

ABSTRACT

The Treatment Effect of 90% Ethanol Extract of *Cassia spectabilis* Leaves in Liver Function of Mice Infected *Plasmodium berghei*

Anisah Mahardiani

Malaria is one of major problem around the world especially in tropical and subtropical areas with estimated one million deaths annually. Therefore, finding the new medicinal plant to protect people from malaria was urgently needed. The previous research had shown that *Cassia spectabilis* leaves extract and fraction have potential antimalarial activity *in vitro*. Hence, effect of *Cassia spectabilis* on liver protection in this study during *Plasmodium berghei* infection in mice was investigated.

For *in vivo* study, selected mice (25-35 g body weight) were divided into 5 groups, each consist of 4 mice. Mice were given oral doses of CMC Na 0.5% suspension with 150 mg/Kg BW mice, 200 mg/Kg BW mice, chloroquin 100 mg/Kg BW daily for 4 days. One group treated with 0.5% CMC Na solution as negative control. A healthy mice without infection of *Plasmodium berghei* for healthy group use as comparison. Each mice BALB/c strains were infected with parasitized erythrocytes of *Plasmodium berghei* ANKA by intraperitoneal injection. The 90% ethanol *Cassia spectabilis* leaves extract dose 200mg/Kg bw mice treatment significantly reduced the serum levels of SGOT, SGPT and the liver damage of mice. The study suggests that 90% ethanol *Cassia spectabilis* leaves extract dose 200mg/Kg BW mice protect the liver mice during the infection of *Plasmodium berghei*.

Keyword: Extract of *Cassia spectabilis* Leaves, *Plasmodium berghei*, liver, SGOT, SGPT