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## The Effects of Pregnenolone-16 $\alpha$ -Carbonitrile Administration on the Vitamin E Status and Antioxidant Enzymes Protein Levels in Rats Fed Vitamin E Supplemented Diet

Huey-Mei Shaw<sup>1</sup> Wan-Hsuan Chen<sup>2</sup>

<sup>1</sup>Department of Health and Nutrition, <sup>2</sup>Institute of Health and Nutrition Science, Chia-Nan University of Pharmacy and Science, Tainan, Taiwan

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  $\alpha$ -tocopherol) or the same diet containing 10-fold more  $\alpha$ -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  $\alpha$ -tocopherol contents in liver, kidney, heart and lung and the protein levels of Catalase and Glutathione peroxidase. Ten-fold more  $\alpha$ -tocopherol supplementation (P500) could elevate the tissue  $\alpha$ -tocopherol levels to as high as that of C50 group. In summary, vitamin E supplementation protected against PCN-induced lipid peroxidation.

Keywords:  $\alpha$ -tocopherol, TBARS, antioxidant enzymes