TSS:

ICD-O-3
Carcinoma, infiltrating lobular, NOS 8520/3
Path Site: breast, upper outer quadrant C50.4
CQCF site: breast, NOS C50.9 2/15/11 lw

SPECIMENS:

A. SLN#1 LEFT AXILLA
B. LEFT BREAST AND AXILLARY CONTENTS
C. SENTINEL LYMPH NODE BX. RIGHT AXILLA
D. SENTINEL LYMPH NODE #2 RIGHT AXILLA
E. RIGHT BREAST & AXILLARY CONTENTS
F. ADDITIONAL AXILLARY TISSUE

SPECIMEN(S):

A. SLN#1 LEFT AXILLA
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E. RIGHT BREAST & AXILLARY CONTENTS
F. ADDITIONAL AXILLARY TISSUE

UUID:9AA68C63-2C14-430A-85C0-5A92F7FCCD36
TCGA-E2-A1L8-01A-PR Redacted

GROSS DESCRIPTION:

A. SLN#1 LEFT AXILLA
Received fresh is a tan white firm lymph node 2.6 x 2.1 x 1.4cm. The lymph node is serially sectioned and a portion of the specimen is submitted in FSA. A portion of the specimen is submitted for tissue procurement. The remainder of the specimen is submitted in A2-A3.
B. LEFT BREAST AND AXILLARY CONTENTS. STITCH IN AXILLA
Received fresh is a 1651g oriented total mastectomy specimen 29.5 x 27.0 x 4.0cm. The specimen is partially surfaced with a tan brown ellipse of skin 26.5 x 11cm. The centrally located partially raised nipple is 0.9cm and the areolar rim is 1.2cm. The skin surface is remarkable for a well healed scar 1.5cm, 2.0cm from the nipple in the Upper Outer Quadrant. The specimen is inked as follows: Anterior/Superior-Blue, Anterior/Inferior-Orange, Posterior-Black. The specimen is serially sectioned from medial to lateral in to 13 slices; slice 1 being most medial, slice 13 being most lateral. The nipple is located in slice 10. The cut surfaces reveal a gray white stellate mass 2.3 x 2.0 x 2.0cm in the UOQ and UCQ of slice 9, 10 and 11. The mass is greater than 2.0cm from the deep margin. The remaining breast parenchyma is grossly unremarkable. The axillary tail is 6.0 x 4.0 x 2.0cm. Dissection reveals 15 possible lymph nodes ranging from 0.3 x 0.2 x 0.2cm to 2.0 x 1.5 x 1.5cm. A portion of the specimen is submitted for tissue procurement. Representative sections are submitted as follows:
B1: nipple slice 10
B2: base of nipple slice 10
B3: skin with possible scar slice 8
B4: UIQ slice 7
B5: LIQ slice 7
B6: area adjacent to mass UIQ slice 8
B7-B8: mass UIQ slice 9
B9: deep margin slice 9
B10: superior/anterior margin slice 9
B11: inferior/anterior margin slice 9
B12-B14: mass slice 10
B15: deep margin slice 10
B16: mass UOQ slice 11
B17: deep margin slice 11
B18: LOQ with deep margin slice 11
B19: LOQ with inferior margin slice 12
B20: 5 lymph nodes
B21: 5 lymph nodes
B22: 3 lymph nodes
B23: 1 lymph node serially sectioned
B24: 1 lymph node serially sectioned

IDC of (R) breast
bilateral

C. SLN# 2 RIGHT AXILLA
Received fresh is a tan white firm lymph node 1.5 x 1.0 x 0.6cm. The lymph node is serially sectioned and a portion of the specimen is submitted in FSC. The remainder of the specimen is submitted in C2.
D. SLN # 3 RIGHT AXILLA
Received fresh is a tan white firm lymph node 0.9 x 0.6 x 0.4cm. The lymph node is serially sectioned and a portion of the specimen is submitted in FSD. The remainder of the specimen is submitted in D2.

