ABSTRACT

The aim of this study was to find out the effects of *Achyranthes aspera* Linn on differential leukocyte of mice with mammary cancer. This study use 20 mice at the age of 2 month that were divided become 5 groups. Each group were given B(a)P subcutaneous injection to induce mammary cancer for 2 months, twice a week, than every group were given different treatment. P0 was given suspension (CMC Na), P1, P2, and P3, were given suspensions by varying the dose of *Achyranthes aspera* Linn alkaloid (10 mg/kg bw, 30 mg/kg bw, and 100 mg/kg bw), while group K+ were treated with methotrexat. Treatment were given for 2 months by oral everyday. Mice were being euthanased after 2 moth treatment. Than mice blood were collected to made blood smear and stained with wright staining. Differential leukocyte were count under microscope. The result of this study indicate that alkaloid of *Achyranthes aspera* Linn had significant effect on neutrophil and lymphocyte amount, but it had no significant effect on the amount of monocyte, basophil, and eosinophil. Increase of neutrophil occured at the dose of 10 mg/kg bw, but compare with other group, it was concluded that the increase of neutrophil are caused by bacterial infection on this group instead of alkaloid. Statistical analysis showed that the alkaloid increase amount of lymphocyte at the dose of 30 mg/kg bw and 100 mg/kg bb. This study concluded that alkaloid of *Achyranthes aspera* Linn could be an imunomodulator to increase lymphocyte amount at mice with mammary cancer at the dose of 30 mg/kg bw and 100 mg/kg bw.

Keywords: *Achyranthes aspera* Linn, cancer, leukocyte