



Patient: ABRAMS, ROXANN LYNN

Accession Number: [REDACTED]

Hospital No: [REDACTED]

Pathologist: [REDACTED]

Ordering M.D.: [REDACTED]

Date of Birth: [REDACTED]

Assistant: [REDACTED]

Age/Sex: [REDACTED] F

Date of Procedure: 11/4/2022

Copies To: [REDACTED]

Date Received: 11/4/2022

Location: 8-SE

AKA:

Outreach Location:

Outreach CPN:

SURGICAL PATHOLOGY REPORT

***** Addendum - Please See End of Report *****

Reason for Addendum #1: Breast profile results

DIAGNOSIS:

A. RIGHT BREAST EXPLANT:

- Medical device, as per gross description

B. RIGHT BREAST, NIPPLE AND SKIN-SPARING MASTECTOMY:

- Infiltrating ductal carcinoma x 3:
 1. Well-differentiated, measuring 1.2 cm, upper inner quadrant
 2. Well-differentiated, measuring 0.6 cm, upper outer quadrant
 3. Well-differentiated, measuring 0.1 cm, lower inner quadrant
- Infiltrating lobular carcinoma, well-differentiated, measuring 0.3 cm, lower outer quadrant
- Ductal carcinoma in situ, intermediate nuclear grade with focal necrosis, upper outer quadrant measuring 3.5 cm
- Lobular carcinoma in situ and atypical lobular hyperplasia
- Three lymph nodes, no carcinoma identified (0/3)
- See synoptic report

C. LEFT BREAST EXPLANT:

- Medical device, as per gross description

D. LEFT BREAST, SKIN-SPARING MASTECTOMY:

- Infiltrating lobular carcinoma, moderately differentiated, measuring at least 10.5 cm and approaching to less than 0.1 cm of inked anterior inferior margin
- Lobular carcinoma in situ and atypical lobular hyperplasia
- One lymph node, no carcinoma identified (0/1)
- See synoptic report

E. LEFT BREAST, LATERAL MARGIN, EXCISION:

- No carcinoma identified

F. LEFT AXILLARY LYMPH NODES, DISSECTION:

- Metastatic carcinoma in one of seven lymph nodes (1/7)

Patient Case(s): [REDACTED]

If this report includes immunohistochemical (IHC) test results, please note the following: IHC studies were interpreted in conjunction with appropriate positive and negative controls which demonstrate the expected positive and negative reactivity. Multiple IHC tests were developed and their performance characteristics determined by Cedars-Sinai Medical Center Department of Pathology and Laboratory Medicine. These IHC tests have not been cleared or approved by the U.S. Food and Drug Administration (FDA) and FDA approval is not required. This laboratory is regulated under CLIA as qualified to perform high-complexity testing. IHC tests are used for clinical purposes. They should not be regarded as investigational or research.

Copy For [REDACTED]

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: [REDACTED]

Applies To:

B : RIGHT BREAST, SHORT STITCH SUPERIOR, LONG STITCH LATERAL, LOOP STITCH UNDER THE

Invasive and In Situ Carcinoma of the Breast***Specimen***

Procedure:	Skin and nipple sparing mastectomy
Specimen Laterality:	Right
Lymph Node Sampling:	Axillary dissection (partial or complete dissection)

Tumor Characteristics

<u>Invasive Carcinoma:</u>	Present
Tumor Focality:	Multiple foci of invasive carcinoma Number of foci: 4 Nature of multifocality: Two or more separate independent foci of synchronous invasive carcinoma
Tumor Size:	Size of largest focus of invasive carcinoma: Greatest dimension: 1.2 cm Sizes of individual foci of invasive carcinoma: Infiltrating ductal carcinomas 1.2, 0.6, and 0.1 cm; Infiltrating lobular carcinoma 0.3 cm
Histologic Type:	Invasive ductal and lobular carcinomas
Histologic Grade (Nottingham Histologic Score)	
Overall Grade:	Grade 1: Low grade
Scoring:	Total Score: 4-5 (out of 9) Component Scores: Nuclear Pleomorphism: 1-2 Glandular (Acinar)/Tubular Differentiation: 1-3 Mitotic Rate: 1 (out of 3) <i>Note: All foci of invasive carcinoma are of the same overall histologic grade</i>
Lymphovascular Invasion:	Intramammary Lymphovascular Invasion: Not identified
<u>Carcinoma In Situ:</u>	
Ductal Carcinoma in Situ (DCIS):	Present
Nuclear Grade:	Grade II (intermediate grade)
Associated Necrosis:	Present, focal (small foci of necrosis)
Size (Extent) of DCIS:	Greatest dimension: 3.5 cm
Lobular Carcinoma in Situ (LCIS):	Present, classical type

