President’s Message

It is with great pleasure and humility that I enter into this year as President of the American Rhinological Society. I am truly honored to lead the most prestigious rhinologic society in the world, the American Rhinological Society. Having learned endoscopic diagnosis and surgery, after attending the second course given in the United States by Hans Stammberger, M.D. in September 1985, I look with great satisfaction at where Rhinology has come under the leadership of David Kennedy. So many of us owe our careers and practice success to the efforts of Drs. Kennedy and Stammberger. We “grey beards” have seen it all.

The introduction of endoscopic diagnosis and surgery in 1985. The first reported cases of complications in 1987. The introduction of the microdebrider in 1992 by Reuben Setliffe. The initial enthusiasm and then reconsideration of pediatric endoscopic sinus surgery. The introduction of image guidance by ICS and VTI in the early 1990’s. The development of skull base endoscopic sinus surgery in the mid 1990’s and refined in the present. The multiple task forces convened to define chronic sinusitis and determine how best to diagnose CRS. The introduction and development of outcomes techniques based on validated quality of life questionnaires in the early 1990’s to the present. Lately, in the past two years, the introduction of balloon sinus dilation instrumentation as an addition to our armamentaria for surgical care of sinus disease. The movement of the ARS from a small restricted group interested in nasal surgery to an all enveloping society interested in nasal and sinus disorders. The development of evidence based basic and clinical science protocols which have changed the whole way we look at sinusitis. All leading to where we are today.

Our recent Fall meeting in Chicago was the second largest ARS meeting on record. The meeting was opened by President Marvin Fried. We had 107 abstracts submitted for 35 oral presentations. More posters were exhibited than ever before. The meeting highlight was the Kennedy lecture given by Dr. Heinz Stammberger, An old friend honoring an old friend. Dr. Stamberger reviewed our past and looked into the crystal ball to give us his vision of where he sees the future of rhinology. The Combined AAOA/ARS meeting on the Inferior Turbinate and the following reception was well attended and well done.

For the future, the May RhinoWorld 2009 meeting in Philadelphia combining the ARS, AAOA, and the international rhinology societies, the IFOS and ISIAN looks to be an outstanding world-class event. I have seen the preliminary program which is excellent, providing cutting edge practical and basic science information to our members. Please make a note on your calendar and plan on attending. In addition, discussed and in planning is an ARS rhinology study group for evidence based multi-institutional clinical research, a closer working relationship with AAOA, and ARS sponsored resident regional dissection courses.

The ARS is strong and with your support will continue to grow providing excellent educational opportunities for its members.
Like many developing countries in Asia, Vietnam is a country of stark contrasts. Chauffeured wealthy in black cars weaving through crowds of Chinese motorbikes; political totalitarianism combined with hyper drive capitalism; a visit to the revered Ho Chi Minh mausoleum with its Pepsi emblazoned canopies over the refreshment center. And in the hospitals, dirty, dark hallways combined with poor equipment in stark contrast to surgeons who care for their patients and have a remarkable thirst for knowledge. Traveling with a team of otolaryngologists under the auspices of Resource Exchange International-Vietnam, a Christian group out of Colorado Springs, my first visit to Vietnam occurred in 1997 where I followed in the footsteps of Jack Hough, Ron Bailey, David Parsons, and others in our field who had first ventured in a couple of years earlier. In Hanoi and Ho Chi Minh City I met otolaryngologists, perhaps suspicious of Americans, but very eager to learn. With “libraries” holding books and journals no newer than 1975, medical knowledge for these doctors had simply stopped, without advance, since then. In Hanoi, one of the first facilities that I visited was Vietnam Cuba Hospital, a hospital built with the assistance of the Cuban government during the height of the Cold War. Doctors there were ecstatic about the possibility of doing newfangled endoscopic sinus surgery. Being asked to perform FESS, I was handed a single straight Takahashi forceps with a weathered Wolf 25 degree scope hooked to a dim Chinese light source. Attached to a “no-brand” camera, the resultant grainy image was reminiscent of TV's with rabbit ears. It wasn't pretty.

