TSS: --

ICD-O-3
Carcinoma, infiltrating ductal, NOS 8500/3
Path Site: breast, upper outer quadrant C50.4
CQCF Site: breast, NOS C50.9
2/15/11 hw

SPECIMENS:

A. RIGHT BREAST WITH AXILLARY CONTENTS LEVELS 1,2
B. ADDITIONAL AXILLARY CONTENTS

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GROSS DESCRIPTION:

A. RIGHT BREAST WITH AXILLARY CONTENTS LEVELS 1,2
Received fresh labeled with the patient's identification and "right breast with axilla" is a 934g, 28 x 25 x 5cm oriented (stitch in axilla) modified radical mastectomy with attached 19 x 9cm tan pink skin ellipse and 1.3cm everted nipple. Ink code: anterior-superior: blue, anterior-inferior: orange, posterior-black. The specimen is serially sectioned from lateral to medial into 10 slices with nipple in slice 7, revealing a 3 x 2.5 x 2cm tan white firm well circumscribed mass, 1.5cm from the skin margin and 3cm from the deep margin in the UOQ and UC of slices 5-7. A surgical clip is identified in the UOQ of slice 8. The axillary tail is 9 x 7 x 5cm. Dissection reveals 19 possible lymph nodes ranging from 0.7 x 0.5 x 0.5cm to 4 x 3 x 3cm. The largest lymph node is serially sectioned to reveal a tan white firm homogenous cut surface. A portion of the specimen is submitted for tissue procurement. Representatively submitted:
A1-A2: nipple slice 7
A3: UOQ slice 2
A4: LOQ slice 4
A5: UOQ slice 4
A6: mass UIQ slice 5
A7: LOQ slice 5
A8-A10: mass with clip ID in A9 slice 6
A11-A12: mass slice 6
A13: deep margin slice 6
A14: skin slice 6
A15: mass UC slice 7
A16: LC slice 7
A17: UIQ slice 8
A18: LIQ slice 8
A19: UIQ slice 9
A20: 4 lymph nodes
A21: 4 lymph nodes
A22: 4 lymph nodes
A23: 2 lymph nodes
A24: 1 lymph node
A25-A26: 1 lymph node
A27: 1 lymph node
A28-A29: 1 lymph node
A30-A32: representative section of largest lymph node
A33-A38: UIQ

B. ADDITIONAL AXILLARY CONTENTS
Received fresh are two tan pink-white firm lymph nodes 1.5 x 1.5 x 1cm and 2 x 1.5 x 1.5cm.
B1-B2: 1 lymph node
B3-B4: 1 lymph node

DIAGNOSIS:

A. BREAST, RIGHT, MODIFIED RADICAL MASTECTOMY:
- TWO FOCI OF INVASIVE DUCTAL CARCINOMA, SBR GRADE 3, WITH EXTENSIVE NECROSIS AND MICROCALCIFICATIONS.
  - TUMOR MEASURES 3 CM AND 1.5 CM.
  - MARGINS, FREE OF TUMOR.
- DUCTAL CARCINOMA IN SITU (DCIS), SOLID TYPE, NUCLEAR GRADE 3, WITH NECROSIS AND MICROCALCIFICATIONS.
- SKIN AND NIPPLE, NO TUMOR SEEN.
- METASTATIC CARCINOMA IN 5 OF 18 LYMPH NODES WITH EXTRANODAL EXTENSION, LARGEST METASTASIS IS 4 CM (5/18).

NOTE: Invasive carcinoma is present in the upper outer quadrant and upper inner quadrant.

TSS:

B. ADDITIONAL AXILLARY CONTENTS, EXCISION:
- METASTATIC CARCINOMA IN 2 OF 2 LYMPH NODES WITH EXTRANODAL EXTENSION (2/2).
- LARGEST METASTASIS IS 2 CM.

SYNOPTIC REPORT - BREAST
Specimen Type: Mastectomy
Needle Localization: No
Laterality: Right
Invasive Tumor: Present
Multifocality: Yes
WHO CLASSIFICATION
Invasive ductal carcinoma, NOS 8500/3
Tumor size: 3cm
Tumor Site: Upper outer quadrant
Upper inner quadrant
Margins: Negative
Tubular Score: 3
Nuclear Grade: 3
Mitotic Score: 3
Modified Scarff Bloom Richardson Grade: 3
Necrosis: Present
Vascular/Lymphatic Invasion: Present
Lobular neoplasia: None
Lymph nodes: Axillary dissection
Lymph node status: Positive 7 / 20 Extranodal extension

DCIS present
Margins uninvolved by DCIS
DCIS Quantity: Estimate 15%
DCIS Type: Solid
DCIS Location: Associated with invasive tumor
Nuclear grade: High
Necrosis: Present
Location of CA++: DCIS

ER/PR/HER2 Results
ER: Negative
PR: Negative
HER2: Negative by IHC

Pathological staging (pTN): pT 2 N 2

SYNOPTIC REPORT - BREAST, ER/PR RESULTS
Specimen: Surgical Excision
Block Number: A31

ER: Negative Allred Score: 2 = Proportion Score 1 + Intensity Score 1
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.

CLINICAL HISTORY:
None provided

PRE-OPERATIVE DIAGNOSIS:
Right breast cancer

ADDENDUM:
SYNOPTIC REPORT - BREAST, ER/PR RESULTS
Specimen: Surgical Excision
Block Number: A17 (smaller tumor)

ER: Positive Allred Score: 3 = Proportion Score 2 + Intensity Score 1
PR: Positive Allred Score: 7 = Proportion Score 4 + Intensity Score 3

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: A17 (smaller tumor)

Interpretation: EQUIVOCAL
Intensity: 2+
% Tumor Staining: 40%
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 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.
PathVysion HER-2 DNA Probe Kit
Case No
Analytical Interpretation of Results: HER-2 NOT AMPLIFIED

TSS: [redacted]

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 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 A17 Source of case:
Tissue fixation formalin-fixed tissue Outside Case No: NA
Tissue source breast Results interpreted: yes
HER2/CEP17 ratio: 1.06

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 [redacted], 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 DictationPathologist,
Final Review: Pathologist,
Final: Pathologist,
Addendum: 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:	