

NAACCR-Breast Cancer-October 6, 2022

Case #1:

73 y/o w/m w/ h/o CKDIII, HTN, HLD, hypothyroidism, who presented w/ screen-detected right breast cancer.

Imaging:

5/21/22 @ XXX Imaging: Bilat MMG/RT US= 6 mm hypoechoic, nonpalpable nodule @ 2:00 axis of RT breast. Adjacent smaller 3 mm nodule @ 4:00 axis. BIRADS 5: Highly suggestive of malignancy.

Pathology:

7/1/22 @ YYY Hospital: RT breast @ 2:00 axis bx= Moderately differentiated invasive ductal carcinoma. No LVI. Maximum length= 4 mm. DCIS, solid and cribriform, w/ central comedonecrosis. Grade II.

7/11/22 @ YYY Hospital: RT breast radiofrequency seed localized lumpectomy with sentinel lymph node dissection= Multifocal (7 mm & 4 mm) invasive ductal carcinoma. Nottingham score= 7/9. Grade 2. LVI negative. DCIS, solid and cribriform. Intermediate grade. Margins negative for invasive/DCIS. Closest @ 3mm, Anterior(DCIS). SLNs= 0/3 negative. Stage pT1b(m), pN0.

ER= 70-80%, 2-3+. PR= 90%, 3+. HER2 IHC= 1+, negative. Ki-67= 35%. Oncotype DX RS= 21 & 24.

Genetic Testing:

- a. Mammaprint: Low-risk luminal type A
- b. Invitae Genetic Panel: Negative

Radiation Therapy Treatment Summary

SUMMARY OF RADIATION FIELDS

Course: 1 @ YYY Hospital

Site	Ref. ID	Energy	Dose/Fx (cGy)	#Fx	Total Dose (cGy)	Start Date	End Date	Elapsed Days
Partial Brst_RT	Partial Brst_RT	6X	600	5 / 5	3,000	7/25/2022	8/3/2022	9

Course: 1

Treatment Site: Prtial Brst_RT

Ref. ID: Prtial Brst_RT

Energy: 6X

Dose/Fx (cGy): 600

#Fx: 5 / 5

Total Dose (cGy): 3,000

Start Date: 7/25/2022

End Date: 8/3/2022

Elapsed Days: 9

SUMMARY OF RADIATION TREATMENTS: The patient was treated to the right breast using a 3D Conformal (3D CRT) technique. The patient tolerated treatments quite well.

The patient received the prescribed dose without any complications and was advised to return for follow up in 1 month. In the interim, the patient was informed to call if any questions arise.

8/15/22 @ YYY Hospital: patient started on Letrozole x 5 yrs.

Case 1 Answer sheet			
Dx Staging and Surgery			
Diagnostic Staging Procedure	02		
Date of First Course Treatment	7/1/22		
Surgery of Primary Site (03-2022)	22		
Surg Breast	B200		
Recon Breast	A000		
Scope of Regional Lymph Nodes	2		
Sentinel Lymph Nodes Positive	00		
Sentinel Lymph Nodes Examined	03		
Regional Nodes Positive	00		
Regional Nodes Examined	03		
Surgical Procedure/Other Site	0		
Radiation			
Phases	I	II	III
Primary Treatment Volume	41		
Draining Lymph Nodes	00		
Treatment Modality	02		
External Beam Planning Technique	04		
Dose Per Fraction (cGy)	00060		
Number of Fractions	005		
Total Dose (cGy)	003000		
Date RT Started	7/25/22		
Date RT Ended	8/3/22		
# of Phases of RT to this Volume	01		
RT Discontinued Early	01		
Total Dose	003000		
Radiation/Surgery Sequence	3		
Reason for No Radiation	0		
Systemic Therapy			
Date Systemic Therapy Started	8/15/22		
Chemotherapy	00		
Hormone Therapy	01		
Immunotherapy	00		
Hematologic Transplant and Endocrine Procedures	00		
Systemic/Surgery Sequence	3		

Case #2:

69 y/o w/f w/f, G3P3, w/ h/o HLD, CAD, A-fibrillation, who presented w/ a palpable mass on LT breast. Pt denies nipple discharge or inversion. Nonsmoker. Social etoh. +fhx: mother w/ breast cancer @ 65. Brother w/ prostate cancer.

