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Society of Physician Assistants in Otorhinolaryngology-Head & Neck Surgery

THE VANGUARD

President's Message

By Reagan Davis, MPAS, PA-C

Dear Colleagues,

As we welcome a New Year, I hope you feel the same sense of renewed possibility that January always brings. A new year naturally invites fresh goals — some personal, some professional —and I encourage you to lean into both. Perhaps 2026 will be the year you commit to mastering ear tube placement, refining your technique with thyroid FNA biopsies, or strengthening another essential skill in your ENT practice.

Whatever goals you set, I wish you every success as you move confidently toward them.

You should have recently received an email regarding our annual workforce survey. It is an important initiative that provides our membership with detailed insights into what ENT APPs are experiencing in their daily practice environments. This resource has consistently proven valuable for those considering workplace changes, preparing for renegotiations, or simply wanting a clearer picture of the current landscape of ENT APP practice.

Your participation is essential. Please take a few moments to complete the survey and contribute to our collective understanding. After all, knowledge is power.

For those looking to grow, connect, and be inspired, I warmly invite you to join us in Galveston, Texas, from March 17–22 for our annual ENT for the PA-C CME Conference. This event remains one of the best opportunities for advanced practice providers to learn alongside peers, build meaningful professional relationships, and deepen their expertise in a supportive and energizing environment.

My faculty and I are truly excited to welcome you to the island and share high-quality, practical education across a broad spectrum of ENT topics.

As we embark on 2026 together, I hope you find moments of joy in your work, pride in your progress, and community in the colleagues who walk this path with you. Thank you for all you do to elevate patient care and advance our profession.

Wishing you a bright, productive, and fulfilling 2026.

Warm regards,
Reagan Davis, MPAS, PA-C
President, SPAO-HNS

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THE VANGUARD

8100 Three Chopt Road,
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Sialoendoscopy: A Minimally Invasive Procedure for Patients with Salivary Disease

By Daniel Tierney, DHSc, PA-C
SPAO Member

Obstructive salivary gland disease- including sialolithiasis, ductal stenosis, and chronic sialadenitis- is a frequent cause of recurrent unilateral facial swelling. Originally introduced in 1990, sialoendoscopy has transformed management by allowing for minimally invasive, gland-preserving therapy.1 Today, it is considered first-line for many obstructive conditions, replacing gland excision.2

What is Sialoendoscopy?

Sialoendoscopy uses ultra-miniature endoscopes to directly visualize and treat the ductal systems of the parotid and submandibular glands. The technique allows for management of:

- Sialolithiasis
- Ductal stenosis
- Strictures
- Chronic sialadenitis
- Juvenile recurrent parotitis

A comprehensive 2018 review highlights its effectiveness across the full spectrum of obstructive salivary disorders.3

Indications and Workup

Typical presentation of obstructive salivary gland disease includes meal-related swelling, recurrent gland pain, and diminished salivary flow.

Initial workup should include:

- Clinical examination with palpation of glands and outflow tracts
- Ultrasound (initial)
- Computed tomography without contrast (preferred imaging if stones are suspected)
- Computed tomography with contrast (preferred imaging if infection is suspected)
- Magnetic resonance imaging (best if a mass is suspected)

Patients should be managed with conservative measures, including massaging the area, analgesia, sialagogues, warm compresses, and hydration. In patients with concern for infection, antibiotics that cover oral flora should be started (Augmentin, Clindamycin). In patients with severe pain or swelling, an oral steroid taper like a methylprednisolone pack may be considered. Anti-cholinergic medications that can decrease saliva production should be held as well.4

Patients with persistent symptoms, non-palpable stones, or recurrent infections often benefit from sialoendoscopy.

What Happens During the Procedure?

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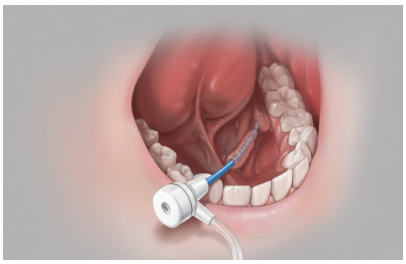
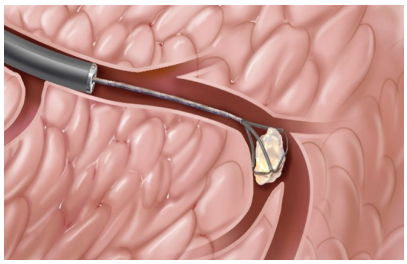
After serial dilation of the duct, the surgeon advances the endoscope through the ductal system. Interventions may include:

- Stone extraction with baskets or forceps
- Laser lithotripsy
- Balloon dilation for ductal stenosis
- Saline irrigation or steroid instillation
- Placement of a ductal stent to prevent restenosis





Post-operative Care

Most post-operative symptoms are mild:

- Low-grade swelling or tenderness
- Thick secretions for a few days
- Sialadenitis flare
- Transient lingual nerve paresthesia (rare)

Management should include hydration, pain management with NSAIDs, warm compresses, massage, and sialagogues. Antibiotics may be utilized depending on intraoperative findings. In some cases where swelling may be expected, steroids may be prescribed as well.

Contemporary case series report high rates of symptom improvement with minimal morbidity, making postoperative management straightforward in most patients.5

Conclusion

Sialoendoscopy represents a major shift toward minimally invasive, gland-preserving management of obstructive salivary gland disease. With high success rates, low complication rates, and excellent patient outcomes, it is an essential tool in modern otolaryngology. Providers must know about this option and should be able to evaluate candidates, support perioperative care, and educate patients on its utility.

