

# Colorectal cancer/diagnosis

## Anamnesis data

Although it might seem that taking an anamnesis is something archaic in the age of modern technologies such as CT, MRI and PET CT, there is a whole set of symptoms that can primarily guide the general practitioner to the correct diagnosis. Symptoms are often based on the location of the tumor on the large intestine:

- **visible fresh blood in the stool** - appears mainly in aborally localized tumors (diff. dg.: hemorrhoids, IBD);
- **anemization** - a relatively common phenomenon, resulting from chronic bleeding of a small scale from an ulcerated tumor, typical especially for tumors of the cecum and the right half of the colon, where the intestine has a larger lumen, and therefore the tumor has enough time for its growth before it starts to cause problems such as passage disorders;
- **changes in the frequency of defecation** - it can be both constipation and diarrhea, again it is more typical for the left half of the colon (descendents, sigmoid, rectum, which have a narrower lumen than the previous parts of the colon), for example, the patient tells the doctor that he has had a bowel movement all his life day and last 2 months hardly twice a week;
- **tenesmus** - in rectal cancer;
- **weight loss** - a fairly non-specific symptom, but common in a number of oncological diseases (not only GIT);
- dyspeptic problems, general weakness, cachectization, ...
- intestinal perforation or ileus can unfortunately also be a condition that leads to the detection of malignancy, these are advanced cases, it is a very negative prognostic sign..<sup>[1][2][3]</sup>

thumb|Karcinom sigmatu, koloskopické vyšetření

## Investigation methods

### Physical exam

Symptoms of general anemia such as paleness of the conjunctivae and skin, cachectization. A per rectal examination alone can reveal a tumor in the rectal area or reveal blood in the stool, so it should not be neglected by general practitioners and certainly not by surgeons in case of suspicion of GIT pathology. The importance of a per rectal examination as a screening examination has not been documented, but in a symptomatic individual it is a basic examination that should always be performed. <sup>[2]</sup>

### Colonoscopy

The benefit of this examination is almost priceless, it is the **examination of first choice**. In addition to diagnostics (visualization and taking a biopsy), in some special cases it also enables a curative intervention consisting in removing pre-cancer or even a tumor (T1). With colonoscopy, an endosonography probe can also be used, thanks to which the depth of infiltration in the intestinal wall and possibly other organs can be determined as part of staging (primarily rectal cancer). Furthermore, ink can be applied to the site of the tumor with the help of colonoscopy, which will make it easier for surgeons to find it during the operation.

### Double-contrast irrigography

It is an X-ray examination of the abdomen with double contrast (barium suspension and air), it is performed at times when, due to obturation of the lumen or poor anatomical conditions, it is not possible to perform a colonoscopy. The examination must be supplemented with a rectoscopy, due to possible rectal tumors. The disadvantage is mainly the fact that it is not possible to take biopsy samples or to remove any polyps.

### Laboratory

thumb|Metastatické postižení jater u |Karcinomu sigmatu, abdominální USG In addition to signs of anemia (hypochromic, microcytic) from chronic bleeding, there are likely tumor markers. In the case of colorectal cancer, it is mainly the serum concentrations of **CEA** and **Ca 19-9**. It is very important to realize that their contribution is not in the diagnosis of the disease, as they are non-specific. For example, elevated Ca 19-9 occurs not only in pancreatic and biliary carcinoma, but even in benign biliary obstruction. The benefit is therefore in monitoring the effects of therapy (decrease = effective chemotherapy, increase = disease relapse) and then also a prognostic benefit. High CEA at the time of disease diagnosis is a negative prognostic factor.

### CT

CT examination is important in detecting **nodal and distant metastases**, especially in the liver, lungs, bones and CNS. This will definitely determine the therapy strategy (curative resection versus palliation, use of neoadjuvant, adjuvant). We perform a CT scan of the abdomen and, in the case of rectal cancer, a pre-operative CT scan of the small pelvis, to evaluate the extent of the tumor and possible metastatic spread. According to the results, a decision is made on possible neoadjuvant radiotherapy for more extensive rectal cancers.

### MRI

Magnetic resonance imaging dominates in rectal cancer. Here, it is absolutely important to determine the degree of infiltration of the organs of the small pelvis (bladder, ureter, vagina, but also the os sacrum), perform staging and decide on the type of resection.

### **Ultrasonography**

Classic sonography of the abdomen is important for **detecting liver involvement by metastases**, especially preoperatively and for evaluation of retroperitoneal nodes.

### **Endosonography**

Endoscopic sonography is especially important for rectal cancers. Thanks to this technique, it is possible to determine the depth of tumor invasion, i.e. which layer of the intestinal wall it reaches, or if it does not affect nearby lymph nodes or surrounding organs. It thus serves to determine the staging of the disease and plan the subsequent surgical procedure.

### **X-ray of the chest**

It is used to rule out **metastatic involvement of the lungs**, we perform it in a back-to-front projection. Also as a pre-operative examination.

## **Links**

### **Related articles**

- Kolorektální karcinom
- Léčba jaterních metastáz u kolorektálního karcinomu

### **Reference**

- 1.
- 2.
- 3.

### **Referencess**

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Kategorie:Vložené články Kategorie:Vnitřní lékařství Kategorie:Chirurgie Kategorie:Gastroenterologie  
Kategorie:Onkologie