Imaging:

3/5/22 @ XXX Hospital: LT MMG/US: 1.4 spiculated mass @ 2:00-3:00 axis w/ mammogram correlate. No lymphadenopathy noted. BIRADS 4: suspicious.

3/18/22 @ XXX Hospital: MRI Breast bilateral= Biopsy proven invasive ductal carcinoma, 1.5 cm, and DCI in upper outer quadrant of left breast w/ enhancement. No suspicious enhancement on right breast. No lymphadenopathy bilateral. BIRADS 6.

Pathology:

3/10/22 @ XXX Hospital: LT breast @ 2:00 axis bx= Intraductal carcinoma w/ solid papillary features. Nottingham score: 6/9. Grade 2. Max length 9 mm in a single core. DCIS, solid & cribriform w/ calcifications and comedo type necrosis.

ER+ 91-100%, 3+. PR= 81-90%, 2-3+. HER2 IHC: 2+, equivocal. HER@ FISH: not amplified. Ki-67= 30-40%.

4/8/2022 @ XXX Hospital: Left magseed localized partial mastectomy with sentinel lymph node biopsy= 1.8 cm invasive ductal carcinoma @ 2:00 axis. DCIS, cribriform/solid. Grade III w/ central necrosis. Margins negative. LVI-. SLNs= 0/2 negative. Stage pT1c, pN0(sn).

ER= 95%, 3+. PR= 81%, 2-3+. HER2 IHC= 1+, negative. Ki-67= 30-40%.

Genetic Testing:

Invitae Genetic Panel: Negative.

Oncotype DX Recurrent Score= 32, high.

4/22/22 @ YYY Hospital: Cyclophosphamide + Docetaxel (TC) chemotherapy

Radiation Therapy Treatment Summary:

SUMMARY OF RADIATION FIELDS

Course: C1 LT BREAST @ XXX Hospital

Treatment Site	Ref. ID	Energy	Dose/Fx (cGy)	#Fx	Total Dose (cGy)	Start Date	End Date	Elapsed Days
LT BREAST	Breast_L	6X	265	16 / 16	4,240	8/11/2022	9/3/2022	23
LT Brst Boost	LT Brst Boost	9E	250	4 / 4	1,000	9/4/2022	9/9/2022	5

Course: C1 LT BREAST
Treatment Site: LT BREAST
Ref. ID: Breast_L
Energy: 6X
Dose/Fx (cGy): 265
#Fx: 16 / 16
Total Dose (cGy): 4,240
Start Date: 8/11/2022
End Date: 9/3/2022
Elapsed Days: 23

Course: C1 LT BREAST
Treatment Site: LT Brst Boost
Ref. ID: LT Brst Boost
Energy: 9E
Dose/Fx (cGy): 250
#Fx: 4 / 4
Total Dose (cGy): 1,000
Start Date: 9/4/2022
End Date: 9/9/2022
Elapsed Days: 5

SUMMARY OF RADIATION TREATMENTS: The patient was treated to the left breast using a 3D Conformal (3D CRT) and En Face technique. The patient tolerated treatments quite well. The patient had the expected side effects of dermatitis.

9/12/22 @ XXX Hospital:

Med onc consult. Letrozole recommended. Pt still reluctant to start due to concerns for side effects.

Case 2 Answer sheet			
Dx Staging and Surgery			
Diagnostic Staging Procedure	02		
Date of First Course Treatment	4/8/22		
Surgery of Primary Site (03-2022)	20		
Surg Breast	B200		
Recon Breast	A000		
Scope of Regional Lymph Nodes	2		
Sentinel Lymph Nodes Positive	00		
Sentinel Lymph Nodes Examined	02		
Regional Nodes Positive	00		
Regional Nodes Examined	02		
Surgical Procedure/Other Site	0		
Radiation			
Phases	I	II	III
Primary Treatment Volume	40	41	
Draining Lymph Nodes	00	00	
Treatment Modality	02	04	
External Beam Planning Technique	04	04	
Dose Per Fraction (cGy)	00265	00250	
Number of Fractions	016	004	
Total Dose (cGy)	004240	001000	
Date RT Started	8/11/22		
Date RT Ended	9/9/22		
# of Phases of RT to this Volume	02		
RT Discontinued Early	01		
Total Dose	005240		
Radiation/Surgery Sequence	3		
Reason for No Radiation	0		
Systemic Therapy			
Date Systemic Therapy Started	4/22/22		
Chemotherapy	03		
Hormone Therapy	87		
Immunotherapy	00		
Hematologic Transplant and Endocrine Procedures	0		
Systemic/Surgery Sequence	3		

