THERAPEUTIC POTENTIAL OF *Rosmarinus officinalis* AGAINST *Strongyloides venezuelensis:* AN IN VIVO APPROACH

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Strongyloidiasis is a parasitic disease prevalent in developing countries, often associated with environmental conditions that facilitate its transmission. In immunocompetent individuals, the infection is typically confined to the gastrointestinal tract; however, in immunosuppressed individuals, it can progress to severe and potentially fatal forms. Ivermectin is the drug of choice for treatment, but parasitic resistance and therapeutic failures highlight the need for new therapeutic approaches. In this context, *Rosmarinus officinalis* has been investigated for its pharmacological properties, including its potential anthelmintic effect. This study aimed to evaluate the anthelmintic activity of *R. officinalis* ethanolic extract 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) of *S. venezuelensis*. After 24 hours, the animals were divided into five groups and treated for six consecutive days: Group I – treated with *R. officinalis* ethanolic extract (600 mg/kg); Group II – treated with *R. officinalis* ethanolic extract (200 mg/kg); Group III – treated with ivermectin (2 mg/kg); Group IV – treated with water, and Group V – non-infected control. On the seventh day post treatment, the animals were euthanized. The 600 mg/kg concentration showed 88.4% efficacy, while ivermectin achieved 92.5%, directly reducing parasite fecundity. No significant changes were observed in leukocyte counts. However, alterations in hepatic and renal markers were detected in groups treated with 600 mg/kg of *R. officinalis* and ivermectin. In conclusion, *R. officinalis* ethanolic extract demonstrated potential as a therapeutic alternative for strongyloidiasis, but further studies are needed to assess its effects on the host.

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