

**EFFICACY OF A TOPICAL FORMULATION CONTAINING EMODEPSIDE AND PRAZIQUANTEL
(PROFENDER®, BAYER) AGAINST NEMATODES IN CAPTIVE TORTOISES**

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Gastrointestinal parasites are commonly diagnosed in captive tortoises. In response, fenbendazole has traditionally been used as an anthelmintic, either in single or repeated doses. However, fenbendazole requires oral administration and the process can be very challenging in some individuals. A topical preparation containing emodepside and praziquantel (Profender®, Bayer, Leverkusen, Germany) is promoted as effective against a broad range of nematodes, trematodes and cestodes (Fukashe et al., 1990; Sasaki et al., 1992; von Samson-Himmelstjerna et al., 2000). While this product is currently only licensed for administration to cats, previous studies have shown positive results with terrestrial tortoise (Brames, 2008; Schilliger et al., 2009).

The aim of this study was to determine the efficacy of emodepside combined with praziquantel against oxyurid and ascarid parasites in captive tortoises. This was achieved by quantifying nematode eggs per gram (EPG) in faeces using a modified McMaster technique before (Day 0) and after (Days 14 and 33) topical application of Profender® at a dose rate of 21.5mg emodepside and 85.5mg praziquantel per kg. Twenty-nine tortoises, representing four different species, were enrolled in this study of which 14 (48%; including *Testudo hermanni* and *Testudo graeca*) were positive for intestinal nematodes. Following treatment, the oxyurid EPG was slightly increased on Day 14 but declined significantly by Day 33 (59.7% reduction; $p=0.01$), indicating a slow onset of effect and moderate efficacy 33 days post-treatment. Topical application of emodepside and praziquantel was well-tolerated in our tortoise population and could therefore be considered as a useful alternative anthelmintic treatment protocol for captive tortoises.

References

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