Tumor Extension

Specimen does not include skin, nipple, or skeletal muscle

Margins

<u>Main Specimen Margins:</u>	<u>Main Specimen(s):</u> Specimen B; RIGHT MASTECTOMY
<u>Invasive Carcinoma:</u>	<u>All margins uninvolved by invasive carcinoma</u>

CEDARS SINAI MEDICAL CENTER®

***** Addendum - Please See End of Report *****

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: [REDACTED]

DCIS:

Distance from closest margin: Less than 0.1 cm

Closest margin: Anterior-superior

All margins uninvolved by DCIS

Distance from closest margin: Less than 0.1 cm

Closest margin: Anterior-superior

Lymph Nodes (Regional)

No involvement of lymph nodes by tumor cells identified

Number of Lymph Nodes Examined: 3

Number of Sentinel Nodes Examined: None

Treatment Effect

Treatment Effect in the Breast:

No definite response to presurgical therapy in the invasive carcinoma

Treatment Effect in the Lymph Nodes:

No definite response to presurgical therapy in metastatic carcinoma

Pathologic Stage Classification (pTNM, AJCC 8th Edition)

Additional TNM Descriptor(s):

y: (posttreatment)

m: (multiple foci of invasive carcinoma)

Primary Tumor [pT]:

pT1c: Tumor >1.0 cm but ≤2.0 cm in greatest dimension

Regional Lymph Nodes [pN]:

pN0: No regional lymph node metastasis identified or ITCs only

Microcalcifications

Microcalcifications:

Present in DCIS

Present in nonneoplastic glandular tissue

Implant capsule

Additional Pathologic Findings

Atypical ductal hyperplasia

Atypical lobular hyperplasia

Flat epithelial atypia

Columnar cell change

Columnar cell change/hyperplasia

Adenosis

Fibroadenoma

Fibrocystic changes

Biopsy site changes

Ancillary Studies

Breast Biomarker Profile:

Block: B19, B27 - to be reported in an Addendum

Applies To:

D : LEFT BREAST

E : LATERAL MARGIN

F : LEFT AXILLARY CONTENTS

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: [REDACTED]

Invasive and In Situ Carcinoma of the Breast***Specimen***

Procedure:	Skin sparing mastectomy (including nipple and narrow surrounding rim of skin)
Specimen Laterality:	Left
Lymph Node Sampling:	Axillary dissection (partial or complete dissection)

Tumor Characteristics

<u>Invasive Carcinoma:</u>	Present
Tumor Focality:	Single focus of invasive carcinoma
Tumor Size:	Greatest dimension: at least 10.5 cm
Histologic Type:	Invasive lobular carcinoma, classical type
Histologic Grade (Nottingham Histologic Score)	
Overall Grade:	Grade 2: Intermediate grade
Scoring:	Total Score: 6 (out of 9)
	Component Scores:
	Nuclear Pleomorphism: 2 (out of 3)
	Glandular (Acinar)/Tubular Differentiation: 3 (out of 3)
	Mitotic Rate: 1 (out of 3)
Lymphovascular Invasion:	Intramammary Lymphovascular Invasion: Not identified Dermal Lymphovascular Invasion: Not identified
<u>Carcinoma In Situ:</u>	
Ductal Carcinoma in Situ (DCIS):	No DCIS identified
Lobular Carcinoma in Situ (LCIS):	Present, classical type

Tumor Extension

Skin:	No involvement of the skin by tumor identified
Nipple:	No involvement of the nipple by in situ or invasive carcinoma identified
Skeletal Muscle:	Not applicable (no muscle identified)

