ICD-O-3
Carcinoma, infiltrating duct, NOS
8500/3 12/8/10 lw
Site Code: breast, NOS C50.9

UUID:2BAC50DA-016F-4B5C-B8D1-DE75377EF0C7
TCGA-E2-A15K-01A-PR Redacted

**TSS:**

**SPECIMENS:**
A. RIGHT BREAST LUMPECTOMY
B. RIGHT AXILLARY CONTENTS LEVELS 1,2
C. ADDITIONAL RIGHT AXILLARY TISSUE

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**GROSS DESCRIPTION:**
A. RIGHT BREAST LUMPECTOMY
Received fresh labeled with the patient's identification and "right breast lumpectomy" is a previously inked, oriented 97g, 8 x 6.5 x 4.5cm lumpectomy. Ink code: anterior-yellow, posterior-black, superior-blue, inferior-orange, medial-green, lateral-red. Specimen is serially sectioned from lateral to medial into 8 slices revealing a 2 x 1.8 x 1.6cm tan white stellate mass, 0.6cm from the closest inferior margin in slices 2-5cm. A portion of the specimen is submitted for tissue procurement. Representatively submitted:
A1: lateral margin slice 1
A2-A4: slice 2 with mass in A4
A5-A7: slice 3 with mass in A6
A8-A11: slice 4
A12-A15: slice 5 with mass in A15
A16-A17: slice 6
A18-A19: slice 7
A20: medial margin slice 8
B. RIGHT AXILLARY CONTENTS LEVELS 1,2
Received fresh is a tan pink soft tissue fragment 15 x 12 x 4cm. Dissection reveals 14 lymph nodes ranging from 0.3 x 0.3 x 0.2cm to 5 x 3.2 x 1.5cm. The largest lymph node is sectioned to reveal a firm homogenous white cut surface.
B1: 5 lymph nodes
B2: 4 lymph nodes
B3: 2 lymph nodes
B4: 1 lymph node
B5: 1 lymph node
B6: 1 lymph node
B7: 1 lymph node
B8: 1 lymph node
B9-B10: 1 lymph node
B11-B12: 1 lymph node
B13-B16: representative sections of 1 lymph node
C. ADDITIONAL RIGHT AXILLARY TISSUE
Received fresh is a tan pink soft tissue fragment 4.3 x 2.7 x 2cm. Dissection reveals a possible necrotic lymph node 2.8 x 1.3 x 1cm. Representatively submitted in C1-C4.

**DIAGNOSIS:**
A. BREAST, RIGHT, WIDE LOCAL EXCISION:
- INVASIVE DUCTAL CARCINOMA, SBR GRADE 3, MEASURING 2.4-CM
- INTERMEDIATE NUCLEAR GRADE, DUCTAL CARCINOMA IN SITU, SOLID TYPE
- INVASIVE TUMOR INVOLVES INFERIOR SURGICAL RESECTION MARGIN AND PRESENT WITHIN 1 MM FROM MEDIAL SURGICAL RESECTION MARGIN
- BIOPSY SITE CHANGES WITH FIBROSIS
- SEE SYNOPTIC REPORT.

B. LYMPH NODES, RIGHT, AXILLARY DISSECTION:
- METASTATIC CARCINOMA TO TWO OF SEVENTEEN LYMPH NODES (2/17), LARGEST MEASURING 2.5-CM, WITH EXTRANODAL EXTENSION.

C. SOFT TISSUE, ADDITIONAL WHITE AXILLARY, EXCISION:
- FIBROADIPOSE TISSUE WITH FAT NECROSIS, NO TUMOR SEEN.

SYNOPTIC REPORT - BREAST
Specimen Type: Excision

Needle Localization: No
Laterality: Right
Invasive Tumor: Present
Multifocality: No
WHO CLASSIFICATION
Invasive ductal carcinoma, NOS 8500/3
Tumor size: 2.4cm
Margins: Involved at
inferior
Extent:: focal
Tubular Score: 3
Nuclear Grade: 2
Mitotic Score: 3
Modified Scarff Bloom Richardson Grade: 3
Necrosis: Absent
Vascular/Lymphatic Invasion: Present
Extent: focal
Lobular neoplasia: None
Lymph nodes: Axillary dissection
Lymph node status: Positive 2 / 17 Extranodal extension
Micrometastases: No

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DCIS present
Margins uninvolved by DCIS
DCIS Quantity: Estimate 2%
DCIS Type: Solid
DCIS Location: Associated with invasive tumor
Nuclear grade: Intermediate
Necrosis: Absent

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ER/PR/HER2 Results
ER: Positive
PR: Positive
HER2: Pending by FISH

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Pathological staging (pTN): pT 2 N 1a
Pathological staging is based on the AJCC Cancer Staging Manual, 7th Edition

SYNOPTIC REPORT - BREAST, ER/PR RESULTS
Specimen: Surgical Excision
Block Number: A4

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

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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: A4

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

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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 Dako 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.

**CLINICAL HISTORY:**

None provided.

**PRE-OPERATIVE DIAGNOSIS:**

Right breast cancer.

**INTRAOPERATIVE CONSULTATION DIAGNOSIS:**

A: Right breast, lumpectomy: Mass is 0.6 cm from the closest inferior margin. By Dr., called to Dr. at P.M.

**ADDENDUM:**

Results of the gross examination performed on specimen A were omitted from the original report and are as follows:

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. A majority of tumors cells displayed 2 chromosome 17 signals and 2 HER-2 signals, with a HER-2/CEP 17 Ratio </=2.0, consistent with no amplification of the HER2/neu gene.

Block used A4 Source of case:

Tissue fixation formalin-fixed tissue Outside Case No: NA

Tissue source breast Results interpreted: yes

HER2/CEP17 ratio: 0.9

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 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:
Microscopic/Diagnostic Dictation: Pathologist,
Final Review: Pathologist
Final: Pathologist,
Addendum Review: Pathologist,
Addendum Final: Pathologist
Addendum: Pathologist,
Addendum Final: Pathologist,

| Criteria | Yes | No |
|---|---|---|
| Diagnosis Discrepancy | | |
| Primary Tumor Site Discrepancy | | |
| HIPAA Discrepancy | | |
| Prior Malignancy History | | |
| Dual/Synchronous Primary Noted | | |

Case is (circle): QUALIFIED / DISQUALIFIED

Reviewer Initials: Date Reviewed: