HEPATIC AND RENAL EFFECTS OF *Rosmarinus officinalis* ESSENTIAL OIL IN MICE INFECTED WITH *Strongyloides venezuelensis*

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Strongyloidiasis is a parasitic disease prevalent in developing countries, where climatic conditions favor its spread. Treatment relies on albendazole, thiabendazole, mebendazole, or ivermectin, the latter being the drug of choice. However, in addition to potential hepatic and renal side effects, reports of parasitic resistance have emerged. Thus, the search for alternative therapies is necessary, and natural products have been investigated as potential low-cost and accessible antiparasitic agents. *Rosmarinus officinalis* is traditionally used in medicine for its antifungal, antibacterial, anti-inflammatory, and antioxidant properties. However, its potential against *Strongyloides* sp. and its effects on the host's hepatic and renal function remain underexplored. This study evaluated the hepatotoxic and nephrotoxic effects of *R. officinalis* qt. Cineol essential oil in mice infected with *Strongyloides venezuelensis*. Male Swiss mice, aged between 8 and 10 weeks and weighing approximately 20 g, were infected with 1500 filariform larvae (L3). After 24 hours, the animals were divided into four groups: GI (infected and treated with water), GII (infected and treated with ivermectin 2 mg/kg), GIII (infected and treated with essential oil 200 mg/kg), and GIV (non-infected control). Serum levels of alanine aminotransferase (ALT), aspartate aminotransferase (AST), urea, and creatinine were measured. Mice treated with ivermectin showed increased ALT and AST levels compared to other treatment groups. Urea levels were higher in mice treated with essential oil than in those treated with ivermectin. A slight increase in creatinine was observed in ivermectin-treated animals. The results indicate the need for further studies to evaluate the safety of rosemary essential oil as a therapeutic alternative for strongyloidiasis.

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