Case #3:

51-year-old African-American female, G2P2, w/ h/o anemia, who presented w/ some dimpling of her right breast. Patient denies breast pain or nipple discharge. Nonsmoker. -etoh. +fhx: sister died of breast cancer @ 54. M-grandmother w/ lung cancer.

Imaging:

2/12/21 @ XYZ Radiology: RT MMG: On right breast, 1.7 cm well circumscribed oval UOQ nodule. BIRADS 4: suspicious.

3/5/21 @ XYZ Radiology: MR breast bilat: on right breast, multiple abnormally enhanced lesions, largest @ 1.9 CM @ 8:00 axis. Enlarged right axillary lymph node, 2.0 cm. No suspicious MRI enhancement on left breast. BIRADS 6.

4/2/21 @ XYZ Radiology: CT CAP= no evidence of metastatic dz.

4/8/21 @ XYZ Radiology: NM Bone scan= no scintigraphic evidence of osseous metastatic disease.

Pathology:

2/25/21 @ ZZZ Hospital: RT breast 11:00 axis bx= invasive carcinoma with dominant mucinous features. Nottingham: 6/9. Grade 2. LVI-. DCIS, solid/papillary GII. ER= >95%, 3+. PR= >90%, 3+. HER2 IHC= 1+, negative. Ki-67= 14%.

10/26/21 @ ZZZ Hospital: RT breast skin-sparing mastectomy (*nipple and areola not removed*) & SLN dissection, w/ immediate reconstruction. TE/Alloderm

- 19 mm mucinous carcinoma (84803). Nottingham= 8/9. Grade 3. LVI-. Margins negative.
- Lymph nodes examined= 4.
- Lymph nodes with macromets= 1 (11 mm tumor deposit, 3 mm extra nodal extension).
- Lymph nodes with micromets= 0.
- Number of nodes with isolated tumor cells (ITCs)= 0.
- SLNs examine= 4.
- Stage ypT1c, ypN1(sn). ER+ >90%, 3+. PR= 80%, 2+. HER

Genetic Testing:

Genetic testing, NOS, negative.

Neoadjuvant chemotherapy:

4/9/21 @ YYY Hospital: ddAC x 4 cycles + Taxol x 12 cycles.

Radiation Therapy Completion Summary:

12/12/21-1/22/22 @ YYY Hospital: RT Chest wall/S'clav, 6X/IMRT, 1.8 Gy x 28 fx= 50.4 Gy in 41 days.

Hormone Therapy:

2/1/22 @ ZZZ Hospital: Tamoxifen.

Case 3 Answer sheet (preferred)

Dx Staging and Surgery			
Diagnostic Staging Procedure	02		
Date of First Course Treatment	4/9/21		
Surgery of Primary Site (03-2022)	41		
Surg Breast	Blank (if dx 2022-B310)		
Recon Breast	Blank (if dx 2022-A100)		
Scope of Regional Lymph Nodes	2		
Sentinel Lymph Nodes Positive	01		
Sentinel Lymph Nodes Examined	04		
Regional Nodes Positive	01		
Regional Nodes Examined	04		
Surgical Procedure/Other Site	0		
Radiation			
Phases	I	II	III
Primary Treatment Volume	42		
Draining Lymph Nodes	04		
Treatment Modality	02		
External Beam Planning Technique	05		
Dose Per Fraction (cGy)	00180		
Number of Fractions	028		
Total Dose (cGy)	05040		
Date RT Started	12/12/21		
Date RT Ended	1/22/22		
# of Phases of RT to this Volume	01		
RT Discontinued Early	01		
Total Dose	005040		
Radiation/Surgery Sequence	3		
Reason for No Radiation	0		
Systemic Therapy			
Date Systemic Therapy Started	4/9/21		
Chemotherapy	03		
Hormone Therapy	01		
Immunotherapy	00		
Hematologic Transplant and Endocrine Procedures	0		
Systemic/Surgery Sequence	4		

