NOSE NEWS FEBRUARY 2014

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SAVE THE DATE! ARS AT COSM
MAY 16-17, 2014 LAS VEGAS, NEVADA

Roy Casiano, MD, FACS
President Elect and Program Chair

Pertinent topics to your daily practice in Otolaryngology!

- Panels:
  - Nonallergic Rhinitis: Latest Medical and Surgical Treatments
  - Biomaterials in Rhinology: What’s the Evidence?
  - Doctor, I Can’t Smell or Taste; What’s New in the Area of Olfaction?
  - The Affordable Health Care Act, ICD10, and more: What this means to practicing rhinologists
  - Etiology of CRS, Where’s the Evidence? Allergies, Innate Immune Defects or Microbes?
  - Ethical Dilemmas in Rhinology and Skull Base Surgery
  - Recalcitrant Chronic Rhinosinusitis: When are extended sinusotomies and other aggressive procedures necessary?
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PRESIDENT’S MESSAGE

Tim L. Smith, MD, MPH

It is hard to believe that 2014 is already well underway. I’d like to take this opportunity to wish you a Happy New Year and to update you on several current American Rhinologic Society initiatives.

In order for the ARS to realize its mission and vision, *fundraising* from our corporate partners and our membership is critical. Joe Jacobs, Mike Setzen, and our administrative staff have been in talks with our 2013 Corporate Partners for their support in 2014 and have been actively reaching out to new companies and those who have provided limited support to the ARS in previous years. We are extremely grateful to our corporate partners for their support and many of the initiatives described in the following paragraphs would simply not be possible without their support.

Rick Chandra, Kevin Welch, and Jim Palmer are working hard to create the program for the 3rd Annual Summer Sinus Symposium in Chicago July 18-19, 2014. This course has experienced incredibly rapid growth after its inaugural year and we honestly do not know where the ceiling is. True to the vision of Brent Senior, the execution of Mike Setzen, and the blood, sweat and tears of many, the SSS is the finest Sinus Course in the world. I anticipate more than 500 participants in 2014! You do not want to miss this course.

Roy Casiano (President-Elect) and his program committee of over 60 ARS members are developing the ARS at COSM program. Interesting panel ideas are:

- The Affordable Health Care Act, ICD10, and more: What this means to practicing rhinologists
- Ethical Dilemmas in Rhinology and Skull Base Surgery
- Recalcitrant Chronic Rhinosinusitis: When are extended sinusotomies and other aggressive procedures necessary?

The ARS/AAOA Combined Research Grant RFA received applications through the CORE Grant Review Process early this year. It is amazing to think that the ARS will be co-sponsoring a grant of $120,000. We believe this is the largest grant available through the AAO-HNS CORE process.

The American Academy of Otolaryngology—Head and Neck Surgery Foundation is beginning a new Clinical Consensus Statement on Chronic and Recurrent Pediatric Sinusitis. The ARS nominated Hassan Ramadan to represent us in this effort and we look forward to the resulting document. In addition, the Academy is updating the Clinical Practice Guideline on Adult Sinusitis and invited the ARS to nominate an individual to serve as a reviewer of the original guideline (2007). A reviewer’s role is to assess the original guideline’s Key Action Statements and Action Statement Profiles for relevancy and provide additional feedback regarding additional topics for quality improvement, which will guide the update process. The ARS has nominated Jim Palmer to represent us in this initial step.

We have secured a corporate grant to help fund travel for junior ARS members to be included in the European Rhinologic Society program in Amsterdam, June 2014. John Delgaudio is working with Wytske Fokkens (ERS President) on this initiative and the ARS will select up to 10 members to share their research at the meeting. Stay tuned!

We are excited about the direction of the ARS and ask you to join us in our mission.

