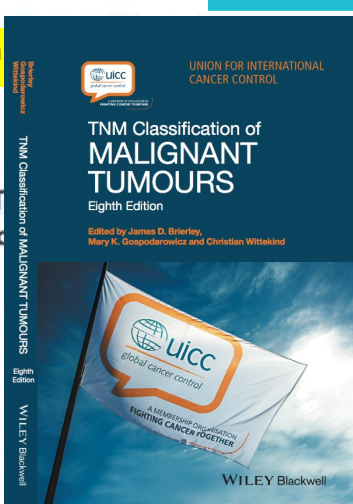




Coding stage: Session 9

Colorectal Cancer

Liesbet Van Eycken



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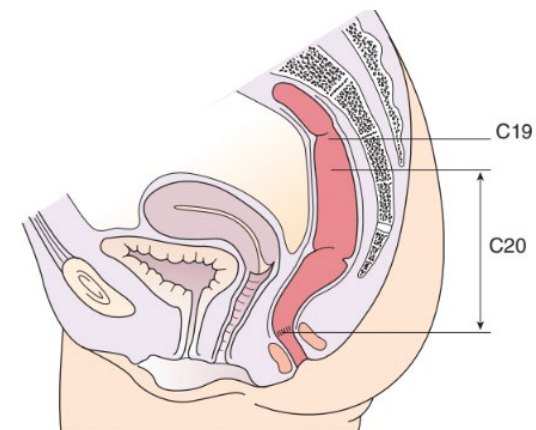
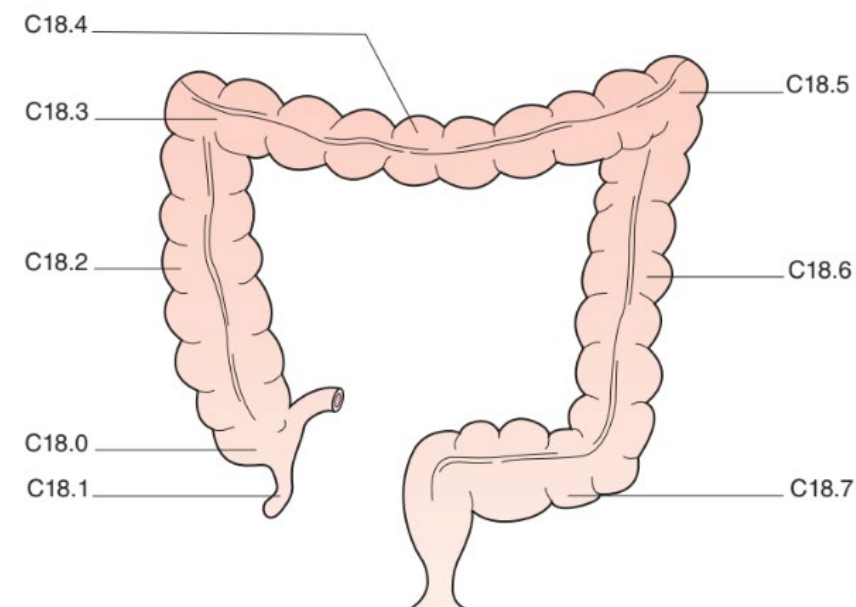
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# Colon and rectum

