

100-0-3

Carcinoma, lobular, infiltrating 8520/3

Path Site Code Breast, upper outer quadrant C50.4
12/21/10 JWR

EQCC Site: breast, NOS C50.9

Dual/Synchronous primary
(same breast)

12/21/10

Final Diagnosis

Breast, right, simple mastectomy: Multiple (2) nodules of invasive mammary carcinoma are identified. Infiltrating lobular carcinoma, Nottingham grade I (of III) [tubules 3/3, nuclei 1/3, mitoses 1/3; Nottingham score 5/9] is identified forming a mass (1.1 x 0.9 x 0.8 cm) located in the upper outer quadrant of the breast [AJCC pT1c]. This cancer shows HER2/neu protein overexpression (scored as 2+; see comment below) and has metastasized to right axillary sentinel lymph node No. 1D as a roughly 1.1 mm keratin positive collection of tumor cells barely visible by routine H&E morphology (see comment regarding right axillary sentinel lymph node excision below).

Infiltrating ductal carcinoma, Nottingham grade I (of III) [tubules /3, nuclei /3, mitoses /3; Nottingham score /9] is identified forming a second lesion (1.7 x 1.5 x 0.9 cm) in the upper outer quadrant located 0.6 cm inferior and medial to the first lobular carcinoma mass [AJCC pT1c]. This tumor also shows HER2/neu protein overexpression (scored as 2+; see comment below). However, there is no morphologic evidence of metastasis by this second lesion into any of the sentinel lymph nodes.

Extensive ductal carcinoma in situ, intermediate nuclear grade, is present within and outside the invasive component with a separate nodule in the central/deep breast, 1.2 x 1.2 x 0.6 cm, located 1.4 cm medial to the infiltrating ductal carcinoma. Angiolymphatic invasion is not seen. The non-neoplastic breast parenchyma shows proliferative fibrocystic changes. Biopsy site changes are present. The tumor does not involve the nipple, overlying skin, or underlying chest wall. All surgical resection margins, including the deep margin, are negative for tumor (minimum tumor free margin, 0.4 cm, anterior/superior margin).

Lymph nodes, right axillary sentinel, excision: A single (of 12) right axillary sentinel lymph node is positive for metastatic carcinoma [AJCC pN1 mi (sn)]. This positive sentinel node is designated No. 1D (tissue block A4) and is characterized by a roughly 1.1 mm collection of keratin positive tumor cells without much in the way of H&E morphologic correlation. As noted above, this microscopic focus of cancer has lobular features. The remaining 11 right axillary sentinel lymph nodes are negative for metastatic cancer (verified by keratin immunostaining). Blue dye is identified in right axillary sentinel lymph nodes No. 1A, No. 2A, No. 3A, No. 3B, and No. 4. Blue dye is not identified in right axillary sentinel lymph nodes No. 1B, No. 1C, No. 1D, No. 2B, No. 2C, No. 2D, or No. 3C.

HER2/neu protein overexpression is weakly positive, score of 2+, according to the interpretation guidelines in the FDA-approved HercepTest. This degree of overexpression is seen in both tumor nodules (using tissue blocks B2 and B4). Fluorescence in situ hybridization (FISH) for HER2/neu amplification will be performed and reported in an addendum.

HER2 protein immunohistochemical (IHC) test results are only valid for non-decalcified paraffin embedded specimens fixed in neutral buffered formalin or Bouin's fixatives. Testing is performed using commercially available kit/reagents employing a polyclonal antibody and a polymer-based detection system.

ADDENDA:

UUID:10C43124-3C21-443C-8268-23BF8A4D317E
TCGA-AR-A1AM-01A-PR

Redacted



Criteria	Yes	No
Diagnosis Discrepancy		X
Primary Tumor Site Discrepancy		X
IHPAA Discrepancy		X
Prior Malignancy History		X
Dual/Synchronous Primary Tumor		X
Case is (Circle):	QUALIFIED	DISQUALIFIED
Reviewer Initials	JWR	
Date Reviewed:	12/21/10	

No amplification for HER2/neu is demonstrated by fluorescence *in situ* hybridization (FISH, performed in Laboratory Genetics) (blocks B2 and B4) according to the interpretation guidelines in the FDA approved PathVysion Her2 DNA Probe Kit.