

## Surgical Pathology Report

### Diagnosis:

A: Right margin, biopsy

- Negative for in situ or invasive carcinoma

B: Left margin, biopsy

- Negative for in situ or invasive carcinoma

C: Posterior margin, biopsy

- Negative for in situ or invasive carcinoma

D: Anterior margin, biopsy

- Negative for in situ or invasive carcinoma

- Mild dysplasia of squamous epithelium

- Minimal stroma present for evaluation

E: Deep margin, biopsy

- Negative for invasive carcinoma

F: Lymph node, right level 1, biopsy

- Metastatic carcinoma present in one of two lymph nodes (1/2)

- Metastatic focus is 0.2 cm, without extranodal extension

- Benign salivary gland

G: Mouth, anterior, floor, left level 1, removal

Histologic tumor type: Squamous cell carcinoma

Histologic grade: Moderately differentiated, keratinizing

Tumor extent: Tumor is present on the ventral surface of tongue and left floor of mouth and is 4.2 cm in greatest dimension by gross measurement; it extends into a sublingual salivary gland and into large muscle fibers of the oral tongue.

Presence/absence of CIS: not identified; tumor surface is ulcerated

Presence/absence of angiolympathic space invasion: not identified

Presence/absence of perineural space invasion: not identified

### Assessment of surgical margins:

- All margins negative: closest margin is superior at 3 mm

- All separately submitted margins are negative for in situ and invasive carcinoma

Lymph nodes (part G only): Metastatic carcinoma present in two of four lymph nodes (2/4)

Largest metastatic focus is 1.3 cm, without extranodal extension

### Lymph nodes (all parts):

- Right neck (level 1 only): Metastatic carcinoma in one of two lymph nodes (1/2)

- Left neck dissection: Metastatic carcinoma present in four of forty-eight lymph nodes (4/48)

- Size of largest nodal metastasis (greatest dimension): 1.3 cm

- Presence/absence of extranodal extension: absent

Other significant findings: salivary gland with chronic inflammation

AJCC staging: pT3 pN2c

This staging information is based on information available at the time of this report, and is subject to change pending clinical review and additional information.

H: Lymph node, left level 2, removal

- Negative for metastatic carcinoma in three lymph nodes (0/3)
- Fragment of benign salivary gland

I: Lymph node, left level 3, removal

- Negative for metastatic carcinoma in two lymph nodes (0/2)

J: Lymph node, left level 4, removal

- Metastatic carcinoma present in two of fourteen lymph nodes (2/14)
- Largest metastatic focus is 1.0 cm, without extranodal extension

K: Lymph node, left level 5, removal

- Negative for carcinoma in thirteen lymph nodes (0/13)

L: Teeth, lower mandible, removal

- Multiple teeth present, gross examination only

M: Lymph node, left level 2 B, removal

- Negative for carcinoma in fourteen lymph nodes (0/14)

N: Skin, left neck, removal

- Epidermal inclusion cyst

Comment:

The frozen section diagnoses are confirmed.

Intraoperative Consult Diagnosis:

Frozen section was requested

FSA1: Right margin, biopsy

- No tumor seen

FSB1: Left margin, biopsy

- No tumor seen

FSC1: Posterior margin, biopsy

- No tumor seen

FSD1: Anterior margin, biopsy

- No definite evidence of malignancy
- Dr. concurs

FSE1 Deep margin, biopsy

- No tumor seen

Frozen Section Pathologist

Clinical History:

with stage IV SCCA of mouth.

