

ABSTRACT

Background: Many diseases relate with pain and inflammation. Treating pain and inflammation with NSAID and glucocorticoid can cause side effect. therefore many people search for alternative medicines.

Methods: This research is a laboratory experiment, which will be focusing on anti inflammation and analgesics. The study of anti-inflammation using 25 white rat (*Rattus novergicus*) which will be measured the difference between the early volume of soles and the volume of the soles after being induced by intraplantar injection with carrageenan's suspense using pletismometer, then count the percentage of inflammation reduction. the study of analgesics is measuring 25 white mice (*Mus musculus*) latent periods' depends on their respond of pain like licking their feet or jumping by hot plate methods and the temperature is 51 celcius. both of these studies review within 15 minutes, 30 minutes, 60 minutes and 120 minutes. To know if there's difference between the treatment groups, it will be tested with normality and homogeneity test and then One way ANOVA test. there will be LSD test if there's difference in One Way ANNOVA test.

Results: Based on One Way ANOVA test, it can be concluded that the study of anti inflammation is showing significantly difference on 120 minute for every treatment. And for the analgesics study there's no significantly difference in every minute and treatment.

Conclusion: The conclusion is the curcumin extract with dose 5mg/Kg body weight, 10mg/kg body weight, and 50mg/kg body weight only have anti inflammation's effect and no analgesics effect.

Key words : extract curcumin , anti inflammatory , analgesic