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### Chairman's Message



*Christopher M. Loftus, MD, FACS*

This is my written opportunity to reiterate the text, slightly modified for the printed page, from my Chairman's address that I delivered to the CV Section in New Orleans. I am taking advantage of this opportunity (the first in a two-part series) to outline my ideas and visions

about the future growth of our society, and the direction the leadership of our Section should take within the next 5-10 years.

#### Focus on Problem Solving

When we talk about leadership and leadership development, we really need to examine the strategies we use for problem solving. I call this "in-the-box" and "out-of-the-box" thinking in deference to H. Hunt Batjer, MD, who uses the "out-of-the-box" term frequently. We learn our behavior and our problem-solving strategies in a very goal-directed way, as we are raised in a classical educational system. Classical problem solving teaches us to assimilate information and achieve rewards based on goals that are set by outside forces, such as parental or educator influence.

A classic example of this is the Boy Scouts. The Boy Scouts are a wonderful organization, but they teach us basically to proceed through a set of prescribed steps in order to earn a piece of cloth that we sew on our uniform. This is a wonderful discipline for adolescents and it's wonderful for the growth of the discipline, but it doesn't allow much in the way of creativity.

Of course there are some people who never go beyond this step. For many of us, however, the time comes when we need to move beyond the expectations of others and take this step towards independent creativity. This is what I call a leap to "unlearned behavior." For this leap, there is no dress rehearsal. Independent creativity calls for the

individual to generate and act upon internal goals rather than the goals suggested by external forces. Generation of independent ideas and action on some involves a much higher risk of failure and there is a common anxiety for the individual that is associated with this. However, I would suggest to you that independent creativity and so-called "out-of-the-box" thinking is the true core of what we call leadership, and I would likewise suggest to you that this kind of leadership is what we need at the present time in the CV Section's Executive structure.

My challenge to the CV Section and the American Society of Interventional and Therapeutic Neuroradiology (ASITN) leadership is as follows. First, we need to avoid simple parroting of previously validated strategies. It is very easy for a leader to simply revisit the lessons of the past. This is a safe pathway and unlikely to cause trouble, but it does very little to advance the organization. We need to identify new trends and opportunities and devise creative and innovative solutions to achieve true progress. Finally, we need to think conceptually, not just in terms of "task completion" or in performance of previously established patterns of "committee work," which really serve to redivide and reshuffle the knowledge that we already have.

#### Challenges of the Future

There are four points that I want to discuss. First, how do surgical and endovascular strategies blend for aneurysms, carotids and vascular malformations? Keep in mind that the guiding principle here is "what is the best treatment for patients?" Second, how do we educate neurosurgeons? Third, how do we insure and certify competence? Finally, how do we grow the CV Section and our subspecialty?

Let me address the first issue, how do surgical and endovascular strategies blend for various categories of cerebrovascular disease. My comments from this point on essentially address the idea of disease treatment rather than disease surgery. This is a very important distinction because our future is intimately entwined with our ASITN colleagues and with the

# Cerebrovascular Section Highlights at the 2000 AANS Annual Meeting

## Saturday, April 8, 2000

### Practical Clinics

1-5 PM

#### 012 Cerebrovascular Critical Care

Directors: *Alex B. Valadka, Issam A. Awad*  
Faculty: *Daryl R. Gress, Christopher S. Ogilvy, Joshua B. Bederson, Neil A. Martin, Murat Gunel*

## Sunday, April 9, 2000

### Practical Clinics

8 AM-12 PM

#### 021 Lateral Approaches to Tumors and Aneurysms: Application of the Transcondylar, Far Lateral and Extreme Lateral Approaches

Directors: *Jeffrey T. Keller, Harry R. Van Loveren*  
Faculty: *Khaled Abdel, Sebastian Froelich, Michael Chicione, Sami S. Rosenblatt, Myles Pensak, Murali Guthikonda, Michael J. Link, George K. Bovis, Abhay Sanan*

#### 024 Surgical Techniques in Intracranial Aneurysms

Director: *Arthur L. Day*  
Faculty: *Daniel L. Barrow, H. Hunt Batjer, Ralph G. Dacey, Jr.*

1-5 PM

#### 037 Anterior and Anterolateral Approaches to Tumors and Aneurysms

Director: *Laligam N. Sekhar*  
Faculty: *Chandranath Sen, Chandrasekhar K, Amitabha Chanda, Christopher Bogaeu, Robert C. Rostomily, Peter Hechl, Amal Nadel*

## Monday, April 10, 2000

### Breakfast Seminars

7:30-9:30 AM

#### 101 Aneurysm Clipping: Advanced Techniques

Moderator: *Robert A. Solomon*  
Panelists: *Shigeaki Kobayashi, Daniel L. Barrow, Roberto C. Heros, C.A.F. Tulleken*

#### 102 Management of Cerebral AVMs

Moderator: *H. Hunt Batjer*  
Panelists: *Evandro De Oliveira, Manuel Cunha e Sa, Cameron G. McDougal, William A. Friedman*

#### 103 Current Options and Guidelines in the Evaluation and Management of the Asymptomatic Vascular Lesion

Moderator: *Issam A. Awad*  
Panelists: *Paul J. Camarata, Christopher S. Ogilvy, M. Christopher Wallace*

#### 113 Surgical Approaches to the Lateral Skull Base

Moderator: *Ossama Al-Mefty*  
Panelists: *Laligam N. Sekhar, Steven L. Giannotta, Chandranath Sen*

