Study finds EEA safe, effective in children with life-threatening tumors

by Marc Lukasiak
Children’s Hospital of Pittsburgh

A first-of-its-kind study published in the February issue of the *Journal of Neurosurgery: Pediatrics* suggests endoscopic brain surgery, pioneered by surgeons at the University of Pittsburgh Medical Center, has the potential to be safer and often more effective than conventional surgery in children with life-threatening conditions.

This minimally invasive approach—known as the Expanded Endonasal Approach (EEA)—was pioneered and refined in adults over the last decade by surgeons at UPMC and the University of Pittsburgh School of Medicine and is now a viable option for tumors in children and in many instances for tumors that were once felt to be inaccessible by transnasal route.

Collaborating with colleagues at Children’s Hospital of Pittsburgh of UPMC, surgeons have recently expanded its use to include children and have performed EEA on more than 50 pediatric patients, more than have been reported by any other center in the world.

In a retrospective study of the first 25 pediatric patients—ranging in age from 3 to 18—who underwent EEA between January 1999 and August 2005 at Children’s and UPMC, the surgeons found the approach may be safer than conventional surgical techniques in well-selected cases. More importantly, in certain cases it may offer an option to patients who otherwise would have no surgical alternative.

The traditional approach for removing benign or malignant tumors at the skull base has involved craniofacial approaches that require peeling away skin and soft tissue, as well as musculature over the facial elements. Often, this approach can be cosmetically disfiguring but may also involve the consequences of manipulating important neural tissue such as the optic nerve and the carotid artery. These issues are even more important in children because disrupting their facial plates, where their growth centers are, may have long-term implications. EEA involves using narrow scopes and surgical tools—often developed by the surgeons themselves—inset through the nasal passage to remove tumors as large as baseballs.

“This review of our first 25 pediatric cases is very encouraging in that we were able to remove the tumor in each and every case with minimal complications,” said Amin Kassam, MD, associate professor and chair, Department of Neurological Surgery at the University of Pittsburgh School of Medicine and UPMC. “Minimally invasive endonasal surgery has many potential benefits over traditional surgery. Using the techniques developed, we are able to remove very large tumors without incisions and often with less risk of causing brain or nerve tissue damage as we are taking a more direct route to the tumor. Therefore, recovery may be faster with a shorter hospital stay.”

Removal of the tumor was achieved in all patients in the study, and none suffered neurological damage, vascular injury or central nervous system infection, according to Dr. Kassam.

Other researchers involved in the study were Ajith Thomas, MD, Carl Snyderman, MD, Ricardo Carrau, MD, Paul Gardner, MD, Arlan Mintz, MD, Hilal Kanaan, MD, Michael Horowitz, MD, and Ian F. Pollack, MD.
What is ‘minimally invasive?’

Since the early 1980s the Department of Neurological Surgery at the University of Pittsburgh has strived to provide efficacious means for treating neurosurgical conditions using procedures that have the least impact on a patient’s ability to interact with his/her environment physically, socially, and economically. The ultimate goal for any surgical procedure should be to eliminate or control a problem while at the same time returning a patient to normal activities as soon as possible. In order to become mainstream, newer techniques must prove bioequivalent or superior to established surgical procedures while at the same time demonstrating a more rapid return to normal activities. Procedures that achieve this goal have been termed ‘minimally invasive.’ What does this term really mean, however, to surgeons and the public, and does the potential difference in interpretation between the two groups lead to disparate expectations between physicians and their patients?

According to Webster’s Dictionary, ‘minimalism’ is defined as the theory or practice in art or design of using the fewest and simplest elements to achieve the greatest effect while a minimalist is an individual who adheres to the concept of minimalism. ‘Invasive’ is defined as involving entry into the living body by incision and insertion of an instrument. Put together, therefore, the term ‘minimally invasive’ indicates a surgical procedure that utilizes small or non-existent entry portals to manage a malady that formally required large access routes. It is in this spirit that surgeons utilize the term when discussing procedural options with the public.

