



The Effect of Rhizome Extract of Curcuma (*Curcuma xanthorrhiza* Roxb) for Cell Injury in Histopathology of Liver Tissue of Male White Mice (*Mus musculus L.*) Strain BALB/C Infected by *Plasmodium berghei* Anka

Bagah Restu Pambudi¹, Prawesty Diah Utami^{2*}, Retno Budiarti³

¹Faculty of Medicine, Universitas Hang Tuah, Surabaya, Indonesia

²Department of Parasitology, Faculty of Medicine, Universitas Hang Tuah, Surabaya, Indonesia

³Department of Microbiology, Faculty of Medicine, Universitas Hang Tuah, Surabaya, Indonesia

Abstract : Background: Malaria is a dangerous disease that can cause death. Curcuma xanthorrhiza Roxb. contains curcumin as an antiinflammatory and natural antioxidant which has a hepatoprotector function.

Objective: To know the effect of rhizome extract of curcuma (*Curcuma xanthorrhiza* Roxb) on cell injury in histopathology of male mice's (*Mus musculus L.*) liver tissue which were infected by *Plasmodium berghei* ANKA.

Methods: The methods of the study are laboratory experimental study with the design are post-test only randomized group. Using 25 mice divided randomly into 5 groups that are: normal mice group (K1), aquadest group (K2), ginger group 150mg/kgBW (K3), ginger group 100mg/kgBW (K4), ginger group 50mg/kgBW (K5). On the fifth day of experiment, liver histopathology observation was performed.

Results: Descriptively the results show a decrease in cell injury in cell histopathology of the liver tissue of mice. The higher the dose given the smaller the results of scoring cell injury. However, the results of the Mann-Whitney U statistical test were of significance between the groups given curcuma xanthorrhiza Roxb extract. 150 mg/kg body weight, 100 mg/kg body weight, 50 mg/kg body weight more than 0.05 (Sig <0.05).

Conclusion: The administration of 150mg / BB extract of curcuma rhizome (*Curcuma xanthorrhiza* Roxb.) Had a descriptive effect but was not analytically significant on cell injury in histopathology of liver tissue of male mice (*Plasmodium berghei* ANKA).

Keywords : Malaria, ginger rhizome (*Curcuma xanthorrhiza* Roxb.), Cell injury.

Bagah Restu Pambudi *et al* / International Journal of ChemTech Research, 2019,12(3): 01-07.

DOI= <http://dx.doi.org/10.20902/IJCTR.2019.120301>
