

CRITICAL PATHWAYS IN HEAD AND NECK CANCER

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DISCLOSURES

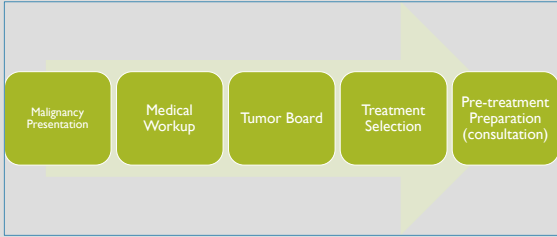
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OBJECTIVES

- To identify different steps of the pre-treatment pathway
- To identify role of different medical professionals who are part of the multidisciplinary team and pre-operative preparation period.
- Describe the role of the tumor board meeting with the establishment of care.
- Identify general goals for a pre-operative counseling session with the SLP

PRE-TREATMENT PATHWAY



ANATOMIC SITES AND SUB-SITES

- Oral Cancer
- Nasal/Para nasal
- Pharynx
 - Nasal/pharynx
 - Oral/pharynx
 - Hypopharynx
- Laryngeal
 - Supra-glottis
 - Glottis
 - Sub-glottis
- Neck
- Cutaneous Malignancy



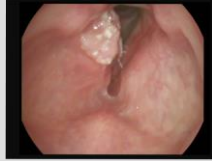
CLINICAL PRESENTATION

- Persistent and progressive hoarseness 3-12 months (Laryngeal)
- Progressive worsening dyspnea (shortness of breath)-STRIDOR (pertinent assessment)-TRACHEAL (supra-glottis, glottis, hypopharyngeal)
- Odynophagia (hypo-pharyngeal/supra-glottis)
- Progressive Dysphagia (supra-glottis/hypopharyngeal)-C-TUBE/Needs swallow assessment
- Risk factors: tobacco use; alcohol use
- Increase with upper airway secretions
- Weight loss
- Neck Pain



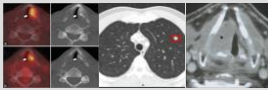
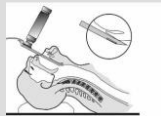
CLINICAL PRESENTATION

- Recurrence of Cancer noted on a surveillance visit (1-5 year post treatment)
- Completed radiation treatment—yet persistent disease (Radiation resistant)
- Completed a conservative surgical resection (hemi-laryngectomy)—now with recurrence.
- Non-functional larynx (trach and g-tube dependent)
- Chronic aspiration (refractory to treatment)



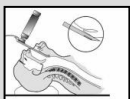
WORK-UP

- Clinical Exam:**
- Fiberoptic Laryngoscopy (Flexible)
 - Strob
- Operating Room:**
- Diagnostic Laryngoscopy (DL) & Pan-Endoscopy & Biopsy
- Imaging:**
- CT neck (contrast)/CT chest
 - PET/SCAN (where prior to biopsy if possible)
- Laboratory Testing (Pre-surgical planning & chemo):**
- CBC (Hemoglobin)
 - Albumin/Prothrombin
 - Kidney (Creatinine)
 - HIV/HEP C



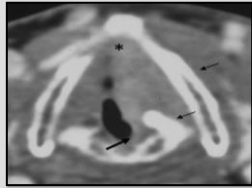
DL +PAN-ENDO

- Laryngoscopy/Esophagoscopy/Bronchoscopy
- Determine Esophageal & Post-cricoid involvement
- Palpate Crico-arytenoid Joint for mobility (fixed-rT3)
- Palpate thickness/volume/Depth of invasion (DOI)



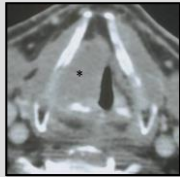
CT NECK (+ CONTRAST)

- Analyze key anatomical structures: Laryngeal cartilages (thyroid; cricoid; arytenoid)/Laryngeal Ventricular Complex/Anterior & Posterior Commissure/Paraglottic Space/Pre-Epiglottic Space



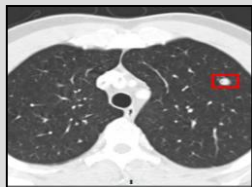
CT NECK (+ CONTRAST)

- Important for T-staging; sizing tumor volume and staging nodal disease.
- A recurrent cancer may be discovered on a surveillance scan. Caution must be used on post treatment scans after CRT to rule out recurrence/residual tissue vs. changes post RT treatment.