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Dynamic Duos: Mentorship and the Growing Power of APPs in Otolaryngology

By Emily Moldoff, FNP-C, Division of Otolaryngology-Head and Neck Surgery
Brigham and Women's Hospital, Harvard Medical School, Boston, MA
Guest Contributor

As otolaryngology evolves to meet increasing patient demand, one key innovation is reshaping the landscape: the integration and mentorship of Advanced Practice Providers (APPs). At the recent Fall Meeting of the American Rhinologic Society (ARS) leaders from top academic institutions shared insights into what's working — and where the field is headed.

A Workforce Revolution

Today, over 3,000 APPs serve in otolaryngology across the United States. That is roughly one-third of the total otolaryngologist workforce. Their presence is no longer supplemental; it's essential. Practices hire APPs for varied reasons, but one stands out: expanding access to care.

"Physicians appreciate that APPs can spend more time with patients," noted panelist Dr. Adam DeConde of UC San Diego Health. That relationship-building not only improves satisfaction but helps our clinics run more smoothly." APPs are also easing the load by performing in-office procedures, managing independent patient panels and, in some cases, seeing 15 to 22 patients per day.

Shifting Clinic Models

The days of "shadowing" models and even "joint clinic" models are slowly fading. Academic institutions increasingly rely on APPs who practice independently, often sharing clinic space — but not necessarily patient loads — with physicians. Shared office environments, rather than shared visits, are proving most conducive to collaboration.
At Oregon Health & Science University (OHSU), Dr. Tim Smith and PA-C Lindsey Wyant have seen the benefits firsthand. "Having clinics aligned on the same day encourages hallway consults and informal teaching," Wyant explained. "You don't need to be in the same room to learn from each other."

Training for Competence and Confidence

Unlike physician residency programs, standardized APP training in otolaryngology remains elusive. Some large departments have established structured onboarding programs or even specialty fellowships, but most new APPs learn through mentorship and experience.

"The time until an APP reaches competence in this specialty is generally about six to twelve months," said Christine Reger, DNP, of Penn Medicine. "Developing consistent curricula could help shorten that curve and set expectations early."

At many institutions, APPs participate in resident training courses, attend grand rounds, and are paired with supervising physicians for the initial months of joint clinics. These 24-week ramp-up periods can even be revenue-positive. While the APP focuses on history and examination, the MD can efficiently manage a larger caseload.

Leadership and the Role of the Lead APP

As APP teams grow, so does the need for coordination. In some departments with more than six APPs, a designated "Lead

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APP" is established — responsible for education, operations, or clinical oversight. The goal isn't micromanagement but representation.

"These roles give APPs a voice at the administrative table," said Regger. "They ensure that operational decisions account for both provider perspectives."

Still, many leads dedicate up to 10% of their time to administrative duties without additional compensation — a reminder that recognition of leadership work is still catching up to its impact.

The Economics of Collaboration

Compensation models vary — from fixed salaries and hourly pay to RVU-based incentives or team-based bonuses. Whatever the model, success depends on one constant: trust.

The most effective systems are built around clear expectations, mutual respect, and aligned goals. When APPs are empowered to work at the top of their license, physicians gain bandwidth for complex cases, and patients benefit from increased access and continuity.

"It comes down to shared values and communication," said DeConde. "If you have that foundation, everything else — training, workflow, compensation — falls into place."

Looking Ahead

The message from this panel was clear: mentorship is not an optional courtesy; it's the engine of sustainability. Whether through structured fellowships or informal peer guidance, intentional mentorship accelerates learning, fosters retention, and strengthens interdisciplinary care.

Otolaryngology, perhaps more than any other specialty, thrives on teamwork — and as this dynamic duo model proves, the best care often happens when APPs and MDs work side by side, each at the top of their game.

Become a RAPPer

This year, the **Rhinology Advanced Practice Providers (RAPPers)** initiative within the ARS hopes to grow and establish a formal section. This is a space for physician assistants and nurse practitioners practicing within otolaryngology to come together to learn and grow from each other. If you would like to learn more about this initiative, please email arsrappers@gmail.com or join us on Instagram at @rappers_rhinologic.

Please take this brief survey for Advanced Practice Provider Leaders in Head and Neck Surgery regarding a collaboration opportunity with colleagues:

CLICK HERE

Answer The Call

By Michelle Dellene MMS, PA-C, RYT

AASPA President, Guest Contributor

It's 3:02 a.m., and the emergency department calls about a 74-year-old gentleman with a hemorrhagic stroke. With crystal clarity we shift our attention from sleeping soundly to activating our PA power mode. Eyes open, beta brain waves dance across our cerebral cortex. We love this. The opportunity to serve our community with our toolbox full of life-saving skills is an absolute honor. Perhaps it's this perspective that keeps us alive while putting our own health on the back burner.

Many of us pursue a career practicing medicine to answer the call of helping others. More often than not, we consistently choose to put our lives on hold as we dedicate our time to the overwhelmingly high volume of patients cycling in and out of the hospital. In the beginning of our career this feels exciting.

Accepting the responsibility of caring for our patients, developing meaningful connections within our healthcare ecosystem as we better understand who we can trust to coordinate high-quality care efficiently. As we witness our medical intellect and surgical skills evolve, we experience happiness, confidence, sense of belonging and growth.

But what happens to most of us 5, 10, 20 years down the line? A health crisis. A need to be there for our family. A change of career path. A choice we are called to make.

Where do we go from here? Do we choose to continue what we have been doing while we expect a different result? For over one-third of practicing PAs, burnout invites us to inquire how we may heal ourselves to continue to serve our patient population.

An idea that sparks interest in the pursuit of identifying the root of PA burnout is we undoubtedly devote our professional career to healing others consciously as our subconscious yearns for us to heal ourselves.

How interesting. A profound epiphany is the fact that, as we heal, we can show up fully, authentically and with a greater capacity to heal others. Enhancing the power of medicine.

Even if we think we are already healed. Think again that this idea does not apply to our current life experience. All of us have psychological wounds just waiting to be healed. In fact, each patient we come into contact with mirrors a projection of our subconscious back to us. Allowing us to see ourselves fully if we choose to.

One of the simple practices we can incorporate daily is meditation. Known as the act of "becoming more familiar with" meditation allows us to resonate deeply with our authentic nature.

As we elect to sit still in silence, focus our attention on the activity of the mind and recite a mantra to bring our awareness inward to the deeper, dark and peaceful place known as the unified field, we balance our endocrine system, calm our nervous system, better regulate our cardiovascular function and enhance our immunity.

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Try this. Download the Insight Timer app and set a timer for 20 minutes with a 30-second warm-up and 2-minute cool down. Take the first 30 seconds to get comfortable, seated in a chair or on a meditation cushion. If your back is uncomfortable while sitting, this is your invitation to practice more yoga, Pilates or other core conditioning of your choice.

When the first bell chimes notice the activity of the mind. In yoga, we refer to our thoughts as the monkey mind. We are not our thoughts; however, we are the conscious awareness witnessing our thoughts.

Recite "hum sa" in a gentle, slow and soft manner to invite your attention deeper within. Notice the shift from the hyperactivity of our active monkey mind like the loud and fast crashing of ocean waves on the surface of the ocean. As you continue to recite this mantra, go deeper within anchoring your awareness into a place of stillness, absolutely quiet, serene darkness. Analogous to the depth of the ocean.

Naturally, our awareness bubbles up to the surface of our monkey mind, thoughts crashing into each other like ocean waves on the surface. Then recite the mantra again, pulling your awareness deeper into the quiet, dark and serene stillness.

Every time you practice this type of meditation, known as automatic self-transcendence, you get better at it. Just like any skill, the more hours you spend practicing the skill the easier it becomes. This is the law of neuroplasticity.

So, the question is, will we answer the call? Not only the late-night emergency call but the inner call to better understand ourselves, to love and accept ourselves fully and heal so we can continue to show up as the best APPs we can be.

No matter what, never give up on your healing.

FUTURE CONTRIBUTORS SOUGHT FOR CME-ELIGIBLE ARTICLES

The Vanguard seeks academic writers to submit longer articles for an upcoming edition eligible for CME credit.

To qualify for CME credit,
writers should aim for articles of at least 3,000 words, have three or more learning objectives, and provide at least eight evaluation questions.

If you're interested
in contributing and writing an article that could be eligible for CME or a shorter article that would not be CME eligible, please contact Monika Kamdar at monikakamdar12@gmail.com.

"If you want to go fast, go alone; if you want to go far, go together." - African Proverb

Reflections on SPAO-HNS Past, Present and Future

SPAO-HNS will celebrate its 35th anniversary at ENT for the PA-C in March 2026 in Galveston, Texas, and we look forward to seeing you there!

As we begin anew in 2026, it is the perfect time to reflect on the history of our organization and visions for the future through the perspectives of a few of the SPAO-HNS Past Presidents.

Marie Gilbert, PA-C Emeritus

In the late 1980s a small group of PAs who were working in Otolaryngology throughout the country met, as the story goes, at the annual meetings of the American Academy of Otolaryngology - Head & Neck Surgery Foundation (AAO-HNSF). At the time, it was believed there were only a dozen or two of us throughout the country, and efforts were made to contact as many as they could to form a collegial group. They completed all required tasks to be accepted and designated a specialty chapter of AAPA in 1991.

In 1992, I happened to meet one of those founders, Ron Fox, at a recertification course. He told me about the fledgling SPAO group, and I joined, so happy to know there were a few others out there in the world like me, in ENT. I loved getting the SPAO newsletters in the mail and pressed my doc to take me to the AAO Annual so I could meet the others in SPAO.

Back then our meeting consisted of a luncheon and an hour or two of CME lectures provided by one of the PAs, often the legendary Carroll Poppen from Mayo.

Fast forward a few years, when financial sponsorship for PAs to go to their docs' meeting waned, as did SPAO membership. We did a membership drive, calling ENT PAs we found through AAPA to ask them what they needed from SPAO. The answers were consistent: ENT-specific CME, which was the only way they could get funded by their employers. Folks were also having a hard time getting to the AAO-HNS meetings as they had to "stay home and mind the store" while their docs attended.

In light of that information, we few remaining SPAO Board members worked to make our meetings accessible in the evening or on the weekend of AAO Annual, as well as presenting ENT-specific sessions during AAPA Annual. We were approached by AAPA to do an ENT "Boot Camp" similar to the successful orthopedic boot camps AAPA also offered. We also worked with AAPA and AAO-HNSF to collaborate towards the goal of successful PA careers in ENT.

After a sharp learning curve and several iterations of our CME efforts, we grew into our own self-run, multiday conference you know now as "ENT for the PA-C." Our newsletter has matured and blossomed well beyond its original format. Our membership has grown and remains loyal and appreciative of all SPAO's hard work to provide CME, collegiality, and training in our specialty.
I am so grateful to all those who stepped forward to carry the torch of my passion for this lifelong project. I am so proud of all that is being accomplished by our "little specialty" that represents only about 1% of all PAs, but such a mighty 1%!

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Kristi Gidley, PA-C

I can't remember exactly how I first learned about SPAO, but I do remember attending my very first ENT for the PA-C meeting in Atlanta around 2012, when I had only been practicing in ENT for about two years. It was such a wonderful experience. And honestly, who doesn't love being scoped by people with little to no experience? It's a rite of passage — and a bonding experience — unique to the ENT for the PA-C meeting.

At that meeting, I met inspiring leaders in our field, including Marie Gilbert and Jeff Fichera. Shortly afterward, I attended my first AAO annual meeting, where SPAO hosted a social event for APPs. It was there that Marie took me under her wing and sparked a deeper passion not only for Otolaryngology, but for advancing the role of APPs within the specialty.

