

TNM exercises

Instructions: code topography, morphology, cTNM and pTNM (if applicable). Note the primary consecutive treatments.

CASE #1

CASE HISTORY

Female (64 years) came to her doctor after finding a hard mass in her left breast. No nipple discharge or nipple retraction.

PHYSICAL EXAMINATION

Breast: 4 cm hard mass, lower outer quadrant of the left breast. On examination the skin was dimpled with **signs of oedema and peau d'orange**. Axilla left: palpable suspicious **nodes in the lower axilla**. No hepatomegaly or enlarged lymph nodes other than in left axilla.

DIAGNOSTIC PROCEDURES

18/06/20XX Mammography: suspect lesion in *lower outer quadrant of the left breast*

18/06/20XX Chest X-ray: normal

21/06/20XX Needle biopsy, left breast

PATHOLOGY

21/06/20XX Needle biopsy: poorly differentiated infiltrating duct carcinoma. Oestrogen and progesterone receptors positive.

SURGERY

06/07/20XX Modified radical mastectomy

OPERATIVE REPORT

06/07/20XX Skin tightly adherent to **3.5 cm** gritty mass, left **upper inner quadrant** in fatty breast tissue just below dermis. Dissection of axilla.

PATHOLOGY

06/07/20XX Modified radical mastectomy: poorly differentiated infiltrating **ductal carcinoma** with infiltration of dermis, but no ulceration of the skin surface, largest diameter **3 cm**. **Second lesion** of 0.8 cm in diameter in lower inner quadrant, **infiltrating lobular carcinoma**. No areas of ductal carcinoma *in situ*. **6 out of 17 axillary** lymph nodes involved (ductal carcinoma).

FURTHER TREATMENTS

Post-operative radiation therapy to axilla. Referred for adjuvant chemotherapy and hormonal treatment.

Remember how to start...

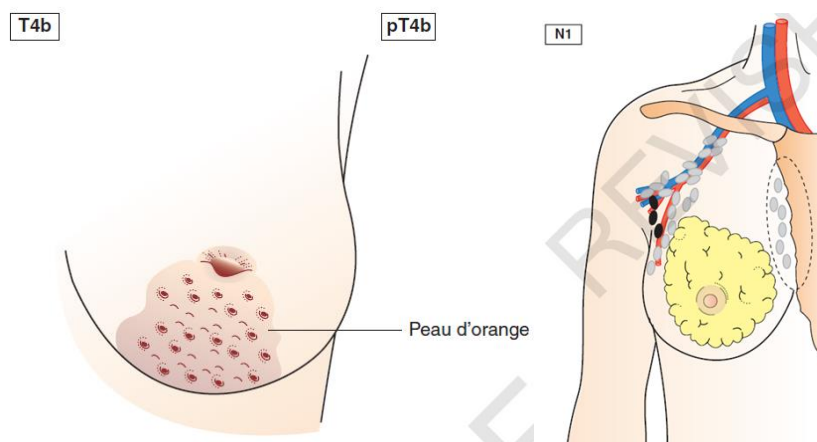
1. **Determine primary site and histology**
2. **Look up site chapter**
3. **Is histology included in this chapter?**
4. **Review list of regional lymph nodes**
5. **Clinical versus pathologic stage**
6. **Find staging information in the tables**
7. **Determine T, N, M**
8. **(Assign stage on the basis of the T, N and M)**

TNM exercises

1. Topography upper inner quadrant of the left breast__ Code **C50.8 LEFT**__
2. Morphology and grade _____ Code **8522/3 grade 3**__
3. Histology is included in the breast chapter
4. Clinical versus pathological stage

Clinical TNM cT **4b**__ N **1**__ M**0**__

cT4b because of the skin oedema and peau d'orange

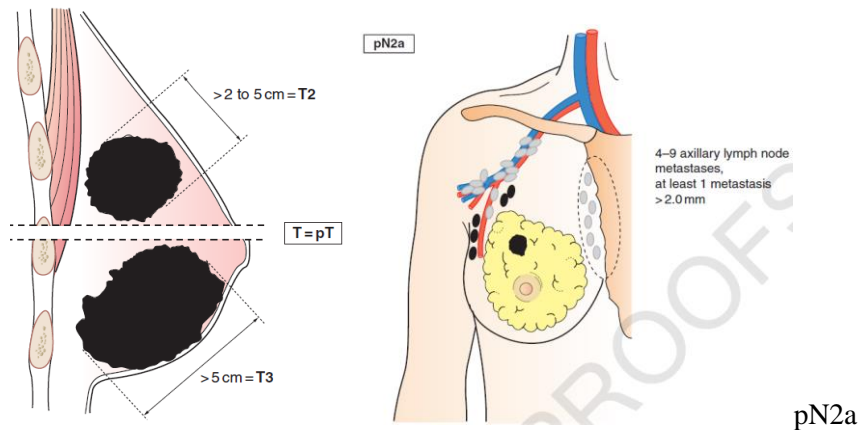


Pathological TNM pT **2(m)**__ N**2a**__ M__

pT2(m) or: pT2(2)

m for multifocality, largest dimension taken into account to determine T2

Note: Invasion of the dermis alone does NOT qualify as T4!



