SPECIMEN(S): A. RIGHT BREAST PARTIAL MASTECTOMY
B. SLN #1 RIGHT AXILLA
C. ADDITIONAL AXILLARY TISSUE RIGHT AXILLA

CLINICAL HISTORY:
This is a year old female with a 1.4 cm tumor in the right breast, IDC at 11:00. S/P benign MRI biopsy inferior and lateral to this index lesion, not clipped. Here for N/L lumpectomy with SLN biopsy.

INTRAOPERATIVE CONSULTATION DIAGNOSIS:
A. Right breast, partial mastectomy: Tumor is 0.3 cm from anterior margin.
TPB1-TPB4: SLN#1, right axilla, excision: Four lymph nodes, negative for carcinoma.
Diagnosis called to Dr. at by Dr.

PRE-OPERATIVE DIAGNOSIS:
Right breast cancer

ICD-O-3
carcinoma, infiltrating duct, NOS 8500/3
Site: breast, NOS C50.9
lw
11/25/12

GROSS DESCRIPTION:
A. RIGHT BREAST PARTIAL MASTECTOMY
Received fresh in a container labeled with the patients name and "right breast partial mastectomy" is an oriented (straight: superior= 1 clip, long: lateral = 2 clips, double: deep, air knot in axillary tail), previously inked, 130g, 11 x 9 x 3.5 cm partial mastectomy with accompanying radiograph. Ink code: anterior-yellow, posterior-black, medial-green, lateral-red, superior-blue, inferior-orange. The specimen is serially sectioned from superior to inferior into 8 slices revealing a 1.6 x 1.4 x 0.8 cm firm, circumscribed, tan mass that is closest to the anterior margin at 0.3 cm. Tissue is procured. Representatively submitted:
A1: slice 1, superior margin
A2-A3: slice 4, mass with skin and anterior margin, bisected
A4-A5: slice 4, posterior margin underlying mass, bisected
A6-A7: slice 4, anterior and posterior margins, bisected
A8-A9: slice 4, lateral and posterior margins, bisected
A10-A11: slice 4, anterior and medial margins, bisected
A12-A13: slice 4, medial and posterior margins, bisected
A14: slice 5, mass with skin and anterior margin
A15-A16: slice 8, inferior margin
B. SLN #1 RIGHT AXILLA
Received fresh labeled with the patients name and "SLN #1 right axilla" is a 5 x 2 x 0.7 cm aggregate of fatty tissue within which four lymph nodes, 2 x 0.6 x 0.6 cm, 2 x 1 x 0.6 cm, 2 x 1.1 x 0.4 cm, 1.2 x 1 x 0.6 cm are identified. Touch preps are performed. Lymph nodes are entirely submitted:
B1-B2: one lymph node

B3: one lymph node
B4: one lymph node
B5: one lymph node
C. ADDITIONAL AXILLARY TISSUE RIGHT AXILLA
Received in formalin in a container labeled with the patients name and designated "additional axillary tissue" is a 1.7 x 1 x 0.2 cm fragment of soft fatty tissue. The specimen is bisected and entirely submitted.

DIAGNOSIS:
A. BREAST, RIGHT, PARTIAL MASTECTOMY:
- INVASIVE DUCTAL CARCINOMA WITH LYMPHOPLASMACYTIC INFILTRATE AND GEOGRAPHIC NECROSIS, SBR GRADE 3, MEASURING 1.1-CM
- SURGICAL RESECTION MARGINS NEGATIVE FOR TUMOR
- BIOPSY SITE CHANGES WITH FIBROSIS AND FAT NECROSIS
- SEE SYNOPTIC REPORT.

B. LYMPH NODE, SENTINEL #1, RIGHT AXILLA, EXCISION:
- FOUR LYMPH NODES, NEGATIVE FOR METASTASES (0/4).

C. ADDITIONAL AXILLARY TISSUE, RIGHT, AXILLARY DISSECTION:
- FIBROADIPOSE TISSUE, NO TUMOR OR LYMPHOID TISSUE IDENTIFIED.

SYNOPTIC REPORT - BREAST

Specimen Type: Partial mastectomy
Needle Localization: No
Laterality: Right
Invasive Tumor: Present
Multifocality: No
WHO CLASSIFICATION
Invasive ductal carcinoma, NOS 8500/3
Tumor size: 1.1cm
Tumor Site: Upper outer quadrant
Margins: Negative
Distance from closest margin: 0.3cm anterior
Tubular Score: 3
Nuclear Grade: 3
Mitotic Score: 2
Modified Scarff Bloom Richardson Grade: 3
Necrosis: Present
Vascular/Lymphatic Invasion: None identified
Lobular neoplasia: None
Lymph nodes: Sentinel lymph node
Lymph node status: Negative 0 / 4

DCIS not present

ER/PR/HER2 Results

ER: Pending
PR: Pending
HER2: Pending

Pathological staging (pTN): pT 1c N 0
Pathological staging is based on the AJCC Cancer Staging Manual, 7th Edition

ADDENDUM:

SYNOPTIC REPORT - BREAST, ER/PR RESULTS

Specimen: Surgical Excision
Block Number: A2

ER: Negative Allred Score: 0 = Proportion Score 0 + Intensity Score 0
PR: Negative Allred Score: 0 = Proportion Score 0 + Intensity Score 0

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

Specimen: Surgical Excision
Block Number: A2

Interpretation: EQUIVOCAL
Intensity: 2+
% Tumor Staining: 10%
Fish Ordered: Yes

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 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.

ADDENDUM:

FISH/ISH ANALYSIS REPORT 3

Specimens Involved

Specimens: A: RIGHT BREAST PARTIAL MASTECTOMY

HER2/NEU RESULTS

ANALYTICAL INTERPRETATION OF RESULTS
HER-2 NOT AMPLIFIED

Clinical interpretation of the results

A majority of tumors cells displayed 2 chromosome 17 centimeter signals and 2 HER2 signals, with a HER2/CEP 17 Ratio 1.3, consistent with no amplification of the HER2/neu gene.

Probes identification

LSI Her-2/neu 17q11.2-12, spectrumorange
CEP 17, 17 p11.1-q11.1 alpha satellite DNA, spectrumgreen

Image analysis method - Manual

Results interpreted

Yes

ISCN

nuc ish: (CEP17,HER2)x2[200]

Number of invasive tumor cells counted

200

Number of observers

1

Number of Her2 signals/nucleus

2.3

Number of CEP 17 signals/nucleus

1.8

Her2/CEP 17 ratio

1.3

TEST CHARACTERISTICS: 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 Pathology Core Facility, Department of Pathology, under the direction of Dr.. The results of these studies should always be interpreted in the context of the clinical, morphological, and immunophenotypic diagnosis. The 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.

Specimen information

RPCI surgical pathology/cytology case number

Source of case

RPCI

Block number used A2

Specimen site

Breast

Female breast right

Specimen type

Complete excision (less total mastectomy)

Specimen fixative type

Formalin

Duration of fixation (hrs)

6 - 48 hrs

Comment:

Controls: The FISH study was performed with appropriately stained positive and negative controls.

Criteria	Yes	No
Diagnosis Discrepancy		
Primary Tumor Site Discrepancy		
HIPAA Discrepancy		
Prior Malignancy History		
Dual/Synchronous Panel: Noted		
Case is (circle): QUALIFIED / DISQUALIFIED		
Reviewer Initials _____ Date Reviewed: 11/25/17		

LW 11/25/17