Shortly after, I was elected Director at Large, and Marie prepared me to succeed her as AAPA Liaison to AAO. That role gave me the opportunity to network with our physician colleagues and advocate for APPs on a larger scale. Those relationships proved invaluable and helped lay the groundwork for stronger engagement and collaboration across the specialty.

I was truly honored to serve as President of this incredible organization, and I remain so proud of the tremendous growth, energy, and engagement we've seen in our membership. The future is bright!

Howard Ritz, PA-C

Serving as President of our Society has been a deeply meaningful professional experience. I am most proud of the collective growth we achieved as individuals, as a board, and as an organization.

I am especially proud of our board's personal and professional development. We fostered a culture of leadership, open dialogue, and shared accountability. Board members took ownership of projects aligned with their strengths and grew into confident, effective leaders. Seeing colleagues develop in their roles has been rewarding and is essential to SPAO's ongoing success.

Our organization has also advanced by strengthening engagement, expanding participation, and building a foundation for long-term sustainability. This progress reflects our collaboration and shared commitment to the profession.

Adopting a formal strategic planning process was our most significant decision. This step aligns our mission and resources with a shared vision, helps us anticipate challenges, and enhances service to our members. The board will now focus on communication, partnerships, and innovation to remain responsive and forward-looking.

I am grateful for the trust, collaboration, and engagement of our board and members. Our progress is a shared achievement. I am confident the foundation we have built will support continued growth and strong leadership. As I step into new roles, I look forward to seeing the board continue to innovate and inspire, and to watching the Society reach new heights through the dedication of its members.

Early Glottic Cancer: A Clinical Review

By Monika Kamdar, PA-C, MPH
Newsletter Committee Chair

Laryngeal cancers are one of the most common head and neck cancers, comprising approximately one-third, however overall are rare making up approximately 1% off all type malignancies. 1 Laryngeal cancer can originate from the supraglottis, glottis, subglottis and each subdivision of the larynx has its own cancer staging system. The male to female ratio is approximately 4-5:1 and more often diagnosed in older adults > 60 years old.

Supraglottis includes epiglottis, aryepiglottic folds, arytenoids, false vocal folds; Glottis true vocal folds, laryngeal ventricles, Subglottis extends from the lower border of glottis to inferior margin of cricoid cartilage.

Tobacco smoking is the primary risk factor, accounting for approximately 70% or more of all cases diagnosed and heavy alcohol use is also a significant risk factor. There is emerging literature that daily marijuana smoking may also increase risk for developing head and neck cancers2, including laryngeal cancers and therefore may lead to diagnosis at a younger age. It is so far inconclusive whether vaping increases the risk to develop laryngeal cancer as most studies are needed to determine if there is a clear association. Of note, on average one standard vape cartridge 2 ml is equivalent to the amount of nicotine found in one to two packs of cigarettes. It is integral to have discussions about tobacco cessation and about resources for smoking and vaping cessation with our patients and to be knowledgeable about resources available nationally and in your community.

Most common presenting symptom for glottic cancer is persistent hoarseness (greater than 3-4 weeks warrants referral to ENT), other symptoms can occur later including referred otalgia, dysphagia, chronic cough, stridor, odynophagia. Supraglottic cancer may present with odynophagia, palpable metastatic lymphadenopathy. Primary subglottic cancers are very rare overall.

Most laryngeal cancers start in the glottis accounting for approximately 60+ % of cases and glottic and supraglottic cancers account for approximately 98% of cases.

Squamous cell carcinoma (SCC) comprises most laryngeal cancers, approximately 90% of cases and lesions can be exophytic and endophytic and overall are slow growing.

Figures 1,2,3 are examples of Invasive SCC of TVF

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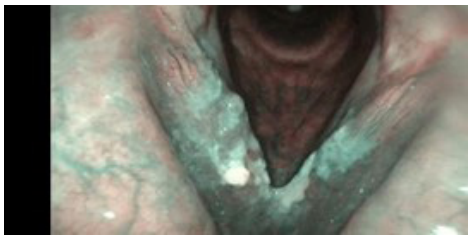

Figure 4 Example of CIS

Lymphomas also can be found in the larynx, other rare tumors can include adenocarcinomas, chondrosarcomas, and malignant melanoma. Spindle cell carcinoma is a very rare aggressive variant of SCC that can occur after being treated with radiation therapy for primary laryngeal cancer. Verrucous carcinoma is a subtype of well differentiated SCC and is very rare overall. This warty exophytic lesion closely resembles laryngeal papilloma, making differentiation difficult on nasolaryngoscopy.

Majority of glottic cancers arise from the free margin of the anterior portion of the vocal folds. The anterior 2/3 of the vocal folds are membranous including epithelium and vocalis muscle and posterior 1/3 cartilaginous. The glottis has a scarce lymphatic supply, draining into the prelaryngeal nodes, paratracheal nodes, and the deep cervical nodes along the inferior thyroid artery. Vocal fold fixation can occur secondary to tumor bulk, involvement of intrinsic muscles and ligaments, recurrent laryngeal nerve. 3

