THE NEPHROPROTECTIVE EFFECT OF *Ocimum sanctum* LEAF EXTRACT ON BLOOD UREA NITROGEN AND SERUM CREATININE IN MICE EXPOSED BY LEAD ACETATE

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ABSTRACT

Lead is one most toxicant heavy metal that can cause oxidative stress. Antioxidant compounds in *Ocimum sanctum* leaf extract have several abilities as nephroprotector. This research investigated the nephroprotective effect of *Ocimum sanctum* leaf extract in lead acetate exposed mice by measuring the value of serum creatinine and blood urea nitrogen (BUN). Twenty mice were divided into 5 groups (C-,C+,T1,T2, and T3). Negative control group (C-) was orally administrated Tween 80 1%. Lead dosage used was 20 mg/kg BW and were orally administrated to positive control group (C+) and treatment groups (T1, T2, and T3). Dosages of *Ocimum sanctum* leaf extract orally administrated to treatment groups were 140 mg/kg BW, 280 mg/kg BW, and 560 mg/kg. *Ocimum sanctum* leaf extract were administrated in day 1-24 and lead acetate were administrated in day 4-24. Obtained data were statistically analyzed using One Way Analysis of Variant (ANOVA) and were continued for post hoc test using Duncan's Multiple Range Test (DMRT). Results showed insignificant increase of serum creatinine and BUN in C+ group compared to C-. Administration 140 mg/kg BW *Ocimum sanctum* leaf extract effectively decreased concentration of serum creatinine and BUN. Accordingly, it is concluded that *Ocimum sanctum* leaf extract is able to be nephroprotector.

Keywords: blood urea nitrogen, lead acetate, nephroprotector, *Ocimum sanctum*, serum creatinine

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