

***Echinococcus multilocularis* in Slovakia – epidemiological situation in humans and animals**

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Alveolar echinococcosis caused by small tapeworm *Echinococcus multilocularis*, belongs among the most serious parasitic diseases transmissible between animals and humans. The disease is characteristic by formation of cystic lesions in the liver or other organs. Lesions are vaguely defined from the adjacent tissues, form metastases and their growth is infiltrative. The aim of the study was to summarize actual data on the incidence of *E. multilocularis* in Slovakia.

Since 2000, extensive epidemiological research confirmed the presence of *E. multilocularis* in free-living and domestic carnivores throughout the country. A study on almost 5 000 red foxes confirmed an average prevalence of 30.3%, and the existence of highly endemic localities in northern districts of Slovakia, where the prevalence reaches 60%. The occurrence of *E. multilocularis* was confirmed also in wolves, molecular study showed the positivity of 35.5% of the 133 examined wolf faeces. Of public health importance is the occurrence of the parasite in domestic dogs, as 1.4% of 135 animals were positive.

Since the first detection in 2000, 90 human cases of alveolar echinococcosis have been diagnosed at the Institute of Parasitology SAS and their number slowly, but continuously rises. The majority of patients came from northern, endemic regions of Slovakia (Prešov, Žilina and Trenčín Regions) where the prevalence of *E. multilocularis* in animals is higher than in the southern parts of the country. The average age of patients is 53.4 years and the disease occurred most often in women (52 cases) than in men (38 cases).

The results confirmed the presence of *E. multilocularis* throughout Slovakia in both animals and humans. Except red foxes, wolves and dogs play a role in the spread of parasite in the environment. Therefore, the public, as well as professional and health authorities should be informed about the risk factors of echinococcosis and effective preventive measures.

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