UT Southwestern
Medical Center

Voice Center Update

Vol. 2. Issue 1. 2018

WELCOME

Welcome to the second edition of the UT Southwestern *Voice Center Update.* This publication gives our voice team the opportunity to provide updates and insights in the realm of voice, airway, and swallowing. For those of you who are interested in viewing our first edition from 2017, please visit utswmed.org/voice.

We have some exciting updates to share with you in this edition. As the largest voice center in Texas, we've now extended our laryngologic care to Fort Worth. We also recently welcomed another certified vocologist and singer, Jacob Lofland, M.S., CCC-SLP, to our skilled voice therapy team. We're currently recruiting a Ph.D.-level speech-language pathologist to further expand our clinical and translational research efforts. And finally, we look forward to moving our Dallas-based office to a brand-new, state-of-the-art facility in the fall, just in time for the Voice Center's 10th anniversary celebration.

We thank you for continuing to entrust the care of your patients to us. For more information, please sign up for our electronic newsletter by sending your contact information to voicecenter@utsouthwestern.edu.

Sincerely,

Lesley F. Childs, M.D.
Editor, Voice Center Update
Asscociate Medical Director, Clinical Center for Voice Care
lesley.childs@utsouthwestern.edu

Ted Mau, M.D., Ph.D.
Director, Clinical Center for Voice Care
ted.mau@utsouthwestern.edu

Voice Care Expands to the West

We're excited to announce that the UT Southwestern Clinical Center for Voice Care now has an additional location: the UT Southwestern Monty and Tex Moncrief Medical Center at Fort Worth.

Housed within a brand-new, state-of-the-art outpatient facility in Fort Worth's Medical District, we offer comprehensive laryngology and speech-language pathology services to patients with voice, swallowing, and upper airway disorders. Using a multidisciplinary approach and the latest diagnostic and therapeutic technology, we strive to provide the highest-quality voice care to the western Dallas-Fort Worth region and beyond ■

Moncrief/Fort Worth Voice Care Team

- Se-In Kim, M.A., CCC-SLP
- Jacob Lofland, M.S., CCC-SLP
- Kathleen Tibbetts, M.D.

Procedures and Services

- Videostroboscopy
- FEES
- In-office bronchoscopy
- Vocal fold injection augmentation
- Laryngeal Botox injections
- Voice evaluation and therapy
- Dysphagia therapy
- Respiratory retraining therapy for vocal fold dysfunction
- Cough-suppression therapy
- Voice and swallowing therapy for patients with head and neck malignancy
- TEP placement and maintenance

UT Southwestern Monty and Tex Moncrief Medical Center at Fort Worth

600 S. Main Street, Fort Worth, Texas 76104
Appts: 817-882-2400 Fax: 817-882-2431

The Neurologic Voice Disorder Conundrum: A Voice Therapist's Perspective

By Se-in Kim, M.A., CCC-SLP
Faculty Associate, Otolaryngology

Spasmodic dysphonia and tremor are neurological disorders, while muscle tension dysphonia is behavioral in nature. The three disorders differ in their etiologies, yet the symptoms and signs can overlap.

Patients can have more than one disorder simultaneously, as nearly one-third of spasmodic dysphonia patients have vocal tremor. Similarly, many spasmodic dysphonia and tremor populations have concomitant muscle tension dysphonia as a result of trying to better control and compensate for their neurologic voice disorder. This overlap makes an accurate diagnosis and treatment difficult.

Perceptual voice evaluation

The primary diagnostic tool for spasmodic dysphonia and tremor is the perceptual voice evaluation. Patients with spasmodic dysphonia demonstrate voiced or voiceless breaks on specific phonemes. A limited number of patients with spasmodic dysphonia are "on break" the entire time, which results in a consistently strained voice without noticeable breaks – this specific variant is called "chronic constriction."

"The primary diagnostic tool for spasmodic dysphonia and tremor is the perceptual voice evaluation."

