

## **SURGICAL PATHOLOGY**

Case Number : [REDACTED]

**Diagnosis:**

A: Tongue base mucosa, biopsy  
- No tumor seen.

B: Posterior ventral tongue, biopsy  
- No tumor seen.

C: Lower mouth mucosa, biopsy  
- No tumor seen.

D: Base of tongue B, biopsy  
- No tumor seen.

E: Midline ventral tongue mucosa, biopsy  
- No tumor seen.

F: Lymph node, left neck Level 1, biopsy  
- Metastatic squamous cell carcinoma in 1 of 9 lymph nodes (1/9); maximum size of metastasis 1.0 cm; extracapsular extension identified.  
- Benign salivary gland tissue present.

G: Lymph node, left neck Level 2, biopsy  
- Metastatic squamous cell carcinoma in 1 of 2 lymph nodes (1/2); maximum size of metastasis 0.9 cm; extracapsular extension identified.

H: Lymph node, left neck Level 3, biopsy  
- Metastatic squamous cell carcinoma in 1 of 37 lymph nodes (1/37); maximum size of metastasis 0.2 cm; negative for definite extracapsular extension.

I: Tongue, left hemiglossectomy

Tumor histologic type/subtype: invasive moderately differentiated keratinizing squamous cell carcinoma

Primary site: tongue

Size: 5.4 cm by gross examination

Extent of invasion:

Angiolymphatic invasion: present

Perineural Invasion: present  
Bone invasion: not applicable

Carcinoma in situ: not identified

Surgical Margins: All surgical margins negative for definite involvement by carcinoma; the anterior tip is close but negative for definite carcinoma (see comment).

Lymph nodes: Total lymph node count for all specimens is 3 of 48 involved by metastatic squamous cell carcinoma, separately submitted in specimens F, G and H.

Size of largest metastasis: 1.0 cm

Extra-capsular extension: focally present in specimens F and G

Other significant findings: The carcinoma is deeply invasive into the skeletal muscle within the hemiglossectomy. The tumor extends far anteriorly, very close to the anterior tip. In the anterior tip, the carcinoma is present beneath an intact surface squamous mucosa.

AJCC PATHOLOGIC TNM STAGE: pT4a pN2b

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 frozen section diagnoses are confirmed.



The surgical resection margins are free of definite involvement by tumor. The tumor does extend deeply into the muscle of the hemiglossectomy specimen and extends far anteriorly. An anterior tip section was taken and submitted en face initially which revealed a focus of submucosal invasive squamous cell carcinoma. This section is subsequently bisected and submitted as perpendicular sections revealing the invasive carcinoma to be present beneath an intact anterior surface squamous mucosa. The inked true margins in the anterior tip section are negative for definite tumor.

Intraoperative Consult Diagnosis:

A frozen section was requested by [REDACTED]

FSA1: Tongue base mucosa, biopsy

- Chronic inflammatory infiltrate. No tumor seen.

FSB1: Posterior ventral tongue, biopsy

- No tumor seen

FSC1: Lower mouth mucosa, biopsy

- No tumor seen

FSD1: Base of tongue, B, biopsy

- No tumor seen

FSE1: Midline ventral tongue mucosa, biopsy

- No tumor seen

[REDACTED]  
Frozen Section Pathologist:, MD

Clinical History:

[REDACTED] with left sided tongue lesion; biopsy showed moderately differentiated squamous cell carcinoma.

Gross Description:

Received are nine appropriately labeled containers. Containers A-E are received fresh for frozen section.

Container A holds a 1 x 0.4 x 0.4 cm red/tan soft tissue fragment; block FSA1, NTR.

