

Criteria	Yes	No
Diagnosis Discrepancy	3	
Primary Tumor Site Discrepancy		✓
HII-AA Discrepancy		✓
Prior Malignancy History		✓
Dual/Synchronous Primary Noted		
Case is (incl.):	QUALIFIED	/ DISQUALIFIED
Reviewer Initials RB	Date Reviewed:	/ /

Ductal + Mucinous

11/10/2011

UUID:92EE56BF-AAA0-438E-9244-780DBB2D9835
TCGA-A1-A05Q-01A-PR

Redacted



ICD-O-3

Path carcinoma, infiltrating duct and mucinous 8523/3
Site: breast, nos C50.9 10/21/11

CQCF carcinoma, infiltrating duct, nos 8500/3

Final Pathologic Diagnosis:

- A. Lymph node, left axilla, sentinel #1, biopsy: No carcinoma in one lymph node (0/1).
- B. Lymph node, left axilla, sentinel #2 , biopsy: Metastatic carcinoma in one lymph node (1/1).

C. Lymph node, left axilla, sentinel #3, biopsy: No carcinoma in one lymph node (0/1).

D. Right breast, skin-sparing mastectomy:

1. Non-proliferative fibrocystic change
2. Focal lactational change.
3. No carcinoma.

E. Right breast, nipple tissue, excision: No significant pathologic abnormality; no carcinoma.

F. Left breast, skin-sparing mastectomy:

1. Invasive ductal carcinoma, 3.8 cm, SBR grade 2; see comment.
2. Ductal carcinoma in situ, intermediate grade, associated with invasive carcinoma.
3. Microcalcifications associated with invasive carcinoma.

G. Left breast, nipple tissue, excision: No significant pathologic abnormality; no carcinoma.

H. Right axilla, accessory nipple, excision: Findings consistent with accessory nipple tissue; no carcinoma.

I. Lymph nodes, left axilla, levels 1 and 2, dissection: No carcinoma in twelve lymph nodes (0/12).

J. Left axilla, accessory nipple, excision: Findings consistent with accessory nipple tissue; no carcinoma.

Note: *Breast Tumor Synoptic Comment*

- Laterality: Left.
- Invasive tumor type: Invasive ductal carcinoma with mucinous features.
- Invasive tumor size: 3.8 cm (slices 1 to 5 contiguous at 0.75 cm thickness per slice).
- Invasive tumor grade (modified Bloom-Richardson): Grade 2.
 - Nuclear grade: 3, =3 points.
 - Mitotic count: <10 mitotic figures/10 HPF, =1 point.
 - Tubule/papilla formation: 10 to 75%, = 2 points.
 - Total points and overall grade = 6 points = grade 2.
- Lymphatic-vascular invasion: Present.
- Skin/nipple: On main specimen there is no nipple tissue. In separately submitted left nipple specimen (Part G) there is no involvement by carcinoma.
- Margins for invasive tumor: Negative.
 - Deep margin: Close; (tumor is 0.05 cm (0.5 mm) away, on slide F3).
 - Medial margin: Negative; (tumor is >5 cm away).
 - Lateral margin: Negative; (tumor is 1.4 cm away, on slide F1).
 - Anterior/superior margin: Negative; (tumor is 0.4 cm away, on slide F16).
 - Anterior/inferior margin: Negative; (tumor is 0.2 cm away, on slide F1).
- Ductal carcinoma in situ (DCIS): Solid with mucinous features.
- Ductal carcinoma in situ size:
 - DCIS present in contiguous sections, spanning 5.3 cm.
- Ductal carcinoma in situ nuclear grade: Intermediate.

- Necrosis in DCIS: None.
- Microcalcifications: Present, involving invasive carcinoma.
- Resection margins for ductal carcinoma in situ: Negative
 - Deep margin: Close; (tumor is 0.5 mm away, on slide F3).
 - Medial margin: Negative; (tumor is >5 cm away).
 - Lateral margin: Negative; (tumor is > 1 cm away).
 - Anterior/superior margin: Negative; (tumor is 0.2 cm away, on slide F16).
 - Anterior/inferior margin: Negative; (tumor is 0.2 cm away, on slide F1).
- Lymph node status: Positive.
 - Number of positive lymph nodes: 1.
 - Total number sampled: 15.
- Diameter of largest metastasis: 0.5 cm (slides B1, FS2 (B))
- Extranodal extension: None
- AJCC/UICC stage: pT2N1MX.