Furthermore, spasmodic dysphonia patients' voices often improve when they laugh, whisper, speak in a higher pitch, use a different accent, or sing. Patients with tremor demonstrate rhythmic variation in pitch and loudness, and this is most noticeable during sustained vowels. Patients with tremor might purposefully reduce their loudness in order to conceal the tremor, so encouraging them to sustain a single vowel at increased loudness can help reveal the tremor.

Stimulability testing

Stimulability testing is another important tool when helping to clarify neurologic voice disorder dilemmas. A speech-language pathologist can provide a few sessions of voice therapy to assess whether a patient is stimulable for improved voicing by using various vocal techniques and exercises. If a patient shows progress up to the conversational level, muscle tension dysphonia is most likely the diagnosis. But if the tremor and voice breaks remain even after unloading of the extralaryngeal tension, it is likely that the primary voice disorder is neurologic in nature.

The most widely used treatment for spasmodic dysphonia and tremor at this time is laryngeal injections of botulinum toxin. Denervation-reinnervation procedures are also an option for certain patients with spasmodic dysphonia. Because many patients with laryngeal dystonia develop muscle tension dysphonia as a result of maladaptive compensation, they might also benefit from voice therapy after botulinum toxin treatments have been established.

Indeed, a voice therapist's role within the context of neurologic voice disorders extends into both the diagnostic and therapeutic realms ■

From Patient to Therapist

By Jacob Lofland, M.S., CCC-SLP
Faculty Associate, Otolaryngology

My journey into the world of voice care began as a Voice Center patient at UT Southwestern. Fast forward several years later, and I am now a speech-language pathologist specializing in the treatment of voice, airway, and swallowing disorders, working at the Clinical Center for Voice Care at UT Southwestern.

When I first began experiencing difficulties with my voice in college, it was a daunting and frustrating time for me, especially as a singer. I tried to correct my problem on my own by looking up various techniques and recommendations online – all of which led to complete confusion.

It wasn't until I participated in voice therapy at UT Southwestern that things began to really change for me. I eventually made the decision to pursue a career in the field of voice rehabilitation so I could help others with problems similar to my own. My journey continued with obtaining a master's degree in speech-language pathology, attending private voice lessons, and achieving a vocology certification at the Summer Vocology Institute, all of which eventually led me back to UTSW as a voice therapist.

"What I learned in voice therapy helped me to use my voice in a more healthy, productive way."

Bridging the gap between art and science

While singing is an art form and should not be reduced to pure mechanical instruction and anatomy, there is much that can be improved upon with a better understanding of the anatomical and physiological mechanisms behind voice production.

It's no secret that there are a number of myths regarding voice care and pedagogy circulating throughout the voice community. Although often well-intentioned, sometimes these myths and anecdotes can cause more harm than good for professional voice users. What I learned in voice therapy helped me to use my voice in a more healthy, productive way. It is my hope that other professional voice users can be equipped to better understand how to use and care for their instruments – and I believe this is already happening and will only continue as we bridge the gap between the art and science of voice production.

Speaking a language I could understand

I was inspired to become a speech pathologist to help others, and I attribute much of that inspiration to the team at UTSW for the help they gave me. I believe the care, compassion, and kindness shown to me by Dr. Childs and my voice therapist were key to helping me overcome my problems with my voice. Being singers themselves, they understood my fears and frustrations and were able to guide me to a place of healing and recovery without judgment, all the while speaking a language that I could understand.

Now as a voice therapist myself, it is my goal to provide this same kind of care to others. As providers, we can play a monumental role in our patients' lives. You never know what impact you might have – you might even inspire someone to enter this challenging, rewarding, and life-changing field for themselves ■

Treatment of Neurogenic Cough: A Multimodality and Multidisciplinary Approach

By Kathleen Tibbetts, M.D.
Assistant Professor, Otolaryngology

Chronic cough is undoubtedly one of the most challenging problems encountered by physicians in multiple disciplines. Otolaryngologists are often called upon to evaluate these patients, as two of the most common causes of persistent cough in adults (gastroesophageal reflux disease

and sinonasal disorders such as allergic rhinitis and chronic sinusitis) fall within the scope of our specialty. Cough-variant asthma and upper airway cough syndrome are the other more common causes of an unrelenting cough, typically diagnosed and treated by our colleagues in pulmonology. When a patient's cough persists despite extensive work-up and treatment for these common etiologies, a diagnosis of neurogenic cough might be considered.

