AJCC 8th Edition Staging

Breast Staging

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Learning Objectives

• Select appropriate stage group table
• Examine prognostic stage group criteria
• Inspect clarifications for assigning categories
• Identify changes in breast staging
Learning Assessments

- Testing effect or retrieval practice
  - Testing yourself on idea or concept to help you remember it

- Many experts have agreed for centuries
  - Act of retrieving info over and over, makes it retrievable when needed
  - Aristotle: exercise in repeatedly recalling strengthens memory

- Why retrieval/quizzing slows forgetting, helps remembering
  - Memory is dynamic (keeps changing), retrieval helps it change
  - Test often for better results

- Quizzes
  - Pretest as part of registration
  - Quiz during lecture
  - Posttest emailed weeks later to assess retention
  - Also assesses clarity of instruction and instructor

Selecting Appropriate Stage Group Table

Anatomic Stage Groups

- May never use anatomic stage group table
  - Even if prognostic factor categories are missing
  - Even if stage group will be unknown
  - Will skew stage group data

- ONLY for global regions where biomarker tests unavailable

- Cancer registries in U.S. must use prognostic tables
Stage Group Tables

- Clinical prognostic stage group table
  - Used for all patients with diagnostic workup for ca

- Pathological prognostic stage groups
  - Used when surgical resection is initial treatment
  - Does not apply to surgical resection following neoadjuvant therapy

- No stage group table for posttherapy staging

Genomic Profiles in Staging

- Other (non-Oncotype Dx) genomic profiles/multigene panels
  - Only used for patient care
  - Because Level I data not available at this time
  - These profiles not used for assigning prognostic stage

- Specific chapter wording for other multigene panels:
  ...low-risk score/range, regardless of T size, places the tumor into the same prognostic category as T1a–T1b N0 M0.

- Pathological prognostic staging with Oncotype Dx score <11
  - Modify stage group to IA as indicated
  - Assign with Genomic Profile for Pathologic Prognostic Staging table

- Other genomic profiles used to guide patient care
  - May not be used at this time to modify stage group
  - Assign using Pathological Prognostic Stage table
  - Do not use genomic profile table
Scenario

- Pt with 21mm UOQ tumor and negative axilla. Ductal ca, SBR 6 points, HER2 neg, ER/PR positive, breast bx. Lumpectomy and SLNB showing 21mm tumor, SBR 7 points, 3 sentinel nodes negative.

- Clinical: cT2 cN0 cM0 Gr2 HER2- ER/PR+ stage grp IB

- Pathological: pT2 pN0(sn) cM0 Gr2 HER2- ER/PR+ stage grp IA

- Note different stage groups for clinical and pathological

Prognostic Stage Group Criteria

Grade Category in Stage Group

- **Must** be Nottingham for invasive ca, **not** nuclear grade
  - Assign G1 – G3

- Nuclear grade
  - Just one of three components of Nottingham
  - **Least reproducible** of three components
  - **Must not** use for grade category to assign stage group
  - If nuclear grade, code as A-D, stage group **not** assigned
Grade for Invasive & In Situ

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<th>Grade</th>
<th>Definition</th>
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<tr>
<td>GX</td>
<td>Grade cannot be assessed</td>
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<tr>
<td>G1</td>
<td>Low combined histologic grade (favorable); SBR score of 3–5 points</td>
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<tr>
<td>G2</td>
<td>Intermediate combined histologic grade (moderately favorable); SBR score of 6–7 points</td>
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<tr>
<td>G3</td>
<td>High combined histologic grade (unfavorable); SBR score of 8–9 points</td>
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In Situ

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Biomarkers for Stage Group

- Biomarkers consist of
  - Hormone receptors (ER & PR)
  - HER2
- Assay results for assigning stage
  - Most often only tested on biopsy specimen
  - If retested on resection specimen, positive results take priority
  - If bx specimen not tested, use resection tests for clinical staging

Scenario

- Pt with 21mm UOQ tumor and negative axilla. Ductal ca, nuclear gr 2, breast bx.
  - Lumpectomy and SLNB showing 21mm tumor, SBR 7 points, 3 sentinel nodes negative, HER2 neg, ER/PR positive.
- Clinical: cT2 cN0 cM0 GrX HER2- ER/PR+ stage grp 99
- Pathological: pT2 pN0(sn) cM0 Gr2 HER2- ER/PR+ stage grp IA
- Grade clinical may be coded as B, but not used for AJCC
Clarifications

Stage Groups Tables Differ

- Stage group tables **different** for clinical & pathological
  - Same TNM-G Biomarker combinations not same c & p group
  - Based on outcome data

