

The Effects of *Citrus nobilis* Lour. Peels Water Fraction Administration on The Renal Histopathology Features of Male Mice (*Mus musculus*)

Premita Agustina

ABSTRACT

This research was to determine the effects of *Citrus nobilis* Lour. peels water fraction administration on the renal histopathology features of male mice (*Mus musculus*). Hesperidin of *Citrus nobilis* Lour. Peels has antifertility activity to reduce hyaluronidase enzyme that produced by sperm. However, saponin of *Citrus nobilis* Lour. Peels can caused damage to the renal histopatology features. Experimental animals who are used as many as 24 males mice (*Mus musculus*) with body weight of 30 g and ages of 6 months who were randomly divided into four treatment groups and 6 replication. The control group (P₀) were given aquadest 1 ml orally and the treatment group (P₁, P₂ and P₃) were given *Citrus nobilis* Lour. peels water fraction solution 1 ml orally with a dose 40 mg/ kg body weight, 60 mg/ kg body weight and 80 mg/ kg body weight. All experimental animals were treated for 35 days. Then all the experimental animals leter performed surgery to be taken in order to make preparations renal histopathology. Histopathological examination preparations with a light microscope with 100x magnification and than continued with 400x magnification. The result are analyzed by Kruskal-Wallis test and, if there are differences who significantly (P<0,05) than followed by Mann-Whitney test. The histopathological examination showed that *Citrus nobilis* Lour. peels water fraction solution with dose of 40 mg/ kg body weight, 60 mg/ kg body weight and 80 mg/ kg body weight during 35 days caused changes in male mice renal histopathology features of congestion and tubular degeneration.

Key words : *Citrus nobilis* Lour. Peels water fraction, effects, renal histopathology