

Case Scenario

7/5/12 History

A 51 year old white female presents with a sore area on the floor of her mouth. She claims the area has been sore for several months. She is a current smoker and user of alcohol.

7/12/12 CT Sinus, facial, nasal region

Lytic lesion within the left mandibular ramus measuring 8 mm by 5 mm and may have slightly increased in size since prior exam 6/10/12. There is another 5 mm lytic lesion within the symphyseal region of the mandible which is new. There is soft tissue air seen in the left sublingual region.

7/13/12 Direct laryngoscopy:

Massive (beyond 6 cm) anterior floor of mouth tumor, eroded, involving the ventral tongue as well as most likely the cortex of the mandible.

7/13/12 Anterior floor of mouth biopsy:

Infiltrating squamous cell carcinoma, not completely excised.

7/26/12 PET/CT

Large hypermetabolic mass at the floor of mouth in the left sublingual region associated with some air in the vicinity. This mass is most likely malignant. No adenopathy. No evidence of metastatic disease.

8/23/12 Operative Report

1. WIDE LOCAL EXCISION OF FLOOR OF MOUTH TUMOR, INCLUDING SEGMENTAL ANTERIOR MANDIBULECTOMY WITH PARTIAL GLOSSECTOMY.
2. BILATERAL SELECTIVE NECK DISSECTIONS LEVELS 1-3.
3. TRACHEOSTOMY.

8/23/12 Pathology Report

Final Diagnosis:

- A) RIGHT NECK LEVEL IB DISSECTION:
- NO EVIDENCE OF METASTATIC DISEASE IN 3 LYMPH NODES.
 - SUBMANDIBULAR GLAND WITH MILD CHRONIC SIALADENITIS.

B) LEFT NECK LEVEL III DISSECTION:

- NO EVIDENCE OF METASTATIC DISEASE IN 5 LYMPH NODES.

C) LEFT NECK LEVEL IIA DISSECTION:

- NO EVIDENCE OF METASTATIC DISEASE IN 3 LYMPH NODES.

D) LEFT NECK LEVEL IB DISSECTION:

- NO EVIDENCE OF METASTATIC DISEASE IN 3 LYMPH NODES.
- SUBMANDIBULAR GLAND WITH MILD CHRONIC FIBROSING SIALADENITIS.

E) LEVEL IA DISSECTION:

- NO EVIDENCE OF METASTATIC DISEASE IN 5 LYMPH NODES.

F) RIGHT NECK LEVEL IIA DISSECTION:

- NO EVIDENCE OF METASTATIC DISEASE IN 7 LYMPH NODES.

G) RIGHT NECK LEVEL III DISSECTION:

- NO EVIDENCE OF METASTATIC DISEASE IN 3 LYMPH NODES.

H) RESECTION OF FLOOR OF MOUTH, TONGUE AND ANTERIOR MANDIBLE:

- INVASIVE, MODERATELY TO POORLY DIFFERENTIATED SQUAMOUS CELL CARCINOMA INVOLVING THE FLOOR OF MOUTH AND VENTRAL TONGUE.
 - THE TUMOR MEASURES 6 X 4.5 X 3.5 CM.
 - TUMOR INVADES INTO SKELETAL MUSCLE OF THE TONGUE.
 - TUMOR IS PRESENT AT THE INITIAL LATERAL (GINGIVAL) MUCOSAL MARGIN AND DEEP MARGIN OF THE MAIN RESECTION SPECIMEN.
 - THE REMAINING SAMPLED MARGINS AND RE-EXCISED MARGINS (SEE BELOW) ARE FREE OF INVOLVEMENT BY TUMOR.
 - EXTENSIVE PERINEURAL INVASION BY TUMOR IS PRESENT.
 - TUMOR INVADES INTO THE MANDIBULAR BONE.

I) NEW LEFT LATERAL MARGIN, RE-EXCISION:

- NO EVIDENCE OF TUMOR.

J) RE-EXCISION OF DEEP MARGIN:

- NO EVIDENCE OF TUMOR.

K) CIRCUMVALLATE PAPILLA, BIOPSY:

- NO EVIDENCE OF TUMOR.

Pathologic Stage: T4aN0M0

Adjuvant Treatment:

Chemotherapy: Recommended, but not given due to non-healing leg wound.

Radiation: The patient received external beam radiation therapy using IMRT technique and 9 fields of 6 MV photon beams. Targets of the treatment included the postoperative bed with a generous margin as well as lymph node groups IA, IB bilaterally and II through the upper IV bilaterally. High risk areas for recurrence received 60 Gy (2 Gy daily fractions for 30 fractions). The plan was differentially dosed to deliver 54 Gy to the low risk nodal areas in the upper cervical chain. She started treatment on 10/5/2012 and finished treatment on 11/28/12 for 44 elapsed days of treatment.