**Gross Description:**

Specimen A is labeled "right margin" and is received fresh for frozen section and consists of one red/tan soft tissue fragment, 0.7 x 0.4 x 0.3 cm, submitted entirely as FSA1, [REDACTED]

Specimen B is labeled "left margin" and is received fresh for frozen section and consists of one red/tan soft tissue fragment, 0.8 x 0.4 x 0.3 cm, submitted entirely as FSB1, [REDACTED]

Specimen C is labeled "posterior margin" and is received fresh for frozen section and consists of one red/tan soft tissue fragment, 0.9 x 0.5 x 0.5 cm, submitted entirely as FSC1, [REDACTED]

Specimen D is labeled "anterior margin" and is received fresh for frozen section and consists of one red/tan soft tissue fragment, 1.0 x 0.8 x 0.6 cm, submitted entirely as FSD1, [REDACTED]

Specimen E is labeled "deep margin" and is received fresh for frozen section and consists of one red/tan soft tissue fragment, 0.8 x 0.4 x 0.3 cm, submitted entirely as FSE1, [REDACTED]

Specimen F is received in a formalin filled container and consists of a 4.4 x 4 x 1.2 cm aggregate of two segments of tan/brown firm fibrofatty tissue. One fragment is sectioned to reveal firm white/tan lobulated cut surface consistent with salivary gland, representative submitted in block F1. The second tissue fragment is dissected for lymph nodes. Two lymph nodes are identified (0.6 cm and 1.5 cm) and submitted as follows:

**Block Summary:**

F2 - One lymph node, bisected

F3 - One lymph node.

F4 - Representative of additional fibrous tissue and muscle

Specimen G is labeled "tongue".

Specimen fixation: Formalin

Type of specimen: Partial glossectomy and left level 1 lymph node dissection.

Size of specimen: 10 x 8 x 5.8 cm overall; tongue 5 x 5 x 2.5 cm, muscle 4 x 3 x 2.5 cm, left level 1 neck dissection 8 x 4.4 x 3 cm.

Orientation of specimen: Stitch at level of tongue. Inking: superior/black, inferior/blue, right/yellow, left/red, posterior/green.

Tumor description: A 4.2 x 2.9 cm brown/tan well circumscribed indurated fleshy mass.

Location of tumor: Left ventral tongue and floor of mouth.

Tumor size: 4.2 x 2.9 x 0.4 cm

Extent of tumor: The tumor is an ulcerated lesion which focally extends to the musculature of the tongue. The tumor appears to invade the sublingual gland.

Presence/absence of bone involvement: N/A

Distance of tumor from surgical margins: 0.6 cm black inked superior margin, 0.4 cm to the blue inked inferior margin, and 5 cm from the green inked posterior margin, 0.8 cm from the red inked lateral margin, 1.2 cm from the yellow inked right margin.

Description of remainder of tissue: The left submandibular gland is present and there is a 4.3 x 2.4 x 1.6 cm grossly positive lymph node candidate adjacent to the submandibular gland. The musculature adjacent to the lymph node is grossly unremarkable. The musculature of the tongue is focally infiltrated by radiating bands of tumor. The

sublingual gland is present and focally invaded by tumor.

Tissue submitted for special investigations: Tumor is given to tissue procurement.

Lymph nodes: Submitted separately.

Digital photograph taken: No

Block Summary:

Inking: superior/black, inferior/blue, right/yellow, left/red, posterior/green.

G1 - Perpendicular section of tumor and left margin

G2 - Perpendicular section of tumor and right margin

G3 - Tumor invading sublingual gland

G4 - Base of tongue tumor invading into tongue muscle

G5 - Base of tongue tumor and superior black inked margin

G6 - Base of tongue tumor extending onto floor of mouth

G7 - Left submandibular gland and adjacent positive lymph node candidate

G8 - Grossly positive lymph node candidate and adjacent muscle (same lymph node as in G7)

G9 - Tip of tongue and tumor

G10 - One level 1 lymph node candidate, bisected

G11 - One level 1 lymph node candidate, bisected

G12 - Representative of a second grossly positive lymph node candidate

G13 - right lateral margin, en face and perpendicular

G14 - left lateral margin, en face and perpendicular

Specimen H is received in a formalin filled container and labeled "left level 2 lymph node" and consists of a 5.5 x 3.5 x 1.8 cm fragment of fibrofatty tissue, dissected for lymph nodes. No lymph nodes are grossly identified. The tissue is submitted entirely in blocks H1-H8, [REDACTED]

