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The Ameliorative Effect of Mycelial Culture of *Phellinus linteus* on Ethanol-induced Gastric Ulcer in Rats

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The ulcer protective potential of aqueous extract of mycelial culture of *P. linteus* (AMPL) was studied using ethanol-induced ulcer model in rats. The gastroprotective effects of AMPL were evaluated by determining the ulcer index, gastric mucus content, histopathological observation and mucin properties using conventional and lectin histochemistry. Pre-administration with AMPL at doses of 250 and 800 mg/kg, one hour before of ethanol treatment caused a significant decrease bleeding and in ulcer index and ameliorated the histopathological changes of gastric lesions induced by ethanol, especially hemorrhage and necrosis. Ethanol treatment decreased gastric adhesion mucus content, but higher level of gastric mucus persisted by pre-administration of AMPL. An examination was made to determine changes of mucin on the gastric mucosa after ethanol treatment, the changes in the amount and properties of mucin detected were more severe in the surface than in the other mucous cells. The ethanol-treated rats revealed a decrease of neutral and acid mucin in the surface epithelium and mucous neck cell and showed increased sulfated mucin in the surface epithelium and upper mucous neck cell in comparison with normal rats. The marked increase of SBA affinity and decrease of BSL-1 were revealed in the ethanol-treated rats. These stainabilities and affinities ameliorated in the AMPL pre-treated rat compared with ethanol treated ones. These results indicate that pretreatment with AMPL provided a protection of gastric mucosa from ethanol-induced injury through maintaining mucus barrier in rats.