

TCD-O-3

Pathology Repor

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TCGA-CN-A63T-01A-PR

Redacted



Report Type ..
 Date of Event
 Sex M
 Authored by
 Hosp/Group
 Record Status CORRECTED

*Carcinoma, squamous
cell NOS 8070/3*

*Site Larynx NOS C32.
JW 5/10/13*

ADDENDA:

Addendum

The lymph node findings were reviewed in this case per request from Dr. Additional immunohistochemical studies were also performed to evaluate the lymphocytic component of the staging nodes resected. The histologic sections, together with the immunohistochemical stains evaluated, demonstrate lymph node with reactive, but non-specific changes. A broad immunohistochemical panel shows reactive germinal centers and non-specific hyperplasia with polyclonal plasma cells. The findings likely represent reactive changes in response to metastatic carcinoma, as documented in the initial report.

These findings do not alter the initially rendered diagnosis. Specific results of the additional immunohistochemical stains evaluated are

summarized in the Table that follows.

PARAFFIN SECTION IMMUNOHISTOCHEMISTRY

In order to evaluate the lymph node, paraffin section immunohistologic studies

were performed on Block 1A. The following results were found:

Antigen/Antibody	Usual Reactivity	Result
anti-kappa positive cells including	B-cell subset	Numerous
cells.		plasma
anti-lambda positive cells including	B-cell subset	Numerous
cells.		plasma
CD20/L26 cells, mostly in follicles.	B-cells	Marks B-
CD21 follicular dendritic cells in	Follicular dendritic cells	Marks
CD138 numerous plasma cells.	Plasma cells, other	follicles Marks
bcl-2 germlinal center.	Lymphocyte subset, other	Negative in

bcl-6 germinal centers.	Follicular center cells, other	Marks
CD10 germinal centers. Cyclin D1 lymphoid cells. CD3 cells, mostly in interfollicular areas.	B-cell subset	Marks
	Mantle cell lymphoma, other	Negative in
	T-cells	Marks T-
CD5	T-cells, B-cell subset	Similar to
CD3.	T cells, some	
CD43/Leu 22	B cells, myeloid	Similar to
CD3. Ki-67/MIB-1 marking of germinal center	Proliferating cells	Prominent cells.
HHV8 may be technically stain.	Human herpes virus 8	Negative, but Suboptimal

Pathologist:
 ** Report Electronically Signed Out **
 By Pathologist:

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 NODE, LEFT NECK, LEVELS 2 THROUGH 4, MODIFIED NECK DISSECTION.

A. THIRTY-SIX LYMPH NODES, NO CARCINOMA PRESENT (0/36).

B. LYMPH NODE HYPERPLASIA WITH FOCAL LYMPHOCYTE ATYPIA (see comment).

PART 2: LYMPH NODES, RIGHT NECK, LEVELS 2 THROUGH 5, MODIFIED NECK DISSECTION

A. METASTATIC SQUAMOUS CELL CARCINOMA IN THREE (3) OF FORTY-TWO LYMPH NODES (3/42), LEVEL 2, (UP TO 1.9 CM) (see comment).

B. EXTRANODAL EXTENSION PRESENT.

C. LYMPH NODE HYPERPLASIA WITH FOCAL LYMPHOCYTE ATYPIA (see comment).

D. CALCIFIC HYALINIZED NODULE IN ONE LYMPH NODE (see comment)

PART 3: PHARYNX, RIGHT SUPERIOR MARGIN, EXCISION
NO TUMOR PRESENT.

PART 4: PHARYNX, RIGHT INFERIOR MARGIN, EXCISION
NO TUMOR PRESENT.

PART 5: PHARYNX, LEFT SUPERIOR MARGIN, EXCISION
NO TUMOR PRESENT.

PART 6: PHARYNX, LEFT INFERIOR MARGIN, EXCISION
NO TUMOR PRESENT.

PART 7: TONGUE, BASE, EXCISION
NO TUMOR PRESENT.

