ABSTRACT

Fasioloides magna is a trematode parasitizing in the liver parenchyma of ruminants. Its life cycle is associated with the humid environment and includes intermediate freshwater snail hosts from family Lymnaeidae. According to the ability of host to form a certain type of a pseudocyst during fascioloidosis, they can be,divided in three groups, specific definitive hosts (red deers, fallow deers, roe deers), nonspecific definitive hosts (cattle, wild boars and elks) and atypical hosts (sheeps and goats). Beside the natural infections also the experimental infections of other potential host species has been realized (chamois, llama and bighorn sheep and traditional laboratory animals such as mice, guinea pigs, rats and rabbits).

In the context of different diseases, many changes in infected organism can occur. These can be qualitatively and quantitatively evaluated. Similarly, during fascioloidosis the changes associated with the presence of the parasite in the host's body is possible to monitor, e.g. antibody production, increase in the number of eosinophils, release of eggs in faeces, internal bleeding, or the level liver damage. The liver damage is corresponding primarily to biochemical parameters of blood, not only the liver enzymes, but also other blood components, like blood proteins, lipids, carbohydrates or metabolites reflecting the health status of the host.

In order to evaluate the selected parameters of fascioloidosis, ten rabbits (*Oryctolagus cuniculus f. domesticus*) were exposed to 50, 150 and 300 metacercariae of *F. magna*. Only one rabbit was successfully infected and one live immature fluke was found in his body. The fluke caused considerable damage in the liver and the increase of the levels of IgG, IgM, globulins in general and GLDH and was recorded. In three other rabbits, the significant increase in IgG, IgM and eosinophils levels was observed, although no fluke was found during the autopsy.

Key words:

Fascioloides magna, *Oryctolagus cuniculus*, host - parasite interaction, coprological examination, ELISA, IgG, IgM, hematocrit, blood count, liver enzymes and blood metabolites.