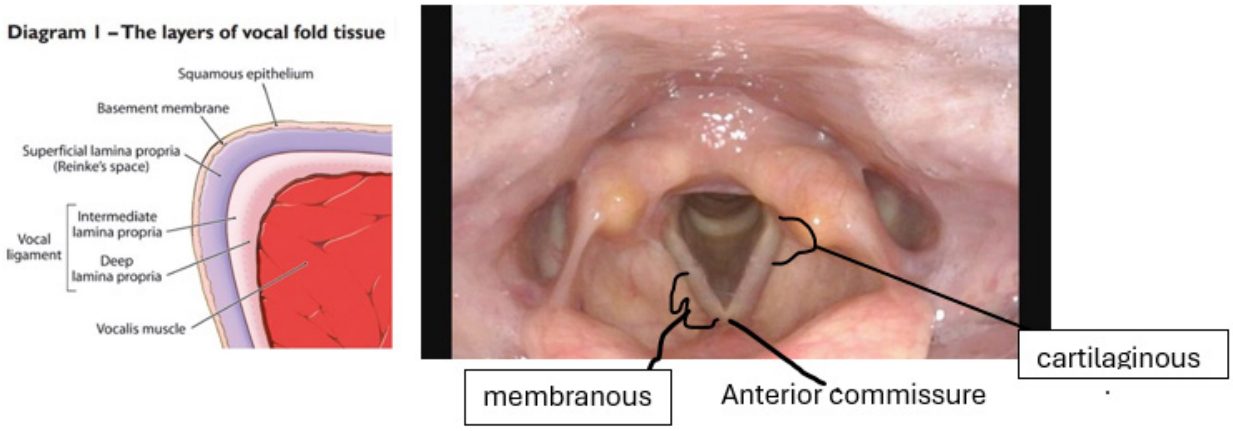

Figure 5

Evaluation involves nasolaryngoscopy with videostroboscopy if available to evaluate for reduced or absent mucosal wave of vocal fold. Obtaining a biopsy in the office or OR. CT neck and chest with contrast to evaluate for possible nodal metastasis. Most common sites for metastasis involve cervical lymph nodes regionally and lungs, followed by liver and bone for distant sites.

Early glottic cancers are defined as TiS, T1 and T2a without nodal metastasis.

The TMN8 Tumor staging system 1

Tis carcinoma in situ

T1 tumor limited to one or both vocal folds with normal vocal fold mobility

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T1a tumor limited to one vocal fold

T1b tumor involves both vocal folds

T2: tumor extends to supraglottis and/or subglottis with normal vocal fold mobility and/or reduced mobility

T3: tumor limited to larynx with vocal fold fixation or invasion of the paraglottic space or inner cortex of the thyroid cartilage

T4a: tumor invades through the outer cortex of the thyroid cartilage and/or invades tissues beyond the larynx (trachea, cricoid cartilage, tongue muscles, strap muscles, thyroid, or esophagus.

T4b: tumor invades prevertebral space, encases carotid artery, or invades mediastinal structures

Treatment modalities for early glottic cancer are surgical resection or radiation therapy. Overall better voice outcomes are seen with radiation therapy. The patients' vocal demands and occupational history should be taken into consideration to determine best treatment modality. Both treatment options have a high 5-year cure rate of 80-95+% for early glottic cancers. External beam radiation therapy (EBRT) including 3D conformal radiation therapy (CRT), Stereotactic Body Radiation Therapy (SBRT) and Intensity Modulated Radiation Therapy (IMRT) may be utilized pending institution and radiation oncologist preferences and protocols. Patients are administered RT on average 5 days a week for 5-7 weeks. Most common adverse effects from RT short term effects can include fatigue, skin irritation and erythema, throat pain, dysgeusia, dysphonia, dysphagia, changes in secretions and long-term changes can include dysphonia, lymphedema, xerostomia, hypothyroidism, rare pharyngeal or esophageal stenosis, osteoradionecrosis.

For most cases radiation therapy is only administered once and therefore in some cases reserved for initial treatment to be able to utilize it if there is recurrence of cancer down the road.

Surgical management for initial treatment can include endoscopic resection, endoscopic hemilaryngectomy with C02 laser. A CO2 laser is invisible infrared light (10,600 nm wavelength) and is highly absorbed by water and therefore can ablate or vaporize tumors, the laser has limited penetration 0.05 mm allowing for precision. The patient overall has varying degrees of impaired voice quality postoperatively while the vocal fold fills in and the voice is softer, strained and hoarse which can last a few months. There can also be an increased risk for aspiration postoperatively, especially with thin liquids. Surgical resection is usually formed as a two staged surgery when the cancer involves both vocal folds. Scarring, glottic web formation are additional complications that can occur from surgical management as well as incomplete treatment of cancer.

Salvage surgery is performed if there is a recurrence of cancer and can include partial and total laryngectomies. In partial laryngectomy the larynx does not fill back in and therefore has substantial impact on voice quality. Patients who require total laryngectomy voicing can be performed with use of an electrolarynx or TEP (tracheoesophageal puncture) and patients greatly benefit from working with SLP team.

(Normal mucosal wave and absent mucosal wave on Videostroboscopy)

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Oropharyngeal Squamous Cell Carcinoma and HPV: A Clinical Review

By Marta Khan, PA-C
SPAO Member

The oropharynx encompasses an area between the soft palate superiorly and the hyoid bone or tip of the epiglottis inferiorly. The anterior border of oropharynx contains circumvallate papillae, anterior tonsillar pillars, and border of hard and soft palate. The posterior border is the posterior pharyngeal wall. Lateral borders contain tonsillar fossae and pillars.