Specimen I is received in a formalin filled container and labeled "left level 3 lymph node" and consists of a 4.5 x 3.8 x 1.5 cm fragment of fibrofatty tissue, which is dissected for lymph nodes. Two lymph nodes are identified (0.6 cm and 1.5 x 0.6 cm). One lymph node is submitted in block I1 and one lymph node is bisected and submitted in I2. Representative of additional soft tissue is submitted in block I3-I4.

Specimen J is received in a formalin filled container and labeled "left level 4 lymph node" and consists of an 8 x 2.5 x 1 cm fragment of fibrofatty tissue which is dissected for lymph nodes. Sixteen lymph nodes are identified ranging

from 0.4 cm in diameter to 1.5 cm in diameter. Two lymph nodes are grossly positive with a white/tan hemorrhagic nodular cut surface.

Block Summary:

J1 - Representative one lymph node, grossly positive

J2 - Representative one lymph node, grossly positive

J3 - One lymph node, bisected

J4 - One lymph node, bisected

J5 - Six lymph nodes

J6

J7 - Six lymph nodes

Specimen K is received in a formalin filled container and labeled "left level 5 lymph node" and consists of a 5 x 3 x 1.8 cm fragment of fibrofatty tissue which is dissected for lymph nodes. Fourteen lymph nodes are identified ranging from 0.4 cm in diameter to 3.5 x 1.5 x 0.8 cm in diameter.

Block Summary:

K1-K2 - One lymph node, bisected

K3 - Five lymph nodes

K4 - Four lymph nodes

K5 - Four lymph nodes

Specimen L is received in a formalin filled container and labeled "lower mandible teeth" and consists of a 5.5 x 5 x 1.5 cm aggregate of eleven teeth and one crown. No tissue is submitted for microscopic examination, grossly only.

Specimen M is received in a formalin filled container and labeled "left level 2 lymph node" and consists of a 3.3 x 2.8 x 1.1 cm fragment of fibrofatty tissue which is dissected for lymph nodes. Seven lymph nodes are identified ranging from 0.3 to 0.8 cm in diameter.

Block Summary:

M1 - Four lymph node

M2 - Three lymph nodes

M3 - Representative of soft tissue

Specimen N is received in a formalin filled container and labeled [REDACTED] left neck skin" and consists of a 2.5 x 1.7 x 1.0 cm white/tan cystic structure and fibrous tissue with an overlying 1.5 x 0.6 cm unoriented ellipse of white/tan skin. The specimen is inked and sectioned to exhibit a 0.1 cm thick cyst wall filled with a white/yellow creamy material. Representative submitted in blocks

N1-N2.

Light Microscopy:

Light microscopic examination is performed.

Sections of the floor of mouth and ventral tongue show an ulcerated, invasive keratinizing squamous cell carcinoma, moderately differentiated. The carcinoma extends to the edge of a sublingual salivary gland and invades large muscle fibers of the oral tongue. No definite *in situ* component is identified. No definite angiolymphatic or perineural invasion is identified. Margins are negative; tumor is 3 mm to superior margin and 4 mm to the posterior margin (closest approach to posterior occurs in a lymph node); the left and right lateral margins, as well as the inferior margin, are clear by greater than 5 mm.

Metastatic squamous carcinoma is present in the separately submitted right level 1 lymph node multifocally, the largest focus is 2 mm and it is confined to the lymph node. Multiple left neck lymph nodes have metastatic carcinoma, the largest of which is a level 1 node present in the main specimen, which has a 1.3 cm metastatic focus; no lymph nodes show extranodal extension. The skin cyst is a benign epidermal inclusion cyst.

[REDACTED]

[REDACTED]

[REDACTED]