

Gastroprotective effect of an ayurvedic medicinal powder (Triphala curna) against ethanol induced gastric ulcers in rats

Triphala curna is a commonly prescribed Ayurvedic medicinal powder and it contains fruits of Terminalia chebula, Terminalia bellerica and Phyllanthus emblica. It is used for diabetes, skin diseases, gastritis, eye disease and also as a health promoter (rejuvenator) in the system of Ayurvedic Medicine.

Its use among local as well as international community is increasing. Therefore, scientific evaluations of this drug are needed in order to establish its rational usage. Hence we studied the gastroprotective action of Triphala curna against ethanol induced gastric lesion in male Wistar rats (8 weeks, 160±30g). The rats in group 1 were given Triphala curna while the rats in groups 2 and 3 received distilled water, orally (4 mL/ animal) twice daily up to 7th dose consecutively. On day four, 1h after treatment, the rats in groups 1 (treated) and 2 (ethanol induced control) were given absolute ethanol while the rats in group 3 (normal control) received normal saline, orally (1 mL/ animal). 30 minutes later, they were sacrificed and the stomachs removed.

The extent of lesions in the mucosa of each stomach was observed and quantified. The ulcer index was computed by (a) summing up the maximum lengths of linear lesions in each stomach, (b) calculating the total surface area of ulcers in each stomach. Pretreatment with Triphala resulted in a significant inhibition of gastric lesions ($p < 0.01$; Student's t-test). Ulcer index values according to the methods; a and b (ethanol-induced control Vs Triphala) were 48.67 ± 9.03 Vs 3.17 ± 2.45 mm and 8.52 ± 1.30 Vs 0.68 ± 0.33 mm² respectively.

Therefore, the tested dose of Triphala protected (percentage of ulcer prevention/inhibition; 93.94 and 92.02% respectively) the rats from ethanol induced gastric lesions by lowering the occurrence and severity of gastric ulcers. In addition, Triphala did not induce any marked toxic effects in rats. This study provides studies are needed to reveal its mode of action and other pharmacological aspects.

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