THE ACUTE TOXICITY TEST ALKALOID FRACTION OF JARONG LEAF (Achyranthes aspera linn) ON HISTOPATOLOGIC CHANGES THE KIDNEY OF MICE (Mus musculus)

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ABSTRACT

This research was conducted to determine histopathologic changes the kidney of mice (Mus musculus) after acute toxicity treatment alkaloid fraction of Achyranthes aspera linn’s leaf as the cancer drug and to obtain LD₅₀ (Lethal dosage 50) score of Achyranthes aspera linn’s leaf alkaloid fraction. Forty mice strain BALB-c four weeks olds ± 20 grams body weight, randomly divided into four treatments and five repetitions. P1 as a control (sulosio petit, intra peritoneal), P2 (Alkaloid fraction of Achyranthes aspera linn’s leaf 100mg/kg body weight, intra peritoneal), P3 as a control (CMC na 0.5%, orally), P4 (Alkaloid fraction of Achyranthes aspera linn’s leaf 100mg/kg body weight, orally), the treatments were given once every day at 8 a.m as long as fourteen days. After 24 hours 20 mice were sacrificed to collect the kidney, and the rest 20 mice were sacrificed 14 days later. Histological confirmation were obtained the kidney by fixing in 10% formalin, embedding in paraffin and performing thin sectioning followed by hematoxiline eosin staining. Data of histological examination of the kidney were observed. The score of the kidney changes collected and statistical analysed by kruskal wallis. Measurement of the kidney change were considered insignificantly different at α>0.05. The result showed that alkaloid fraction of Achyranthes aspera linn’s leaf 100mg/kg body weight caused a congestion, degeneration and necrosis insignificant case. Treatment 5g/kg body weight alkaloid fraction of Achyranthes aspera linn’s leaf were not caused the mice death.

Key words : Achyranthes aspera linn, alkaloid fraction, kidney, acute toxicity