Margins

<u>Main Specimen Margins:</u>	<u>Main Specimen(s):</u> Specimen D: Left mastectomy
Invasive Carcinoma:	<u>All margins uninvolved by invasive carcinoma</u> Distance from closest margin: Less than 0.1 cm Closest margin: Anterior-inferior
DCIS:	DCIS not identified in main specimen(s)
<u>Additional Margin Specimen(s):</u>	<u>All additional margin specimens are negative for invasive carcinoma and DCIS</u> Additional Margin Specimens Examined: Lateral margin

Lymph Nodes (Regional)

Number of Lymph Nodes Examined:	8
Number of Sentinel Nodes Examined:	None
Number of Lymph Nodes Involved by Tumor Cells:	
Number of Lymph Nodes with Macrometastases (>0.2cm):	1
Number of Lymph Nodes with Micrometastases (>0.2mm to 0.2cm and/or >200 cells):	0
Size of Largest Metastatic Deposit:	0.4 cm

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: [REDACTED]

Extranodal Extension: Not identified

Keratin Immunostains: Confirmatory

Treatment Effect

Treatment Effect in the Breast: No known presurgical therapy

Pathologic Stage Classification (pTNM, AJCC 8th Edition)

Primary Tumor [pT]: pT3: Tumor >5.0 cm in greatest dimension
Regional Lymph Nodes [pN]: pN1a: Metastases in 1 to 3 axillary lymph nodes, at least 1 metastasis larger than 2.0 mm

Microcalcifications

Microcalcifications: None identified in histologic sections

Additional Pathologic Findings

Atypical lobular hyperplasia
Fibrocystic changes
Biopsy site changes
Fibrous capsule

Ancillary Studies

Breast Biomarker Profile: Block: D5 - to be reported in an Addendum



Macroscopic Appearance (A)



Macroscopic Appearance (C)

HISTORY:

Malignant neoplasm of other specified sites of female breast.

Per CS-Link: Bilateral breast cancer. Patient had prior breast lift with subglandular augmentation (saline) in 2003 and in 2010 had another lift with the areola reduced. Has family history of breast cancer in her sister at age 53 years. Was diagnosed with left breast invasive lobular cancer, cT3, cN0, cM0; ER/PR positive, HER2 negative, lesion now 5.5 cm on breast MRI, also with mass in right breast with biopsy showing ductal carcinoma in situ and lobular carcinoma in situ. Patient was on estrogen/progestin therapy and advised to discontinue, which she has done. Currently, no hematologist/oncologist.

On 10/3/22, pre-biopsy ultrasound showed and irregular hypoechoic mass in the right breast at 7 o'clock, 2 cm from the nipple and mixed echogenic, predominantly hypoechoic region at 9 o'clock, 5 cm from nipple. Irregular mass at 7 o'clock (titanium ribbon-shaped microclip placed at the biopsy site) showed invasive ductal carcinoma, 0.3 cm with ductal carcinoma in situ and lobular carcinoma in situ. Second area at 9 o'clock (titanium heart-shaped microclip at biopsy site) showed ductal carcinoma in situ and

CEDARS SINAI MEDICAL CENTER®

***** Addendum - Please See End of Report *****

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: [REDACTED]

lobular carcinoma in situ. Breast imaging on 9/13/22: Newly diagnosed invasive lobular carcinoma left 3 o'clock with associated cork clip (lower outer quadrant).

MICROSCOPIC FINDINGS:

See diagnosis.

SPECIAL STUDIES:

X-ray (specimens B and D).

GROSS:

A. RIGHT BREAST EXPLANT

Patient name, label: "Abrams, Roxann", designated "right breast explant"

Received: Unfixed

Specimen Type: Saline implant

Integrity: Intact

Weight: 502.4 grams

Dimensions: 12.7 x 12.2 x 4.5 cm

Surface: Textured

Contents: Water fluid

Inscription: "375"

Soft Tissue: No significant tissue is identified

The specimen is for gross examination only. A gross photograph is taken.

