

Effects of the Administration of *Typhonium flagelliforme* Herbal Suspension on the Renal Histopathology Features of *Rattus norvegicus*

Erlina Swardani

ABSTRACT

The aim of research was to determine effects of the administration of *Typhonium flagelliforme* herbal suspension on the renal histopathology features of *Rattus norvegicus*.

Guinea pigs employed were 20 Wistar-strain males of *Rattus norvegicus* with body weight of 150 to 200 g and ages of 2 to 3 months randomly assigned to four treatment groups with fivefold replication. The control group (P₀) was treated with 3 ml of suspension solvents three times a day for a period of 4 weeks. Herbal suspension of *Typhonium flagelliforme* at the same dose of 0.06 ml/day was administered orally as much as 3 ml three times a day but with different duration of administration: P₁ was treated for 1 week, P₂ was treated for 2 weeks, and P₃ was treated for 4 weeks. The guinea pigs were then euthanized by using diethyl ether for resection of the kidneys for histopathological preparation. The preparation was then examined for data collection under a light microscope with magnification of 100x and 400x.

Examination results of renal histopathology preparation were analyzed by means of *Kruskal-Wallis* tests and, in case of any significant difference (P<0.05) among treatment groups, analyses were continued with Z-tests (multiple comparison tests). Results of the statistical test indicated significant differences (P<0.05) to the altered renal histopathology features of the rodent. In conclusion, administration of *Typhonium flagelliforme* herbal suspension for 7 days was already capable of resulting in altered renal histopathology features of mild hemorrhage, moderate necrosis, moderate tubular degeneration, and mild glomerulonephritis. More prolonged administration was capable of leading to more severe damages in the rodents' renal histopathology features of hemorrhage, tubular degeneration, glomerulonephritis, and necrosis with severe degree of damage.

Key words : *typhonium flagelliforme* herbal suspension effects, renal histopathology