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Gastroprotective Effect of Curcumine on Ethanol-Induced Gastric Mucosal Lesions in Rats

Gastroprotective Effect of Curcumine on Ethanol-Induced Gastric Mucosal Lesions in Rats

1. Sri Agus Sudjarwo --> Department of Pharmacology Airlangga University School of Medicine

Abstract

This study was conducted to investigate the protective effect of curcumine (50 mg/kg/day; 100 mg/kg/day and 200 mg/kg/day orally for 15 days) in ethanol-induced gastric mucosal lesions in male Wistar rats. Ulceration was induced in rats by administering 50 % ethanol orally. On day 16, the stomach was examined for ulcer by the severity of hemorrhagic erosions in acid secreting glandular mucosa. Total acid and peptic activity were determined in gastric juice using hemoglobin as substrate. Reduce glutathione (GSH) and glutathione peroxidase (GPX) were also estimated from gastric mucosa. Pretreatment with curcumine 100 mg/kg/day and 200 mg/kg/day for 15 days significantly reduced the incidence and severity of gastric erosions induced by ethanol. Curcumine treatment also favorably altered changes in volume and peptic activity of gastric juice in ethanol-treated animals. Furthermore, the levels of GSH and GPX were significantly decreased after treatment with ethanol, and this decrease was prevented by curcumine. The study provides evidence for possible involvement of glutathione in the curcumine-mediated gastroprotection against ethanol-induced ulceration.

Keyword : curcumine, ethanol, gastric, mucosal, lesions, ,

Daftar Pustaka :