"Neurogenic cough has been attributed to a laryngeal hypersensitivity that is thought to result from nerve damage due to a viral infection."

Neurogenic cough has been attributed to a laryngeal hypersensitivity that is thought to result from nerve damage due to a viral infection. The internal branch of the superior laryngeal nerve, which passes through the thyrohyoid membrane and provides sensation to the lower pharynx and supraglottis, is typically the affected nerve. For patients with neurogenic cough, the cough is triggered by actions or activities that stimulate the larynx – talking, laughing, singing, swallowing, temperature changes, position changes, or external stimulation of the neck. Patients might describe a foreign body sensation or irritation in the throat that accompanies or precedes the cough. Symptoms occur during the day when the larynx is stimulated. Very few patients report nighttime symptoms or sleep disturbance due to their cough.

Specialists at the Clinical Center for Voice Care at UT Southwestern provide state-of-the-art care for patients with voice disorders and other conditions affecting the larynx, swallow function, and airway.

Two treatment mainstays

The goal of treatment for neurogenic cough is to reduce the laryngeal hypersensitivity. The two mainstays of treatment are respiratory retraining therapy and neuromodulating medications.

Respiratory retraining therapy aims to reduce the involvement of the oropharyngeal muscles during inspiration by increasing abdominal muscle involvement. Changing the pattern of airflow reduces the stimulation of the larynx, preventing the unnecessary urge to cough. Our speech-language pathology team has extensive experience and expertise with this type of therapy.

Neuromodulating medications are another treatment option, used alone or in conjunction with respiratory retraining therapy. These medications are thought to work by reducing the sensitivity of nerves involved in the cough pathway. The gamma-aminobutyric acid (GABA) analogs gabapentin and pregabalin are commonly prescribed for neurogenic cough. The GABA agonist baclofen and the antidepressant amitriptyline have also been shown to be effective treatments.

In-office procedures

Finally, there are some in-office procedures that can offer relief of neurogenic cough symptoms. Laryngeal botulinum toxin (Botox) injections, injection augmentation of the vocal folds, and localized blockage of the superior laryngeal nerve have been shown to improve cough in some patients. Like respiratory retraining therapy and neuromodulators, it is thought that these treatments reduce cough by altering the sensory signals from the larynx. These procedures can be performed alone or as an adjunct to other therapies.

With the multiple management options now available, we can form a personalized treatment plan for each patient to finally quiet that pesky cough ■

Glottal Fry – The New Normal for Many Speakers

By Janis Deane, M.Ed., CCC-SLP
Faculty Associate, Otolaryngology

If you've ever heard someone speak whose voice sounded like something was frying in a frying pan, you have heard "glottal fry."

Glottal fry is a way of using the voice with decreased breath support, which prevents the vocal folds from vibrating the way they are supposed to. Instead, they open and close irregularly, staying closed most of the time.

Because a number of celebrities have adopted this way of speaking, it has become the norm for 20 and 30 somethings, particularly young women. A clear voice used to be the "gold standard" for broadcasters in television and radio, but even these professional voice users can be heard using glottal fry.

"Because a number of celebrities have adopted this way of speaking, it has become the norm for 20 and 30 somethings, particularly young women."

People who speak habitually using glottal fry are unable to project their voices and often strain to be heard, thus creating a secondary problem called muscle tension dysphonia. Voice therapists can teach proper breath support and techniques to get rid of excess tension. Both of these conditions can be treated with voice therapy ■

The "Green-Light" Laser Lowdown

By Lesley Childs, M.D.
Assistant Professor, Otolaryngology
Associate Medical Director,
Clinical Center for Voice Care

Lasers have played a major role in laryngologic care for decades.

