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# Resident Research Symposium & Alumni Day

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June 16, 2022

College of Medicine Research Building  
909 S. Wolcott Ave.  
Room 2175  
Chicago, 60612

Department of Otolaryngology-Head Neck Surgery  
University of Illinois Chicago School of Medicine



## **Department Head**

Barry Wenig, MD, MPH, MBA  
Mario D. Mansueto, MD, Professor

## **Moderator**

Heather M. Weinreich, MD, MPH  
Assistant Professor, Otolaryngology – Head and Neck Surgery

## **Judges**

Departmental Faculty

## **Burton J. Soboroff, MD Lecturer**

Matthew L. Bush, MD, PhD, MBA, FACS

## **M. Eugene Tardy, MD Lecturer**

Tessa A. Hadlock, MD

## **Alumnus of the Year**

Tatiana Dixon, MD

## **Supported By**

Burton J. Soboroff, MD Lectureship Fund  
M. Eugene Tardy, MD Lectureship Fund

## Burton J. Soboroff, MD



Dr. Burton J. Soboroff, a beloved physician and teacher in the UIC Otolaryngology Department, established the endowment that makes this Lectureship and Resident Research Symposium possible. His dedication to this department as well as the practice of Otolaryngology will be remembered for years to come. It is an honor for us to have this day to recognize the contributions of this great individual.

Dr. Soboroff was educated at Northwestern University where he was Phi Beta Kappa, and received a Bachelor of Science degree in 1938. He attended Northwestern University Medical School, receiving his M.D. degree in 1942.

Dr. Soboroff then interned at Cook County Hospital from 1941-43; Residency at the Eye and Ear Infirmary at the University of Illinois College of Medicine and Cook County Hospital from 1946-1949 and Residency in Head and Neck Surgery at Hines VA Hospital in 1949-1951. He served in the Air Force Medical Corps from 1943-46.

He became a Senior Attending in the Department starting in 1951 and was Interim Department Head in 1975-76 and 1977-79. After his retirement in 1988, at the age of 70, he held an Emeritus position in this department until he passed away in 2004.

The Burton J. Soboroff Lectureship was established in 2001 and continues to be funded through gifts from former residents, colleagues, friends and admirers. We honor Dr. Soboroff and his contributions through this Lectureship.

## M. Eugene Tardy, MD

Dr. Tardy, the oldest of four children, grew up in southern Indiana. He attended Bloomington High School, graduating academically as the top male student in his class, captained the tennis team, and captured the Indiana State Boys as well as Junior tennis titles. Indiana University awarded him a varsity tennis scholarship, where he competed for 3 years and earned an AB degree in Biology and Zoology before beginning medical school at Indiana University in 1956.

His internship was spent at Tampa General Hospital, where he continued his training in General/Cardiovascular Surgery until being drafted into the US Air Force during the Berlin crisis. After attending flight surgeon's school, he was appointed to the post of Commander of the 838th TAC Hospital, and earned the USAF Flight Surgeon of the Year award in 1961. A highlight of military service involved selection as the medical officer and consultant for the Special Forces HALO (high altitude low opening) parachute project, where he was awarded the US Air Force Air Medal for rescuing a paratrooper entangled in a harness during an open hatch parachute drop at 43,000 feet.

Dr. Tardy completed his residency in Otolaryngology at the University of Illinois at Chicago as the Executive Resident, completing a post-residency Fellowship in Facial Plastic Surgery which led to an offer of an academic position in the department in 1968. Dr. Tardy founded the first facial plastic surgery division within the department, and served as the consultant for the Craniofacial Anomalies Center of the university. During his career he held the title of Professor of Clinical Otolaryngology at the University of Illinois and Indiana University School of Medicine, as well as Instructor at Northwestern University. Among other professional leadership responsibilities, Dr. Tardy was elected as President of the American Academy of Facial Plastic and Reconstructive Surgery, President of the American Academy of Otolaryngology - Head and Neck Surgery, and President of the American Board of Otolaryngology - Head and Neck Surgery.

Honorary fellowships and memberships have been awarded to Dr. Tardy by the Jacques Joseph Society, The Royal College of Medicine of Great Britain, the Australian Society of Otolaryngology, the South African Society of Otolaryngology, the European Academy of Facial Plastic Surgery, the German Society of Plastic and Reconstructive Surgery, the Austrian Academy of Otolaryngology, the German Society for ENT-Head and Neck Surgery, the Rhinoplasty Society, the Polish Society of Rhinology, the Philippine Society of Otolaryngology, the Brazilian Society Plastic Surgical Society, the Malaysian Society of Otolaryngology, and others.

