

breast

SURGICAL PATHOLOGY

Case Number

ICA-0-3

Carcinoma, infiltrating ductal, NOS
8500/3

Path Site: breast, upper outer quadrant C50.4

CQCF C50.9

1/31/11

fw

Diagnosis:

A: Lymph node, right sentinel #1, removal

- Metastatic carcinoma present in one of one sentinel lymph nodes (1/1)

Size of largest metastatic focus: Estimated at greater than 2.0 cm (see comment)

Extracapsular extension: Present

B: Lymph node, right axillary palpable, biopsy

- Metastatic carcinoma present in three of three non-sentinel lymph node (3/3)

Size of largest metastatic foci in each node: 9 mm; 4 mm; 0.22 mm

Extracapsular extension: Present

- Lymphovascular space invasion is identified in perinodal adipose tissue

C: Breast, right posterior margin, biopsy

Skeletal muscle and adipose tissue without diagnostic histopathologic change

- No carcinoma in situ and no invasive carcinoma identified

D: Breast, right, total mastectomy

Tumor type: Infiltrating ductal carcinoma

Nottingham combined histologic grade: 1

Tubule formation score: 2

Nuclear Pleomorphism Score: 2

Mitotic count score: 1

UUID: 6EB1A616-E99C-4AF6-9C0A-0FDC521A79CD
TCGA-AQ-A1H3-01A-PR

Redacted



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	KMA	fw
Date Reviewed	5/31/11	

Focality of tumor: Multifocal and multicentric

Tumor size (greatest dimension): 3.7 cm (gross measurement, see comment)

Lymphovascular invasion: Present

In Situ Component: Present

In Situ Component type/Architecture pattern: Ductal carcinoma in situ, solid and cribriform types

In Situ Component nuclear grade: Intermediate grade (nuclear grade 2)

In Situ Component necrosis: Comedo-type necrosis is present

In Situ Component extent/size: Ductal carcinoma in situ comprises approximately 20% of the tumor volume. A precise span for the DCIS cannot be determined, however, DCIS is present in seven of eighteen tissue sections evaluated predominantly in the vicinity of the invasive ductal carcinoma.

Extensive intraductal component: Not identified

Nipple involvement: Not identified

Skin involvement: Not identified

Margin status:

Invasive component: Negative. Invasive carcinoma is greater than 5 mm from all margins.

In Situ component: Negative. DCIS is greater than 5 mm from all margins.

Axillary lymph nodes (see also parts A, B, and F):

Total number with metastasis: 14 (includes two lymph nodes with micrometastases)

Total number examined: 23

Size of largest metastasis: estimated at greater than 2.0 cm (part A)

Extracapsular extension: Present

Microcalcifications: Focally present in association with ductal carcinoma in situ and with columnar cell change

Other findings:

- Atypical lobular hyperplasia
- Flat epithelial atypia
- Sclerosing adenosis
- Apocrine cysts and apocrine metaplasia
- Fibrosis and hemorrhage in keeping with prior biopsy site
- Skin without diagnostic histopathologic change

AJCC PATHOLOGIC TNM STAGE: pT2(m) pN3a

Note: This pathologic stage assessment is based on information available at the time of this report, and is subject to change pending clinical review and additional information.

E: Lymph node, right Level 3 axillary, removal

- Metastatic carcinoma present in two of two lymph nodes (2/2)

Size of largest metastatic foci: 6 mm; 5 mm

Extracapsular extension: Not definitively identified

F: Lymph node, right axillary Level 1 and 2, regional node dissection

- Metastatic carcinoma present in eight of seventeen lymph nodes (8/17)

Size of largest metastatic focus: 12 mm

Extracapsular extension: Present

Note: In one lymph node, the metastatic focus measures only 0.2 mm (micrometastasis).

- Lymphovascular space invasion is present

Comment:

Although the gross description mentions Mass A and Mass B, histologic sections of intervening tissue shows patchy involvement by ductal carcinoma in situ and invasive ductal carcinoma. Mass A and Mass B are therefore regarded as a single mass with a largest measurement of 3.7 cm (stage pT2). Multiple additional smaller foci of invasive carcinoma are present, which are greater than grossly distinct from the large mass, including one nodule of invasive carcinoma identified in a separate (lower outer) quadrant (multifocal and multicentric disease).

Intraoperative Consult Diagnosis:

A frozen section was requested by Dr.

FSA1: Sentinel lymph node #1, right axilla, sentinel node biopsy

- Positive for metastatic carcinoma.

Frozen Section Pathologist:

Clinical History:

with right breast IDC, well differentiated, undergoing lumpectomy with axillary node dissection.

Gross Description:

Received are six appropriately labeled containers.

Container A is additionally labeled "right sentinel node #1." It holds a 6 x 3 x 1.4 cm fragment of red/tan fibrofatty tissue containing a 5 x 1.5 x 1.3 cm lymph node candidate from which two representative sections are frozen as FSA1. The remaining lymph node tissue is submitted in blocks A1-A4. Fat remains in formalin.