E. RIGHT BREAST AND AXILLARY CONTENTS

TSS:

Received in formalin is an oriented simple mastectomy specimen weighing 1892 g and measuring 38.5 x 33 x 4.2 cm. There is a stitch designating the axillary tail. On the surface is an ellipse of brown-tan skin measuring 26.5 cm in length and 10.3 cm in width. The skin surface is unremarkable. The areola is 3.8 cm in diameter with an everted nipple measuring 1.4 cm. The anterior surface of the specimen is inked blue and the posterior/deep margin is inked black. The specimen is serially sectioned from medial to lateral. Within the upper inner quadrant and 8 cm from the deep margin is a firm tan stellate lesion {#1} measuring 3.3 x 2.5 x 1.3 cm which extends into an hour-glass configuration. Approximately 2.3 cm lateral and inferior to this lesion is a firm tan stellate lesion {#2} measuring 1.3 x 1 x 0.8 cm. It is 3.8 cm from the anterior/skin. The remainder of the parenchyma is unremarkable. The axillary tail was serially sectioned and fixed in O-Fix. Two hemorrhagic lymph nodes are identified measuring 1.8 and 2.3 cm. Representative sections are submitted as follows:
E1: Margin deep to lesion
E2-E6: Lesion #1 submitted from medial to lateral
E7-E8: Lesion #1and adjacent deep tissue
E9: Tissue inferior to lesion #1 from blocks 7 and 8
E10: Left lateral portion of lesion #1
E11: Tissue inferior to block 10
E12-E15: Tissue adjoining lesion #1 and lesion #2
E16-E17: Lesion #2
E18-E19: Fibrous tissue from upper outer quadrant
E20-E21: Fibrous tissue from lower outer quadrant
E22-E23: Fibrous tissue from lower inner quadrant
E24: Skin
E25-E26: Nipple
E27-E28: 1 lymph node each
E29-E30: presumptive lymph nodes from the axillary region
F. ADDITIONAL LEFT AXILLARY TISSUE
Received in formalin is a piece of yellow-tan adipose tissue measuring 8.5 x 3.5 x 0.6 cm. Two lymph nodes are identified measuring 0.8 and 1.4 cm. Specimen is submitted entirely as follows:
F1-F2: one lymph node each
F3-F6: remainder of soft tissue

DIAGNOSIS:

A. LYMPH NODE, SENTINEL #1, LEFT AXILLA, BIOPSY:
- METASTATIC CARCINOMA TO ONE OF ONE LYMPH NODE (1/1), MEASURING 2-CM WITH EXTRANODAL EXTENSION.

B. BREAST, LEFT, MASTECTOMY AND AXILLARY LYMPH NODE DISSECTION:
- INVASIVE, LOBULAR CARCINOMA, SBR GRADE 2, MEASURING 2.2-CM
- SURGICAL RESECTION MARGINS NEGATIVE FOR TUMOR
- METASTATIC CARCINOMA TO ONE OF 12 LYMPH NODES (1/12)
- SEE SYNOPTIC REPORT.

C. LYMPH NODE, SENTINEL #2, RIGHT AXILLA, BIOPSY:
- METASTATIC CARCINOMA TO ONE OF ONE LYMPH NODE (1/1), MEASURING 0.6-CM, WITH NO EXTRANODAL EXTENSION.

D. LYMPH NODE, SENTINEL #3, RIGHT AXILLA, BIOPSY:
- METASTATIC CARCINOMA TO ONE OF ONE LYMPH NODE (1/1).

E. BREAST, RIGHT, MASTECTOMY AND AXILLARY LYMPH NODE DISSECTION:
- INVASIVE, DUCTAL CARCINOMA, SBR GRADE 2, MEASURING 3.3-CM, PRESENT IN A BACKGROUND OF EXTENSIVE DUCTAL CARCINOMA IN SITU
- INTERMEDIATE NUCLEAR GRADE, DUCTAL CARCINOMA IN SITU, CRIBRIFORM AND SOLID TYPES WITH CENTRAL NECROSIS, INVOLVING THE CENTRAL PORTION OF THE BREAST WITH EXTENSION TO MAJOR DUCTS OF NIPPLE, UPPER INNER AND LOWER INNER QUADRANTS
- SURGICAL RESECTION MARGINS NEGATIVE FOR TUMOR
- THREE LYMPH NODES, NEGATIVE FOR METASTASES (0/3)
- SEE SYNOPTIC REPORT AND SEE NOTE.

TSS:

F. LYMPH NODES, ADDITIONAL AXILLARY, DISSECTION:
- ONE LYMPH NODE, NEGATIVE FOR METASTASES (0/1).

NOTE: The right breast is involved by extensive DCIS. There are two grossly identified tumor masses, microscopically show invasive ductal carcinoma. The submitted tissue between these two masses shows microscopic foci of invasive tumor as well as DCIS. The largest confluent invasive tumor measures 3.3-cm.