#### 123 How I Do It: High Risk Carotid Patients

Moderator: *Robert E. Harbaugh*  
Panelists: *Lee R. Guterman, Marc R. Mayberg, Christopher M. Loftus*

### Plenary Session I

9:45-11:36 AM

Moderator: *Russell L. Travis*  
Co-Moderator: *Steven L. Giannotta*

#### 703 Factors Related to Outcome Following Surgery for Unruptured Intracranial Aneurysms

*International Study of Unruptured Intracranial Aneurysms Investigators*

Discussant: *Ralph G. Dacey, Jr.*

#### 704 Do Selection and Referral Bias Explain the Apparent 10mm Rupture Threshold for Unruptured Aneurysms?

*Phillip S. Dickey, Liva Andreeva, Purushothaman Kailasnath*  
Discussant: *Bryce K. Weir*

### Scientific Session III

2:45-5:15 PM

Moderator: *Stan Pelofsky*  
Co-Moderator: *William T. Couldwell*

#### 728 Endovascular Treatment of Basilar Tip Aneurysms Using Guglielmi Detachable Coils: Anatomical and Clinical Results in 73 Patients From a Single Institution

*Satoshi Tateshima, Yuichi Murayama, Fernando Vinuela, Gary R. Duckwiler, Y. Pierre Gobin, Guido Guglielmi*  
Discussant: *H. Hunt Batjer*

## Hometown Radio Interviews

New at the AANS Annual Meeting this year will be Hometown Radio Interviews. The interviews

will be taped on-site at the convention center from 8 AM-5 PM on Wednesday, April 12. Now is your chance to reach your community back home via a free, customized professional radio interview. Space is limited to 50 interviews, so sign up today by contacting Heather Monroe, AANS Communications Manager, at (888) 566-AANS, or via e-mail at [hlm@aans.org](mailto:hlm@aans.org).

- 729 Surgical Repair of Endovascularly Untreatable Transitional Cavernous Carotid Aneurysms**  
Jonathan A. Friedman, Frederic B. Meyer, Douglas A. Nichols, Wanda Windschitl  
Discussant: Arthur L. Day
- 730 Small Cerebral Aneurysms Presenting With Symptoms Other Than Rupture**  
Jonathan A. Friedman, David G. Piepgras, Mark A. Pichelmann, Kristine K. Hansen, Robert D. Brown, Jr., David O. Wiebers  
Discussant: Duke S. Samson
- 731 Systematic Cerebral Autoregulation Testing After Severe Subarachnoid Hemorrhage**  
Erhard W. Lang, Rolf R. Diehl, H. Maximillian Mehdorn  
Discussant: R. Loch MacDonald
- 732 Monitoring Cerebral Oximetry in the Management of Pulmonary Insufficiency in Aneurysmal SAH**  
Rocco A. Armonda, Bill McGee, Erol Veznadaraglu, Theodore Forget, Jeffrey E. Thomas, Robert H. Rosenwasser  
Discussant: E. Sander Connolly, Jr.
- 733 Multimodal Quantification of the Efficacy of Papaverine and Balloon Angioplasty for the Treatment of Vasospastic Cerebral Arteries in Aneurysmal Subarachnoid Hemorrhage Patients**  
Rod J. Oskouian, Jae H. Lee, Thomas C. Glenn, Matthias Oertel, Louis J. Ignarro, Neil A. Martin  
Discussant: David W. Newell
- 734 Multimodality Treatment of Giant Intracranial Arteriovenous Malformations**  
Steven D. Chang, Richard P. Levy, Michael P. Marks, Gary K. Steinberg  
Discussant: Neil A. Martin
- 735 Residual Dysplastic Vessels After Arteriovenous Malformation Resection: Implications for Postoperative Angiography**  
Robert A. Solomon, E. Sander Connolly, Jr., Charles J. Prestigiacomo, John Pile-Spellman  
Discussant: Robert F. Spetzler
- 736 The Application of Magnetoencephalography in the Management of Cortical Arteriovenous Malformations**  
Henry H. Woo, Ali R. Rezaei, Alon Y. Mogilner, Joshua Cappell, Peter Kim Nelson, Jafar J. Jafar, Rodolfo Llinas  
Discussant: Michael M. Haglund
- 737 A Decision and Cost-Benefit Analysis Comparing Therapeutic Interventions for Patients With Large Asymptomatic Intracranial AVMs**  
James McInerney, David A. Gould, John D. Birkmeyer, Robert E. Harbaugh  
Discussant: Roberto C. Heros

## Tuesday, April 11, 2000

### Breakfast Seminars 7:30–9:30 AM

- 201 Management of Acute Cerebral Ischemia**  
Moderator: Warren R. Selman  
Panelists: Robert H. Rosenwasser, E. Sander Connolly, Jr., Linda L. Sternau
- 203 Perioperative Management of Subarachnoid Hemorrhage**  
Moderator: Bryce K. Weir  
Panelists: Stanley L. Barnwell, Neil Martin, David W. Newell, Jens Astrup

- 204 Correlative Microvascular Anatomy as a Guide to Better Surgery**  
Moderator: Albert L. Rhoton, Jr.  
Panelists: Evandro de Oliveira, M. Gazi Yasargil, Vinko Dolenc

