

# ENT UPDATE

DEPARTMENT OF OTOLARYNGOLOGY & COMMUNICATIVE SCIENCES AT THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER

## Otolaryngology uses smarter test utilization to improve care and decrease cost

It is common practice to measure a patient's blood calcium levels after thyroidectomy. Parathyroid glands lie just behind the thyroid and can be inadvertently injured or removed during surgery, a known but uncommon complication. Damage to or loss of one or more of the four glands could cause blood calcium levels to decrease, resulting in tingling in the lips, hands and feet, weakness, muscle spasms and rarely irregular heartbeat.

While most surgeons agree that calcium levels should be checked after surgery, there is a lack of agreement about which test is best to assess blood calcium, and when and how often this test should be ordered. We saw this as an opportunity to find the test or tests that provided the best care to their patients at the lowest cost and to standardize testing protocols among surgeons completing these cases.

"After reviewing 5-years-worth of patient records, we were surprised by the wide range of ordering practices of providers at our institution," said Dr. Ali Brown, who served as the lead for the multidisciplinary improvement project. "We presented the data at our monthly faculty meeting, demonstrating the significant variation in test ordering patterns between providers and even for the same provider between different patients." The data revealed that some surgeons were using serum calcium tests, some were using an assay for parathyroid hormone (PTH), and others were testing the same patient for both. Many providers were ordering the same test multiple times, monitoring for even the slightest changes in the blood.

The results of this analysis begged the question: *If we are all doing it differently we may all be correct, but we can't all be doing it the best way.* The team of experts, led by Dr. Lana Jackson, a head and neck surgeon in Otolaryngology, conducted a review of medical literature for best prac-



*Dr. Lana Jackson*

tices across specialties and settled on a simple protocol. All patients undergoing total thyroidectomy would have one PTH level drawn within 30 minutes of surgery. All patients would be discharged on a standard oral calcium regimen, and those with a low PTH level would also receive vitamin D. If patients showed symptoms of low calcium, it was the physician's call to order additional tests.

Faculty and residents were educated on the new protocol and it was built into standardized post-operative order sets and discharge orders. What was the result? A marked decrease in test utilization, with more patients discharged earlier in the day, and less time in the operating room.

"The decrease in test utilization was a direct result of the implementation of our standardized protocol," said Dr. Brown.

"The decrease in OR time and length of stay are more difficult to attribute. Since our providers no longer wait on multiple test results to return to make decisions in the OR and for discharge planning, we realized an increase in efficiency allowing patients to go home sooner with no change in overall management."

Adherence to the protocol is measured quarterly, with a goal of 90% compliance, allowing for physicians to have room to make decisions based on individual patient needs. So far, the goal has been met for the past two years and counting, with no patients presenting for follow-up with any symptoms of low calcium levels. Because of their success, Otolaryngology recently extended the protocol to patients having parathyroidectomies for primary hyperparathyroidism.

This protocol was recognized for its significant contribution to the goal of reducing overuse and unnecessary tests and treatments in medicine; an initiative of the American Board of Internal Medicine known as *Choosing Wisely*. As a result of her efforts and leadership, Dr. Lana Jackson was a recipient of the "2017 American Society for Clinical Pathology Choosing Wisely Champion Award."

Continuous improvement and striving for excellence have long been goals for the Otolaryngology department at UMMC. The department plans to extend these principles to the development of additional evidence-based, standardized clinical protocols. ■

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## Chairman's Message

Our lead story in this issue highlights the longstanding focus of our department on the constant pursuit of excellence. Although we

recognize that we will never achieve perfection, we will perform at the highest possible level if we continually pursue the goal of perfection. We apply this mantra to all aspects of our mission: patient care, education, and discovery. The lead story illustrates how our faculty members and residents came together to improve patient experiences, outcomes, and value.

We have purposefully invested in these efforts by hiring Dr. Ali Brown to serve as Vice Chair for Performance Improvement. She is responsible for helping our team members take a rigorous approach to improvement and training our residents in these methods so that they can apply them in their future practices. Given the constant push for better outcomes at lower costs, such knowledge and skills are critical for our future otolaryngologists to succeed. We not only have formal projects for performance improvement, but we also encourage our department personnel to make informal, on the fly, daily efforts at getting better every day. This creates a sense of pride throughout the department in trying to be the very best at everything we do.

We hope that the service we provide to you and your patients reflects this constant pursuit of excellence in every interaction with us. We encourage and welcome your feedback as we pursue our goal of offering the best customer service and outcomes for you and your patients.

