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SURGICAL PATHOLOGY REPORT

[redacted]

SPECIMEN(S) RECEIVED:
A:Right breast 12:00, five-14 g cores
B:Right breast 10:00 medial mass, four-14 g cores
C:Right breast 10:00 lateral, four-14 g cores

CLINICAL DATA:
A. RIGHT BREAST 12:00, FIVE-14 G CORES: Right breast 12:00 palpable mass.
B. RIGHT BREAST 10:00 MEDIAL MASS, FOUR-14 G CORES: Right breast 10:00 "medial" mass.
C. RIGHT BREAST 10:00 LATERAL, FOUR-14 G CORES: Right breast 10:00 "lateral" mass.

FINAL DIAGNOSIS:

A. RIGHT BREAST, 12 O'CLOCK, CORE BIOPSY: INFILTRATING CARCINOMA.

B. RIGHT BREAST, 10 O'CLOCK, MEDIAL, CORE BIOPSY: INFILTRATING CARCINOMA.

C. RIGHT BREAST, 10 O'CLOCK, LATERAL, CORE BIOPSY: INFILTRATING CARCINOMA.

DWT/bg 4/13/11 G3P CAREG

ANCILLARY STUDIES ---- A1

ESTROGEN RECEPTOR, IMMUNOHISTOCHEMISTRY
quantitative, manual count, formalin fixed paraffin embedded, Bond™ Polymer Refine Detection, clone 6F11
>= 1% regarded as positive

ER POSITIVE NUCLEI	90%, MODERATE
ER PROGNOSTIC CATEGORY	POSITIVE - FAVORABLE

PROGESTERONE RECEPTOR, IMMUNOHISTOCHEMISTRY
quantitative, manual count, formalin fixed paraffin embedded, Bond™ Polymer Refine Detection, clone 16
>= 1% regarded as positive

PR POSITIVE NUCLEI	10%, MODERATE
PR PROGNOSTIC CATEGORY	POSITIVE - FAVORABLE

HER2 IMMUNOHISTOCHEMISTRY
Fixation time = 9 hrs., 25 min. [Date, time into formalin = 4/12/11, 1515 Date, time out of formalin = 4/13/11, 0040]

HER2 MEMBRANE STAINING SCORE	Sent to ARUP Laboratories in Salt Lake City, UT
HER2 OVEREXPRESSION	Pending at this time, to be reported in an addendum.

Ki-67 PROLIFERATIVE INDEX, IMMUNOHISTOCHEMISTRY
quantitative, manual count, formalin fixed paraffin embedded, Bond™ Polymer Refine Detection, clone MM1
>=20% regarded as unfavorable

COMMENT:

All three cores show infiltrating carcinoma. Signet ring features are seen in specimen A and to a lesser degree in specimen B. Although there is a difference in degree of signet ring formation, the core biopsies are otherwise similar, and may all represent the same tumor. Signet ring variants of infiltrating ductal carcinoma occur in the breast, and this is the favored interpretation. Immunohistochemical studies also provide some support for that interpretation. However, other sites of origin, particularly stomach, should be excluded clinically.

brg/04/13/2011

Electronically Signed Out
Daniel W. Tench, M.D.

MICROSCOPIC DESCRIPTION:

Specimens A,B, and C are similar. Each shows multiple cores which are mostly replaced by infiltrating carcinoma which grows in irregular nests and infiltrating cords. In specimen A and a lesser extent specimen B, there is a signet ring morphology. Specimen B also shows extracellular mucin production. The tumor in specimen C lacks both of these features but is otherwise similar. All three sites may represent the same tumor. A battery of immunohistochemical studies has been performed on specimen A with results in tumor cells as follows:

Pankeratin	positive
E-cadherin	positive
Hepar 1	negative

A mucin carmine stain performed on specimen A shows intracellular mucin positivity.