### Plenary Sessions II 9:45–11:20 AM

- 753 Results From a Phase 1 Trial of Neuronal Transplantation for Patients With Fixed Motor Deficits Following Stroke**  
Douglas S. Kondziolka, Lawrence Wechsler, Steven Goldstein, James Gebel, Sharon De Cesare, Carolyn Cidis-Meltzer, Keith Thulborn, Peter J. Jannetta, Ajay Niranjana, Todd P. Thompson, Elaine Elder  
Discussant: Thomas B. Freeman

### AANS/CNS Section on Cerebrovascular Surgery Session 2:45–5:30 PM

- Donaghy Lecutre**  
Arthur L. Day

### Scientific Section 3:15–4:45 PM

- Moderator: *To Be Announced*
- 801 Effects of Surgical Revascularization on Long-term Outcome in Ischemic Moyamoya Disease**  
Satoshi Kuroda, Kiyohiro Houkin, Hiroyasu Kamiyama, Yoku Nakagawa, Hiroshi Abe
- 802 Infarct Reduction After Transient Cerebral Ischemia in Caspase 3 Knockout Mice**  
Sepideh Amin-Hanjani, Yongqin Wu, Zihong Huang, Kesiuke Kuida, Michael A. Moskowitz
- 803 Comprehensive Management of Fusiform Intracranial Aneurysms With Surgical and Endovascular Techniques**  
Domingos N. Coiteiro, Neil A. Martin, Fernando Vinuela
- 804 A Paradigm for Skull Base Approaches to Anterior Inferior Cerebellar Artery Aneurysms: Experience With 36 Cases**  
Michael J. Alexander, Robert F. Spetzler
- 805 Stagnant Arterial Flow in Former Feeding Arteries Does not Indicate Cerebral Hypoperfusion After Resection of Arteriovenous Malformations**  
Bernard Meyer, Carlo Schaller, Horst Urbach, Johannes Schramm
- 806 Intraoperative Angiography of Brain Arteriovenous Malformations**  
Ilyas Munshi, R. Loch Macdonald, Bryce K. Weir

- Special Symposium — Bypass Procedures 3:45–3:50 PM**  
Speakers: David G. Piepgras, Neil A. Martin, R. Michael Scott

## Wednesday, April 12, 2000

### Breakfast Seminars 7:30–9:30 AM

- 301 The Cerebral Venous System: Surgical Considerations**  
Moderator: Albert L. Rhoton, Jr.  
Panelists: Grant B. Hieshima, André Olivier, Michael S. Edwards, Harry R. Van Loveren

continued on page 4

- 302 Cerebral Protection and Monitoring**  
 Moderator: *Neil A. Martin*  
 Panelists: *Kazuo Yamada, Jan Paul Muizelaar, Elizabeth A. Frost, Donald W. Marion*
- 303 Current Treatment Options for Cavernous Malformations**  
 Moderator: *Issam A. Awad*  
 Panelists: *Frederick G. Barker, Gary K. Steinberg, Daniele Rigamonti, Johannes Schramm*
- 304 Posterior Circulation Aneurysms**  
 Moderator: *Steven L. Giannotta*  
 Panelists: *L. N. Hopkins, III, John M. Tew, Duke S. Samson*
- 306 Current Management of Vasospasm**  
 Moderator: *Neal E. Kassell*  
 Panelists: *Philip E. Stieg, R. Loch MacDonald, Sean D. Lavine, Shigeharu Suzuki*
- 307 Cerebral Revascularization**  
 Moderator: *Robert L. Grubb, Jr.*  
 Panelists: *Robert F. Spetzler, Fernando G. Diaz, Masashi Fukui*
- 320 Evaluation and Management of Congenital Craniovertebral Anomalies**  
 Moderator: *Arnold H. Menezes*  
 Panelists: *Dachling Pang, Douglas L. Brockmeyer, Timothy B. Mapstone, Frederick A. Boop*

**Scientific Session VI**

**9:45–11:15 AM**

Moderator: *Volker K. H. Sonntag*  
 Co-Moderator: *Fremont P. Wirth*

- 761 Ventricular Size and Flow Void Following Endoscopic Third Ventriculostomy**  
*Abhaya V. Kulkarni, James M. Drake, Derek C. Armstrong, Peter B. Dirks*  
 Discussant: *Axel Perneczky*

**Scientific Session VII**

**9:45–11:15 AM**

Moderator: *Robert B. Page*  
 Co-Moderator: *Jeffrey A. Brown*



*Photo courtesy of the SFCVB.*

- 766 Intraoperative Duplex Scanning for Carotid Endarterectomy**  
*Quentin J. Durward, Christopher A. Hughes, Joyce Vasgaard*  
 Discussant: *Joseph M. Zabramski*
- 767 Transcranial Cerebral Oximetry as a Non-invasive Monitor of Cerebral Perfusion During Carotid Endarterectomy**  
*Allen K. Sills, Jr., Sheila Dalrymple, Wayne C. Hamm*  
 Discussant: *Frederic B. Meyer*
- 768 Micorsurgical Carotid Endarterectomy in 629 Cases: The Barrow Neurological Institute Experience from 1988 to 1997**  
*Patrick P. Han, Joseph M. Zabramski, Robert F. Spetzler, Randall W. Porter, Paul W. Detwiler, Heidi Jahnke*  
 Discussant: *Marc R. Mayberg*
- 769 Stent-supported Balloon Angioplasty of the Cervical Carotid Artery in Patients at High Surgical Risk**  
*Adel M. Malek, Constantine C. Phatouros, Todd E. Lempert, Philip M. Meyers, Wade S. Smith, Christopher F. Dowd, Van V. Halbach*  
 Discussant: *Robert E. Harbaugh*
- 770 The Endovascular Management of Extracranial Carotid Artery Dissections**  
*Felipe C. Albuquerque, Patrick P. Han, Cameron G. McDougall*  
 Discussant: *L. N. Hopkins, III*