While these procedures may offer the potential for less invasion upon the patient’s life, they should not be equated with technically less difficult for the surgeon. In reality, however, these procedures often require more technologically advanced instrumentation and increased levels of training in order to achieve favorable outcomes. While complications rates may be equivalent to, or lower than traditional procedures, they do still occur often requiring specialized technical aptitude for successful management.

Radiosurgery, endovascular surgery, endoscopic surgery, percutaneous and endoscopic spinal surgery, and stereotactic biopsy each represent quantum leaps in the management of a variety of neurosurgical maladies that once required extensive surgical exposures and significant neural structure manipulation. As a result of these various advances, hospital admissions have been shortened, complication rates have in many cases been reduced, and time for return to normal activities has been shortened. These procedures, however, remain invasive with real risk for untoward, life altering sequelae.

In order to deliver lower complication rates with such procedures surgeons must dedicate themselves to learning these newer procedures with years of steady work in the operating room and the laboratory so that required skills can be honed and refined. Attempts to rapidly acquire skills and “dabbling” in the newer fields of minimally invasive neurosurgery will more than likely lead to unwanted results and complications thus hampering scientific and clinical progression.

With this in mind surgeons must continue to carefully and incrementally add to their surgical armamentarium so as not to overstep the bounds of what can be safely performed by each individual. They must also advise patients regarding the risks and benefits of any surgical procedure and be sure not to equate a small incision with a negligible or non-existent risk for serious morbidity and mortality.

While the term ‘minimally invasive’ seems to be permanently ingrained in the surgical lexicon it is important that new procedures that rely on smaller access portals be described to patients as ‘minimally intrusive.’ Our goal remains to treat neurosurgical conditions stealthily, moving in and out of the nervous system without the body being aware of our presence. The fact, however, that these newer procedures carry rare but significant life altering risks must not be minimized. If patient and physician understanding fails to match reality then newer surgical technologies will fail due to the climate of public mistrust and false expectation.

It is also imperative that the surgeons performing these procedures are themselves capable of performing the comparable open approaches. Only in this way can the patient be offered an unbiased option based on anatomic considerations.

Amin Kassam, MD
Chairman, Department of Neurological Surgery
Y stenting of wide-necked aneurysms useful tool for aneurysm occlusion

by Michael B. Horowitz, MD
Professor of Neurological Surgery

With the development of new endovascular devices, cerebral aneurysms that were once considered poor candidates for coil embolization are now amenable to this less intrusive therapy. Wide-necked lesions have always been difficult to treat for fear of coil herniation into parent vessels or incomplete neck reconstruction. We report two cases of ruptured, wide necked basilar artery (BA) aneurysms treated using double Y stenting for the purposes of neck reconstruction and coil retention.

A 42-year-old right-handed man and a 47-year-old right-handed woman each presented Hunt and Hess 3 with wide-necked 11 mm and 10 mm basilar apex aneurysms, respectively. Each patient was selected to undergo endovascular therapy using Neuroform stents (Boston Scientific) placed in a Y configuration from (BA) to the bilateral posterior cerebral arteries (PCA) followed by coil embolization of the aneurysms using platinum coils.

Both aneurysms were successfully treated using a triple wire technique with subsequent Y stenting and coil embolization.

Endovascular therapy for cerebral aneurysms is becoming more and more accepted as an alternative to traditional aneurysm clipping. The ISAT study published in 2005 provided random prospective evidence that aneurysm coiling was safer than clipping. The CARAT study published in 2006 showed virtually no difference between re-rupture rates between clipped and coiled lesions. Johnston et al.’s review in 1999 of surgical and endovascular aneurysm treatment results at U.S. University Hospitals, Taha’s review of coiled and clipped cases in 2006, and Higashida et al.’s review in 2007 further supported the ISAT findings and provided additional evidence that coiling was equivalent to or superior to clipping in terms of avoidance of adverse outcomes.

