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From the Chair

B. Gregory Thompson Jr., MD



A New Era for the Cerebrovascular Section

The integration of the CV-ASITN annual meeting with the AHA/ASA International Stroke Conference in San Francisco Feb.

6–9 heralds a new era for the Cerebrovascular Section.

To put this historic change into perspective, in an article on page 4 of this issue Issam Awad, MD, details the evolution from the CV Section's first annual meeting 10 years ago. That first meeting was, just as he describes, a new and bold initiative. The decision to meet independently was made after significant debate concerning the section's strategic goals, the rapidly evolving subspecialty, and the need to support technical and scientific evolution with an expanded scientific meeting. Since then the annual meeting has fueled the growth and technological evolution of cerebrovascular neurosurgery, and the subsequent strategic coupling with the ASITN has allowed the section to grow and evolve in a manner that almost certainly would not have been possible otherwise.

We now stand at another crossroads. The specialty is changing with the influence of endovascular and interventional techniques, and it is changing rapidly. We cannot and should not hide from that truth, and in fact if we are to remain the leading specialists for the treatment of neurovascular disorders, we must embrace change and lead the progress.

We are entering an era during which additional specialists (cardiologists, neurologists, and vascular surgeons) will manage neurovascular disorders invasively. And yet, we still have a unique perspective and advantage to offer in the management of these patients: We are the *only specialists* who possess the comprehensive

surgical, interventional, and critical care skills necessary for the optimal management of neurovascular disorders. We can leverage this advantage and strengthen our research and technological development by continuing to meet and collaborate with scientific leaders from multiple specialties.

As the preeminent leaders in the treatment of neurovascular disease in an era of multispecialty involvement, we need to continue to participate in and benefit from the rich scientific cross-fertilization which occurs at leading multispecialty meetings such as the stroke conference. While it is clearly useful and enjoyable to meet at smaller, single-specialty meetings, the time has come to assume the mantle of scientific and technological leadership in larger multispecialty venues as well.

Leaders from the stroke conference recognized the remarkable growth and scientific development of the CV-ASITN annual meeting, and, after hosting successful half-day "crossover sessions" for several years, they invited CV-ASITN leadership to fully integrate the CV-ASITN meeting with the stroke conference. They offered CV-ASITN leadership unprecedented participation and scientific leadership for the meeting: two-and-a-half days of continuous, concurrent scientific programming, with full responsibility for scientific content, abstract sessions, and invited plenary session speakers. Before the offer was accepted, much like 10 years ago there was significant debate among our leadership concerning the section's strategic goals, the rapidly evolving specialty and the need to support the specialty's technical and scientific

Please join us at the opening reception for CV-ASITN members in the Club Room of the San Francisco Marriott on Feb. 6.

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CV-ASITN Annual Meeting

Feb. 6–9 in San Francisco

Scientific Program Offers 10 Sessions Especially for You

C. Michael Cawley, MD, and Murat Gunel, MD

The scientific program for the upcoming meeting of the AANS/CNS Cerebrovascular Section and the American Society of Interventional and Therapeutic Neuroradiology in San Francisco offers 10 sessions targeted to cerebrovascular neurosurgeons and interventional neuroradiologists. This year's meeting will be held as an integral component of the International Stroke Conference at the Moscone West Convention Center in the "Golden Gate City." The CV opening reception will be on Feb. 6 with the section sessions on Feb. 7-8.

The leadership of the CV Section and the ASITN has forged a harmonious relationship with the leadership of the American Stroke Association in order to further integrate the CV/ASITN meeting with the stroke conference. This year our meeting will be held concurrently and within the larger stroke conference, allowing us to broaden our reach to our neuroscience brethren, increasing our audience and fostering more interaction among like-minded specialists in the field of neurovascular disorders.

The CV Section and the ASITN have developed five symposia that focus on current and future aneurysm management, cerebrovascular occlusive disease, vascular malformations, and cerebrovascular genetics. These programs will be complemented by numerous Stroke Association-generated symposia dealing with

topics ranging from the demographics and prevention of hemorrhagic and ischemic stroke to molecular biologic and genetic mechanisms of stroke. In addition, five separate abstract sessions will be targeted to the neurosurgeon and interventionalist. These sessions will cover cerebrovascular vessel biology, vasospasm and ischemia, cerebrovascular occlusive disease, aneurysms, and spinal and cerebral vascular malformations.

