

Accession #: [REDACTED]
Accession Date: [REDACTED]
Collection Date: [REDACTED]
Attending Physician: [REDACTED]
Procedure Physician/Copies To: [REDACTED]

Patient Name: [REDACTED]
MRN: [REDACTED]
Location: [REDACTED]
DOB/Age/Sex: [REDACTED]
Account #: [REDACTED]
Patient Type: [REDACTED]
Specimen Class: [REDACTED]
Bench Designate: [REDACTED]

PATIENT HISTORY:

CHIEF COMPLAINT/PRE-OP/POST-OP DIAGNOSIS: Respiratory distress.
PROCEDURE: Tracheostomy, Total laryngectomy, Bilateral neck dissection.
SPECIFIC CLINICAL QUESTION: Not answered.
OUTSIDE TISSUE DIAGNOSIS: Not answered.
PRIOR MALIGNANCY: Not answered.
CHEMORADIATION: Not answered.
ORGAN TRANSPLANT: Not answered.
IMMUNOSUPPRESSION: Not answered.
OTHER DISEASES: Not answered.

ADDENDA:**Addendum**

The results of ancillary studies are as follows:

P16 immunohistochemistry: negative
HPV in-situ hybridization: negative
EGFR immunohistochemistry: 1+ membranous staining

[REDACTED]

[REDACTED]

My signature is attestation that I have personally reviewed the submitted material(s) and the above diagnosis reflects that evaluation.

FINAL DIAGNOSIS:

PART 1: LYMPH NODES, RIGHT NECK DISSECTION LEVELS 2-4, BIOPSY –

- A. SIXTEEN LYMPH NODES, NO SQUAMOUS CELL CARCINOMA PRESENT (0/16).
- B. METASTATIC PAPILLARY THYROID CARCINOMA INVOLVING TWO OF SIXTEEN LYMPH NODES (2/16).
- C. NO EXTRACAPSULAR SPREAD PRESENT.

PART 2: LYMPH NODES, LEFT NECK DISSECTION LEVELS 2-4, BIOPSY –
TWENTY-ONE LYMPH NODES, NO TUMOR PRESENT (0/21).

PART 3: LEFT UPPER PHARYNX, BIOPSY –

Pathology Report

MILD DYSPLASIA, NO TUMOR PRESENT.

PART 4: BASE OF TONGUE, LEFT, BIOPSY –
NO TUMOR PRESENT.

PART 5: BASE OF TONGUE, RIGHT, BIOPSY –
NO TUMOR PRESENT.

PART 6: UPPER PHARYNX, RIGHT, BIOPSY –
NO TUMOR PRESENT.

PART 7: UPPER PHARYNX, RIGHT, BIOPSY –
NO TUMOR PRESENT.

PART 8: UPPER PHARYNX, LEFT, BIOPSY –
MILD DYSPLASIA, NO TUMOR PRESENT.

PART 9: LARYNX, TOTAL LARYNGECTION –

- A. INVASIVE SQUAMOUS CELL CARCINOMA, MODERATELY DIFFERENTIATED (3.5 CM), SUPRAGLOTTIC, INVOLVING THE RIGHT AND LEFT EPIGLOTTIS, FALSE CORDS, AND EXTENDING INTO THE PRE-EPIGLOTTIC AND PARAGLOTTIC SPACES, AND ANTERIOR SOFT TISSUE (see comment).
- B. NO THYROID CARTILAGE INVOLVEMENT.
- C. NO ANGIOLYMPHATIC INVASION OR PERINEURAL INVASION PRESENT.
- D. MARGINS FREE OF TUMOR.
- E. PATHOLOGIC STAGE: pT4N0.
- F. HYPERCELLULAR BONE MARROW WITH TRILINEAGE HEMATOPOIESIS, AND SLIGHTLY LEFT SHIFTED MYELOID MATURATION.

COMMENT:

Part 9: Ancillary studies are being performed and the results will be reported in an addendum.

My signature is attestation that I have personally reviewed the submitted material(s) and the final diagnosis reflects that evaluation.

