

AJCC Staging Moments

AJCC TNM Staging 8th Edition

Breast Case #2



AJCC

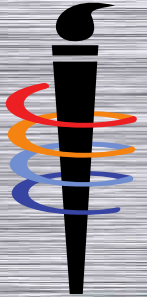
American Joint Committee on Cancer

Validating science. Improving patient care.

Contributors:

David R. Byrd, MD, FACS

University of Washington Medical Center, Seattle, Washington



Breast Case # 2

Presentation of New Case

- Newly diagnosed breast cancer patient
- Presentation at Cancer Conference for treatment recommendations and clinical staging



Breast Case # 2

History & Physical

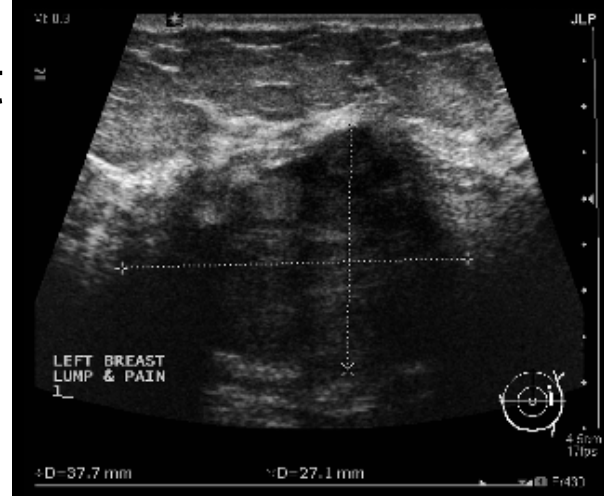
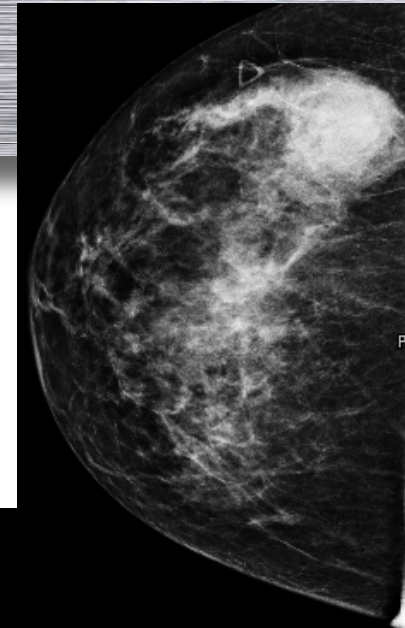
- 62 yr old woman noticed a non-tender mass in the upper outer quadrant (UOQ) of the left breast
- Family hx-breast ca in maternal aunt at age 70
- Physical examination reveals a firm, mobile, 4 cm mass in the UOQ with no overlying skin changes and no palpable adenopathy



Breast Case # 2

Imaging Results

- Mammogram: 3.9cm density UOQ left breast, right breast negative
- Ultrasound breast: 3.8cm hypoechoic area UOQ left breast, left axillary nodes negative, right breast negative



Used with permission



Breast Case # 2

Diagnostic Procedure

- Procedure
 - Ultrasound-guided core needle biopsy UOQ left breast
- Pathology Report
 - Infiltrating duct carcinoma
 - Nottingham Grade 3
 - Estrogen receptor positive
 - Progesterone receptor positive
 - HER2 negative by IHC



Breast Case # 2

Clinical Staging

- Clinical staging
 - Uses information from the physical exam, imaging, and diagnostic biopsy
- Purpose
 - Select appropriate treatment
 - Estimate prognosis



Breast Case # 2

Clinical Staging

- Synopsis: patient with 3.9cm mass, infiltrating duct ca, axilla is negative on exam and imaging
- What is the clinical stage?
 - T_____
 - N_____
 - M_____
 - Grade_____
 - HER2_____
 - ER_____
 - PR_____
 - Stage Group_____



Breast Case # 2

Clinical Staging

- Clinical Stage correct answer
 - cT2
 - cN0
 - cM0
 - Grade 3
 - HER2 negative
 - ER positive
 - PR positive
 - Stage Group IIA
- Based on stage, treatment is selected
- Review treatment guidelines for this stage



Breast Case # 2

Clinical Staging

- Rationale for staging choices
 - cT2 for 3.9cm primary tumor
 - cN0 because nodes were clinically negative on physical exam and imaging
 - cM0 because there was nothing to suggest distant metastases; if there were, appropriate tests would be performed before developing a treatment plan
 - Grade 3 based on Nottingham
 - HER2 negative
 - ER positive
 - PR positive
 - Stage group is IIA according to the Clinical Prognostic table



Breast Case # 2

Treatment Options

- Review treatment guidelines for this stage
- Discuss appropriate treatment plans for this patient



Breast Case # 2

Surgery & Findings

- Patient declined option of neoadjuvant systemic therapy
- Procedure
 - Lumpectomy UOQ left breast, sentinel lymph node (SLN) biopsy
- Operative findings
 - Sentinel nodes were reported as negative on frozen section, additional stains will be performed