But now several hundred cases, innumerable lectures and 12 years later, things have changed dramatically. Otolaryngologists from around the US working through REI-Vietnam have donated millions of dollars in equipment and provided “mini-fellowships” to approximately 25 Vietnamese otolaryngologists for three month stints in the US. Hospitals are being spruced up and procedures involving the whole gamut of endoscopic techniques are being performed utilizing image guidance and microdebriders. This has culminated in the first cases of minimally invasive pituitary surgery performed in Vietnam just last year. And in 2007, the Vietnamese Society of Otolaryngology for the first time in its history hosted the annual otolaryngology meeting of the Association of Southeast Asian Nations (ASEAN) in Ho Chi Minh City. This outstanding meeting was attended by several hundred otolaryngologists from around the world and was accompanied by a two day FESS course with instructors including such luminaries as Heinz Stammberger and Gerry Wolf sitting side by side with Vietnamese colleagues. We continue to go to Vietnam yearly to spend time with our Vietnamese colleagues, learning from them and them learning from us. Rhinologists that we have trained now go out to the provinces and work with local surgeons teaching and practicing. We will return in March 2009. If you would like to participate, please feel free to email me Brent_Senior@med.unc.edu.
Recommendations when on Trial in a Lawsuit

Michael Setzen, MD

As I conclude my four years as Chair of the Patient Advocacy Committee, I look back and reflect on what has been a milestone in my career. I want to thank my committee members for assisting me so ably during a period of much turmoil with respect to CPT Coding esp. Denials and unfair business practices that have been unleashed upon us by many of the insurance companies, particularly in the areas of postoperative debridements, use of image guidance, and balloon sinus catheterization.

I will continue to play a significant role on the Board of Directors in the position of Second Vice-President of the American Rhinologic Society. I have been elected as Coordinator-Elect of Practice Affairs for the American Academy of Otolaryngology, so I will continue to battle the issues with respect to practice-related matters. Furthermore, I have been asked to Chair the Professional Liability Committee in September 2009, so this will be yet another practice-related area in which I will strive to assist our membership.

I will concentrate on two topics of interest in this editorial, firstly professional liability, and secondly the importance of in-office CT, or point of service CT. When confronted with a lawsuit, in particular during the period when you are on trial, four points need to be stressed. First, do not settle unless you feel you are at fault, since every settlement is placed in a databank that can be used against you, no matter how small the settlement. Second, choose an appropriate expert witness skilled in the area related to your case. Third, select a skilled attorney, not just any attorney the insurance company assigns you. Fourthly and most importantly, during the trial you must be in attendance in the courtroom so that the jury can see that you are a compassionate physician, and even more critically, so you can assist your attorney in strategizing with respect to what has been said and what needs to be said as the trial moves forward.

As Point of service CT becomes more popular, both patients and otolaryngologists will be recommending this modality of service more and more. It is the opinion of many that point of service CT enhances patient care and, in particular, improves the quality of care that we as otolaryngologists can render. In spite of this, many radiology benefit management companies are out there to prevent us as a specialty from rendering these appropriate services and receiving the necessary reimbursement. RBM's, as they are called, would rather see a radiology-owned office perform these services. In-office CT allows the otolaryngologist to diagnose and treat the patient in one visit with full and complete documentation of the patient's sinusitis. Unnecessary antibiotics are not needed and the patient does not need additional time away from work or school to return for a CT scan. This allows for better patient care and enhances the quality of care rendered to our patients. So with this in mind we will continue to strive to battle these RBM's which are unfairly eliminating the ability of the practicing otolaryngologist to perform in-office CT in the interest of good patient care.

