

**THE EFFECT OF PANDAN (*Pandanus amaryllifolius* Roxb.) LEAVES
ETHANOL EXTRACT ON HISTOPATHOLOGICAL CHANGES
OF ETHANOL-INDUCED GASTRIC MUCOSAL
INJURY IN MICE (*Mus musculus*)**

Alfania Christanti

ABSTRACT

This study was aimed to observe the effect of pandan (*Pandanus amaryllifolius* Roxb.) leaves ethanol extract on histopathological changes of ethanol-induced gastric mucosal injury in mice (*Mus musculus*). Twenty BALB/C mice were randomly divided into five groups. C- is negative control group which were given 0,5 ml drug solvent orally for 8 days. C+ was positive control group, mice were pretreated with 0.5 ml drug solvent orally for 8 days, then on the day 8th mice were given ethanol 50% with dosage of 5ml/kg BW orally. Treatment groups were pretreated with *Pandanus amaryllifolius* Roxb. leaves ethanol extract with dosages of 200 mg/kg BW (T1), 400 mg/kg BW (T2) and 800 mg/kg BW (T3) for 8 days and continued with 5ml/kg BW ethanol 50% administration on day 8th exactly 1 hour after *Pandanus amaryllifolius* Roxb. leaves ethanol extract administration. The treatments were conducted for 7 days of acclimatization and 9 days of total treatments. At the end of the research, all mice were euthanized by cervical dislocation and gastric were collected. Gastric tissues were processed into histopathological preparation using Hematoxylin-Eosin staining. The result shows significant difference ($p < 0,05$) between C- and C+ groups prove that ethanol 50% can cause gastric mucosal injury. Insignificant difference ($P > 0,05$) found between C- group and treatment groups which means that *Pandanus amaryllifolius* Roxb. leaves ethanol extract has effect on improvement of histopathological changes of gastric mucosal injury. Dosages of 200, 400 and 800 mg/kg BW of *Pandanus amaryllifolius* Roxb. leaves ethanol extract have effect on reducing the epithelial damage on mucosa of mice gastric.

Keywords: gastric mucosal injury, ethanol 50%, *Pandanus amaryllifolius* Roxb., antioxidant