

Gastroprotective activity of the paste of *Evolvulus alsinoides* L. (vishnukranti kalka) in rats

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Abstract

This study examined the gastroprotective activity of vishnukranti kalka (paste) which is recommended in Ayurveda for the treatment of peptic ulcers. The kalka was made by mixing the dry powder of the whole plant of *Evolvulus alsinoides* L with cow ghee, bee honey and common sugar (1:2:2:1 w/w). The gastroprotective activity was tested using the rat alcohol induced gastric lesion model following oral administration of either the kalka (1250 mg/kg, 2500 mg/kg, 5000 mg/kg), placebo-1 (5000 mg/kg of wheat flour, cow ghee, bee honey and common sugar), placebo-2 (5000 mg/kg of cow ghee, bee honey and common sugar), cimetidine (100 mg/kg) and distilled water. The results showed a strong and dose depended gastroprotective activity of vishnukranti kalka (in terms of length and number of macroscopical mucosal haemorrhagic lesions). Placebo-1 and placebo-2 also had gastroprotective activity but was less potent to kalka. Vishnukranti kalka significantly increased the pH of gastric juice and its mucus and carbohydrate contents. The kalka was well tolerated even with chronic administration with no renaltotoxicity (in terms of urea and cratinine), hepatotoxicity (in terms of SGOT and SGPT) and haematotoxiciry (in terms of packed cell volume, red blood cell count, white blood cell count, and haemoglobin concentrations). It is concluded that vishnukranti kalka has strong and safe oral gastroprotective activity and the study also provides scientific evidence for the justification of its use as a gastroprotective agent in Ayurvedic medicine.

Key words: *Evolvulus alsinoides* L., kalka, paste, gastroprotective activity, peptic ulcer.

1. Introduction

Peptic ulcer disease is a common gastrointestinal disorder in many western countries and it still affects approximately 10% of all adults at some time in their