Case #4:

61-year-old Caucasian female, G3P3, w/ h/o depression, hypothyroidism, HTN, HLD, who presented w/ screen-detected RT breast cancer. 40 PK-YR, quit last week. Social etoh. +fhx: M-aunt w/ breast cancer @ 58. M-grandmother w/ breast cancer in her 70s.

Imaging:

1/14/22 @ XXX Medical Ctr: Bilat MMG/US= 0.9 cm right 2:00 nodule highly suggestive of a breast carcinoma. BIRADS 5.

2/9/22 @ XXX Medical Ctr: Bilateral breast MRI= Biopsy-proven 1.1 cm malignancy in right 2:00 axis breast. Non-mass enhancement spanning 3.5 cm in right upper inner breast. No lymphadenopathy bilaterally.

Pathology:

1/20/22 @ YYY Hospital: Right breast, 2:00, core biopsy= Classical type invasive lobular carcinoma. Maximum length in a single core is 6 mm. Nottingham: 5/9. G1.

2/14/22 @ YYY Hospital: Right breast radiofrequency seed localized lumpectomy, UIQ, with right axillary sentinel lymph node dissection= 1.0 cm classic type invasive lobular carcinoma.

Tumor site: 2:00 axis, 5 cm FN

Histologic Grade (Nottingham Histologic Score): Grade 1 (Total score 5/9)

- Tubular differentiation: 2
- Nuclear Pleomorphism: 2
- Mitotic Rate: 1.

LCIS+. Pleomorphic and classical type. DCIS not identified. Lymphovascular invasion not identified.

Number of lymph nodes examined: 3

Number of sentinel lymph nodes examined: 3

Number of lymph nodes with macromets: 0

Number of lymph nodes with micromets: 0

Breast Biomarker Results: ER= 80-90%, 3+. PR= 40-50%, 2-3+. HER2 IHC= 0, negative. Ki-67= Low <5%.

Pathologic Stage Classification (AJCC 8th ed.): pT1b, pN0(sn).

Genetic Testing:

Recommended by medical oncologist, but patient refused at this time.

Radiation Therapy Completion Summary:

2/14/22 @ YYY Hospital: Right breast IORT, via XOFT Axxent electronic brachytherapy at 50 kV. Total dose= 20 Gy.

Hormone Therapy:

3/8/22 @ YYY Hospital: Anastrozole X 5 years.

Case 4 Answer sheet			
Dx Staging and Surgery			
Diagnostic Staging Procedure	02		
Date of First Course Treatment	2/14/22		
Surgery of Primary Site (03-2022)	22		
Surg Breast	A200		
Recon Breast	A000		
Scope of Regional Lymph Nodes	02		
Sentinel Lymph Nodes Positive	00		
Sentinel Lymph Nodes Examined	03		
Regional Nodes Positive	00		
Regional Nodes Examined	03		
Surgical Procedure/Other Site	0		
Radiation			
Phases	I	II	III
Primary Treatment Volume	41		
Draining Lymph Nodes	00		
Treatment Modality	02		
External Beam Planning Technique	02		
Dose Per Fraction (cGy)	02000		
Number of Fractions	001		
Total Dose (cGy)	002000		
Date RT Started	2/14/22		
Date RT Ended	2/14/22		
# of Phases of RT to this Volume	01		
RT Discontinued Early	01		
Total Dose	002000		
Radiation/Surgery Sequence	5		
Reason for No Radiation	0		
Systemic Therapy			
Date Systemic Therapy Started	3/8/22		
Chemotherapy	00		
Hormone Therapy	01		
Immunotherapy	00		
Hematologic Transplant and Endocrine Procedures	0		
Systemic/Surgery Sequence	3		