Hormone receptor status was previously evaluated on this tumor However,
receptor status was requested again on the specimen and the results will be reported in an addendum.

Intraoperative Consult Diagnosis

FS1 (A) Left axilla, sentinel lymph node #1, biopsy: No tumor in one lymph node (0/1). (Dr.)

FS2 (B) Left axilla, sentinel lymph node #2, biopsy: Metastatic carcinoma in one lymph node, 5 mm focus, with no extranodal extension noted (1/1). (Dr.)

FS3 (C) Left axilla, sentinel lymph node #3, biopsy: No tumor in one lymph node (0/1). (Dr.)

Clinical History

The patient is a year-old woman with infiltrating ductal carcinoma of the left breast, diagnosed by needle core biopsy. She now undergoes bilateral skin-sparing mastectomy, left axillary sentinel lymph node biopsy, left axillary lymph node dissection, and excision of bilateral axillary accessory nipples. (Dr.)

Gross Description

The specimen is received in ten parts, each labeled with the patient's name and medical record number.

Part A is received fresh and is additionally labeled It consists of a single pink-tan, ovoid lymph node candidate with attached fibrofatty tissue, measuring 1 x 0.8 x 0.5 cm in greatest dimensions. The fibrofatty tissue is trimmed, and the lymph node candidate is bisected and entirely submitted for frozen section diagnosis #1. The frozen section remnant is subsequently submitted in cassette A1. The remaining fibrofatty tissue is submitted in cassette A2.

Part B is received fresh and is additionally labeled It consists of a single roughly ovoid, pink-tan lymph node candidate with attached soft fibrofatty tissue, measuring 1.6 x 1 x 0.6 cm in greatest dimensions. The fibrofatty tissue is trimmed, and the lymph node candidate is bisected and entirely submitted for frozen section diagnosis #2. The frozen section remnant is subsequently submitted in cassette B1. The remaining fibrofatty tissues are submitted in cassette B2.

Part C is received fresh and is additionally labeled It consists of a single small, soft, roughly ovoid, pink-tan lymph node candidate with attached fibrofatty tissue, measuring 1.3 x 0.7 x 0.5 cm in aggregate. The fibrofatty tissue is trimmed, and the lymph node candidate is bisected and entirely submitted for frozen section diagnosis #3. The frozen section remnant is subsequently submitted in cassette C1. The remaining fibrofatty tissue is submitted in cassette C2.

Part D is received fresh, labeled

- **SPECIMEN TYPE:** Skin-sparing mastectomy.

- **SKIN ELLIPSE:** Not present.

- **NIPPLE:** Not present.

- **ORIENTATION:**

- Long suture: Lateral.

- Short suture: Superior.

- Double suture: Nipple remnant.

- **INKING (for microscopic evaluation):**

- Black: Posterior margin.

- Green: Anterior Inferior margin.

- Blue: Anterior superior margin.

- Yellow: Nipple remnant.

- **SIZE OF SPECIMEN:**

- Medial-Lateral dimension: 13.5 cm.

- Superior-Inferior dimension: 13.8 cm.

- Anterior-Posterior dimension: 1.7 cm.

- **TOTAL NUMBER OF SLICES:** 19.

- First slice (slice 1): Lateral margin.

- Last slice (slice 19): Medial margin.

- **GROSS PATHOLOGY:** On cut section, the specimen consists of unremarkable pink-white breast parenchyma and tan-yellow fibroadipose tissue. No gross lesions are identified. Representative sections are submitted as follows:

Cassette D1: Slice 4, upper outer quadrant, two sections.

Cassette D2: Slice 7, upper outer quadrant.

Cassette D3: Slice 5, lower outer quadrant, two sections.

Cassette D4: Slice 7, lower outer quadrant.

Cassette D5: Slice 13, upper inner quadrant.

Cassette D6: Slice 15, upper inner quadrant.