Breast biomarkers were ordered on the right breast tumor and addendum report to follow. These markers were reported on the needle biopsy of the left breast ().

SYNOPTIC REPORT - BREAST
Specimens Involved
Specimens: A: SLN#1 LEFT AXILLA
B: LEFT BREAST AND AXILLARY CONTENTS

Specimen Type: Mastectomy
Needle Localization: No
Laterality: Left
Invasive Tumor: Present
Multifocality: No
WHO CLASSIFICATION
Invasive lobular carcinoma 8520/3
Tumor size: 2.2cm
Tumor Site: Upper outer quadrant
Upper inner quadrant
Margins: Negative
Tubular Score: 3
Nuclear Grade: 3
Mitotic Score: 1
Modified Scarff Bloom Richardson Grade: 2
Necrosis: Absent
Vascular/Lymphatic Invasion: None identified
Lobular neoplasia: None
Lymph nodes: Sentinel lymph node and axillary dissection
Lymph node status: Positive 2 / 13 Extranodal extension

DCIS not present

ER/PR/HER2 Results
ER: Positive
PR: Positive
HER2: Negative by FISH
Performed on Case:

Pathological staging (pTN): pT 2 N 1a

SYNOPTIC REPORT - BREAST
Specimens Involved
Specimens: C: SENTINEL LYMPH NODE BX. RIGHT AXILLA
D: SENTINEL LYMPH NODE #2 RIGHT AXILLA
E: RIGHT BREAST & AXILLARY CONTENTS
F: ADDITIONAL AXILLARY TISSUE

Specimen Type: Mastectomy
Needle Localization: No
Laterality: Right
Invasive Tumor: Present

TSS:

Multifocality: No
WHO CLASSIFICATION
Invasive ductal carcinoma, NOS 8500/3
Tumor size: 3.3cm
Tumor Site: Upper inner quadrant
Lower inner quadrant
Central
Margins: Negative
Tubular Score: 3
Nuclear Grade: 2
Mitotic Score: 2
Modified Scarff Bloom Richardson Grade: 2
Necrosis: Absent
Vascular/Lymphatic Invasion: None identified
Lobular neoplasia: None
Lymph nodes: Sentinel lymph node and axillary dissection
Lymph node status: Positive 2 / 6 Extranodal extension

DCIS present
Margins uninvolved by DCIS
DCIS Quantity: Estimate 75%
DCIS Type: Solid
Cribriform
DCIS Location: Both associated and separate from invasive tumor mass
Nuclear grade: Intermediate
Necrosis: Present

ER/PR/HER2 Results
ER: Pending
PR: Pending
HER2: Pending

Pathological staging (pTN): pT 2 N 1a

CLINICAL HISTORY:

year old post menopausal AA woman with abnormal screening mammogram and bilateral breast neoplasia. Left breast 2.5 x 1.5cm mass at 12:00 is invasive lobular Ca. Right breast with 2, 1cm foci of DCIS at 3 o'clock medial and subareolar position. No prior chemo.

PRE-OPERATIVE DIAGNOSIS:

R and L breast Ca

INTRAOPERATIVE CONSULTATION
FSA: Metastatic carcinoma extensively involving one lymph node. Diagnosis called to Dr. at by Dr.
FSC/FSD: Metastatic carcinoma extensively involving one lymph node. Diagnosis called to Dr at by Dr.

ADDENDUM:

SYNOPTIC REPORT - BREAST, ER/PR RESULTS
Specimens Involved
Specimens: E: RIGHT BREAST & AXILLARY CONTENTS

Specimen: Surgical Excision
Block Number: E6

ER: Positive Allred Score: 8 = Proportion Score 5 + Intensity Score 3
PR: Positive Allred Score: 6 = Proportion Score 4 + Intensity Score 2

COMMENT:

The Allred score for estrogen and progesterone receptors is calculated by adding the sum of the proportion score (0 = no staining, 1 = <1% of cells staining, 2 = 1 - 10% of cells staining, 3 = 11-30% of cells staining, 4 = 31-60% of cells staining, 5 = >60% of cells staining) to the intensity score (1 = weak intensity of staining, 2 = intermediate intensity of staining, 3 = strong intensity of staining), with a scoring range from 0 to 8.

ER/PR positive is defined as an Allred score of >2 and ER/PR negative is defined as an Allred score of less than or equal to 2.