Secretary's Report

Peter Hwang, MD

The fall meeting of the American Rhinologic Society was one of the best attended ARS meetings in the history of the Society. Over 330 registrants from 16 countries attended the meeting, held at the Sheraton Towers in Chicago on September 19, 2008. The scientific program included 35 oral presentations, 52 posters, and 7 video presentations—one of the most diverse and competitive programs to date. This coming spring of 2009, the ARS will not be participating in COSM. Instead, the ARS will be co-sponsoring Rhinology World 2009, a multi-day comprehensive rhinology and skull base congress being held in Philadelphia, Pennsylvania April 15-19, 2009. Rhinology World promises to be one of next year's premier international rhinology events. The conference is being co-sponsored by the University of Pennsylvania, the International Symposium on Infection and Allergy of the Nose, the International Rhinology Society, and the American Academy of Otolaryngic Allergy. The ARS will hold dedicated free paper sessions and "How I Do It" expert sessions interspersed throughout the congress proceedings. The abstract deadline is December 1, 2008. More information is available at www.american-rhinologic.org. Membership in the ARS continues to rise, with hearty growth notably occurring in the resident member category. As always, we welcome new member applications and member upgrades to Fellow status through our website http://www.american-rhinologic.org/membership.phtml. Membership dues notices for 2009 will be sent in October; we thank you in advance for your prompt dues payment and for your ongoing support of the Society. We look forward to seeing you this spring in Philadelphia at Rhinology World 2009!
Practical Use of Portable Intraoperative CT Scanner

Jayakar V. Nayak MD, PhD, John Lee MD, and Alexander G. Chiu MD

Portable and compact CT scanners are available that can provide high quality image acquisition of the paranasal sinuses and skull base in the intraoperative setting. Our experience is primarily limited to the xCAT™ (Xoran™ Technologies, Ann Arbor, MI) device, while there are similar devices currently available on the market. The device consists of a cone-beam CT scanner that contains an X-ray source with detector on a rotating scanning ‘box’ called a gantry, that is integrated with a computer, image processor, and monitor. During a single 360-degree rotation of the gantry around the patient’s head, emitted X-rays that have traversed through the patient are detected and converted into an image. There are many applications for the xCAT in endoscopic sinus surgery, and we have previously published our experience for intraoperative use during challenging frontal recess dissection and for endoscopic biopsy of a skull base melanoma (1,2). We have found a number of instances in which this technology has become especially helpful, including:

• Revision endoscopic sinus surgery, specifically in the frontal recess to distinguish the frontal sinus proper from associated structures such as the supraorbital ethmoid, agger nasi, frontal recess cells, and the anterior skull base
• Evaluation of extent of endoscopic excision of skull base neoplasms
• Adequacy of reduction of orbital and frontal sinus fractures

Actual implementation in the operating room is fairly straightforward. The machine is wheeled into the room, and the image-acquisition software is launched from the Windows-based desktop. With the patient supine, the patient’s head is positioned onto a narrow carbon fiber head holder that is compatible with many operating room tables. At any point during the surgery, the xCAT is rolled into position to surround the patient’s head. Appropriate head positioning is confirmed using a laser-light grid to center onto facial landmarks, and a manual test spin of the rotating gantry is performed to confirm free, unobstructed rotation prior to scanning. At this point, an intraoperative CT scan is acquired by pressing a button on the hand-held remote control to activate the gantry, with the user standing safely behind the portable xCAT to view images on the monitor. Within approximately 3-4 minutes, reconstructed triplaner and volumetric CT images from high resolution slices (0.4 mm minimum thickness) can be scrolled to assess intraoperative surgical progress for a given patient. This process of CT acquisition can be repeated as needed during a case, and all images are saved to the hard drive for future user-friendly download. Xoran™ lists the typical radiation dose for their scans, using the sinus CT protocol, as 0.13-0.17 millisieverts (mSv), which is approximately 7 times the dose of a typical chest X-ray, but 1/14 the radiation dose of a typical head CT scan (details at www.xorantech.com). Another useful feature of the xCAT is that acquired images can be reviewed independently on the monitor, or the DICOM data can be retrieved and downloaded into numerous image guidance systems. Images can also be superimposed and fused with pre-operative CTs for direct comparison.

In summary, when coupled with existing image guidance systems, intraoperative CT has been a valuable intraoperative tool for providing useful, real-time surgical updates.

