PROTECTIVE EFFECT OF PROPOLIS EXTRACT AGAINST LEAD ACETATE TOXICITY IN MICE (Mus musculus) TESTES

Tuti Widawati

ABSTRACT

This study was aimed to investigate the protective effect of propolis extract from Apis mellifera that was obtained from Agro Tawon Rimba Raya Malang against the exposure of lead acetate 20 mg/kgBW orally. Twenty-five BALB/C mice were randomly divided into five groups. C1 was negative control received only CMC-Na 1.5% and Tween 80 0.5% also aquadest an hour after the first administration, C2 was positive control group that administered CMC-Na 1.5% and Tween 80 0.5% then continued received 20 mg/kgBW of lead acetate, T1 was received 200 mg/kgBW of propolis first and then 1 hour after that received 20 mg/kgBW of lead acetate, T2 was administered by 400 mg/kgBW of propolis extract and 20 mg/kgBW of lead acetate for an hour after that, the last treatment was T3 that received 800 mg/kgBW of propolis and 20 mg/kgBW of lead an hour after the first gavaging. The treatment was conducted for 7 days of adaptation and 35 days of treatment. At the end of the research all mice were sacrificed and testes were collected. Testes tissues were processed using Hematoxylin-Eosin staining. The result showed an increase of spermatocyte, spermatid and sertoli cell compare to group that only received lead acetate, but thickness of seminiferous tubules epithelium showed slightly similar in all groups.

Key words: propolis, lead, reactive oxygen species, free radical, testes