TNM exercises

Treatment(s)

- 1) **Surgery**_____
- 2) **Radiotherapy**_____
- 3) **(Chemotherapy) (depends on coding practices ‘referred for...’)**_____
- 4) **(Hormone therapy) (depends on coding practices ‘referred for...’)**_____

TNM exercises

CASE #2

CASE HISTORY

Male, 56 years. Patient lost 5 kg of weight during the last year. Chest pain, productive cough hoarseness with partial vocal cord paralysis. Smoker for over 30 years. Chest X-ray performed by GP shows as suspect lesion in the right lung.

PHYSICAL EXAMINATION

19/11/20XX Lungs, slight wheezing on expiration in both lungs. Tumour palpable supraclavicular right. Patient visibly lost weight, otherwise no abnormal findings.

DIAGNOSTIC PROCEDURES

19/11/20XX Laboratory tests: within normal limits

19/11/20XX CT-scan chest: 6 cm tumour mass in right upper lobe, incomplete atelectasis of the right lung. **Pleural effusion** apparent. Large mediastinal mass (both left and right).

20/11/20XX Supraclavicular biopsy

26/11/20XX Bronchoscopy with bronchial washing and biopsy: **right upper lobe mass noted with extension along lateral wall of main bronchus into the trachea.**

PATHOLOGY

20/11/20XX **Supraclavicular node biopsy: Metastatic squamous cell carcinoma.**

26/11/20XX Squamous cell carcinoma, poorly differentiated. Bronchial washings and brushings positive for malignant cells.

TREATMENT

Patient receives palliative radiotherapy

Topography upper lobe of the right lung _____ Code **C34.1 right** _____

Morphology and grade squamous cell carcinoma _____ Code **8070/3 grade 3** _____

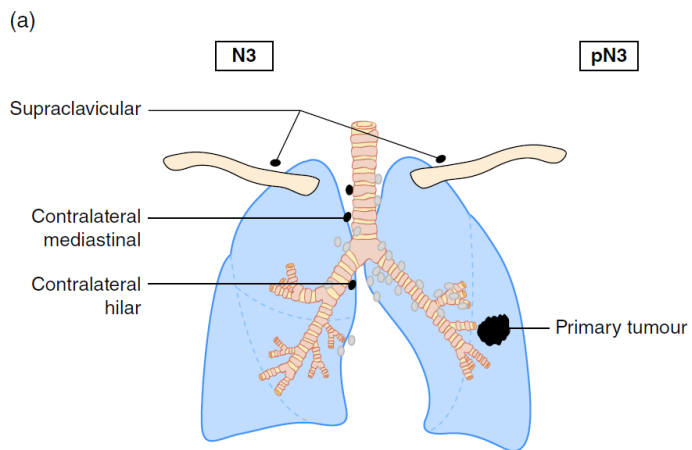
Clinical stage

Clinical TNM T4 _____ N 3 _____ M 1a _____

cT4 mass noted with extension along lateral wall of main bronchus into the trachea

TNM exercises

cN3 because of the supraclavicular node involvement



cM1a because of pleural effusion

Treatment(s) **1) Palliative Radiotherapy**_____

CASE #3

CASE HISTORY

Female, 74 years. Passage of blood in stool of one-year duration , worse in last months. Progressive difficulty in evacuating bowels.

PHYSICAL EXAMINATION

Abdomen: Soft, non tender, and non distended with no evidence of masses. Digital rectal exam: no abnormalities.

DIAGNOSTIC PROCEDURES

- 25/08/20XX CT-scan chest and abdomen: no abnormalities.
- 27/08/20XX Colonoscopy: Fungating lesion involving more than 50% of the circumference of bowel at the splenic flexure of the colon. Biopsy.
- 27/08/20XX Liver enzymes: within normal limits .

PATHOLOGY

27/08/20XX Biopsy: adenocarcinoma

SURGERY

30/08/20XX Left hemicolectomy: lesion at the splenic flexure without evidence of gross lymphadenopathy. A suspicious lesion at the liver surface is biopsied.

PATHOLOGY

30/08/20XX Left hemicolectomy. Microscopy: Moderately differentiated **mucinous adenocarcinoma** showing **extension into the subserosa** and metastases in **6/10 mesocolic lymph nodes**. The **visceral peritoneum is intact**. Tumour size 5 cm. Liver biopsy: no evidence of tumour.

