

**PROTECTIVE EFFECT OF PROPOLIS EXTRACT IN KIDNEY MALE
MICE (*Mus musculus*) INDUCED BY LEAD ACETATE**

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ABSTRACT

The aim of this research was to investigate the protective effect of propolis extract from *Apis mellifera*, on histopathological changes of the kidney induced by lead acetate in mice (*Mus musculus*). 25 male mice were randomly divided into five groups and administered orally with different treatments for 45 days. The first seven days were the adaptation period. The next three days continued with preliminary treatment. The last 35 days the treatment were Group C- (CMC-Na 1.5% and Tween 80 0.5% continued with aquadest one hour after the first administration), Group C+ (CMC-Na 1.5% and Tween 80 0.5% and continued with 20 mg/kg bw of lead acetate), and treatment group T1, T2, T3 (200, 400, 800 mg/kg bw propolis extract and continued with 20 mg/kg bw of lead acetate). After treatments, tissues were processed, and histopathological evaluation were examined using Modified Arshad Scoring method. The result of groups which received propolis extract and lead acetate showed significant difference comparing to positive control treatment group. The mean value of necrosis and tubular cast in group T3 is the lowest, while the mean value of hydropic degeneration is the highest. It indicates the reversible cell injury. Thus, the effective dose of propolis extract used in this research is 800 mg/kg bw.

Key words : propolis, lead, reactive oxygen species, free radicals, kidney