- Examples
  - Clinical  T2 N0 M0 G3 HER2- ER/PR+ stage IIA
  - Pathological T2 N0 M0 G3 HER2- ER/PR+ stage IIB
  - Clinical  T3 N0 M0 G2 HER2- ER/PR- stage IIIB
  - Pathological T3 N0 M0 G2 HER2- ER/PR- stage IIB

- Reason for differences between clinical & pathological group
  - Tumor size may vary between imaging and resection
  - Negative nodes on exam/imaging contain mets when resected

Posttherapy Staging Critical

- Critical posttherapy staging regardless of response
  - Even if tumor does not respond, stays the same
  - Even if tumor larger or more nodal involvement
  - **Not** considered progression of disease
  - Posttherapy staging must be assigned

- Need data on **all** patients undergoing neoadjuvant therapy
  - Not just those with partial or complete response
  - Do not skew data by eliminating those with no response

- Assign ypT, ypN, and c/pM categories

- **No posttherapy stage group**
Breast Neoadjuvant Therapy

- Breast neoadjuvant therapy
  - Must meet standard guidelines, such as NCCN or ASCO
  - Usually 4-6 cycles of chemo, sometimes more
  - Usually 4-6 months of endocrine therapy, may be up to 1 year
  - Short course endocrine therapy does NOT qualify
  - Rule for staging, not for registry treatment data items

- Must assign posttherapy staging
  - Even if chemo changed to different group of chemo drug
  - Even if endocrine therapy changed

- CoC states surgical resection coded even if no response

Stage Data

- Stage is more than just the group

- Assign T, N, M, and prognostic factor categories
  - Even if stage group doesn’t exist
  - Especially with missing info and stage group can’t be assigned

- Value not tied only to stage group
  - Studies performed on TNM data, not just stage groups
  - Critical comparisons between cT cN and ypT ypN

Breast Sentinel Node Procedure

- Sentinel lymph node procedure includes
  - Sentinel nodes with dye/radiotracer
  - Non-sentinel nodes, palpably abnormal, without dye/radiotracer
  - Use (sn) suffix for N category

- Sentinel node procedure results
  - Pathologist reports to surgeon in Operating Room
  - Surgeon needs results to decide if node dissection needed

- Waiting for results
  - If you don’t wait for SLN path results, no reason to perform it
  - Next steps based on frozen sections of those sentinel nodes
Scenario

- Pt with 48mm UOQ tumor and enlarged axillary node. Ductal ca, SBR 6 points, HER2 neg, ER/PR positive, breast bx. Axillary node FNA positive for mets. Neoadjuvant chemo. No response, tumor 60mm, ycT3. Mastectomy showing 58mm tumor, SBR 7 points, 4/10 axillary nodes positive.

- Clinical: cT2 cN1(f) cM0 Gr2 HER2- ER/PR+ stage grp IIA

- Posttherapy: ypT3 ypN2a cM0 Gr2 HER2- ER/PR+ stage grp not assigned

Additional Changes to Breast

LCIS

- Lobular carcinoma in situ (LCIS) is removed as a pTis category for T categorization. Lobular carcinoma in situ is treated as a benign entity and is excluded from TNM staging.

- Lobular carcinoma in situ no longer assigned a stage
  - Please discuss reportability with your standard setter

- In situ category may only be
  - Tis (DCIS)
  - Tis (Paget)
Rounding Caution for Tumor Size

- Breast exception T category
  - >1.0 mm to 1.4 mm rounded to 2 mm
  - Avoid assigning “microinvasion” category to cancer >1.0 mm
  - Other sizes rounded for T category assignment
    - Round down between 1 and 4
    - Round up between 5 and 9

- Critical for prognosis and data analysis
  - T1mi “microinvasion” must only represent ≤1 mm

Scenario

- Pt’s screening mammogram identified 1.1mm tumor with negative axilla. Ductal ca, intermediate combined histologic grade, HER2 neg, ER/PR positive, breast bx.
  - Lumpectomy and SLNB showing no residual tumor, 2 sentinel nodes negative, 1 non-sentinel node negative.

- Clinical: cT1a cN0 cM0 Gr2 HER2- ER/PR+ stage grp IA
- Pathological: pT1a pN0(sn) cM0 Gr2 HER2- ER/PR+ stage grp IA

Information and Questions on AJCC Staging
Summary

• Comprehend appropriate stage group table usage
• Identify prognostic stage group criteria
• Interpret clarifications for assigning categories
• Examine changes in breast staging

Thank you

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