Cassette D7: Slice 14, lower inner quadrant.

Cassette D8: Slice 16, lower inner quadrant.

Cassette D9: Slice 12, nipple remnant.

Part E is received fresh and is additionally labeled "

It consists of a single irregular, unoriented fragment of pink-white soft tissue, measuring 0.3 x 0.3 x 0.2 cm. The specimen is inked blue, bisected and entirely submitted in cassette E1.

Part F is received fresh, labeled "

- **SPECIMEN TYPE:** Skin-sparing mastectomy.

- **SKIN ELLIPSE:** Not present.

- **NIPPLE:** Not present.

- **ORIENTATION:**

- Long suture: Lateral.

- Short suture: Superior.

- Double suture: Nipple remnant.

- **INKING (for microscopic evaluation):**

- Black: Posterior.

- Green: Anterior inferior.

- Blue: Anterior superior.

- Yellow: Nipple remnant.

- **SIZE OF SPECIMEN:**

- Medial-Lateral dimension: 12 cm.

- Superior-Inferior dimension: 12.5 cm.

- Anterior-Posterior dimension: 1.6 cm.

- **TOTAL NUMBER OF SLICES:** Sixteen.

- First slice (slice #1): Lateral margin.

- Last slice (slice #16): Medial margin.

GROSS PATHOLOGY: An irregular, firm, poorly circumscribed, pink-white soft tissue mass is present in slices 2-6. The soft tissue mass measures 5 cm from medial to lateral, 4.5 cm from superior to inferior, and 1.1 cm from anterior to posterior. It is 1.5 cm from the lateral specimen margin (slice 2), 3 cm from the inferior specimen margin (slice 2), 4.5 cm from the superior margin (slice 4), abuts the deep margin (slices 2-5), and >5 cm from the medial margin. The remainder of the breast parenchyma consists of yellow fibroadipose tissue and unremarkable pink-white soft tissue and no additional mass lesions are identified. Gross photographs are taken for future correlation. A portion of the tumor is taken for tissue banking. Representative sections are submitted as follows:

Cassettes F1-F2: Slice 1, lateral margin, adjacent to soft tissue mass in slice 2, perpendicularly sectioned.

Cassette F3: Slice 2, mid-inferior portion.

Cassette F4: Slice 2, inferior portion.

Cassettes F5-F8: Slice 3, mid-superior to inferior portion, submitted sequentially from superior to inferior.

Cassettes F9-F13: Slice 4, mid-superior to inferior portion, submitted sequentially from superior to inferior.

Cassettes F14-F19: Slice 5, entirely submitted submitted sequentially from superior to inferior.

Cassette F20: Slice 6, mid-superior portion.

Cassette F21: Slice 6, mid portion.

Cassette F22: Slice 6, mid inferior portion.

Cassette F23: Slice 14, mid superior.

Cassette F24: Slice 14, mid inferior.

Cassette F25: Slice 12, mid superior and mid inferior.

Cassette F26: Slice 13, mid superior.

Cassette F27: Slice 11, mid superior.

Cassette F28: Slice 16, medial margin, perpendicularly sectioned.

Cassette F29: Slice 7, mid superior.

Cassette F30: Slice 8, mid superior.

Cassette F31: Slice 9, mid superior.

Cassette F32: Slice 10, mid superior.

Part G is received fresh and is additionally labeled

It consists of a single irregular, unoriented fragment of white-tan soft tissue, measuring 0.7 x 0.5 x 0.4 cm. The specimen is inked blue, bisected, and entirely submitted in cassette G1.

Part H is received fresh and is additionally labeled

It consists of a single ellipse of unremarkable, tan-white skin, measuring 1.3 x 0.9 cm. A short suture marks the superior margin, and a long suture marks the posterior-lateral margin. The superior margin is inked blue, the inferior margin is inked green, and the deep margin is inked black for microscopic evaluation. The specimen is serially sectioned, from lateral to medial, into four slices and is entirely submitted in cassette H1.

