Cancer PROGRAMS

QUALITY PROGRAMS of the AMERICAN COLLEGE OF SURGEONS

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American Joint Committee on Cancer

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Breast Cancer Staging 8th Edition of the AJCC Staging Manual

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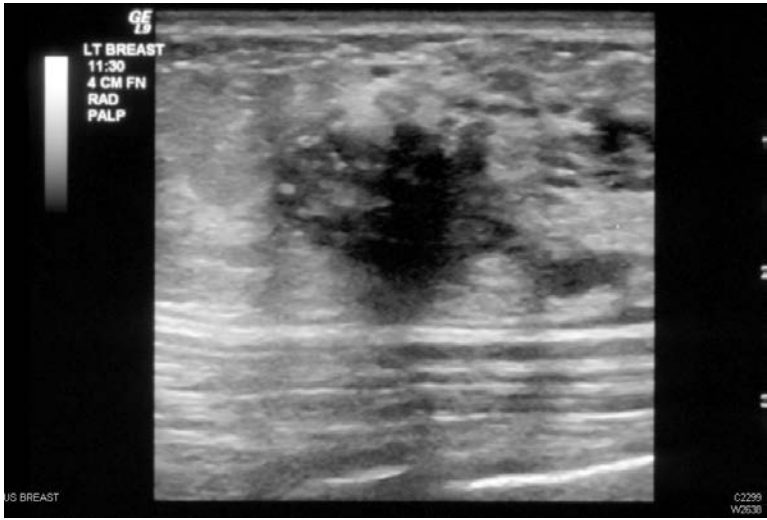
American College of Surgeons
Inspiring Quality:
Highest Standards, Better Outcomes
100+years

History & Physical

- 56 year old female who noticed a 3.5 cm left UIQ breast mass
- Multiple enlarged, mobile left axillary nodes. No supraclavicular adenopathy
- Remaining examination normal
- Family history negative



Imaging and Biopsy

- Imaging shows mass; no other findings on mammogram or MRI in either breast

- Ultrasound-guided core needle biopsy UIQ left breast mass and left axillary node (with clip placement for both)

- Pathology: infiltrating ductal carcinoma (IDC)
  - Grade 3 Nottingham
  - ER negative, PR negative, HER-2 negative
  - Lymph node positive for metastatic carcinoma

Clinical Prognostic Stage – T, N, M and Biomarkers

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- Clinical staging
  - Information from the physical exam, imaging, and diagnostic biopsy
- Purpose
  - Select appropriate treatment
  - Estimate prognosis
- Stage using clinical prognostic staging table

T ____
N ____
M ____
Grade ____
ER ____
PR ____
HER2 ____

Stage ____

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Clinical Prognostic Stage – T, N, M and Biomarkers

- Clinical staging
  - Information from the physical exam, imaging, and diagnostic biopsy
- Purpose
  - Select appropriate treatment
  - Estimate prognosis
- Stage using clinical prognostic staging table

T	2
N	1
M	0
Grade	3
ER	N
PR	N
HER2	N
Stage	___

Clinical Prognostic Stage – T, N, M and Biomarkers

- Clinical staging
  - Information from the physical exam, imaging, and diagnostic biopsy
- Purpose
  - Select appropriate treatment
  - Estimate prognosis
- Stage using clinical prognostic staging table

T	2
N	1
M	0
Grade	3
ER	N
PR	N
HER2	N
Stage	**IIIB**

Multidisciplinary Evaluation and Initial Treatment

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- Presentation at Multidisciplinary Breast Conference

- Based on:
  - Clinical Prognostic Stage IIIB
  - Clear indication and value of chemotherapy
  - Potential value of cytoreduction of primary and nodal disease
  - Option to receive additional chemo with incomplete response

- The patient was offered and received neoadjuvant multi-agent chemotherapy

Clinical Response and Surgery

- At completion of chemotherapy:
  - Left breast mass and abnormal axillary nodes not palpable
  - Imaging including MRI shows resolution of mass and enlarged nodes
- Complete clinical response to neoadjuvant chemotherapy
- Seed localized lumpectomy and axillary node biopsy; sentinel node biopsy

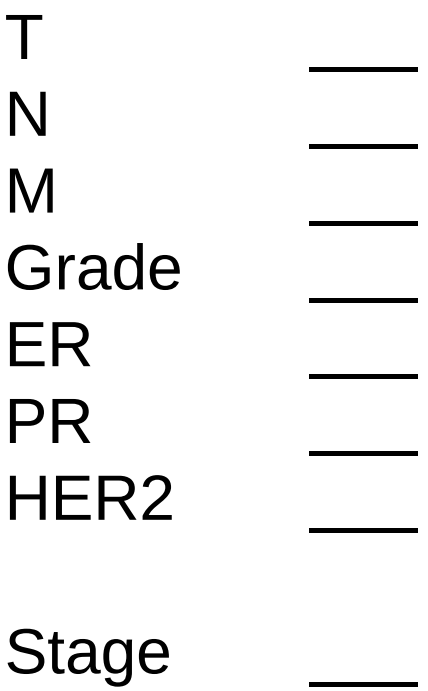
Pathology

- Breast:
  - Background of fibrosis (evidence of treatment effect) with multiple foci of Nottingham Grade 3 IDC. No focus larger than 3 mm
  - Margins negative, closest margin is 5 mm posterior margin

- Left axillary nodes:
  - Seed localized axillary node and 3 sentinel nodes negative
    - Seed localized node and one sentinel node with fibrosis suggestive of treatment effect.