**Thursday, April 13, 2000**

**Breakfast Seminars**

**7:30–9:30 AM**

- 401 Controversies in the Management of Intracerebral Hematomas**  
 Moderator: *Ralph G. Dacey, Jr.*  
 Panelists: *Jam Ghajar, H. Hunt Batjer, Daniel F. Kelly*
- 402 Consultant's Corner: CV**  
 Moderator: *Bryce K. Weir*  
 Panelists: *Eugene S. Flamm, Duke S. Samson, George P. Teitelbaum*
- 403 CEA Versus Stent: CREST and Current Recommendations**  
 Moderator: *Marc R. Mayberg*  
 Panelists: *L. N. Hopkins, III, Robert E. Harbaugh, Frederick B. Meyer, Harold J. Pikus*
- 404 Coil Versus Clip**  
 Moderator: *Arthur L. Day*  
 Panelists: *Grant B. Hieshima, Nobuo Hashimoto, Fernando Vinuela, John M. Tew, Jr.*

**Unruptured Aneurysm Guidelines to be Published**

The American Stroke Association Guidelines Report on Unruptured Aneurysms, developed under the leadership of Joshua B. Bederson, MD, is nearly complete and will soon be published in the journal *Stroke*. An executive summary will also be prepared and published in other journals.

concept that, together, we are going to move forward to determine what the best treatments are for patients.

**Aneurysms.** Regarding aneurysm clipping, I would ask the question, "who chooses the right strategy?" Is it patients or is it physicians? We work in a marketplace where patients are well informed and often come to the physician's office with a preconceived notion and Internet-based information regarding their therapeutic choices. If we don't agree with the patient's preconceived idea, do we acquiesce or do we advise the patient to seek treatment elsewhere? This begs the question, "do we allow marketing to drive patient choice?" This is a very difficult question and, in my opinion, an avenue we do not want to travel. It's one thing for the patient to be well informed, but it's another for the patient to choose a treatment that may not be in his or her best interest, based simply on marketing or popular media exposure.

The status of aneurysm treatment is likewise complicated by the evolving technology and endovascular technique. None of us know what the state-of-the-art treatment will be within the next several years. We do have a good handle on surgical technique and, at the present time, I would say that surgical technique probably stands to be refined further by protective strategies rather than by physical technique improvements.

To my endovascular colleagues, I would say that there is a certain amount of schizophrenia about whether the treatments for carotid disease and aneurysm disease are equivalent treatments or simply alternatives to be used in certain high-risk cases. If endovascular strategies are proposed as equivalent treatments for patients, then everyone involved must remember that this is a "no excuses game."

What I mean by this is that we treat patients, not cases. Particularly with subarachnoid hemorrhage, patients come to our doorstep with a problem that we are required to fix. If the endovascular specialist only offers a "cherry picked" type treatment in selected low-risk cases, this is not, in my mind, an appropriate or valid strategy.

Endovascular specialists, if they are to offer an equivalent treatment, need to be willing to assume the same levels of risk as would be encountered by surgery in sick patients or in patients with difficult lesions. If this responsibility is not assumed, endovascular treatment, philosophically, can never be taken seriously as an equivalent alternative to surgical repair. I believe that ultimately we will have randomized trial data for clipping versus endovascular treatment, but I see this as being some distance down the road.

My challenge then to the leadership of our two societies regarding aneurysm surgery is to avoid divisive internecine rivalry. We need to study the natural history data of unruptured aneurysms and continue the debate regarding which lesions are appropriate for treatment. We need to develop Level I evidence for the comparison of surgical versus endovascular strategies, as well as establish centers of excellence where a team approach determines the best treatment for patients.

It has come up several times at this meeting, and I'm sure it will come up again, that the best way to do this is by establishing partnerships where economic factors are removed from treatment choice. This will happen best in major centers where endovascular and surgical specialists work hand-in-hand, or where one physician is trained in both techniques and can make an intellectual and economically unbiased decision as to what best suits the individual patient's needs. We need to develop and enforce training and practice standards for

endovascular treatment, as well as for cerebrovascular fellowships.

We need to move toward ACGME standardization for endovascular treatment and ultimately a mutual certificate of added qualification open to practitioners in both specialties.

**Carotid Artery Disease.** The endovascular/surgical breakpoint for carotid treatment is much more difficult to control than aneurysm surgery. With aneurysm surgery, at least at the present time, the whole field is limited to treatment by the individuals in this room or their counterparts. For carotid treatment, however, this is not the case, especially with the influx of a major cardiology presence in the field and the potential influx of a neurology presence as well. I suggest to you, from my review of the literature and my experience with several colleagues, that angioplasty alone as a carotid treatment strategy is probably dead and has been supplanted by stent placement. Certainly randomized trial data will also be forthcoming, but at the present time, is delayed significantly and CREST trial data entry has not been instituted.