Dr. Tardy served as the founder of Facial Plastic Surgery Monographs, as well as on the editorial boards of the Archives of Otolaryngology, the Laryngoscope, the Annals of Otolaryngology, the AMA Archives of Otolaryngology, and the Yugoslavian Journal of Otolaryngology. Academic contributions include his authoring or co-authoring 18 medical textbooks and over 160 scientific articles. He has participated in over 400 venues as guest professor/faculty lecturer at universities world-wide. During his years of practice and teaching Dr. Tardy was regularly cited as one of the "Best Doctors in America" in Chicago magazine, Harper's Bazaar, Town and Country and Good Housekeeping.

In 2005, the inaugural M. Eugene Tardy, MD Lectureship in Facial Plastic Surgery and the Humanities was established at the University of Illinois, in conjunction with the Department of Otolaryngology's Alumni Day. Dr. Tardy is married to Martha Heindel Tardy. They have three daughters and seven grandchildren.

# The 21<sup>st</sup> Burton J. Soboroff, MD Lectureship

## Promoting Equity in Otolaryngology through Pragmatic Research

Matthew L. Bush, MD, PhD, MBA, FACS



Matthew L. Bush, M.D., Ph.D., MBA, FACS is the Vice Chair for Research and a Professor in the Department of Otolaryngology – Head and Neck Surgery at the University of Kentucky in Lexington, Kentucky. He holds the University of Kentucky College of Medicine Endowed Chair in Rural Health Policy. He earned his M.D. degree from Marshall University School of Medicine in Huntington, WV. He completed Otolaryngology residency at the University of Kentucky. He completed a post-doctoral research fellowship and his Otology, Neurotology & Cranial Base Surgery fellowship at The Ohio State University. He also completed a PhD in Clinical and Translational Science in 2017 and an MBA in 2020, both from the University of Kentucky. His research is focused on hearing healthcare disparities. He serves as the principal investigator of several NIH-funded community-based trials to promote hearing healthcare access and utilization among underserved populations.

# The 16<sup>th</sup> M. Eugene Tardy, MD Lectureship

## Frontiers in Facial Reanimation

Tessa A. Hadlock, MD



Dr. Tessa Hadlock is the Division Chief of Facial Plastic and Reconstructive Surgery at the Massachusetts Eye and Ear Infirmary, and the Fazzalari-Grousbeck Endowed Professor of Otolaryngology and Laryngology at Harvard Medical School. She is a 1990 graduate of Bowdoin College and a 1994 graduate of the joint Harvard Medical School / M.I.T. HST program. She trained in surgery at the University of Chicago, and came to Harvard for in Otolaryngology / Head and Neck Surgery training. She took additional research fellowship training in tissue engineering at Children's Hospital in Boston. She has subspecialty training in microvascular head and neck reconstruction, and since 2002, has been on staff at the Massachusetts Eye and Ear infirmary, where she directs the Facial Nerve Center. As a clinician-scientist, she is the author of over 180 original articles, as well as invited writings and non-print materials, and has edited two textbooks. She serves as principle investigator for an NIH-funded R-01 research grant titled "The Surgical and Rehabilitative Management of Facial Nerve Injury", and as site PI on an R-01 grant titled "3D Dynamic and Patient-Centered Outcomes of Facial Reanimation Surgery in Patients with Facial Paralysis". Her primary interest is in comprehensive management of the paralyzed face.

## Alumnus of the Year

### Tatiana Dixon, MD



Tatiana K. Dixon, MD is the Residency Program Director and Assistant Professor of Otolaryngology-Head and Neck Surgery at the University of Illinois, Chicago. She works extensively with patients in the UI Hospital and Jesse Brown VA system, both in general Otolaryngology and Facial Plastic Surgery. A double board-certified surgeon, Dr. Dixon completed residency training in Otolaryngology-Head and Neck Surgery at UIC in 2012 where she was administrative chief resident. She then completed her fellowship training in Facial Plastic Surgery with Dr. Regan Thomas 2013. She joined the Department of Otolaryngology as an attending after completing fellowship and has served as the Program Director of the Otolaryngology Residency since 2018. Her clinical interests include cosmetic and functional nasal surgery, scar revision, rehabilitation for facial paralysis, and noninvasive and surgical procedures for facial rejuvenation. Dr. Dixon has received numerous awards and honors for her teaching of residents and medical students as well as her clinical work. She has served on medical missions in Central America. She is multilingual, with fluency in English, French, and German and working knowledge of Spanish.

