

Hepatic encephalopathy

Hepatic encephalopathy is a set of reversible neuropsychiatric symptoms. It occurs in **acute liver failure**, in which the liver cells die and thus the liver detoxification function is impaired. Hepatic encephalopathy also occurs in **chronic liver disease**, most often in **liver cirrhosis**. The cause of hepatic encephalopathy is an **increased concentration of substances** normally metabolized by the liver, which inhibit nerve transmission in the CNS. It is primarily a change in transmission on **GABA** receptors. These substances are, for example, **ammonia, neurosteroids, glutamine, phenols, mercaptans**.

Clinical signs

There are **4 stages**

1. In the first stage, the patient is slightly confused, sleep and behavior disorders appear.
2. In the second stage, personality and thinking disorders are present.
3. In the third stage, the patient experiences somnolence and disorientation.
4. The fourth and final stage is defined by **coma**.

Specific symptoms are **flapping tremor** and **foetor hepaticus**.

Diagnostics

It includes a laboratory examination, during which we look for increased ammonia, which is a high level of ammonia in the blood.

We also carry out auxiliary examinations:

- number connection test (latency when connecting scattered numbers according to sequence),
- constructional apraxia (e.g. cannot draw a star),
- EEG, evoked potentials (ocular, auditory, cognitive),
- CT or MRI of the brain are important in the differential diagnosis.

Differential diagnosis

- Alcoholism (withdrawal syndrome, delirium tremens),
- Wilson's disease.

Treatment

The ideal treatment is a **liver transplant**, because after its implementation, the changes in the body are usually fully reversible. It is also possible **to limit protein intake** and **administer lactulose** or lactitol, which are used to cause osmotic diarrhea. ATBs are also administered **against intestinal microflora**, which will reduce the amount of ammonia produced by intestinal bacteria. For example, *rifaximin* is used, which acts only on the intestinal microflora and does not have a systemic effect and associated systemic side effects.

Links

Related Articles

- Liver failure
- Liver cirrhosis

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- PASTOR, Jan. *Langenbeck's medical web page* [online]. [cit. 2010]. <<http://langenbeck.webs.com>>.