We are also honored to announce that Arthur Day, MD, will present the 2007 Luessenhop address, entitled Skull Base Techniques for Every Day Aneurysm Surgery. Dr. Day will be joined by many other luminaries from both the neurosurgical and interventional communities in presenting invited remarks focused on the practice of modern-day vascular neurosurgery and interventional neuroradiology in the larger setting of the stroke community as a whole. For more information, go to www.strokeconference.org. ■

C. Michael Cawley, MD, is the 2007 scientific program chair. Murat Gunel, MD, is the 2007 annual meeting chair.



On Track: CV at the Stroke Conference

Yvonne Boyack

The American Stroke Association's International Stroke Conference 2007 will be held at Moscone West Convention Center in San Francisco, Calif. This year we are excited to announce that the AANS/CNS Cerebrovascular Section and the American Society of Interventional and Therapeutic Neuroradiology have integrated their annual meeting into the International Stroke Conference. This collaboration will bring the treatment of arteriovenous malformations and aneurysms to a much larger audience.

The CV Section and the ASITN will feature an innovative track for neurosurgeons, interventional neuroradiologists, and endovascular specialists. Symposia include Current Aneurysm Management, Future Aneurysm Management, Cerebrovascular Occlusive Disease, CNS Vascular Malformations in Depth, and Cerebrovascular Genetics. Over 700 abstracts will be presented throughout the conference on a variety of topics including cerebrovascular vessel biology, AVMs/intracranial hemorrhagic disease, and aneurysms/vasospasm.

The ISC provides unique opportunities to meet with colleagues from around the world with wide-ranging research interests and expertise in stroke prevention, diagnosis, treatment,

and rehabilitation. More than 4,000 attendees, as well as exhibitors displaying new stroke products and services, are expected to attend. Advance registration numbers are 39 percent above last year, an all-time high.

Professional membership in the American Heart Association/American Stroke Association has several advantages. Members can save up to \$110 off registration to the International Stroke Conference and they receive deep discounts for other scientific conferences. Premium Professional Members also gain online access to all five AHA scientific journals, including Stroke. AHA/ASA membership provides the opportunity to learn about advances in other disciplines that can advance one's own clinical and research work, ultimately benefiting patients. One concrete example of this interaction is the development of programming planned by the CV Section and the ASITN and delivered at the International Stroke Conference venue.

We look forward to seeing you in San Francisco for the 2007 International Stroke Conference. Please visit our Web site, www.strokeconference.org, for the most up-to-date conference information.

Yvonne Boyack is scientific conference programs manager for the American Heart Association.

What Would You Do?

Charles J. Prestigiacomo, MD

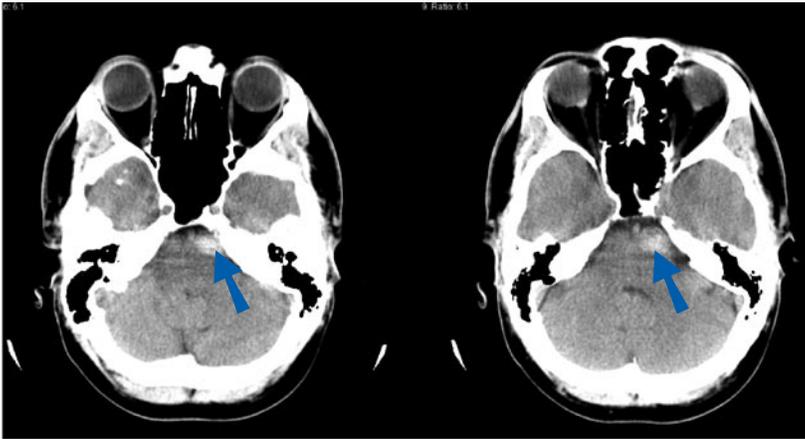


Figure 1 A and B. Initial head CT reveals hyperdensity of the left anterolateral pons, consistent with acute hemorrhage.

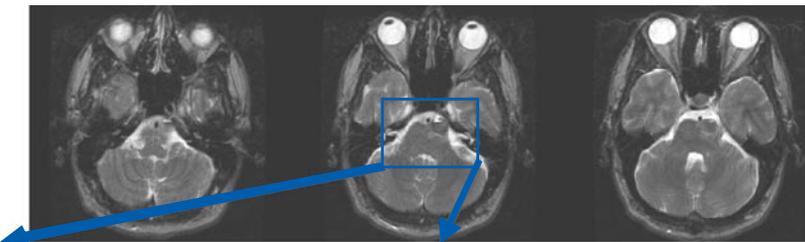


Figure 2 (and inset). T2-weighted images on this MRI obtained when the patient was admitted reveal a heterogeneous mass just anterior to the 7–8 nerve complex.