Follow-Up:

2/27/13 PET/CT: Patient with a history of head and neck cancer. PET CT fusion imaging demonstrates surgical removal of the previously reported hypermetabolic mass at the floor of mouth. Bilateral metastatic lung nodules and left hilar metastatic nodes are present. These are new findings. Hypermetabolic activity within the true vocal cord on the left is identified. Direct visualization suggested.

Case Scenario Worksheet

Primary Site C___.__		Morphology ____/____	
Stage/ Prognostic Factors			
CS Tumor Size		CS SSF 9	
CS Extension		CS SSF 10	
CS Tumor Size/Ext Eval		CS SSF 11	
CS Lymph Nodes		CS SSF 12	
CS Lymph Nodes Eval		CS SSF 13	
Regional Nodes Positive		CS SSF 14	
Regional Nodes Examined		CS SSF 15	
CS Mets at Dx		CS SSF 16	
CS Mets Eval		CS SSF 17	
CS SSF 1		CS SSF 18	
CS SSF 2		CS SSF 19	
CS SSF 3		CS SSF 20	
CS SSF 4		CS SSF 21	
CS SSF 5		CS SSF 22	
CS SSF 6		CS SSF 23	
CS SSF 7		CS SSF 24	
CS SSF 8		CS SSF 25	
Summary Stage		Derived AJCC TNM Stage (indicate c or p in the space before the T, N, or M)	_T__N__M__ Stage__
Clinical AJCC TNM Stage	T__N__M__ Stage__	Pathologic AJCC TNM Stage	T__N__M__ Stage__
Treatment			
Diagnostic Staging Procedure			
Surgery Codes		Radiation Codes	
Surgical Procedure of Primary Site		Radiation Treatment Volume	
Scope of Regional Lymph Node Surgery		Regional Treatment Modality	
Surgical Procedure/ Other Site		Regional Dose	
Systemic Therapy Codes		Boost Treatment Modality	
Chemotherapy		Boost Dose	
Hormone Therapy		Number of Treatments to Volume	
Immunotherapy		Reason No Radiation	
Hematologic Transplant/Endocrine Procedure		Radiation/Surgery Sequence	
Systemic/Surgery Sequence			

Case Scenario 2

10/5/12: A 62 year old white male presents with a left neck mass. The patient is a smoker, but denies alcohol use.

Physical exam:

Oral Cavity/Oropharynx: Lips are normal. The patient has extremely poor dentition. The tongue has good mobility. It is soft. There is a 1 cm lesion along the left posterolateral ventral surface of tongue. The floor of the mouth is soft. Hard and soft palates are normal. Tonsils are 1+. Posterior pharynx is normal. The lesion does not extend to the floor of the mouth or base of the tongue.

Neck: There is a 3.5-4 cm firm but mobile mass in the level two and upper level three of the left neck. No other adenopathy is noted

10/10/12 CT Angiography Neck:

Markedly enlarged (2.8 cm x 2.3 cm x 5.1 cm) left level 2 lymph node consistent w/either lymphoma or metastatic adenopathy.

10/12/12 FNA left neck mass:

Moderately differentiated squamous cell carcinoma

11/3/12: PET CT:

Conglomerate adenopathy in the left neck at the site of original biopsy is the only hypermetabolic site. SUV 11.7. The primary mass is contiguous with hypermetabolic mucosa in the left parapharyngeal soft tissues at level of hyoid in the left neck. This may be the primary mucosal lesion. No distant site of hypermetabolism is identified.

TxN2bM0

11/5/12 OPERATIONS:

- DIRECT LARYNGOSCOPY WITH BIOPSY OF LEFT TONGUE WITH FROZEN SECTIONS.L
- RIGID CERVICAL ESOPHAGOSCOPY.
- TRANSORAL LASER MICROSURGICAL PARTIAL PHARYNGECTOMY.
- LEFT MODIFIED RADICAL NECK DISSECTION, PRESERVING SPINAL ACCESSORY NERVE.
- A 4 CM X 12 CM ALLOGRAFT TO THE LEFT CAROTID ARTERY.

POSTOPERATIVE DIAGNOSIS:

- T1, N2a, M0 stage IV squamous cell carcinoma of left oral tongue

Path

Final Diagnosis:

- A) TONGUE, LEFT VENTRAL SURFACE OF TONGUE, BIOPSY:
 - SQUAMOUS CELL CARCINOMA IN-SITU (SEE COMMENT).

