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Overview

• Provide key information for breast on
  – Common staging issues and questions
  – Exceptions and cautions for T, N, M
  – Diagnostic procedures vs. treatment
  – Treatment satisfying stage classification criteria
  – Blank vs. X
Learning Objectives

• Analyze common staging issues and questions

• Determine exceptions and cautions for T, N, M

• Distinguish diagnostic procedures vs. treatment

• Identify treatment satisfying stage classification criteria

• Recognize difference between blank vs. X
Breast Staging
Clinical T Category

• Determining size for T category
  – Most accurate size needed
  – Don’t just choose largest
  – Review physical exam, mammogram, and ultrasound
  – Physician statement

• Multiple simultaneous ipsilateral tumors
  – T category based on largest of multiple tumors
  – Must use (m) suffix

• Skin dimpling or nipple retraction not used for staging
Clinical T Category

- **Chest wall structures**
  - Ribs
  - Intercostal and serratus anterior muscles

- **Skin involvement**
  - Ulceration
  - Satellite nodules
  - Edema or peau d’orange not meeting inflammatory criteria

- **Inflammatory carcinoma**
  - Diffuse erythema and edema (peau d’orange) in 1/3+ of skin
  - Clinical diagnosis, microscopic evidence not required
  - Rare, progresses quickly within days/weeks
Clinical N and M Categories

• Important to note physical exam and imaging for nodes
  – Negative exam or imaging
  – Clinically detected on imaging or physical exam
    • Nodes fixed
    • No description implies movable
  – Level of nodes involved

• M category assessment
  – Based on physical exam signs or symptoms of mets
  – Imaging is not required
  – Assign cM0 or cM1 based on physical exam or imaging
  – Assign pM1 based on FNA or biopsy of involved metastatic site
Pathologic T Category

• Size for T category
  – Nearest mm used, tenths of mm rounded to assign T
  – Do not add core biopsies to residual tumor in resection
  – May need to use either core biopsy or resection to assign T

• Complex shapes may represent one tumor
  – Macroscopically distinct tumors that are very close together
  – May find microscopic subtle areas of continuity between foci
  – Need contiguous uniform tumor density in intervening tissue
  – Does not apply to macroscopic tumor with microscopic satellites
  – Determined by pathologic and imaging findings
  – Need physician and pathologist statements

• Multiple simultaneous ipsilateral tumors
  – T category based on largest of multiple tumors
  – Must use (m) suffix
Pathologic N Category

• pN category
  – **Must** have microscopic assessment of at least 1 node to assign
  – Microscopic assessment includes
    • FNA or core needle biopsy
    • Sentinel node procedure
    • Axillary node dissection
  – Include nodes not microscopically confirmed to assign pN
  – No microscopic assessment is pNX

• Isolated tumor cells (ITC) is pN0(i+)
  – Not greater than 0.2mm

• Micrometastasis is pN1mi
  – Greater than 0.2mm but none greater than 2.0mm
Pathologic N and M Categories

• Metastasis in lymph node
  – At least one metastasis greater than 2.0mm
  – Applies to all pN subcategories except pN1mi

• M category assessment
  – Based on physical exam signs or symptoms of mets
  – Imaging is not required
  – Assign cM0 or cM1 based on physical exam or imaging
  – Assign pM1 based on FNA or biopsy of involved metastatic site
  – Assign cM0(i+) for CTC or DTC

• M category for postneoadjuvant therapy staging (yp)
  – Same as M category assigned for clinical stage
  – If M1 before Rx, M1 for yp stage even if mets no longer detected
  – Progression: distant mets identified after Rx when preRx eval neg
Criteria for Clinical Classification

• Patient undergoing diagnostic workup
  – Exam of breast, skin, and lymph nodes
  – Imaging of breast: mammogram, ultrasound, MR
  – Diagnostic FNA, core needle biopsy, or surgical biopsy of breast
  – Diagnostic FNA or sentinel biopsy of nodes
  – Diagnostic FNA or biopsy of metastatic sites
  – Imaging of other sites, see NCCN or radiology guidelines

• Incidental finding during excision benign tumor
  – Start of diagnostic workup for malignant tumor
  – Not considered treatment for malignant tumor
Diagnostic vs. Treatment

• Diagnostic procedures
  – Sampling of breast tumor
  – Not intended to remove entire tumor
  – Not known if entire tumor is removed at this point
  – Do NOT change staging based on subsequent info

• Surgical treatment of primary site
  – Resection of breast tumor
  – Margin status does not determine whether considered resection
  – Margin status may necessitate re-excision
    • 20% of lumpectomies have re-excision
  – If nodal dissection not done, still considered treatment
Treatment Satisfying Stage Classification

• Pathologic staging
  – Excision of tumor
    • Intent is treatment, not sampling
    • Usually no macroscopic tumor left behind
    • Re-excision for margin involvement, both surgeries are treatment
  – Nodal dissection not required to qualify for staging

• Postneoadjuvant therapy staging
  – **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
Blank vs. X

