UNIVERSITI TEKNOLOGI MARA

# BIOCHEMICAL PROFILE AND HISTOLOGICAL ANALYSIS OF ICR MICE TREATED WITH SELAMECTIN

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#### ABSTRACT

This study was designed to determine the effects of a single-dose of topical administration of selamectin on the biochemical profile and histological structure of kidney and liver of laboratory mice. All 60 mice with the average weight of 25mg were divided into 10 groups where 5 groups were treatment groups and the other 5 groups were control groups. Ectoparasites identification was done on Day-1. Blood sampling and organ collections from one control group and one treatment group were obtained on Day-2, Day-7, Day-21 and Day-28. The organs collected were kidney and liver and slide were prepared to observe the structure of kidney and liver. Selamectin was found to be safe in mice because from the Mann-Whitney U test in all the biochemical parameters (ALT, AST, Creatinine and Urea), p-value were greater than 0.05. For histological analysis, there were also no significant changes observed in the structure of liver and kidney for both control and treatment groups. Therefore, future study is needed to investigate the long term effects of selamectin on laboratory mice.