Research Paper

In-vitro Antihelmentic Evaluation of Leaf Extract of Bersama Abyssinica (Mellanthaceae) on Haemonchus Contortus

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Abstract

In-vitro trial was conducted from November 2017 to April 2018 to determine anthelmintic effects of crude methanolic and ethanolic extracts of the leaf Bersama abyssinica. There was no significant (P > 0.05) variation between consecutive doses (50%, 90% and 95%) of methanolic plant extracts on egg hatch activity, whereas ethanolic extracts showed significant variation (P < 0.05). Methanolic extractions of Bersama Abyssinica were 0.15, 0.308 and 0.326mg/ml, while ethanolic extractions were 0.16, 0.352 and 0.385mg/ml respectively.

Current findings, methanolic leaf extracts of the plant were more efficacious than ethanolic leaf extracts. The higher concentration methanolic extract caused significant egg hatching inhibition rate with 95.67%, which showed slightly lower effect as compared with that of Albendazole exposed control group (99.33%). Similarly, higher adult H. contortus mortality (76.6%) was observed for methanol extract at 8mg / ml concentrations while for ethanol, it was 60% at the same concentration. Therefore, the present study indicated that the leaf of Bersama abyssinica showed an effect on egg hatch activity and adult mortality. Hence, it can be concluded that leaf can be used as a potential alternative in the discovery of guide compounds that substitute commercially available anthelmintic effects. However, further in-vivo trial should be conducted.

Keywords: Anthelmintic, Bersama Abyssinica, Ethanolic Extract, Haemonchus Contortus, Methanol Extract