

Echinococcus multilocularis

Echinococcus multilocularis or *Alveococcus multilocularis* is a **tapeworm** measuring 2-5 mm. The intermediate hosts of the parasite are mainly small rodents. The definitive hosts are foxes and dogs, which excrete together with stool and bladder eggs. Because the "human is a random host", the parasite larva does not remain in the digestive tract but travels through the bloodstream and 99% settles in the liver ^[1], where it causes *alveolar hydatidosis*. The disease is very rare, in untreated cases **fatal**.

The parasite occurs mainly in the **northern hemisphere** area, with Russia and China having the highest prevalence in the world.

The lifespan of a parasite varies depending on the host. For example, in mice, it is 6 months, in horses 16 years and humans up to 53 years.

Life cycle

It begins by ingesting an egg, from which a larva is released in the intestine. It penetrates the intestinal wall into the bloodstream and travels to its favorite location - **to the liver** (99%) ^[1] Here he creates a cyst (synatids, metacyst, larvocyst). Its presence has been asymptomatic for several decades, as the cyst grows very slowly. Since humans are not the definitive hosts of the parasite, the **larva does not mature** in the adult, but, on the contrary, still grows and even behaves like a **malignant tumor** - it produces metastases into the abdominal cavity, retroperitoneum, lungs, bones and brain.

Clinical picture

Cysts grow very slowly, so the parasite infestation has been asymptomatic for several decades.

The first symptoms are rather **non-specific** and are related to the location of the cysts and how the cyst affects the function of the organ:

- jaundice,
- pain in the epigastia,
- fatigue,
- weight loss,
- hepatomegaly.

Treatment

In the operable phase is the main surgical removal of the lesion and chemotherapy consisting of the administration of high doses of **albendazole** (at least 2 years). The patient should be monitored for at least 10 years after cyst removal.

In the inoperable phase, chemotherapy is long-term to lifelong. The inspection is also for life.

 Without treatment, more than 90% of cases end in death. ^[1]

Links

Related articles

- Echinococcus granulosus
- Tapeworm
- Zoonoses

Sources

- BEDNÁŘ, Marek – SOUČEK, A – FRAŇKOVÁ, V. *LÉKAŘSKÁ MIKROBIOLOGIE : Bakteriologie, virologie, parazitologie*. 1. edition. 1996. ISBN 859-4-315-0528-0.
- CHANOVÁ, Marta. *Nákazy vyvolané hlísticemi* [lecture for subject Parazitologie, specialization Všeobecné lékařství, 1. LF Univerzita Karlova]. Praha. 12. 10. 2015.

References

1. VOLF, Petr – HORÁK, Petr. *Paraziti a jejich biologie*. 1. edition. 2007. pp. 103–104. ISBN 978-80-7387-008-9.