GROSS DESCRIPTION:

The specimen is received fresh, in nine parts, each labeled with the patient's name, medical record number and initials [REDACTED]

Part 1 is received labeled "right neck, levels 2-4". It consists of a single, un-oriented piece of fibroadipose tissue measuring 6.0 x 4.0 x 2.5 cm. Throughout the tissue are numerous tan-to-white colored lymph nodes, ranging in size from 0.3 to 2.0 cm. The nodes vary from soft to firm in consistency. Representative sections are submitted for permanent histology as follows:

- 1A → one large node
- 1B → 4 nodes
- 1C → 6 nodes
- 1D-1E → fibroadipose tissue

Pathology Report

Part 2 is received labeled "left neck, levels 2-4". It consists of a single, un-oriented piece of fibroadipose tissue measuring 6.5 x 4.7 x 3.0 cm. Throughout the tissue, 17 tan-to-white colored lymph nodes are identified, ranging in size from 0.3 to 2.0 cm. The nodes vary from soft to firm in consistency. The remainder of the fibroadipose tissue appears unremarkable. Representative sections are submitted for permanent histology as follows:

2A-2D → nodes
2E-2G → fibroadipose tissue

Part 3 is received labeled "left upper pharynx". It consists of a single piece of soft, tan-white tissue measuring 1.5 x 0.2 x 0.2 cm. Following an intraoperative frozen section, the entire tissue is submitted for permanent histology in a single cassette labeled 3A [REDACTED]

Part 4 is received labeled "left base of tongue". It consists of a single piece of soft, tan-brown, partially cauterized tissue measuring 2.0 x 0.6 x 0.3 cm. Following an intraoperative frozen section, the entire tissue is submitted for permanent histology in a single cassette labeled 4A [REDACTED]

Part 5 is received labeled "right base of tongue". It consists of two small pieces of soft, tan-white tissue collectively measuring 0.6 x 0.5 x 0.3 cm. Following an intraoperative frozen section, the entire tissue is submitted for permanent histology in a single cassette labeled 5A [REDACTED]

Part 6 is received labeled "right upper pharynx". It consists of a single piece of soft, tan-brown, partially cauterized tissue measuring 1.5 x 0.3 x 0.2 cm. Following an intraoperative frozen section, the entire tissue is submitted for permanent histology in a single cassette labeled 6A [REDACTED]

Part 7 is received labeled "right hypopharynx". It consists of a single piece of soft, tan-brown, partially cauterized tissue measuring 1.2 x 0.5 x 0.1 cm. Following an intraoperative frozen section, the entire tissue is submitted for permanent histology in a single cassette labeled 7A [REDACTED]

Part 8 is received labeled "left hypopharynx". It consists of a single strip of soft, tan tissue measuring 3.0 x 0.2 x 0.1 cm. Following an intraoperative frozen section, the entire tissue is submitted for permanent histology in a single cassette labeled 8A [REDACTED]

Part 9 is received labeled "larynx". It consists of a complete larynx with attached tongue base, superior trachea and surrounding soft tissue having an overall measurement of 8.5 x 5.5 x 5.0 cm. The mucosal surface of the epiglottis shows a peripherally fungating, centrally ulcerating mass lesion that measures 3.5 x 2.8 cm. The lesion is centered approximately 0.5 cm to the left of the midline and 3.1 cm from the tip of the epiglottis. The mass extends inferiorly, apparently involving the left false vocal chord, obscuring the left ventricle and abutting the superior surface of the left true chord. On the right, the mass appears to extend to the superior aspect of the false chord, compressing the right ventricle. The right true chord is edematous and expanded. Serial sections along the mid-sagittal plane at 3 mm intervals show the mass extending into the pre-epiglottic space (predominantly on the left), with extension between the hyoid bone and superior aspect of the thyroid cartilage. Maximum thickness of the lesion is approximately 2.0 cm. The lesion appears to invade into the base of the tongue, but remains at least 0.5 cm from the tongue base margin. The lesion directly abuts the epiglottic cartilage in multiple areas but does not appear to invade it. At the tip of the epiglottis is an irregularly shaped area of ulceration that measures 0.8 x 0.6 cm, and 1-2 mm in depth. The mucosa overlying the left pre-epiglottic region shows a deep, well-demarcated ulceration that measures 1.0 x 0.6 cm, with a depth of 3 mm. On sectioning, this ulceration is contiguous with the invading mass lesion in the underlying pre-epiglottic space. The tracheal mucosa is glistening, tan, and shows multifocal pinpoint hemorrhage. The soft tissue surrounding the remainder of the specimen consists of normal appearing muscle and adipose which has been partially cauterized. The entire soft tissue margin of resection is inked, seven digital images are taken, and representative sections are submitted for histology as follows:

9A → tracheal margin, shave
9B → epiglottis, tumor and tongue base section
9C → tumor, epiglottis, pre-epiglottic space and ulceration
9D → tumor and hyoid bone
9E → tumor and left false/true chords
9F → tumor and right false/true chords
9G → soft tissue margin (random)
9H → normal trachea

Pathology Report

Sections A, D, E, F are submitted for decalcification.

This specimen was reviewed with [REDACTED]

INTRAOPERATIVE CONSULTATION:

3FS: LEFT UPPER PHARYNX

- A. BENIGN
- B. MILD-TO-MODERATE DYSPLASIA, NO TUMOR SEEN

4FS: LEFT BASE OF TONGUE

- A. BENIGN
- B. NO TUMOR SEEN

5FS: RIGHT BASE OF TONGUE

- A. BENIGN
- B. NO TUMOR SEEN

6FS: RIGHT UPPER PHARYNX

- A. BENIGN
- B. MILD DYSPLASIA, NO TUMOR SEEN

7FS: RIGHT HYPOPHARYNX

- A. BENIGN
- B. NO TUMOR SEEN

8FS: LEFT HYPOPHARYNX

- A. BENIGN
- B. MILD-TO-MODERATE DYSPLASIA, NO TUMOR SEEN.

MICROSCOPIC:

Microscopic examination substantiates the above diagnosis.

The following statement applies to all immunohistochemistry, insitu hybridization (ISH & FISH), molecular anatomic pathology, and immunofluorescence testing:

The testing was developed and its performance characteristics determined by the [REDACTED], as required by the CLIA [REDACTED] regulations. The testing has not been cleared or approved for the specific use by the U.S. Food and Drug Administration, but the FDA has determined such approval is not necessary for clinical use. Tissue fixation ranges from a minimum of [REDACTED] to a maximum of [REDACTED].

This laboratory is certified under the Clinical Laboratory Improvement Amendments of [REDACTED] as qualified to perform high-complexity clinical testing. Pursuant to the requirements of CLIA, A&R's used in this laboratory have been established and verified for accuracy and precision. Additional information about this type of test is available upon request.

Pathology Report

CASE SYNOPSIS:

SYNOPTIC DATA - LARYNX RESECTIONS

TYPE OF LARYNGECTOMY: Total
TUMOR LOCATION: Midline
ATTACHED STRUCTURES: Base of tongue
TUMOR LOCATION/SEGMENT: Supraglottic
TUMOR SIZE: Maximum dimension: 3.5 cm
HISTOLOGIC TYPE OF TUMOR: Squamous cell carcinoma
HISTOLOGIC GRADE: Moderately differentiated
STRUCTURES INVOLVED BY TUMOR: False cord, Epiglottis, Pre-epiglottic space, Paraglottic space, Extralaryngeal soft tissue

LYMPH NODES POSITIVE: Number of lymph nodes positive: 0
LYMPH NODES EXAMINED: Total number of lymph nodes examined: 37

EXTRACAPSULAR SPREAD OF LYMPH NODE METASTASES

No
INTRA-PERINEURAL INVASION: Absent
VASCULAR INVASION: No
SURGICAL MARGIN INVOLVEMENT: Free (2 mm or more)
T STAGE, PATHOLOGIC: Supraglottis, pT4a
N STAGE, PATHOLOGIC: pN0
M STAGE, PATHOLOGIC: pMX

HISTO TISSUE SUMMARY/SLIDES REVIEWED:

Part 1: Right Neck Levels 2-4

Taken: [REDACTED] Received: [REDACTED]

Stain/ctn	Block
H&E x 1	A
H&E x 1	B
H&E x 1	C
H&E x 1	D
H&E x 1	E

Part 2: Left Neck Levels 2-4

Taken: [REDACTED] Received: [REDACTED]

