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

Birhan M, Tadele Y, Kinubeh A, Seyom Z, and Yesuf M.

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 *B. Abyssinia* 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 *B. 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

[Full text- PDF]