While the above studies may support the use of endovascular therapy for lesions that permit coil therapy, there remain some aneurysms that will not be readily embolized due to anatomic features such as an unfavorable fundus to neck ratio. For these particular cases, strategies and devices have been developed to permit successful embolization. Wide-necked bifurcation aneurysms (BA and middle cerebral bifurcation) are, however, at times difficult to treat using current devices because many devices such as stents and balloons are most suited for wide-necked side wall lesions such as those along the paracarotid and suprachilom segments of the internal carotid artery. In 2004 Perez-Arjona and Fessler and in 2006 Sani and Lopes described the use of two Neuroform stents deployed in a Y configuration to reconstruct the base of BA and MCA aneurysms, respectively. These authors built their stent Y and successfully treated their lesions by first deploying one stent and then passing a wire and stent through the cells/interstices of the first stent before deploying the second stent into the other branch vessel.

While successful, the technique used by Arjona, Fessler, Sani, and Lopes necessitates passing a wire and stent through a recently placed stent thus risking damage and/or dislodgement of the first device. It also requires that in order to be successful the second stent must pass though the first stent and deploy. If this fails to occur the surgeon is left with no other option but to try to pass another stent in a similar fashion or try to coil the aneurysm with only one efferent vessel protected.

The technique demonstrated in these two cases utilizes simultaneous access to both efferent vessels along with the culprit aneurysm. Stents are deployed sequentially side by side thus not necessitating traversing a freshly placed stent’s cells and risking stent damage and/or dislodgement. It also permits jailing of the aneurysm catheter which makes the catheter’s position increasingly stable during aneurysm embolization and virtually assures the surgeon that all deployed coil material will rest between stent and either aneurysm fundus or vessel wall thus reducing the risk of coil herniation into vessel lumen.

*
Results show safety of endoscopic Expanded Endonasal Approach (EEA)

by Daniel M. Prevedello, MD
Clinical Instructor of Neurological Surgery

Amin B. Kassam, MD
Associate Professor of Neurological Surgery

Ricardo L. Carrau, MD
Professor of Otolaryngology

and Carl Snyderman, MD
Professor of Otolaryngology

Endoscopic endonasal (EEA) skull base surgery represents an important modification of standardized surgical practice. Consequently, there has been considerable discussion regarding the procedure’s safe generalization. In addition to the purchase of new technology platforms and instruments, this surgical approach requires the acquisition not only of new anatomic concepts and specific surgical skills, but also of the mindset of working collaboratively and simultaneously with an otolaryngology partner.

In the evolution of any procedure, there are four phases that must be conquered in order to succeed: feasibility, safety, efficacy and generalizability.

The feasibility of endoscopic skull base surgery has been gradually established using a historical foundation of sinonasal and transsphe-roidal surgery and technological advances.

In late 1997 at the University of Pittsburgh, we began to pursue the expanded fully endonasal purely endoscopic approach to the ventral skull base in a systematic fashion. Working with a team of otolaryngologists and neurosurgeons over the last nine years, over 700 patients have undergone endoscopic skull base procedures. We have approached this task in a stepwise fashion beginning with the sella and then expanding our experience along the ventral skull base in a systematic fashion. We then moved laterally to learn to access in a modular fashion the parapharyngeal, petrous and the paraclival carotid arteries, the cavernous sinuses.

We have demonstrated the feasibility of accessing lesions using each of the anatomic modules. With feasibility established and surgical anatomy defined, the safety and efficacy of accessing pathologies using a new technique must be documented.

As safety comes first, we reviewed all perioperative major complications that occurred related to the treatment of the initial 700 patients who underwent fully endoscopic EEA skull base surgery at the University of Pittsburgh. Complications were categorized as primary (vascular, neurological and delayed deficits) and secondary (infectious and systemic).

The primary complications are shown in table 1. There were seven major vascular complications (1%) including two cases of internal carotid artery rupture without neurological sequelae. Three of these seven patients developed postoperative persistent deficits (0.4%). There were 17 patients (2.5%) with postoperative neurological deficits being permanent in four, all of them related to cranial nerves (0.6%). Six patients had delayed postoperative deficits (0.9%) with permanent deficits (partial visual loss and hemiparesis) in two patients (0.3%).

