ABSTRACT

In Vivo Antimalarial Assay of Ethyl Acetate-fraction Tablet of Andrographis Paniculata at Plasmodium berghei Infected Mice

Andrographis paniculata Nees has been effectively used for antimalarial. Phytopharmaceutical product of Ethyl Acetate fraction of A. paniculata has been developed, named EA-70 and EA-96 tablet. In vivo antimalarial assay was done using Peter’s 4 days suppressive test. Each tablet administered twice a day for four days at a dose 6.25; 12.5; 25; and 50 mg andrographolide/kg BW per oral. Thin films were made from the tail blood of each mouse for seven days treatment (H₀ – H₆). Antimalarial activity measurement was conducted using microscopic by counting the number of parasitized erythrocytes out of 1000 normal erythrocytes in random fields of the microscope. This results shows that antimalarial activity of EA-70 tablet of A. paniculata has ED₅₀ 9,195 mg/kg BW, while EA-96 tablet of A. paniculata has ED₅₀ 5,949 mg/kg BW. Mean survival time of EA-70 and EA-96 tablet are more than 12 days. In conclusion, EA-96 tablet more effective for antimalarial than EA-70 tablet.

Keywords: Andrographis paniculata Nees; tablets; in vivo antimalarial activity; Plasmodium berghei; Ethyl Acetate fraction; inhibition of parasite’s growth, ED₅₀