

SHORT COMMUNICATION

ANTIULCER ACTIVITY OF LEVCROMAKALIM AND NICORANDIL IN ALBINO RATS: A COMPARATIVE STUDY

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The objective of the present study was to investigate and compare the antiulcer effect of potassium channel openers, nicorandil and levcromakalim in the models of ulcer induced by pylorus ligation, aspirin and water immersion plus restraint stress in albino rats. Levcromakalim (250 µg/kg) and nicorandil (10 mg/kg) were administered intraduodenally immediately after pylorus ligation. Ulcer index was determined and gastric juice was subjected to analysis of total acid output (TAO) and pH. In aspirin-induced gastric ulcer model, the drugs were administered orally 30 min prior to noxious challenge, and in water immersion restraint stress model, the drugs were administered orally and ulcer index was determined. A significant reduction in ulcer index was observed after treatment with both potassium channel openers in all the gastric ulcer models. In pylorus-ligated rats, a significant decrease in TAO was noted. The conclusion is that potassium channel openers possess antiulcer activity. Antiulcer activity of levcromakalim is better than nicorandil but comparable to that of cimetidine. The antiulcer action of potassium channel openers is mediated partially by a decrease in gastric acid secretion, increase in gastric mucosal resistance and improvement in gastric mucosal blood flow.

Key words: *levcromakalim, nicorandil, antiulcer activity, potassium channel openers*

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