Stain/ctn	Block
H&E x 1	A
H&E x 1	B
H&E x 1	C
H&E x 1	D
H&E x 1	E
H&E x 1	F
H&E x 1	G

Part 3: Left Upper Pharynx

Taken: [REDACTED] Received: [REDACTED]

Stain/ctn	Block
H&E x 1	Afs

Part 4: Left Base of Tongue

Taken: [REDACTED] Received: [REDACTED]

Pathology Report

Stain/cnt Block
H&E x 1 Afs

Part 5: Right Base of Tongue

Taken: [REDACTED] Received: [REDACTED]

Stain/cnt Block
H&E x 1 Afs

Part 6: Right Upper Pharynx

Taken: [REDACTED] Received: [REDACTED]

Stain/cnt Block
H&E x 1 Afs

Part 7: Right Upper Pharynx

Taken: [REDACTED] Received: [REDACTED]

Stain/cnt Block
H&E x 1 Afs

Part 8: Left Upper Pharynx

Taken: [REDACTED] Received: [REDACTED]

Stain/cnt Block
H&E x 1 Afs

Part 9: Larynx

Taken: [REDACTED] Received: [REDACTED]

Stain/cnt Block

H&E x 1 B

H&E Recut x 1 C

IHPV x 1 C

cmet x 1 C

IEGFR x 1 C

IBNKNC x 1 C

H&E x 1 C

IIISH x 1 C

IIISH x 1 C

P16 x 1 C

V-EGFR x 1 C

H&E x 1 G

H&E x 1 H

Decal x 1 [REDACTED]

H&E x 1 [REDACTED]

Pathology Report

ICD-9 Diagnosis Codes: {None Entered}

CONSULTING PATHOLOGIST(S): [REDACTED]

SPECIAL PROCEDURES:

In Situ Procedure

Interpretation

PROBE: LSI EGFR/CEP7 Dual-Color Probe

Cytogenetic Location: 7p12 / 7p11.1-q11.1

EGFR FISH STUDIES PERFORMED ON THE SQUAMOUS CELL CARCINOMA ARE NEGATIVE.

Number of cells analyzed: 60

Ratio EGFR/CEP7: 1.53

High Polysomy: 0%

SNR (signal to nucleus ratio): 2.5

Low Polysomy: 16(26.7%)

Trisomy: 4(6.7%)

Disomy: 40(66.6%)

PROBE: c-MET*/CEP7

Cytogenetic Location: 7q31.2 / 7p11.1-q11.1

C-MET FISH STUDIES PERFORMED ON THE SQUAMOUS CELL CARCINOMA ARE NEGATIVE FOR AMPLIFICATION.

Number of cells analyzed: 60

Ratio c-MET/CEP7: 1.07

SNR (signal to nucleus ratio): 2.2

High Polysomy: 0%

Low Polysomy: 0%

Trisomy: 21(35.0%)

Disomy: 39(65.0%)

My signature is attestation that I have personally reviewed the submitted material(s) and the above diagnosis reflects that evaluation.

Results

EGFR FISH analysis was manually performed and qualitatively assessed by analysis of a minimum of 60 cells using the EGFR SpectrumOrange and the CEP7 SpectrumGreen probes.

Pathology Report

C-MET FISH analysis was manually performed and quantitatively assessed by analysis of a minimum of 60 cells using the *c-MET* SpectrumOrange and the *CEP7* SpectrumGreen (centromeric) probes.

EGFR FISH positive:

High Polysomy: \geq four gene copies in $\geq 40\%$ of cells

Gene Amplification: Ratio gene/chromosome more than two or ≥ 15 gene copies in $\geq 10\%$ of cells

EGFR FISH negative:

Disomy: \leq two gene copies in more than 90% of the cells

Trisomy: three gene copies in more than 10% of cells

Low Polysomy: \geq four gene copies in more than 10% but less than 40% of cells

c-MET FISH positive:

Gene Amplification: Ratio gene/chromosome more than two or ≥ 15 gene copies in $\geq 10\%$ of cells

c-MET FISH negative:

Ratio gene/chromosome less than two or ≤ 15 gene copies in $\leq 10\%$ of the cells.

References: