Antimalarial activity and safety properties of *Clausena anisata* and *Clutia robusta* in a mouse model.

Japhael Mbabu Murungi

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ABSTRACT

In sub-Saharan Africa, malaria is responsible for approximately a million infant deaths a year, predominantly among the poor who have little or no access to modern medicine. This group represents some 75% of the world's population that relies on herbal remedies. In this project, the antimalarial activities and safety properties of *Clausena anisata* and *Clutia robusta* hexane, chloroform and methanol extracts on *Plasmodium berghei* ANKA, *in vivo* in swiss mouse model of malaria was investigated. The results showed that at a single dose of 5000 mg/kg body weight, *Clutia robusta* extracts had no toxic effects on the mice. *Clausena anisata* chloroform extract doses above 1582 mg/kg were lethal to the mice with animals treated with 5000 and 2811 mg/kg of the extract producing 60% and 40% mortality respectively. LD_{50} of mice treated with chloroform extract was calculated as 3514 mg/kg. Chloroform extract at 500mg/kg/day exhibited high suppressive activities at 72.13%. When established infections were treated with chloroform extracts of *Clausena anisata*, the median survival time of the mice observed at 500 mg/kg/day was longer compared to the untreated control at 9 and 7days respectively. *C. anisata* extracts tested demonstrated a dose dependent chemosuppression of 78.56% at 500 mg/kg/day. PCR was used to detect the presence of *P. berghei* in the dry blood spots from the experimental mice after the drug pressure assay. *C.anisata* chloroform extract showed significant antimalarial activity and enhanced median survival time of mice. This shows that the plant has antimalarial properties that can be explored for the management of malaria**.**