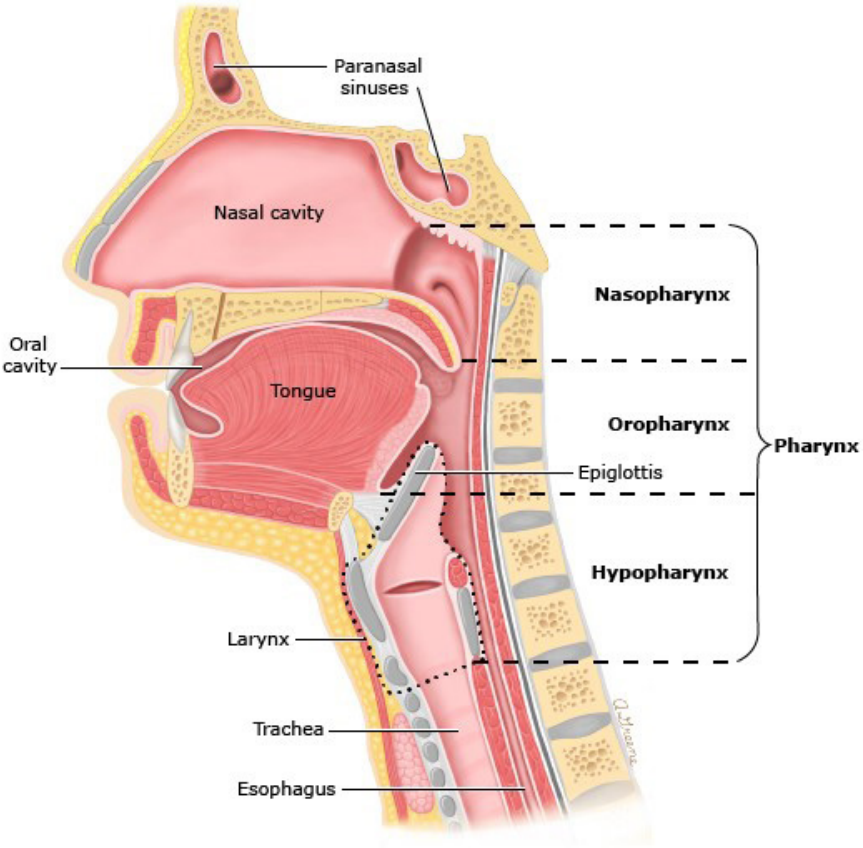

Figure 1

Etiology/Epidemiology

In the late 1980s, there was a decrease in oral, laryngeal and hypopharyngeal cancers, and this decline has been associated with a decrease in smoking. However, oropharyngeal cancer has been on the rise. These malignancies have been attributed to human papillomavirus (HPV), which is one of the most common sexually transmitted viruses. Multiple studies suggest that HPV accounts for 70% to 80% of cases in North America and Europe.1

Biology of HPV

There are over 200 different types of HPV, and most of them are harmless. HPV 16 is primarily associated with oropharyngeal cancer. Additional high-risk HPV genotypes, such as HPV 18, 31, and 33 may also be responsible but are less common. Rarely, these high-risk HPVs may cause other head and neck cancers. HPV are deoxyribonucleic acid (DNA) viruses that contain a circular DNA genome.

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The genome itself contains early and late genes that encode early (E1-E7) and late (L1-L2) proteins. The HPV E6 and E7 oncogenes are the ones responsible for the malignant process in head, neck and anogenital cancers. 1 Because HPV associated tumors and non HPV associated cancers cause different gene expressions, they are considered to be distinct entities.1

Oral HPV infection and oropharyngeal cancer

Most HPV associated infections resolve within 12 months. However, if high-risk HPV type infections are persistent, they may increase the risk of developing precancerous or cancerous lesions.4 It probably takes more than 10 years from the time of HPV exposure to the development of oropharyngeal cancer.1 Majority of patients with HPV associated oropharyngeal cancer have a detectable oncogenic oral HPV infection, but the incidence of such infection in long-term sexual partners is not increased beyond what is seen in the general population.1

The HPV vaccination showed a decrease in the prevalence of oral HPV infection. A study from the National Health and Nutrition Examination Survey (NHANES) analyzed 2,627 males and females aged 18 to 33 years for the presence of HPV in oral washes for a mean of four years after vaccination.1 It was concluded that the prevalence of oral infection with HPV types 16, 18, 6, or 11 was 0.11 % in those who received the vaccine vs. 1.61 % in those who were not vaccinated.1

Clinical presentation

It is important to take note that HPV associated oropharyngeal squamous cell carcinoma (OPSCC) presents differently than other head and neck cancers. In general, HPV-associated cancers affect younger patients than non-HPV-associated disease. According to Haddad,1 analysis by the International Collaboration on Oropharyngeal Cancer Network for Staging (ICON-S) found that the median age for those with HPV associated disease was 57 years versus 61 years for those with non-HPV cancers.

Males were affected more often than females in HPV associated oropharyngeal cancer. Most common sites for tumors to arise were the tonsillar region, base of tongue, and soft palate. Other locations where HPV-associated cancers may appear include the nasopharynx and, less likely, oral cavity, larynx or hypopharynx. Patients affected by HPV oropharyngeal cancers are less likely to smoke tobacco or drink alcohol but more likely to use marijuana.3

Development of HPV associated oropharyngeal cancer may be increased with a higher number of sexual partners and/or higher frequency of oral sex and open-mouthed kissing partners in both males and females.1,4 Most common presenting symptom is an asymptomatic neck mass. Primary tumor is usually smaller and has an increased risk of advanced cervical lymphadenopathy; however, most of these cancers present with an early-stage disease primary tumor as compared to non-HPV head and neck cancers.1

There is also a lack of otalgia or odynophagia as seen with other non-HPV-associated head and neck cancers.

Certain risk factors are identified as less favorable prognostic factors with HPV associated OPSCC and include smoking, presence of retropharyngeal lymphadenopathy, and presence of PIK3CA-mutated tumors. 1

On the other hand, a high pretreatment absolute lymphocyte count was associated with improved overall survival in those with OPSCC who were treated with radiation therapy. 1

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Staging

Oropharyngeal carcinoma staging changed in 2017 when the Union for International Cancer Control (UICC)/American Joint Committee on Cancer (AJCC) developed separate tumor, node, metastasis (TNM) staging for HPV-associated and non-HPV-associated oropharyngeal carcinomas in their eighth edition.