We offer condolences to the family, friends and patients of our colleague, Dr. Mickey Wallace. Dr. Wallace earned his medical degree from UMMC and completed residency at the Medical University of South Carolina before returning to Jackson for an outstanding career in private practice for the last thirty years. His presence in the community will be greatly missed.

We wish you, your staff and families a healthy and prosperous 2018, and look forward to serving you.

Scott P. Stringer, M.D., M.S.  
Professor and Chairman  
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## NEW FACULTY

### Eric Bridges, M.D.

We are thrilled to announce the addition of Dr. Eric W. Bridges as Assistant Professor of Otolaryngology at the G.V. (Sonny) Montgomery VA Medical Center. Having over 23 years of experience in private practice, he will be an invaluable educational resource for our learners. Dr. Bridges earned his M.D. from Louisiana State University School of Medicine in 1989. He completed his Otolaryngology residency at University of Texas Medical Branch in 1994. Certified by the American Board of Otolaryngology, Dr. Bridges is a member of the American Academy of Otolaryngology – Head and Neck Surgery, The American Academy of Otolaryngic Allergy, and served as President for the Mississippi Society of Otolaryngology.



### Alexandra (Ali) Brown, M.D.

It is with equal excitement that we announce the addition of Dr. Ali Brown as Associate Professor and Vice Chair of Performance Improvement for the Department of Otolaryngology. Dr. Brown's Lean Healthcare Certification and experience in leading quality improvement projects make her an integral part of the department's goals for continuous improvement and excellence. Dr. Brown earned her M.D. from Louisiana State University School of Medicine in 2002. She completed her residency in Pathology at the University of Mississippi Medical Center and completed the Surgical (Selective) Pathology Fellowship and Susan G. Komen Interdisciplinary Breast Cancer Fellowship at the University of Texas M.D. Anderson Cancer Center.



## Department News and Highlights

- Dr. Lana Jackson received the Choosing Wisely Champion Award from the American Society for Clinical Pathology.
- Dr. Gina Jefferson received the American Academy of Otolaryngology – Head and Neck Surgery Foundation Honors Award.
- We were honored to welcome Dr. Erich M. Sturgis, Professor, Department of Head and Neck Surgery, Division of Surgery, The University of Texas MD Anderson Cancer Center in Houston, Texas as a part of our lectureship series. Dr. Sturgis gave two lectures titled “The HPV Cancer Epidemic – Why We Must Vaccinate Our Boys” and “Organizing a Translational Program in HPV-related Cancers: The MD Anderson HPV Moon Shot”.
- Drs. Lauren Buck and Andrea Lewis participated in a week-long mission trip to Guatemala. The trip was a huge success, the doctors seeing an average of 15-20 patients a day at both the clinic, Clinica Ezella, and in nearby villages via mobile clinic.
- Dr. Marcelo Hockman, a facial plastic surgeon and the Director of the Hemangioma and Malformation Treatment Center in Charleston, South Carolina and the founder of the Hemangioma Treatment Foundation gave a lecture on vascular anomalies in early February.

**Dr. Justin M. Garner** is a 2007 graduate of University of Mississippi Medical Center Otolaryngology residency. He is a Fellow of both the American College of Surgeons and the American Academy of Otolaryngic Allergy. He has served as president of the Mississippi Society of Otolaryngology as well as the Prairie Medical Society. He maintains active hospital privileges at North Mississippi Medical Center–West Point, Oktibbeha County Hospital, and Baptist Memorial Hospital–Golden Triangle where he has served on the Medical Executive Committee and as chairman of the Department of Surgery. Dr. Garner currently serves as partner with Otolaryngology Associates, Ltd. in Columbus and Starkville, Mississippi. He is a member of the advisory board of Renasant Bank in Columbus. His outside interests include hiking, skiing, Ole Miss Athletics, and spending time with his wife, Mary Tana, and two sons, Lockhart (9) and Grice (7). ■