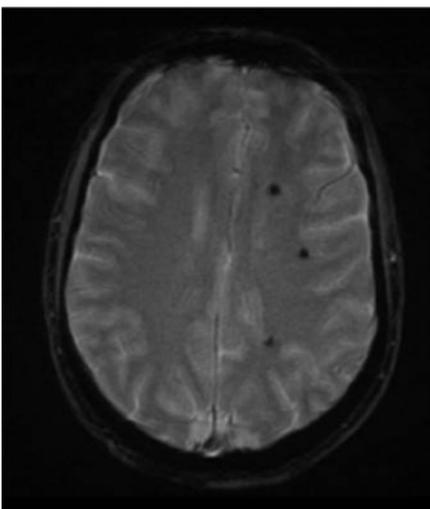
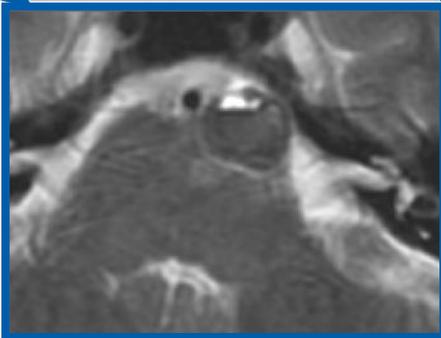


Figure 3. MRI susceptibility sequences also reveal the presence of several small foci of susceptibility "blooming" in the left hemisphere.

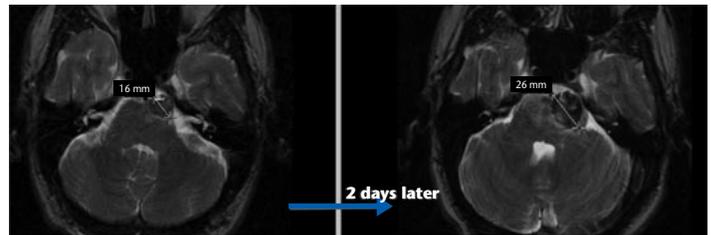


Figure 4, A and B. The admission MRI compared with the MRI repeated two days later demonstrates significant expansion of the lesion from 16 mm axial diameter to 26 mm axial diameter.

Case contributed by Bob S. Carter, MD, PhD, associate professor of neurosurgery, Harvard Medical School, Massachusetts General Hospital.

A 32-year-old surgeon with a family history significant for cavernous malformations of the brain in two first-degree relatives (mother and brother) presented with the acute onset of dysarthria and weakness in the dominant hand (right hand).

Two days after admission, the patient developed acute plegia in the right hand and worsened dysarthria.

What would you do?

Consider in your response the natural history of this lesion; the chances for recovery; the treatment options that might be offered; and which surgical approach(es) might be used.

Please send replies to Charles J. Prestigiacomo, MD, c.prestigiacomo@umdnj.edu.

Submit a Case

To submit a case for possible inclusion in an upcoming issue of *Cerebrovascular News*, please provide the following information.

- Two to four deidentified images, at a resolution of 300 dpi, with appropriate legends.
- The age of the patient
- Therapeutic options to be considered.
- (Optional) One or two questions pertinent to the case.

E-mail your case to:

Murat Gunel, MD

Department of Neurosurgery

Yale University School of Medicine

murat.gunel@yale.edu

A Decade of Bold Progress: The CV Section Annual Meeting

Issam Awad, MD

Ten years ago the Cerebrovascular Section embarked on a new and very bold initiative: For the first time the section planned to hold its annual meeting in conjunction with the American Heart Association's stroke conference. The meeting was held Jan. 23–25, 1996, immediately preceding the AHA stroke conference and at the same San Antonio venue.

That decision was not reached easily. The CV Section had long hosted afternoon sessions at annual meetings of the CNS in the fall and of the AANS in the spring, and the section also had developed a named lectureship and a special award for best abstract at those meetings. But despite the fact that cerebrovascular abstracts accounted for the largest portion of abstracts submitted to the AANS and CNS meetings, the number of abstracts presented were necessarily limited, and the breadth and depth of issues defining the subspecialty could not be reviewed at those meetings. In addition, the platform was constrained for integrating sessions and presentations by endovascular colleagues and neurologists with whom our field was becoming increasingly interconnected.

