

**PATIENT HISTORY:**

Laryngeal lesion.

PRE-OP DIAGNOSIS: Direct laryngoscopy with biopsy.

POST-OP DIAGNOSIS: Laryngeal squamous cell carcinoma.

PROCEDURE: Laryngoscopy and total laryngectomy.

**ADDENDA:**

**Addendum**

This case has also been reviewed by [REDACTED]

Their diagnoses agrees with the diagnoses we have previously rendered.

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

**FINAL DIAGNOSIS:**

PART 1: LARYNX, RIGHT, BIOPSY –

CARCINOMA IN SITU WITH QUESTIONABLE SUPERFICIAL INVASION.

PART 2: LYMPH NODES, LEVELS 2 TO 4, RIGHT, SELECTIVE NECK DISSECTION –  
THIRTY-SIX BENIGN LYMPH NODES (0/36).

PART 3: LYMPH NODES, LEVELS 2 TO 4, LEFT, SELECTIVE NECK DISSECTION –  
SEVENTEEN BENIGN LYMPH NODES (0/17).

PART 4: LARYNX, TOTAL LARYNGECTOMY AND RIGHT THYROID LOBECTOMY-

- A. PREDOMINANTLY RIGHT-SIDED TRANSGLOTTIC, MODERATELY-DIFFERENTIATED SQUAMOUS CELL CARCINOMA (2.8 CM).
- B. THE TUMOR INVADES THE THYROID CARTILAGE.
- C. NO ANGIOLYMPHATIC INVASION OR PERINEURAL INVASION IDENTIFIED.
- D. RESECTION MARGINS ARE FREE OF TUMOR.

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- E. ONE BENIGN LYMPH NODE (0/1).
- F. RIGHT LOBE OF THYROID WITH BENIGN FOLLICULAR NODULES .
- G. PATHOLOGIC STAGE: pT4a N0 Mx.

PART 5: SOFT TISSUE, RULE OUT PARATHYROID (6 MG) -

- A. NORMOCCELLULAR PARATHYROID TISSUE.
- B. POIL RED O SHOWS ADEQUATE INTRACITOPLASMIC LIPID.

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

### GROSS DESCRIPTION:

Specimen is received in 5 parts.

Part 1 is received fresh labeled with the patient's name, initials [REDACTED] and "right larynx biopsy". Received is a single, light tan- ivory, irregular, soft, tissue biopsy measuring 0.4 x 0.2 x 0.1 cm. A frozen section is performed with an intraoperative diagnosis completed. The specimen is entirely submitted in a cassette labeled AFS.

Part 2 is received fixed, identified with the patient's name, initials [REDACTED] and labeled as "right selective neck dissection levels 2-4". It consists of 11.5 x 2 x 1.5 cm oriented fragment of fibroadipose tissue and lymph nodes ("Stitch - level 2B has two strings; level 4 has one string"). On dissection multiple lymph nodes are identified measuring 0.5 and up to 2.0 cm in greatest dimension. The largest lymph node is located at level 4.

Level 2B lymph nodes range in size from 0.3 up to 1.8 cm in greatest dimension and they are submitted as follows:

2A - multiple lymph nodes with the largest one bisected

2B-2D - multiple lymph nodes.

Level 3 lymph nodes range in size from 1.0 up to 1.9 cm in greatest dimension and they are submitted as follows:

2E-2F - multiple lymph nodes

2G-2H - multiple lymph nodes with the largest one bisected in each.

Level 4 lymph nodes range in size from 0.5 up to 2.1 cm in greatest dimension and they are submitted as follows:

2I-2K - level 4, multiple lymph nodes with the largest one bisected in each.

Part 3 is received fixed, identified with the patient's name, initials [REDACTED] and labeled as "left selective neck dissection levels 2-4." It consists of 11 x 3 x 1.2 cm oriented fragment of fibroadipose tissue and lymph nodes ("short stitch 2B, long stitch level 4"). Multiple lymph nodes are identified measuring 0.3 up to 2.1 cm in greatest dimension. The largest lymph node is located at level 2B.

Level 2B lymph nodes range in size from 0.3 up to 2.1 cm in greatest dimension. They are submitted as follows:

3A-3C - multiple lymph nodes with the largest one bisected in each

Level 3 lymph nodes range in size from 0.5 up to 2.0 cm in greatest dimension. They are submitted in 3D with the largest one bisected.

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Level 4 lymph nodes range in size from 0.4 up to 1.8 cm in greatest dimension. They are submitted as follows:

3E – multiple lymph nodes

3F-3G – multiple lymph nodes with the largest one bisected in each.

Part 4 is received fixed identified with the patient's name, initials [REDACTED] and "larynx." It consists of a 8.2 x 8.0 x 5.0 cm previously opened total laryngectomy with attached right lobe of thyroid, and hyoid bone (8.2 x 1.5 x 1.0 cm)..

