Overview

- Continues instructions for learning AJCC staging
  - Proceed with the rules
    - Correct classifications
    - Assigning T, N, and M categories
    - Assigning stage group
  - Cover rules for more complex cases on these topics
  - Encompassing some nuances for these topics
  - Provide foundation for subsequent module
    - Advanced
Learning Objectives

- Demonstrate correct usage of classifications
- Employ principles of assigning T, N, and M categories
- Distinguish choices for assigning stage group
- Illustrate critical thinking skills in applying AJCC rules
- Utilize additional materials
- Evaluate self-guided learning through webinar and quiz

Quiz

Lesson 15
Classifications
Module III Lessons

Clinical

• Surgical exploration during resection
  – NOT used for clinical stage
  – Surgeon always evaluates/explores before performing resection
  – Part of pathologic stage, it is the operative findings

• Extensive imaging not needed to assign stage
  – Assign stage based on physician assessment and judgment
  – Recommended workup helpful in determining stage
  – Imaging choices may point to stage
  – Imaging may not be performed
  • Due to low stage and not appropriate, or
  • Comorbidities precluding treatment choices, affecting prognosis

• Guides to accepted standards for diagnostic evaluation
  – American College of Radiology Appropriateness Criteria
  – Practice Guidelines of National Comprehensive Cancer Network

Pathologic

• Operative findings
  – Can overrule pathology report IF
  • Tissue was not submitted to pathology
  – pT does NOT have to be tissue proven

• Pathologist cannot assign final pT and pN
  – Provides helpful information, not final categories
  – Cannot provide stage group unless pM1

Postneoadjuvant Therapy

• ycTNM
  – Used with T and N categories only
  – M category is
  • Defined at the time of diagnostic workup
  • Never changed after neoadjuvant therapy

• yc denotes response
  – After systemic and/or radiation therapy
  – Before surgical resection
  – Clinical information is used
  • Physical exam
  • Imaging

• Registrars cannot record
  – No data fields in registry for yc
**Postneoadjuvant Therapy**

- **ypTNM**
  - Used with T and N categories only
  - M category is
    - Defined at the time of diagnostic workup
    - Never changed after neoadjuvant therapy

- **yp** denotes response that is proven
  - After systemic and/or radiation therapy and
  - After surgical resection
  - Surgery and pathology information is used
    - Operative findings
    - Pathology report of surgical resection specimen

- Registrars must use AJCC stage descriptor "y" data field
  - Cannot be analyzed with pathologic staged cases

**Retreatment**

- **Recurrence** - apply in cases when
  - Further treatment planned for
  - Cancer that recurs
  - After disease-free interval

- **Information obtained from**
  - Clinical staging extent of disease
  - Therapeutic procedures (including surgical treatment)

- **Information may be prognostic for patients**

- **Extent of recurrent disease guides therapy for patients**
  - Primary treatment
  - Adjuvant therapy

- **Recurrence confirmation**
  - Biopsy confirmation is important
    - If clinically feasible
    - Not required
  - May not be appropriate for each category: T, N, and M
  - Clinical evidence may be used as needed for confirmation
    - Clinical exam
    - Imaging
    - Endoscopic procedures
    - Exploratory procedures
    - Other related methods
Autopsy

- Apply to cases where
  - Cancer *NOT* evident prior to death
  - **NO** suspicion of cancer
    - No signs/symptoms
    - No clinical findings
    - No imaging findings

Lesson 16

T Category

T0

- No evidence of primary tumor
- Site of primary tumor is unknown
- T0 assigned in above cases
  - Based on clinical suspicion of primary site
  - Nodes or distant metastasis pathologically c/w primary site
- Examples
  - Axillary nodes c/w ductal ca, no apparent breast tumor
  - T0 N1 M0 stage IIA
  - Lung mass c/w renal cell ca, no apparent kidney tumor
  - T0 N0 M1 stage IV
Multiple Tumors