References
The ARS awards two $8,000 resident research grants each year. The 2008 grantees are Dr. Monica Patadia, from Northwestern University, and Dr. Frederick Roedinger, from the University of California, San Francisco. The recipient of the $25,000 2008 ARS New Investigator Award is Dr. Bradley Otto, from the University of Pittsburgh.

Dr. Patadia's grant proposal is entitled “Mechanisms of B-cell recruitment in chronic rhinosinusitis with nasal polyps”. In this study, Dr. Patadia’s group seeks to investigate the molecular and cellular pathophysiology of chronic rhinosinusitis with nasal polyps. Specifically, her proposed project focuses on mechanisms that underlie the accumulation of B-cells in nasal polyps. Sinonasal mucosa will be obtained from patients undergoing sinus surgery. Polyps will be examined, as well as mucosa derived from the ethmoid sinus, uncinate process, and inferior turbinate. These samples will be analyzed for expression of B-cell chemoattractants using real-time PCR, ELISA, and immunohistochemistry. Dr. Patadia hypothesizes that B-cells play an important role in activating eosinophils within the sinonasal mucosa.

Dr. Roedinger’s project, entitled “Microarray analysis of chronic rhinosinusitis”, aims to further our understanding of the paranasal sinus microbial environment in health and in chronic rhinosinusitis. Dr. Roedinger’s team will obtain mucosal biopsies, brush samples of mucus, and maxillary sinus lavages from ten patients with chronic rhinosinusitis and ten control subjects. These samples will be then subjected to analysis by very sensitive microbial microarrays that can identify the presence of even minute traces of bacteria, fungi, or virus. Once the microarray data is analyzed and compared in the two cohorts, Dr. Roedinger will determine how the findings with this methodology relate to previously published studies utilizing traditional cell culture or other genomic techniques. He hopes that this investigation of the polymicrobial community associated with CRS will provide insight into the relative contribution of each pathogen to the disease state and perhaps help guide future therapies. The research proposal submitted by Dr. Otto is entitled “The role of epithelial cells in chronic rhinosinusitis with nasal polyps”. His two-year study will explore the pathophysiology of the chronic eosinophilic inflammation that characterizes CRS with nasal polyps. Using nasal polyp and control sinus tissue, Dr Otto’s group will first study the relationship between the inflammatory cell infiltrate and the expression of Th2 and Th17 cytokines. They will then grow sinonasal epithelial cells in culture, and determine the in vitro effects of Th2 and Th17 cytokines on the expression of inducible nitric oxide synthase, mucin 5AC, eotaxin-3 and IL-8. In addition to achieving the scientific aims, the ARS New Investigator Award is intended to be a mentored research training program, with the goal of fostering Dr. Otto’s career development as an independent researcher in Rhinology.

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ARS Case of the Quarter: Minimally-Invasive Management of Massive Frontal Sinus Mucocele with Posterior Table Erosion

Jastin Antisdel, MD and Raj Sindwani, MD, FACS, FRCS

Presentation: A 66 year-old man suffered head trauma after a fall. He underwent an uneventful craniotomy for evacuation of a right parietal subdural hematoma at an outside hospital. In addition to the hematoma, imaging also showed impressive expansion of the left frontal sinus. He was referred to our service for evaluation. The patient's only complaint was a persistent left-sided headache. Nasal endoscopy revealed a polypoid mass filling the left middle meatus. A high-resolution CT scan demonstrated opacification of the left maxillary and ethmoid sinuses with massive expansion of an opacified left frontal sinus. Significant frontal lobe displacement and erosion of the posterior table on multiple cuts was noted.

