cerebral ischemia were also presented.

The Meeting closed with an invitation for all present to attend the Third Annual Meeting in Lake Buena Vista, Florida *(see page 2 for details)*, February, 1998—the first JSCVS Annual Meeting to be held in conjunction with the American Society of Interventional and Therapeutic Neuroradiology. It is the goal of the JSCVS to make our Annual Meeting the premier meeting in the world for the treatment of a broad range of cerebrovascular diseases. It is hoped that the inclusion of the ASITN in this Meeting will help to achieve this goal.

Stroke Management Workshops Begin

Last fall, the AANS joined with several other medical organizations to form the *Brain Matters* Stroke Initiative Coalition (formerly known as START), a broad-based education effort by a consortium of organizations interested in stroke to educate the public and medical professionals about the need for immediate medical treatment for stroke. In addition to the AANS, the consortium includes the American Academy of Neurology, American Association of Neuroscience Nurses, American College of Radiology, American Heart Association, American Society of Neuroimaging, National Institute of Neurological Disorders and Stroke, as well as the National Stroke Association.

The first round of workshops have now been held in San Diego, Chicago, Dallas, Minneapolis, and Seattle to enthusiastic response. Six more are scheduled for the fall in Detroit, Memphis, San Francisco, Miami, Washington, DC and Denver. Neurosurgeons serving as faculty are Michael Horowitz, MD, Gaylan Rockswold, MD, and Marc Mayberg, MD. Steven Giannotta, MD, was Course Director for the San Diego workshop.

Participant Reaction

A total of 382 people attended the first workshops. This averages to 76 attendees per workshop and the goal was 75 participants per workshop. In general, the program has been well received, with most participants reporting they felt the workshop was a very good practical overview of stroke care.

The mix of attendees thus far includes neurologists, nurses, radiologists, emergency physicians and neurosurgeons. Efforts are being made to increase the participation of other groups. The disparity in attendance may be due to the fact that although emergent stroke treatments are a serious issue in the neurological community, the same level of interest does not exist with the other specialties.

A detailed brochure on the workshop, including a registration form, can be obtained from GEM Communications, which is coordinating workshop logistics on behalf of *The Brain Matters* Stroke Initiative. Call Suzanne Pereira at GEM Communications at (203)838-8812 or check the Acute Stroke Management Workshop page of the American Academy of Neurology's web site at http://www.aan.com/public/smevent.html.

Funding for the coalition is provided by Genentech, Inc., Janssen Pharmaceutica, Inc., and Knoll Pharmaceutical Company.

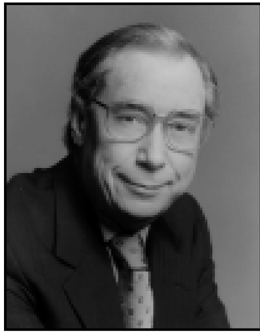
Brain Matters Stroke Initiative

Detroit: September 13, 1997
Memphis: September 13, 1997
San Francisco: September 20, 1997
Miami: September 20, 1997
Washington, DC: October 4, 1997
Denver: October 4, 1997

For more information call Suzanne Pereira at (203) 838-8812.

An Interview with Professor Eugene Flamm on "The Treatment of Severe Aneurysmal Subarachnoid Hemorrhage"

by Joshua B. Bederson, MD



Eugene Flamm

Q Can you please comment on the preoperative management of a patient with a grade IV subarachnoid hemorrhage?

A I am assuming that the patient has already had a CAT scan. The first step would be to have a ventricular catheter inserted. Once the diagnosis is made, most patients who are a poor grade will improve after catheter replacement.

If the patient brightens right up, I really don't think you're dealing with a grade IV hemorrhage which causes serious brain damage. If the brain scan shows severe parenchymal damage in a grade IV patient, I think you have to make a different type of decision. If the patient responds to the ventricular catheter, then you would treat them as a better grade and proceed with surgery in a very timely fashion—either that day or the following morning, depending on the time of day.

When the patient remains deeply comatose and a grade IV patient, meaning they may not be decerebrate but clearly unresponsive to any verbal commands, then the neurosurgeon must decide whether to go ahead with surgery urgently. This depends on what I think is the reason for the deficit. If it is due to brain compression from a clot, there would not be any question in my mind to go ahead and operate on a relatively straight forward aneurysm. If the patient had an infarct, or has enough ischemia to create the situation, I probably would not rush to do surgery immediately.

Q Could you comment on the timing of surgery in patients with subarachnoid hemorrhage?

A I have often used the expression, "The view from the foot of the bed." I believe this is where all the important decisions are made. In general, I prefer to have a patient to whom I can explain an operation and that they are going to the operating room. If they are comatose, the best judgment may be to temporize and determine whether that patient will survive. In this situation, we might elect to coil the aneurysm to protect it for that waiting period or even to cure it.

Q Can you comment on acute surgery versus endovascular treatment, comparing a posterior communicating artery aneurysm (PCOMM) and a basilar tip aneurysm?

A To get a PCOMM fixed is far less traumatic than waiting, and far less dangerous. As long as the patient is stable, a PCOMM is amenable to up front surgery with minimal risk to the patient. It allows the patient to recover from surgery and from the hemorrhage at the same time. The basilar is a very different thing, depending on its location. Basilars do not always lend themselves to initial surgery due to the fact that surgery can aggravate symptoms and associated risks, such as death.

