ALVEOLAR ECHINOCOCCOSIS AS A DIFFERENTIAL DIAGNOSIS OF LIVER TUMORS IN A DOG

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Introduction

The casuistics of the Alveolar echinococcosis in a dog as the intermediate host is presented. This very rare finding was the first described case in the Czech Republic. In the westbohemian region an increased incidence of the tape worm Echinococcus multilocularis in foxes is currently detected, which represents the potential risk of infection to people and dogs. The number of positive findings of E. multilocularis in foxes detected by the Regional Veterinary Administration in Pilsen through the period of years 2008-2011 in individual districts of our region is increasing. The average prevalence is about 33%. In the Czech Republic this zoonosis is until this time very rarely found in people, but an increasing risk is assumed all over Europe.

The definitive hosts of Echinoccci are Carnivores, mainly the fox, but also other canine and feline beasts. Infection is by ingestion of larvocysts in tissues of intermediate hosts. Tape worms then sexually mature in intestines of the definitive host and exclude extremely durable and resistant eggs. The Intermediate hosts are mainly Rodents, but potentially any warm-blooded creature, including people. Infection is by eggs from contaminated environment and in their tissues then create cysts causing alveolar echinococcosis.

Alveolar echinococcosis arised in an intermediate host is initially asymptomatic. In people symptoms arise about 10-25 years after the infection and can resemble tumors. On the contrary to the cystic echinococcosis, alveolar cysts arise in 99% only in the liver. Cysts are not well demarked to the surrounding tissue and due to the exogenous budding can spread also to other organs.

Aim: Case report

The female of the Labrador retriever, 4,5 years old, only 15,5 kg of the weight was referred with the suspicious abdominal mass. Main symptoms were the weight loss, progressive abdominal distention with a non differentiated formation in the epigastrium, repeatedly detected increased transaminases.

Clinically there was a poor condition, no icterus, abdominal distention with a large palpable resistance in the epigastrium without pain.

Ultrasonographically a large cystic formation in a full contact with hepatic tissue with irregularly thick wall and heteroechogenic content was detected. The liver was generally small, without congestion, the gall bladder was filled without dilation of the ductus.

The following exploratory laparotomy revealed a large cystic mass about 20 cm in diameter coming from the left liver lobe. A vigorous surgery including the partial lobectomy, cholecystoduodenostomy and extirpation of multiple enlarged hepatic, gastric, duodenal and pancreatic lymph nodes was performed.
Results:
Macroscopically the cyst had a thick irregular wall about 1,5 cm in size and proliferating nodules into the lumen, the content of the cyst was watery yellowish fluid with fibrin. Histologic diagnosis was the alveococcal cyst. After the diagnosis, specific antibodies were detected using serology through the National Reference Laboratory for Tissue helminthoses of the 1st Faculty of Medicine of Charles University in Prague) and the Echinococcus multilocularis was confirmed. In the clinical findings alveolar echinococcosis can immitate the liver tumor, so it is necessary to mention even this rare possibility in the differential diagnosis. The incidence of the Echinococcus multilocularis in Europe is increasing.