**Gastroprotective effect of Acanthopanax trifoliatus on experimentally induced acute ulcer in rats.**

ABSTRACT

This study is aimed to evaluate anti-ulcerogenic effect of ethanolic extract of Acanthopanax trifoliatus leaves (EAT) in acute ulcer induced by absolute ethanol and NSAID (diclofenac) in male Sprague-Dawley (SD) rats and to determine the possible involvement of either suflhydryl group or nitric oxide group in it's pathway. The result of the preliminary study showed that EAT did not give any ulcerogenic effect in the rat's stomach. For the gastroprotective study, EAT was shown to have substantial gastroprotective effect on the gastric mucosa of SD rats induced by absolute ethanol at dose 300 mg/kg with a tendency for the activity to be comparable to the standard drug, lansoprazole. Whereas for ulcer induced by NSAID (diclofenac), the extract does not seem to have a significant gastroprotective activity at the dosages used. Investigation of the possible mechanism behind the anti-ulcerogenic activity of the EAT was done using L-NAME (a NO synthase inhibitor) and NEM (a sulfhydryl blocker) in ethanol-induced ulcer models pre-treated with EAT at higher dose (500mg/kg). The previous administration of L-NAME did not reduce the anti-ulcerogenic activity of EAT in ethanol induced ulcer model, suggesting that the pharmacological mechanism has no relationship with NO. On the other hand, pre-treatment with NEM reduced the anti-ulcerogenic activity of EAT on ethanol induced-ulcer model. This result suggests that EAT has active substances that increase the mucosal non-protein sulfhydryl groups which contribute.to the extract's gastroprotective effect.

**Keyword:** Acanthopanax trifoliatus; Endogenous sulphydryls; Ethanol-induced ulcer; Gastroprotective; Nsaids.