

Antiulcer activity of aqueous extract of fruits of *Momordica cymbalaria* Hook f. in Wistar rats

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ABSTRACT

Gastric ulcer is one of the most prevalent gastrointestinal disorders, which affects approximately 5%-10% of people during their life. The ulcer is an open sore that develops on the inside lining of the stomach (a gastric ulcer) or the small intestine (a duodenal ulcer). Both types of ulcers are also referred to as peptic ulcer disease. The present study was carried out to investigate antiulcer activity of aqueous extract of fruits of *Momordica cymbalaria* Hook f. Initially the aqueous extract of *M. cymbalaria* was subjected to acute oral toxicity study according to the Organisation for Economic Co-operation and Development (OECD) guidelines, based on which, 500 mg/kg dose of aqueous extract was selected for the study. The animals were pretreated before inducing ulcer. For inducing ulcer in the rats, 80% ethanol was used. Various parameters such as area of gastric lesion, nonprotein sulfhydryls (NP-SH) concentration, gastric wall mucus concentration, total acidity and volume of gastric content; and histopathological parameters like hemorrhage, edema, erosion, ulceration were studied in the control group and pretreated groups with aqueous extract of fruits of *Momordica cymbalaria* (500 mg/kg) and standard drug lansoprazole (30 mg/kg). Pretreatment with aqueous extract of *M. cymbalaria* fruits showed significant ($P, 0.05$) decrease in the total acidity and ulcer index. Improvements in all histopathological parameters were noticed in the *M. cymbalaria*-treated group. It also showed significant decrease in gastric lesion and NP-SH and gastric wall mucus concentrations in the *M. cymbalaria*-treated group. Overall the aqueous extract of *M. cymbalaria* fruits was shown to possess significant ($P, 0.05$) antiulcer property in rats. The polyphenols like quercetin reported from the plant may attribute to the antiulcer property of the extract.

KEYWORDS

Antiulcer activity . aqueous extract . gastric ulcer . *Momordica cymbalaria* . *Momordica tuberosa*

REFERENCES