

Cytoprotection by Propolis Ethanol Extract on Acute Absolute Ethanol-Induced Gastric Mucosal Lesions

林松洲

Chi-Feng Liu;Chun-Ching Lin;Mei-hsiu Lin;Yi-shiu

Lin;Song-Chow Lin

摘要

Abstract

Acute p.o. administration of absolute ethanol (1.0 ml/kg) to fasted rats produced extensive necrosis of gastric mucosa. Pretreatment with p.o. administration of propolis ethanol extract (PEE) could effectively and dose-dependently prevent such necrosis. This protective effect is called "cytoprotection." The maximal cytoprotective effect against absolute ethanol (AE)-induced gastric mucosal lesion was observed 1 hour after PEE administration. A gross examination of the gastric mucosa showed a marked improvement in groups receiving PEE. In order to further investigate the gastric protective mechanism of PEE, lipid peroxidation (LPO) levels in vivo and in vitro were estimated. PEE exhibited dose-dependent superoxide scavenging activity and antioxidant effects on AE-induced LPO in rat gastric mucosal homogenates. It was concluded that the gastric protective mechanism of PEE was due, at least in part, to its ability to inhibit LPO, and hence indirectly protect the gastric mucosa from oxidative stress.