RHINOLOGY PERSPECTIVES: THE QUESTION OF MIDDLE TURBINATE RESECTION VERSUS PRESERVATION IN ENDOSCOPIC SINUS SURGERY

Zara M. Patel, MD
John M. DelGaudio, MD

The question of whether or not to resect the middle turbinate (MT) during endoscopic sinus surgery (ESS) has been debated at length over the last two decades. At the outset of ESS, the pioneers of the technique were divided, with Wigand routinely resecting the MT as part of the surgery and Messerklinger teaching to preserve it. 1-3

Over the years and through multiple case reports, case series, and expert opinion pieces, advocates of preservation brought concerns about loss of operative landmarks, increased sinus exposure to allergens and inhalants, atrophic rhinitis, anosmia and frontal sinusitis. 4-7

- Vleming et al, 1992: noted the absence of the MT as a landmark in revision surgery was a risk factor for increased complications
- Swanson et al, 1995: suggested increased risk of frontal sinusitis from the lateralization and scarring of the superior MT remnant
- Kennedy, 1998: emphasized importance of MT as a physiologic structure participating in the nasal cycle and allowing for laminar airflow, also as a first defense and barrier between the front of the nose and the sinuses beyond for particle deposition, as well as, drying effects of direct airflow
- Houser, 2006: reported a case of atrophic rhinitis in the form of “empty nose syndrome” from isolated MT resection

At the same time and in the same journals, proponents of resection described the benefits to visualization in the post-operative office setting, decreased scar formation and increased maxillary ostial patency. 8-15

- Lawson, 1991: reported extensive experience with partial MT resection and emphasized minimal synchieae formation.
- LaMear et al, 1992 and Biedlingmaier, 1993: MT partial resection produced antrostomy and ostiomeatal complex (OMC) patency rates 30% higher than in cases with preservation.
- Cook et al, 1995: rhinometry noted no impairment of nasal airflow or resistance function after MT partial resection
- Waguespack, 1995: no deterioration of mucociliary flow after partial resection of MT
- Friedman et al, 1996: no deterioration of olfaction after partial resection of MT
- Fortune and Duncavage, 1998: compared their rates of post-operative frontal sinusitis to Swanson’s publication on MT preservation in 1995 and showed decreased frontal sinusitis after partial resection of MT versus those cases with MT preservation (10% vs. 75%)
- Giacci, Lebowitz and Jacobs, 2000: found no difference between frontal sinusitis rates between MT resection and preservation
- Toffel, 2003: reported low complication rates in almost 3000 patients after partial MT resection

Without any prospective, controlled study, it appeared that our field would continue at an impasse in a risk/benefit analysis of this issue. Multiple experts in the field noted that a randomized controlled trial addressing this question would be nearly impossible to set up, considering the low rate of overall complications seen in ESS and the number of patients needed to show any real statistical difference. Fortunately, in 2010 Soler et al, published an open, multi-institutional, prospective cohort study looking at this very topic. 16 Although the patients who were chosen to undergo MT resection were not randomized, this was the next best way of being able to look prospectively at this issue and obtain significant data about possible risks and benefits. They studied quality of life (QOL), olfaction and endoscopy scores in the two populations, and found that there was no difference in QOL outcomes in patients with or without MT preservation, and patients undergoing resection actually had improved endoscopy and olfaction scores, a finding which persisted after controlling for confounding factors. As expected, those patients undergoing bilateral MT resection had higher baseline disease burden and were more likely to have asthma, nasal polyposis, aspirin intolerance, and a history of prior sinus surgery.

The findings of this study are again reiterated in a January 2014 article in the Laryngoscope by Wu et al, showing by way of a retrospective cohort study that the time interval between surgeries in patients with nasal polyposis is dependent in a statistically significant way on two factors: smoking status and whether or not the MT is resected, with MT resection allowing for greater time intervals.17

These recent studies confirm that not only do the fears of increased complications after MT resection during ESS appear to be unfounded, but that in cases where the MT is part of the disease process, the patient will likely benefit from at least partial resection of this structure. If the MT is not part of the disease process, and does not appear to be a risk factor for scarring or obstruction, allowing it to remain and continue to function in a normal physiologic state is preferred.

