

FINAL PATHOLOGIC DIAGNOSIS

A. Breast, left; modified radical mastectomy:

- Invasive ductal carcinoma, SBR grade 2, see parameters
- Ductal carcinoma in situ, intermediate grade, solid and cribriform types with associated necrosis
- Surgical margins free of tumor
- Biopsy site changes
- Fourteen nodes, negative for carcinoma (0/14)
- Nipple, areola, and skin without diagnostic abnormality

B. Breast, right; simple mastectomy:

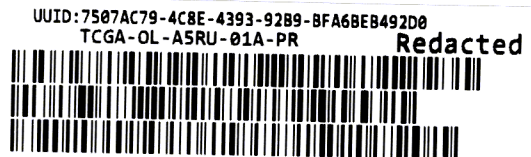
- Invasive ductal carcinoma, SBR grade 2, inferior-anterior of hematoma cavity, see parameters
- Extensive ductal carcinoma in situ, intermediate grade, solid type, with associated central necrosis
- Anterior-inferior margin positive for invasive carcinoma.
- Attached skeletal muscle focally infiltrated by invasive carcinoma (anterior-inferior)
- Columnar cell change and adenosis
- Intraductal papilloma
- Nipple, areola, and skin without diagnostic abnormality

Breast Pathologic Parameters (Part A Left Breast)

1. Invasive carcinoma:

A. Gross measurement: 1.9 x 1.5 x 1.5 cm

ICD O-3  
Carcinoma, Infiltrating  
Ductal NOS 8500/3  
Site: C Breast NOS  
C50.9  
JW 2/18/13



B. Composite histologic (modified SBR) grade: II

- Architecture: 2
- Nuclear grade: 3
- Mitotic count: 1

C. Associated intraductal carcinoma in situ (DCIS):

- Within main mass (forming 10 % of tumor volume)
- Extending away from main lesion

2. Intraductal carcinoma:

A. Gross or microscopic (specify) measurement: (5.2 cm, spanning 4 slices)

B. Type: Cribriform and Solid

C. Nuclear grade: Intermediate

D. Associated features: Necrosis

3. Excisional biopsy margins: Free of tumor

- DCIS 4 mm from posterior margin
- Invasive carcinoma 5 mm from posterior (closest) margin

4. Blood vessel and lymphatic invasion: Not identified

5. Nipple: unremarkable

6. Skin: uninvolved

7. Skeletal muscle: Focally present, negative for tumor

8. Axillary lymph nodes: In combination with previous sentinel lymph node biopsy  
(see                      One of fifteen nodes positive for carcinoma (1/15))

- Size of largest metastatic deposit: 18 mm

- Extranodal extension: present (2 mm; largest focus)

9. Special studies (see

- ER: Positive expression in >95% of invasive tumor nuclei

- PR: Positive expression in 80% of invasive tumor nuclei

- Her2/neu antigen (FISH): Non-amplified (1.02)

10. pTNM (AJCC, 7th edition, 2010): pT1cN1MX

Effective                      this Checklist utilizes the 7th edition TNM staging  
system for breast of the American Joint Committee on Cancer (AJCC) and the  
International Union Against Cancer (UICC).

#### Breast Pathologic Parameters (Part B Right Breast)

1. Invasive carcinoma:

A. Microscopic measurement: 1.5 cm

B. Composite histologic (modified SBR) grade: II

- Architecture: 3

- Nuclear grade: 2

- Mitotic count: 1

C. Associated intraductal carcinoma in situ (DCIS):

- Within main mass (forming 50 % of tumor volume)
- Extending away from main mass

2. Intraductal carcinoma:

A. Microscopic measurement: 6.1 cm, spanning over 5 slices, involving lower inner and upper inner quadrants and extending anteriorly towards nipple

B. Type: Solid

C. Nuclear grade: Intermediate

D. Associated features: Necrosis and cancerization of lobules

3. Excisional biopsy margins: Positive

- DCIS >3 mm from posterior and inferior (closest) margins
- Invasive carcinoma at inferior-anterior margin with infiltration of attached skeletal muscle.

4. Blood vessel and lymphatic invasion: Suspicious

5. Nipple: unremarkable; DCIS noted 5 mm from areolar complex

6. Skin: uninvolved

7. Skeletal muscle: Focus attached inferior-anterior infiltrated by carcinoma.

8. Axillary lymph nodes: Negative (Two sentinel nodes, negative for carcinoma (0/2), see )

9. Special studies (see

- ER: Strong expression in >90% of invasive tumor nuclei
- PR: Strong expression in >90% of invasive tumor nuclei
- Her2/neu antigen (FISH): Non-amplified (1.04)

10. pTNM (AJCC, 7th edition, 2010): pT1cN0(sn)MX (pending review of imaging)

Effective this Checklist utilizes the 7th edition TNM staging system for breast of the American Joint Committee on Cancer (AJCC) and the International Union Against Cancer (UICC).

