

ABSTRACT

Bahri, Samsul. 2012. **Effect of Dosage Form Gotu Kola (*Centella asiatica* (L.) Urban) to The Levels of Superoksida Dismutase (SOD) Dan Malondialdehyde (MDA) Brain White Rat (*Rattus norvegicus*) Females That Induced Alloxan.** Supervisor I: Dr. drh Bayyinatul Muchtaromah, M. Si, Supervisor II: Mochamad Imamuddin, M.A

Keywords: gotu kola (*Centella asiatica* (L.) Urban), SOD, MDA, Alloxan, and Rats White Females.

The purpose of this study was to determine the effect of dosage forms gotu kola (*Centella asiatica* (L.) Urban) and duration of administration of the dosage form gotu kola (*Centella asiatica* (L.) Urban), and to investigate the interaction between dosage forms gotu kola (*Centella asiatica* (L.) Urban) on levels of *Superoxide dismutase* (SOD) and the levels of *Malondialdehyde* (MDA) brain white rats (*Rattus norvegicus*) alloxan-induced females.

This study is an experimental study using completely randomized design (CRD) factorial pattern consisting of two factors with three replications. The first factor in this study is the preparation of gotu kola leaf consisting of three of the dosage form is the form of extracts, boiled water and fresh. The second factor is the duration of administration dosage of gotu kola leaf (28 days and 42 days). Treatment in the study were mice without treatment (negative control), rats without necrosis of gotu kola (positive control), rats fed extracts of *Centella asiatica* necrosis for 28 and 42 days, mice fed *Centella asiatica* fresh necrosis for 28 and 42 days and rats fed necrosis gotu kola boiling water for 28 and 42 days. The data obtained were analyzed using ANOVA Two Way. If the analysis shows the real effect, then continued with the test BNJ 1%.

The results of this study indicate that administration of various dosage forms dosage forms such as gotu kola extract, fresh leaves, and boiled water gotu kola can increase levels of *Superoxide dismutase* (SOD) and inhibit the levels of *Malondialdehyde* (MDA) brain white rats (*Rattus norvegicus*) alloxan-induced females. While the duration of gotu kola (*Centella asiatica* (L.) Urban) 28 days and 42 days, as well as the interaction between gotu kola dosage forms and duration of administration affect the levels of *Superoxide dismutase* (SOD) and the levels of *Malondialdehyde* (MDA) brain white rats (*Rattus norvegicus*) female alloxan induced.