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100-0-3

Carcinoma, infiltrating duct, NOS 8500/3 Sita: breast, NOS C50.9 lw 10/21/11

# Final Pathologic Diagnosis:

- A. Left axilla sentinel lymph nodes, dissection: No tumor (0/3).
- B. Right medial breast, excision:
- 1. No tumor.
- 2. Usual ductal hyperplasia, sclerosing adenosis and calcifications.
- C. Right breast, partial mastectomy:
- 1. Invasive ductal carcinoma, 2.2 cm, grade 3; see comment.
- 2. Ductal carcinoma in situ, high nuclear grade with necrosis; see comment. Note: **Breast Tumor Synoptic Comment**
- Laterality: Right.
- Invasive tumor type: Invasive ductal carcinoma.
- Invasive tumor size: 2.2 cm.
- Invasive tumor grade (modified Bloom-Richardson):

Nuclear grade: 3 points. Mitotic count: 3 points.

Tubule/papilla formation: 3 points.

Total points and overall grade = 9 points = grade 3.

- Lymphatic-vascular invasion: None.
- Skin/nipple: Not sampled.
- Margins for invasive tumor: Negative.
  - Deep margin: Negative; (tumor is <0.1 cm away, on slide C7).
  - Medial margin: Negative; (tumor is at least 0.8 cm away).
  - Lateral margin: Negative; (tumor is at least 2.4 cm away).
  - Anterior/superior margin: Negative; (tumor is 0.3 cm away, on slide C5).
  - Anterior/inferior margin: Negative; (tumor is 0.3 cm away, on slide C3).
- Ductal carcinoma in situ (DCIS): Comedo and solid.
- Ductal carcinoma in situ size: DCIS present admixed with invasive cancer.
- Ductal carcinoma in situ nuclear grade: High grade.

- Necrosis in DCIS: Present.
- Microcalcifications: Present in DCIS and benign ducts.
- Resection margins for ductal carcinoma in situ: Negative.
  - Deep margin: Negative; (tumor is 1.5 cm away, on slide C7).
  - Medial margin: Negative.
  - Lateral margin: Negative.
  - Anterior/superior margin: Negative; (tumor is 0.6 cm away, on slide C7).
  - Anterior/inferior margin: Negative.
- Lymph node status: Negative.
  - Number of positive lymph nodes: 0.
  - Total number sampled: 3.
- AJCC/UICC stage: pT2N0MX.

Select slides (C2, C3, C4) were also reviewed by Dr.

who concurs with the diagnosis.

Immunostains for ER/PR and Her2 neu will be performed the results reported in an addendum.

All margins were oriented, inked and examined microscopically.

## Intraoperative Consult Diagnosis

FS1 (A) Right axilla, sentinel lymph node #1, biopsy: Three lymph nodes, no carcinoma. (Dr.

FS2 (B) Right medial fibrosis, rule out carcinoma, biopsy: Fibrocystic change, calcification, no tumor. (Dr.

### Clinical History

The patient is a year-old woman with a history of right breast adenocarcinoma diagnosed by fine needle aspiration. She now undergoes right breast partial mastectomy and right sentinel lymph node biopsy.

#### **Gross Description**

The specimen is received fresh in three parts, each labeled with the patient's name and unit number.

Part A, additionally labeled " ," consists of a single soft irregular piece of red-yellow fibrofatty tissue measuring  $3 \times 2 \times 0.5$  cm (stitch marks highest count). One candidate lymph node is identified at the stitched area; this is inked blue. Additionally, two more lymph node candidates are identified. Three lymph node candidates are submitted for frozen section diagnosis 1, and subsequently submitted in cassette A1. The remaining fibrofatty tissue is submitted in cassette A2.

Part B, additionally labeled " ," consists of a single firm, unoriented, oval piece of yellow-pink fibrofatty tissue measuring  $2.5 \times 1.7 \times 0.7$  cm. One side of the specimen is inked blue and the opposite side is inked green. The specimen is bread-loafed, and two central representative sections are submitted for frozen section diagnosis 2, with the frozen section remnant submitted in cassette B1. The remaining tissue is submitted in cassettes B2-B3.

Part C is additionally labeled "

- SPECIMEN TYPE: Partial mastectomy.
- SKIN ELLIPSE: Not present.
- NIPPLE: Not present.
- ORIENTATION:
  - Long suture: Lateral.
  - Short suture: Superior.
- INKING (for microscopic evaluation):
  - Black: Deep.
  - Green: Anterior inferior.
  - Blue: Anterior superior.
- SIZE OF SPECIMEN:



- Medial-Lateral dimension: 4.3 cm. - Superior-Inferior dimension: 4 cm.

