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论著

水黄皮根乙酸乙酯萃取物对大鼠乙醇型胃黏膜损伤的保护作用

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摘要 目的 研究水黄皮根乙酸乙酯萃取物（PREA）对乙醇致胃黏膜损伤的治疗作用。方法 建立乙醇致大鼠胃黏膜损伤模型，通过观察胃组织病理学改变、计算胃黏膜损伤指数、检测胃黏膜组织一氧化氮（NO）、丙二醛（MDA）含量和超氧化物歧化酶（SOD）活性评价PREA对乙醇型胃黏膜损伤的保护作用。采用幽门结扎模型，观察PREA对大鼠胃液分泌和胃黏液分泌的影响。结果 与模型组比较，PREA可剂量依赖性地降低乙醇所致胃黏膜损伤指数，明显改善胃黏膜损伤的病理变化，抑制乙醇引起的胃黏膜MDA含量升高及NO水平和SOD活性降低，并显著减少胃酸分泌、抑制游离胃酸酸度和总酸度，对胃蛋白酶活性没有明显影响。另外，可显著抑制幽门结扎模型大鼠胃腔游离黏液以及胃壁结合黏液的分泌。结论 PREA对乙醇型胃黏膜损伤具有明显的保护作用，提示PREA可能成为预防或治疗乙醇所致胃损伤的药物。

关键词 水黄皮根 乙酸乙酯 乙醇 胃黏膜

分类号 R285

Protective effect of ethyl acetate extract of Pongamia pinnata roots on ethanol-induced gastric mucosal injuries in rats

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Abstract

AIM To investigate the therapeutic effect of ethyl acetate extract from *Pongamia pinnata* roots (PREA) on ethanol-induced gastric lesions. **METHODS** The experimental gastric mucosal injuries were prepared by ig ethanol to rats, and the protective effect of PREA was evaluated by calculating lesion index, observing pathological changes, and measuring the contents of nitric oxide (NO) and malondialdehyde (MDA), and the activity of superoxide dismutase (SOD) from gastric mucosal tissue. In addition, gastric secretary and gastric wall adherent mucus were studied with the pylorus-ligation rat model. **RESULTS** Compared with the model control group, PREA (50, 150 and 450 mg·kg^{-1}, ig) dose-dependently prevented the gastric mucosal damages induced by ethanol, its inhibition rates were 28.7%, 57.7% and 78.7%, respectively. The pathomorphology lesions of mucosal tissue were obviously ameliorated. PREA obviously antagonized the ethanol-induced elevation of MDA content, and reduction of NO level and SOD activity of gastric mucosa. PREA significantly reduced gastric juice volume, free acidity, total acidity and total acid output, but didn't affect the pepsin activity. Moreover, PREA obviously increased adherent mucus quantity of stomach wall, as well as free mucus quantity dissolved in gastric juice of pylorus-ligation rat. **CONCLUSION** PREA has protective effect on ethanol-induced gastric mucosal injuries, which suggests that PREA may be used for protection or treatment of human ethanol-induced gastric lesions.

Key words Pongamia pinnata roots ethyl acetate ethanol gastric mucosa

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