The stroke conference was rapidly expanding, and had always been open to all the cerebrovascular specialties. A core group of cerebrovascular surgeons routinely attended the stroke meeting, and a handful of presentations did address surgical topics. In more recent years, the CV Section Executive Council scheduled a business meeting and a dinner during the stroke conference, which was typically held in January or February. A few leaders of the section had long served in the AHA Stroke Council's leadership and were trying to enhance neurosurgery's representation at that meeting. But the participation by rank and file cerebrovascular surgeons was scant, and there was a clear perception that the stroke conference was largely a symposium for dark-suited neurology colleagues who were neither concerned with the details of surgical questions nor the emerging endovascular techniques.

There were long debates and strategic planning sessions that increasingly mobilized interest and support for developing a meeting that would encompass the full range of surgical issues and related science and techniques. Consensus emerged that the CV Section should host this meeting jointly with endovascular colleagues, and our leadership explored potential logistics and organizational challenges with the leadership of the American Society of Interventional and Therapeutic Neuroradiology. The ASITN, a group also underrepresented at the stroke conference, had encountered similar obstacles to expanding its presence and covering its unique technical and interventional focus and multidisciplinary links at its parent organizations' established radiology meetings.

Having agreed on a joint meeting of the CV Section and the ASITN, the debate on when and where to hold it continued. The stroke conference time frame and venue were attractive for several reasons. The few who already attended the stroke

conference did not want to dissociate from it or necessarily to develop a fourth meeting. There also was a sense that outreach to neurology colleagues would best be fostered by continuing to enhance the section's presence at the stroke conference.

There were several challenges and veritable obstacles to bringing this model of cooperation to fruition. Parent organizations were not particularly warm to the idea of a free-standing meeting potentially harming attendance at their fall and spring meetings. There were innumerable logistical and administrative challenges to hosting a meeting jointly with the ASITN, itself a growing and still organizationally "loose" group. The AHA folks initially were reluctant to open their longstanding meeting to the newcomers from cerebrovascular surgery and the ASITN. The AHA often selected stroke conference dates and the venue quite late, challenging us to find room at the same hotel or even in the same city during the busy season. Opinions varied widely within our group on the timing and venues, organization, finances and potential risks of a free-standing meeting

But the vision took hold, and the section leadership helped drive a consensus. It was during the tenure of L. Nick Hopkins, MD, as section chair that we finally took the leap of faith. I was asked to serve as the new meeting's chair, a hybrid position in charge of logistics, coordination with ASITN and the stroke folks, and the scientific program. Associate Chair Linda Sternau, MD, was appointed, with plans for her to lead the following year's meeting (if there was going to be another one...). Co-chair Michel Mawad, MD, from the ASITN also was designated.

Meeting management assistance was sought from the AANS, and modest educational grants were solicited to protect the section from financial catastrophe.

That first meeting in San Antonio in 1996 was a success by every measure. More than a hundred registrants showed up, drawing more surgeons, neurointerventionalists and even neurologists, to *our* meeting. And we had more participation of surgeons at the stroke conference itself than ever before. The idea and the unique synergy were brilliant. The success of the CV/ASITN meeting continued in subsequent years. Additional collaborative efforts have included an innovative meeting with the Japanese Society of Surgery for Cerebral Stroke in Hawaii in 2001, and a number of shared sessions with the stroke conference in other years.

During the past decade, science and technology have broadened the definition of cerebrovascular surgery.

The most critical pundits no longer question the wisdom of holding one meeting that addresses cerebrovascular surgery's microsurgical and endovascular techniques and scientific underpinnings.

Endovascular neurosurgeons have emerged as an important component of neurovascular teams. The most critical pundits no longer question the wisdom of holding one meeting that addresses cerebrovascular surgery's microsurgical and endovascular techniques and scientific underpinnings. Increasing interconnection with neurology has emerged not only in the classical areas of brain ischemia, but also in hemorrhagic stroke and neurocritical care. At the same time, the stroke conference has experienced exponential growth in scope and attendance. Our specialty has worked closely with the American Heart Association's new American Stroke Association in development of guidelines for the management of stroke, aneurysms and vascular malformations. The section has been more involved than ever with the multidisciplinary community of stroke clinicians and scholars. Hence, there has been a need for greater integration with the stroke conference to reflect the very depth and breadth in the field.