The secondary complications are shown in table 2. There were nine cases of intracranial infection (1.2%) that were successfully treated in seven patients. One patient died after acquiring meningitis and developing status epilepticus. The other patient had a suprasellar abscess after a resection of an epidermoid tumor and is incapacitated. Twenty-two patients (3.1%) had major systemic complications in the postoperative period; 17 patients were successfully treated and the other five died (0.7%).

The overall major complication rate, both primary or secondary permanent deficits (1.4%) and deaths (0.8%), was 2.2%.

We think that the explanation for our low rates of complication is a result of our personal experience with expanded endonasal approaches being that of incremental growth working as a team from the beginning; specifically, progressive comfort with each level of complexity forming the foundation to proceed to the next.

Endoscopic skull surgery proved to be a safe approach to the skull base particularly if compared to results obtained after standard open skull base procedures. Generalizability will occur if endoscopic skull base surgery training is approached in a modular and graduated fashion.

The future of endoscopic skull base surgery is part of the armamentarium of the modern skull base surgeon offering standard open approaches analyzing what would be the best option for each patient.

### Table 1: Primary surgical complications among 700 patients who underwent EEA

<table>
<thead>
<tr>
<th>Vascular (1.0%)</th>
<th>Death (0%)</th>
<th>• Ø</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Transient deficit (0.1%)</td>
<td>• P1 perforator</td>
</tr>
<tr>
<td></td>
<td>Permanent deficit (0.4%)</td>
<td>• Pontine bleed (quadriplegic)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Maxillary artery laceration (hemiplegic)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Frontopolar avulsion (R lower limb paresis)</td>
</tr>
<tr>
<td>No deficit (0.4%)</td>
<td>• 1 Ophthalnic (already blind)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 2 ICA lacerations</td>
<td></td>
</tr>
<tr>
<td>Neurologic (2.5%)</td>
<td>Permanent deficit (0.6%)</td>
<td>• IX, X, XII (1 case)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• IX, X (1 case)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• VI (2 cases)</td>
</tr>
<tr>
<td>Transient deficit (1.9%)</td>
<td>• III nerve (2 cases)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• VI nerve (2 cases)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• IX, X (1 case)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hemiparesis (4 cases)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Seizures (4 cases)</td>
</tr>
<tr>
<td>Delayed (0.9%)</td>
<td>Permanent deficit (0.3%)</td>
<td>• L blindness (late hypotension) 1 case</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hemiplegia (post-op apoplexy) 1 case</td>
</tr>
<tr>
<td>Transient deficit (0.6%)</td>
<td>• Visual deficit (hematoma) 2 cases (reop)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Visual deficit (balloon) 1 case (deflated)</td>
</tr>
</tbody>
</table>

### Table 2: Secondary surgical complications among 700 patients who underwent EEA

| Infection (1.2%) | Death (0.1%) | • Meningitis + S. Epilepticus (1 case) |
|                 | Successfully treated (1%) | • Abscess (1 case) |
|                 |                       | • Meningitis (6 cases) |
| Deficit (0.1%) | • Abscess – incapacitated (1 case) |
| Systemic (3.1%) | Death (0.7%) | • PE <30d (1 case) |
|                 |                       | • PE >30d (2 cases) |
|                 |                       | • Pneumonia + MI <30d (1 case) |
|                 |                       | • Multiorgan failure > 30 d (1 case) |
| Successfully treated (2.4%) | • Acute renal failure - transfusion (1 case) |
|                 |                       | • Respiratory failure (7 cases) |
|                 |                       | • PE <30d (6 case) |
|                 |                       | • MI (2 cases) |
|                 |                       | • Cardiac arrest (1 case) |
Resection of skull base and intracranial lesions have been complicated by the occurrence of CSF leak and meningitis. In open skull base surgery, it has been mitigated by vascularized tissue flaps. In our extensive experience with 700 patients using an endoscopic technique to approach the ventral skull base, the greatest obstacle towards the acceptance of the expanded endonasal approaches (EEA) has been the incidence of postoperative cerebrospinal fluid (CSF) leaks.

