

CLINICAL EFFICACY OF IVERMECTIN AGAINST CERTAIN GASTROINTESTINAL NEMATODES OF CAMELIDS IN THE STARI GRAD ZOO AT ĐURĐEVAC, CROATIA

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The objective of this study was to determine the clinical effectiveness of ivermectin (*Biomectin* 1 %) against certain gastrointestinal nematodes of camelids in the Stari Grad Zoo at Đurđevac, Croatia.

One castrated dromedary camel, three bactrian camels (two females and one male) and a pair of llamas were used in this clinical study. All animals were aged 1–3 years and were kept in a fenced area with a sandy base for exercise, with access to stables during the night. Animals had free access to good quality meadow hay, adequate concentrate for camelids and drinking water. The female camels and both llamas occasionally consumed less food, had messy hair and occasionally had short-term diarrhoea. Faecal samples were collected twice prior to treatment (in April and May) and three times every two months (July, September and November) after SC administration of 1 % ivermectin (*Biomectin*) at a SC dose of 0.3 mg/kg. Faecal examination was performed by the flotation method using ZnSO₄ (371 g zinc sulfate in 1000 ml water). From each animal, 3 g faeces was mixed with 10 ml prepared ZnSO₄ solution, and the sample was centrifuged at 1200 rpm for 5 minutes. Every sample was checked by the McMaster's test (MMT) to determine the number of eggs per gram (EPG) of faeces for each type of GI parasite.

A variety of gastrointestinal nematodes were identified prior treatment, including undifferentiated strongyles, *Nematodirus* spp., and *Strongyloides* sp. (in llamas only). Prior to treatment, the average EPG in all camelids was 28.42±9.72 (*Nematodirus* sp.), 78.08±37.06 (strongyles) and 56.05±12.00 (*Strongyloides* sp., in llamas only). After treatment, EPG was reduced to 5.05±3.19 (*Nematodirus* sp.) and 3.17±3.12 (strongyles). In July, 66.67 % of samples were negative for undifferentiated strongyles and only 16.67 % for *Nematodirus* sp. eggs. All three MMT tests after treatment were negative for *Strongyloides* sp. in llamas.

After ivermectin treatment, animals had a better appetite, shiny hair and solid faeces. Ivermectin (*Biomectin* 1 %) at a SC dose of 0.3 mg/kg, caused a reduction in egg production of *Nematodirus*, *Strongyloides*, and undifferentiated strongyle species, as determined by faecal egg counts in camelids at the Stari Grad Zoo at Đurđevac, Croatia.

Keywords: CAMELIDS, GASTROINTESTINAL PARASITES, IVERMECTIN