Importantly, it should be noted that we still do not have a definitive answer as to whether or not the MT should be “routinely” preserved or resected, but as time progresses and we better understand this multifactorial disease process, we are also beginning to embrace the idea that a deliberately individualized approach often makes more sense in our sinus patients than any rigid paradigm.

SUMMER SINUS SYMPOSIUM UPDATE

Rick Chandra, MD
Kevin C. Welch, MD
James N. Palmer, MD

Preparations are proceeding nicely for the Summer Sinus Symposium in Chicago on July 18 and 19th, 2014. The program will feature a series of panels and debates that cover a wide array of topics, including allergy, rhinoplasty, pediatric sino-nasal disease, eustachian tube dysfunction, balloons, skull base surgery, and medical/surgical decision making. Each session will be chaired by a world renowned expert. The case or problem-based format will offer plenty of opportunity for audience interaction on these practical, clinically oriented subjects. Overall, the symposium will solicit the perspectives of over 50 experts from a range of geographies and schools of thought. There will also be two one hour-long demonstrations of dissections to illustrate use of the latest technology. David Kennedy and Mike Setzen will deliver keynote addresses regarding the state of our specialty and lessons for us all to heed going forward. And don’t miss a special feature this year: a session entitled “Stump the Presidents,” where unique and difficult cases will be presented to all of the former ARS presidents in attendance, to see what each of them would do about these selected interesting scenarios.

Perhaps most importantly, don't miss this opportunity to enjoy some fellowship amongst your rhinologic colleagues in a world-class city. This will include a Friday night social event at the Signature Room, which offers breathtaking views from the 95th floor of the famous Hancock Tower. We offer our highest thanks to the many of you who have volunteered as prospective faculty, and for the hard work of our program committee: David Poetker, Rod Schlosser, and Jivianne Lee. We are also grateful for our corporate supporters, without whom this would not be possible. Please visit their displays and satellite functions to thank them.

Please check your email and our website for updates. Registration opens in February!
PATIENT ADVOCACY COMMITTEE (PAC) CORNER

Seth M. Brown, MD, MBA, FACS

2014 brings some new changes relevant to the practicing rhinologist. As I am sure everyone is aware, 2014 will usher in the change from ICD9 to ICD10. This change will take place on October 1, 2014. This is a process that should not be taken lightly, and all physicians are encouraged to educate themselves regarding this change and look through the information and resources available to them on the academy website.

Another new change is the acceptance of 4 new adult sinusitis measures for PQRS reporting. PQRS, the Physician Quality Reporting System, rewards physicians who successfully report quality data, a 0.5% incentive payment on their allowed charges for covered Medicare Part B services during the reporting period (2014). As of 2015 this will change to be a penalty of 1.5% for those doctors who do not successfully report this data. These measures include the evaluation of overuse of CT scanning for acute sinusitis, obtaining more than 1 CT scan within 90 days for chronic sinusitis, the appropriate use of antibiotics for acute sinusitis and the appropriate choice of antibiotics prescribed for patients with acute bacterial sinusitis.

Finally, things we are currently reviewing and tracking is the adjustment of payments for certain sinusitis codes to hospitals and ambulatory surgical centers, the potential reduction in payments for certain procedures that are done both in the hospital and office setting and the final decision on coding surveys completed in 2013. This information will likely be available through the AAO-HNS website and we will share this with our members when possible through the Nose News and our website.

Click here for more info.

MEMBERSHIP COMMITTEE REPORT

Christopher T. Melroy, MD

The American Rhinologic Society is only as strong as its membership; it’s only as strong as we are. As an organization, we exist as a network of professionals all over the world with common interests. We are united as a group to serve, represent, and advance the scientific and ethical practice of Rhinology. Although our common interests unite us, we are rarely together as a group. Most recently, hundreds of our members were suited up together at the Annual Meeting in Vancouver as well as at the less formal Summer Sinus Symposium in Chicago. Although we are identifiable as a group at our meetings, our organization’s strength is with its individual members.