Pathologic Prognostic Staging

- Pathological staging
  - Information from y-clinical staging, operative findings, and resected pathology specimen
- Purpose
  - Additional precise data for estimating prognosis
  - Calculating end results (survival data)
- Use Pathological Prognostic Stage



Pathologic Prognostic Staging

- Pathological staging
  - Information from y-clinical staging, operative findings, and resected pathology specimen
- Purpose
  - Additional precise data for estimating prognosis
  - Calculating end results (survival data)
- Use Pathological Prognostic Stage

T	yT1a(m)
N	yN0(sn)
M	cM0
Grade	3
ER	N
PR	N
HER2	N
Stage	____

Pathologic Prognostic Staging

- Pathological staging
  - Information from y-clinical staging, operative findings, and resected pathology specimen
- Purpose
  - Additional precise data for estimating prognosis
  - Calculating end results (survival data)
- Use Pathological Prognostic Stage

T	yT1a(m)
N	yN0(sn)
M	cM0
Grade	3
ER	N
PR	N
HER2	N
Stage	N/A

Pathologic Prognostic Stage

T	16
N	11
M	1
Grade	3
ER	2
PR	2
HER2	2

Stage ___

4224 possible combinations.

Pathologic Prognostic Stage

T	
N	**5**
M	
Grade	3
ER	2
PR	2
HER2	2
Stage	___

With anatomic stage aggregation, **120 possible combinations in 305,000 patients**

Pathologic Prognostic Stage for Neoadjuvant

T		
N	5	6
M		
Grade	3	
ER	2	
PR	2	
HER2	2	
Stage	___	

720 possible combinations for 44,000 patients

Question 3:
What are the Correct Pathologic Categories?

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A. pT2 pN1

B. pT1a pN1a

C. ypT1a(m) ypN0 (sn)

D. ypT1a ypN1

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What are the Correct Pathologic Categories?

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A. pT2 pN1

B. pT1a pN1a

C. **ypT1a(m) ypN0 (sn)**

D. ypT1a ypN1

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Pathologic Prognostic Stage for Neoadjuvant

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- Pathologic staging with prior editions have never factored utilization or response of neoadjuvant therapy.

- Current data sets not sufficient to assign post-neoadjuvant stage group
  - No standardization for classification of tumor response
    - Residual cancer burden index not widely used / not recorded in registry
  - Absence of large data sets with response data

Enhanced staging after neoadjuvant therapy: Clear need for staging revisions

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- Need to define stage for assigning prognosis and defining therapy post-initial chemotherapy and surgery
- Value for population studies
- Numerous efforts underway worldwide to standardize reporting and to improve post-therapy staging

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Need for Revisions

- Clinical Prognostic Stage is important to utilize for all patients regardless of order of therapy.
- Pathologic Prognostic Stage provides more granular detail to select subsequent therapy
- Pathologic Prognostic Stage following neoadjuvant therapy includes prognostic variables used in Clinical Prognostic Stage as well as interactions with therapy, requiring more robust datasets.

Breast Staging 8th Edition

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- AJCC established in 1959 (60th Anniversary!)
- Formulate and publish systems of classification of cancer, including staging and end-results reporting
- Goal: Create acceptable tools to be used by the medical profession for selecting-the most effective treatment,
- determining prognosis, and continuing evaluation of cancer control measures
- 8th Edition Published October 6, 2016
- Effective for all cases diagnosed as of January 1, 2018

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- Review site-specific information & rules
- Clinical Prognostic Staging

  Based on information before treatment
  Used to select treatment options

- Pathological Prognostic Staging

  Based on clinical data PLUS operative findings
  resected specimen pathology report
  Used to evaluate end-results (survival)

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Important points to consider

- Clinical and Pathologic staging tables are different
- Nottingham grade must be provided by pathologist. Nuclear grade is not sufficient
- T1mi must be < or = to 1 mm. Do not round down a 1.2 mm tumor. Assign T1a
- Anatomic staging is not to be used in the United States
- A rolling update may include specific staging guidelines for genomic assays other than Oncotype
- Don’t use 7th edition stage groups – they are different!
- Stage assignments assume patients will follow clinical treatment guidelines

Breast Staging 8th Edition

- https://cancerstaging.org
- Ordering information: Cancerstaging.net
- Submit questions to AJCC Forum: http://cancerbulletin.facs.org/forums/
- Twitter: @AJCCancer