B. RIGHT BREAST, SHORT STITCH - SUPERIOR, LONG STITCH - LATERAL, LOOP STITCH - UNDER THE NIPPLE

Labeled: "Abrams, Roxann" and "right breast, short stitch - superior, long stitch - lateral, loop stitch - under the nipple"

Received: In formalin

Cold ischemic time: 19 minutes

Duration of formalin fixation: Approximately 49 hours

Specimen type: Nipple-sparing mastectomy

Skin ellipse: Absent

Nipple: Absent

Orientation:

Long suture: Lateral

Short suture: Superior

Loop suture: Under the nipple

Inking (for margin assessment)

Black: Posterior

Green: Inferior half of anterior

Blue: Superior half of anterior

Orange: Nipple site

Weight: 416 gm

Size of specimen:

Medial-lateral dimension: 17.9 cm

Superior-inferior dimension: 21.3 cm

Anterior-posterior dimension: 2.5 cm

Axillary dissection: Absent

Total number of slices: 19

First slice (slice 1): Medial margin

Last slice (slice 19): Lateral margin

Location of nipple: Slices 6 and 7

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: [REDACTED]

X-ray of specimen: Performed, two biopsies clip identified in the upper central to outer breast, about 11-12 o'clock. Multiple scattered foci of large calcifications are identified associated with the breast implant capsule through the central breast.

Gross pathology:

Lesion #1: Possible mass with ribbon-shaped clip

Size: 0.8 x 0.6 x 0.5 cm

Circumscription: Ill-defined

Color: Tan-white

Consistency: Firm

Location: Upper central to outer breast, about 11-12 o'clock, slice 10

Distance to nipple: 11 cm

Distance to margins: Anterior: abutting, posterior: 0.1 cm, superior: 3 cm, inferior: greater than 15 cm, medial: greater than 5 cm, lateral: greater than 5 cm

Relationship to other lesions: 1.7 cm superior to lesion #2

Lesion #2: Possible mass with heart-shaped clip

Size: 3.5 x 2.7 x 0.7 cm

Circumscription: Ill-defined

Color: Tan-white

Consistency: Firm

Location: Upper central to outer breast, about 11-12 o'clock, slices 9 through 12

Distance to nipple: 7.5 cm

Distance to margins: Abuts anterior and posterior, comes within greater than 6 cm from all remaining margins

Relationship to other lesions: 1.7 cm inferior to lesion #1

Lesion #3: Mass

Size: 1.2 x 0.6 x 0.6 cm

Circumscription: Fairly well-circumscribed

Color: Tan-white

Consistency: Firm

Location: Inner central to upper breast, slices 2-4, about 3 o'clock

Distance to nipple: 1.5 cm

Distance to margins: Anterior: abutting, posterior: comes within 0.4 cm from breast implant capsule, greater than 4 cm from posterior margin, 2 cm from the medial margin, and greater than 5 cm from all remaining margins

Relationship to other lesions: 8 cm medial and inferior to lesion #2

Axillary lymph nodes: Three intramammary lymph nodes are identified within slices 16-18 that range from 0.5 to 0.6 cm in maximum dimension.

Additional findings: Slices 1-15 display an attached tan fibromembranous tissue on the posterior surface, grossly consistent with breast implant capsule. The implant capsule displays multiple scattered foci of calcifications. Additionally, the anterior breast displays multiple scattered foci of apparent fat necrosis and hemorrhage, grossly consistent with prior surgical procedures.

A gross photograph of slices with lesion is taken.

Representative sections submitted.

Slide Key:

B1. Representative nipple site, slice 6 - 1

B2. Presumed uninvolved parenchyma directly medial to lesion 1, slice 9 - 1

B3. Medial edge of lesion 1, with biopsy clip site, slice 10 - 1

B4. Remainder of lesion #1 with relationship to anterior and posterior margins, slice 10 - 1

B5. Presumed uninvolved parenchyma directly lateral to lesion 1, slice 11 - 1

B6. Presumed uninvolved parenchyma directly medial to lesion #2, slice 8 - 1

B7. Medial edge of lesion #2, slice 9 - 1

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: [REDACTED]