## Resident Class of 2022



Dr. Robert Cristel will be completing Facial Plastic & Reconstructive Surgery fellowship at Washington University in St. Louis. He plans to remain in St. Louis, MO in private practice following fellowship.



Dr. Cody Jeu is heading to Houston, Texas to join a private practice ENT group as a Comprehensive Otolaryngologist following completion of residency.



Dr. Johanna Wickemeyer will attend Cincinnati Children Hospital's Sleep Fellowship for Sleep Medicine and Sleep Surgery. Following her one year fellowship, she plans to become faculty at an academic institution.

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***Congratulations graduates!***



**Department of Otolaryngology - Head & Neck Surgery  
Virtual Alumni Day Lecture and Symposium Schedule**

Thursday, June 16, 2022

Join Zoom Meeting

<https://uic.zoom.us/j/85270739207?pwd=K2JtZkpVZEpdWVHOEpCN3FiSHZCZz09>

Meeting ID: 852 7073 9207 Passcode: ZFcSzHM7

- 8:30 a.m. Welcome and Breakfast (Complimentary)**  
Barry Wenig, MD, MBA, MPH, FACS
- 9:00 a.m. M. Eugene Tardy, MD Lecture**  
TESSA HADLOCK MD  
FRONTIERS IN FACIAL REANIMATION
- 10:15 a.m. Resident Research Symposium**  
Heather M. Weinreich, MD, MPH - Moderator
- 10:20 a.m. Joshua Lee, MD**  
LATENT ASPIRIN SENSITIVITY AND ITS PHENOTYPIC CHARACTERISTICS: A PROSPECTIVE FEASIBILITY STUDY
- 10:27 a.m. Emma Martin, MD**  
VESTIBULAR FUNCTION TESTING IN THE PEDIATRIC POPULATION: A SCOPING REVIEW
- 10:34 a.m. Jane Schumacher, MD**  
THE USE OF ADJUNCTIVE PERIOPERATIVE NERVE BLOCKS IN RHINOPLASTY IN THE IMMEDIATE POSTOPERATIVE PERIOD
- 10:41 a.m. Brittany Abud, MD**  
PROPHYLACTIC POSTOPERATIVE ANTIBIOTIC USE IN PRIMARY RHINOPLASTY
- 10:48 a.m. Natalia Hajas, MD**  
RELATIONSHIP BETWEEN INDUSTRY FUNDING AND OTOLOGISTS; WHO GETS WHAT AND HOW MUCH?
- 10:55 a.m. John Wilson IV, MD**  
SUPERFICIAL PAROTIDECTOMY FOR JUVENILE RECURRENT PAROTITIS
- 11:02 a.m. Alex Canigila, MD**  
OUTCOMES OF FUNCTIONAL RHINOPLASTY WITH AURICULAR COMPOSITE GRAFTS

**Department of Otolaryngology - Head & Neck Surgery  
Virtual Alumni Day Lecture and Symposium Schedule**

Thursday, June 16, 2022

- 11:09 a.m.**      **Elliot Koo, MD**  
RADIATION-INDUCED ANGIOSARCOMA OF THE NECK WITH LOCOREGIONAL  
SPREAD TO THE LARYNX: A CASE REPORT AND REVIEW OF THE LITERATURE
- 11:16 a.m.**      **Christopher Mularczyk, MD**  
TEMPORAL AND SPECTRAL MANIPULATION AND VOCAL PITCH PERCEPTION IN  
COCHLEAR IMPLANT USERS
- 11:23 a.m.**      **Robert Cristel, MD, Cody Jeu, MD, Johanna Wickemeyer, MD**  
RESIDENCY AND BURNOUT
- 11:45 a.m.**      **Alumnus of the Year Award**  
TATIANA DIXON, MD
- 11:45 a.m.**      **Break**
- 12:00 p.m.**      **Burton Soboroff, MD Lecture**  
MATTHEW L. BUSH, MD, PHD, MBA, FACS  
PROMOTING EQUITY IN OTOLARYNGOLOGY THROUGH PRAGMATIC RESEARCH
- 1:00 p.m.**      **Adjournment**
- 6:00 p.m.**      **Resident Graduation Reception**  
ROCK BOTTOM BREWERY  
1 W GRAND AVE  
CHICAGO, IL 60610