Treatment: The patient underwent a transnasal endoscopic approach for excisional biopsy of the nasal mass and drainage of a left frontal sinus mucocele (Figure 1). A maxillary antrostomy, ethmoidectomy, and image-guided frontal sinusotomy were performed. Pus was encountered during entry into the mucocele cavity intraoperatively. There were no complications. The final pathology of the nasal lesion was consistent with benign inflammatory polyp. The patient did well initially. However, a repeat CT scan 6 weeks later again demonstrated left frontal opacification and the patient complained of a return of his headaches. A revision endoscopic procedure, this time augmented with a frontal trephination was offered in lieu of cranialization of the frontal sinus. An endoscopic 'above and below' approach was used to widely marsupialize the mucocele into a patent frontal outflow tract. Polypoid tissue in the region of the frontal sinus floor was visualized and removed. There were no complications. The patient was discharged home within 23 hours. Imaging at 3 and 12 months after surgery (Figure 2) showed a large, fully-aerated frontal sinus cavity with persistent displacement of the frontal lobe. The patient had no neurological sequelae and was symptom-free at 33 months follow-up.

Discussion: Traditional management of large frontal sinus mucoceles with significant posterior table erosion and frontal lobe displacement has been cranialization (1,2). Performed through a craniotomy, this radical procedure renders the frontal sinuses 'non-functional'. Recent literature suggests that minimally-invasive alternatives maybe considered in selected cases (3,4). As demonstrated by this case, expansile lesions that do not initially respond to a strictly transnasal endoscopic technique may be salvaged with a revision endoscopic approach augmented by a small trephination which provides direct visualization and access to the frontal sinus interior. In this case, a residual focus of polypoid tissue which contributed to re-obstruction and failure was readily identified and successfully managed using this technique. Although the displaced frontal lobe typically re-expands after drainage (5), integrity of the remaining posterior wall elements may cause persistent displacement without any obvious sequelae. Advantages of a minimally invasive approach to the management of expansile frontal sinus mucoceles include far less morbidity and the re-establishment of a functional frontal sinus cavity which can then be more readily monitored endoscopically and radiographically.

References
The American Rhinologic Society meetings present a world class exhibition of cutting edge research. Each Spring and Fall meeting of the ARS, the Awards Committee selects an outstanding manuscript for a Clinical Research Award and another for a Basic Science Research Award. To apply, simply submit your outstanding abstract through the standard submission process. The abstracts are screened for possible award winning research and the appropriate full manuscripts are reviewed to determine the award winners.

Spring ARS Basic Science Research Award
Awarded for the best basic science research manuscript presented at the Spring ARS Scientific Meeting. Abstract Deadline: December 1, 2008 (year prior to Spring meeting)

Spring ARS Clinical Research Award
Awarded for the best clinical research manuscript presented at the Spring ARS Scientific Meeting. Abstract Deadline: December 1, 2008 (year prior to Spring meeting)

Cottle (Fall ARS) Clinical Research Award
Awarded for the best clinical research manuscript presented at the Fall ARS Scientific Meeting. Abstract Deadline: March 15

Fall ARS Basic Science Research Award
Awarded for the best basic science research manuscript presented at the Fall ARS Scientific Meeting. Abstract Deadline: March 15, 2009

The ARS is proud to announce the 2008 FALL MEETING RESEARCH AWARD RECIPIENTS:

BASIC SCIENCE RESEARCH AWARD
Interleukin 1 Receptor-like 1 Gene is Associated with Chronic Rhinosinusitis - Roberto Castano, MD Quebec, Canada

CLINICAL SCIENCE RESEARCH AWARD
Olfactory Function and Disease Severity in Chronic Rhinosinusitis - Jamie Litvack, MD Portland, Oregon

In addition, I would like to thank the members of the Awards Committee for their excellent ongoing work for the ARS: Ash Kacker, MD; Joe Han, MD; Noam Cohen, MD; Rob Kern, MD; Karen Calhoun, MD; Alex Chiu, MD. We look forward to reviewing your award winning manuscript soon!

At the last COSM, the ARS held a joint panel for the first time with ASPO (American Society of Pediatric Otolaryngology) on May 2nd, 2008. This was an extremely well attended and received panel which went over the current management of pediatric chronic rhinosinusitis (CRS). The panelists Rodney Lusk, Harlan Muntz, Hassan Ramadan, and Rich Rosenfeld along with moderator Sanjay Parikh discussed the current understanding of pediatric CRS including the role of adenoidectomy, functional endoscopic sinus surgery (FESS), and post-operative care. Key points brought up included:

Evidence: There is a lack of evidence based medicine with regards to the management of CRS in children. Although there are many clinical studies, there are very few studies using quality of life questionnaires or prospective studies.

