

Exercise 1

Question: If in a particular case, there is doubt about the correct T, N or M category, what do you do?

Answer:

1. I mention both categories that are in consideration, e.g. pT1-2
2. I classify as 'x', e.g. pTx
3. I always choose the higher category
4. **I always choose the lower category**

Solution: If there is doubt concerning the correct T, N or M category to which a particular case should be allotted, then the lower (i.e. the less advanced) category should be chosen = General rule

Exercise 2

Question: Which of the following statements is correct?

Answer:

1. **TNM classification is categorized primarily by topography, and according to the topography different histological subtypes can have separate classifications.**
2. TNM classification is categorized only by topography, i.e. the localization of the primary tumour.
3. TNM classification is not influenced by histological subtype.

Solution

1: topography combined with histology prescriptions (cf. breast carcinoma versus breast sarcoma, GIST stomach versus adenocarcinoma stomach, oesophagus,...)

Exercise 3

Question: Which of the following listed M categories are all adequate?

Answer:

1. **cM0, cM1, pM1**
2. cM0, cM1, cMx
3. pM0, pM1, pMx
4. cM1, pM0, pM1

Solution:

1 (and eventually 4 pM0 only possible after autopsy); the MX category is considered to be inappropriate cMX as well as pMX

Exercise 4

Text: A patient with cancer in the left breast, histological type DCIS. Size measured after lumpectomy: 3 cm. Lymph nodes histologically all negative for tumour.

Question: What is the correct pT and pN category?

Answer:

1. pT2 N0
2. **pTis N0**
3. pT2 Nx
4. pTx N0

Solution: pTis N0 : DCIS only => pTis independent of size (only the invasive component-if any- is measured)

Exercise 5

Question: If after neoadjuvant therapy, the primary tumour has completely disappeared on the resection specimen, the correct classification is?

Answer

1. rpT0
2. ycT0
3. **ypT0**
4. none of the above

Solution

3; the yTNM classification deals with the extent of cancer after neoadjuvant therapy (i.e. systemic and/or radiotherapy) prior to planned surgery. The pathological assessment, when surgery is performed, may be affected by possible tumour regression or other treatment effects. Such a pathological classification therefore should be identified by the prefix "y" (ypTNM) to indicate that this classification has not the same reliability as the pTNM classification after surgery alone. ypTNM is not applicable in case of unforeseen surgery after palliative treatment (palliative hormonal/chemo- or radiotherapy).

Exercise 6

Text: A patient with 2 invasive tumour foci in the same breast, separated by healthy breast tissue.

Question: How to classify this case or to determine the cT-category?

Answer

1. I need to classify 2 distinct tumours
2. **I only need to classify the largest tumour**
3. The tumour size is determined by the sum of the size of the 2 foci
4. It is not possible to classify the tumour

Solution

2. I only need to classify the largest tumour => indicate multiple (m) e.g. T2(2) or T2(m)
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Exercise 7

Text: two simultaneously diagnosed tumours in the same organ: colon ascendens and colon sigmoideum

Question: Which T category should you chose?

Answer

1. The tumour with the highest T category should be classified and the multiplicity of the number of tumours should be indicated in parentheses, e. g. T2(m) or T2(2).
2. **Each individual tumour should be classified separately.**
3. None of the above is correct.

Solution

2: For classification of multiple simultaneous tumours in “one” organ, the tumour at these sites with the highest T category should be classified and the multiplicity of the number of tumours should be indicated in parentheses. In simultaneous bilateral cancers of paired organs, each tumour should be classified independently.

For tumours of the colon or rectum in different localizations it is also recommended to classify those tumours separately, e. g., a carcinoma of the ascending colon and one of the sigmoid colon should be classified separately, particularly because the regional lymph nodes may be defined differently.

In tumours of the liver (HCC), intra-hepatic bile ducts (ICC) as well as ovary and fallopian tube, multiplicity is a criterion of T classification.