GROSS DESCRIPTION:

A. Received in formalin, designated "right breast 12 o'clock possible mass" are multiple fibrofatty core biopsies ranging up to 20 mm in length, entirely submitted in a single cassette.

B. Received in formalin, designated "right breast 10 o'clock medial" are multiple fibrofatty core biopsies ranging up to 16 mm in length, entirely submitted in a single cassette.

C. Received in formalin, designated "right breast 10 o'clock lateral" are several fibrofatty core biopsies ranging up to 16 mm in length, entirely submitted in a single cassette.

DWT/ms

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Digital Diagnostic Mammogram Bilateral

Clinical Data:
61172 BREAST MASS

HISTORY:
Patient is 38 years old and is seen for right breast lump. The patient has no personal history of breast cancer. The patient has no family history of breast cancer.

MAMMOGRAM AND ULTRASOUND FINDINGS:
The following views were performed: bilateral craniocaudal; right craniocaudal, spot compression; bilateral mediolateral oblique, spot compression; right mediolateral oblique, spot compression; right exaggerated craniocaudal, spot compression; and right exaggerated craniocaudal, spot compression

The R2 CAD was utilized for this mammographic examination.

The breast parenchyma is average density. Minimal increased density is identified in the UO right breast that presses out as normal fibroglandular tissue on additional spot compression XCCL and MLO views. No abnormal cluster of microcalcification, mass or distortion.
Targeted sonography of the UO right breast demonstrated normal fibroglandular tissue without solid or cystic mass or abnormal focal shadowing.

IMPRESSION:
No suspicious finding. Follow up at age 40. Do not let this benign report discourage further work up of any clinically significant finding. Patient results given by technologist.

ACR BI-RADS Category 1 - Negative

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*** Final Result ***

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Digital Diagnostic Mammogram Bilateral

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Electronically signed by DIANE C. JENSEN, MD 11/17/2009 14:00:28

***** Final Result *****

1199 Prince Avenue
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*** Final Result ***

Digital Diagnostic Mammogram Bilateral

Clinical Data:
61172 BREAST MASS RT SD

HISTORY:
39 year old female complains of palpable abnormality within the 12:00 position of the right breast. The patient's referring clinician notes a large area of palpable concern in the upper outer right breast. The patient has no personal history of cancer. The patient has no family history of breast cancer.

MAMMOGRAM FINDINGS:
The following views were performed: bilateral craniocaudal; bilateral mediolateral oblique; right craniocaudal spot compression; right mediolateral oblique spot compression; and right mediolateral
Comparison is made to the prior examination performed at ARMC on 11/16/09.
The breasts are hetereogeneously dense.
Left breast:
There are no suspicious masses, calcifications or areas of architectural distortion. Right breast:
An asymmetry is identified within the superior right breast at a posterior depth and measures 1.4 cm. This has the appearance of asymmetric parenchyma, however, this is increased in size from the prior examination. A 1 cm lobular asymmetry is identified within the superior right breast at the site of palpable concern at the junction of the anterior and middle thirds, however, this area is not well seen in the CC projection.
The R2 CAD was utilized for this mammographic examination.

ULTRASOUND FINDINGS:
Both the technologist and I scanned the patient. At the site of palpable concern within the right breast at 12:00, 4 cm from the nipple, is a lobular mixed echogenicity mass with partially circumscribed, partially indistinct margins. This mass measures 1.4 x 1 x 0.5 cm. This may correspond to the asymmetry within this superior right breast.
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Digital Diagnostic Mammogram Bilateral

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Within the right breast at 10:00, 9 cm from the nipple is a mixed echogenicity vague mass which appears to persist in multiple planes of imaging and measures 1.3 x 1 x 0.7 cm and may account for the asymmetry identified in the superior right breast at a posterior depth. Within the right breast at 10:00, 6 cm from the nipple is a mixed echogenicity mass with indistinct margins, which measures 1.3 x 0.8 x 0.6 cm and has no apparent mammographic correlate. Sonographic evaluation of the right axilla demonstrates no abnormal lymph nodes.