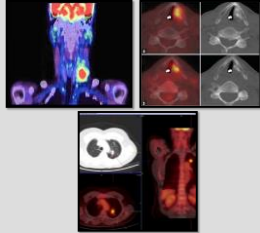
CT CHEST + CONTRAST

- Analyze to identify lung nodules consistent with metastatic disease.
- If 1 node is identified—maybe resectable (M1-disease)
- presence of multiple nodes would change treatment course to "systemic" therapy or chemo-therapy with more palliative intent.



PET SCAN

- A positron emission tomography (PET) scan**
- uses a special dye with radioactive tracers that illuminate chemical/hyper metabolic activity of organs. May include infection or inflammation and certain types of lymphoid tissue.
 - Often used compared to CT
 - Useful to find Metastatic disease
 - Useful in finding other unknown "primary" tumors
 - Must be carefully interpreted to avoid "false" positive findings of non-cancerous things.
 - Do BEFORE biopsy- biopsy sites will "light" up on PET



LABORATORY TESTING

Important for pre-surgical planning and needed by the Hemo/Onc team for chemo-therapy planning.

- Complete blood count (CBC): hemoglobin, red vs white blood cells
- Basic Metabolic Panel (BMP): glucose; electrolyte; kidney
- Liver Function Tests (LFTs)
- Coagulation Function (Coags)
- Pre-Albumin/Albumin (nutrition lab)
- Thyroid Stimulating Hormone (TSH)
- Hep C/ HIV

TUMOR STAGING

- Most common universal staging system: American Joint Committee on Cancer (AJCC) International Union for Cancer Control (UICC): TNM system **New guidelines came out 2017**
- p16+, HPV algorithm for oropharyngeal cancers
- Extra-Nodal Extension (ENE)
- NMSC H&N category
- Based on 3 clinical features and clinical categories are assigned: TNM – Tumor; Nodes; Metastasis
- Categories are collected and combined in a process called **stage grouping** to assign an overall **stage**
- **Stage** is determined when cancer is 1st diagnosed and doesn't change (Stage II that metastasizes later vs. Stage IV)

STAGING BASED ON TNM

Stage 0: Tis, NO, MO
 Stage I: T1, NO, MO
 Stage II: T2, NO, MO
 Stage III: T3, NO, MO
 T1, N1, MO
 T2, N1, MO
 T3, N1, MO
 Stage IVA: T4, NO, MO
 T4, N1, MO
 T, N2, MO
 Stage IVB: T, N3, MO
 Stage IVC: T, N M1

TUMOR BOARD

- A multi-disciplinary meeting involving Otolaryngologist, Radiation Oncologist, Hematology/Oncologist, Radiologist, Pathologist, Oncology RN, Palliative Care, Dental, Dietitian.
- Presentation of patient cases with available Testing, Imaging, Pathology reports and functioning status.
- Establishing agreement across disciplines on plan for type and timing of treatment for curative intent, loco-regional control and palliation (if needed)
- Tumor boards allow for implementation of clinical practice guidelines and may help capture cases for clinical trials. (2)



TUMOR BOARD

- Otolaryngologist
- Radiation Oncologist
- Hematology/Oncologist
- Radiologist
- Pathologist
- Palliative Care MD
- Oncology RN
- Auxiliary Staff attendance—SLP/RD/PA/NP

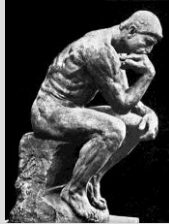
SLP: Role depends on facility— mostly educational for SLP in some cases is an education opportunity to facilitate decision and timing of treatment (swallow rehab, current dysphagia status) and or assist with providing input on functional status.
 **Input on swallow functioning may help drive surgical vs. non-surgical treatment as it contributes to overall functional status.