• Synchronous tumors of same histology in one organ
  – Simultaneous multiple tumors
  – Assign T by most advanced tumor, highest T category

• Indicate multiplicity
  – (m) suffix, T2(m)
  – (number) suffix, T2(5)

• Example: two T2 and one T3 tumors in one organ
  – Assign T3(m) or T3(3)

• Registries must record (m) in AJCC stage descriptor
  – Data field for AJCC y prefix or m, E, S, suffixes
  – Indicates burden of disease for data analysis

Multiple Tumors

• Synchronous primary tumors in paired organs
  – Simultaneous multiple tumors
  – Stage and report independently

• Example: T2 tumor in lt adrenal, T3 tumor in rt adrenal
  – Report as two cancers
  – Do NOT use (m) suffix
  – Report lt adrenal cancer and assign T2
  – Report rt adrenal cancer and assign T3

Multiple Tumors

• Multiplicity is criterion for T category in following sites
  – Thyroid
    • Assign T1 – T4 and add (s) for solitary or (m) for multifocal
  – Liver
    • T3 and T4 used for multiple tumors
  – Ovary
    • T1b or higher for both ovaries

• Do not use (m) suffix rules for these sites
  – Thyroid is (s) or (m), not just the (m) or (number)

• Do not consider as separate independent primaries
Minimum Number - Sufficient Sampling

- Minimum number
  - Sufficient sampling to identify positive nodes
  - Eliminate false negatives
- Minimum to be examined can apply to
  - Number and
  - Location of nodes
- Requirements
  - Described in site chapters as appropriate
  - Detail common medical practice
- Sentinel nodes
  - If accepted as accurate for defining involvement, and
  - Sentinel node procedure performed
  - Minimum does NOT apply

pN when Minimum Not Met

- Lymph node surgery performed
  - Fewer than ideal minimum number examined
  - N category still generally classified as pN
- pN category assignment
  - Based on information available
    - Number of positive nodes and/or
    - Location of most advanced pathologic node resected
    - Assigned even if minimum number or location criteria not met
- Impact of using pN in this situation
  - Importance of outcomes data analysis
  - Determine accuracy of nodal staging with less than minimum
**Sentinel Node**

- Sentinel node designation (sn)
  - Example: pN0(sn), pN1(sn)
  - Used when only a sentinel node biopsy is performed
  - Not used if further dissection of nodes is performed

- Breast chapter instructions for (sn)
  - Indicates nodal status based on less than axillary dissection
  - Used for sentinel node procedure
  - Used where sentinel & non-sentinel nodes are ≤6 nodes (less than standard low axillary dissection)
  - Do NOT use (sn) when >6 sentinel nodes removed

- Does not apply to registry coding of procedure
  - Instructions only apply to assigning stage

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**Pathologic Node Assessment**

- Assigning pN
  - Pathologic primary tumor assessment (pT) is
    - Generally necessary to assign pathologic nodal assessment (pN)

- N categories
  - In conjunction with pT
    - Do NOT need pathologic exam of highest N category to assign pN
      - Example:
        - Resection/path exam of N1 nodes only
        - No resection/path exam of N2 and N3 nodes
        - Assign pN1
  - Physician determines appropriate nodal resection for patient
    - N category criteria does not dictate nodal exam

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**Isolated Tumor Cells**

- ITC
  - Single tumor cells or small clusters of cells
  - Clusters of cells ≤ 0.2mm in greatest dimension
  - Identified by
    - Routine histology or immunohistochemistry (IHC)
    - Nonmorphologic techniques such as flow cytometry or DNA analysis
    - Designated as pN0 (+)
    - Defined in chapters where this commonly occurs

- Nodes with only ITC are assigned pN0

- Exception: nodes with only ITC are assigned pN1 for
  - Melanoma
  - Merkel Cell
Isolated Tumor Cells in Metastatic Sites