#### Clinical History:

The patient is a year old female with malignant neoplasm of the breast undergoing left modified radical mastectomy and right simple mastectomy.

is: lateral  
ductal carcinoma

#### Comment

B. Stains for CKAE1/AE3 and myosin-heavy chain support extension of invasive carcinoma into skeletal muscle at the inferior-anterior aspect of the breast.

Findings were discussed with

**Specimens Received:**

A: Left modified radical mastectomy; mastectomy

B: Right simple mastectomy; partial mastectomy

**Gross Description:**

Received are two containers, each labeled with the patient's name and medical record number.

A. Container A is further designated '1. Left modified radical mastectomy; mastectomy.' The radiographic findings for this breast include an irregularly shaped mass measuring 1.4 x 1.2 x 1.9 cm and areas of heterogeneous kinetics with washout. The total extent of the abnormal enhancing is 2.8 x 2.3 x 1.9 cm. Received fresh and placed in formalin is a 468 gram mastectomy specimen measuring 14.5 cm from medial to lateral, 17.5 cm from superior to inferior and 3.7 cm from anterior to posterior. It has an axillary tail measuring 11 x 6.5 x 1.5 cm. The skin measures 13.2 x 5 cm and an nipple areola complex measuring 3 x 2.7 cm and a nipple measuring 1 x 1 cm. The specimen is inked as follows:

posterior black, anterior-superior yellow, anterior-inferior green. It is sliced into 11 slices to reveal a lesion that is present from slices 6 to 8 and the lesion measures 1.9 x 1.5 cm and has a medial to lateral dimension of 1.5 cm. It focally abuts the deep margin and is 3 cm from the inferior margin and 9 cm from the superior margin. No other lesions or masses are identified. A number of lymph node candidates are identified in the axillary tail, the largest of which measures 2.5 x 2 x 1.8 cm. This large lymph node is sectioned to reveal a central area of necrosis.

Block Summary:

- A1-A3: lesion from slice 6
- A2: superior to lesion
- A3: inferior to lesion
- A4: lesion in slice 7
- A5: lesion in slice 8
- A6: slice 5 next to lesion
- A7: slice 9 next to lesion
- A8: skin and nipple
- A9: areola
- A10: upper-inner quadrant from slice 2
- A11: lower-inner quadrant from slice 4
- A12: upper-outer quadrant from slice 7
- A13: lower-outer quadrant from slice 7
- A14: three lymph node candidates
- A15: three lymph node candidates

A16: three lymph node candidates

A17: three lymph node candidates

A18: one lymph node candidate

A19: one lymph node candidate

A20-A21: largest lymph node candidate bisected

A22-A25: additional representative sections of axillary fat

B. Container B is further designated '2. Right simple mastectomy; partial mastectomy.' Received fresh and placed in formalin is a 350 gram mastectomy specimen measuring 17 cm from medial to lateral, 13.5 from superior to inferior, and 2.5 cm from anterior to posterior. There is a skin ellipse measuring 3 x 3.5 cm and an areola measuring 2.5 x 2.7 cm and a nipple measuring 1 x 1 cm. It is sliced into 14 slices in which there is a hematoma cavity measuring 1.5 x 1.5 x 3.1 cm found in slices 3, 4, 5 and 6. The cavity has a rim of white-tan, firm tissue around it and the cavity is 1.1 cm from the deep margin and 0.6 cm from the inferior margin. Also note that the deep margin is inked red, the anterior-superior margin is inked blue and the anterior-inferior margin is inked green. No other lesions or masses are identified.

#### Block Summary:

B1: lesion in slice 3

B2: superior to B1

B3: lesion in slice 4

B4: superior to B3

B5: lesion in slice 5



B6: superior to B5

B7: lesion in slice 6

B8: superior to B7

B9: slice 7 adjacent to lesion

B10: slice 2 adjacent to lesion

B11: upper-outer quadrant in slice 12

B12: lower-outer quadrant in slice 11

B13: upper-inner quadrant in slice 5

B14: lower-inner quadrant in slice 6

B15: skin and nipple

B16: areola

The specimen is inked as follows: posterior red, anterior-superior blue,  
anterior inferior green.

The tissue is fixed for at least six hours in NBF and no more than 72 hours.

| Criteria                       | Yes                           | No           |
|--------------------------------|-------------------------------|--------------|
| Diagnosis Discrepancy          |                               | ✓            |
| Primary Tumor Site Discrepancy |                               | ✓            |
| HIPAA Discrepancy              |                               | ✓            |
| Prior Malignancy History       |                               | ✓            |
| Dual/Synchronous Primary Noted |                               | ✓            |
| Case is (circle):              | QUALIFIED                     | DISQUALIFIED |
| Reviewer: <i>mt</i>            | Date Reviewed: <i>2/10/13</i> |              |