

# Gastroprotective Effect of an Ethanolic Extract from *Neoglaziovia variegata* (Arruda) Mez (Bromeliaceae) in Rats and Mice

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This study investigates the gastroprotective effect of a crude ethanolic extract of *Neoglaziovia variegata* (Arruda) Mez (Bromeliaceae), designated Nv-EtOH, in experimental models of gastric ulcer. In the ethanol-induced gastric ulcer model, Nv-EtOH showed gastroprotection at doses of 200 and 400 mg/kg body weight (BW) (57.0% and 79.7%, respectively). Nv-EtOH also significantly reduced the formation of gastric lesions induced by ethanol/HCl (31.6% and 63.5%), ibuprofen (70.0% and 74.3%), or ischemia/reperfusion in rats (65.0% and 87.0%) at 200 and 400 mg/kg BW when compared with the vehicle group. In the antioxidant activity assessment, Nv-EtOH (400 mg/kg BW) increased the catalase activity and sulfhydryl groups (SH) levels, respectively. Moreover, gastroprotection against ethanol damage was decreased after ibuprofen pretreatment. Nv-EtOH (400 mg/kg BW) promoted a significant increase in the content of gastric wall mucus. The Nv-EtOH effect was significantly reduced in mice pretreated with  $N^G$ -nitro-L-arginine (L-NOARG) or glibenclamide, inhibitors of nitric oxide synthase and  $K_{ATP}$  channel activation, respectively, suggesting the involvement of these mechanisms in the Nv-EtOH-induced gastroprotective effect. Nv-EtOH decreased the total acidity, but did not modify other gastric juice parameters. Nv-EtOH was also effective in promoting the healing process in chronic gastric ulcer induced by acetic acid in rats.

**Key words:** Gastroprotection, *Neoglaziovia variegata*, Bromeliaceae