

In vivo antitrypanosomal activity of *Garcinia hombroniana* aqueous extract

ABSTRACT

The anti-*Trypanosoma evansi* activity of *Garcinia hombroniana* (seashore mangosteen) leaves aqueous extract was tested on experimentally infected Sprague–Dawley rats. Treatment of infected rats with *G. hombroniana* extract resulted in a significantly extended post-infection longevity ($p < 0.05$), compared to the untreated control group. The possible mode of antitrypanosomal effect of the plant extract was also investigated on cultured *T. evansi* in HMI-9 medium with the addition of 25 $\mu\text{g/ml}$ *G. hombroniana* aqueous extract. It was observed that the addition of *G. hombroniana* extract resulted in the inhibition of trypanosomal kinetoplast division, with no significant inhibitory effect on nuclear division. It is concluded from the current study that the aqueous extract of *G. hombroniana* has a potential antitrypanosomal activity through the inhibition of kinetoplast division, as one of the possible mechanisms of its antitrypanosomal effect. This plant could serve as a possible source of new antitrypanosomal compounds.

Keyword: *Garcinia hombroniana*; *Trypanosoma evansi*; Trypanosomiasis; Surra