Evaluation of Anthelmintic properties of Sesbania grandiflora (Kathuru murunga) against larvae of Toxocaracanis and Haemonchuscontortus

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Sesbania grandiflora is a slender tree. It is a common garden plant in Sri Lanka, which grows well in mid and low country. In Sri Lanka, S. grandiflora is used as a home remedy, in treatment of worm infections inhumans. Toxocaracanis is a helminth parasite infecting dogs and other canids. It also causes toxocariasis in humans. Haemonchuscontortus is a nematode that infects goats and causes anaemia, marked reduction in growth and reproduction, and even death. Using this information, in vitro larvae migratory inhibition assay was carried out on Toxocaracanis and Haemonchuscontortus larvae. This study revealed 98.1% and 94.3% larvae migration inhibition with larvae of Toxocaracanis and Haemonchuscontortus respectively. Least number of migrated larvae was observed in the positive control Levamisole and all the larvae were dead after migration. In decoction of S. grandiflora, all the migrated Toxocaracanis larvae were dead and Haemonchuscontortus larvae were dead or in Grade1 (inactive but occasional movement can be observed) condition. Inhibition of Toxocaracanis larval migration and and Haemonchuscontortus larval migration with decoction of S. grandiflora and Levamisoleare was statistically significant (p < 0.05). Since mean of LMI (larval migration inhibition) of Levamisole is greater than mean of LMI of Sesbania grandiflora with both larvae, Levamisole is more effective than Sesbania grandiflora. Based on these findings, the aqueous extract of leaves of Sesbania grandiflora shows a statistical significant anthelmintic activity in in-vitro model.

Keywords: Sesbania grandiflora, Anthelmintic properties, Toxocaracanis, Haemonchuscontortus, Kathuru murunga

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