The advent of the "green-light" laser, such as the pulsed potassium titanyl phosphate (KTP) laser, has allowed for awake procedures to address a myriad of diagnoses, including leukoplakia and glottic cancer, papillomatosis, Reinke's edema or polypoid corditis, and phonotraumatic lesions such as vocal process granulomas and hemorrhagic polyps.

The "green-light" laser is angiolytic, thereby targeting blood vessels and, more specifically, oxyhemoglobin, which affords greater precision and less thermal injury.

"Some patients require more than one laser treatment separated by six weeks in order to achieve the desired effect safely."

Some patients require more than one laser treatment separated by six weeks in order to achieve the desired effect safely. The majority tolerate the procedure in the awake setting with local anesthesia only, thus avoiding the need for general anesthesia.

No doubt, lasers such as the "green-light" variety will continue to represent one of the most useful tools in our practice, for decades and beyond ■

In-office pulsed KTP laser treatment for various vocal cord diseases is one of many therapies the UTSW Voice Care team offers.

UT Southwestern
Medical Center

The future of medicine, today.

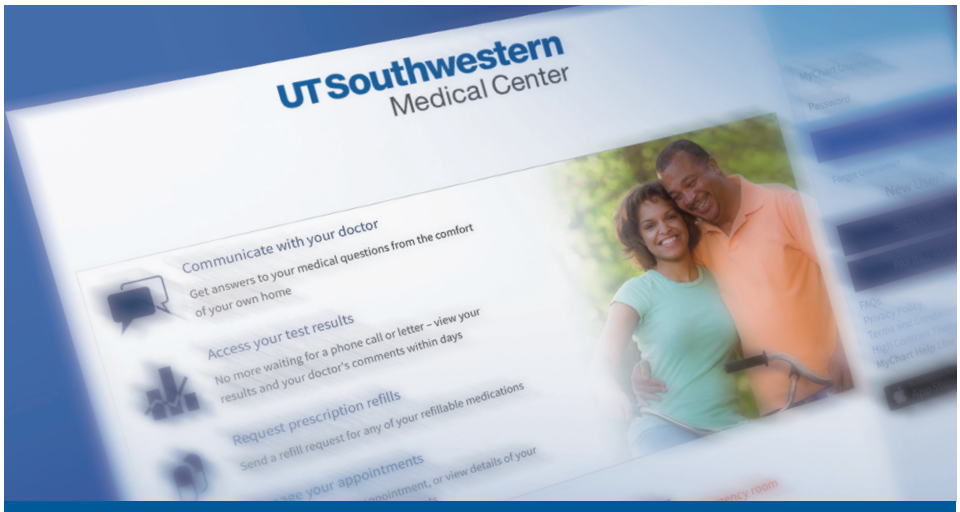
5303 Harry Hines Boulevard
Dallas, Texas 75390-9035

NON PROFIT
US POSTAGE
PAID
TWMS

The Clinical Center for Voice Care's Mission:

To advance and promote knowledge in the care of the voice and to provide the best treatment for our patients.

For more information about the Clinical Center for Voice Care, sign up for our electronic newsletter by sending your contact information to **voicecenter@utsouthwestern.edu**. Please also visit our website at **utswmed.org/voice**.



mychart.utsouthwestern.edu

All UT Southwestern patients have access to MyChart, a secure web-based system for sending direct electronic messages to any physician and his or her staff. This allows our voice patients to avoid having to use their voice on the phone.

Our Voice Center is located on the 7th floor of the James W. Aston Ambulatory Care Center and has valet parking as well as a self-park garage with shuttle service.

Our goal is to see patients in a timely manner. If we need to accommodate your patient sooner than the appointment time offered, please contact us directly ■

Referrals

p. 214-645-8300
f. 214-645-7999

UT Southwestern welcomes referrals from providers seeking optimal care for patients with voice, swallowing, and airway disorders.

You can also contact the Clinical Center for Voice Care directly to refer a patient to one of our five voice therapists at 214-645-8898 or 214-645-8894 (fax).