The development of the nasal septal flap has dramatically reduced the incidence of leaks after skull base surgery through an endoscopic route. A vascularized pedicled flap of the nasal septum mucoperiosteum and mucoperichondrium based on the nasoseptal artery is harvested using the endonasal endoscopic approach at the beginning of the case. The flap can be harvested from either side and is stored in the nasopharynx until the extirpative phase of the surgery is concluded. At the end of the procedure, the flap is placed in contact with the denuded walls of the sinonasal tract to cover the defect. This procedure is additionally attractive in that it does not involve an external incision to mobilize a flap to reconstruct the barriers between the subarachnoid space containing the brain and cranial nerves from the sinonasal tract.

Despite the vascularized nature of the rotated tissue, a multilayered reconstruction is used as well. In addition to the flap, we use an inlay subdural graft of collagen matrix. Occasionally, an additional onlay fascial graft and/or abdominal free fat graft may be used. The nasoseptal mucosal flap can be applied directly to the remaining dura and/or brain or may be placed over a fat graft as long as the flap covers and overlaps the entire defect to lie over denuded bone or soft tissue surrounding the nasal side of the defect.

Biologic glue helps to fix the flap and nasal sponge packing or a 12 French Foley catheter is inserted to press the flap against the defect. Inflation of the Foley balloon should be under direct endoscopic observation, as over inflation may result in compression of intracranial structures or compromise of the neurovascular pedicle. A lumbar drain is used when there is high flow of CSF at the time of surgery (e.g. opening of a cistern or ventricles, suspected high ventricular pressure). The balloon or packing is removed three to five days post-op. The patient is advised to irrigate the nasal cavity with normal saline solution and the nasal cavity is debrided in the office every one to two weeks until crusting stops.

This flap was initially used in January 2006 and over the next one year was applied in 75 patients. After the first 25 patients where various modifications were used to perfect technique we have collected data to assess the efficacy of this technique in solving the CSF leak problem. Of the 50 patients who were treated with this flap from June 2006 to January 2007, thirteen had an extraarachnoidal procedure and did not have a CSF leak. The 37 patients who had exposure of CSF during surgery had multiple pathologies which included sinonasal malignancies, meningiomas, chordomas, and encephalocele and pituitary tumors. Of these 37 patients, only two (5.4%) suffered a CSF leak. As techniques are refined, this percentage should be even lower.

(top left image as viewed through endoscope) Final appearance of flap place over the sphenoid sinus; (top illustration) elevation of mucoperichondrium over right side of nasal septum preserving the vascular supply; (bottom illustration) the nasoseptal flap covering the anterior cranial base defect after transplanum approach.
Hillman Cancer Center
Neuro-oncology office opens

The University of Pittsburgh Department of Neurological Surgery has established an outpatient office at the Hillman Cancer Center seeing patients with tumors of the nervous system including the brain and spine as well as patients suffering from the neurologic spread of systemic cancer.

Arlan Mintz, MD, director of adult neurosurgical oncology, Amin Kassam, MD, and Richard Spiro, MD, director of spinal oncology, will see patients at the center.

Physicians wishing to refer patients can call us at (412) 647-8312.

School of Medicine dean appoints Kassam chairman

(continued from back page)

Dr. Kassam has had primary responsibility for the training of residents and fellows in minimally invasive skull base surgery, transphenoidal endoscopic surgery, and stereotactic endoscopic-assisted intraventricular tumor removal. He has been an excellent role model who is dedicated to teaching students, residents, fellows, and international trainees – of whom he has had many. He has developed an instructional laboratory to teach advanced microendoscopic surgical techniques to neurosurgeons and otorhinolaryngologists from the United States and worldwide. Amin maintains a very active clinical practice and is highly sought nationally and internationally as a surgical consultant.

Please join me in celebrating Dr. Kassam’s appointment as chair of one of the world’s leading departments of neurological surgery.