- B8-B9. Full cross section of lesion #2, with relationship to anterior and posterior lesions, slice 10, bisected - 1 each
- B10-B11. Additional full cross section of lesion #2, with closest approach to lesion 1 in B10, slice 10, bisected - 1 each
- B12. Representative uninvolved parenchyma between lesions 1 and 2, slice 11 - 1
- B13. Representative lesion #2, slice 11 - 1
- B14. Lateral edge of lesion #2, slice 12 - 1
- B15. Presumed uninvolved parenchyma directly lateral to lesion 2, slice 12 - 1
- B16. Uninvolved upper outer quadrant, slices 13 and 14 - 2
- B17. Upper outer quadrant, slices 15 and 17 - 2
- B18. Lower outer quadrant, slices 8 and 11 - 2
- B19. Lower outer quadrant, slices 13 and 15 - 2
- B20. Upper inner quadrant, slices 4 and 5 - 2
- B21. Upper inner quadrant, slices 2 and 3 - 2
- B22. Lower inner quadrant, slices 4 and 5 - 2
- B23. Lower inner quadrant, slices 2 and 3 - 2
- B24. Uninvolved tissue directly lateral to lesion 3, slice 5 - 1
- B25. Lateral edge of lesion 3, slice 4 - 1
- B26. Lesion 3 in relation to anterior margin and implant capsule, slice 3 - 1
- B27. Additional lesion 3 in relation to anterior margin and implant capsule (including posterior margin), slice 2 - 2
- B28. Medial edge of lesion 3, slice 2 - 1
- B29. Representative medial margin in relation to lesion 3, slice 1, perpendicular - 2
- B30. One lymph node candidate, bisected - 2
- B31. One lymph node candidate, bisected - 2
- B32. One lymph node candidate, bisected - 2

C. LEFT BREAST EXPLANT**Patient name, label:** "Abrams, Roxann", designated "left breast explant"**Received:** Unfixed**Specimen Type:** Saline implant**Integrity:** Intact**Weight:** 528.2 grams**Dimensions:** 12.5 x 12 x 5**Surface:** Textured**Contents:** Watery fluid**Inscription:** "375"**Soft Tissue:** Not identified.

A gross photograph is taken. The specimen is for gross examination only.

D. LEFT BREAST, SHORT STITCH - SUPERIOR, LONG STITCH - LATERAL**Labeled:** "Abrams, Roxann" and "left breast, short stitch - superior, long stitch - lateral"**Received:** In formalin**Cold ischemic time:** Not provided**Duration of formalin fixation:** Approximately 48-49 hours**Specimen type:** Skin-sparing mastectomy**Skin ellipse:** Present (4.1 x 3.2 cm)**Nipple:** Present (1.4 x 1.1 x 0.4 cm)**Orientation:**

Long suture: Lateral

Short suture: Superior

Inking (for margin assessment)

Black: Posterior

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: 

Green: Inferior half of anterior

Blue: Superior half of anterior

Weight: 421 gm**Size of specimen:**

Medial-lateral dimension: 16 cm

Superior-inferior dimension: 17.1 cm

Anterior-posterior dimension: 3.4 cm

Axillary dissection: Absent

Total number of slices: 15

First slice (slice 1): Lateral margin

Last slice (slice 15): Medial margin

Location of nipple: Slice 10

X-ray of specimen: Performed, a cork-shaped biopsy clip is identified at about 3 o'clock, central to outer breast. Additionally, multiple scattered areas of calcifications are identified associated with the breast implant capsule.

Gross pathology:

Lesion #1: Mass with biopsy clip

Size: 7.2 x 3.5 x 2.1 cm

Circumscription: Ill-defined

Color: Tan-white

Consistency: Firm

Location: Central to outer breast, about 3 o'clock, slices 3-10

Distance to nipple: 1.5

Distance to margins: Anterior: 0.1 cm, posterior: comes within 0.3 cm from the breast implant capsule on the posterior surface (7 cm from true posterior margin), 4.4 cm from inferior margin, 2.5 cm from lateral, greater than 5 cm from remaining margins

Relationship to other lesions: 2.5 cm lateral to lesion #2

Lesion #2: Possible mass

Size: 3.3 x 3.2 x 0.7 cm

Circumscription: Ill-defined

Color: Tan-pink to tan-white

Consistency: Firm

Location: Central inner breast, about 9 o'clock, slices 12-15

Distance to nipple: 2.5 cm

Distance to margins: Anterior: 0.2 cm, posterior: 0.6 cm from breast implant capsule on posterior surface (comes within 3 cm from true posterior margin), 2.9 cm from inferior, 3.5 cm from superior, 1.2 cm from medial, greater than 5 cm from lateral

Relationship to other lesions: See above

Axillary lymph nodes: One lymph node candidate is identified that is 0.7 x 0.6 x 0.5 cm.

