

## Antimalarial activity of selected Malaysian medicinal plants

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### Abstract

Treatment of malaria infection has becoming extremely challenging due to widespread resistance of the parasite towards available antimalarial drugs. In the present study, we investigated the antimalarial activity of five local Malaysian medicinal plants species including *Eurycoma longifolia*, *Andrographis paniculata*, *Alyxia lucida*, *Ardisia Crispa* and *Orthosiphon Stamineus*. *Plasmodium berghei* ANKA infection in ICR mice was used as model for malaria infection. Malaria was initiated by inoculation of mice with  $2 \times 10^7$  parasitized red blood cells and treatment with various concentrations of the plant extracts was carried out once daily in a 4-day suppressive test against parasitaemia development. Results showed that *Eurycoma longifolia*, *Andrographis paniculata* and *Ardisia Crispa* exhibited considerable antimalarial activity, whereas *Alyxia lucida* only showed a weak activity and *Orthosiphon stamineus* did not show any antimalarial activity.

**Keywords** *Eurycoma longifolia*; *Andrographis paniculata*; *Alyxia lucida*; *Ardisia Crispa*; *Orthosiphon stamineus*; Malaria

### Introduction

Malaria is still one of the major health problems in many tropical and subtropical countries around the globe. According to the recent estimation by WHO, over 40% of world population is at risk from malaria. The global incidence is estimated at about 300-500 million cases annually, with 1.5-2.7 million deaths every year, 1 million of these among children under 5 years (WHO, 1997). The widespread resistance of malaria parasites against many antimalarial drugs has caused a great problem in controlling the disease. While development of vaccine against the disease has been disappointing, control of malaria infection still very