

## SURGICAL PATHOLOGY REVISED REPORT

Case Number :

### Diagnosis:

A: Gingiva, maxillary, biopsy

- Acanthotic squamous mucosa with acute and chronic inflammation
- No dysplasia or malignancy identified

ICD-O-3

*Carcinoma, squamous cell NOS*  
8070/3

B: Nerve, right mental, biopsy

- Large nerve
- No malignancy identified

*Site: Floor of mouth NOS*  
C04.9

C: Nerve, left mental, biopsy

- Large nerve
- No malignancy identified

*gn 5/21/13*

D: Bone marrow, left, biopsy

- Squamous mucosa overlying bony spicules with adherent squamous cell carcinoma consistent with positive bone marrow margin

E: Nerve, left lingual, biopsy

- Large nerve
- No malignancy identified

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TCGA-BA-A6D8-01A-PR

Redacted



F: Nerve, right lingual, biopsy

- Large nerve
- No malignancy identified

G: Bone marrow margin, right, biopsy

- Bone and bone marrow
- No malignancy identified

H: New bone marrow left #2, biopsy

- Bone and bone marrow
- No malignancy identified

I: Mandible, left posterior body, resection

- Anterior and posterior bone margins are negative
- No diagnostic carcinoma identified (see comment)
- Squamous mucosa with ulceration and underlying granulation tissue also present
- Marrow fibrosis and fat necrosis

J: Lymph nodes, left neck Level 2, dissection

- 3 of 19 lymph nodes positive for metastatic squamous cell carcinoma, size 3.0 cm in greatest dimension with extracapsular

extension (3/19)

- Background submandibular gland with areas of oncocytosis also present

K: Lymph nodes, left neck Level 2B, dissection

- Seven lymph nodes, negative for metastatic carcinoma (0/7)

L: Lymph nodes, right neck Level 3, dissection

- Five lymph nodes, negative for metastatic carcinoma (0/5)

M: Lymph nodes, right neck Level 4, dissection

- Seventeen lymph nodes, negative for metastatic carcinoma (0/17)

N: Lymph nodes, left neck Level 2, dissection

- 2 of 3 lymph nodes positive for metastatic squamous cell carcinoma, 4.0 cm in greatest dimension with extracapsular extension (2/3)

O: Lymph nodes, right neck Level 2B, dissection

- Five lymph nodes negative for metastatic carcinoma (0/5)

P: Lymph nodes, left neck Level 3, dissection

- Six lymph nodes, negative for metastatic carcinoma (0/6)

Q: Lymph node, left neck Level 4, dissection

- Six lymph nodes, negative for metastatic carcinoma (0/6)

R: Anterior mucosal margin, left, excision

- Benign squamous mucosa with acute and chronic inflammation

S: Anterior mucosal margin, right, excision

- Benign squamous mucosa with marked acute inflammation

T: Mandible, tongue, floor of mouth, resection

Tumor type: invasive squamous cell carcinoma

Tumor grade: moderately differentiated

Size: 5.9 x 5.9 x 4.1 cm, located at the floor of mouth and extending anteriorly into tongue and invading the soft tissues of the bilateral neck, and bone

Surgical Margins:

- En face right mucosal and soft tissue margin is positive for invasive carcinoma involving fibrous tissue (see comment)

- Left en face mucosal and soft tissue margin is negative
- Right and left bone margins are negative
- Black inked inferior margin POSITIVE (see comment)
- Invasive carcinoma is 5 mm from blue inked posterior margin

Squamous cell carcinoma in situ: not identified

Lymphovascular invasion: present

Large vessel invasion: present

Perineural invasion: present

Bone invasion: Present

Lymph nodes in this specimen:

- 2 rounded soft tissue nodules are identified in the bilateral neck (left is size 2.8 cm and right is size 2.5 cm), and may represent completely replaced lymph nodes in bilateral neck level 1 versus discrete tumor masses within soft tissue. These are considered positive bilateral level 1 lymph nodes for staging purposes
- Additional 3 negative lymph nodes in left neck Level 1
- Additional 4 negative lymph nodes in right neck Level 1
- See additional sections for separately submitted lymph nodes from other levels.

