

The Protective Effects of PMC against Chronic Carbon Tetrachloride-Induced Hepatotoxicity in Vivo

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摘要

Abstract

In this study, PMC (2, 2, 5, 7, 8-pentamethyl-6-hydroxychromane), a derivative of α -tocopherol, dose-dependently (1-10mg/kg) ameliorated the increase in plasma aspartate aminotransferase (GOT) and alanine aminotransferase (GPT) levels caused by chronic repeated carbon tetrachloride (CCl₄) intoxication in mice. Moreover, PMC significantly improved the CCl₄-induced increase of hepatic glutathione peroxidase, reductase, and superoxide dismutase activities. PMC also restored the decrement in the glutathione content of hepatic tissues in CCl₄-intoxicated mice. Furthermore, it also dose-dependently inhibited the formation of lipid peroxidative products during carbon tetrachloride treatment. Histopathological changes of hepatic lesions induced by carbon tetrachloride were significantly improved by treatment with PMC in a dose-dependent manner. These results suggest that PMC exerts effective protection in chronic chemical-induced hepatic injury in vivo.