Prior to this, staging was the same regardless of HPV status. For example, according to the new staging criteria, HPV-associated OPSCC with T2 tumor, N2 nodal involvement and M0 has a stage group II as compared to stage group IVA in non-HPV-associated OPSCC.1 The purpose of the new staging system was to provide prognostic value and not guidance on treatment decision-making.2

Treatment

Ideally, all patients with HPV-related OPSCC are recommended to undergo pretreatment evaluation. This includes a consultation by a nutritionist to ensure appropriate daily caloric intake with potential of gastrostomy tube placement as needed, evaluation for intravenous access, and dental evaluation to treat any cavities, and complete root canals and tooth extractions to prevent any long-term complications that may stem from poor dentition after cancer therapy is completed.2

Many patients also experience pain from the tumor or cervical lymphadenopathy as well as the development of treatment-related symptoms that require pain management. The recommendation is to have patients involved with a pain-management clinic or other supportive team early in the treatment process, which can help provide appropriate management and support.2

Initial treatment for HPV associated OPSCC may include different modalities such as surgery, radiation, chemotherapy, either alone or in combination. 2 Those patients who are non-smokers and with early-stage HPV-related OPSCC are highly curable with the above treatment modalities.2 Patients with T1-T2, N0 disease, either minimally invasive surgery such as transoral robotic surgery (TORS) and transoral laser microsurgery (TLM) or radiation therapy (RT) is usually recommended for initial treatment.2 For patients with T1-T2 with single node involvement ≤3 cm, options are RT, definitive chemoradiation, or surgery with or without adjuvant RT.2 Those patients who experience locoregionally advanced disease, such as T3-T4 or any T stage with one node involvement greater than 3 cm, multiple involved nodes, or evidence of extra nodal extension, the recommended treatment involves chemoradiation alone as this has been shown to provide organ preservation and excellent oncologic outcomes.2

Treatment deintensification

Clinical trials are currently underway to study the role of deintensification treatment for HPV associated OPSCC. Its goal is to preserve oncologic outcomes and also minimize treatment-related toxicity for patients.2 Current studies attempt to determine the role of surgical resection, induction chemotherapy to de-escalate definitive RT, dose-reduced definitive RT, or substitution of a less-toxic cisplatin with another agent, or a lower dose of RT alone.2

Surveillance

Patients with HPV associated and non-HPV-associated OPSCC have been following the same surveillance schedule that was recommended by the National Comprehensive Cancer Network (NCCN). A retrospective cohort study of 233 patients diagnosed with HPV related OPSCC looked at posttreatment clinical and imaging surveillance of these patients and found that there was no survival advantage and "locoregional recurrences are almost never detected beyond 2 years".5 Lately, there has

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been interest in the use of plasma-based assays to help spot circulating HPV DNA to improve detection of recurrent disease.6

Prognosis

Even with the more aggressive nature of HPV associated cancer, such as earlier and more extensive lymph node involvement, patients with HPV related oropharyngeal tumors have a better overall survival than those with non-HPV-related tumors, eight-year survival rate 71% vs. 30%.1

HPV oropharyngeal cancers have lower rates of recurrence as compared to non-HPV related tumors. A Radiation Therapy Oncology Group (RTOG) conducted a retrospective analysis of 1058 patients with locally advanced oropharyngeal cancer and known HPV status. They found that 23.3% of patients with HPV-positive tumor developed recurrence compared to 40.6% with p16-negative cancers.1

P16 is a tumor suppressor protein and has been used as a biomarker to infer HPV associated oropharyngeal cancer.

However, they found no significant difference between HPV and non-HPV-associated OPSCC in the median time to progression after initial treatment, eight vs. seven months respectively. 1 Most common sites of distal metastases included lung, bone and liver. Also, patients with a p16-positive tumor had significantly longer overall survival following first recurrence when compared with non-HPV-positive tumor cases at a median follow-up of four years, median 2.6 vs. 0.8 years. 1

HPV-Deep Seek, a multi-feature HPV liquid biopsy is a blood test that detects HPV DNA fragments, which can accumulate years prior to clinical symptoms develop.

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Bell's Palsy: Current Management and Functional Recovery

By Meredith Ingram, DMSc-S, MMSc, MPH, PA-C
Director at Large

Bell's Palsy is an idiopathic condition marked by sudden, usually unilateral, facial weakness, with rapid onset (<72 hours), affecting 11–40 per 100,000 people, involving cranial nerve VII, or the facial nerve.1-4

Viral etiologies — most commonly Herpes Simplex Virus (HSV) 1, varicella zoster, and HSV6 — are considered most likely, though the precise pathophysiologic mechanism remains unclear.1,2,4,6 Classical presentation involves complete unilateral facial paralysis with forehead involvement, distinguishing it from the forehead-sparing pattern often seen in cerebrovascular accidents, and may progress to varying degrees of paresis.2

The incidence is highest among individuals aged 15 to 45 but can occur across all age groups, with potential predisposing factors, including pregnancy, severe preeclampsia, obesity, hypertension, upper respiratory infections, diabetes, and immunocompromise.1,3 Recurrence occurs in up to 7% to 8% of cases.7 Bilateral involvement is rare (<2%), and in such cases, a broad differential — including infectious, neurologic, neoplastic, infiltrative, and metabolic etiologies — should be considered.8

In the absence of other clinical manifestations to suggest other diagnoses, routine imaging and laboratory evaluation are generally not indicated.1 In endemic regions for Lyme disease, serologic testing may be considered if other clinical features suggest infection.2

Initial Management:
In the absence of absolute contraindications, patients should receive prompt high-dose corticosteroid therapy (Prednisone-equivalent dosing of 60–80 mg) tapered over 7 to 14 days.1,2,4 In anticipation of updated Bell's Palsy guidelines (2026), combination therapy with antiviral agents is now strongly recommended.

Eye protection for lagophthalmos (upward eye roll, or Bell's phenomenon), including lubricating eye drops and patching the eye shut at night (small pearl: use Glad Wrap, cheap and effective).1-2 Patients should be reassessed within three to six months to monitor recovery; any regression or atypical progression should prompt referral to a clinician capable of comprehensive evaluation or additional workup to rule out alternative etiologies, including malignancy.1

Figure 1. Muscle Anatomy and Facial Nerve Course5

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Prognosis:
Approximately 70% of patients experience complete recovery of facial function within six months, with some recovery even without intervention, typically evident within two to three weeks.1,2 Patients with persistent complete paralysis after two weeks should be referred to an Otolaryngologist or one who specializes in facial nerve injury.2

Patients who show no recovery of facial tone within three to six months are unlikely to regain function spontaneously.1 Up to 25% can have persistent sequelae, including clonic hemifacial spasm, permanent paresis, and synkinesis. 9 Synkinesis is most frequently observed in up to 21% of Bell's Palsy patients and results from abnormal regeneration of facial nerve branches, causing involuntary movements that are often socially or functionally disruptive.10,11

The most common forms include oro-ocular synkinesis, in which mouth movement triggers eye twitching, and oculo-oral synkinesis, in which eye closure triggers mouth contracture. These manifestations can significantly impair both quality of life and psychosocial well-being.1,11

Long-Term Management:
Unlike initial thoughts, there are options for recovery and include potential combinations of:

- **Myofascial therapy/physical therapy** for facial retraining.
- **Chemodenervation** (e.g., Onabotulinum toxin A, Apobotulinum Toxin A) to reduce spasticity and improve symmetry and function.
- **Dermal fillers** for aesthetic and functional enhancement.
- **Surgical interventions,** such as selective neurectomies, ocular weights, gracilis flaps, and cross-facial nerve grafting for more durable correction.
-

These interventions are typically multidisciplinary and include both physical and mental health support, which is critical, as patients often experience psychological distress related to persistent facial dysfunction. Referral to specialists who can offer any or all of these interventions should be considered at any point along a patient's course of treatment.1

Case Presentation: I work closely with our facial plastic and head and neck surgeons who specialize in facial reanimation, providing chemodenervation and dermal fillers to enhance both function and appearance. Below is an example of a patient demonstrating the combined efforts of our team. Outcomes are patient-specific, and the approach is tailored to the patient's clinical condition and likelihood of success.

> A 53-year-old female reports an acute onset of complete right facial paralysis ten years ago. She denies any otologic symptoms such as hearing loss, otalgia, vertigo or rashes. She was seen on the day of onset and treated with high-dose steroids and antivirals. She states that it took 3-4 months for her tone to recover, followed by hypertonicity, spasms, and synkinesis. She is bothered by facial synkinesis, facial deformity, difficulty speaking and drinking, eye tearing, and facial expression issues.
>
> She received Chemodenervation, Facial Physical Therapy, and Surgical Neurectomies to include Right platysmal myotomy, Right selective facial neurectomy, multiple branches; Right depressor anguli oris myectomy; Right buccinator myotomy.

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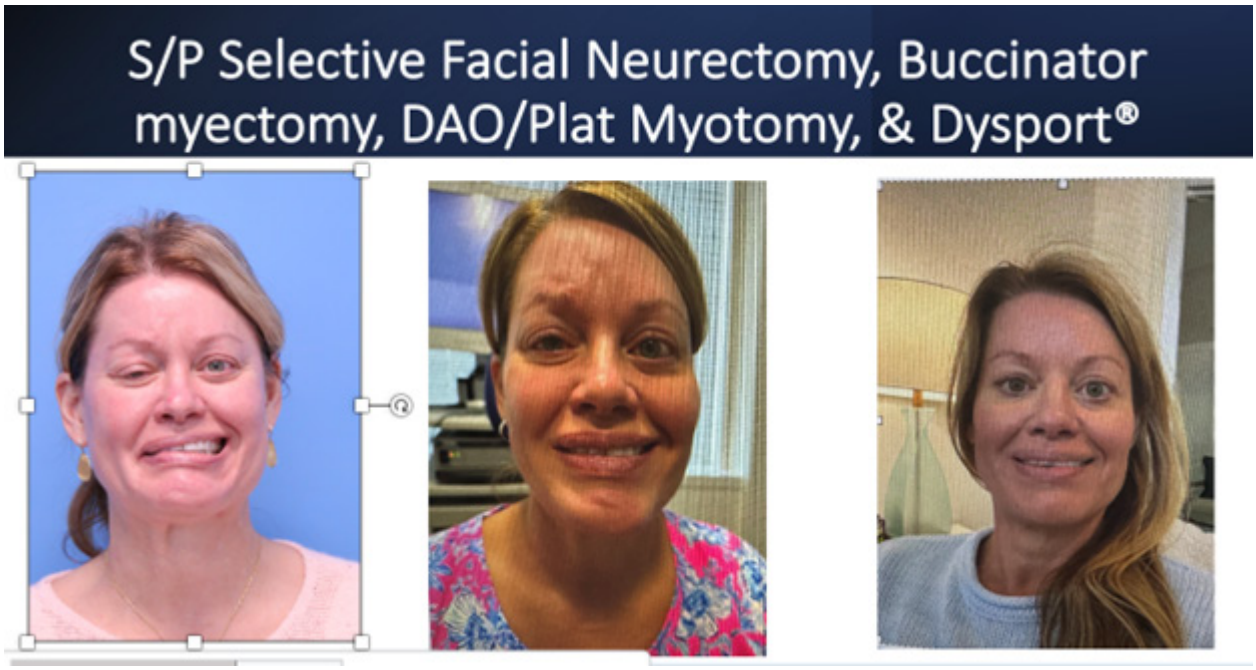

First Photo: Baseline after Facial Nerve Insult
Second Photo: Baseline after surgical intervention and physical therapy
Third Photo: Baseline after chemodenervation to post-surgical and therapy interventions.

Patient photos included with patient permission. For clinical questions or guidance, feel free to reach out to Meredith Ingram at Meredith.ingram@emoryhealthcare.org.

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