THE INFLUENCE OF DIFFERENT ANTHELMINTICS ON THE INTESTINAL EPITHELIAL TISSUE OF *TOXOCARA CANIS* (NEMATODA)

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Summary. Twenty-five puppies naturally infected with *Toxocara canis* were selected by faecal egg counts for the experiment. Five of them were treated with pyrantel pamoate (14.4 mg/kg BW), five – with albendazole (30 mg/kg BW), five – with levamisole (7.5 mg/kg BW) and five – with nitroskanate (50 mg/kg BW), respectively, and remaining five puppies were served as untreated control. For histological and histochemical investigation all excreted nematodes were collected and the standard technique for investigation of intestinal epithelial tissue was used.

The epithelial tissue of *T. canis* intestine under the action of pyrantel pamoate and nitroscanate changed significantly. The changes were expressed by the appearance of vacuoles in the cytoplasm and by a total disintegration of intestinal epithelial cells. Under the influence of albendazole and levamisole the changes of enterocytes were less significant. The swelling of basal membrane, toddle cytoplasm and blending of fibers in the apical cytoplasm of epithelial cells were registered.

The glycogen inclusions and neutral lipids in treated tissue under the action of all used anthelmintics have changed. After treatment with pyrantel pamoate, albendazole and nitroscanate the accumulation of the glycogen deposits in enterocytes lowered gradually and finally dissapeared . Further, after treatment with levamisole the glicogen deposits from enterocytes dissapeared, however, a distinct positive PAS reaction was repeatedly observed at the end of experiment.

After anthelmintic treatment was registered a distinct infiltration of the neutral lipids in the epithelial cells of *T. canis* intestine. It should be mentioned, that significant accumulations of neutral lipids were observed after treatment with albendazole. The significant fat dystrophy was expressed by a number of fat agregates that fulfilled the cell cytoplasm.

Basing on the obtained data it was concluded that anthelmintic treatment caused significant micro- morphological changes in the epithelial tissue of *T. canis* intestine and destroyed the metabolism of glycogen and neutral lipids. Moreover, highly significant degeneration was noted under the action of pyrantel pamoate and nitroscanate.

Keywords: *Toxocara canis*, histology of nematodes, glycogen, neutral lipids, pyrantel pamoate, albendazole, levamisole, nitroscanate.