# ABSTRACTS

## **Latent Aspirin Sensitivity and its Phenotypic Characteristics: A Prospective Feasibility Study**

**Joshua A. Lee MD, Farhan Salman BS, Sharmilee M. Nyenhuis MD, Victoria S. Lee MD**

### **Purpose**

The diagnosis of Aspirin-Exacerbated Respiratory Disease (AERD) currently depends upon a suggestive history provided by a patient. This ex post facto method of diagnosis may be resulting in cases of latent aspirin (ASA) sensitivity going undetected and thus inadequately managed. The purpose of this study is to 1) characterize the presence of latent ASA sensitivity in susceptible patients and 2) examine the phenotypic characteristics of patients with latent ASA sensitivity.

### **Aims**

**Aim 1:** To characterize the presence of latent ASA sensitivity in subjects with chronic rhinosinusitis with nasal polyps (CRSwNP) and asthma and to describe its associated reactions.

We hypothesize that cases of latent ASA sensitivity will be revealed via a positive ASA challenge among subjects with only known CRSwNP and asthma. The type and severity of reactions to ASA will be documented.

**Aim 2:** To examine the phenotypic characteristics (e.g., urinary and serum biomarkers, descriptive baseline variables) of subjects with latent ASA sensitivity, aspirin tolerant asthma (ATA), and established AERD.

We hypothesize that there will be phenotypic differences (e.g. elevated urine and serum biomarkers [uLTE4 and serum periostin]) among subjects with latent ASA sensitivity, ATA, and established AERD.

### **Impact**

AERD is a condition distinct from CRSwNP and ATA and therefore proper diagnosis is key to disease management. This project aims to explore the presence of latent ASA sensitivity among susceptible patients as it has not been extensively studied. Knowledge of latent ASA sensitivity may spare patients from risks unbeknownst to them upon exposure to non-steroidal anti-inflammatory drugs (NSAIDs), improve selection of treatment options, guide timing of ASA desensitization therapy, and encourage closer monitoring of nasal polyp recurrence after surgical intervention. Furthermore, this study seeks to assess the diagnostic utility of well-studied biomarkers in identifying cases of latent ASA sensitivity, with the downstream implication of developing a clinically useful tool. These potential advancements may ultimately allow providers to tailor their care for patients with AERD.

# Vestibular Function Testing in the Pediatric Population: A Scoping Review

Emma Martin MD

## **Background:**

The human vestibular system is one of several organ systems used for balance, in addition to vision, proprioception, and cerebellar function. At birth, the vestibular system is structurally mature but functionally immature. Some vestibular reflexes are present at birth, but some develop as infants gain the use of certain muscle groups and the ability to make certain movements. Children with impaired vestibular function meet gross motor milestones at a later age compared with healthy age-matched peers. While children with vestibular dysfunction will eventually learn to use their vestibular signals to generate appropriate motor responses, other causes of motor delay may not display such plasticity, and it is therefore useful to be able to determine if vestibular defects are the cause of motor delay. Vestibular function tests (VFTs) can help determine if vestibular deficit is the cause of motor delay and will identify candidates for vestibular rehabilitation. Some vestibular tests are only reliable after a certain age due to intolerance of test administration. Because the vestibular system and its reflexes matures throughout childhood, some tests are only reliable after a certain age. However, it is unclear how much data exists for each individual VFT as administered to pediatric patients. This research project is a scoping review that seeks to assess available data and, if possible, establish a set of normative VFT data for several pediatric age ranges.

## **Methods:**

Study selection will proceed in a three-stage process with final criteria as follows. Studies must be written in or translated to English, with some or all of the participants under the age of 18. They must include quantitative data of one or more of the following VFTs: caloric test, rotary chair test, computerized dynamic posturography (CDP), cervical vestibular-evoked myogenic potential (cVEMP), ocular vestibular-evoked myogenic potential (oVEMP), or video head impulse test (vHIT). The studies must include data from healthy children without vestibular impairment, including control groups. Studies with data examining the success rate of VFT administration should be excluded if they do not also have data for one or more VFTs. Studies that review or summarize current literature will be excluded. Once studies are selected for definitive inclusion, descriptive content analysis will be performed on the qualitative aspects of the above criteria, with a focus on quality of evidence and differences in testing administration for pediatric patients. Analysis of the evidence will also involve the creation of a chart that compiles all quantitative data for each VFT. The data will be divided based on the age groups examined in the respective papers.