On inspection, there is an irregularly shaped, white, exophytic and friable mass with central ulceration measuring 2.8 x 2.5 cm. The tumor involves the right true and false vocal cord, and right ventricle. The tumor is abutting and possibly involving the anterior commissure, and extends 0.9 cm above the false cord and 0.5 cm below the true vocal cord. Cut surface reveals the tumor involves the thyroid cartilage, and may extend to anterior soft tissue.

The right lobe of thyroid is present measuring 3 x 2.5 x 1.5 cm and shows fibrotic brown parenchyma with focal cystic nodules on serial sectioning.

Tumor is banked for research purposes. Digital images are taken.

Ink code:

Black - below hyoid bone

Green - upper hyoid bone

Red - area of banked tumor.

Section code:

4A – pre-epiglottic soft tissue margin (radial)

4B – anterior epiglottic soft tissue margin (radial)

4C – right aryepiglottic fold (shave)

4D – left aryepiglottic fold (shave)

4E – inferior tracheal margin (shave)

4F – right vocal cord

4G – right vocal cord, supraglottis

4H – right vocal cord, glottis and subglottis

4I/4J – left true cord and left false cord

4K – tumor in relation with thyroid cartilage

4L – right thyroid

4M – level 6 lymph nodes

Part 5 is received fresh labeled with the patient's name, initials [REDACTED] and "rule out parathyroid". Received is a single, 6 mg, irregular, unoriented, soft to rubbery, tan-orange, tissue, 0.2 x 0.1 by less than 0.1 cm. A frozen section and intra-operative report was requested and performed. The specimen is entirely submitted for processing in a cassette labeled 5AFS.

### INTRAOPERATIVE CONSULTATION:

1AFS: LARYNX, RIGHT, BIOPSY (frozen section)-

A. MALIGNANT

B. AT LEAST SEVERE DYSPLASIA/ CIS [REDACTED]

5AFS: PARATHYROID, NOS, BIOPSY (frozen section)-

A. BENIGN

B. PARATHYROID TISSUE

C. OIL RED O [REDACTED]

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### 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] Department of Pathology, 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, ASR'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.

### CASE SYNOPSIS:

#### SYNOPTIC DATA - LARYNX RESECTIONS

TYPE OF LARYNGECTOMY:	Total
TUMOR LOCATION:	Right, Left
ATTACHED STRUCTURES:	Neck dissection, Thyroid
TUMOR LOCATION/SEGMENT:	Transglottic
TUMOR SIZE:	Maximum dimension: 2.8 cm
HISTOLOGIC TYPE OF TUMOR:	Squamous cell carcinoma
HISTOLOGIC GRADE:	Moderately differentiated
STRUCTURES INVOLVED BY TUMOR:	True cord, Anterior commissure, False cord, Ventricle, Thyroid cartilage
LYMPH NODES POSITIVE:	Number of lymph nodes positive: 0
LYMPH NODES EXAMINED:	Total number of lymph nodes examined: 54
METASTASES	
INTRA-PERINEURAL INVASION:	Absent
VASCULAR INVASION:	No
SURGICAL MARGIN INVOLVEMENT:	Free (2 mm or more)
T STAGE, PATHOLOGIC:	Glottis, pT4a
N STAGE, PATHOLOGIC:	pN0
M STAGE, PATHOLOGIC:	pMX

### HISTO TISSUE SUMMARY/SLIDES REVIEWED:

#### Part 1: Biopsy Larynx, right

Taken: [REDACTED]

Stain/cnt	Block
H&E x 1	A fs
H&E x 1	A fs

#### Part 2: RIGHT SELECTIVE NECK DISSECTION LEVELS 2-4 STITCH LEVEL 2B HAS TWO STRINGS. LEVEL 4 HAS ONE STRING

Taken: [REDACTED]

Stain/cnt	Block
H&E x 1	A
H&E x 1	B

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H&E x1 C  
H&E x1 D  
H&E x1 E  
H&E x1 F  
H&E x1 G  
H&E x1 H  
H&E x1 I  
H&E x1 J  
H&E x1 K

### Part 3: LEFT SELECTIVE NECK LEVELS 2-4 SHORT STITCH 2B LONG STITCH LEVEL 4

Taken:

Stain/cnt Block  
H&E x1 A  
H&E x1 B  
H&E x1 C  
H&E x1 D  
H&E x1 E  
H&E x1 F  
H&E x1 G  
H&E x1 H  
H&E x1 I  
H&E x1 J

### Part 4: Larynx, Total Laryngectomy

Taken:

Stain/cnt Block  
H&E x1 A  
H&E x1 B  
H&E x1 C  
H&E x1 D  
H&E x1 E  
H&E x1 F  
H&E x1 G  
H&E x1 H  
H&E x1 I  
H&E x1 J  
H&E x1 K  
H&E x1 L  
H&E x1 M

### Part 5: R/O PARATHYROID

Taken:

Stain/cnt Block  
FRZ Single x1 A  
H&E x1 A  
Oil/RedO x1 A

ICD-9 Diagnosis Codes: (None Entered)