

**THE EFFECT OF ARUMANIS MANGO PEEL POWDER INFUSION  
COMBINED WITH LEMON EXTRACT ON CREATININE LEVELS IN  
HYPERURICEMIA WHITE RATS**

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**ABSTRACT**

*According to Global Burden of Diseases (GBD) data, the prevalence of hyperuricemia in Indonesia is 18%. Hyperuricemia sufferers are usually characterized by high uric acid and high creatinine levels. Mango peel contains flavonoids which are anti-oxidative and can prevent damage caused by free radicals. This research used True Experimental with Pre-test and Post-test Control Group Design, using 24 main rats and 8 spare rats, rats were divided into 4 groups that each group had 2 male rats for spare, 2-3 months old with a weight 100-300 grams. The group (K-) was fed Standard Rat Bio 15 grams/rat/day and drinking water by ad libitum, group (K+) was induced by high purine with consisting of 50 ml/kgBW chicken liver juice and 4 g/kgBW melinjo, drinking water by ad libitum, and a single injection of potassium oxonate as 1 mL/kgBW with the dose of 250 mL/kgBW on the last day of the induction period. Treatment P1 group was intervened with allopurinol medication 10 mL/kgBW via sonde method, while treatment P2 group was intervened with infusion of Arumanis mango peel powder combined with lemon extract 3,6 mL/rat and allopurinol medication 10 mL/kgBW via sonde method given for 7 days. Creatinine levels data were analyzed using One Way Anova, Kruskal Wallis, Wilcoxon, and Paired T-Test. The results of creatinine levels between Pre-test and Post-test showed significant differences in group (K+), treatment P1 group and treatment P2 group, while no significant difference was found in group (K-). The results of the difference in creatinine levels between Pre-test and Post-test had a no significant value of  $p=0,391$  ( $p>0.05$ ), indicating no significant differences among groups. The combination of Arumanis mango peel powder infusion with lemon extract and allopurinol medication did not affect the reduction of creatinine levels in white rats with hyperuricemia.*

**Keywords:** *Hyperuricemia, Creatinine, Arumanis Mango Peel, Lemon.*