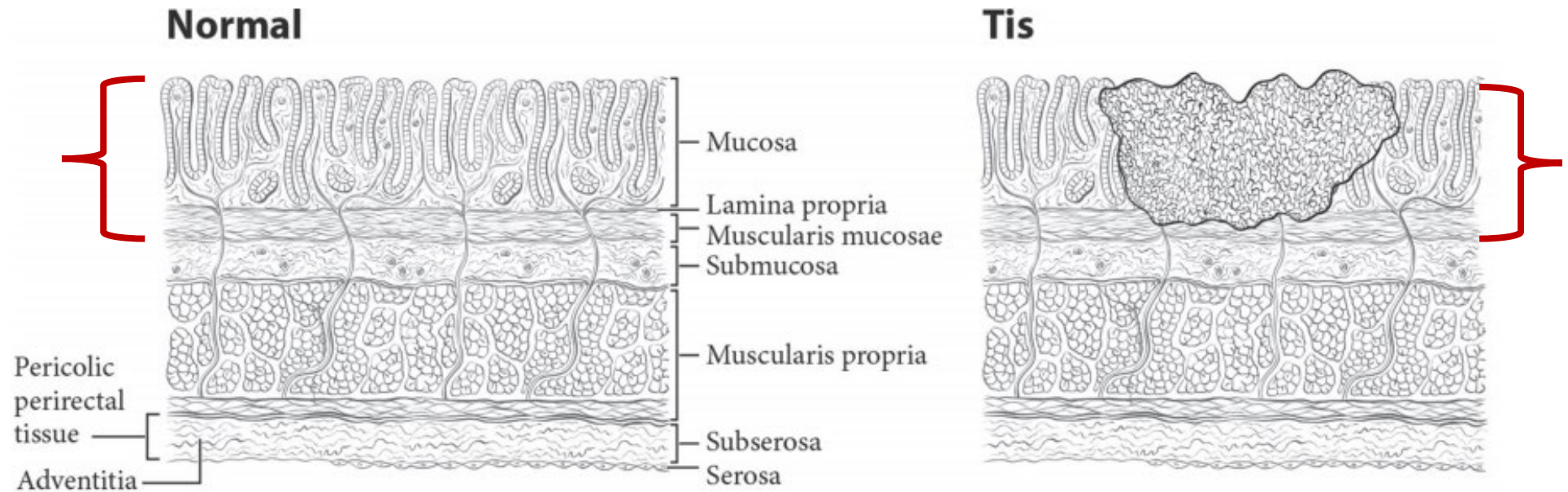
- **Topography** C18.0; C18.2-C18.9; C19.9; C20.9
  - Not for well diff NET appendix, not for anus
- **Histology:** All carcinomas
  - Excluded: GIST, G1/G2 NET, lymphoma, ...
- **Multiple tumours:** multiple TNM's
- **Read the 'notes'....!**



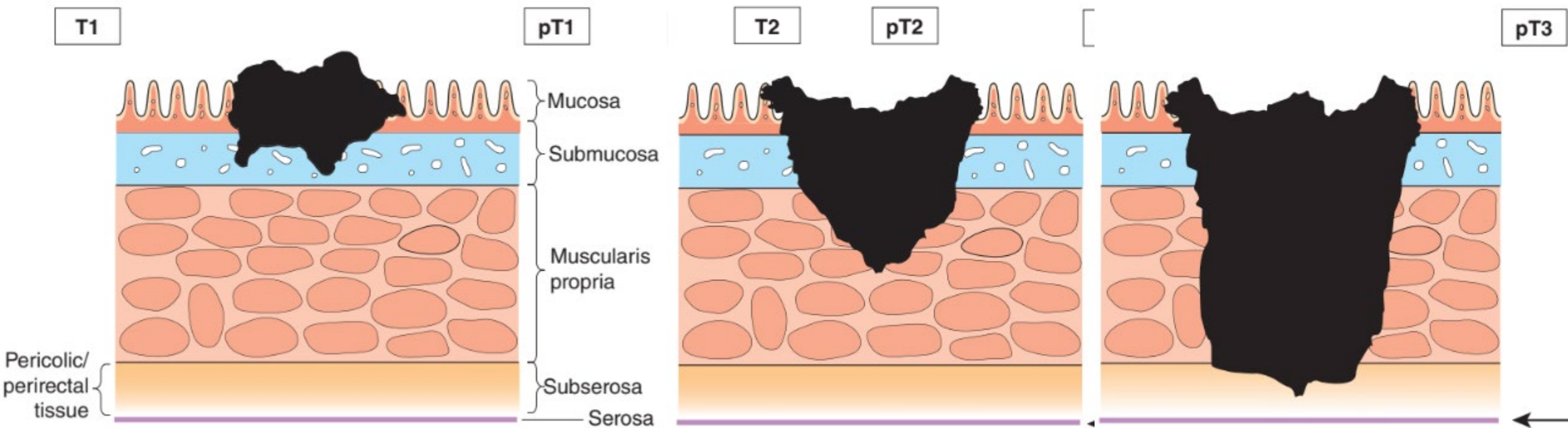
# T-categories: depth of invasion and extension

- TX
- T0 => especially ypT0 rectum
- Tis: carcinoma in situ: intraepithelial or invasion of lamina propria