I predict that the widespread application of stenting in the hands of practitioners perhaps less competent than those we have before us today will result in an experience very similar to what we have seen with carotid endarterectomy — complications will arise when procedural volumes by an individual or in a particular hospital are low and a backlash results from the same.

In addition, I predict that there will be a role for stenting and high risk (cardiac) surgically inaccessible patients, or recurrent lesions in the carotid system. I reinforce for you that the only Level I proven treatment for carotid artery disease is surgical reconstruction. Comparison of anecdotal or registry data to randomized cooperative trial data is simply not a valid strategy. As I presented at the 1999 CNS Meeting, I would send the following cases for stenting: carotid dissection, high cervical carotid aneurysms, extreme high exposures, medically unstable cases, and fibromuscular dysplasia. At the present time, I consider recurrent and irradiated carotid disease to present a special technical challenge, and I take pleasure in reconstructing such cases with surgical strategies.

The challenge for our future leaders regarding carotid intervention is very similar to that for aneurysm treatment. Established centers of excellence with a team approach need to be developed and economic factors need to be removed from the equation. Likewise, we need to support and embrace cooperative trial data and occupy the scientific high ground. Please recall that we did exactly the same thing in NASCET and ACAS, despite the bitter experience that many surgeons had with the EC-IC bypass trial. We can be very proud of our willingness to participate in NASCET and ACAS and certainly we can be proud of the permanent and durable results that these trials have given us.

There are several other clinical problems for which we offer the patient a very poor treatment scope. These include fusiform aneurysms, carotid dissection, stroke triage and early treatment and cerebral revascularization. In my opinion, the forum for solving these problems is the joint collaborative meeting of the CV Section and the ASITN. It's only the cerebrovascular specialists in this room who are capable of advancing the field and making true progress in dealing with these very difficult patient problems that we face.

*In the next issue of Cerebrovascular News, Dr. Loftus will expand on the future of cerebrovascular surgery, the role of education, fellowships, research and more.*

## CV Section/ASITN Meeting in New Orleans was the Largest Ever

By B. Gregory Thompson, Jr., MD

The AANS/CNS Section on Cerebrovascular Surgery met February 6-9, 2000, in New Orleans, Louisiana, for what was the most well-attended CV Section meeting in history. The meeting was jointly sponsored by the American Society of Interventional and Therapeutic Neuroradiology (ASITN) and the CV Section, and was attended by some 500 physicians.

Highlights of the meeting included an outstanding symposium on the Management of Arteriovenous Malformations, during which Charles W. Kerber, MD, and Robert F. Spetzler, MD, made insightful presentations on techniques to minimize the endovascular and surgical risks of AVM treatment.

The Presidential Address given by Section Chair Christopher M. Loftus, MD, FACS, some of which is reproduced here, served as a call to action to our membership and as a counterpoint to the provocative Lussenhop Lecture given by L. N. Hopkins, III, MD.

Michel E. Mawad, MD, and H. Hunt Batjer, MD, gave outstanding presentations on advanced endovascular and microsurgical techniques for the treatment of cerebral aneurysms during the second scientific symposium on Tuesday. A lively expert debate on the management of unruptured aneurysms ensued between Arthur L. Day, MD, and Alex Berenstein, MD.

Presentations by Thomas Brott, MD, on current medical treatment guidelines for acute stroke and by Neil A. Martin, MD, on surgical revascularization for ischemia, highlighted a symposium on cerebral ischemia on Wednesday.

Finally, a special lecture by Professor Takeshi Kawase on the development of petrosal skull base approaches for posterior circulation aneurysms served to top-off an outstanding meeting. Course meeting Co-Chairs, Warren R. Selman, MD, and Thomas A. Tomsick, MD, are to be congratulated for planning such an outstanding meeting.



*Christopher M. Loftus, MD, FACS, (left) presents L.N. Hopkins, III, MD, (right) with the Luessenhop Award.*

## AANS Meeting to Feature Extensive Cerebrovascular Program

By B. Gregory Thompson, Jr., MD

Mark your calendars for this year's AANS meeting in San Francisco slated to take place April 8-13, 2000. Under the leadership of AANS Annual Meeting Chair and former Cerebrovascular Section Chair Steven L. Giannotta, MD, an outstanding Cerebrovascular Section program has been assembled. On April 8-9, there will be several practical courses dealing with vascular and/or skull base topics. Amongst others, these include a course in Cerebrovascular Critical Care, Surgical Techniques for Intracranial Aneurysms, and Microsurgical Anatomy of the Nerves and Deep Cisterns by Albert L. Rhoton, Jr., MD. There are also numerous Breakfast Seminars scheduled during the week, including Techniques of Cerebral Revascularization, Cerebral Protection and Monitoring, Correlative Microvascular Anatomy, and Treatment of the Asymptomatic Vascular Lesion. There also will be an Expert's Corner in the Breakfast Seminar Section during which participants attending are encouraged to bring case presentations to discuss with the course faculty.

On Tuesday, April 11, 2000, during the CV Section Scientific Session, Arthur L. Day, MD, will present the Donaghy Lecture,

reviewing his extensive experience with paraclinoid aneurysms. Following the Scientific Abstract Session, there will also be a Special Symposium on the use of cerebrovascular bypass, during which David George Piepgras, MD, will discuss the use of cerebral revascularization for cerebral ischemic disease. Neil A. Martin, MD, will review the technical aspects of bypass for cerebral aneurysmal disease, and R. Michael Scott, MD, will address the issue of revascularization for Moya-moya disease.