- B) EPIGLOTTIS, PORTION OF LEFT LATERAL EPIGLOTTIS:
 - NO EVIDENCE OF DYSPLASIA OR MALIGNANCY.

- C) LEFT INFERIOR LATERAL OROPHARYNX, BIOPSY:
 - NO EVIDENCE OF DYSPLASIA OR MALIGNANCY.

- D) LEFT LATERAL TONGUE BASE, BIOPSY:
 - NO EVIDENCE OF DYSPLASIA OR MALIGNANCY.

- E) EPIGLOTTIS MARGIN:
 - NO EVIDENCE OF DYSPLASIA OR MALIGNANCY.

- F) LEFT VENTRAL SURFACE OF TONGUE MARGIN #1:
 - SEVERE DYSPLASIA/SQUAMOUS CELL CARCINOMA IN-SITU.
 - NO EVIDENCE OF INVASIVE CARCINOMA.

- G) LATERAL PHARYNX POSTERIOR:
 - BENIGN SOFT TISSUE.
 - NO MUCOSAL TISSUE IDENTIFIED.

- H) LATERAL PHARYNX, ANTERIOR:
 - NO EVIDENCE OF DYSPLASIA OR MALIGNANCY.

- I) RE-EXCISION OF LEFT LATERAL PHARYNX, POSTERIOR #2:
 - NO EVIDENCE OF DYSPLASIA OR MALIGNANCY.

- J) LEFT VENTRAL SURFACE OF TONGUE, MARGIN #2:
 - FOCAL SQUAMOUS ATYPIA/DYSPLASIA.
 - NO DIAGNOSTIC EVIDENCE OF INVASIVE CARCINOMA.

- K) LYMPH NODES, NECK LEVEL IA, NECK DISSECTION:
 - NO EVIDENCE OF MALIGNANCY, 3 LYMPH NODES.

L) LYMPH NODES, NECK LEVEL IB, AND LEFT SUBMANDIBULAR GLAND, NECK DISSECTION:

- NO EVIDENCE OF MALIGNANCY LEFT SUBMANDIBULAR SALIVARY GLAND.
- NO EVIDENCE OF MALIGNANCY, 3 LYMPH NODES.

M) LYMPH NODES, LEFT NECK LEVEL IV, NECK DISSECTION:

- NO EVIDENCE OF MALIGNANCY, 19 LYMPH NODES.

N) LEFT NECK LEVEL IIA AND IIB, NECK DISSECTION:

- METASTATIC POORLY DIFFERENTIATED SQUAMOUS CELL CARCINOMA INTO 2 LYMPH NODES OF 17 LYMPH NODES.
- THE LARGEST LYMPH NODE, ENTIRELY REPLACED BY METASTATIC SQUAMOUS CELL CARCINOMA, MEASURES 7.0 X 3.5 X 3 CM.
- THE SECOND LYMPH NODE, INVOLVED BY METASTATIC CARCINOMA, MEASURES 1.2 CM. IN GREATEST DIMENSION. EXTRANODAL TUMOR EXTENSION IS PRESENT.

O) LYMPH NODES, LEFT NECK LEVEL III, NECK DISSECTION:

- NO EVIDENCE OF MALIGNANCY, 16 LYMPH NODES.

P) LYMPH NODES, LEFT NECK LEVEL V, NECK DISSECTION:

- NO EVIDENCE OF MALIGNANCY, 12 LYMPH NODES.

Diagnostic Comments:

Frozen section (FS A1-level IV) shows focal squamous cell carcinoma in-situ. Multiple permanent serial sections show focal severe dysplasia, however no invasive carcinoma is identified. Nonetheless, frozen section FSA1-level IV demonstrates focal diagnostic squamous cell carcinoma in-situ. Frozen section FS F from the "left ventral surface of tongue" and FS J from the "left ventral surface of tongue, margin #2" show areas of squamous dysplasia. No diagnostic invasive squamous cell carcinoma is identified.

Sections of the left neck level IIA and IIB show two large lymph nodes replaced by metastatic poorly differentiated squamous cell carcinoma, measuring 7.0 cm. and 1.2 cm. in greatest dimension, respectively. Extranodal tumor extension is present. The remaining 68 lymph nodes are free of tumor.

Adjuvant Treatment:

Patient received concurrent chemo (cisplatin) with radiation (IMRT) to the tumor bed and left neck. Chemotherapy began 12/30/12. Radiation dates: 12/30/12-2/18/13.

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CS SSF 2		CS SSF 19	
CS SSF 3		CS SSF 20	
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