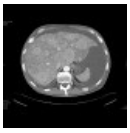
Treatment of liver metastases in colorectal cancer

The Czech Republic ranks first in the world in the incidence of colorectal cancer. Despite screening programs, there are still a large number of patients who have distant, especially hepatic, metastases.

In most other malignancies (breast tumors, bronchogenic carcinoma), liver metastases are a sign of a highly advanced finding that is no longer resolved by any radical (curative) resection, but this does not apply to colorectal carcinoma. In fact , curative resections of cancer can be performed in 10-20% of colorectal cancer patients who have liver metastases[1]. Therefore, their treatment should receive increased attention. The result is **40% five-year patient survival**[1][2].

 CT: metastatické postižení jater (http://atlas.mudr.org/Case-images-Metastatic-disease-of-the-liver-164)

Types of metastases

According to the time of occurrence, we distinguish **metastases**:

- **synchronous** - diagnosed with primary tumor;
- **metachronous** - diagnosed only after resection of the primary tumor.

In the case of synchronous metastases, resection at the same time together with tumor and lymphadenectomy is recommended.

Therapy procedure

The following are important for the treatment procedure:

- the overall biological status of the patient and staging cancer;
- **liver function.**

Resectable liver metastases

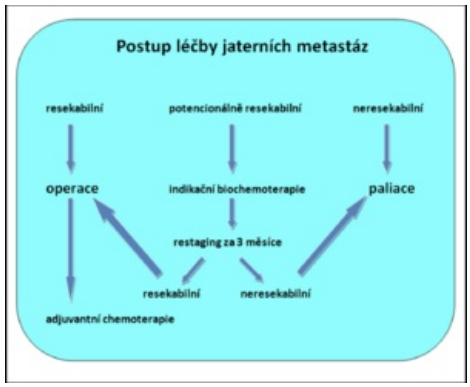
A patient with resectable metastases can be operated on immediately and then undergo adjuvant chemotherapy, or first undergo neoadjuvant chemotherapy, then resection and adjuvant treatment.

Potentially resectable metastases

Patients with potentially resectable metastases first undergo indicative biochemotherapy, after 3 months of restaging, when a final decision is made as to whether they are resectable or not.

Unresectable liver metastases

The only possible procedure is palliative chemoradiotherapy.



Procedure for the treatment of liver metastases in patients with colorectal cancer.

File:Liver meta scheme.PNG

Procedure for the treatment of liver metastases in patients with colorectal cancer.

Chemotherapy

The response of liver metastases to chemotherapy is quite high, in 50–60% of cases they regress or even disappear (4-7%) on CT examination. The disadvantage is the formation of vascular lesions after some preparations:

- **blue liver** - sinusoidal obstruction syndrome (SOS) after oxaliplatin;
- **yellow liver** - liver steatosis (CASH) after irinotecan.

Bevacizumab may impair the liver's ability to regenerate.

Surgical resection

Prior to liver resection, CT volume therapy must be performed to estimate the amount of liver tissue remaining. In general, at least 20% of the functional tissue must be maintained in otherwise healthy livers and up to 40% in affected livers (blue or yellow livers).

Resections of liver metastases can be anatomical (segmentectomy) or non-anatomical (metastatectomy). Currently, non-anatomical resections are preferred because they are performance-saving liver tissue. It is advantageous to save liver tissue in case of further metachronous metastases and other possible resections.

Anatomical resections

Anatomical resections include segmentectomy (the liver has 8 segments) and lobectomy. At present, they are not preferred because they are more radical performances.

Non - anatomical resections

NAR (non-anatomical resection) is a performance-saving parenchyma. Perioperative sonography is necessary to clarify the location of metastases during surgery. Previously, a 1-2 cm border of healthy parenchyma around the resected metastasis was required. This is already being abandoned, less is enough.

Links

Related Articles

- Colorectal cancer

Source

-

Reference

1.
2.

Source

- ws: Léčba jaterních metastáz u kolorektálního karcinomu