

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, metacest, 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

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References

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