## 'Intramucosal



# T1-T3 categories



**T1** invasion submucosa

**T2** invasion muscularis propria

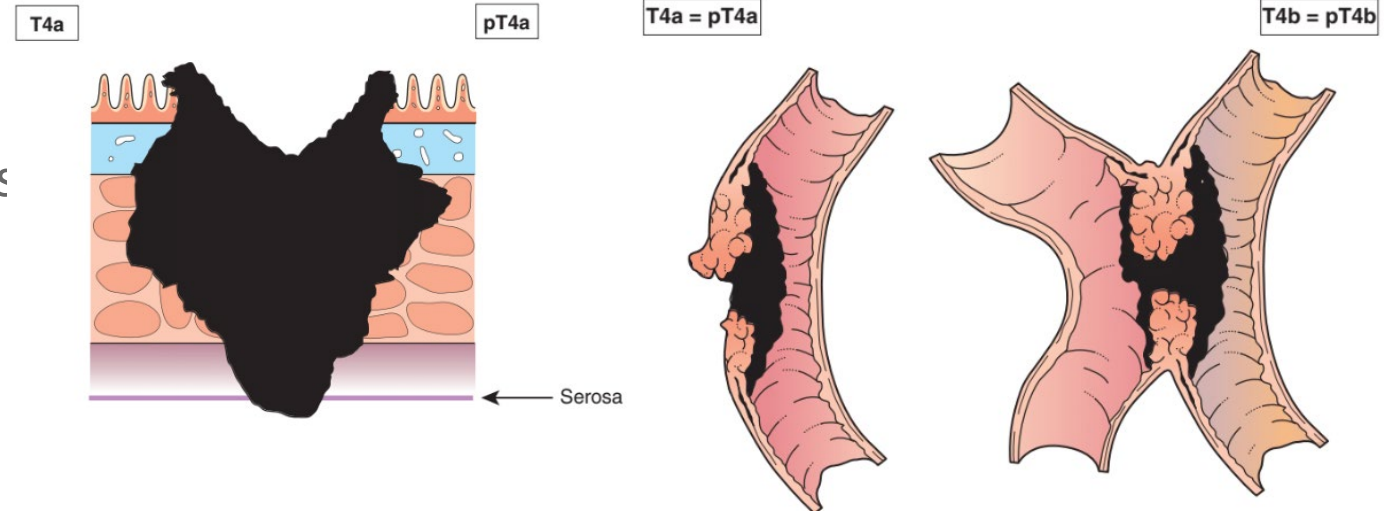
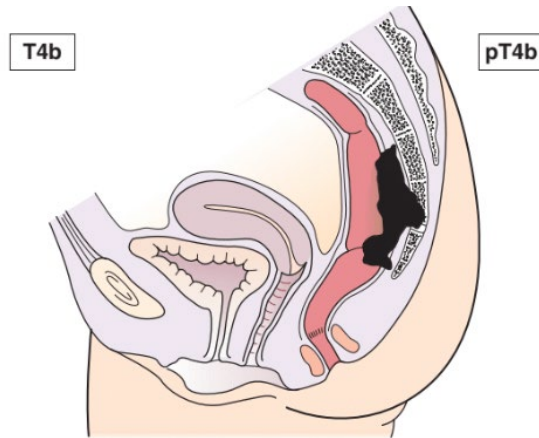
**T3** invasion subserosa, or in non-peritonealized pericolic/perirectal tissues

Fig 181 TNM atlas

# cT4 – pT4

## T4 Tumour directly invades other organs or structures and/or perforates visceral peritoneum

- **T4a** perforates visceral peritoneum
- **T4b** invades other organs or structures



### Notes:

- T4a: not possible for localisations without visceral peritoneum (e.g. posterior surface of colon desc/colon asc/ lower 1/3 rectum)
- T4b Direct invasion= invasion of other organs or other segments of the colorectum by way of the serosa, or for tumours without visceral peritoneum coverage, direct invasion by virtue of extension beyond the muscularis propria
- Tumour adherent to other organs or structures macroscopically => cT4b  
If no tumour present in the adhesion microscopically => pT1-T3

