

Clinical Diagnosis & History:

'Right multicentric IDC and ILC presents for bilateral TM, bilateral SLNBx.

Specimens Submitted:

- 1: SP: Sentinel node #1 level 1 left axilla
- 2: SP: Sentinel node #2 level 1 left axilla
- 3: SP: Sentinel node #1 level 1 right axilla (fs)
- 4: SP: Sentinel node #2 level 1 right axilla (fs)
- 5: SP: Right breast and axillary contents level 1, 2, and 3
- 6: SP: Left breast
- 7: SP: Right rotter's node
- 8: SP: Additional level 1 lymph right axilla node 1
- 9: SP: Additional right level 2 axillary contents
- 10: SP: Level 3 lymph node right axilla

UUID:2E8A1816-E963-4063-B2F0-6289514084A5  
TCGA-AO-A0JA-01A-PR

Redacted



DIAGNOSIS:

- 1) SENTINEL NODE #1 LEVEL 1 LEFT AXILLA; EXCISION:  
- ONE BENIGN LYMPH NODE (0/1).
- 2) SENTINEL NODE #2 LEVEL 1 LEFT AXILLA; EXCISION:  
- ONE BENIGN LYMPH NODE (0/1).
- 3) SENTINEL NODE #1 LEVEL 1 RIGHT AXILLA; EXCISION:  
- METASTATIC CARCINOMA INVOLVING ONE OF ONE LYMPH NODE (1/1).  
- THE METASTATIC CARCINOMA IS PRESENT AS SUB-CAPSULAR TUMOR CELL CLUSTERS MEASURING <0.2MM AND COMPOSED OF 30-40 CELLS. THE TUMOR CELLS ARE SEEN BOTH IN THE HE STAINED AND KERATIN (AE1:AE3) IMMUNOSTAINED SECTIONS.
- 4) SENTINEL NODE #2 LEVEL 1 RIGHT AXILLA; EXCISION:  
- METASTATIC CARCINOMA INVOLVING ONE OF ONE LYMPH NODE (1/1).  
- THE METASTATIC FOCUS MEASURES 1.2 CM, WITH EXTRANODAL EXTENSION (>2MM).
- 5) BREAST, RIGHT; MASTECTOMY:  
TUMOR #1:  
- INVASIVE DUCTAL CARCINOMA, WITH FOCAL LOBULAR GROWTH PATTERN, HISTOLOGIC GRADE II/III (MODERATE TUBULE FORMATION), NUCLEAR GRADE II/III (MODERATE VARIATION IN SIZE AND SHAPE), MEASURING ~3.6 CM IN LARGEST DIMENSION GROSSLY.

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ICD-0-3

carcinoma, infiltrating duct, NOS 8500/3  
Site: breast, NOS C50.9 Date 10/24/11

Criteria	Yes	No
Diagnosis Discrepancy		X
Primary Tumor Site Discrepancy		X
HIPAA Discrepancy		X
Prior Malignancy History		X
Dual/Synchronous Primary Noted		X
Case is (circle): <b>MG</b>	QUALIFIED	DISQUALIFIED
Reviewer Initials: <b>mg</b>	Date Reviewed: <b>10/24/11</b>	