Additional findings: Slides 2-15 display adherent tan-pink fibromembranous tissue, grossly consistent with a breast implant capsule that displays multiple scattered foci of calcifications. Additionally, the anterior surface of the breast displays focal areas of apparent fat necrosis and hemorrhage, grossly consistent with prior surgical procedure. This area of hemorrhage and necrosis is also identified directly underlying the nipple and skin, causing the skin and nipple to be detached from underlying fibroadipose tissue.

A gross photograph of slices with lesion is taken.

Representative sections submitted.

Slide Key:

D1. Representative nipple and skin, slice 10 - 1

D2. Presumed uninvolved parenchyma directly lateral to lesion 1, slice 3 - 1

D3. Lateral edge of lesion 1, slice 3 - 1

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: [REDACTED]

- D4. Lesion 1 in relation to anterior margin - slice 4 - 1
D5. Lesion 1 to underlying breast implant capsule, slice 5 - 1
D6. Lesion 1 at biopsy clip site, slice 6 - 1
D7. Lesion 1 in relation to breast implant capsule and corresponding capsule at posterior surface, slice 8 - 2
D8. Lesion 1, slice 9 - 1
D9. Presumed medial edge of lesion 1, slice 10 - 1
D10-D11. Presumed uninvolved parenchyma between lesions 1 and 2, slice 11, bisected - 1 each
D12. Presumed lateral edge of lesion 2, slice 12 - 1
D13. Lesion 2, slice 13 - 1
D14. Lesion 2 in relation to anterior margin and breast implant capsule with corresponding capsule at posterior surface, slice 14 - 2
D15. Remainder of cross section of lesion 2 from slice 14 - 1
D16. Lesion 2 in relation to medial margin, slice 15, perpendicular - 1
D17. Upper outer quadrant, slices 6 and 9 - 2
D18. Upper outer quadrant, slices 2 and 5 - 2
D19. Lower outer quadrant, slices 7 and 9 - 2
D20. Lower outer quadrant, slices 2 and 4 - 2
D21. Upper inner quadrant, slices 10 and 11 - 2
D22. Upper inner quadrant, slices 12 and 14 - 2
D23. Lower inner quadrant, slices 10 and 11 - 2
D24. Lower inner quadrant, slices 12 and 13 - 2
D15. One lymph node candidate, bisected - 2

E. LATERAL MARGIN LEFT BREAST, STITCH NEW MARGIN**Labeled:** "Abrams, Roxann", designated "lateral margin left breast, stitch new margin"**Received:** In formalin**Specimen type:** Margin re-excision**Orientation:**

Suture: New margin

Inking (for margin assessment)

Black: Stitched new margin

Blue: Non-stitch surface

Size of specimen: 12.7 x 5.7 x 2.2 cm**Total number of slices:** 29**Gross pathology:** The sutured "new margin" displays focal areas of fibrosis and hemorrhage, grossly more consistent with an old margin (possibly incorrectly oriented). No distinct masses or lesions are grossly identified.

Representative sections are submitted.

Slide Key:

- E1. Slice 1 - 1
E2. Representative slices 5 and 9 - 2
E3. Representative slices 13 and 17 - 2
E4. Representative slices 21 and 25 - 2
E5. Slice 29 - 1

F. LEFT AXILLARY CONTENT**Labeled:** "Abrams, Roxann", designated "left axillary content"**Received:** In formalin**Specimen type:** Axillary dissection**Orientation:** Not provided**Size of specimen:** 7.9 x 6.6 x 3.4 cm in aggregate

CEDARS SINAI MEDICAL CENTER®

***** Addendum - Please See End of Report *****

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: [REDACTED]

Lymph nodes:

Number: 11

Size: Ranging from 0.3 to 1.7 cm in maximum dimension

Blue dye: Absent

Location: N/A

Additional findings: The specimen displays significant amounts of apparent fat necrosis and hemorrhage, grossly consistent with prior procedure site, making it difficult to palpate smaller lymph nodes.

All lymph nodes are entirely submitted.

Slide Key:

F1. Four lymph node candidates - 4

F2. Three lymph node candidates - 3

F3. One lymph node candidate, bisected - 2

F4. One lymph node candidate, bisected - 2

F5. One lymph node candidate (possible nodular fat necrosis), bisected - 2

F6. One lymph node candidate, bisected - 2

Gross dictated by Madeleine Shade, PA:tpm (job 973549728)

11/05/2022

irs/11/8/2022/541734

I have personally examined the specimen, interpreted the results, reviewed the report and signed it electronically.

