Lately some very high-profile performers have been trending in social media with announcements of tour cancellations due to vocal fold hemorrhage. The comments have been more exciting to watch than some of the performances. Facebook explodes with “This would never happened to a well-trained classical singer!” to “Clearly they don’t know proper vocal technique!” to “Glottal fry is to blame!” Our three authors for this newsletter dispel the myths circulating through the internet. 

Dr. David Francis, laryngologist from the Vanderbilt Voice Center, offers a summary of the anatomic changes that occur after a hemorrhage. Broadway music director, Mike Ruckles, shares his experience with caring for the injured singer who is in the midst of a demanding run. And, Speech-Language Pathologist from the Mayo Clinic, Diana Orbelo, offers a few of her treatment options for these special cases. We are rarely surprised when football players or other athletes are moved to the injured reserve list; in fact, we cheer and then pay them well to sit on the bench. However, the injured singer often is blamed and possibly black-listed after a vocal trauma. I am confident that the information in this newsletter will inform our work as clinicians, scientists, and teachers to help restore respect for our performers as we care for the whole person during this important recovery process.
VOCAL FOLD HEMORRHAGE:
CAUSES, DIAGNOSIS, COUNSELING AND CARE

BY DAVID O. FRANCIS, MD, MS

There has been increased awareness of vocal fold health and, in particular, vocal fold hemorrhage with several high-profile pop singers recently suffering this injury. The typical presenting complaint is that the performer was singing and “suddenly lost my voice;” however, some hemorrhages present more insidiously. Vocal fold hemorrhage is bleeding under the epithelium of the vocal fold into the superficial lamina propria (SLP). In most circumstances, these layers within the vocal fold are relatively avascular, but some people have increased vascularity or neovascularization for a variety of reasons. Bleeding occurs under the epithelium from a small blood vessel rupture. Blood in the SLP disrupts the vibratory parameters of the affected vocal fold resulting in usually severe dysphonia.

What Causes a Vocal Fold Hemorrhage?

Hemorrhages are phonotraumatic in etiology; that is, trauma from the vocal folds contacting each other with sufficient force causes a rupture in the blood vessel. Reasons for singers to hemorrhage are multifactorial; some relate to their signature style of singing, their mix of head and chest voice (technique), yelling, coughing, or sneezing. However, the increased incidence among singers and performers has occurred largely in the context of more grueling performance schedules. This increase in load may result in vocal fold edema and even the formation of lesions (e.g., nodules, polyps, cysts). Such conditions produce inadequate vocal fold closure (e.g., hourglass closure pattern) that must be overcome by straining in order to produce efficient voice. This increased intensity and asymmetric contact of the vocal folds during phonation can increase the bleeding risk. In particular, hemorrhagic vocal fold polyps often coincide with acute bleeding. These polyps contain ectatic blood vessels that, when traumatized, can result in recurrent bleeding. In fact, some argue that such polyps form as a result of recurrent hemorrhage. Altogether, vocal fold hemorrhages are caused by a combination of vocal overuse, type of singing, and the current health state of the vocal folds themselves.

Importance of Early Diagnosis

It is important that vocal fold hemorrhages are identified early, as there is some evidence to suggest that repeated hemorrhage can lead to persistent vibratory changes and polyp formation. Hemorrhage can be easily seen on videostroboscopy examination. Breaking this
news to a professional singer can cause a very emotional response. It is important to recognize that different personalities deal with this type of injury in different ways. In general, the primary treatment for a vocal fold hemorrhage is voice rest. On average, a discrete hemorrhage can completely resolve with 7 to 10 days of rest. Voice rest does not mean talking less; it means no talking (including whispering).

Consequences & Counseling

This diagnosis can be very difficult for an artist on tour and often requires canceling shows, phone calls to agents, and potentially letters to venues where they are contracted. Above all, it is important to protect the singer. There are a lot of pressures from their fans, their band/troop, their agent, and upcoming venues among others for them to perform. However, I counsel them that time off to care for this injury is an investment. They need to be at their best, and to do that they need to get their voice healthy. They have to be reminded of the big picture – their career. In the moment, missing one or two shows seems like a big deal, but it must be put into context. You need to help them see the forest through the trees. I do not counsel them how to discuss their injury, but do recommend some degree of discretion.

Follow-up Voice Care & Return to Performing

Some practitioners also recommend steroids, decongestant nasal sprays, and other remedies when a patient has a vocal fold hemorrhage; but, the data and rationale for the prescriptions are less clear and therefore I do not recommend any other acute treatments. After a week of voice rest, videostroboscopy is repeated to evaluate the status of the affected vocal fold(s). Hemorrhages resolve analogously to bruises: red, purple, yellow then back to the pearly white normalcy of the vocal fold. If the hemorrhage has completely resolved, I will review the factors that led to its occurrence. In particular, I press them on the overuse issue. It is pragmatic to delay full return to performing for at least a couple weeks following a hemorrhage. Importantly, once resolved I will have them work with our speaking and/or singing voice specialist Speech-Language Pathologists to investigate and address maladaptive behaviors and to reiterate healthy behaviors. I usually do not hold them back from performing beyond a short hiatus, but do warn that in some circumstances hemorrhage can recur. Only if they experience recurrent hemorrhages is operative intervention discussed.
One of the joys of my work is the opportunity to work with a variety of performing artists in a variety of settings: primarily, as a vocal technician, working closely with ENTs and SLPs as part of a rehab team; but also, currently, as a conductor of a Broadway musical. And while it often means that my schedule looks like a game of Jenga, this duality has afforded me an invaluable and intimate perspective on the lives of my clients, and the perfect storm in which vocal pathologies, like hemorrhage, may occur.

