

ABSTRACT

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Title of diploma thesis:

Effect of albendazole on activity of biotransformations enzymes in lancet fluke

Disease caused by lancet flukes, dicrocoeliosis, can lead to decrease of ruminants utility and consequently to economic loses. Albendazole (the benzimidazole anthelmintic) is one of the most important drugs being used in therapy of dicrocoeliosis. Because of the need to use high and repeated dosage of albendazole, a drug resistance can occur. The aim of present thesis was to determine the influence of albendazole on lancet fluke biotransformation enzyme activity. In this experiment, lancet flukes isolated from the liver of mouflons were used. One group of lancet flukes was incubated with albendazole, another group was used as a control sample. The enzyme activity of chosen enzymes (flavine-containing monooxygenases, carbonyl-reducing enzymes, glutathione S-transferases, UDP-glucuronosyl transferases, UDP-glucosyl transferases) was determined in cytosolic fraction, mitochondria and microsomes of both groups of parasites. In the majority of cases, albendazole did not affect the enzyme activity or it was not possible to determine uniquely this influence and it would be necessary to make some more experiments.