

***Effect of Ethanol Extract of Kemukus (*Piper cubeba*) to Hepar Function of Male Mice***

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**ABSTRACT**

**Background :** Before chemicals are widely used, most people relied on herbs to cure various diseases. Due to these experiences, people believe that many plants have health benefits. Traditional medicine is considered to have less side effects because it is extracted from natural ingredients. *Piper cubeba* extract is one of the plants that has various benefits for health, such as for bronchus muscle relaxation and anti-inflammation. This causes consuming *Piper cubeba* is quite common in community, but continuous consumption of this herb may produce side effects. **Objective :** This research aimed to find potential toxicity of *Piper cubeba* extract and existing correlation between increased dose of *Piper cubeba* extract with liver function of male mice, in the form of AST and ALT enzyme activities. **Method :** This research applied an experimental method with the post test only control group design. It used 24 adult male mice and divided into 4 treatment groups : control group (only water), treatment group 1 (intervention of *Piper cubeba* extract with dosage of 20 mg/kgBB orally), the treatment group 2 (intervention of *Piper cubeba* extract with dosage of 35 mg/kgBB orally), and the treatment group 3 (intervention of *Piper cubeba* extract with dosage of 55 mg/kgBB orally). The treatment was carried out for 30 days. After the 30th day, mice blood was taken to measure the activity of AST and ALT enzymes in the blood. **Result :** There was a significant difference in activity of AST and ALT enzymes among groups ( $p < 0.05$ ). Using Pearson correlation analysis, a significant negative correlation was found between the increased dose of *Piper cubeba* extract with activities of both AST ( $R = -0,614$ ) and ALT ( $R = -0,408$ ) enzymes. **Conclusion :** *Piper cubeba* extract with 35 mg/kgBB dose and 55 mg/kgBB dose can significantly decrease the activity of AST and ALT enzymes in the blood of male mice.

Keywords : *Piper cubeba* extract, AST, ALT, male mice.