PART 8: LARYNX, TOTAL LARYNGECTOMY

A. INVASIVE SQUAMOUS CELL CARCINOMA, POORLY DIFFERENTIATED (4.0 CM), SUPRAGLOTTIC WITH FOCAL RIGHT GLOTTIC (TRANSGLOTTIC) EXTENSION, INVOLVING, ARYEPIGLOTTIC FOLD

B. ANGIOLYMPHATIC INVASION PRESENT.

C. LARGE NERVE PERINEURAL AND INTRANEURAL INVOLVEMENT PRESENT VIA EXTRANODAL EXTENSION FROM A POSITIVE LYMPH NODE (see below).

D. PRE-PIGLOTTIC AND PARAGLOTTIC SPACE INVOLVEMENT PRESENT; NO CARTILAGE INVOLVEMENT.

E. METASTATIC SQUAMOUS CELL CARCINOMA IN TWO OF TWO LYMPH NODES (2/2), CENTRAL COMPARTMENT ANTERIOR SOFT TISSUE (LEVEL 6); EXTRANODAL EXTENSION PRESENT.

F. ALL SURGICAL MARGINS ARE FREE OF TUMOR (see also parts 3 7).

G. PATHOLOGIC STAGE: pT3 N2b.

H. THYROID LOBE (10 GRAMS) WITH NODULAR HYPERPLASIA AND FOCAL FIBROSIS, NO TUMOR PRESENT.

I. ONE NORMOCELLULAR PARATHYROID IN CENTRAL COMPARTMENT ANTERIOR SOFT TISSUE, NO TUMOR PRESENT.

J. STOMA WITH REACTIVE CHANGES, NO TUMOR INVOLVEMENT.

COMMENT:

Part 1 and 2: The lymphocyte atypia noted in these hyperplastic lymph nodes is likely reactive, however this component will be reviewed by our Hematopathologist colleagues. Their findings will be reported in an addendum.

Cytokeratin AE1/3 stains are negative in several of these lymph nodes.
Part 2: A Grocott is negative for fungi in this hyalinized nodule.

Pathologist: M.D.

** Report Electronically Signed Out **

By Pathologist:

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 unfixed in eight parts.

Part 1 is labeled with the patient's name, initials XX and "left neck dissection levels 2 through 4 with part of 5". The specimen consists of a

selective neck dissection measuring 12.0 x 4.0 x 1.0 cm. The specimen has a 5-cm in length by 0.6 cm diameter portion of vein present with adherent tan-brown muscle measuring 5.0 x 2.0 x 0.6 cm. The specimen is arbitrarily divided into 4 equal levels. Potential lymph nodes are dissected out of each level.

Level #2: 11 potential lymph nodes are dissected out ranging in size from 0.2 x 0.2 x 0.2 cm to 1.5 x 0.6 x 0.5 cm.

Level #3: 10 potential lymph nodes are dissected out ranging in size from 0.2 x 0.2 x 0.1 cm to 1.5 x 1.0 x 0.4 cm.

Level #4: Seven potential lymph nodes are dissected out ranging in size from 0.2 x 0.2 x 0.2 cm to 0.8 x 0.5 x 0.3 cm.

Level #5: Five potential lymph nodes are dissected out ranging in size from 0.3 x 0.2 x 0.1 cm to 0.6 x 0.5 x 0.3 cm

The remainder the specimen consists of tan-yellow, lobular adipose tissue with tan-brown muscle.

Section code:

1A, 1B - potential lymph nodes from level 2 with vessel

1C, 1D - potential lymph nodes from level 3

1E - potential lymph nodes from level 4

1F - potential lymph nodes from level 5

TIF: 32 hours

Part 2 is labeled with the patient's name, initials XX and "right neck dissection levels 2 through 5". The specimen consists of a selective neck dissection measuring 15.0 x 5.0 x 1.7 cm. The specimen is arbitrarily divided into 4 equal levels. Potential lymph nodes are dissected out of each level.

