

ABSTRACT

HEPATOTOXIC TEST OF THE MIXTURE FROM MANGOSTEEN (*Garcinia mangostana* Linn.) PERICARPIUM DRY EXTRACT AND GARLIC (*Allium sativum* Linn.) EXTRACT IN MICE (*Mus musculus*)

Ayun Lestari

Hepatotoxicity is one of the serious adverse effect of the drugs. The aim of this test is to know the hepatotoxic effect of the mixture from dry extract of *Garcinia mangostana* Linn. and *Allium sativum* Linn. Male white mice (*Mus musculus*) were treated orally with different doses of mixture from dry extract of *Garcinia mangostana* Linn. and *Allium sativum* Linn. in 1:1 ratio for 28 days. The first dose is 23 mg/20g body weight; the second dose is three times the first dose which is 69 mg/20g body weight and the third dose is five times the first dose 115 mg/20g body weight. Serum glutamate oxaloacetate aminotransferase (SGOT) and serum glutamate pyruvate aminotransferase (SGPT) were checked after 28 days of treatment. Histological analysis was carried out to assess the liver. Data of SGOT and SGPT activities were analyzed using ANOVA 95% (sig.<0,05). The change of histopathology of the liver organ was recorded, scored and processed using the Kruskal-Wallis test.

The sig. value of SGOT and SGPT was lower than 0,05. It means that there were significant difference between groups. However, this parameter not specifically gives a sign for the liver damage. Then, the sig. value of SGPT was higher than 0,05. It means there were no significant difference between groups. The result of Kruskal-Wallis analysis for degeneration value showed that Asymp. Sig. was higher than 0,05. It means there were no significant difference between control and treatment groups.

From the result of three parameters had been tested, can be concluded that the mixture from dry extract of *Garcinia mangostana* Linn. and *Allium sativum* Linn. in 1:1 ratio with doses equivalent to 23 mg/20g body weight; 69 mg/20g body weight and 115 mg/20g body weight had no hepatotoxic effect on male mice's liver.

Keyword: *Garcinia mangostana* Linn., *Allium sativum* Linn., hepatotoxic effect in mice, SGOT, SGPT