- Isolated tumor cells in metastatic sites
  - Circulating cells in the blood
  - Micrometastasis (≤ 0.2mm) in bone marrow or nonregional tissue
  - Histologically visible micrometasis
- Identified by
  - IHC
  - Molecular techniques
- Designated as cM0(i+)
  - Note this is clinical M0 since pM0 does not exist
- Defined in chapters where this commonly occurs
- May be prognostic for recurrence or survival

CTC and DTC

- Circulating tumor cells – CTC
  - CTC are identified in
    - Blood

- Disseminated tumor cells – DTC
  - DTC are identified in
    - Distant organs or nonregional tissue
    - Bone Marrow
M Category for Classification

• Assign appropriate M category for clinical classification
• Clinical stage M category based on assessment method

Example for colon cancer diagnostic workup
– CT guided liver biopsy positive for mets
– CT chest shows lung mets
– Assign pM1 for clinical stage
– Do NOT record cM1 and pM1 in registry data fields
– Stage is NOT to document all findings
– Only one M category for each stage
– AJCC does not have rules to assign cT cN cM pM clinical stage

M Category for Classification

• Assign appropriate M category for pathologic classification
• Pathologic stage M category based on assessment method

Example for breast cancer mastectomy
– CT chest shows lung mets
– Bone biopsy positive for mets
– Assign pM1 for pathologic stage
– Do NOT record cM1 and pM1 in registry data fields
– Stage is NOT to document all findings
– Only one M category for each stage
– AJCC does not have rules to assign pT pN cM pM pathologic stage

M Category for Classification

• Do NOT use registry M data fields to document test results
  – Difference between coding systems and assigning AJCC stage

• Coding systems
  – All data fields are utilized to document all available information
  – Code every field, none are left blank

• Assigning AJCC stage
  – Only one M category assigned for each stage
  – M category assigned independently for each classification
  – Not based on M category used in other classifications
  – Assign M category based on
    • Assessment method
    • For classification time frame
Module III Lessons

Lesson 19
Stage Group

M Category for Pathologic Stage

- pM not required to assign pathologic stage group

- Pathologic stage group options with cM
  - pT pN cM0
  - pT pN cM1

- Pure clinical and pure pathologic stage groups
  - Refers to following AJCC rules for that classification
  - Does NOT refer to using all “c” or all “p” for each category

pM1 Special Rules

- pM1
  - Microscopic confirmation of distant mets during diagnostic workup (clinical stage)
  - Sanctions both clinical and pathologic stage group assignment
  - Do not need to meet resection criteria for pathologic stage

- Stage group options – pM1 found during diagnostic workup
  - cT cN pM1 clinical stage IV
  - cT cN pM1 pathologic stage IV

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In Situ Neoplasm

- **CIS definition**
  - Has not involved any structures in primary organ that
  - Allows tumor cells to spread to regional nodes or distant sites

- **CIS exception to stage group guidelines**
  - Clinical stage
    - pTis cN0 cM0 clinical stage 0
  - Pathologic stage
    - pTis cN0 cM0 pathologic stage 0

- **Caution for pathologic stage**
  - Cannot use CIS rule in isolation
  - Must also meet pathologic stage resection criteria
  - Avoids sampling error when resection might show invasion
  - Example: TURB

Lesson 20
Link to AJCC Staging Moments

Link to Additional Material

- **AJCC Staging Moments**
  - Educational series to promote physician discussion on proper and accurate staging
  - Offers succinct, case-based presentations following common cancer conference format of symptom presentation, imaging work-up, and pathology diagnosis
  - Target difficult and common staging scenarios
  - Clarify finer points of staging

- **Staging Moments anatomic sites**
  - Breast, colon, lung, head & neck, melanoma
  - 3 cases for each site

**STAGING MOMENTS**
Summary

• Articulate and recognize AJCC rules and guidelines
• Apply AJCC principles accurately
  – Classifications
  – T, N, and M categories
  – Stage group
• Illustrate critical thinking skills in applying AJCC criteria
• Validate lessons
  – Additional materials
  – Webinar and quiz

Thank you

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