

# **Squamous Cell Carcinoma of the Head and Neck Arising from Unknown Primary**

## **Case Presentation and Discussion**

**Betty C. Tong, M.D.**

**Department of Otolaryngology - Head and Neck Surgery**

**Johns Hopkins Hospital**

**Greater Baltimore Medical Center**

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## Case Presentation - R.D.

- 48 yo male, h/o SCCA unknown primary, 1998
- CC: L neck, jaw pain
- HPI:
  - 5/98: L neck mass, ? increasing in size
  - 7/98: FNA negative for malignancy
    - CT: 3 x 3.3 cm cystic mass c/w branchial cleft cyst
  - 8/98: excision of L neck mass
    - Pathology: SCCA
    - F/u CT: RLL nodule, 3 mm
  - 9/98: panendoscopy, directed biopsies, L tonsillectomy, L completion ND
    - Stage III, T<sub>?</sub>N<sub>2</sub>M<sub>0</sub>
  - Post-op XRT to L neck and putative primary sites

## Case Presentation - R.D.

- Followed at 2-3 month intervals, NED
- 8/00: c/o L neck, jaw pain
  - PE negative for signs of tumor
- 9/5/00: DL, bronch, EGD → L BOT lesion
  - Pathology: SCCA
- CT: Poorly differentiated mass at L BOT, crossing midline, 4.1 cm x 2.9 cm

## Case Presentation - R.D.

- **9/26/00:**
  - PEG
  - Trach
  - R cervical lymph node excision (neg on FS)
  - Supraglottic laryngectomy w/mandibular swing
  - Reconstruction using L RFAFF
- **Social Hx:** negative for tobacco or Etoh use
- **Family Hx:** Uncle with H&N cancer

# **Radiology Review**

# Pathology Review

# **SCCA Metastatic to the Neck with Unknown Primary Site**

- **Incidence**
- **Diagnosis / Work-up**
- **Treatment / Prognosis**
- **Future Trends**

# Metastatic SCCA with Unknown Primary

- **Common presentation**
  - cervical lymph node, + for malignancy
- **20-50% will have identifiable primary upon further w/u**
  
- **“Unknown Primary” of H&N Cancer**
- **Incidence: 2 - 9%**
- **2 - 20% of all unknown primary tumors will surface over time**



# **Unknown Primary: Frequent Sites of Primary Tumor Location**

- **Nasopharynx**
- **BOT**
- **Tonsil**
- **Hypopharynx**
- **Supraglottic Larynx**
- **Lung**

**Adult with a neck mass  
known to be SCCA**

**HISTORY**

Smoking  
Alcohol  
Family Hx of cancer  
Epistaxis  
Nasal Obstruction  
Rhinorrhea  
Chronic Sinusitis  
Otalgia

Throat pain  
Dysphagia  
Dysarthria  
Hoarseness  
Voice change  
SOB  
Pruritis of scalp, ears,  
face, neck

**PHYSICAL EXAM**

Skin (scalp and face)  
Ears (auricle and external canal)  
Nose (skin and mucosa)  
Oral cavity and oropharynx  
(palpation of all mucosal surfaces,  
especially the tonsils, BOT, FOM)  
Salivary Glands (palpation of parotid  
and submandibular glands)  
Neck (documentation of size & location  
of all masses, thyroid palpation)  
Larynx (indirect laryngoscopy)  
Nasopharynx (FOL)  
Other (toluidine blue staining)

**PANENDOSCOPY**

Nasal endoscopy  
Nasopharyngoscopy  
Hypopharyngoscopy  
Direct laryngoscopy  
Bronchoscopy  
Esophagoscopy

**RADIOGRAPHIC STUDIES**

CT/MRI of head and neck  
Chest CT  
CXR  
Sinus CT

**BILATERAL GUIDED BX**

Nasopharynx  
Tonsils/Tonsillectomy  
Piriform sinus  
BOT

# Diagnosis / Work-up

- **Biopsy**
  - **Random**
  - **Guided**
  - **“...biopsy taken in absence of gross malignancy from an area known to have a high probability of containing the primary tumor.”**
- **Tonsillectomy**

# Treatment

- **Surgery**
  - excision
  - (M)RND
- **XRT**
  - nodes only vs. putative primary tumor sites
- **Surgery + adjuvant XRT**
  - 5-year regional control rate 88-95%
- **Surgery + adjuvant XRT/Chemo**
  - Cisplatin, Mitomycin C

# Prognosis

- **5-year disease-free survival: 27 - 76%**
- **Factors associated with poorer prognosis:**
  - *Presence of extracapsular disease*
  - *Increased nodal disease*
  - **Treatment failure / presence of residual disease**
  - **Development of primary lesion**
  - **Open biopsy**
  - **Presence of supraclavicular lymph nodes**
  - **Adenocarcinoma vs. SCCA**

# Prognosis

- **No influence on prognosis (*Colletier et al, 1998*):**
  - Radiation dose
  - Duration of XRT
  - Time between surgical resection and start of XRT
  - Lymph node size

# Future Trends

- **PET Scan**
- **Fluorescence-Guided Biopsy** (*Kulapaditharom et al, 1999*)
- **Cancer Genetics**
  - **Microsatellite analysis**
    - 55% histologically benign specimens “matched” microsatellite analysis of known tumor (*Califano et al, 1999*)
  - **PCR detection of EBV genome**
    - 7/9 lymph node specimens positive for EBV genome were of nasopharyngeal origin (*Nguyen et al, 1994*)