The demands on professional performers are extraordinary; not only vocal demands, but also the constraints upon their lives, their relationships, and their sense of self and emotional well-being. And while performers can and do suffer vocal hemorrhage due to inadequate technique, in my experience, the underlying cause is generally more complex and multifaceted than that. From ordinary experiences like excessive stress, throat clearing, coughing, weightlifting, childbirth, or hormonal changes, to more atypical causalities like bulimia or circulatory system anomalies, vascular changes to the folds can originate under a multitude of conditions. Notably, Patti LuPone shared in her memoirs that she suffered a vocal hemorrhage while hiking!

Acknowledging and sharing this information within the industry and the general public will allow the stigmatization of hemorrhage, and other pathologies, to diminish. And the stigma is very real. I was recently in a casting session in which a wonderfully talented actress was being considered for a principal role. The team was mostly in favor of her until someone shared that, years ago, “she had to be replaced in a role due to a vocal hemorrhage.” The unspoken assumption in the room was that technique was to blame. These sorts of casting discussions occur with frequency, and help to explain why actors and singers are terrified to be labeled “unreliable” or “injured.” Even a small and quickly resolving hemorrhage could do great damage to a career if it became common knowledge.

When technical deficiencies are to blame, they often stem from the overwhelming expectations of a particular role or, for a recording artist, living up to the fans’ expectations from their album. Take the infamous role of Elphaba in the megahit “Wicked”: an actress sought rehabilitation because she had suffered a hemorrhage due, in part, to pressed phonation and hy-

(Continued on page 5)
perfunction. As we revisited Elphaba’s songs, we uncovered that her subtext onstage had become “to belt” or “to impress” rather than “to call” or “to celebrate/rage/keen”. The expectations of an audience and producers who knew every word, every recording, every YouTube clip etc. had overwhelmed her ability to tell a story with fidelity.

In terms of prevention, I urge all clients to have a baseline stroboscopy and repeat scopings prior to lengthy runs or major performances. Here, the ENT may be able to catch ectasias and varices before they hemorrhage. If a hemorrhage should occur, establishing a collaborative voice care team is key to provide guidance and prevention of potential recurrences.

For performing artists, the voice is so much a part of who they are and what they do. Consequently, pathologies like hemorrhage can be exceptionally traumatic and emotional. During rehabilitation, I encourage clients to take a close look at their self-talk in these circumstances. As they think about their condition or circumstance, are they compassionate or are they judgmental in their point of view? For the recovery process, both vocal and psychological, it is imperative that they not view themselves as “damaged goods”, but embrace the experience as a catalyst for growth.
Voices of the Speech-Language Pathologist

VO CAL FOLD HEM ORRHAGE: NOT THE TIME TO “PUSH THROUGH”

BY DIANA ORBELO, PhD, CCC-SLP

Words no singer wants to hear, “You have a vocal fold hemorrhage (VFH).” However, one has only to read the news to find stars such as Meghan Trainor, Sam Smith, Adele, and Donny Osmond have heard these words.

VFH is caused by trauma. For example phonotraumatic behaviors such as screaming, yelling, emotional crying and singing or other behaviors such as coughing, vomiting and in rare cases heavy lifting can cause VFH. Depending on the severity of VFH and time since injury, some singers experience complete voice loss while others find their voices unpredictable, unstable and unusable for performing. In the event of VFH, it is crucial to establish a correct diagnosis and develop a treatment plan. Diagnosis and treatment are best done with the help of an expert team that includes a laryngologist, speech pathologist, and in some cases a singing teacher.

Immediately following VFH, a period of complete voice rest is needed to optimize healing. This means zero talking, typically for about a week. Voice rest can be isolating, so alternate forms of communication such as writing, texting, and emailing must be used. Though challenging, I recommend that the patient use this time to practice mindfulness techniques such as forgiveness, compassion, and gratitude to cope. In addition, I help the patient with the difficult choices that must be made regarding performance cancellations and the communication with producers, directors, or fellow band members. Consideration on a case-by-case basis works best. Performers typically work tirelessly to succeed, but this is not the time to “push through” no matter what the internal and external pressures.

In many cases, VFH will resolve fully without surgical intervention or long-term consequences. This is especially true when VFH occurs as an isolated incident. However, sometimes surgery is required. Voice therapy can help with acute and ongoing voice care needs and also can identify and address any vocal technique issues that may predate injury or have been inadvertently incorporated to compensate for repeated injury. For this reason, a baseline assessment of vocal folds with videostroscopy when the patient is healthy can provide a record of what is normal. A copy of this video is helpful to singers on the road who need to seek a health provider in an emergency.