## **Results:**

Ongoing. Study selection is in phase 3 of 3, to be followed by descriptive content analysis.

## **Conclusions:**

Not yet determined.

# **The Use of Adjunctive Perioperative Nerve Blocks in Rhinoplasty in the Immediate Postoperative Period**

**Jane Schumacher, MD**

## **Background:**

This study focuses on the use of a long acting local anesthetic, bupivacaine, as a nerve block before and after rhinoplasty to determine its effects on recovery time, as well as narcotic and antiemetic medication use during the immediate postoperative period.

## **Methods:**

A retrospective analysis was conducted on a total of 80 consecutive patients who underwent elective septorhinoplasty with a single surgeon. Forty consecutive patients that did not receive bupivacaine nerve blocks were compared to 40 consecutive patients that received both preoperative and postoperative nerve blocks. The length of time and use of postoperative narcotic medications and antiemetics while in recovery were collected. Statistical analysis was performed with unpaired t-tests with a p-value <0.05 considered to be statistically significant.

## **Results:**

Postoperative recovery times were found to be significantly reduced in the group receiving bupivacaine nerve blocks by an average of almost 74 minutes ( $p < .0001$ ). In addition, narcotic medication and antiemetic use was significantly higher in the non-blocked rhinoplasty cohort as compared to the intervention group.

## **Conclusion:**

The adjuvant use of bupivacaine nerve blocks before and after rhinoplasty results in shorter recovery time and less narcotic and antiemetic requirements in the immediate postoperative recovery period.

# Prophylactic Postoperative Antibiotic Use in Primary Rhinoplasty

Brittany Abud, MD

## Introduction:

Routine antibiotic prophylaxis following rhinoplasty is common practice, however, there is limited evidence to support its efficacy in preventing postoperative infections. The purpose of this study is to evaluate infection rate after primary rhinoplasty in patients treated with and without systemic postoperative antibiotics. We also explore risk factors for infection in these two groups.

## Methods:

A retrospective chart review was conducted for all patients who underwent primary rhinoplasty or septorhinoplasty at a single tertiary care center from January 2019 to June 2020. Primary outcomes include development of postoperative infection and treatment methods.

## Results:

Our population included 46 primary rhinoplasties, 32 of which received postoperative antibiotics and 14 of which did not. Of the 32 patients who got antibiotics, the mean age was 31.1 years (range 16-58). Fifteen (46.9%) patients were male, the average BMI was 27.7, and 13 patients had comorbidities. In this group, 21 (65.6%) were open and 16 (50%) had osteotomies. Cartilage grafting was done in 26 (81.3%) patients, 14 (38.5%) of which were from the native septum, 7 (26.9%) of which were rib, 3 (11.5%) of which were ear, and 2 (7.7%) of which were temporalis fascia. Of the 14 patients who did not receive antibiotics, the mean age was 33.2 years (range 17-67). Nine (64.3%) patients were male, the average BMI was 27.0, and 6 patients had comorbidities. In this group, 11 (78.6%) were open and 10 (71.4%) had osteotomies. Cartilage grafting was done in 12 (85.7%) patients, 10 (83.3%) of which were from the native septum, 1 (8.3%) of which were rib, 0 of which were ear, and 1 (8.3%) of which were temporalis fascia. None of the 14 patients who did not receive antibiotics developed infections. Of the 32 patients who received postoperative antibiotics, 2 patients developed postoperative infections for a rate of 0.063. Of these two patients who developed infections, neither had comorbidities and neither were tobacco users. Both patients underwent open septorhinoplasty with rib cartilage harvesting and cartilage grafting.

## Conclusion:

Given there was no increased rate of infectious complications after primary rhinoplasty or septorhinoplasty in patients who did not receive postoperative antibiotics, it suggests that there may not be a role for postoperative antibiotics after primary rhinoplasty. Further studies should be done; however, this is both a step forward in antibiotic stewardship as well as in standardizing postoperative rhinoplasty care.