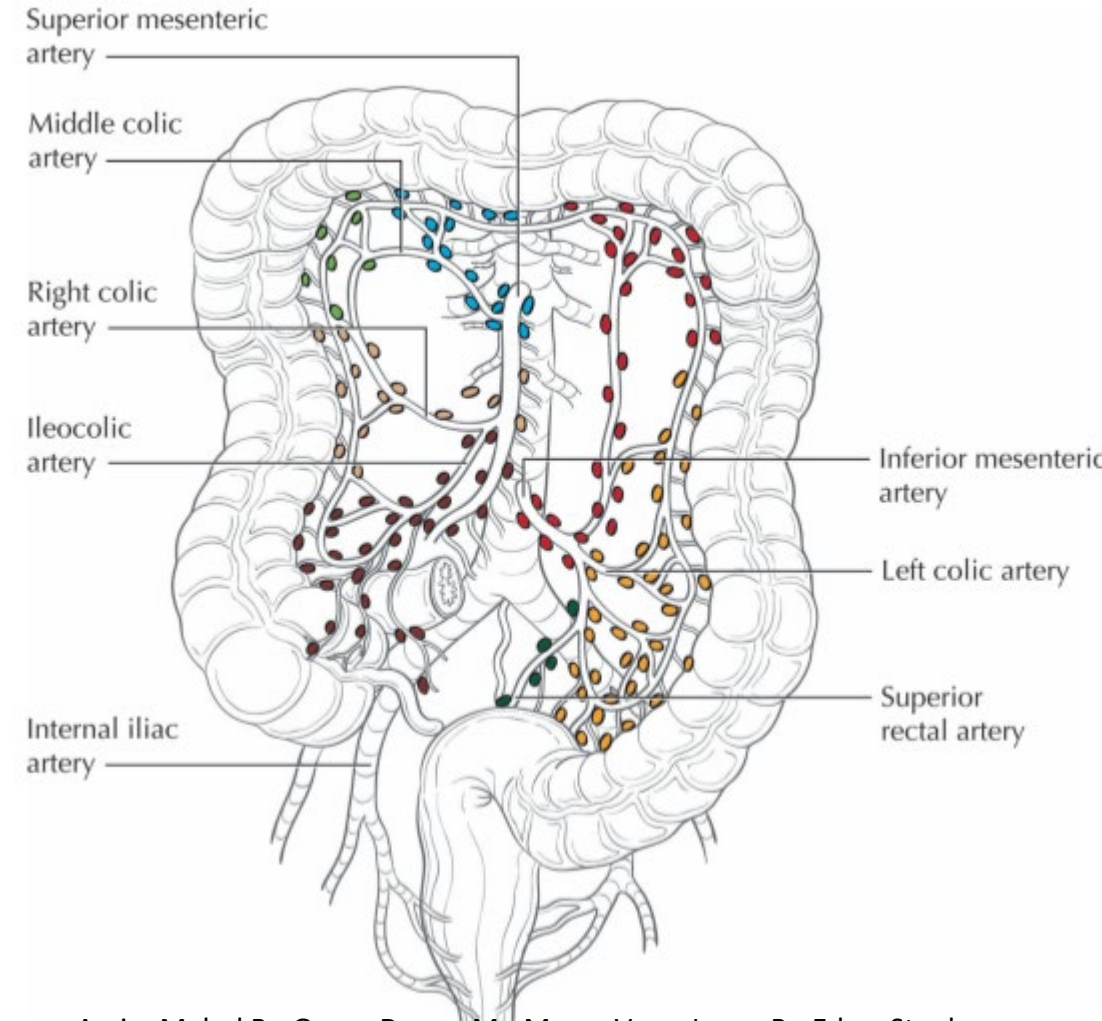
# Regional lymph nodes

## Regional Lymph Nodes

For each anatomical site or subsite the following are regional lymph nodes:

Caecum	ileocolic, right colic
Ascending colon	ileocolic, right colic, middle colic
Hepatic flexure	right colic, middle colic
Transverse colon	right colic, middle colic, left colic, inferior mesenteric
Splenic flexure	middle colic, left colic, inferior mesenteric
Descending colon	left colic, inferior mesenteric
Sigmoid colon	sigmoid, left colic, superior rectal (haemorrhoidal), inferior mesenteric and rectosigmoid
Rectum	superior, middle, and inferior rectal (haemorrhoidal) mesenteric, internal iliac, mesorectal (paraproctal), late presacral, sacral promontory (Gerota)

Metastasis in nodes other than those listed here is classified as distant metastasis.