TUMOR BOARD

- Cases presented:
 - 1) New cancer case
 - 2) Recurrent cancer case
 - 3) Treatment failure case
 - 4) Re-presentation of post-surgical case with complex tumors with high risk histopathological features.
- **High risk features include:
 - ENE—extra nodular extension
 - LV—lympho-vascular spread
 - PN—Perineural Invasion

PRESENT PLAN TO THE PATIENT

- Patient/family educated on the proposed tumor board plan
- Patient may want non-surgical vs. surgical option.
- Educate patient on risk/benefits and realities of treatment.
- Patient always has a right to choose to treat or not!



PRE-TREATMENT/PRE-OP TEAM

DENTAL REFERRAL

Why?

- Irradiation immediately puts the patient with head and neck cancer at high risk for treatment-related complications including dry mouth (xerostomia), oral infections, oral muscle fibrosis, and jawbone destruction (osteoradionecrosis).
- Attention is needed to unaddressed periodontal issues and unresolved dental needs before immunosuppression begins
- comprehensive oral/dental assessment
- dental treatment and prophylaxis (fluoride therapy) attention to unaddressed periodontal issues and unresolved dental needs before immunosuppression begins.
- Dental extraction of any un restorable, abscessed, or periodontally diseased teeth in the field of radiation therapy



HEAD AND NECK RADIATION ONCOLOGIST

- Educated patient on non-surgical options for definitive treatment of tumor if appropriate.
- Educated patient on need for post-operative role of Radiation therapy; recommended regimen and risk factors.
- Discuss standing treatment protocol (6 weeks; daily) vs. Clinical trial options.
- Discuss expectations for prognosis and radiation treatment effects (toxicities).
- Timing standard 6 week treatment window for definitive vs. post-op.



REGISTERED DIETITIAN REFERRAL (RD)

- Testing and evaluation for nutritional shortcomings or areas of risk
- A discussion about planning and the setting of nutritional goals
- Simple, practical tips and advice to help patients achieve their nutritional needs on a daily basis
- Advice on ways to deal with weight loss, fatigue, and nausea brought on by illness or treatment side effects
- Personalized guidelines based on the patients biological needs and unique circumstances
- Plans for families or caregivers in support of the patient's nutritional needs
- Recipes, lists of foods, dietary supplements, and vitamins
- oncology dietitian specializes in helping cancer patients and their caregivers develop a plan for good nutrition. By achieving good overall health, proper nutrition can help reduce the risk of cancer, keep patients healthier during treatment, and combat side effects and illness.
- Assist with management of non-oral nutrition (when appropriate) if feeding tube is already present or if placement of feeding tube is anticipated.



SPEECH LANGUAGE PATHOLOGIST

- Evaluate current verbal and written communication skills home situation and new learning skills.
- Assess general understanding of upcoming surgery and emotional state. Offer option for Laryngectomy visitor.
- Review post-anatomy changes impacting voicing,swallowing and new neck breather status (visual aid)
- Review discuss expectations for timing and events related to inpatient hospitalization and SLP role (acute care)
- Review life-style changes,neck breather status and timing for return to daily living.
- Demonstrate options for alaryngeal communication options and initiate electro-larynx training if patient willing.
- Demonstrate TEP voicing technique (video) sample prostheses (demo model) and discuss SLP role with TEF management.
- Educate and train regarding role of HME system
- Offer support,encouragement and education as needed

SPEECH LANGUAGE PATHOLOGIST

Clinical issues involved in Salvage Laryngectomy

Prolonged NPO period

Possibility of primary vs. secondary TEP procedure

Potential for more complex reconstruction required with

Post-operative HME protocol and importance of pursuing HME system

CASE STUDIES