- DUCTAL CARCINOMA IN-SITU (DCIS) IS ALSO IDENTIFIED, MICROPAPILLARY TYPE WITH INTERMEDIATE NUCLEAR GRADE AND MINIMAL NECROSIS.
- THE DCIS CONSTITUTES LESS THAN OR EQUAL TO 25% OF THE TOTAL TUMOR MASS, AND IS PRESENT ADMIXED WITH THE INVASIVE COMPONENT.
  - THE INVASIVE CARCINOMA IS LOCATED IN THE UPPER INNER QUADRANT, AT 1:00. - THE DCIS IS LOCATED IN THE UPPER INNER QUADRANT.
  - NO INVOLVEMENT OF THE NIPPLE BY EITHER IN SITU OR INVASIVE CARCINOMA IS IDENTIFIED.
  - NO CALCIFICATIONS ARE IDENTIFIED IN EITHER THE INVASIVE OR IN SITU COMPONENT.
  - EXTENSIVE VASCULAR INVASION IS PRESENT
  - NO INVOLVEMENT OF THE SURGICAL MARGINS BY EITHER INVASIVE OR IN SITU CARCINOMA IS IDENTIFIED.
  - INVASIVE CARCINOMA IS 3.3 CM FROM THE DEEP MARGIN GROSSLY.
- TUMOR #2:
  - INVASIVE DUCTAL CARCINOMA, NOS TYPE, WITH FOCAL LOBULAR GROWTH PATTERN, HISTOLOGIC GRADE II/III (MODERATE TUBULE FORMATION), NUCLEAR GRADE II/III (MODERATE VARIATION IN SIZE AND SHAPE), MEASURING 2.5 CM IN LARGEST DIMENSION GROSSLY.
  - DUCTAL CARCINOMA IN-SITU (DCIS) IS ALSO IDENTIFIED, SOLID, CRIBRIFORM TYPE WITH INTERMEDIATE NUCLEAR GRADE AND MODERATE NECROSIS.
    - LOBULAR INVOLVEMENT BY DCIS IS PRESENT.
    - THE DCIS CONSTITUTES LESS THAN OR EQUAL TO 25% OF THE TOTAL TUMOR MASS, AND IS PRESENT ADMIXED WITH THE INVASIVE COMPONENT.
    - THE INVASIVE CARCINOMA IS LOCATED IN THE LOWER INNER QUADRANT AT 5:00.
    - THE DCIS IS LOCATED IN THE LOWER INNER QUADRANT. - NO INVOLVEMENT OF THE NIPPLE BY EITHER IN SITU OR INVASIVE CARCINOMA IS IDENTIFIED.
    - CALCIFICATIONS ARE PRESENT IN THE INVASIVE CARCINOMA ONLY.
    - VASCULAR INVASION IS PRESENT.
    - NO INVOLVEMENT OF THE SURGICAL MARGINS BY EITHER INVASIVE OR IN SITU CARCINOMA IS IDENTIFIED.
    - INVASIVE CARCINOMA IS 4.5 CM FROM THE DEEP MARGIN GROSSLY
    - THE NON-NEOPLASTIC BREAST TISSUE SHOWS USUAL DUCTAL HYPERPLASIA, PAPILLARY APOCRINE HYPERPLASIA, COLUMNAR CELL CHANGE, AND CYSTS.
  - THE LYMPH NODE STATUS IS AS FOLLOWS (EXPRESSED AS THE NUMBER OF POSITIVE LYMPH NODES IN RELATION TO THE TOTAL NUMBER OF LYMPH NODES EXAMINED): 13/17.
    - THERE IS EXTRANODAL EXTENSION (>2mm) OF CARCINOMA. THE LARGEST METASTATIC CARCINOMA MEASURES 1.1CM.
    - RESULTS OF SPECIAL STAINS (ER, PR, HER2-NEU) ARE AS FOLLOWS:

TUMOR 1:

ESTROGEN RECEPTOR

90% nuclear staining with moderate intensity

PROGESTERONE RECEPTOR :

<5% nuclear staining with weak intensity

HER2

Negative ( 1+ )

(<10% of invasive tumor cells exhibit weak complete membranous staining; Uniformity of staining: absent;

Homogeneous, dark circumferential pattern: absent)

TUMOR 2:

ESTROGEN RECEPTOR

50-60% nuclear staining with moderate intensity

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PROGESTERONE RECEPTOR :

10-20% nuclear staining with moderate intensity

Negative ( 1+ )

(<10% of invasive tumor cells exhibit weak complete membranous staining;

Uniformity of staining: absent;

Homogeneous, dark circumferential pattern: absent)

Comment: Controls are satisfactory.

8 PATHWAY anti-HER-2/neu is an FDA-approved rabbit monoclonal primary antibody (clone 4B5) directed against the internal domain of the c-erbB-2 oncogene (HER2) for immunohistochemical detection of HER2 protein overexpression in breast cancer tissue routinely processed for histologic evaluation. The HER2 test results are reported in accordance with the ASCO/CAP guideline recommendations for HER2 testing in breast cancer (J Clin Oncol 2007; 25(1):118-145). The ER and PR rabbit monoclonal antibodies are also FDA approved.

6) LEFT BREAST; MASTECTOMY:

- BENIGN BREAST WITH PAPILLARY APOCRINE HYPERPLASIA, USUAL DUCTAL HYPERPLASIA AND COLUMNAR CELL CHANGE.
- BENIGN NIPPLE.

7) RIGHT ROTTER'S NODE; EXCISION:

- METASTATIC CARCINOMA LARGELY REPLACING ONE OF ONE LYMPH NODE (1/1).
- THE METASTATIC FOCUS MEASURES 0.9 CM, WITH NO EXTRANODAL EXTENSION.

