

RESUMO - HELMINTOLOGIA

OVICIDAL AND LARVICIDAL ACTIVITY OF DISOPHENOL IN VITRO AGAINST EQUINE GASTROINTESTINAL NEMATODES.

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The challenges in controlling gastrointestinal parasites in horses, exacerbated by the diminishing efficacy of commercial anthelmintics, necessitate research into antiparasitic molecules not yet labeled for equine use. This study evaluated the in vitro ovicidal and larvicidal activity of disophenol against equine gastrointestinal nematodes. Eggs were recovered from fecal samples of naturally infected horses at the Animal Research Support Unit of the State University of Northern Rio de Janeiro (UENF). For the egg hatching test (EHT), feces were homogenized and filtered through a sequence of granulometric sieves (24 to 400 mesh); the retained eggs were then purified via centrifugation at 1600g for three minutes. In 24-well plates, 10 μ L of an egg suspension (~100 eggs) was combined with 200 μ L of disophenol (Rumivac 30 Injectable) at concentrations ranging from 0.03 to 300 mg, using distilled water as a control. Following incubation at room temperature (22–28°C), plates were monitored at 24 and 48 hours for photomicrography and quantification. The assay, performed in triplicate, revealed total hatching inhibition at 30 and 300 mg, while the 3 mg

concentration yielded hatching rates below 2%. Conversely, concentrations of 0.3 and 0.03 mg resulted in over 90% hatching. Notably, all larvae in the treated groups died within 24 hours, exhibiting significant morphological damage, whereas control larvae remained viable throughout the 48-hour period. These findings demonstrate the potent activity of disophenol against equine nematodes, suggesting its potential integration into equine parasite control strategies.

Palavras-chave: anthelmintic; dewormer; nematode control.