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Acute renal failure due to Rhabdomyolysis

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Abstract: Acute renal failure (ARF) is a common condition with a high risk of death. Rhabdomyolysis is one of the causes of acute renal failure. By knowing the pathological condition in an animal model of ARF can provide an overview on other researchers to manipulate treatment for a particular purpose. This study aims to know the pathological conditions of animal models of ARF due to rhabdomyolysis by using glycerol inject.
28 rats (Rattus norvegicus) were divided into two treatment groups, Group I as the control group, Group II-induced with glycerol is divided into five small groups, Group II -1 hours, Group II-3 hours, Group II-6 hours, Group II-12 hours, and Group II- 24 hours. Urea and creatinine serum were analyzed by spectrophotometer methods and histopathology of the kidney was analyzed by microscope descriptively.
Results of repeated ANOVA analysis showed significant differences between each group ($P < 0.05$). The significance occurred in the urea levels in group 12 and 24 hours. Whereas creatinine levels were known that the treatment group 12 hours and 24 hours showed a significant increase when compared with the control group 0 hours. Based on the research that induction of acute renal failure with 50% glycerol in rats can cause the renal damage seen in renal histopathology images starting at 3 hours but the increasing of urea and creatinine levels above normal were seen at 12 hours after induction.
Keywords: Acute renal failure, Rhabdomyolysis.

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