8) ADDITIONAL LEVEL 1 LYMPH RIGHT AXILLA NODE 1; EXCISION:

- METASTATIC CARCINOMA INVOLVING THREE OF THREE LYMPH NODES (3/3).
- LARGEST METASTATIC CARCINOMA MEASURES 0.3CM.
- EXTRANODAL EXTENSION IS PRESENT.

9) ADDITIONAL RIGHT LEVEL 2 AXILLARY CONTENTS; EXCISION:

- METASTATIC CARCINOMA INVOLVING FOUR OF FOUR LYMPH NODES (4/4).
- LARGEST METASTATIC CARCINOMA MEASURES 0.5CM.
- EXTRANODAL EXTENSION IS PRESENT.

10) LEVEL 3 LYMPH NODE RIGHT AXILLA; EXCISION:

- METASTATIC CARCINOMA LARGELY REPLACING ONE OF ONE LYMPH NODE (1/1).
- LARGEST METASTATIC CARCINOMA MEASURES 0.2CM.
- EXTRANODAL EXTENSION IS PRESENT.

I ATTEST THAT THE ABOVE DIAGNOSIS IS BASED UPON MY PERSONAL EXAMINATION OF THE SLIDES (AND/OR OTHER MATERIAL), AND THAT I HAVE REVIEWED AND APPROVED THIS REPORT.

\*\*\* Report Electronically Signed Out \*\*\*

Gross Description:

1). The specimen is received for a canceled a canceled frozen section

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consultation, placed in formalin labeled "Sentinel node number one level 1 left axilla" and consists of a 1.4 x 0.5 x 0.5 cm piece of lymphoid fatty tissue is bisected and entirely submitted.

Summary of sections:  
U - undesignated

2). The specimen is received for a canceled frozen section consultation, placed in formalin, labeled "Sentinel node number two, level one left axilla" and consists of 1.3 x 1.3 x 0.5 cm pink-tan lymph node which is bisected and entirely submitted.

Summary of sections:  
U - undesignated

3). The specimen is received fresh for frozen section consultation, labeled "Sentinel node number one level 1 right axilla" and consists of a 0.4 x 0.4 x 0.3 cm lymph node which is bisected and entirely submitted for frozen section.

Summary of sections:  
FSC -- frozen section control

4). The specimen is received fresh for frozen section consultation, labeled "Sentinel node number two level 1 right axilla" and consists of a 1.2 x 1.0 x 1.0 cm lymph node which is bisected and entirely submitted for frozen section.

Summary of sections:  
FSC -- frozen section control

5) The specimen is received fresh labeled, "right breast and axillary contents level 1,2, and 3" and consists of a breast with attached axillary contents. The breast measures 19 x 18 x 6 cm with overlying skin ellipse measuring 18.5 x 7.5 cm. Situated on the skin surface is a nipple measuring 1.5 x 1.5 x 0.5 cm and areola measuring 3.5 cm. The skin shows no scar. Axillary contents measures 12 x 7 x 2.5 cm. The posterior surface of the breast is inked black and the anterior blue. The specimen is serially sectioned to reveal a mass (mass 1) measuring 3.6 x 3.01 x 2.5 cm, and located in the UIQ at 1 o' clock and 3.3 cm from the deep margin. A clip is identified in the mass 1. Another mass (mass 2) measuring 2.5 x 2.2 x 1.5 cm LIQ at 5 o' clock , located 4.5 cm from the deep margin is identified. The remaining breast tissue shows fibroglandular tissue. The axillary tissue is dissected to reveal multiple lymph nodes. Representative sections are

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Summary of sections:

N - nipple  
NB - nipple base  
D1 - deep margin for mass 1  
D2 - deep margin for mass 2  
T1 - mass 1  
T2 - mass 2  
UIQ - upper inner quadrant  
LIQ - lower inner quadrant  
UOQ - upper outer quadrant  
LOQ - lower outer quadrant  
LN - lymph nodes

, M.D.

6) The specimen is received fresh labeled, "left breast" and consists of a breast measuring 25 x 18 x 5cm with overlying skin ellipse measuring 18 x 8 cm. Situated on the skin surface is a nipple measuring 1.8 x 1.3 x 1cm and areola measuring 3.5 cm. The skin is unremarkable. A suture demarcates the axillary aspect. The posterior surface of the breast is inked black and the axillary aspect is inked yellow. The specimen is serially sectioned to reveal unremarkable fibroglandular tissue without mass lesion. Sectioning of the axillary aspect reveals no grossly identifiable lymph nodes. Representative sections are submitted.

