166-0-3

Carcinana, Infil tratting labular, NOS
8520/3

Site: breast, C50.9 h

SPECIMEN

A. Right axillary sentinel nodeB. Right breast silk stitch marks superior breast

#### CLINICAL NOTES

PRE-OP DIAGNOSIS: Right breast cancer

CLINICAL HISTORY: year old female with breast cancer.

POST-OP DIAGNOSIS: Right breast cancer

# FROZEN SECTION DIAGNOSIS

A. Right axillary sentinel node, biopsy: Three lymph nodes. Negative for malignancy on frozen.

# GROSS DESCRIPTION

The specimen is received fresh for frozen section labeled "A. right axillary sentinel node" and consists of a 5.5  $\times$  3 x 1.5 cm. piece of fatty yellow tissue. The specimen is sectioned to reveal three separate lymph nodes. One measures 4 cm. in greatest dimension and shows prominent fatty replacement of the hilus. Another node measures 1.5 cm. in greatest dimension and the smallest lymph node appears to measure 1 cm. in greatest dimension. The lymph node tissue is entirely frozen. The largest lymph node is sectioned and entirely frozen as frozen sections AFS1 and AFS2. The medium sized lymph node is entirely frozen as frozen section AFS3 and the possible smallest lymph node is frozen as frozen section AFS4. RS4 kaa

B. Received fresh for tissue procurement labeled "right ) breast" is a 24.5 cm. (superior to inferior) x 19.0 cm. (medial to lateral)  $\times$  5.0 cm. (anterior to posterior) diffusely cauterized soft, lobulated tan gold-white portion of fibroadipose tissue in keeping with breast designated as right per requisition slip and container and oriented by a single suture as stated previously. There is a 7.5 cm. (medial to lateral) x 4.5 cm. (superior to inferior) slightly wrinkled white skin ellipse with a central, inverted,  $0.5 \times 0.5 \text{ cm}$ . nipple along the anterior aspect. The intact deep margin is inked black and the specimen is sectioned. There is a stellate, 2.2 cm. (medial to lateral)  $\times$  1.6 cm. (superior to inferior)  $\times$  1.3 cm. (anterior to posterior) tan white lesion at the junction of the four quadrants subjacent to the aforementioned skin ellipse. The lesion is 4.0 cm. from the inked deep margin and 1.7 cm. from the overlying skin ellipse. A 2.3 cm. (anterior to posterior) x 1.3 cm. (superior to inferior) x 1.3 cm. (medial to lateral) vacant biopsy cavity is present medial to the aforementioned lesion. A portion of the lesion and a portion of normal parenchyma are submitted for tissue procurement as requested. The cut surfaces throughout the remainder of the specimen consist predominantly of glistening lobulated golden yellow adipose tissue with a minimal amount of interspersed delicate tan-white fibrous tissue. A single, 0.3 cm. "blue dome cyst" is identified within the lower outer quadrant (see block 10). Representative sections are submitted in 11 blocks as labeled. RS-11.

BLOCK SUMMARY: 1 - Deep margin subjacent to lesion; 2 - lesion to overlying skin ellipse; 3-6 - lesion and representative biopsy cavity; 7 - random upper outer quadrant; 8 - upper inner quadrant; 9 - lower inner quadrant; 10 - lower outer quadrant; 11 - nipple with subjacent tumor.

# MICROSCOPIC DESCRIPTION

A. Microscopic examination of the sentinel lymph nodes from the right axilla involve evaluation of two H&E-stained sections at the time of frozen section and an additional three



 ${\tt H\&E-stained}$  sections of each of the tissue blocks after formalin fixation and paraffin embedding. Pancytokeratin AE1/AE3

immunohistochemical stains were also evaluated. Although no tumor was identified on the original frozen sections, tumor was identified in the permanent sections in the largest lymph node in blocks AFS1 and AFS2. Overall, the metastatic tumor measures 8 mm in greatest dimension. No extranodal tumor is identified (pNla).

B. Microscopic examination of the right breast mastectomy

reveals

Invasive carcinoma: Present

Histologic type: Infiltrating lobular carcinoma

Histologic grade: Elston SBR grade 2

Overall grade: 2

Architectural score: 3 Nuclear score: 1-2 Mitotic score: 1

Greatest dimension (pT): 2.2 cm (pT2)

Specimen margins: Completely negative for tumor (much greater

than 1 cm from tumor)

Vessel invasion: Not identified Calcification: Focally present

Nipple (Paget's): There is no evidence of Paget's disease.

Invasion of skin or chest wall: Not identified

Ductal carcinoma in situ: Not identified

Description of non-tumorous breast: Prominent lobular carcinoma in situ was

identified associated with the invasive tumor and towards the edge around the invasive tumor. The background tissue shows proliferative fibrocystic

changes with florid ordinary ductal hyperplasia and columnar cell change,

cysts and microcysts, apocrine metaplasia and sclerosing adenosis.

Comments: E-cadherin immunohistochemical stain was evaluated on block 11 and demonstrated a lack of staining in both the invasive and the in situ tumor, helping to support the lobular interpretation.

Distant metastasis (pM): Cannot evaluate pMx.

Prognostic markers: Have been ordered on block B11.

Breast Prognostic Marker Report:

#### Results

% positive....Staining intensity Estrogen receptor:.... 80% Moderate- strong

Progesterone receptor:.. 30% Moderate

Her2/neu by IHC:....2+

## Interpretation

Estrogen receptor:.... POSITIVE

Progesterone receptor:.. POSITIVE

Her2/neu by IHC:.... EQUIVOCAL, BLOCK B11 SENT FOR FISH

#### Comments

Fixation time:.....30MIN Cold ischemia time:....62HRS

Prognostic markers were done by immunohistochemical stain on paraffin sections from 10% neutral buffered formalin fixed tissue using Ventana corporation antibodies on a Benchmark automated stainer.

The  ${\rm Her2/neu}$  antibody is clone 4B5 and has been approved by the FDA as an aid in the assessment of breast cancer patients for whom Herceptin treatment is considered.

This laboratory meets the test validation and quality assurance requirements of the ASCO/CAP guidelines for Her2 and ER testing for carcinoma of the breast (Arch Pathol Lab Med 2007;131:18-43. Arch Pathol Lab Med 2010;134:907-922). ER,PR and HER-2 results are scored using the recommended ASCO/CAP criteria.

4x2,14x1,15x3,20x2,25x3

### DIAGNOSIS

- A. Right axillary sentinel lymph nodes, biopsy:

  METASTATIC LOBULAR CARCINOMA PRESENT IN 1 OF 3 LYMPH NODES.

  Tumor 8 mm in greatest dimension, no extranodal tumor present (pNla).
- B. Right breast, mastectomy:
   Infiltrating lobular carcinoma, tumor size 2.2 cm in greatest dimension (pT2).
   Resection margins are negative for invasive carcinoma.
   Lobular carcinoma in situ.
   Proliferative fibrocystic changes and prior biopsy site effects.
   Estrogen receptor Positive
   Progesterone receptor Positive
   HER-2 Equivocal, block sent for FISH testing.
   See microscopic description.

DIAGNOSIS			
	M.D.	(Electronic	Signature)

