Role of the SLP in the Care of Head and Neck Cancer Patients Before and After Transoral Robotic Surgery

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Objectives
• Understand differences in functional speech/swallowing outcomes with TORS vs. traditional surgery.
• Identify the SLPs role in pre- and post-TORS patient care.
• Describe the TORS patient pathway throughout the continuum.

We’re starting with HPV?
• Human papilloma virus
  • >120 strains, and 30 to 40 transmitted through sexual contact, including anal, genital and oral contact.
  • Some cutaneous, some mucosal
  • High risk strains associated with malignant lesions
• Increases in oropharyngeal squamous cell carcinoma rate directly related to high-risk HPV strains (p16)
  • In the US during the 1980s HPV accounted for about 16% of oropharyngeal cancers, >70% during the 2000s.
  • p16 causing >60% of all oropharyngeal cancers

HPV+ oropharyngeal cancer: clinical profile
• Site: BOT, tonsil, unknown primary
• Smaller primary tumor
• More advanced nodal disease
• Tumors are extremely radiosensitive ⇒ more favorable prognosis
• Diagnosed younger
• Higher baseline QOL
• Men > women
• High number of sexual partners

What is TORS?
• Transoral Robotic Surgery technique developed at University of Pennsylvania hospital in 2005 by Drs. Gregory Weinstein and Bert O’Malley
  • Adaptation of da Vinci Surgical System FDA approved for head and neck application in 2009
Benefits of TORS

- Reduces need for open surgery
- De-intensification of adjuvant therapies
  - Complete avoidance of XRT and/or CRT
  - Reduction in post-op XRT dose
  - Especially for unknown primaries
  - Using TORS endoscopic approach to facilitate primary tumor identification/excision, 67% did not require chemotherapy, 25% treated with surgery alone, and a rate of detection of 80% (Hatten et al., 2017).
- Higher QOL outcomes (Sethia et al., 2017)
  - Overall and in eating domain
Indications for use

- Must have transoral access to the oropharynx
- T1-2 tumors (though this is changing)
  - Tonsilar fossa
  - Lateral pharyngeal wall
  - Glossopharyngeal sulcus
  - Lateral BOT
- Contraindication: retropharyngeal carotid

TORS: variables for outcomes

- Volume and depth of surgical defect
  - "Wide margins"
- Anatomic subsites incorporated into the resection
  - Posterior pharyngeal wall
  - Soft palate
- Previously irradiated recurrence
- Corticosteroids
  - Significantly improved pain score on POD#3, higher PSS-normalcy of diet scores at 1- to 3-week follow-up (Clayburgh et al., 2017)

TORS + Free Flap reconstruction (Hatten et al., 2018)

- Soft palate defect >1/3 of mucosa + underlying musculature or extending to hard palate
- Exposed carotid
- BOT resection of at least 50% of the volume complemented with pharyngeal constrictor resection
- Prior RT
- Results: 95% able to tolerate PO post-op, mean time to intake 26 days;
So what does this all mean for the SLP?

Radiation associated dysphagia

• Xerostomia, dysgeusia, odynophagia → disuse atrophy
• Fibrosis restricts mobility of swallowing musculature (King, 2016)
• Lymphadema may limit structural displacement during swallowing (Jackson et al., 2016)
• Increased pharyngeal residue, increased risk of aspiration/penetration

Pre-treatment

• Prophylactic swallowing therapy works!
• Studies have shown that performing exercises before/during treatment can
  • Improve BOT and epiglottic function compared with cohorts who started after treatment
  • Improve diet levels 3-6 months after treatment
  • Reduce risk of loss of swallowing ability
  • Less weight loss
  • Improved QOL outcomes
• Multidisciplinary team
• Staged neck dissection?
Immediate post-op

- Bedside swallow evaluation
  - Lingual mobility
- Odynophagia/pain management
- If already determined to need XRT, begin counseling
- Prophylactic DHT placement varies nation-wide
- Protocols may be surgeon specific
- Steroids?
- Role of objective swallowing assessment

Our protocol at Pennsylvania Hospital

- Pre-surgical visit with outpatient SLP
  - Set expectations of pain, dysphagia, and presence of DHT
  - HPV+ counseling if needed
  - If plan for XRT already known, can introduce pharyngeal strengthening exercises
  - If free flap reconstruction planned, can address

Post-op (1 week and beyond)

- Especially important if receiving adjuvant therapies
  - Becoming more common as surgeons use TORS for increasingly more complex surgeries
- May work closely with RD, radonc, and/or hemeonc
- Pain management
- Xerostomia, dysguesia, odynophagia

Our protocol at Pennsylvania Hospital

- Immediately post-op with inpatient SLP
  - POD trials with SLP POD#1 (sometimes POD#0) and diet initiation and advance as able
  - Usually POD#3-4 if reconstructed with free flap but can be patient/surgeon specific
  - Set goals: no signs of aspiration, adequate PO intake, take oral meds
  - Reinforce adequate pain management
  - If plan for XRT already known, can introduce pharyngeal strengthening exercises
  - Can we d/c DHT?
  - Corticosteroids if indicated

Our protocol at Pennsylvania Hospital

- Post-op with outpatient SLP
  - Seem 1-week post-op, usually same day as post-op surgical visit
  - If home with DHT, re-assess ability to take POs
  - If plan for XRT already known, can introduce pharyngeal strengthening exercises
  - Continue to follow during course of any adjuvant therapies
  - Survivorship

Counseling: HPV (Starmer, 2014)

- How did I get HPV?
  - Sexually transmitted
- When did I get HPV?
  - Likely-years or decades before cancer diagnosis
- Will I transmit HPV to others?
  - Not casually transmitted, long-term partners already exposed
  - Most without detectable viral DNA after treatment to future partners also at low risk
- Is my spouse at increased risk for cancer?
  - Evidence shows spouses at slightly higher risk than general population, but still very low
- Can the HPV vaccine help?
  - Primary role is prevention and needs to be administered before sexual debut
Conclusions

• SLPs are essential members of the head and neck cancer team.
• SLP intervention should begin before treatment and extend throughout treatment and beyond.
• Early and often intervention is associated with better functional outcomes, lower risk of complications, improved quality of life.

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References


Starmer, H. (2014). Everything you wanted to know about head and neck cancer but were afraid to ask. TAASLP Conference, Murfreesboro, TN.