

Full Length Research Paper

Anti-ulcer activity of the 9alpha-bromo analogue of Beclomethasone dipropionate against ethanol-induced gastric mucosal injury in rats

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The present study was performed to evaluate the anti-ulcer activity of the 9alpha-bromo analogue of *Beclomethasone dipropionate* against ethanol-induced gastric ulcer. Experimental groups were orally pre-treated with different doses of the 9alpha-bromo analogue of *B. dipropionate* in 10% Tween 20 solution. Ulcer control groups were pre-treated with vehicle solution and reference group was orally pre-treated with 20 mg/kg omeprazole. After one hour, all groups received absolute ethanol to generate gastric mucosal injury. After an additional hour, all rats were sacrificed and ulcer areas of gastric walls were determined. Grossly, ulcer control group exhibited severe mucosal injury, whereas pre-treatment with either omeprazole or the 9alpha-bromo analogue of *B. dipropionate* resulted in a significant decrease in acidity of gastric content, protection of gastric mucosal injury and increase in mucus production. Histological studies of gastric wall of ulcer control group revealed severe damage of gastric mucosa, along with edema and leucocyte infiltration of sub-mucosal layer compared to rats pre-treated with either omeprazole or 9alpha-bromo analogue of beclomethasone dipropionate. In conclusion, present finding suggests that the 9alpha-bromo analogue of *B. dipropionate* promotes ulcer protection as ascertained by the comparative decreases in ulcer areas, reduction of edema and leucocyte infiltration of the sub mucosal layer.

Key words: Natural products, *Beclomethasone dipropionate* derivatives, ulcer, cytoprotection.

INTRODUCTION

Beclomethasone dipropionate (BDP) is a potent

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