Other findings:

- Extensive tumor necrosis
- Anterior tongue shows verrucous hyperplasia with superficial candida and bacterial colonies
- Acute and chronic sialadenitis with atrophy, oncocytosis and duct ectasia
- P16 pending (T26) and an addendum will be issued with the result. HPV-High risk was previously performed on the outside biopsy (see

AJCC PATHOLOGIC TNM STAGE: pT4a pN2c pMx

NOTE: This pathologic stage assessment is based on information available at the time of this report, and is subject to change pending clinical review and additional information.

Comment:

The representative sections of central bone for specimen I show disruption of tissue and fragments of detached squamous epithelium. The squamous epithelium is not atypical however, and

artifactual disruption of overlying squamous mucosa is favored.  
There is no diagnostic carcinoma identified in this specimen.

The positive margins in specimen T may be superseded by the frozen sections. Recommend correlation with clinical assessment and operative findings.

Intraoperative Consult Diagnosis:

A frozen section was requested by Dr. from                      on                      at  
                    (A),                      (B),                      (C),                      (D),  
(E-G) and                      (H).

FSA1: Maxilla gingiva, biopsy

- Squamous epithelium with marked chronic inflammation; no tumor seen

FSB1: Mental nerve, right, biopsy

- Peripheral nerve; no tumor seen

FSC1: Mental nerve, left, biopsy

- Peripheral nerve, no tumor seen

FSD1: Bone marrow, left, biopsy

- Intact squamous mucosa overlying bony spicules of adherent squamous cell carcinoma, consistent with positive bone marrow margins

FSE1: Lingual nerve, left, biopsy

- No tumor seen

FSF1: Lingual nerve, right, biopsy

- No tumor seen

FSG1: Bone marrow, right, biopsy

- No tumor seen

FSH1: Bone marrow, left margin #2, biopsy

- No tumor seen

Drs. at                      (A),                      (B) and                      (C)  
Drs. at                      (D),                      (E-G) and                      (H)

FSR1: Anterior mucosal margin, left, biopsy  
- Negative for tumor

FSS1: Anterior mucosal margin, right, biopsy  
- Negative for tumor

Drs. on at

Frozen Section Pathologist:, MD

Clinical History:

-year-old with squamous cell carcinoma of the oral cavity

Gross Description:

Received are twenty appropriately labeled containers. Containers A-H and R-S are received fresh for frozen section.

Container A is additionally labeled "maxilla gingiva." It holds a 0.6 x 0.5 x 0.5 cm tan fatty tissue fragment. (Block FSA1,

Container B is additionally labeled "right mental nerve." It holds a 5 x 5 x 4 mm tan soft tissue fragment. (Block FSB1,

Container C is additionally labeled "left mental nerve." It holds a 4 x 4 x 3 mm tan soft tissue fragment. (Block FSC1,

Container D is additionally labeled "left bone marrow." It holds a 3 x 3 x 3 mm red/tan soft tissue fragment. (Block FSD1,

Container E is additionally labeled "left lingual nerve." It holds a 7 x 3 x 3 mm tan soft tissue fragment. (Block FSE1,

Container F is additionally labeled "right lingual nerve." It holds an 8 x 4 x 3 mm tan soft tissue fragment. (Block FSF1,

Container G is additionally labeled "right bone marrow margin." It holds a 5 x 4 x 3 mm red/tan soft tissue fragment. (Block FSG1,

Container H is additionally labeled "new left bone marrow

margin." It holds a 4 x 4 x 3 mm red/tan soft tissue fragment.  
(Block FSH1,

Container I is additionally labeled "left posterior mandible body." It holds a segment of bone with overlying soft tissue and mucosa measuring anterior to posterior (1.4 cm), superior to inferior (2.3 cm), and lateral to medial (2.6 cm). There is a stitch designating the anterior. The bone is from anterior to posterior, 1.6 cm; from medial to lateral, 1.1 cm; from superior to inferior, 2.1 cm. The specimen is serially sectioned to reveal a pale tan nodule (0.3 x 0.2 cm) within the bone marrow. The discoloration is 1.1 cm from the blue inked margin.