RECOMMENDATION:
1. Ultrasound core biopsy of the area of palpable concern within the right breast at 12:00 is recommended. This likely corresponds to the asymmetry within the superior right breast.
2. Ultrasound cor biopsy of the mammographically occult mass within the 10:00 position in the right breast 6 cm from the nipple is recommended.
3. Ultrasound core biopsy of the vague mixed echogenicity mass within the 10:00 position of the right breast is recommended. This likely corresponds to the asymmetry seen within the superior right breast at a posterior depth.
The findings and recommendation were discussed with the patient and we will proceed with biopsy.

ACR BI-RADS Category 4 - Suspicious Abnormality

Electronically signed by JANET R. WALL, MD 04/13/2011 08:22:11

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Digital Diagnostic Mammogram Unilateral

Clinical Data:
POST BIOPSY CLIP PLACEMENT; RT

---------- ADDENDED REPORT ----------

04/14/2011 Addendum:

Pathology results of the ultrasound core biopsy in the 12:00 position yield infiltrating carcinoma. Pathology results of the right breast ultrasound core biopsy in the 10:00 position medially yield infiltrating carcinoma. Pathology results of the ultrasound core biopsy in the 10:00 position laterally yield infiltrating carcinoma. These findings are concordant with the imaging appearance and surgical excision is recommended. Additionally, given the patient's young age, extensive disease in the right breast and breast tissue density, contrast enhanced MRI is recommended for high risk screening of the left breast. The findings and recommendation were discussed with the patient and we will assist her in obtaining a surgical referral.

---------- ORIGINAL REPORT ----------

HISTORY:
39 year old female presents for ultrasound core biopsy of 3 masses within the right breast.

ULTRASOUND GUIDED BIOPSY:
Informed consent was obtained. The skin of the right breast was prepped with ChloraPrep, and the area draped in the usual sterile fashion. The worrisome mass in the 12:00 position was localized using sonographic guidance. Lidocaine was administered both superficially and deeply. A small skin incision was made. An introducer was advanced to the mass. A total of 5 passes were made through the worrisome mass in the 12:00 position under sonographic guidance with a 14-gauge Achieve needle. A ribbon marking clip
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Digital Diagnostic Mammogram Unilateral

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was deployed within the mass, and the specimens were sent to pathology.

Attention was then turned to the worrisome mass in the 10:00 position 6 cm from the nipple. Lidocaine was administered both superficially and deeply. A small skin incision was made. An introducer was advanced to the mass. A total of 4 passes were made through the worrisome mass in the 10:00 position 6 cm from the nipple under sonographic guidance with a 14-gauge Achieve needle. The specimens were sent to pathology. A coil clip was then deployed within the mass.

Attention was then turned to the mixed echogenicity mass within the 10:00 position 9 cm from the nipple. Lidocaine was administered both superficially and deeply. A small skin incision was made. An introducer was advanced to the mass, and a total of 4 passes were made through the solid mass in the 10:00 position 9 cm from the nipple with a 14-gauge Achieve needle under sonographic guidance. The specimens were sent to pathology, and a ribbon clip was deployed along the inferior aspect of the mass.

CC and lateral full field digital mammographic views demonstrate a ribbon clip to accurately localize the asymmetry within the 12:00 position. A coil clip is identified within the 10:00 position at a central depth. The additional ribbon clip is seen at the inferior aspect of the asymmetry within the superior breast at a posterior depth. The asymmetry appears slightly changed in configuration in keeping with recent sampling, and the clip was deployed along the inferior aspect under sonography.

IMPRESSION:
Sonographically guided biopsy of 3 masses within the right breast. We will contact the patient and her referring clinician with pathology results when they become available.

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Digital Diagnostic Mammogram Unilateral

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Original Exam Radiologist:
Janet R. Wall, M.D.

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