The Membership Committee has been striving to increase our membership and therefore increase our strength. There are thousands of otolaryngologists performing nasal, sinus, and skull base surgery. Only a fraction of those commonly performing this type of surgery are members of the ARS. We would like to increase our strength and amplify our collective voice by increasing our membership numbers.

As a committee, we are working to enlist resident otolaryngologists as members early in their training and encouraging them to take part in our meetings and other educational endeavors like webinars. By doing this, we are more likely to have residents become regular members following completion of their training. We have also reached out to those who have completed rhinology fellowships but, for whatever reason, have not kept active in the ARS. We have also tried to recruit more international members with special meeting registration discounts for citizens of certain countries as well as the addition of online International Forum of Allergy & Rhinology access for international members. Our publication can now reach them without the time and cost of shipping a physical journal. We are also reaching out to our Osteopathic colleagues.

We cherish and value our members. They are our strength. Please strengthen us by becoming a member if you are not one, by renewing your existing membership, or by recruiting some of your partners to become members.

We, the ARS, strive to advance, educate, and protect our specialty and enable you to successfully and compassionately treat your patients with nasal and sinus disease.

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NEWSLETTER COMMITTEE REPORT

R. Peter Manes, MD, FACS

It is my pleasure to provide updates from the Newsletter Committee. The Newsletter Committee is tasked with putting together three issues of “Nose News” each year. The Chair of our committee, Sarah Wise, has tasked each of the members with a specific role, allowing for a streamlined process when putting together each issue. Deya Jourdy and I are responsible for issue planning, Nedra Joyner and Aaron Pearlman handle the editing of submissions and Ameet Singh acts as our corporate liaison, ensuring support for our mission. Sarah Wise oversees the entire process and is instrumental in making sure each issue is ready to go.

Last year, we launched a new section of the newsletter entitled “Rhinology Perspectives.” This forum provides an opportunity for experts in the field to weigh in on controversial topics, providing our readers with current opinions from ARS thought leaders. So far, we have had articles regarding inferior turbinate surgery, topical therapies, and post-operative management of CRS with polyps. If you have ideas for a topic you would like to see covered, please contact us!

The most exciting and significant change to our work comes with this issue. The February 2014 issue of Nose News represents the first completely electronic version of the newsletter. The decision to transition to an electronic format was not an easy one, and only came after significant research and discussion by the Newsletter Committee, ARS leaders, and the Board of Directors. The electronic version will provide significant cost savings, as well as the opportunity to read the Nose News anywhere, on your computer or mobile device. Moving forward, all issues of the Nose News will be delivered electronically, so it is extremely important to ensure the ARS has accurate email information for all members. If you need to update your contact information, you may do so online. Just log in to your account, click preferences and provide us with your current contact information.

Nose News would not be possible without all the hardworking ARS members who take time to contribute their updates, cases and perspectives. We would like to thank all the contributors, as well as the readers. We hope you continue to find Nose News enjoyable and informative.

CASE OF THE QUARTER: ASTHMA, NASAL POLYPS AND MOUNTAIN DEW®

Alexander P. Marston MD
Erin K. O’Brien MD

Case Description:
A 45-year-old male was referred to otolaryngology for sinonasal polyposis. Five years earlier, the patient was diagnosed with asthma. He later began experiencing anaphylactic episodes with facial flushing, diffuse itching and wheezing after drinking Mellow Yellow® or Mountain Dew®. He was diagnosed with sensitivity to tartrazine (FD&C Yellow #5), a coloring additive in foods and
beverages. The patient later experienced an anaphylactic reaction following Alka-Seltzer® ingestion, an aspirin-containing product. He was referred to an allergist for workup of the anaphylactic attacks. Lab values showed normal tryptase levels at baseline, but elevated tryptase with one of the attacks. Skin testing could not be performed due to dermatograph response, but RAST food testing was positive for tomato and carrot. Complete blood count revealed elevated eosinophils at 1.50 x 10(9)/L. Rhinoscopy revealed nasal polyps, consistent with his history of nasal obstruction and decreased sense of smell. Twenty-four hour urine level of beta prostaglandin F2 alpha was elevated at 2225ng (upper limit of normal: 1000ng). Based on his asthma, nasal polyps, and aspirin sensitivity, he was diagnosed with aspirin exacerbated respiratory disease (AERD), and he underwent aspirin desensitization to 325 mg of aspirin per day. After desensitization, the urinary prostaglandin F2 alpha level fell to 840ng/24 hour.