Container B is additionally labeled "right axillary palpable node." It holds a 4.5 x 4.0 x 1.2 cm red/tan fibrofatty tissue fragment containing three lymph node candidates measuring 3.5 x 3.0 x 1.0 cm, 0.6 cm and 0.4 cm. The two smaller lymph node candidates are submitted in block B1. The largest lymph node candidate is sectioned and submitted in blocks B2 and B3. Fat remains in formalin.

Container C is additionally labeled "right posterior margin, clip posterior." It holds a 1.8 x 1.5 x 1.3 cm markedly cauterized fragment of yellow/gray fibromuscular tissue and fat. There is a clip present on one surface which is inked blue and the opposite surface is inked black. The specimen is sectioned and entirely submitted in blocks C1-C2,

Container D is additionally labeled "right total mastectomy, stitch marks axillary tail."

Specimen fixation: formalin

Time in fixative: 9 hours

Type of mastectomy: total mastectomy

Weight of specimen: 900 grams

Size of specimen: 26.6 x 21.2 x 6.3 cm

Orientation of specimen: Anterior=blue, posterior=black, axillary tail=yellow

Skin ellipse dimensions: 22.6 x 9.1 cm

Nipple/areola: 1.7/5.0 cm

Axillary tail: submitted separately

Biopsy site: not identified

Discrete Mass(es): present

Number of discrete masses: two (designated A and B)

Size of mass (es)/biopsy site: Mass A: 1.8 x 1.3 x 1.1 cm

Mass B: 1.1 x 1.1 x 0.6 cm

Location of mass(es): Mass A: upper outer quadrant
(largest)

Mass B: The mass is located 1.8 cm posterior and inferior to the lateral edge of Mass A.

Distance of mass/biopsy site from surgical margin: Mass A: The mass is located 3.3 cm from the black inked deep margin, 1.5 cm from the closest blue inked soft tissue margin, 11 cm from the medial margin, and 10 cm from the lateral margin.

Mass B: The mass is located 0.8 cm from the black inked posterior margin, 4 cm from the closest blue inked anterior margin.

Gross involvement of skin or fascia/muscle by tumor: absent

Description of remaining breast: composed of dense and nodular white/tan fibroconnective tissue encompassing the mass; this is most prominent in the central/subareolar portion of the breast where there is dense blue dye staining

The breast tissue between Mass A and Mass B is firm and hemorrhagic with fat necrosis. Sections are taken of the intervening parenchyma (D3 and D4). If Mass A and Mass B are contiguous, the overall measurements of the lesion would be 3.7 x 3.1 x 3.0 cm.

Other remarkable features: There is a small amount of soft tissue hemorrhage and fat necrosis along the superior lateral edge of the mass. Multiple 0.3-0.4 cm firm nodules are identified radiating from the main mass towards the medial aspect of the breast. These are extensively sampled.

Tissue submitted for special investigations: tumor and normal are given to

Block Summary:

(Inking: anterior=blue, posterior=black and axillary tail=yellow)

D1 - nipple, serially sectioned

D2 - areola, en face

D3-D4 - intervening section of breast tissue between Mass A and Mass B

D5 - Mass A in relationship to closest blue inked superior anterior margin

D6 - Mass B in relationship to black inked deep margin

D7 - central section of Mass A

D8 - small nodule anterior to edge of Mass A

D9 - second smaller nodule anterior to medial edge of Mass A

D10 - smaller nodule, approximately 2.5 cm medial to edge of Mass A

D11 - small nodule, lower inner quadrant

D12 - nodule along inferior edge of specimen

D13 - small nodule approximately 2 cm medial and posterior to edge of Mass A

D14 - upper inner quadrant

D15 - lower inner quadrant

D16 - upper outer quadrant

D17 - lower outer quadrant

D18 - small nodule, 2.1 cm from edge of Mass A along anterior/superior blue inked edge

Container E is additionally labeled "right Level 3 axillary node." It holds a 4.2 x 2.2 x 0.6 cm unoriented fragment of yellow/tan fibrofatty tissue containing two lymph node candidates up to 1.3 cm in greatest dimension.

Block Summary:

E1 - one lymph node candidate, bisected

E2 - one lymph node candidate, bisected

Fat remains in formalin.

Container F is additionally labeled "right axillary node dissection, Levels 1 and 2." It holds an unoriented 12.4 x 5.3 x 2.0 cm aggregate of fat which is dissected for lymph node candidates. Multiple lymph node candidates measuring up to 1.9 cm in greatest dimension are identified.

Block summary:

F1 - four lymph node candidates

F2 - four lymph node candidates

F3 - three lymph node candidates

F4 - one bisected lymph node candidate

F5 - one bisected lymph node candidate

F6 - one bisected lymph node candidate

F7 - one bisected lymph node candidate

F8 - one lymph node candidate, sectioned

F9 - one lymph node candidate (largest), sectioned

Light Microscopy:

Light microscopic examination is performed by Dr.

Signature

Attending Pathologist: I have personally conducted the evaluation of the above specimens and have rendered the above diagnosis(es).