[REDACTED] M.D. Electronically signed 11/10/2022 8:50:02AM

***** ADDENDUM *****

(11/14/2022)

BREAST BIOMARKER PROFILE FOR INVASIVE CARCINOMA

BLOCK: B19 (Right breast Infiltrating lobular carcinoma)

Prognostic/Predictive Marker	Antibody	Results of IHC (invasive tumor cells)		Test Result
		% Positive	Staining intensity	
Estrogen Receptor	Ventana Clone SPI	92%	3+	Positive
Progesterone Receptor	Ventana Clone 1E2	28%	1+	Positive

HER2 Overexpression		Score	Test Result
Her2 IHC Test (Pathway)	Ventana Clone 4B5	0	Negative

HER2 (FISH)	Average Her2 copies/tumor cell	Average Chr17 copies/tumor cell	Her2/Chr17 ratio	Test Result
-------------	--------------------------------	---------------------------------	------------------	-------------

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: [REDACTED]

No. of tumor cells analyzed: 20	2.0	1.9	1.0	Negative
---------------------------------	-----	-----	-----	----------

Prognostic/Predictive Marker	Antibody	% Positive
Ki-67 Antigen	Ventana Clone 30-9	2%

BREAST BIOMARKER PROFILE FOR INVASIVE CARCINOMA

BLOCK: B27 (Right breast Infiltrating ductal carcinoma)

Prognostic/Predictive Marker	Antibody	Results of IHC (invasive tumor cells)		Test Result
		% Positive	Staining intensity	
Estrogen Receptor	Ventana Clone SPI	97%	3+	Positive
Progesterone Receptor	Ventana Clone 1E2	89%	3+	Positive

HER2 Overexpression		Score	Test Result
Her2 IHC Test (Pathway)	Ventana Clone 4B5	0	Negative

HER2 (FISH)	Average Her2 copies/tumor cell	Average Chr17 copies/tumor cell	Her2/Chr17 ratio	Test Result
No. of tumor cells analyzed: 20	2.1	1.9	1.1	Negative

Prognostic/Predictive Marker	Antibody	% Positive
Ki-67 Antigen	Ventana Clone 30-9	2%

BREAST BIOMARKER PROFILE FOR INVASIVE CARCINOMA

BLOCK: D5 (Left breast Infiltrating lobular carcinoma)

Prognostic/Predictive Marker	Antibody	Results of IHC (invasive tumor cells)		Test Result
		% Positive	Staining intensity	
Estrogen Receptor	Ventana Clone SPI	98%	3+	Positive
Progesterone Receptor	Ventana Clone 1E2	70%	2+	Positive

HER2 Overexpression		Score	Test Result
Her2 IHC Test (Pathway)	Ventana Clone 4B5	0	Negative

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: [REDACTED]

HER2 (FISH)	Average Her2 copies/tumor cell	Average Chr17 copies/tumor cell	Her2/Chr17 ratio	Test Result
No. of tumor cells analyzed: 20	1.8	1.6	1.1	Negative

Prognostic/Predictive Marker	Antibody	% Positive
Ki-67 Antigen	Ventana Clone 30-9	7%

DETAILS (IHC and FISH):

Human breast cancer tissues processed at CSMC are fixed in 10% neutral buffered formalin and paraffin-embedded. They are handled according to ASCO/CAP recommendations unless otherwise specified. For Outside Consult Cases, see original outside report for specimen fixation specifics.

ImmunohistoChemical (IHC) Stains:

- are analyzed using the computer assisted Aperio Imaging System. Positive and negative controls are performed showing appropriate reactivity.
- use Polymer and/or SA-HRP Detection System. These assays have not been validated on decalcified tissues. Results on decalcified specimens should be interpreted with caution given the possibility of false negative results on decalcified specimens.