# Relationship between industry funding and otologists; who gets what and how much?

**Natalia Hajnas, MD; Leah Butler, MD; Heather Weinreich, MD**

## **Introduction**

Gender disparities exist within the medical profession. While representation of women in otolaryngology is improving, there are several other issues that require attention. Gender disparities in salary compensation are a commonly discussed issue; however, another key area of investigation is financial ties with industry. Relationships with industry and industry-supported financial contributions can impact instrument design and usability, research endeavors, educational opportunities, access to innovative products and scholarly advancement. Our objective was to determine whether allocation of industry funding to otologist/neurotologists differs by gender.

## **Study Design**

A cross-sectional retrospective analysis.

## **Methods**

We examined non-research payments made to otologist/neurotologists in 2019 included in the Centers for Medicare and Medicaid Services Open Payments Database.

## **Results**

In 2019, 200 otologists/neurotologists received some form of industry funding. Industry funding was in the form of consulting fees, compensation for services other than consulting, charitable contributions, education, gift, grants, honoraria, royalty or license, and travel and lodging. There were 168 (84%) men and 32 (16%) women. There were 1000 unique transactions, with a total paid amount of \$1,194,916.78. The total paid amount to male otologist/neurotologists was \$1,097,497.73 (91.85%). The total paid amount to female otologist/neurotologists was \$97,419.05 (8.15%). The difference in mean transaction amount was statistically significant ( $p = 0.018$ ).

## **Conclusions**

Preliminary data suggests that industry contributes a larger amount of funding to male otologist/neurotologists than to female otologist/neurotologists. Further data analyses will determine whether there are differences in funding by specific industry and payment type, and whether these findings hold true when controlling for age and physician experience. We also plan to include analyses of research-specific payments. Lastly, we will also expand our analyses to include other otolaryngology subspecialties, and trends over several years.



# Superficial Parotidectomy for Juvenile Recurrent Parotitis

John Wilson IV, MD; John Maddalozzo, MD

## Background:

Juvenile recurrent parotitis (JRP) is a condition characterized by recurrent non-suppurative swelling and pain of the parotid gland. JRP is the second most common inflammatory condition affecting the salivary glands in pediatric patients after mumps. Although the mainstay of treatment for JRP consists of conservative medical therapy, there is a subset of patients with unremitting and recalcitrant symptoms who may benefit from surgical management. Our objective was to investigate long-term outcomes, imaging, and pathologic findings in pediatric patients who underwent superficial parotidectomy for recalcitrant juvenile recurrent parotitis.

## Methods:

Records for 20 children (23 parotidectomies; 9 females, 11 males; age at surgery of 8.6 ± 3.7 years) collected over a ten-year period (2012-2021) were reviewed. Parents were contacted via telephone to obtain extended follow-up. A simplified scoring system was used to assess imaging findings and an additional pathologic review was conducted to further clarify the underlying disease process.

## Results:

All but one patient experienced resolution of their recurrent symptoms after superficial parotidectomy. Three of the patients studied required surgery on the contralateral side, and this could be predicted based on their imaging at the time of the initial surgery. Pathologic findings included ductal fibrosis, metaplasia, and dilatation as well as parenchymal atrophy and fatty deposition. There were no major surgical complications.

## Conclusion:

For patients with frequent recalcitrant symptoms or significant quality of life impairment related to juvenile recurrent parotitis, superficial parotidectomy represents a potential treatment option with noted reduction in symptom burden following surgery. Further longitudinal studies are needed.

## **Outcomes of Functional Rhinoplasty with Auricular Composite Grafts**

**Alexander J. Caniglia, MD, Robert T. Cristel, MD, Richard Kao, MD, Dean M. Toriumi, MD, Taylor Vandenberg, BS**

### **Background:**

Auricular composite grafts (ACGs) can be used in rhinoplasty to correct defects of the internal nasal valve, ala, vestibule and sill. The objective of this study is to describe the use of ACGs as a technique to provide improved nasal airway function in rhinoplasty patients, and determine overall success rate of composite grafts.

### **Methods:**

A retrospective chart review was performed of all patients who underwent rhinoplasty with ACGs from 2002-2019 by the senior author. Electronic medical records were searched to obtain patient age, diagnosis, pre and postoperative Nasal Obstruction Symptomatic Evaluation (NOSE) survey, and graft viability.

