

## VARIETY OF HORSE CYATHOSTOMES IN LITHUANIA AND THEIR RESISTANCE TO FENBENDAZOLE

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**Summary.** The experiment was conducted at the Lithuanian horse breeding farm Vilniaus žirgynas, where horse strongyles resistance to fenbendazoles was earlier detected by FECR test. The experiment included 4 horses, naturally infected with strongyles. The following anthelmintics were administered to three experimental horses: firstly Fenbendazole (7.5 mg/kg BW) and 13-14 days later – Ivermectin (0.2 mg/kg BW). One (control) horse was not treated.

The total of 5491 cyathostomes were collected and identified during the experiment. It was determined that horses are hosts of 13 varieties of cyathostomes. The identified varieties belonged to four genera: 4 varieties from *Cylicocyclus* and *Cylicostephanus*, 3 varieties from *Coronocyclus* and two from *Cyathostomum* genera. *Cylicocyclus nassatus* and *Cyathostomum catinatum* (42.18%, 22.73%) were the dominant varieties though *Cylicocyclus leptostomus*, *Cylicostephanus longibursatus*, *Cylicocyclus ashworthi*, *Cylicostephanus goldi*, *Cyathostomum pateratum* (13.6%, 7.79%, 7.76%, 3.15%, 2.17%) were also present in abundance. The other six varieties (*Coronocyclus labiatus*, *Cylicostephanus minutus*, *Coronocyclus labratus*, *Cylicocyclus insigne*, *Cylicostephanus calicatus*, *Coronocyclus coronatus*) were found only as solitary individuals. Some horses were hosts of 8 to 10 varieties of cyathostomes. It was determined that *Cylicocyclus ashworthi*, *Cylicocyclus nassatus*, *Cylicostephanus goldi* had developed strong resistance to Fenbendazole (54.69%, 53.02%, 34.10% respectively). *Cyathostomum catinatum* was less resistant (16.83%). *Cylicostephanus longibursatus* and *Cyathostomum pateratum* can be attributed to weakly resistant varieties whereas *Cylicocyclus leptostomus* performed no resistance at all. The small number of detected other varieties is an insufficient basis for judgment about their resistance.

The results from this study indicate that use of two anthelmintics have potential value in detecting of anthelmintic resistance in horse strongyles and could be used as alternative to the necropsy, particularly taking into account the price of studhorses. However, this suggestion requires further investigations.

**Keywords:** cyathostomes, resistance, fenbendazole, ivermectin.