Arthur S. Levine, MD
Senior Vice Chancellor for the Health Sciences
Dean, School of Medicine

For more information on donations, please contact James A. Olsen at the University of Pittsburgh/UPMC Medical Health Sciences Foundation at (412) 647-7781.
Neurology Specialty Prize

Several University of Pittsburgh neurosurgeons have been named among this area’s top doctors in their field in a national survey published locally in the May issue of Pittsburgh Magazine. P. David Adelson, MD, Amin B. Kassam, MD, Douglas S. Kondziolka, MD, L. Dade Lunsford, MD, and Ian Pollack, MD, were named in the survey conducted by Castle Connolly Medical Ltd.

Castle Connolly utilizes a physician-led team of researchers following a rigorous screening process to select top doctors on both the national and regional levels. They identify highly skilled, exceptional doctors by evaluating their medical education, training and hospital appointments, and by surveying tens of thousands of top doctors and the medical leadership of leading hospitals.

Adelson Named A. Leland Albright Professor

Department vice chair of research, P. David Adelson, MD, has been named recipient of the A. Leland Albright Endowed Chair of Pediatric Neurosurgery at the University of Pittsburgh.

Dr. Adelson is director of Pediatric Neurotrauma at Children’s Hospital of Pittsburgh, director of surgical epilepsy at the University of Pittsburgh Epilepsy Center, and co-director of the Brachial Plexus and Peripheral Nerve Injury Center at Children’s Hospital of Pittsburgh. He is also director for The Walter Copeland Neurosurgical Research Laboratory located in Scaife Hall.

The Albright Endowed Chair honors the career accomplishments of A. Leland Albright, MD, former chief of neurosurgery at Children’s Hospital of Pittsburgh. Throughout his 30+ year career in pediatric neurosurgery, Dr. Albright has been widely praised for his advancement of the treatment of children with movement disorders and spasticity.

Hypothermia Clinical Trial Funded by National Institutes of Health

The phase three clinical trial for “Hypothermia for Severe Traumatic Brain Injury in Children” was funded by the National Institute of Health in the amount of $11.5 million. Dr. Adelson is principal investigator of the grant.

Kondziolka, Lunsford Co-Author Book

Drs. Kondziolka and Lunsford are co-editors of a newly released book volume, Radiosurgery and Pathological Fundamentals, discussing the latest developments of pathological fundamentals and new trends in radiosurgery. The book, published by Karger, is the latest volume in the publisher’s Progress in Neurological Surgery series. György T. Széffert, MD, PhD, of the Semmelweis University National Institute of Neurosurgery in Budapest, Hungary is editor of this volume. Marc Levier, MD, PhD, of the Université Libre de Bruxelles Centre Gamma Knife, in Brussels, Belgium serves as another co-editor.

In the Media

• Findings of a study investigating the use of endonasal brain surgery—pioneered by Dr. Kassam, Carl Snydermann, MD, and Ricardo Carrau, MD—in pediatric cases received widespread national media attention. The study, reported in the February issue of Journal of Neurosurgery: Pediatrics, was reported by the Associated Press and carried in numerous newspapers and magazines across the country including the Pittsburgh Post-Gazette, New York Times, Washington Post, Houston Chronicle, Denver Post, Seattle Post-Intelligencer and Forbes magazine. The report was also picked up by a number of internet news organizations including CNN.com and CBS.com. (See related article on page 1 of this newsletter.)

• The Expanded Endonasal Procedure was also mentioned in a national Associated Press feature article on ‘scarless surgeries’ that ran in numerous media outlets across the country on April 30.

Congratulations

• Michael Fischer received the Neurology Specialty Prize at the 2007 Society for Critical Care Medicine meeting in Orlando. His presentation was entitled, “The Role of Cerebrospinal Fluid Magnesium Level in Severe Traumatic Brain Injury Outcome.” Co-authors were Ava Puccio, Martina Stippler, MD, Elizabeth Carson-Walter, MD, PhD, Kevin Walter, MD and David Okonkwo, MD, PhD.