Summary of sections:

N - nipple  
NB - nipple base  
D - deep margin  
UIQ - upper inner quadrant  
LIQ - lower inner quadrant  
UOQ - upper outer quadrant  
LOQ - lower outer quadrant

7). The specimen is received in formalin, labeled "Right Rotter's node" and consists of a single pink tan fleshy lymph node measuring 1 x 0.8 x 0.5 cm. The lymph node is entirely submitted.

Summary of sections:  
LN - lymph node

8). The specimen is received in formalin, labeled "Additional level 1 lymph node, right axilla" and consists of four pink tan firm lymph nodes ranging from 0.4 to 2.2 cm in greatest dimension. All identified lymph nodes are submitted.

Summary of sections:  
LN -- lymph nodes  
BLN1-- bisected lymph node #1

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9). The specimen is received in formalin, labeled "Additional right level two axillary contents" and consists of a portion of yellow tan adipose tissue, with four pink tan firm lymph nodes ranging from 0.6 to 1 cm in greatest dimension. All identified lymph nodes are submitted.

Summary of sections:  
LN -- lymph nodes

10). The specimen is received in formalin, labeled "Level three lymph node, right axilla" and consists of a single pink tan fatty lymph node measuring 0.8 x 0.3 x 0.2 cm. The lymph node is entirely submitted.

Summary of sections:  
LN- lymph node

Summary of Sections:  
Part 1: SP: Sentinel node #1 level 1 left axilla

Block	Sect.	Site	PCs
1		u	1

Part 2: SP: Sentinel node #2 level 1 left axilla

Block	Sect.	Site	PCs
1		u	1

Part 3: SP: Sentinel node #1 level 1 right axilla (fs)

Block	Sect.	Site	PCs
1		fsc	1

Part 4: SP: Sentinel node #2 level 1 right axilla (fs)

Block	Sect.	Site	PCs
1		fsc	1

Part 5: SP: Right breast and axillary contents level 1, 2, and 3

Block	Sect.	Site	PCs
5		BLN	10
1		D1	1
1		D2	1
1		LIQ	1
5		LN	15

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2	LOQ	2
1	N	1
1	NB	1
3	T1	3
3	T2	3
1	UIQ	1
2	UOQ	2

Part 6: SP: Left breast

Block	Sect.	Site	PCs
1		D	1
2		LIQ	2
2		LOQ	2
1		N	2
1		NB	1
2		UIQ	2
2		UOQ	2

Part 7: SP: Right rotter's node

Block	Sect.	Site	PCs
1		LN	1

Part 8: SP: Additional level 1 lymph right axilla node 1

Block	Sect.	Site	PCs
1		bln1	2
2		bln2	2
1		LN	2

Part 9: SP: Additional right level 2 axillary contents

Block	Sect.	Site	PCs
1		LN	4

Part 10: SP: Level 3 lymph node right axilla

Block	Sect.	Site	PCs
1		LN	1

Intraoperative Consultation:

Note: The diagnoses given in this section pertain only to the tissue sample examined at the time of the intraoperative consultation.

- 3) FROZEN SECTION DIAGNOSIS: SP: SENTINEL NODE #1 LEVEL 1 RIGHT AXILLA (FS): BENIGN LYMPH NODE ( PERMANENT DIAGNOSIS: SAME
- 4) FROZEN SECTION DIAGNOSIS: SP: SENTINEL NODE #2 LEVEL 1 RIGHT AXILLA (FS): METASTATIC CARCINOMA PERMANENT DIAGNOSIS: SAME

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e: The diagnoses given in this section pertain only to the tissue sample examined at the time of the intraoperative consultation.

3) FROZEN SECTION DIAGNOSIS: SP: SENTINEL NODE #1 LEVEL 1 RIGHT  
AXILLA (FS): BENIGN LYMPH NODE  
PERMANENT DIAGNOSIS: SAME

4) FROZEN SECTION DIAGNOSIS: SP: SENTINEL NODE #2 LEVEL 1 RIGHT  
AXILLA (FS): METASTATIC CARCINOMA / .  
PERMANENT DIAGNOSIS: SAME

\*\* End of Report \*\*