Performing with maximum vocal efficiency and freedom can go a long way to reduce

(Continued on page 7)
risk of VFH. A favorite “go to” vocal activity that I use as warm-up, cool-down, or a “get out of vocal tension right now” exercise is gargling. Gargling, or in this case “gargle singing,” is a fantastic “quick fix” exercise and, though I’m not sure voice scientists would agree, I think of it as an ultimate semi-occluded vocal tract activity. Gargling for the purposes of reducing tension, typically false fold compression, should be done with plain room temperature water. You can take a little bit of water or a more substantial mouthful (try both), tip the head back just enough to keep from drooling, then gargle and make sound. Think, while gargling, about letting the water relax. It may even seem that as you relax the water goes lower toward your larynx. This is good.

The key is to keep making sound and use lots of air to avoid letting water “down the wrong way.” I usually start with straight tones, move to pitch glides and then songs. This can even be useful to identify subtle tension in difficult song phrases. A few cautions, don’t try to articulate words when doing this, it won’t work and may result in water spraying everywhere. Let lips be more rounded than spread and swallow at any point rather than choking on the water. Also, this is not appropriate for individuals with vocal fold paralysis or severe paresis. In the clinic or studio, I always ask clients if they often choke when drinking thin liquids. If they say yes, I start with something else.

Of course, quick fixes can only do so much. Artists must learn what their body needs to maintain peak performance. A vocal athlete may need to avoid talking over noise during set breaks or after parties, get 7 – 9 hours sleep each night, and address speaking voice issues that tire the voice for singing. With the help of their voice care team, each performer must identify the most efficient and successful voice care strategies. Thankfully stars are speaking out about vocal injury and helping the industry learn that vocal athletes need care and prevention. The knowledge that a performing career is a marathon not a sprint can be enlightening for the recovering performer.
THE VOICE FOUNDATION
45th Annual Symposium: Care of the Professional Voice

CALL FOR PAPERS...
POSTERS...WORKSHOPS

June 1-5, 2016
Philadelphia, Pennsylvania

PAPERS AND POSTERS
Deadline: October 31, 2015

Abstracts must represent original work that has not been published elsewhere. Completed manuscripts must be submitted by the day of presentation at the Symposium and must be submitted for consideration for publication in Journal of Voice, unless prior arrangements have been made. There will also be a New Investigators Research Forum for works in progress.

voicefoundation.org
office@voicefoundation.org
(215) 735-7999

WORKSHOP PROPOSALS
Deadline: October 15, 2015

Voice professionals are invited to submit a proposal for a workshop to be considered for presentation at the Voice Foundation’s 2016 Symposium. As you prepare your submission, please keep in mind that the focus of the workshop should be on the “live” demonstration of your techniques. Audience participation is desirable. This is not a lecture format. The workshop duration is 55 minutes, and we request that you plan for the majority of the session to be spent in hands-on interaction with the participants. Be advised that workshops should be designed to be presented without the use of audiovisual aids such as overhead projectors, slide projectors, or videotapes.

Call for Papers—regulations
Format your Abstract
Abstract Submission
Draft Schedule

Wednesday, June 1
Basic Science Tutorials
Accent Reduction Coaching

Thursday, June 2
Science Sessions
Quintana Awardee: Ronald Baken PhD
Keynote Speech: Joseph Zabner, PhD
Panels
Poster Session—Reception

Friday, June 3
Special Session:
Medical Sessions
Young Laryngologists Study Group
Vocal Workshops
Voices of Summer Gala

Saturday, June 4
Medical Sessions
Speech-Language Sessions
Interdisciplinary Panels
G. Paul Moore Lecture - Mara Behlau, PhD, CCC-SLP
Vocal Master Class

Sunday, June 5
Medical Sessions
Interdisciplinary Panels
Voice Pedagogy Sessions

CONGRATULATIONS
R.J. Baken and Mara Behlau

Ron Baken, PhD

Mara Behlau, PhD, CCC-SLP
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Shaheen Awan, PhD, accepting a JOV Best Paper Award from Robert T. Sataloff, MD, DMA, FACS
**SCHEDULE OF EVENTS**

- **February 15, 2016**—Submission Deadline for the Hamdan International Presenter Award
- **March 1, 2016**—Proposal Submission Deadline for New Investigator’s Forum
- **April 16, 2015**—World Voice Day
- **April 24, 2016** Symposium Registration Deadline for Early Bird Discount
- **May 1, 2015** Deadline to reserve room at the Westin Hotel at Symposium Prices.
- **June 1—June 5, 2016** 45th Annual Symposium: Care of the Professional Voice
- **June 3, 2016**—Voices of Summer Gala

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**MAY 2016**

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- **The Westin Hotel Group Rate**—available until May 1st.

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- **Syposium**
- **Gala**

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**All Disclosure Forms** due by April 1st.