Amin, Mahul B.; Gress, Donna M.; Meyer Vega, Laura R.; Edge, Stephen B.. AJCC Cancer Staging Manual, Eighth Edition. American College of Surgeons. Kindle Edition. Fig 20.4

# N-category values and principles (1)

---

**N1a** 1 regional node involved

**N1b** 2–3 regional

**N1c** Tumour deposits/Satellite(s) without regional lymph nodes

**N2a** 4–6 regional

**N2b** 7 or more regional

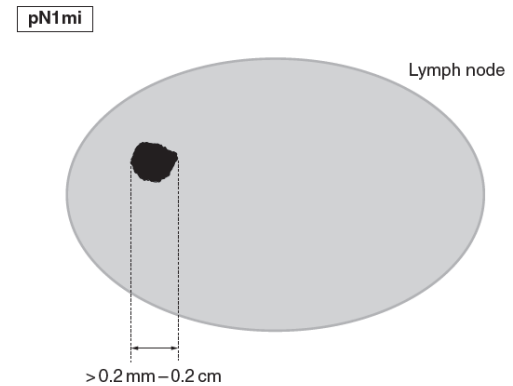
## Note:

1. cN = pN
2. Nodal sampling: at least 12 nodes
3. No pN if no resection of the primary tumour => use cN
4. Tumour deposits...



# N-category

- **Micrometastasis in a lymph node** → pN1(mi) >**0.2mm** but none larger than **2.0 mm**
- **Isolated tumour cells** (<**0.2 mm** or <200 cells/cross-section): ITC's
  - IHC pos/neg (morphological technique) => **pN0(i+)** or **pN0(i-)**
  - Molecular technique => pN0 (mol+)
- **ypN = pN categories**



# N-category and “tumour deposits” (TD’s)

- Tumour deposits (satellites)
  - are discrete macroscopic or microscopic nodules of cancer
  - are in the pericorectal adipose tissue’s lymph drainage area of the primary
  - are discontinuous from the primary
  - are without histological evidence of residual lymph node or...
  - identifiable vascular or neural structures.
    - if a vessel wall is identifiable on H&E, elastic or other stains, it should be classified as venous invasion (V1/2) or lymphatic invasion (L1).
    - if neural structures are identifiable, classify as perineural invasion (Pn1).
- The presence of tumour deposits **does not change the primary tumour T category**, but changes the node status (N) to **pN1c IF** all regional lymph nodes are negative

# Use of the TNM after Neoadjuvant Therapy: **ypTNM**

- **y**: Patient treated with neoadjuvant therapy before surgery
- **Neoadjuvant therapy**: systemic therapy (chemotherapy, immunotherapy) and/or radiotherapy, given before surgery.
  - Rectal cancer
- **ypTNM**: Histopathological examination of surgical resection after neoadjuvant therapy => 'response' to therapy
- **ypT/ypN** = pT/pN categories

# M-category

- **M1 Distant metastasis**

- **M1a** One organ (liver, lung, ovary, non-regional lymph node(s), without peritoneal metastasis)
- **M1b** > one organ
- **M1c** Peritoneum, + or – other organs

- EXAMPLE 1:

- Colonca: Sonography liver: suspicious lesion but no definitive evidence:= cM0 and not cM1
- If conflicting results from different methods => use the most reliable method of assessment

- EXAMPLE 2

- Colorectal ca, preop examination of the liver: US no evidence, CT evidence of M+. Results of CT determines cM1. If a biopsy is performed and metastasis is confirmed => pM1.

## • Example

Initial endoscopic polypectomy of a carcinoma of the ascending colon is classified pT1pNXcM0; the subsequent right hemicolectomy contains two regional lymph nodes with tumour and a suspicious metastatic focus in the liver, later found to be a haemangioma, is excised: pT0pN1cM0.

The definitive pTNM classification consists of the results of both operative specimens: pT1pN1bcM0 (Stage IIIA). If an initial local excision of a rectal carcinoma is performed and the margins are positive the stage may be pT1pNXcM0, R1.

If radiotherapy is given, followed by anterior resection and there is no residual disease, the stage is ypT0pN0cM0, R0. The definitive classification is ypT0pN0cM0, R0.