ERYTHROCYTE AND LEUKOCYTE RESPONSES OF MICE (*Mus musculus*) INDUCED BY BENZO(a)PIREN TO THE ADMINISTRATION OF TAURINE AND DEWA LEAF EXTRACT *Gynura segetum* (Lour) Merr

ABSTRACT

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Blood cancer (leukemia) is a cancer that occurs due to malignancy of blood cells. Treatment of leukemia generally cause damage to normal cells. Therefore it needs a drug that has the effect on repairing cell damage and increase immunity of normal cells such as taurine and Gynura leaf expected to have anticancer and antioxidant properties. The purpose of the study is to investigate the effect of taurine and Gynura leaf extract on blood tissues induced by benzo (a) pyrene in vivo, by looking at changes in body weight, the number of red blood cells (erythrocyte), the total number and differentiation of white blood cells (leukocyte) in mice (*Mus musculus*). Data were analyzed by one way Anova test followed by LSD at 5% significance level. The treatment group were group I 0.2 ml of corn oil (negative control), group II (benzo (a) pyrene as a positive control), Group III (taurine 7.8 mg / BW / day starting day 1 - 15 before the induction of benzo (a) pyren in) and Group IV was given benzo (a) pyrene, the taurine 7.8 mg / BW / day 2 times a day, and the V group was given benzo (a) pyrene, and Gynura leaf extract 277.8 mg / BW / day. The results showed taurine and Gynura leaf extract were able to prevent leukemia cells by increasing body weight, erythrocyte, leukocyte, and the number of kinds of leukocyte which become normal again. In conclusion taurine has better ability therapeutic and preventive of Gynura leaf extract against blood cells induced benzo(a)piren.

Keywords: *benzo (a) pyrene*, Gynura leaf extract, taurine, erythrocyte, leukocyte