Breast Case # 2

Pathology Results

- Infiltrating duct carcinoma
- Size of invasive cancer: 4.1cm with dermal invasion
- Nottingham Grade 3
- Margins of resection negative – closest margin inferior at 4mm
- Sentinel nodes
 - Negative by H&E
 - Sentinel Node 1 – cytokeratin immunohistochemistry shows cluster of isolated tumor cells (ITCs), <0.1mm in size



Breast Case # 2

Pathological Staging

- Pathological staging
 - Uses information from clinical staging, operative findings, and resected specimen pathology report
- Purpose
 - Additional precise data for estimating prognosis
 - Calculating end results (survival data)



Breast Case # 2

Pathological Staging

- Synopsis: patient with 4.1cm infiltrating duct ca, 1 sentinel node with ITCs detected only on IHC
- What is the pathological stage?
 - T_____
 - N_____
 - M_____
 - Grade_____
 - HER2_____
 - ER_____
 - PR_____
 - Stage Group_____



Breast Case # 2

Pathological Staging

- Pathological Stage correct answer
 - pT2
 - pN0(i+)(sn)
 - cM0
 - Grade 3
 - HER2 negative
 - ER positive
 - PR positive
 - Stage Group IB
- Based on pathologic stage, there is more information to estimate prognosis and adjuvant treatment is selected



Breast Case # 2

Pathologic Staging

- Rationale for staging choices
 - pT2 Skin invasion is defined as full thickness involvement including epidermis. Focal dermal involvement is not considered T4
 - pN0(i+)(sn) sentinel nodes had ITCs found on IHC, H&E stains negative. ITCs considered negative nodes. Designate as SLN.
 - cM0 - use clinical M with pathologic staging unless there is microscopic confirmation of distant metastases
 - Grade 3 based on Nottingham
 - HER2 negative
 - ER positive
 - PR positive
 - Stage group is IB according to the Clinical Prognostic table



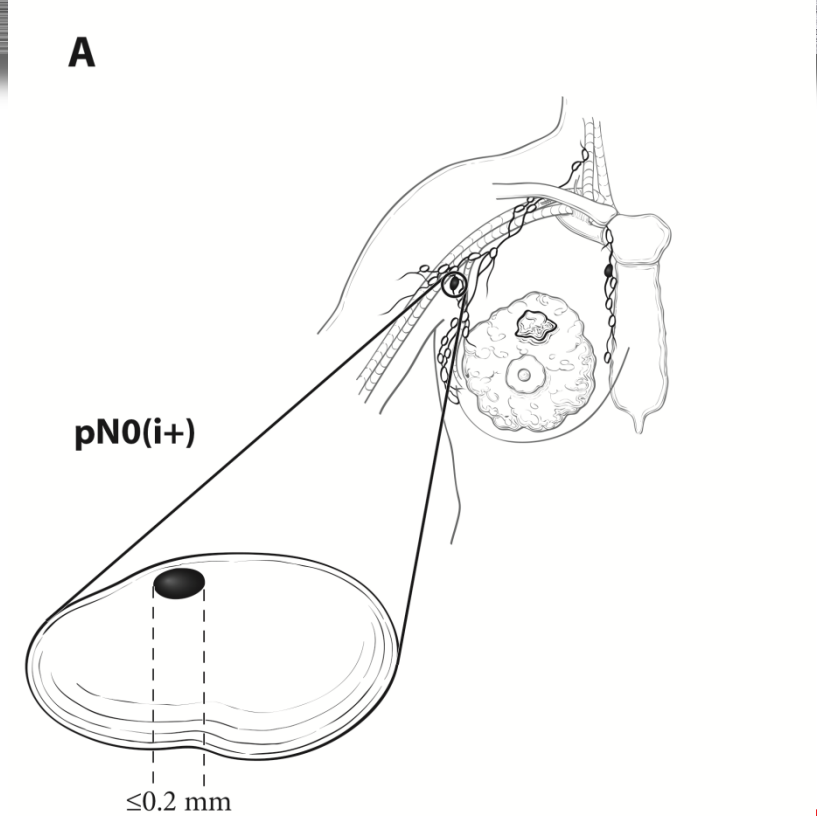
Prognostic Factors/Registry Data Collection

- Applicable to this case
 - Estrogen receptor: percent positive, Allred score
 - Progesterone receptor: percent positive, Allred score
 - HER2: IHC and FISH results
 - Ki67:



pN0 (i+)

pN0(i+) is defined as positive ITCs found on H&E or IHC, no ITCs >0.2mm



Hortobagyi, Connolly, et al. Breast. In Amin, M.B., Edge, S.B., Greene, F.L., et al. (Eds.) AJCC Cancer Staging Manual. 8th Ed., 2017



Breast Case # 2

Recap of Staging

- Summary of correct answers
 - Clinical stage cT2 cN0 cM0 Gr 3 HER2- ER+ PR+ Stage Group IIA
 - Pathologic stage pT2 pN0(i+)(sn) cM0 Gr 3 HER2- ER+ PR+ Stage Group IB
- The staging classifications have a different purpose and therefore can be different. Do not go back and change the clinical staging based on pathologic staging information.



Staging Moments Summary

- Review site-specific information & rules
- Clinical Staging
 - Based on information before treatment
 - Used to select treatment options
- Pathologic Staging
 - Based on clinical data PLUS operative findings and resected specimen pathology report
 - Used to evaluate end-results (survival)