Level #2: 18 potential lymph nodes are dissected out ranging in size from 0.2 x 0.1 x 0.1 cm to 2.3 x 1.0 x 0.6 cm. The largest potential lymph node is cystic.

Level #3: 20 potential lymph nodes are dissected out ranging in size from 0.1 x 0.1 x 0.1 cm to 0.8 x 0.5 x 0.3 cm.

Level #4: Six potential lymph nodes are dissected out ranging in size from 0.4 x 0.2 x 0.2 cm to 1.5 x 0.6 x 0.4 cm.

Level #5: Seven potential lymph nodes are dissected out ranging in size from 0.2 x 0.2 x 0.2 cm to 1.0 x 0.5 x 0.3 cm.

Remainder of the specimen consists of tan-yellow, lobulated adipose tissue and tan-brown muscle.

Section code:

2A-2C - potential lymph nodes from level 2 (2A largest potential lymph node from level 2 bisected)

2D, 2E - potential lymph nodes from level 3
2F, 2G - potential lymph nodes from level 4
2H - potential lymph nodes from level 5
TIF: 32 hours
Part 3 is labeled with the patient's name, initials XX and "right pharynx superior". The specimen consists of a tan-pink, soft to firm fragment of tissue measuring 3.0 x 0.4 x 0.2 cm. Following frozen section consult the specimen is entirely submitted in cassette labeled 3AFS.
TIF: 32 hours
Part 4 is labeled with the patient's name, initials XX and "right inferior pharynx". The specimen consists of a 1.0 x 1.0 x 0.4 cm tan-pink, soft to firm, focally hemorrhagic aggregate of tissue. Following frozen section consult the specimen is entirely submitted in cassette labeled 4AFS.
TIF: 32 hours
Part 5 is labeled with the patient's name, initials XX and "left superior pharynx". The specimen consists of a 2.8 x 0.4 x 0.3 cm tan-pink, soft to firm fragment of tissue. Following frozen section consult the specimen is entirely submitted in cassette labeled 5AFS.
TIF: 32 hours
Part 6 is labeled with the patient's name, initials XX and "left inferior pharynx". The specimen consists of a 1.5 x 0.4 x 0.2 cm tan-pink, soft to firm fragment of tissue. Following frozen section consult the specimen is entirely submitted in cassette labeled 6AFS.
TIF: 32 hours
Part 7 is labeled with the patient's name, initials XX and "base of tongue". The specimen consists of a 2.5 x 1.4 x 0.4 cm tan-gray, soft and firm fragment. Following frozen section consult the specimen is entirely submitted in cassette labeled 7AFS.
TIF: 32 hours
Part 8 is labeled with the patient's name, initials XX and "total larynx". Specimen consists of a total laryngectomy specimen measuring 8.5 x 8.0 cm overall with two tracheal rings, a 9.0 x 1.0 x 0.5 cm firm portion of hyoid bone, 4.0 x 3.0 x 2.0 cm portion of right thyroid lobe, 4.0 x 1.5 x 0.4 cm rim of anterior ostomy skin. There is a 4.0 x 3.0 x 2.0 cm tan-pink, soft, focally hemorrhagic ulcerated lesion present. The supraglottic lesion is located 0.3 cm from the right

specimen's pharyngeal margin, 0.4 cm from the left superior specimen's pharyngeal margin, 0.4 cm from the right pyriform sinus and 1.0 cm from the left pyriform sinus. The lesion comes to within 4 cm of the distal resection margin. The lesion extends to within less than 0.1 cm of the hyoid bed. The lesion grossly involves the pyriform sinus on the right side and extends into the aryepiglottic fold. The lesion extends to the false cord on the right side and comes to within 0.1 cm of the true cord. The true cord on the right side is uninvolved by the lesion. The lesion grossly involves the epiglottis and crosses the midline. The true and false cords on the left side are grossly uninvolved by the lesion. The lesion comes to within 1 cm of the false cord on the left side. The lesion extends to within 0.2 cm of the thyroid cartilage. The thyroid cartilage is grossly unininvolved by the lesion.

