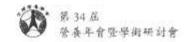
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The Effects of Pregnenolone-16α-Carbonitrile Administration on the Vitamin E Status and Antioxidant Enzymes Protein Levels in Rats Fed Vitamin E Supplemented Diet Huey-Mei Shaw¹ Wan-Hsuan Chen²

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The aim of this study is to understand the effects of PCN administration on vitamin E status and antioxidant enzymes protein levels in rats fed vitamin E supplemented diet. Two groups of Wistar rats were fed a basal diet (containing 50 ppm of α -tocopherol) or the same diet containing 10-fold more α -tocopherol. In the last 3 days, each group was divided into 2 subgroups which were given a single i.p. injection of either PCN at 75 mg/kg/d (P50 & P500 groups) or DMSO (C50 & C500 groups). PCN significantly reduced the α -tocopherol contents in liver, kidney, heart and lung and the protein levels of Catalase and Glutathione peroxidase. Ten-fold more α -tocopherol supplementation (P500) could elevate the tissue α -tocopherol levels to as high as that of C50 group. In summary, vitamin E supplementation protected against PCN-induced lipid peroxidation.

Keywords: α-tocopherol, TBARS, antioxidant enzymes