Part I is received fresh and is additionally labeled

It consists of multiple irregular, unoriented fragments of yellow-tan soft tissue, measuring 4.6 x 4.3 x 1.5 cm in aggregate. The specimen is carefully dissected to reveal fourteen candidate lymph nodes, ranging from 1.1 to 0.3 cm in maximum dimensions. The candidate lymph nodes are submitted in cassettes as follows:

Cassette I1: Three candidate lymph nodes, inked and bisected.

Cassette I2: Six candidate lymph nodes, submitted intact.

Cassette I3: Five candidate lymph nodes, submitted intact.

Part J is received fresh and is additionally labeled

It consists of an ellipse of unremarkable, tan-white skin, measuring 0.9 x 0.4 cm. A short suture marks the superior margin, and a long suture marks the lateral margin. The superior margin is inked blue, the inferior margin is inked green, and the deep margin is inked black for microscopic evaluation. The specimen is bisected, from superior to inferior, and entirely submitted in cassette J1.

Surgical Pathology

/Pathology Resident

Working Draft

'Pathologist

Signed:

Fee Codes:

Addenda

Addendum.

Date Ordered:

Date Complete:

Date Reported:

Status: Signed Out

By:

Addendum Comment

An immunohistochemical test for estrogen and progesterone receptors was performed by manual morphometry on block F3.

The test for estrogen receptors is positive. There is 3+ nuclear staining in >90% of tumor cells. Internal positive control is positive.

The test for progesterone receptors is positive. There is 2-3+ nuclear staining in >90% of tumor cells. Internal positive control is positive.

Result of HER2/neu test: This carcinoma is negative for HER2/neu oncoprotein over-expression.

An immunohistochemical assay was performed by manual morphometry on block # using the CB11 monoclonal antibody to HER2/neu oncoprotein. The staining intensity of this carcinoma was 1 on a scale of 0-3.

Carcinomas with staining intensity scores of 0 or 1 are considered *negative* for over-expression of HER2/neu oncoprotein.

Those with a staining intensity score of 2 are considered *indeterminate*. We and others have observed that many carcinomas with staining Intensity scores of 2 do not show gene amplification. All carcinomas with staining intensity scores of 2 are therefore submitted for FISH testing. The results of the FISH test are issued directly from the molecular cytogenetics laboratory.

Carcinomas with staining Intensity scores of 3 are considered *positive* for over-expression of HER2/neu oncoprotein. Tumors in this category show an excellent correlation between the results of immunohistochemical and FISH testing, and almost always show gene amplification. HER2/neu Interpreted by Dr.

Pathologist

Electronically signed out on

Other SpecimensSpecimen Class:

Status: Signed Out

Accessioned:

Signed Out:

Specimen(s) Received: Cervical/Endocervical, Thin Prep Imaged**Final Diagnosis****Cervical/Endocervical, Thin Prep Imaged****NEGATIVE FOR INTRAEPITHELIAL LESION OR MALIGNANCY.**

Reactive cellular changes.

Inflammation.

See Below.

SPECIMEN ADEQUACY:

Satisfactory for evaluation.

Transformation zone components are present.

Specimen Class:

Status: Signed Out

Accessioned:

Signed Out:

Specimen(s) Received: A: Left chest lesion, B: Left Breast, implant capsule, C: Right Breast, implant capsule**Final Diagnosis****A. Skin, left chest, excision:**

1. Skin with papillary epidermal hyperplasia and focal dermal smooth muscle proliferation; see comment.
2. No carcinoma.

B. Left breast, capsulectomy:

1. Implant capsule.
2. Benign breast tissue.
3. No carcinoma.

C. Right breast, capsulectomy:

1. Implant capsule.
2. No carcinoma.

Specimen Class:

Status: Signed Out

Accessioned

Signed Out:

Specimen(s) Received: Left breast, needle core biopsy**Final Diagnosis****Left breast, needle core biopsy:**

1. Infiltrating ductal carcinoma with prominent mucinous component, modified BR grade 2, 0.25 cm; see comment.
2. Ductal carcinoma in situ without necrosis, not otherwise specified, intermediate grade; see comment.

Specimen Class:

Status: Signed Out

Accessioned:
Signed Out:

Specimen(s) Received: Left Breast, Fine Needle Aspiration

Final Diagnosis

Left Breast, Fine Needle Aspiration: **Fibrocystic change**, see note.