• Pediatric Neurosurgery at Children’s Hospital of Pittsburgh received a citation for outstanding patient satisfaction as benchmarked against national norms by the outside consulting firm Professional Research Consulting. Dr. Pollack is chief of pediatric neurosurgery.

• Ava Puccio received an educational scholarship from the University of Pittsburgh School of Nursing’s ‘Cameos of Caring’ program. The Cameos of Caring program was created in 1998 to help honor exceptional bedside nurses working at acute care hospitals in the western Pennsylvania region.

• Puccio also received the Society of Critical Care Nursing Member Research Scholarship Award for her presentation of ‘Controlled Normothermia Attenuates Intracranial Hypertension After Severe Traumatic Brain Injury.’ Co-authors were Brian Jankowitz, MD, Michael R. Fischer and David O. Okonkwo, MD, PhD.

• Debra Morris received the Anne Levenson Scholarship in the College of General Studies at the University of Pittsburgh.

• Larry Jenkins, PhD, and Michael Horowitz, MD, were each promoted to professor.

Dedication

The Department of Neurological Surgery main conference room was formally rededicated as the ‘Peter J. Jannetta Conference Room’ April 26 in a special ceremony during a recent visiting professor appearance by Albert Rhoton, MD. Dr. Jannetta served 26 years as department chairman beginning in 1971. He developed a groundbreaking microneurosurgical procedure—internationally known as ‘the Jannetta Procedure’—to treat microvascular decompression.

New Employees

• Marjorie Seskey, administrative assistant/grants assistant to Dr. Adelson; Merinda Flynn, MINC secretary; Marsha L. Kaufman, administrative assistant to Drs. Okonkwo and Arlan Mintz.

Upcoming Events

• June 6: Visiting Professor. Volker K.H. Sonntag, Barrow Neurosurgical Associates, Phoenix, AZ.

School of Medicine dean appoints Amin Kassam chairman of neurosurgery

(The following is a message from Arthur S. Levine, MD, Senior Vice Chancellor for the Health Sciences and Dean of the School of Medicine at the University of Pittsburgh.)

I am pleased to announce the appointment of Amin Kassam, MD, to the position of chair, Department of Neurological Surgery, in the School of Medicine. Dr. Kassam received his medical degree from the University of Toronto, having been an undergraduate at that same university. He was a resident in neurosurgery at the University of Ottawa and he completed course work for a master’s degree in clinical epidemiology from that same university during his residency. He moved to our institution in 1997, and he has been a member of our faculty continuously since that time. Dr. Kassam holds board certification from the Royal College of Physicians and Surgeons of Canada.

Amin’s academic and research achievements have been recognized throughout his career. He held many academic scholarships as an undergraduate and medical student, including the George Brown Memorial Award for Research of the University of Toronto's Faculty of Medicine. In recent years, he has been the Hitselberger Lecturer of the American Academy of Otolaryngology and the M.T. Richard Lecturer at the University of Ottawa. In 2005, Dr. Kassam delivered the President's Invited Lecture at the International Society of Pediatric Neurosurgeons’ annual meeting, and he was co-chair of the first World Congress for Endoscopic Surgery of the Brain, Skull Base, and Spine.

Dr. Kassam has authored or co-authored 82 peer-reviewed research articles published in the journals relevant to his interests.

Amin has been a frequently invited lecturer, session moderator, and panelist, most recently speaking at the Massachusetts General Hospital, the University of Florida, Gainesville, Stanford University, the Memorial Sloan-Kettering Cancer Center, the University of Virginia, and other institutions in this tier. He has also offered many lectures at international and national meetings as well as local meetings, and he has served on many national committees.

Amin is a member of the executive board of the North American Skull Base Society and a member of several advisory boards. Currently, he is the principal investigator of one NIH R01 grant and a co-investigator of another.

Dr. Kassam is the director of the UPMC Center for Cranial Nerve Disorders and co-director of the Center for Cranial Base Surgery. His career has been focused on...