

# Colorectal cancer/pathology

This article has been translated from WikiSkripta; ready for the **editor's review**.

## Precancers

**dysplastic adenomas** (tumor polyps) and other intraepithelial neoplasias, for example DALM (Dysplasia Associated Lesions or Masses) in ulcerative colitis are considered precancers colitis]]. The risk of their malignant

transformation is closely related to the degree of dysplasia.



## Macroscopy

Based on the nature of the growth, possible complications of the disease can be deduced. From the point of view of macroscopy, we divide KR-CA into three groups:

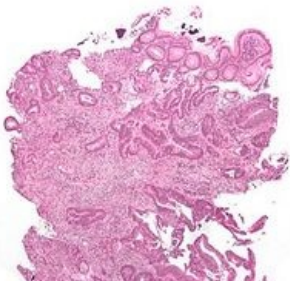
- **exophytic (polyposis)** - the main risk is obstruction of the lumen of the intestine (ileus) and, rarely, intussusception of the intestine;
- **excavated (exulcerated)** - the risk is mainly bleeding and perforation of the intestinal wall with subsequent peritonitis;
- **flat (infiltrating)** - they can remain clinically mute for a long time.

As **annular cancer** we mainly call left-sided cancers growing around the entire circumference of the intestine and thus leading relatively early to stenoses with all the consequences. On the contrary, right-sided carcinomas grow primarily exophytically.

### Localization of tumors according to frequency <sup>[1]</sup>

- left colon – 64%;
  - rectum – 30%;
  - sigmoid – 26%;
  - descending colon – 8%;
- colon transverse – 13%;
- colon ascendens – 9%;
- caecum – 14%.

## Microscopy



Microscopically, these are mainly **adenocarcinoma** (in 95% <sup>[2]</sup>), we then distinguish their differentiation:

- G1 – well differentiated (tubular or papillary);
- G2 – moderately differentiated;
- G3 – poorly differentiated (solidly arranged) – with worse prognosis.

We also have several more rare types of KR-CA – mucinous (mucous-forming) adenocarcinoma (which, as the name suggests, is characterized by the formation of extracellular mucus), adenosquamous carcinoma and ring cell carcinoma.

## Staging

We normally use 2 classification systems to classify KR-CA

- **TNM classification,**
- **Dukes System.**<sup>[3]</sup>

Stage	Description
<b>Stage A</b>	tumor bounded by the intestinal wall
<b>Stage B</b>	the tumor invades or penetrates the serosa
<b>Stage C1</b>	tumor + positive pericolic lymph nodes
<b>Stage C2</b>	tumor + positive perivascular nodes
<b>Stage D</b>	distant metastases

### Comparison of TNM classification and Dukes system <sup>[4]</sup>

Stage 0	Thousand	N0	M0	Dukes A
Stage 1	T1	N0	M0	Dukes A
	T2	N0	M0	DukesA
Stage 2	T3	N0	M0	Dukes B
	T4	N0	M0	Dukes B
Stage 3	T1-4	N1-3	M0	Dukes C
Stage 4	T1-4	N1-3	M1	Dukes D

 For more information see *Colorectal cancer/staging*.

## Metastasis

KR-CA metastasizes, like most cancers, primarily *lymphogenically* - to local lymph nodes. Later then to distant lymph nodes and hematogenously, most often to the liver and lungs. Advanced disease can spread through the peritoneum (so-called **carcinomatosis of the peritoneum**). Rectal carcinomas have a tendency to grow into the surrounding organs (vagina, uterus, ureter, bladder, but also the os sacrum). In women, the occurrence of metastases in the ovaries is also typical. The metastatic process and complications related to it can in some cases be detected even earlier than the primary tumor itself.

## Links

### Related Articles

- Colorectal cancer

### External links

- Atlas of pathology for medical students - colon ([https://atlases.muni.cz/atlases/stud/atl\\_cz/main+pgit+colon.html#coloncarc](https://atlases.muni.cz/atlases/stud/atl_cz/main+pgit+colon.html#coloncarc))
- Cancer research UK – Dukes' stages of bowel cancer (<http://www.cancerresearchuk.org/about-cancer/bowel-cancer/treatment/dukes-stages-of-bowel-cancer>)

## References

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