FUTHER TREATMENT

Patient receives adjuvant chemotherapy

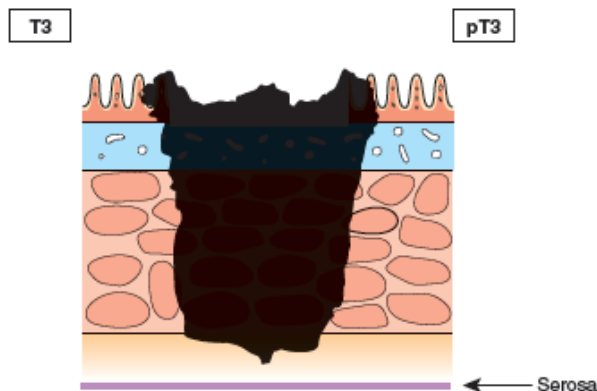
Topography **Splenic flexure of the colon** _____ Code **C18.5** _____

Morphology and grade **Mucinous adenocarcinoma** _____ Code **8480/3 grade 2** _____

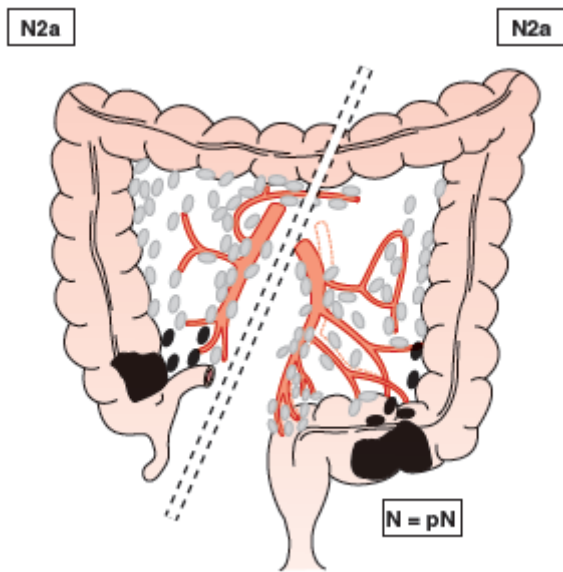
Clinical TNM Tx _____ N x _____ M **0** _____

Pathological TNM T **3** _____ N **2a** _____ M _____

pT3



pN2a



Treatment(s)

- 1) **Surgery** _____
- 2) **Adjuvant chemotherapy** _____
- _____
- _____

CASE #4

CASE HISTORY

Male, 76 years, in good condition, no comorbidity. Progressive difficulty urinating, especially starting and stopping while urinating. Decreased flow.

PHYSICAL EXAMINATION

Digital rectal examination: Enlargement of prostate bilaterally. Nodule in lower half of right lobe, protruding slightly more than right lobe and somewhat irregular.

DIAGNOSTIC PROCEDURES

- 19/03/20XX PSA: 43.4 (normal = 10)
- 22/03/20XX Chest X-ray: Normal; Pelvic CT scan: no of evidence of pelvic lymph node metastases
- 22/03/20XX Bone scan: Increased uptake in right ankle and right knee, felt to be due to arthritic changes. No clear signs of distant metastasis.
- 26/03/20XX Bilateral needle biopsies of the prostate.

PATHOLOGY

26/03/20XX Needle biopsies: **left 3 out of 6 are positive, right 6 out of 6 are positive.** Moderately differentiated adenocarcinoma. Gleason grade 3 + 4.

SURGERY

01/04/20XX Pelvic lymph node dissection. The urologist finds an enlarged suspicious lymph node and the pathologist is consulted intraoperatively for a frozen section procedure.

PATHOLOGY

01/04/20XX Frozen section procedure: **one lymph node with metastatic adenocarcinoma**, largest diameter 12 mm.

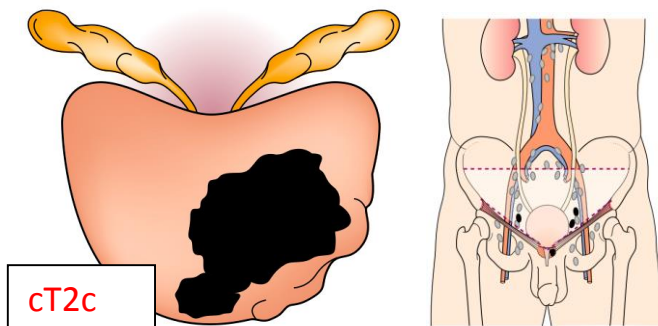
TREATMENT

Because of the discovery of the positive lymph node, **the planned prostatectomy is abandoned** and the patient receives **radiotherapy and also starts with anti-androgen hormone** therapy.

Topography **Prostate** _____ Code **C61.9** _____

Morphology and grade **adenocarcinoma** _____ Code **8140/3 grade 2 (Gleason grade 3+4)** _____

Clinical TNM **T 2c** _____ **N 1** _____ **M 0** _____



Pathological TNM **No surgery, no data available to make a p TNM: ~~T~~ _____ ~~N~~ _____ ~~M~~ _____**

TNM exercises

Treatment(s)

1) Radiotherapy and

2) Hormone therapy

concomitant _____