Block summary:

I1 - anterior margin, en face  
I2 - posterior bony margin, en face  
I3,I4 - representative sections of bone and overlying soft tissue, including pale tan discoloration  
Specimen submitted following decal.

Container J is additionally labeled "right neck Level 2." It holds two fragments of yellow fatty tissue in aggregate measuring 6.4 x 3.1 x 2.6 cm. Within the fatty tissue there are multiple lymph node candidates ranging in size from 0.8 to 3.0 cm. The largest lymph node candidate is 3.0 x 2.3 x 1.4 cm and has a red/brown exterior. The specimen is serially sectioned and found to have cavitory interior (greatest diameter is 0.8 cm) filled with a yellow/red viscous fluid.

Block Summary:

J1-J6 - serially sectioned, largest lymph node candidate  
J7 - four lymph node candidates  
J8 - three lymph node candidates  
J9 - four lymph node candidates  
J10 - four lymph node candidates  
J11 - bisected lymph node candidate  
J12 - two bisected lymph node candidates, one inked blue  
J13 - one lymph node candidate

Container K is additionally labeled "left neck Level 2B." It holds a yellow/red fatty tissue measuring 2.1 x 1.8 x 0.9 cm. Within the fatty tissue a firm lymph node candidate is identified (0.7 x 0.3 x 0.3 cm).

Block Summary:

K1 - lymph node candidate  
K2 - representative section of fat,

Container L is additionally labeled "right neck Level 3." It holds a yellow/red fatty tissue measuring 4.4 x 2.2 x 1.5 cm. Within the fatty tissue there are multiple firm, red/brown lymph node candidates ranging in size from 0.7 to 1.3 cm in greatest dimension.

Block summary:

L1 - three lymph node candidates  
L2 - two lymph node candidates  
Tissue remains in the container.

Container M is additionally labeled "right neck Level 4." It holds yellow/red fatty tissue measuring 4.7 x 2.1 x 1.3 cm. Within the fatty tissue there are multiple firm red/brown lymph node candidates ranging in size from greatest diameter from 0.3 to 1.0 cm.

Block Summary:

M1 - three lymph node candidates  
M2 - three lymph node candidates  
M3 - two lymph node candidates  
Tissue remains in the container.

Container N is additionally labeled "left neck Level 2." It holds yellow/red fatty tissue with cautery artifact measuring 5.9 x 4.4 x 2.3 cm. Within the fatty tissue there are multiple red/brown firm lymph node candidates ranging in size from 0.8 cm to 4.0 cm. The largest lymph node candidate is 4.0 x 2.2 x 1.9 cm; it is serially sectioned to reveal pale tan tissue speckled with multiple white nodules and oozing a opaque white/tan fluid.

Block summary:

N1-N7 - serially sectioned, largest lymph node candidate  
N8 - bisected lymph node candidate  
N9 - three lymph node candidates

Container O is additionally labeled "right neck Level 2B." It holds three red/yellow fatty soft tissue fragments in aggregate

measuring 2.0 x 1.7 x 0.8 cm. Within the fatty tissue there is one palpated lymph node candidate measuring 0.8 x 0.5 x 0.4 cm.

Block Summary:

O1 - one lymph node candidate and representative sections of fat,

Container P is additionally labeled "left neck Level 3." It holds a fragment of yellow/red fatty tissue with cautery artifact measuring 4.7 x 2.2 x 0.9 cm. Within the fatty tissue there are multiple firm red/brown lymph node candidates ranging in size in greatest diameter from 0.4 to 1.8 cm.

Block Summary:

P1 - five lymph node candidates  
P2 - largest lymph node candidate  
Tissue remains in the container.

Container Q is additionally labeled "left neck Level 4." It holds yellow/red fatty tissue in aggregate measuring 3.0 x 1.4 x 1.4 cm. Within the fatty tissue there are multiple firm red/brown lymph node candidates ranging in greatest dimension from 0.5 to 1.4 cm.