### **Results:**

234 rhinoplasty procedures were performed utilizing 367 auricular composite grafts. Fifty procedures also utilized microfat and/or nanofat injection into the nose. 90.2% of procedures had successful take of ACG. There were 23 (at least partial) graft failures, producing graft failure rate of 6.3%. Mean pre-operative NOSE score was 24.08, and mean postoperative NOSE score was 21.84, with a p-value of 0.63. Mean latest postoperative NOSE score used was 247.3 days.

### **Conclusions:**

Composite grafting is an effective technique to repair defects of the internal nasal valve, nasal sill/ala, and vestibule with excellent functional results. Using our techniques, the viability of ACGs in rhinoplasty is high.

# **Radiation-induced angiosarcoma of the neck with locoregional spread to the larynx: a case report and review of the literature**

**Elliot Y Koo, MD**

## **Background:**

Radiation-induced angiosarcoma (RIAS) of the head and neck is a rare, aggressive malignancy that can present uniquely and is challenging to manage. We present a case report with interesting findings and a literature review of head and neck RIAS.

## **Methods:**

A case of a patient with RIAS, presenting with dysphagia and delayed unique laryngoscopy findings determined to be locoregional spread of RIAS to the larynx. A literature review of case reports for RIAS within the head and neck was performed from January 2000 to January 2022.

## **Results:**

A 68-year-old female with a history of unknown primary squamous cell carcinoma of the head and neck who completed chemoradiation 8 years prior presented with a new left neck mass. Core biopsy confirmed RIAS. Despite multiple wide local excisions (WLE), positive margins remained. The patient then presented with one month of dysphagia but with unremarkable initial laryngoscopy findings. Delayed laryngoscopy findings showed erythematous supraglottic mucosal changes, with biopsy-confirmed RIAS. Surgical, palliative, and conservative options were discussed with the patient, who ultimately decided on observational management. Literature review found 9 cases of head and neck RIAS. Among these cases, the average overall survival from time of diagnosis was 11.67 months. Various treatment options have been described.

## **Conclusions:**

RIAS is a rare, aggressive malignancy of the head and neck that presents with delayed and unique symptoms. Locoregional spread is common and difficult to surgically manage. The literature is limited regarding optimal management and treatment options. Patient counseling and a goals of care discussion are recommended when managing these patients.

# Temporal and Spectral Manipulation and Vocal Pitch Perception in Cochlear Implant Users

Chris Mularczyk<sup>1</sup>, MD, Justin Aronoff, Ph.D<sup>1,2</sup>, Simin Soleimanifar<sup>2</sup>

## Objective:

To determine if the distribution of spectral energy, and its interaction with temporal pitch, plays a role in vocal pitch (F0) perception for Cochlear Implant (CI) users.

## Methods:

15 bilateral CI users will participate in the experiments. This is based on the effect size used in a preliminary study. CI users will be asked to compare the pitch of different pairs of voices. The stimuli will consist of four sets of recordings, two males and two females saying /a/. The voices will span a range of F0s. There will be up to three conditions tested: original (unaltered recordings), spectrally manipulated (spectral information from one of the original stimuli, temporal information removed), and spectral-temporally manipulated (spectral information from one of the original stimuli, temporal information from a sine wave whose frequency corresponds with that same original stimuli's F0). These will be compared to the preliminary study temporally manipulated tests. Participants will judge the perceived pitch similarity of all possible stimuli pairings using a seven-point Likert-scale. The results will be analyzed and compared using Multidimensional Scaling (MDS).

## Results:

Pending.

## Conclusion:

We hypothesize that providing spectral information, in isolation or with temporal information, will affect vocal pitch perception in cochlear implant users. These results would suggest that temporal and spectral cues both contribute to CI users' vocal pitch perception which may provide critical information to help develop techniques to improve CI users' vocal pitch perception.

<sup>1</sup>Department of Otolaryngology and Head and Neck Surgery, University of Illinois at Chicago

<sup>2</sup> Department of Speech and Hearing Science, University of Illinois at Urbana-Champaign

## **Residency and Burnout**

**Robert Cristel, MD, Cody Jeu, MD, Johanna Wickemeyer, MD**

Burnout is prevalent among residents of all specialties, including otolaryngology. As residents progress through training, the nature and quality of close personal relationships may change. Drs Wickemeyer, Cristel, and Jeu have maintained their relationships with their significant others in a variety of methods, including shared activities and extensive travel. While at times unconventional, all three graduating chiefs acknowledge the importance of prioritizing their close relationships to empower them throughout residency.