ABSTRACT

THE EFFECT OF 90% ETHANOLIC EXTRACT OF *Cassia spectabilis* LEAVES AGAINST *Plasmodium berghei* IN VIVO

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Malaria is an infectious disease caused by *Plasmodium sp*. Medicinal plants have contributed significantly to current malaria treatment. One of the herbs that are potential as an antimalarial is *Cassia spectabilis*. The purpose of this research was to investigate the effect of 90% ethanolic extract of *Cassia spectabilis* leaves against *Plasmodium berghei* in vivo.

In this research, the powdered leaves were extracted by maceration using 90% ethanol. The ethanolic extract of *Cassia spectabilis* leaves was tested in vivo as antimalarial agent using Peter's 4 day suppresive test. Albino mice (19-31 body weight) were infected with *Plasmodium berghei* intra peritoneally with suspension containing infected red blood cell taken from donor mice with parasitemia >20%, when parasite concentration in erythrocyte reached 1-2%, treatment with suspension extract was given for four consecutive days orally with doses 50, 75, 100, 150, 200, and 250 mg/kg mice body weight. Thin blood films prepared from the tail of each mice were used to determine parasitemia level for five days and compared to non treated subjects and ED_{50} was obtained by analyzing inhibition level in five days with probit analysis. The result showed that 90% ethanolic extract of *Cassia spectabilis* leaves has an ED_{50} 131,5 mg/kg body weight against *Plasmodium berghei*.

Key words: *Cassia spectabilis*, *Plasmodium berghei*, 4-day suppresive test, antimalarial