The lesion extends to within 1 cm of the inked anterior soft tissue. The thyroid lobe measures 4.0 x 3.0 x 2.0 cm and weighs 10 g. There is a 1.0 x 0.5 x 0.5 cm cystic lesion present in the superior aspect. The lesion comes within less than 0.1-cm of the capsular surface. The remainder of the soft tissue is tan-brown, soft to firm with multiple potential lymph nodes present.

Digital images are taken. Tissue is procured for the head and neck spore tissue bank (tumor and normal).

Ink code:

Blue- base of tongue

Black- anterior soft tissue

Orange - hyoid bone bed

Red- area banked

Section code:

8A - shave of distal resection margin

8B - shave of the left pharyngeal edge

8C - radial sections of right pharyngeal edge and lesion

8D - representative cross-section of hyoid bone bed and lesion

8E - right aryepiglottic fold and pyriform sinus with lesion

8F - left aryepiglottic fold and pyriform sinus

8G - right false and true cord with lesion

8H - left false and true cord

8I - anterior commissure through epiglottis and lesion

8J - lesion with right true and false cords

8K - lesion with epiglottis and base of tongue area

8L, 8M - thyroid with cystic lesion

8N - ostomy skin and adherent soft tissue

8O, 8P - potential lymph nodes

8Q, 8R - representative cross-sections of adherent muscle and soft tissue

TIF: 32 hours

GROSSED BY:

INTRAOPERATIVE CONSULTATION:

- 3 AFS: RIGHT SUPERIOR PHARYNX SHAVE MARGIN (frozen section) -
A. SUFFICIENT FOR ANCILLARY STUDIES.
B. BENIGN.
C. NO TUMOR PRESENT , M.D.).
- 4 AFS: RIGHT INFERIOR PHARYNX SHAVE MARGIN (frozen section) -
A. SUFFICIENT FOR ANCILLARY STUDIES.
B. BENIGN.
C. NO TUMOR PRESENT , M.D.).
- 5 AFS: LEFT SUPERIOR PHARYNX SHAVE MARGIN (frozen section) -
A. SUFFICIENT FOR ANCILLARY STUDIES.
B. BENIGN.
C. MILD DYSPLASIA AND FOCAL KERATOSIS , M.D.).
- 6 AFS: LEFT INFERIOR PHARYNX SHAVE BIOPSY (frozen section) -
A. SUFFICIENT FOR AXILLARY STUDIES.
B. BENIGN.
C. MILD DYSPLASIA (M.D.).
- 7 AFS: BASE OF TONGUE SHAVE MARGIN (frozen section) -
A. SUFFICIENT FOR ANCILLARY STUDIES.
B. BENIGN.
C. NO TUMOR PRESENT, FOCUS OF SQUAMOUS METAPLASIA (M.D.).

MICROSCOPIC:

Microscopic examination substantiates the above diagnosis.

The following statement applies to all immunohistochemistry, Insitu Hybridization Assays (ISH & FISH), Molecular Anatomic Pathology, and Immunofluorescent Testing:

The testing was developed and its performance characteristics determined by

the CLIA - Department of Pathology, as required by

'88 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 2 to a maximum of 84 hours.

This laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 ("CLIA") 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 LATERALITY: Right

ATTACHED STRUCTURES: Pyriform sinus, Base of tongue, Tracheotomy, Thyroid, Skin

TUMOR LOCATION/SEGMENT: Supraglottic

TUMOR SIZE: Maximum dimension: 4.0 cm

HISTOLOGIC TYPE OF TUMOR: Squamous cell carcinoma

HISTOLOGIC GRADE: Moderately differentiated

STRUCTURES INVOLVED BY TUMOR: True cord, Anterior commissure,
False cord,
Epiglottis, A-E Fold - Medial surface, A-E Fold - Lateral surface,
Pyriform

sinus, Paraglottic space

LYMPH NODES: Lymph nodes positive, Right: 3
Total number of right sided lymph nodes examined: 42
Lymph nodes positive, Left: 0
Total number of left sided lymph nodes examined: 36
Site of 'other' lymph nodes: Central compartment
Lymph nodes positive, 'other': 2
Total number of 'other' lymph nodes examined: 2

EXTRACAPSULAR SPREAD OF LYMPH NODE METASTASES

Yes

INTRA-PERINEURAL INVASION: Present

VASCULAR INVASION: Yes

SURGICAL MARGIN INVOLVEMENT: Free (2 mm or more)

T STAGE, PATHOLOGIC: Supraglottis, pT3

N STAGE, PATHOLOGIC: pN2b

M STAGE, PATHOLOGIC: pMX

PATIENT HISTORY:

CHIEF COMPLAINT/PRE-OP/POST-OP DIAGNOSIS: Laryngeal mass, squamous cell carcinoma

PROCEDURE: Direct laryngoscopy, bilateral neck dissections, total laryngectomy

SPECIFIC CLINICAL QUESTION: Not answered

OUTSIDE TISSUE DIAGNOSIS: Not answered

PRIOR MALIGNANCY: Not answered

CHEMOTHERAPY: Not answered

ORGAN TRANSPLANT: Not answered

IMMUNOSUPPRESSION: Not answered

OTHER DISEASES: Not answered

HISTO TISSUE SUMMARY/SLIDES REVIEWED:

Part 1: Neck Dissection, Left Level 2-4

Taken: Received:

Stain: Block

ABCL6 x 1 A

Bcl-2 x 1 A

ACD10 x 1 A

CD138 x 1 A

CD21 x 1 A

CD3 x 1 A

CD43 x 1 A

ACD5 x 1 A

ANEG x 1 A

ANEG x 1 A

ACYCLD1 x 1 A

AE1/3 x 1 A

H&E x 1 A

AHHV8 x 1 A

Kappa x 1 A

KI67 x 1 A

L26 x 1 A

Lambda x 1 A

H&E x 1 B
ANEG x 1 C
AE1/3 x 1 C
H&E x 1 C
ANEG x 1 D
AE1/3 x 1 D
H&E x 1 D
H&E x 1 E
H&E x 1 F

Part 2: Neck Dissection, Right Level 2-5

Taken:

Stain/ Block
H&E x 1 A
H&E x 1 B
Grocott x 1 C
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
H&E x 1 H

Part 3: Superior Right Pharynx

Taken:

Stain/ Block
H&E x 1 AFS

Part 4: Inferior Right Pharynx

Taken: 1

Stain/ Block
H&E x 1 AFS

Part 5: Superior Left Pharynx

Taken:

Stain/ Block
H&E x 1 AFS

Part 6: Inferior Left Pharynx

Taken:

Stain/ Block
H&E x 1 AFS

Part 7: Tongue, Base

Taken:

Stain/ Block
H&E x 1 AFS

Part 8: Larynx, Total Laryngectomy

Taken:

Stain/ 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
H&E x 1 H
H&E x 1 I
H&E x 1 J
H&E x 1 K
H&E x 1 L
H&E x 1 M

H&E x 1 N
H&E x 1 O
H&E x 1 P
H&E x 1 Q
H&E x 1 R

W 4/2/13

Criteria	Yes	No
Diagnosis Discrepancy	✓	✓
Primary Tumor Site Discrepancy	✓	✓
HIPAA Discrepancy	✓	✓
Prior Malignancy History	✓	✓
Dual/Synchronous Primary	✓	✓
Case is (circle):	QUALIFIED	DISQUALIFIED
Reviewer Initials:	JSTH	
Date Reviewed:	3/23/13	