As surgeons, we now have a seat at the big table.

The section leadership has noted these trends and has boldly pushed for full integration of the CV/ASITN meeting with the stroke conference beginning with the 2007 meeting in San Francisco. Full integration with the stroke conference will save our members from having to register at two meetings and will enhance the exposure of surgeons to stroke conference while bringing more diverse neurology and basic science attendees into the surgical sessions. The CV Section's organizing committee succeeded at negotiating a major input by cerebrovascular surgeons into the organization and oversight of numerous sessions at the stroke conference. We will have a more vibrant and diverse platform featuring surgical concepts and controversies. And they succeeded at integrating the abstract submission and review process into the very prestigious stroke conference's open and poster presentations. In 2007, there will be more submitted and accepted presentations by surgeons at the stroke conference than ever before.

Please plan to attend this very dynamic annual meeting of the CV Section in San Francisco, Feb. 6–9, 2007, fully integrated into the dominant orbit of the AHA/ASA International Stroke Conference. This is the next level in our specialty's assertion of relevance and impact, and we hope that we will have more attendance by surgeons than ever before at either the cerebrovascular or the stroke conference! As surgeons, we now have a seat at the big table. Join us in San Francisco. ■

Issam Awad, MD, is a past chair of the AANS/CNS Cerebrovascular Section.

Research Awards

Resident Research Awards in Cerebrovascular Surgery

The AANS/CNS Cerebrovascular Section announces the Resident Research Awards in Cerebrovascular Surgery.

- Funding Available July 1, 2007
- Up to \$15,000 Support of Specific Research Proposal
- Residents in North American Training Programs
- Research Related to Cerebrovascular Disease
- Application Deadline: March 1, 2007

Information is available from Robert J. Dempsey, MD, Department of Neurological Surgery, University of Wisconsin, (608) 265-5967, l.vanbrocklin@neurosurg.wisc.edu. The application is available at www.neurosurgery.org/cv.

Brain Aneurysm Foundation Funds New Research Grants

The Brain Aneurysm Foundation will award two \$10,000 research grants in 2007 for basic science and translational research projects.

- Project Start Date: Sept. 1, 2007
- Grants of Up to \$10,000 May Be Requested
- Research Must Be Conducted in the United States or Canada
- Award Notification in August 2007
- Application Deadline: Postmarked by March 16, 2007

Information is available from the Brain Aneurysm Foundation, (617) 269-3870. The application is available at www.bafound.org.

Chair Message *continued from front page*

evolution. The CV Section, together with the ASITN, now returns to the stroke meeting with an unmatched opportunity to participate and lead in an expanded and now *multispecialty* scientific meeting.

Hence, much thought and great preparation has taken place for the upcoming meeting in San Francisco. Michael Cawley, MD, and Murat Gunel, MD, from the CV Section and Gary Nesbit, MD, and Lee Jensen, MD, from the ASITN have produced an innovative and exciting scientific program, including five scientific abstract sessions, and plenary sessions on current and future aneurysm management, cerebrovascular occlusive disease, central nervous system vascular malformations and cerebrovascular genetics. One of the very best parts of the CV/ASITN annual meeting, the Luessenhop Lecture, has been preserved and it will be delivered by Arthur Day, MD. His lecture, Skull Base Techniques for Every Day Aneurysm Surgery, will highlight surgical insights gleaned from a stellar microsurgical career, and it promises to be a lecture you won't want to miss. You can download the full meeting agenda at www.strokeconference.org.

The meeting in San Francisco Feb. 6–9 will be superb. Please attend and also join us at the opening reception for CV-ASITN members in the Club Room of the San Francisco Marriott on Feb. 6.

I look forward to seeing you there! ■

Wingspan Stent for Severe Symptomatic Intracranial Atherosclerotic Stenosis

To date, stroke remains the third leading cause of death after heart disease and cancer. Stroke is the leading cause of long-term disability in North America, Europe, and Asia (2). Intracranial stenosis from atherosclerosis accounts for approximately 10 percent of all ischemic strokes (3). Its reported incidence is particularly high in the Asian, African, and Hispanic populations. Unfortunately, despite the best-known medical treatment, many patients with intracranial stenosis remain severely symptomatic with unacceptably high risk of recurrent stroke (6). Intracranial angioplasty and stenting has thus emerged as an attractive therapeutic alternative, particular over the last decade. The Wingspan stent is one of the latest stents specifically designed to treat intracranial atherosclerotic stenosis.

Antiplatelet agents and statin therapy are the two primary medical treatments offered to patients with intracranial atherosclerosis. The Warfarin versus Aspirin for Symptomatic Intracranial Disease study, known as WASID, is a randomized clinical trial that compared Warfarin and aspirin for preventing stroke and vascular death in patients with intracranial atherosclerotic stenosis (1). The study demonstrated that Warfarin provided no benefit over aspirin yet was associated with significantly higher rates of adverse events. As the largest study of symptomatic intracranial stenosis to date, WASID also demonstrated that the risk of subsequent stroke in the territory of the stenotic artery was greatest: when stenosis was greater than or equal to 70 percent; after recent symptoms; and in women. Patients who had a stroke as their qualifying event and had a 70 percent to 99 percent stenosis experienced a one-year stroke rate of 23 percent (6). Given the high risk of recurrent stroke in the territory of a symptomatic intracranial stenosis, alternative effective therapies are desperately needed.

Intracranial angioplasty and stenting have emerged as promising treatments for symptomatic intracranial atherosclerotic stenosis. Since the earliest intracranial angioplasty experience reported by Sundt and colleagues in 1980 (4), a marvelous endovascular evolution has occurred. Greatly improved understanding of the architecture of cerebral vessels, as well as the rapidly advancing technologies, have fueled this evolution. The acceptance of the fact that cerebral vessels are not coronary arteries in the brain has further accelerated the field of neurointervention. Although there are no prospective studies on comparative safety and efficacy of intracranial angioplasty and stenting versus medical treatment, the tremendous endovascular potential is well illustrated in successfully treated patients, who previously had remained severely symptomatic despite the best medical treatment (Figure 1).

Although there have been many retrospectively reported studies, the only prospective clinical trial regarding the safety and efficacy of stenting for intracranial atherosclerosis is the Stenting

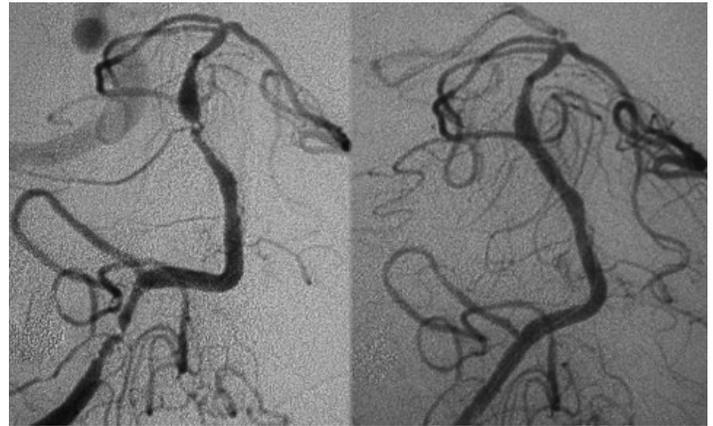


Figure 1. Pre- and post-angioplasty/stenting in the vertebrobasilar system. This 67-year-old physician presented with acute dysarthria, oculomotor palsy, and decreased responsiveness. He remained intermittently obtunded while on Heparin. Following angioplasty and stenting of the right vertebral and basilar artery, his mental status normalized and he was discharged.

of Symptomatic Atherosclerosis Lesions in the Vertebral or Intracranial Arteries, SSYLVA, trial (5). The study patients (43 with intracranial stenosis and 18 with extracranial vertebral artery stenosis) were not randomized. Initial stent (NeuroLink, Guidant Corporation, Menlo Park, Calif.) deployment was successful in 95 percent of patients. The stroke rate in the territory of the treated vessel at one year of follow-up was 13.2 percent. This study, however, demonstrated that 37 percent of the patients with a six-month, follow-up angiography had more than 50 percent restenosis.

The Wingspan (Figure 2) study, undertaken with a Humanitarian Device Exemption, involved 45 patients with symptomatic 50 percent to 99 percent angiographically proven intracranial atherosclerotic stenosis. The stroke rate in the territory of the treated vessel at six months of follow-up was 7 percent. Only 7.5 percent of patients demonstrated restenosis of greater than 50 percent at six months. More data are certainly required to determine if intracranial angioplasty and stenting is superior to medical treatment. Based on the currently available evidence, intracranial angioplasty and stenting can be recommended only in selected symptomatic patients who have failed medical therapy.