To learn more about this year's meeting, turn to page 2. To register for the meeting call the AANS at (888) 566-AANS or visit [www.neurosurgery.org](http://www.neurosurgery.org).



*Photo courtesy of the SFCVB.*

# Intraoperative Hypothermia for Aneurysm Surgery Trial (IHAST2)

By Michael M. Todd, MD, and Christopher M. Loftus, MD, FACS

In January 2000, patient enrollment began in IHAST2, a National Institutes of Health-funded, prospective, randomized trial intended to determine whether intraoperative hypothermia (target temperature 33°C) can influence neurologic (and neuropsychologic) outcome in patients with subarachnoid hemorrhage undergoing open aneurysm clipping. This trial, involving up to 30 neurosurgical centers worldwide, is designed to enroll 1,000 acute SAH patients (limited to WFNS grade I, II or III) over the next four years.

This trial evolved from interest within the neurosurgical community regarding methods to protect patients from neurologic injury occurring during surgery. In the past decades, many intraoperative protective therapies have been advocated: barbiturates, etomidate, propofol, certain volatile anesthetics, vitamin E, high dose mannitol and hypothermia. However, no therapy has been subjected to a systematic trial.

## A Brief History

Beginning in the early 1980s, animal studies showed that small reductions in body temperature (32-34°C) could protect against focal and global ischemic injuries. Since body temperature in anesthetized patients typically falls by several degrees, many groups have allowed their SAH patients to passively cool by simply avoiding active warming. This is based on the belief that hypothermia may be beneficial and carries no major risks. However, mild hypothermia has never been demonstrated to protect the brain in humans and trials have clearly shown that hypothermia increases the risk of myocardial ischemia and wound infection.

The "popularity" of mild hypothermia, combined with data indicating the value of hypothermia in the laboratory, triggered the performance of IHAST1 — a pilot trial to evaluate the feasibility of intraoperative cooling. The results of IHAST1 demonstrated that controlled hypothermia was possible and that the incidence of serious adverse consequences was low. While the trial suggested (without statistical significance) some possible benefits in patients with SAH (but not in patients with unruptured aneurysms), a full and complete trial was deemed necessary to more completely define the actual risk/benefit ratio.

IHAST2 was funded by NIH in mid-1999. The trial is directed by Michael M. Todd, MD, and Bradley Hindman, MD, in the Department of Anesthesia at the University of Iowa, with data collection and statistical support provided by the Data Management Center in the College of Public Health (Robert Woolson, MD; William Clarke, MD; and James Torner, MD). The advisory committee includes Christopher M. Loftus, MD, FACS (Neurosurgery, University of Oklahoma), Guy Clifton, MD (Neurosurgery, University of Texas), Adrian Gelb, MD (Anesthesia, London Ontario) and Armin Schubert, MD (Anesthesia, Cleveland Clinic). Harold Adams, MD (Neurology, Iowa), serves as the Physician Safety Monitor.

## About the Trial

The protocol was designed to introduce minimal disruption of routine neurosurgical and perioperative care and to avoid delays in surgical clipping of the aneurysm. After eligibility is verified and consent obtained, a standard general anesthetic is performed, after which patients are randomized to normothermic or hypothermic groups. Hypothermic patients are then cooled to 33°C using surface methods (forced air cooling). No restrictions on the conduct of surgery are involved other than the blinding of the neurosurgical team to temperature group. All hypothermic patients will be rewarmed immediately after clipping, with the goal being the restoration of normothermia as quickly as possible. Patients will then be followed carefully during the remainder of their hospitalization.

Final follow-up will take place three months after surgery and includes the blinded assignment of a Glasgow Outcome Score, an NIH Stroke Score, Barthels Activities of Daily Living Score, Rankin Disability Index, Mini-mental state exam and neuropsychologic testing.

In roughly four years, we will finally be able to define whether or not mild intraoperative cooling has protective efficacy. The trial will also provide definitive data on the relative risk of intraoperative cooling. If successful, it may set the stage for the widespread application of controlled cooling during neurosurgery and neurovascular procedures of all types.

## Cerebrovascular Disease Research Awards Available

The American Association of Neurological Surgeons and Congress of Neurological Surgeons announce:

### The Pharmacia-Upjohn Resident Research Awards in Cerebrovascular Disease:

- Funding available July 1, 2000
- Up to \$15,000 to support a specific research proposal
- Open to residents in North American training programs
- Research related to cerebrovascular disease
- Deadline for applications: 3/31/00

Interested applicants should contact:

Issam A. Awad, MD,  
Yale University School of Medicine  
333 Cedar Street, TMP 404  
New Haven, Connecticut 06520-3206  
Phone: (203) 737-2096  
Fax: (203) 785-2044

\* The awards are supported by a generous donation from Pharmacia & Upjohn Co.

# Minutes of the Executive Council Meeting

Monday, November 2, 1999 ■ Boston, Massachusetts

## Call to Order

Section Chair, Christopher M. Loftus, MD, FACS, called the meeting to order at 6:30 a.m. Members present included: Issam A. Awad, MD; Julian E. Bailes, Jr., MD; Joshua B. Bederson, MD; Arthur L. Day, MD; Robert J. Dempsey, MD; Winfield S. Fisher, III, MD; Eugene S. Flamm, MD; Steven L. Giannotta, MD; Robert E. Harbaugh, MD, FACS; L.N. Hopkins, III, MD; Christopher M. Loftus, MD, FACS; Velasco Marcos, MD; David George Piepgras, MD; Robert H. Rosenwasser, MD; Warren R. Selman, MD; and Philip E. Stieg, MD, PhD. Dave Fellers, CAE (AANS Executive Director), Samuel J. Hassenbusch, MD, PhD, and Troy M. Tippet, MD, were present as guests of the Section.