Indications for surgical intervention: There are no uniform guidelines for when to surgically intervene in children with CRS. Uniformly, the panel agreed that although there was a trend for early surgical management FESS in children in previous decades, that trend has reversed. Today, complete immunologic, allergic, and endoscopic evaluation is required prior to consideration of intervention. In children presenting with CRS at a young age, issues such as an immunologic deficiency, cystic fibrosis, or ciliary dysmotility should be ruled out. With such issues FESS may be prudent but most healthy children do not require FESS.

The role of adenoidectomy: The panel uniformly agreed that adenoids play a critical role in children with CRS. It is unclear if the adenoids play a role through obstruction, inflammatory pathways, bacterial colonization, or biofilm growth. Regardless, adenoidectomy alone will often obviate the need for FESS in some children.

Technology and pediatric FESS: Similar to the adult population, technology has benefited surgical technique. Endoscopes, microdebriders, and navigation equipment have all been sized for the pediatric age group and lend itself to safety.

Facial growth after FESS: The panel uniformly agreed that there is enough evidence and clinical acumen to suggest that FESS does not have an effect on human facial growth. Facial growth study has been looked at in children long term after FESS and there has been no signs of delay in growth.

Future directions: The panel agreed that many principals in the management of pediatric CRS are translated from adult literature. There is much work to be done to further delineate specifics when it comes to the management of CRS in children.
2008 Course List

Otolaryngology 2009
University of Miami School of Medicine, Miami Beach, FL
January 15-17, 2009
Contact: Moceri Management
Phone 800-251-1569; Fax 404-459-6917;
info@MoceriMgmt.com;
www.cme.med.miami.edu

Advanced Techniques in Endoscopic Sinus Surgery
California Sinus Institute, East Palo Alto, CA
February 12-15th, 2009
Director: Winston C. Vaughan M.D.
Contact: Roy F. Thomas, M.D.,
650-462-3132,
sinusmdcsi@aol.com

Ohio Valley Advanced Endoscopic Sinus and Cranial Base Course
University of Cincinnati Department of Otolaryngology – Head and Neck Surgery, Cincinnati, Ohio
Presenters from: University of Cincinnati Academic Health Center, University of Pittsburgh Medical Center and Cleveland Clinic
March 20-21, 2009
Contact: Barbara G. Huber,
513.558.5391,
barbarag.huber@uc.edu

5th Biennial International “Milano Masterclass”
1. Sinonasal & Skull Base Endoscopic Surgery, 2. Aesthetic and Reconstructive Rhinoplasty, Milano, Italy
March 27-31, 2009
Contact: CQ-Travel - Tel: (+39) 02 4804.951 - Fax: (+39) 02 4391.1650;
masterclass@cq-travel.com;
www.milanomasterclass.it

Rhinology World 2009
Sponsors: ARS, IRS, ISIAN, AAOA and the University of Pennsylvania,
Philadelphia, PA
April 15-19, 2009
Contact: Cathy Lafferty, 215-662-2137 or 215-349-5382;
cathy.lafferty@uphs.upenn.edu;
www.rhinologyworld.com

Comprehensive Endoscopic Sinus Surgery
Johns Hopkins University, Baltimore, MD
June 20-21, 2009
Contact: Kimberly Butler, 410-955-2959,
cmenet@jhmi.edu

2008 Summer Sinus Course at Williamsburg
Eastern Virginia Medical School (host), Cleveland Clinic, St. Louis University and Northwestern University, Williamsburg, VA
July 23-25, 2009
Contact: Malissa Nesbit
(NesbitMN@EVMS.EDU) or Drucie Papafil
(PapafilDA@EVMS.EDU); 757-446-5979

If you would like have your upcoming rhinology meeting noted here, simply provide the editor with pertinent information: newsletter@american-rhinologic.org
The American Rhinologic Society does not endorse these meetings but simply provides the list as a service to its members.

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