

**ABSTRACT****EFFECT OF HIGH DOSE ASCORBIC ACID GIVEN INTRAVENOUSLY TO THE GLOMERULAR ENDOTHELIAL CELL NECROSIS, RENAL TUBULAR CELL NECROSIS AND LIPID PEROXIDATION IN RAT****Darma Satria**

The use of intravenously ascorbic acid in the community is wide range and for many indications. To date, side effects of high dose of ascorbic acid is not known with certainty. This study aim is to prove whether or not the effects of high dose ascorbic acid given intravenously to the kidney damage and prooxidant effect of ascorbic acid.

This research design is post test only control group design, using animal model males *Rattus norvegicus Wistar strain*. The sample size is 25 rats, which is divided into 5 groups. Control group was given 0.5 ml of 0.9% NaCl injection iv, the first treatment group was given injection of 0.75 g/kg iv ascorbic acid, the second treatment group was given an injection of 1 g/kg iv ascorbic acid, the third treatment group was given 1,25 g/kg iv ascorbic acid, the fourth treatment group was given 1.5 g/kg iv ascorbic acid for 14 days.

The result did not reveal any glomerular endothelial cells and renal tubular necrosis. The results of MDA levels analyzed with ANOVA, and there were significant difference on means between the five group ( $p < 0.05$ ). LSD test was performed, there were significant difference between the control group and all treatment groups, groups I and III, IV, group II with III, IV and group III with group IV ( $p$  value  $< 0.05$ ). For group I and group II was not found significant differences ( $p > 0.05$ ). Pearson's correlation analysis, obtained  $r = - 0.9$ .

In conclusion, there were no glomerular endothelial cells and renal tubular cell necrosis due to administration of high doses of ascorbic acid. High dose of ascorbic acid had antioxidants effect.

Keyword : Ascorbic acid, glomerular endothelial cell necrosis, renal tubular necrosis, levels of MDA