Exercise 8

Question: is it possible to determine a pT category (pT) based on endoscopic removal only of the tumour?

Answer

1. **Yes, but only if there is complete removal of the primary tumour**
2. Yes, but only if the resection is adequate to evaluate the highest pT category
3. No, endoscopy can only be used for clinical staging of the primary tumour

Solution

1; Yes only if there is complete removal of the primary tumour. The pathological assessment of the primary tumour (pT) entails a resection of the primary tumour or biopsy adequate to evaluate the highest pT category. In case of endoscopic removal you cannot evaluate the highest pT category, but if the primary tumour is entirely removed you can rely on the endoscopic pathology specimen to make an appropriate pathological assessment

Exercise 9

Text: A tumour of the rectum is removed by local excision, with positive margins (pathological examination). Radiotherapy is therefore given, followed by anterior resection. Pathological specimen after the anterior resection shows no residual disease.

Question: What is the correct TNM classification after anterior resection for this tumour?

Answer:

1. pT1 pNx cM0, R1
2. pT1 pN0 cM0, R1
3. **ypT0 pN0 cM0, R0**
4. ypT1 pN0 cM0, R1

Solution:

In the cTNM, the extent of cancer prior to any therapy is assessed;

pTNM is the postsurgical histopathological classification.

The yTNM classification deals with the extent of cancer after neoadjuvant therapy. After multimodal therapy (i.e. neoadjuvant radio- and/or chemotherapy prior to surgery), the pathological assessment may be affected by possible tumour regression or other treatment effects. Such a classification should be identified by the prefix "y" (ypTNM) to indicate that this classification has not the same reliability as the pTNM classification after surgery alone.

The residual tumour (R) classification deals with tumour status after treatment. It reflects the effects of treatment, influences further therapeutic procedures and is a strong predictor of prognosis. R0, in fact, corresponds to no detectable residual tumour. It is appropriate for cases in which residual tumour cannot be detected by any diagnostic means.

Exercise 10

Question: Which of the following statements is correct?

Answer

1. **The pathological assessment of distant metastasis (pM1) entails microscopic examination.**
2. It is necessary to pathologically confirm the status of the highest N category to assign the pN.
3. An excisional biopsy of a lymph node without assessment of the pT category is sufficient to fully evaluate the pN category.

Solution

1. pathological assessment of distant metastasis (pM1) entails microscopic examination;
statements 2 and 3 are false

The pathological assessment of the regional lymph nodes (pN) entails removal of at least one lymph node to validate the absence or presence of cancer but it is not necessary to pathologically confirm the status of the highest N category to assign the pN. The assignment of the regional lymph nodes (pN) requires pathological assessment of the primary tumor (pT), except in cases of an unknown primary (T0). An excisional biopsy of a lymph node without assessment of the pT category is insufficient to fully evaluate the pN category and is considered a clinical classification.

Exercise 11

Text

Patient with hydronephrosis right and anomalous cystoscopy of the bladder. TUR bladder reveals a bladder tumour. Histopathologic examination: muscle invasive bladder carcinoma. CT abdomen and pelvis: negative. Treatment: Surgery: Cystectomy with Bricker derivation.

Histopathologic examination: Invasive bladder cancer with invasion of the prostate. Lymph nodes: no metastasis.

Question: What is the most appropriate cTNM and pTNM for this patient?

Answer

1. **cT2 N0 M0 and pT4a N0 M0**
2. cT4a N0 M0 and pT4a N0 M0
3. cT2 N0 M0 and pT2 N0 M1
4. cT3 N0 M0 and pT2 N0 M1

Solution

cT2 N0 M0 and pT4a N0 M

cT2: results of TUR bladder can be integrated in the cT category. Muscle invasion: T2a or T2b: no information here available to make the difference.

pT4a: Tumour invades prostate

pN0: no invasion of the removed lymph nodes.