Container B holds a 0. 0.5 x 0.3 cm red/tan soft tissue fragment; block FSB1, [REDACTED]

Container C holds a 0. 0.3 x 0.3 cm red/tan soft tissue fragment; block FSC1, [REDACTED]

Container D holds a 0. 0.3 x 0.3 cm red/tan soft tissue fragment; block FSD1, [REDACTED]

Container E holds a 1. 0.3 x 0.3 cm red/tan soft tissue fragment; block FSE1, [REDACTED]

Container F is additionally labeled "left neck, Level 1." It holds an 8.3 x 6.1 x 2.0 cm unoriented aggregate of brown/tan fibroadipose tissue. There is 10.7 gram (4.9 x 2.9 x 1.7 cm) gland. The outside surface is inked entirely in blue. Nine lymph node candidates, ranging in size from 3.4 x 1.9 x 1.1 cm to 0.5 x 0.4 x 0.2 cm are identified. The largest node on sectioning is white and firm with areas of hemorrhage. The submandibular gland on sectioning is tan and lobulated.

Block summary:

F1 - largest node, representative sections  
F2 - largest node, representative sections  
F3,F4 - second largest node, serially sectioned and entirely submitted  
F5 - one lymph node, bisected  
F6 - three lymph node candidates  
F7 - three lymph node candidates  
F8 - submandibular gland, representative sections  
F9 - submandibular gland, representative sections

Container G is additionally labeled "left neck, Level 2." It holds a 5.0 x 4.6 x 2.0 cm aggregate of brown/tan fibrofatty tissue. There are three lymph node candidates palpated ranging in size from 2.1 x 1.1 x 1.0 cm to 0.5 x 0.2 x 0.2 cm. On sectioning the largest node has a white/tan firm area. On sectioning, the second largest node is homogeneously pink/tan.

Block summary:

G1 - largest node, representative sections  
G2 - second largest node, serially sectioned  
G3 - second largest node, serially sectioned  
G4 - smallest node

Container H is additionally labeled "left neck Level 3." It holds a 9.3 x 4.5 x 2.0 cm aggregate of brown/tan fibrofatty tissue. There are twenty lymph node candidates palpated ranging in size from 2.8 x 1.9 x 0.7 cm to 0.3 x 0.3 x 0.3 cm. On sectioning, the largest node is hemorrhagic.

Block summary:

H1,H2 - largest node, serially sectioned, entirely submitted  
H3 - second largest node, bisected and entirely submitted  
H4 - three lymph node candidates

H5 - three lymph node candidates  
H6 - three lymph node candidates  
H7 - four lymph node candidates  
H8 - five lymph node candidates

Container I is additionally labeled "left hemiglossectomy, long stitch/lateral, short/anterior." It holds a 6.5 x 3.6 x 3.0 cm segment of tongue with long stitch designating lateral and short stitch designating anterior. The inking scheme is blue=lateral, green=medial, black=deep. The surface of the tongue is patchy, white with areas of firm micronodularity measuring 4.5 x 2.5 cm in the lateral anterior segment. The remaining surface is unremarkable. On sectioning, the tumor occupies approximately 70% of the total specimen. The tumor is white/tan and firm with areas of hemorrhage. The tumor is 2.5 cm medial to lateral, 2.1 cm from the tongue surface to deep margin, 5.4 cm anterior to posterior. The tumor grossly extends to the blue inked surface which is representative of ulcerated tumor at the mucosal surface and not a true margin, and also extends close to the black inked deep margin. The tumor extends to within 0.4 cm of the closest green inked medial margin. The tumor extensively involves the lateral mucosal surface with extensive ulceration. The tumor is white-tan and firm and extends far into the anterior aspect of the specimen, very close to the anterior tip of the resection specimen. The remaining uninvolved tongue is tan-brown with a whorled muscular appearance.

Block summary:

I1 - anterior tip, initially submitted en face, subsequently bisected as perpendicular margin specimen  
I2 - posterior tip, en face  
I3 - representative sections of tumor with all margins  
I4 - tumor with closest green inked medial margin  
I5 - tumor with closest blue inked lateral margin  
I6 - tumor with closest black inked deep margin  
I7 - mass with closest overlying tongue surface