Mr. Fellers, the newly appointed Executive Director of the AANS extended his support for the Section's activities, and discussed the importance of the Section in the AANS-sponsored *USA Today* supplement on neurological surgery.

Dr. Tippet requested the Section's input on the Neurosurgical Political Action Committee.

## Secretary's Report and Approval of the Minutes

The minutes of the Executive Council and General Business Meetings held in New Orleans, Louisiana, on Wednesday, April 28, 1999, were approved as submitted.

## Treasurer's Report

Dr. Harbaugh presented the Treasurer's report highlighting the continued financial security of the Section. The net assets as of June 30, 1999, were \$275,241, which represents a growth of \$74,057 since last year.

The total cost for the 1999 CV Section/ASITN meeting was \$240,649, which includes the \$38,191 that was paid to the ASITN for their share of the profit. The meeting budget for the 2000 meeting in New Orleans has been completed. The projected revenue is \$344,185, and total expenses are projected to be \$264,018.

The Section extended its appreciation to Dr. Harbaugh for his continued success in securing contributions in support of our Annual Meeting.

## Neuroendovascular Training Standards

There was considerable discussion regarding the training requirements outlined in the Accreditation Council for Graduate Medical Education (ACGME) document titled, "Program Requirements for Residency Education in Endovascular Surgical Neuroradiology." Dr. Hopkins stressed that the requirements as written could prevent a neurosurgeon from entering training. He noted three particular areas of concern: line 31, there is a potential problem in the statement requiring an accredited neuroradiology program; line 75, a potential problem in the 1:1 faculty to trainee requirement; and line 84, a potential problem in the requirement for 12 months preparatory work in an ACGME accredited residency in neuroradiology.

## Residency Curriculum

The Section extended its appreciation to Drs. Awad and Batjer for completing the cerebrovascular portion of this important document. It is anticipated that the complete curriculum will be reviewed during the coming year by the Residency Review Committee (RRC), the American Board of Neurological Surgery (ABNS), and the Senior Society, and ultimately published in such journals as *Clinical Neurosurgery*.

## Fellowship Guidelines

These Guidelines will be reviewed by the Senior Society under the guidance of Richard Winn, MD. H. Hunt Batjer, MD, is the CV Section representative. It is anticipated that these Guidelines will be developed and monitored within organized neurosurgery, and not through the ACGME.

## Committee Reports

### CNS 1999

The Section expressed its appreciation to Dr. Thompson for his hard work in organizing the excellent sessions for this meeting. The Drake Lectureship was initiated at this meeting, and the committee will secure Dr. Drake's picture and his curriculum vitae. Correspondence was sent to Gary Ferguson, MD, at the London Health Sciences Center in Ontario, reconfirming that the Drake family is still on board with this honor.

### CV/ASITN 2000

The program has been completed and the abstracts have been graded.

### AANS 2000

Dr. Fisher requested suggestions for the Donaghy Lecturer.

### CNS 2000

Potential candidates for the Drake Lecturer were discussed.

### Hawaii CV/ASITN/Pan Asian Group

There was discussion as to which group selects the Lussenhop Lecturer. Dr. Rosenwasser informed the group that this had previously been done by him in conjunction with Dr. Higashida. He will work with Dr. Bederson and Dr. Higashida to determine if Dr. Siesjo will be the Lussenhop Lecturer, or be honored as a special lecturer.

### Newsletter

The newsletter will continue to be produced and distributed as a separate entity, and in conjunction with *Neurosurgery News*.

### Outcomes

Dr. Harbaugh reported that there have been 400 aneurysm patients enrolled in this outcomes study. The data is currently being analyzed. He is organizing a grant proposal on aneurysm outcomes to be submitted to the AHCPR. There is also an online CEA study that has 150 patients enrolled.

## Unruptured Aneurysm

The American Stroke Association Guidelines report is nearly complete and will be published in the journal *Stroke*. An executive summary will also be prepared and published in other journals.

## AVM Guidelines

This project is nearing completion.

## Scientific Committee

Dr. Dempsey is in the process of finalizing the online catalog of grant opportunities. The committee is helping to organize a proposal to allow a change in the requirements for clinician-scientist training grants to permit surgeons to develop a practice and participate in research activities.

## CPT

There was a discussion of the complex aneurysm proposal. Dr. Hassenbusch noted that initiating a new code might result in a decreased reimbursement for non-complex aneurysms. RVUs are reviewed every five years, and he suggested that it might be possible to upgrade complex without hurting simple, especially if the increase comes from a non-surgical pool. A plan will be developed and submitted for the year 2001 CPT review. A separate discussion centered on a neuroradiological consultation code. It was determined that each individual center may be different depending on which service the patient is admitted to, and if there is an intensivist involved. It was agreed that there should be a mechanism to update the members on how to properly document and code for care rendered. The proper placement of the new code for angioplasty and the placement of stents was also discussed, and the consensus was that it should be placed under radiology.

