ETHNOPHARMACOLOGICAL RELEVANCE:

This work reports the anti-plasmodial activities of Warburgia ugandensis and Zanthoxylum usambarense commonly used as phytomedicines against malaria by some Kenyan communities.

AIM OF STUDY:

To determine the anti-plasmodial activities of extracts from Warburgia ugandensis and Zanthoxylum usambarense against Plasmodium knowlesi and Plasmodium berghei.

MATERIALS AND METHODS:

Eight plant extracts were screened for in vitro anti-plasmodial activity against Plasmodium knowlesi, in a 96-well plate incubated at 37 degrees C on a RPMI culture medium supplemented with baboon serum. Of the eight, three were investigated for prophylactic and curative activities in BALB/c mice against drug-sensitive Plasmodium berghei in a 4-day test at a dose rate of 200mg/kg/day.

RESULTS:

Inhibitory concentrations (IC(50)) values of between 3.14 and 75 microg/ml, up to 69% chemosuppression of parasites growth and over 80% survivorship of treated mice were observed.

CONCLUSION:

The two medicinal plants, Warburgia ugandensis and Zanthoxylum usambarense possess bioactive compounds against malaria parasites and could be exploited for further development into malaria therapy.