- Anterior-Posterior dimension: 1.8 cm.
- TOTAL NUMBER OF SLICES: Eight.
  - First slice (slice #1): Medial margin.
  - Last slice (slice #8): Latera margin.

- GROSS PATHOLOGY: The specimen consists of a 22 gm partial mastectomy specimen. A tan-pink, irregular, firm mass is noted in the more superior aspect of the specimen, which measures 1.5 x 0.7 x 0.7 cm. A portion is taken for tissue banking. The mass appears to be present in slices 3-6. The mass appears to come within <0.1 cm away from the deep and anterior-superior margins in slice 4. The mass comes within 0.2 cm away from the anterior-inferior margin in slice 3. No localization needle or specimen mammogram are included in the specimen. Representative sections are submitted as follows:

Cassette C1:

Perpendicular representative sections of medial margin, slice 1.

Cassette C2:

Middle slice 2.

Cassettes C3-C4: Cassettes C5-C6: Closest approach to anterior inferior margin, entire slice 3.

Closest approach to deep and anterior superior margins, entire slice 4.

Cassette C7: Cassette C8: Superior slice 5. Middle slice 6.

Cassette C9:

Inferior slice 8.

Cassette C10:

Perpendicular sections of slice 8, lateral margin.

Pathology Resident

/Pathologist

Signed:

Fee Codes:

Addenda

Addendum.

**Date Ordered:** 

Date Complete: **Date Reported:** 

Status: Signed Out

By:

#### Addendum Comment

An immunohistochemical test for estrogen and progesterone receptors was performed by manual morphometry on block C7.

The test for estrogen receptors is negative. There is no nuclear staining in any of tumor cells. Internal positive control is present.

The test for progesterone receptors is negative. There is no nuclear staining in any of tumor cells. Internal positive control is present.

Result of HER2/neu test: This carcinoma is negative for HER2/neu oncoprotein over-expression.

An immunohistochemical assay was performed by manual morphometry on block C7 using the CB11 monoclonal antibody to HER2/neu oncoprotein. The staining intensity of this carcinoma was 0 on a scale of 0-3.

Carcinomas with staining intensity scores of 0 or 1 are considered negative for over-expression of HER2/neu oncoprotein.

Those with a staining intensity score of 2 are considered indeterminate. We and others have observed that many carcinomas wit

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**Working Draft** 

staining intensity scores of 2 do not show gene amplification. All carcinomas with staining intensity scores of 2 are therefore submitted for FISH testing. The results of the FISH test are issued directly from the molecular cytogenetics laboratory.

Carcinomas with staining intensity scores of 3 are considered positive for over-expression of HER2/neu oncoprotein. Tumors in this category show an excellent correlation between the results of immunohistochemical and FISH testing, and almost always show gene amplification.

The immunonemyidase stain(s) reported above were developed and their performance characteristics determined by the They have not been cleared or approved by the U. S. Food and Drug Administration. nne FDA has determined that such clearance or approval is not necessary. These tests are used for clinical purposes. They should not be regarded as investigational or for research. This laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 ("CLIA") as qualified to perform high-complexity clinical testing.

athologist

Oth	er Specimens Specimen Class:	Status: Signed Out	Accessioned:
Specimen(s) Received: Right Breast, Fine Ne		•	Signed Out:
	t Breast, Fine Needle Asp	iration: Cyst content	ts; see comment.
	Specimen Class:	Status: Signed Out	Accessioned Signed Out:
pecin	nen(s) Received: A: Right breast scar	, B: Right breast, partial mastecto	omy w/o lymph nodes
	<u>Diagnosis</u> Skin, right breast, excision		
	Skin with scar and surgica		
	lo carcinoma.		
	Malata la maranta de la Malata d		
	Right breast, partial maste	ectomy:	
	Benign breast tissue. Burgical site changes.		
	lo carcinoma.		
	Specimen Class:	Status: Signed Out	Accessioned: Signed Out:
pecin	nen(s) Received: Right Breast, Fine N	leedle Aspiration	Signed Out:
	Diagnosis		
gh	t Breast, Fine Needle Asp	iration: Adenocarcin	oma, see comment.
	Specimen Class:	Status: Signed Out	Accessioned
-	Specimen Class:	Status: Signed Out	Accessioned Signed Out:

Final Diagnosis

Cervical/Endocervical, Thin Prep Imaged

NEGATIVE FOR INTRAEPITHELIAL LESION OR MALIGNANCY.

SPECIMEN ADEQUACY:

Satisfactory for evaluation.
Transformation zone components are present.