Intracranial atherosclerosis is an important cause of long-term severe disability in the United States. Given the high risk of recurrent stroke in the territory of a symptomatic intracranial stenosis despite the best medical treatment, alternative effective therapies are desperately needed. Intracranial angioplasty and stenting have emerged as promising treatments. Over the next few years, further technological advancement and more rigorous scientific assessment of various combined strategies will provide our patients with better and safer treatment options. ■

From the Editor

Murat Gunel, MD

With great enthusiasm, I invite you to come to San Francisco for the CV-ASITN programs and the International Stroke Conference as a whole. This is *our meeting* and I encourage you to represent our subspecialty and our patients. The CV Section has diligently worked to orchestrate this meeting and will be holding sessions specifically devoted to the issues that we face every day as cerebrovascular and endovascular surgeons.

It is my belief that it is important for us, as neurosurgeons, to be an integral part of the Stroke Society and be involved at the national and international level. We provide a unique service to stroke patients and it is incumbent upon us to serve as leaders in the field.

In some ways, this collaboration is an experiment, and whether we continue this involvement with the ISC meeting will be *our* decision. If it becomes apparent that this collaboration does not significantly benefit our specialty or our patients, we will return to our previous meeting format. Please write to me after the meeting (Murat.Gunel@yale.edu) with your thoughts and comments; they will be the topic of our next newsletter and you will ultimately determine our future meeting plans.

In this issue, please pay particular attention to From the Chair by Greg Thompson, MD, as well as to A Decade of Bold Progress by Issam Awad, MD; both articles offer a historical perspective of our meeting.

I look forward to seeing you in San Francisco.

Letters to the Editor

One of the main purposes of Cerebrovascular News is to promote communication among members of the AANS/CNS Cerebrovascular Section. Your insights, questions, and comments increase the section's value for everyone. Please send your input to Murat Gunel, MD, editor, Cerebrovascular News, at murat.gunel@yale.edu.

Newsletter Mission Statement

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

- Promote communication among section members.
- Promote communication among the section's Executive Committee and the members.
- Promote coordinated activities and a common purpose within the section.
- Inform the membership of research, educational, and employment opportunities.
- Inform the membership of new technical developments in the treatment of cerebrovascular disease.
- Promote research, patient care, and educational activities of the section.

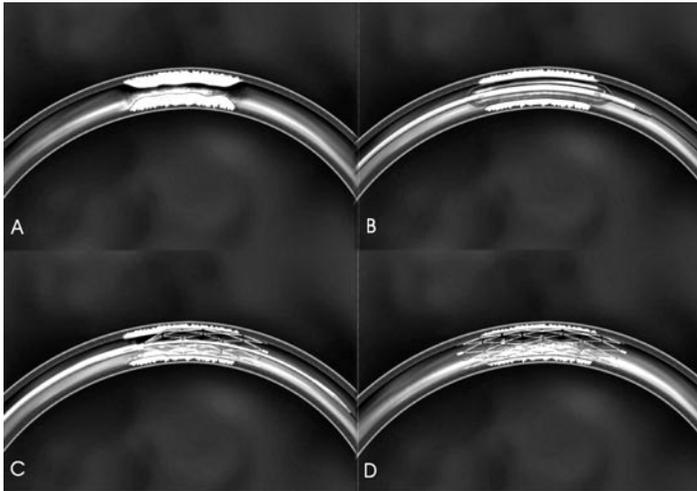


Figure 2 A. Intracranial atherosclerotic stenosis. B. Balloon angioplasty for predilation. C, D. Self-expandable Wingspan stent deployment.

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Apply Online for CV Section Membership

The online application process for membership in the AANS/CNS Cerebrovascular Section decreases the time from application to membership and expedites the extension of Cerebrovascular Section benefits to new members.

Applying is this easy:

1. Go to www.MyAANS.org.
2. Login using e-mail address and password, or register by entering name and e-mail address and chosen password.
3. Select: Member Applications from the left-hand tool bar.
4. Select: Create a New Application.
5. Select: AANS/CNS Cerebrovascular Section.
6. Complete and submit the application following the online instructions.

*Questions may be directed to AANS/CNS Section Services,
sjm@aans.org or (888) 566-2267.*