Q Can you expand a little on your indications for endovascular treatment of aneurysms in poor grade patients?

A If the patient has unstable vital signs, other medical illness that might increase the morbidity of the procedure, or if there is a basilar aneurysm, then I might talk to our endovascular people and try to put in coils. If it looks as if it is a fairly straight aneurysm, I probably would not resort to coils.

Q Are there any special precautions you take during surgery in patients with severe subarachnoid hemorrhage?

A The brain is going to be more swollen, and you certainly need as much relaxation as you can get. I do not like to use hypotension in this situation, and I like to avoid using temporary clips. Many of the things that you like to do in aneurysm surgery may need to go by the wayside. Nevertheless, if it appears that you need a temporary clip, you have to use it. We do all of our aneurysms at a lower temperature, about 32 degrees. We use Mannitol, steroids, and agents that we think will keep intracranial pressure low. We lower PAC02 to about 25-24mm Hg. If you get in there and the brain is so tight that you cannot get to the aneurysm and you have a ventricular drain, then you still have to talk to anesthesia and try barbiturates or something else to get the brain slack. To do any type of aneurysm surgery where you are struggling with the brain is going to end up with poor results.

Q What are your indications for intraoperative angiography?

A I don't have any. I don't do it. If they need an angiogram, I need a real angiogram and am not satisfied with the resolution one gets with intraoperative angiography. I would say that I have a better view in three dimensional living color through the microscope than a two dimensional black and white image of a poor angiogram.

Q What are your indications, if any, for the use of cisternal thrombolytics or intraventricular thrombolytics?

A I don't use them. The idea of putting a digestive enzyme on the brain does not appeal to me. I think this type of drug falls into the category of "herbs and spices." I don't think that is our mainstay today for dealing with vasospasm.

Q Regarding treatment of vasospasm, what are your indications for the use of vasopressors.

A They have become less. Once we have the combination of rising TCD's and either the anticipated or the observed change in

neurological status, we can do angiography and angioplasty. If we did not get a response to angioplasty or there is some reason we could not do it, we would then add the volume expansion that we use routinely. We are the biggest consumers of Albumin in the hospital because of the volume of aneurysms as well as the fact that we use it very liberally. I don't start out with pressors as a rule as I think it is a two edged sword, you are improving the blood pressure, but not necessarily improving the brain circulation. I would go with volume expansion and hemodilution before I would go to pressors. The need for pressors has been dramatically reduced in the past six years since we have been doing angioplasties.

Q Do you have any other comments about angioplasty?

A In anatomical locations you really can't use it. It is very difficult to go beyond the MCA bifurcation. In the posterior circulation we certainly will do it. We couple angioplasty with intra-arterial papaverine, but I think this is of a limited value and is probably in the category of "herbs and spices".

Q Can you comment briefly on the indications for postoperative angiography and the timing of it?

A I do not routinely do postoperative angiography on every aneurysm patient. The situations in which I would do it are those cases that for one reason or another my best judgment told me that I should not try to puncture the aneurysm. That is usually when I am not really sure I have clipped it or if I know I cannot make any further adjustment in the clip because it was such a difficult placement. I would say in well over 90 percent of the cases that we do, we carry out suction decompression of the aneurysm. If it is still bleeding, a small needle is attached to suction the aneurysm while we adjust the clip. Once I have done that, collapsed the aneurysm, and proven that it is not refilling, I view the base of the aneurysm through the microscope to see if there is a residual neck. I made the decision many years ago not to do routine angiography on every aneurysm patient. However, a lot of our colleagues don't agree with that, but you asked me what I do.

Q Do you have any additional comments that you would like to make?

A In institutions where a lot of aneurysms are done, it is almost irrelevant what the grade of the patient is. If you look at the case, you have a good sense of whether you can do a good job for this patient by getting an aneurysm fixed and not fiddling around with a lot of hand holding and watching and waiting for the patient to improve a little bit before you do it. Basilar aneurysms are a little different because they are more difficult to do. However, the tolerance of the brain for manipulation when the patient is very ill is poor. Thus, I would have a different approach for very difficult aneurysms of the basilar or even ACOMM than I would, say, for middle cerebral or posterior communicating or anything along the carotid artery.

Mark your calendar *now* to attend this 1998 course!

Extracranial Carotid Reconstruction—Hands-On

March 27–28—Rancho Mirage, California

Chairman: Christopher M. Loftus, MD, FACS

- *Simulated operating-room conditions with hands-on experience*
- *First-hand experience with arterial exposure, repair, shunt insertion, patching, and microsurgical technique in flowing vessels*

✓ These remaining 1997 courses also may be of interest to you . . .

1997 Reimbursement Update for Neurosurgeons
October 24–25—Philadelphia, PA
November 16–19—Maui, HI

A Proactive Approach to Managed Care: Strategies & Solutions
November 7–8—Palm Beach, FL

Neurosurgery Review by Case Management: Oral Board Preparation
November 9–11—Houston, TX

For more information, call the AANS Professional Development Department at (847) 692-9500, or email us at info@aans.org.

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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.