IHC Interpretation:

- Estrogen and progesterone: <1% tumor nuclei staining is negative, ≥ 1% tumor nuclei staining is positive. The intensity of nuclear immunohistochemical staining for hormone receptors is graded: 0 for negative; 1+ weak; 2+ moderate; 3+ strong.
- Low level (1-10%) ER expression in invasive carcinoma may benefit from endocrine treatment based on limited data although there are data that suggest invasive cancers with these results are heterogenous both in behaviour and biology and often have gene expression profiles more similar to ER-negative cancers.
- If internal controls are not present but external controls are appropriately positive, testing another specimen that contains internal controls may be warranted for confirmation of ER status.

HER2 PATHWAY TEST INTERPRETATION (2018 ASCO/CAP criteria)

TEST RESULTS		
Staining Pattern	Score	HER2 Overexpression
No staining observed or membrane staining that is incomplete and is faint/barely perceptible in ≤ 10% of tumor cells	0	Negative
Incomplete membrane staining that is faint/barely perceptible in >10% of tumor cells	1+	Negative
Weak to moderate complete membrane staining in >10% of tumor cells or intense circumferential membrane staining in ≤ 10% of tumor cells	2+	Equivocal
Complete, intense, circumferential membrane staining in >10% of tumor cells	3+	Positive

All Fluorescence in situ Hybridization (FISH) tests:

- are analyzed with Abbott probes specific for the centromere of chromosome 17 (control probe) and HER2 (17q12). It was performed and scored by a technologist, and results interpreted by a pathologist.
- use Abbott PathVysion HER-2 DNA Probe kit for amplification
- are analyzed with adequate number of tumor cells.
- the nuclei counted were within the region selected by a pathologist.
- are run with positive controls that gave expected results.

HER2 FISH Interpretation:

- HER2 Fish is considered:
- Positive if:

PATIENT: ABRAMS, ROXANN LYNN

ACCESSION #: [REDACTED]

- HER2/CEP17 ratio ≥ 2.0 with an average HER2 copy number ≥ 4.0 signals/cell
 - HER2/CEP17 ratio < 2.0 with an average HER2 copy number ≥ 6.0 signals/cell
- b. Negative if:
- HER2/CEP17 ratio < 2.0 with an average HER2 copy number < 4.0 signals
 - HER2/CEP17 ratio ≥ 2.0 with an average HER2 copy number < 4.0 signals/cell (SEE COMMENT)
 - COMMENT: Evidence is limited on the efficacy of HER2-targeted therapy in the small subset of cases with HER2/CEP17 ratio ≥ 2.0 and an average HER2 copy number < 4.0 /cell. In the first generation of adjuvant trastuzumab trials, patients in this subgroup were randomized to the trastuzumab arm did not appear to derive an improvement in disease free or overall survival, but there were too few such cases to draw definitive conclusions. IHC expression for HER2 should be used to complement ISH and define HER status. IF IHC is not 3+ positive, it is recommended that the specimen be considered HER2 negative because of the low HER2 copy number by ISH and lack of protein overexpression.
 - HER2/CEP17 ratio < 2.0 with an average HER2 copy number ≥ 4.0 and < 6.0 signals/cell (SEE COMMENT)
 - COMMENT: It is uncertain whether patients with ≥ 4.0 and < 6.0 average HER2 signals/cell and HER2/CEP17 ratio < 2.0 benefit from HER2 targeted therapy in the absence of protein overexpression (IHC 3+). If the specimen test result is close to the ISH ratio threshold for positive, there is a high likelihood that repeat testing will result in different results by chance alone. Therefore, when IHC results are not 3+ positive, it is recommended that the sample be considered HER2 negative without additional testing on the same specimen.

References:

- Allison K. et al. Estrogen and Progesterone Receptor Testing in Breast Cancer: American Society of Clinical Oncology/College of American Pathologists Guideline Update. Arch Pathol Lab Med;do1:10.5858/arpa.2019-0904-SA
- Wolff A, et al. Human Epidermal Growth Factor Receptor 2 Testing in Breast Cancer: American Society of Clinical Oncology/College of American Pathologists Clinical Practice Guideline Focused Update. Arch Pathol Lab Med 2018; 142: 1364-1382

I, the pathologist of record on the above addendum, personally examined the material described in the addendum, interpreted the results, reviewed this addended report and signed it electronically.

[REDACTED]
11/14/2022

I have personally examined the specimen, interpreted the results, reviewed the report and signed it electronically.
Shikha Bose, M.D. Electronically signed 11/14/2022 12:02:32PM