Block summary:

Q1 - two lymph node candidates  
Q2 - two lymph node candidates  
Tissue remains in the container.

Container R is additionally labeled "anterior mucosal margin, left." It holds a 1.4 x 1.4 x 0.3 cm tan/pink soft tissue fragment. (Block FSR1,

Container S is additionally labeled "anterior mucosal margin, right." It holds a 1.6 x 0.3 x 0.2 cm tan/pink soft tissue fragment. (Block FSS1,

Container T is additionally labeled "resection of mandible, tongue, floor of mouth."

Specimen fixation: formalin

Type of specimen: partial glossectomy, partial mandibulectomy with left and right submandibular glands

Size of specimen: Anterior to posterior, 7.6 cm; left to right, 8.3 cm; superior to inferior, 7.9 cm

Laterality: bilateral

Orientation of specimen: By anatomic landmarks with the following inking scheme: inferior=black, posterior=blue, lateral oral mucosa=green.

Tumor size: anterior to posterior, 5.9 cm; left to right, 4.1 cm; superior to inferior, 5.9 cm

Tumor description: tan with multiple white firm nodules (diameter is less than 0.1 cm) with focus of necrosis (0.9 x 0.4 x 1.1 cm)

Location of tumor: floor of mouth extending into tongue

Extent of tumor: The tumor invades into the soft tissue of the left neck.

Presence/absence of bone involvement: The anterior mandible is involved by the tumor.

Distance of tumor to surgical margins: Tumor abuts the black inked inferior margin, is 0.6 cm from the blue inked posterior margin, and is 1.0 cm from the green inked mucosal margin on the lateral aspect of the mandible

Description of remainder of tissue: brown, exophytic friable mass is located on the tongue overlying the tumor (3.5 x 4.0 cm); there are eleven teeth in varying stages of decay

Lymph nodes: Left neck, Level #1: five lymph node candidates identified ranging in greatest size from 0.8 to 2.8 cm. The largest lymph node candidate (1.7 x 2.8 x 1.4 cm) was white and firm.

Right neck, Level #1: multiple firm lymph node candidates ranging in greatest diameter from 0.8 cm to 1.9 cm. The largest lymph node candidate (2.5 x 1.7 x 2.1 cm) is white, firm, with cystic degeneration.

Tissue submitted for special investigations: yes

Digital photograph taken: yes

Block summary:

T1 - right mucosal margin, en face  
T2 - left mucosal margin, en face  
T3 - left posterior mandible margin, en face (decal)  
T4 - right posterior mandible margin, en face (decal)  
T5,T6 - closest black inked margin  
T7,T8 - closest blue inked margin  
T9,T10 - closest to viable tongue coating  
T11,T12 - representative sections of white tumor nodules within tumor  
T13-T15 - tumor invading bone (decal)  
T16 - representative section of left submandibular gland  
T17 - representative section of right submandibular gland  
T18 - largest lymph node candidate from left neck, Level 1  
T19 - lymph node candidate, bisected, left neck, Level 1, bisected  
T20 - lymph node candidate, bisected, left neck, Level 1, bisected  
T21 - lymph node candidate, left neck Level 1, bisected  
T22 - lymph node candidate, left neck Level 1, bisected  
T23 - bisected lymph node candidate from right neck, Level 1  
T24 - bisected lymph node candidate from right neck, Level 1  
T25 - bisected and whole lymph node candidate (one inked blue) from right neck, Level 1  
T26 - largest lymph node candidate from right neck, Level 1

Addendum

For P16 IHC.

Addendum Comment

P16 is negative in tumor (T26) with appropriate positive control slide.

Criteria	Yes	No
Diagnos. Discrepancy	✓	
Primary Tumor Site Discrepancy	✓	
HIPAA Discrepancy	✓	
Prior Malignancy History	✓	
Dual/Synchronous Primary Noted	✓	
Case is (cli. rely)	QUALIFIED	DISQUALIFIED
Reviewer Initials	5/15/13	5/15/13