- Tell patient’s story through staging

- Clinical staging – story of pt’s diagnosis and workup
  - cTX = physician did not examine patient, no mammogram/US
  - cT blank = registrar had no access to information
  - cT blank = no workup for pt, incidental finding at surgical treatment

- Pathologic staging – pt’s story through surgical treatment
  - pTX = someone lost specimen between OR and path dept
  - pT blank = pt didn’t have surgical treatment
  - pT blank = registrar had no access to information
Case Scenario
Diagnostic Workup

• History/chief complaint
  – 57 year old female with abnormal mammogram

• Physical exam
  – No breast mass, skin changes, or nipple discharge

• Imaging
  – Mammogram: microcalcifications UOQ rt breast

• Procedure
  – Core needle biopsy UOQ rt breast

• Pathology report
  – Ductal carcinoma in situ, no invasive carcinoma identified
Clinical Staging Information

• Physical exam
  – No mass detected in breast
  – Axilla exam:
    • Did physician not mention, which implies nodes not involved
    • Did registrar fail to document axilla exam

• Imaging
  – Microcalcifications does not provide staging information

• Procedure
  – No staging information

• Pathology report
  – In situ carcinoma
Clinical Staging Answer & Rationale

- **pTis**
  - In situ carcinoma identified, no invasive ca
  - AJCC rules state pTis for clinical T category
    - Must have microscopic evidence, cannot diagnose in situ on imaging

- **cN0**
  - No axillary involvement
  - Standard for in situ tumors

- **cM0**
  - No signs or symptoms of mets

- **Stage 0**
Treatment

- **History & physical**
  - 55 year old female noted lump in right breast

- **Operative report**
  - Right modified radical mastectomy
  - Sentinel nodes and completion axillary dissection

- **Pathology report**
  - Breast tumors’ size and location
    - 1.1cm UOQ, 1.1cm subareolar, 1.2cm subareolar, 0.9cm LOQ
    - Infiltrating ductal and mucinous carcinoma
    - Mets in 2/2 sentinel nodes
    - Mets in 3/13 axillary nodes
Pathologic Staging Information

• Surgery
  – Patient had surgical resection qualifying for pathologic staging

• Clinical staging information
  – Bx: pTis, physical exam: large mass encompassing 1/3 breast
  – Axillary and supraclavicular nodes negative on physical exam
  – No signs or symptoms of mets

• Operative report
  – No additional information

• Pathology report
  – Infiltrating ductal and mucinous carcinoma
  – Four tumors, largest 1.2cm
  – Involvement 2/2 sentinel and 3/13 axillary nodes
Pathologic Staging Answer & Rationale

• **pT1c(m)**
  – Largest invasive tumor >10mm but ≤ 20mm
  – In situ on bx with large mass in breast
  – (m) for multiple synchronous tumors

• **pN2a**
  – 5 axillary nodes involved
  – Presume >2mm since not stated as micromets

• **cM0**
  – No signs or symptoms of mets

• **Stage IIIA**
Information and Questions on AJCC Staging
Stage Classifications

- Clinical - c
  - Date of Diagnosis
  - Diagnostic Workup – phy exam, imaging, bx

- Pathologic – p

- Surgical Treatment

- Pathology Report
  - Evaluation by imaging & physical exam
  - Surgical Treatment
  - Pathology Report

- Clinical - c

- Posttherapy - yc
- Posttherapy - yp
AJCC Web site

- https://cancerstaging.org

- Cancer Staging Education **Registrar menu** includes
  - Timing is Everything – Stage Classifications
  - Critical Clarifications for Registrars
  - Disease Site Webinars
    - 5 sites: melanoma, lung, breast, prostate, colorectum
  - AJCC Curriculum for Registrars
    - 4 free self-study modules of increasing difficulty on staging rules
      - Each modules consists of 7 lessons, including recorded webinar with quizzes
  - Presentations
    - Self-study or group lecture materials, including blank vs. X
AJCC Web site

• https://cancerstaging.org

• Cancer Staging Education Physician menu includes
  – Articles
    • 18 articles on AJCC 7th edition staging in various medical journals
  – Webinars
    • 14 free webinars on 7th edition staging rules and some disease sites

• Cancer Staging Education General menu includes
  – Staging Moments
    • 15 case-based presentations in cancer conference format to promote accurate staging with answers and rationales
CAnswer Forum

• Submit questions to AJCC Forum
  – Located within CAnswer Forum
  – Provides information for all
  – Allows tracking for educational purposes

• http://cancerbulletin.facs.org/forums/
Summary
Summary

• Employ critical thinking to understand disease site
  – Analyze common staging issues affecting stage assignment
  – Determine exceptions and cautions for T, N, M
  – Utilize guidelines available to registrars

• Tell patient’s story through accurate staging
  – Utilize correct stage classifications
  – Distinguish diagnostic procedures vs. treatment
  – Identify treatment satisfying stage classification criteria
  – Recognize difference in story between blank vs. X

• Identify resources for AJCC staging
Upcoming Webinar
Seventh Edition Staging 2017
Lung Cancer
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