## American Stroke Association

There was a consensus that neurosurgeons need to become involved in the committee structure of this organization. The Executive Council members will solicit potential volunteers who are currently Fellows of the Stroke Association, and will encourage section members to become Fellows.

### Membership

New members will be voted on in the General Business Meeting in San Francisco. They include:

Bruce James Andersen, MD, PhD	Robert L. Masson, MD
David R. Blatt, MD	W. Jost Michelsen, MD
Robert E. Breeze, MD	Yasunari Niimi, MD
James D. Callahan, MD	Fariborz Nobandegani, MD
Louis P. Caragine, Jr., MD, PhD	Alexander Norbash, MD
C. Michael Cawley, III, MD	Thorir S. Ragnarsson, MD
Kevin M. Cockroft, MD	Peter A. Rasmussen, MD
Mark A. J. Dexter, MD	Howard R. Reichman, MD
John Paul Elliott, MD	Gene Zachary Salkind, MD
Richard D. Fessler, MD	Abhay Sanan, MD
Damirez T. Fossett, MD	Richard H. Schmidt, MD, PhD
Robert M. Friedlander, MD	Gerald D. Silverberg, MD
P. Langham Gleason, MD	Robert J. Singer, MD
Thomas W. Graham, MD	Grant P. Sinson, MD
Lisa L. Guyot, MD	Thomas M. Wascher, MD
Hector W. Ho, MD	Alois Zauner, MD
William F. Hoffman, MD	Ofer M. Zikel, MD
Seung-Kon Huh, MD	Gregory J. Zipfel, MD
Gautam V. Khurana, MD	

## Brain Attack Coalition

Dr. Mayberg submitted a report on the status of the Brain Attack Coalition concerning the Stroke Center Guidelines, the Coordination of Stroke Related Governmental Affairs, the Publication of Major Stroke Accomplishments, and the retirement of Michael Walker. The Section expressed its appreciation for his efforts on our behalf.

## Basic References

The CV Section expressed its appreciation to Dr. Morcos for his efforts in completing our part of this project. The mechanism for publication and distribution will be determined from Dr. Wilkins.

## Skull Base Committee

Cadaveric dissection is not possible at the Hawaii meeting, so this option will be pursued at the 2001 meeting.

## Washington Committee

The Drugs and Devices appointee will be working with Dr. Fessler.

## New Business

1. Washington Committee Contribution  
The CV Section moved to contribute \$10,000 this year to the Washington Committee.
2. Flannery Survey  
The Section requested that more information be provided regarding the survey's purpose and scope.
3. Pro-Urokinase working group.
4. Pharmacia-Upjohn Awards.  
Dr. Awad was congratulated for his effort to secure increased funding to \$15,000.
5. ABNS Primary Exam Questions.  
Dr. Loftus appointed a committee to be headed by him, and to include Drs. Awad, Bailes, Batjer and Rosenwasser.
6. Intersocietal Organization  
This group will be expanding to include MRI accreditation. Dr. Dempsey has suggested that Dr. Martin be appointed to replace him on this board. A motion was passed that empowered the Chair of the Section to direct the Treasurer to establish a loan as needed to ensure membership on the Intersocietal MRI board.
7. Stroke Coding  
Awaiting further information.
8. PAC Representative  
The Secretary, Dr. Selman was appointed to this position.
9. *USA Today* Insert  
A motion was passed to empower the Chair to direct the Treasurer to make a contribution to this effort after further review. The council appointed Drs. Selman and Thompson to chair an Ad-hoc Committee to represent the Section in content development, if so requested.

The meeting was adjourned at 9:15 AM.

Respectfully submitted,



Warren R. Selman, MD  
Secretary

## AANS/CNS Section on Cerebrovascular Surgery

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Park Ridge, Illinois 60068-4287

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### New Officers Nominated

The Nominating Committee of the AANS/CNS Section on Cerebrovascular Surgery has nominated the following officers to be confirmed at the AANS meeting in San Francisco:

<b>H. Hunt Batjer, MD</b>	<b>Chairman Elect</b>
<b>Marc R. Mayberg, MD</b>	<b>Treasurer</b>
<b>Joshua B. Bederson, MD</b>	<b>Member-At-Large</b>

### Special Thanks

The AANS/CNS Section on Cerebrovascular Surgery would like to thank Terry Horner, MD, and Winfield S. Fisher, III, MD, for their generous contributions of the Drake Lectureship. The 2<sup>nd</sup> Charles G. Drake Lecture is slated to be presented at the CNS meeting in San Antonio by Robert F. Spetzler, MD.

### Bayer Research Grant Program

Many opportunities exist for neurosurgeons to obtain grant and fellowship funding for study in a particular area of the field. Following is a list of one of those opportunities.

**Description:** Two grants are awarded for original research in neuronal protection, cerebral ischemia recovery or outcome. Eligibility is limited to physicians in U.S. or Canadian institutions who have completed formal neurosurgical training and have been in academic staff positions for no longer than four years by the time of grant activation.

**Sponsor:** AANS/CNS Section on Cerebrovascular Surgery and Bayer Corporation's Pharmaceutical Division

**Grants awarded each year:** Two

**Amount:** 25,000 for one year

**Deadline:** May 1, 2000

**Contact:** Bayer Research Grant Coordinator

Phone: (201) 612-8919

Fax: (201) 612-8920

E-mail: BLC320@aol.com