

Colorectal carcinoma/pathology

Precancerous lesions

Precancerous lesions are considered to be dysplastic adenomas **dysplastic adenomas** (polyps, tumor) and other intraepithelial neoplasias such DALM (Dysplasia Associated lesions or Masses) in ulcerative colitis . The risk of their malignant reversal is closely related to the degree of dysplasia.

. náhled|350 px| Resekát tlustého střeva, viditelný jeden exofyticky rostoucí karcinom a dva adenomatózní polypy

Macroscopy

Based on the nature of growth, possible complications of the disease can be deduced. In terms of macroscopy, we divide CRCA into three groups:

- **exophytic (polyposis)** - the main risk is obstruction of the intestinal lumen (ileus) and rarely intestinal invagination;
- **excavated (exulcerated)** - the risk is mainly bleeding and perforation of the intestinal wall with subsequent peritonitis ;
- **flat (infiltrating)** - may remain clinically silent for a long time.
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As **annular carcinoma**, we mainly call left carcinomas growing around the entire perimeter of the intestine and leading relatively soon to stenoses with all the consequences. On the contrary, right-hand cancers grow mainly exophytically.

Tumor localization by frequency ^[1]

- left colon – 64 %;
 - rectum – 30 %;
 - sigmoideum – 26 %;
 - colon descendens – 8 %;
- colon transversum – 13 %;
- colon ascendens – 9 %;
- caecum – 14 %.

Microscopy

náhled|250 px| Histologie: tubulární adenokarcinom, barveno HE

Microscopically, it is mainly an **adenocarcinoma** (in 95 % ^[2]), then we distinguish their differentiation:

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

We also have several rarer types of CRCA - mucinous (mucus-forming) adenocarcinoma (for which, as the name suggests, the formation of extracellular mucus is typical), adenosquamous carcinoma and ring cell carcinoma.

Staging

We commonly use 2 classification systems to classify CRCA

- **TNM classification,**
- **Dukes system.**^[3]

Stage	Definition
Stage A	tumor bounded by the intestinal wall
Stage B	tumor interferes or penetrates the serosis
Stage C1	tumor + positive pericolic lymph nodes
Stage C2	tumor + positive perivascular nodes
Stage D	distant metastases

Comparison of TNM classification and Dukes system ^[4]

Stage 0	Tis	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

Iron

Metastasis

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

Links

Related articles

- Colorectal carcinoma
- ws:Kolorektální karcinom/diagnostika

External links

- Atlas patologie pro studenty medicíny – tlusté střevo (https://atlases.muni.cz/atlas/stud/atl_cz/main+pgit+colon.html#colonicarc)
- Cancer research UK – Dukes' stages of bowel cancer (<http://www.cancerresearchuk.org/about-cancer/bowel-cancer/treatment/dukes-stages-of-bowel-cancer>)

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