METHODOLOGY:

Tissue was fixed in 10% neutral buffered formalin for no less than 8 and no longer than 24 hours. Immunohistochemistry was performed using the mouse anti-human ER (ER 1D5, 1:100) and PR (PGR 136, 1:100) provided by following the manufacturer s instructions. This assay was not modified. Interpretation of the ER/PR immunohistochemical stain is guided by published results in the medical literature, information provided by the reagent manufacturer and by internal review of staining performance.

SYNOPTIC REPORT - BREAST HER-2 RESULTS
Specimens Involved
Specimens: E: RIGHT BREAST & AXILLARY CONTENTS

Specimen: Surgical Excision
Block Number: E6

Interpretation: EQUIVOCAL
Intensity: 2+
% Tumor Staining: 20%
Fish Ordered: Yes , on Date

METHODOLOGY:

Tissue was fixed in 10% neutral buffered formalin for no less than 8 and no longer than 24 hours. Her2 analysis was performed using the FDA approved HercepTest (TM) test kit using rabbit anti-human HER2. This assay was not modified. External kit-slides provided by the manufacturer (cell lines with high, low and negative HER2 protein expression) and in-house known HER2 amplified control tissue were evaluated along with the test tissue. Adequate, well preserved, clear-cut invasive carcinoma was identified for HER2 evaluation. Interpretation of the HER2 immunohistochemical stain is guided by published results in the medical literature, information provided by the reagent manufacturer and by internal review of staining performance.

This assay has been validated according to the 2007 joint recommendations and guidelines from ASCO and CAP and from the NCCN HER2 testing in Breast Cancer Task Force. The Pathology Department takes full responsibility for this test's performance.

Additional presumptive lymph nodes from part E (right mastectomy) were submitted in 15 blocks, from E31 to E45.

Three additional lymph nodes are identified, negative for metastasis (0/3).

PathVysion HER-2 DNA Probe Kit
Case No
Analytical Interpretation of Results: HER-2 NOT AMPLIFIED
Clinical Interpretation of results
Amplification of the HER-2 gene was evaluated with interphase fluorescence in-situ hybridization (FISH) on formalin-fixed paraffin embedded tissue sections using a chromosome 17 centromeric probe and a HER-2 probe that spans the entire HER-2 gene in the by Dr. majority of tumors cells displayed extensive polysomy 17 with 4 to 8 chromosome 17 signals and 4 to 8 HER-2 signals, with a HER-2/CEP 17 Ratio </=2.0, consistent with no amplification of the HER2/neu gene.
Block used E6 Source of case:
Tissue fixation formalin-fixed tissue Outside Case No: NA
Tissue source breast Results interpreted: yes
HER2/CEP17 ratio: 0.95

This ratio is derived by dividing the total number of LSI HER-2/neu signals by the total number of CEP17 signals in at least 20 interphase nuclei with nonoverlapping nuclei in the neoplastic

TSS:

mammary epithelial cells. Cells with no signals or with signals of only one color are disregarded.
Method of ratio enumeration: manual count
Limitations
The Vysis PathVysion Kit is not intended for use to screen for or diagnose breast cancer. It is intended to be used as an adjunct to other prognostic factors currently used to predict disease-free and overall survival in stage II, node-positive breast cancer patients. In making decisions regarding adjuvant CAF treatment, all other available clinical information should also be taken into consideration, such as tumor size, number of involved lymph nodes, and steroid receptor status.
No
treatment decision for stage II, node-positive breast cancer patients should be based on HER-2/neu
gene amplification status alone.
Overview of this test
FDA APPROVED REAGENT
PathVysion HER-2 DNA Probe Kit is FDA approved for selection of patients for whom Herceptin® therapy is being considered. These tests were performed in the
under the direction
of Dr.. The results of these studies should always be interpreted in the context of the clinical, morphological, and immunophenotypic diagnosis.

Gross Dictation: Pathologist,
Microscopic/Diagnostic Dictation: Pathologist,
Final Review: Pathologis
Final Review: Pathologis
Final: Pathologist,
Addendum: Pathologist,
Addendum Final: Pathologist,
Addendum: Pathologist, 0
Addendum Final: Pathologis
Addendum: Pathologist
Addendum Final: Pathologist,

Criteria	Yes	No
Diagnostic Discrepancy		✓
Primary Tumor Site Discrepancy		✓
HIPAA Discrepancy		✓
Prior Malignancy History		
Dual/Synchronous Primary Noted	✓	
Case is (circle): QUALIFIED / DISQUALIFIED		
Reviewer Initials: Date Reviewed: 2/9/11		