The patient’s sinonasal symptoms included anosmia, thick rhinorrhea, facial pressure and postnasal drainage. Maxillofacial CT imaging (Figure 1) and endoscopic examination (Figure 2) showed diffuse nasal polyps, and functional endoscopic sinus surgery was recommended.

One week prior to surgery, the patient received an intramuscular injection of triamcinolone acetonide 80mg and three days prior to surgery his daily aspirin dose was reduced from 325 to 81mg. The endoscopic sinus surgery was uncomplicated with minimal intraoperative blood loss. Pathology revealed nasal polyps with eosinophils and allergic mucin (Figure 3 and 4). In the postanesthesia recovery unit, the patient was given 81mg oral dose of aspirin, for a total of 162mg on the day of the operative intervention. The following day, the patient returned to his baseline dose of 325mg. At the two and six week post-operative visits, the patient was doing well with improved sense of smell and decreased nasal congestion with no evidence of regrowth of polyps or inflammation.

Summary of AERD:
Aspirin exacerbated respiratory disease, also known as Samter’s triad or Widal’s syndrome, includes nasal polyps, eosinophilia of the sinonasal mucosa, asthma and acetylsalicylic acid sensitivity. AERD patients can demonstrate aggressive nasal polyposis with chronic rhinosinusitis necessitating multiple endoscopic sinus surgeries. In addition to refractory sinus disease, AERD patients typically have poorly controlled asthma despite high doses of inhaled and systemic corticosteroids.

The mechanism of AERD involves sensitivity to pro-inflammatory metabolites via the 5-lipoxygenase pathway resulting from aspirin-associated cyclooxygenase inhibition. Increased levels of cysteinyl leukotrienes leads to chemotaxis of inflammatory cells, increased vascular permeability and bronchospasm. The patient in this case was sensitive to both aspirin and tartrazine. A known correlation exists between aspirin and tartrazine sensitivity. Although tartrazine does not inhibit prostaglandin synthesis, both aspirin and tartrazine have been found to cause complement activation with subsequent release of anaphylactoid and inflammatory
Aspirin desensitization (AD) is an efficacious long-term treatment strategy for AERD patients who fail conservative medical management. Although most patients at our institution with AERD undergo AD following sinus surgery, we have encountered several patients who were desensitized prior to surgery for polyps. As opposed to discontinuing aspirin therapy followed by repeat post-operative desensitization, we have reduced the aspirin dose to 81 mg for several days prior to surgery with return to their baseline dose after surgery. There has been no appreciable increase in intra-operative bleeding in these cases. A variety of reports have commented on the optimal daily aspirin dose for desensitized patients. In general, the lowest aspirin dose that allows for adequate disease management should be employed. Both 325mg and 650mg daily aspirin doses have been associated with similar improvement in selected symptomatic and clinical markers.

In conclusion, this case uniquely describes a patient with AERD that initially presented in the setting of asthma, anaphylactic reactions to tartrazine and aspirin, and nasal polyps. The patient underwent aspirin desensitization prior to surgery and was maintained on aspirin therapy perioperatively. Functional endoscopic sinus surgery and aspirin desensitization are important adjunctive treatment measures for disease management in recalcitrant cases of AERD.

References:
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For patients aged 18 and older, the Relieva Scout™ Sinus Dilation System is intended to provide a means to access the frontal sinus space and to dilate the frontal recess, frontal sinus ostia and spaces within the frontal sinus cavity for diagnostic and therapeutic procedures. In addition, the device is intended to illuminate within and transilluminate across nasal and sinus structures.

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