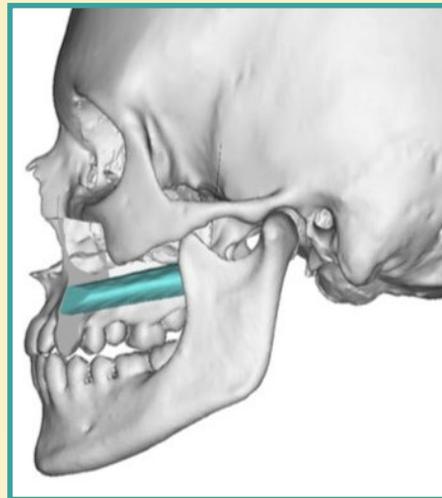


## Interesting Case: Juvenile Ossifying Fibroma

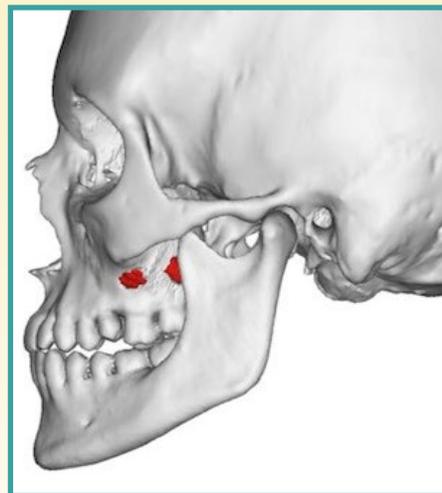
A 14-year-old female presented with mild fullness of her left nasolabial fold with an asymmetric smile and fullness with tenderness to palpation of the left upper gingiva in the apical area. She reported a 6-week history of left sided facial pain. CT showed a circumscribed, ground-glass, radiolucent osseous lesion in the floor of the left maxillary sinus measuring 3.2 x 2.5 x 2.4 cm; the lesion was noted to be associated with the maxillary molars. An incisional biopsy obtained from the apical area between teeth #12-14 and left maxillary sinus showed a benign neoplastic proliferation of cellular fibrous connective tissue with psammomatoid calcifications described as round, irregular eosinophilic to basophilic calcifications many exhibiting an eosinophilic brush border at the periphery. Tumor cells arranged into fascicles containing hyperchromatic spindle-shaped nuclei and occasional multinucleated giant cells were also observed. Diagnosis of juvenile ossifying fibroma (JOF), psammomatoid variant of the left maxilla was made.

It was decided to proceed with surgical excision of the mass with 5 mm margins followed by reconstruction with an osteocutaneous fibular free flap. A left inferior

and medial maxillectomy was performed, followed by reconstruction. The patient's left fibular flap was aligned with the native maxillary



*Simulated Postoperative Anatomy*



*Preoperative Anatomy*

dentition and the mandibular dentition to allow for eventual dental rehabilitation.

JOF is a rare fibro-osseous tumor uniquely characterized by its occurrence primarily in the craniofacial bones of adolescents under the age of 15. It is locally aggressive and has a high tendency for recurrence despite being a benign tumor. The WHO classifies JOF into two histologic variants: psammomatoid and trabecular. Psammomatoid JOF (JPOF), as in the present case, is more commonly reported, more aggressive, and more likely to recur. It is characterized by the psammoma body-like mineralized structures seen on histology. Although JOF occurring in the maxilla is typically the trabecular variant, JPOF of the maxilla has been reported in 10-20% of JPOF cases. Treatment of JOF is controversial. While some prefer conservative enucleation and curettage to preserve facial functions and aesthetics, others believe a more radical resection with generous margins is indicated because of the high likelihood of recurrence. When diagnosing fibro-osseous masses, a high index of suspicion for aggressive masses is important as delay in treatment could be detrimental to the patient. ■

# ACADEMIC HIGHLIGHTS

- Drs. Gina Jefferson, Cindy Moore, Kristen Pitts and Jonathan Sorrel represented the Otolaryngology Specialty at the UMMC Resident Fair on October 6th.
- On October 14th, Drs. Gina Jefferson, Brian McManus, Cindy Moore and Scott Stringer traveled to the University of South Alabama to participate in the Region IV Student National Medical Association exhibit.
- The American Academy of Facial Plastic and Reconstructive Surgery Annual Meeting was held in Phoenix Arizona in late October. Dr. J. Randall Jordan presented on “Scalp Reconstruction” and “Dorsal Augmentation with Non-Autologous Rib Cartilage”. He also participated in a panel discussion, “Filler Best Uses and Complications”.
- Dr. Scott Stringer participated in a Diversity Committee Panel Discussion, “Faculty Recruitment & Retention”, at the 2017 SUO/AADO/OPDO Combined Meeting in Chicago on November 11th.
- Dr. Jeffrey Carron presented “What’s New in Otolaryngology” at the annual MSMA CME meeting in Orlando on November 20th.
- Dr. Scott Stringer met with other leaders from AAO-HNS to discuss strategic planning for the association in Alexandria, VA December 1st and 2nd.

It is with admiration that we note the passing of

## **Doris Kathryn Balmer.**

Mrs. Balmer came to the Division of Otolaryngology in 1967 as Mississippi’s first certified Medical Secretary. She made significant contributions to the division during her 15 years of service at the University. Our condolences are with the Balmer family during this time.

## *Save the Date*

The Department of Otolaryngology and Communicative Sciences

## **Seventeenth Annual Lectureship and Resident Graduation**

**June 15, 2018**

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