

## ABSTRACT

### THE EFFECT OF TEMULAWAK (*Curcuma xanthorrhiza* Roxb) IN GASTRIC HISTOPATHOLOGY VIEW OF MALE WHITE RAT (*Rattus norvegicus*) *Sprague dawley* STRAIN INDUCED BY ASPIRIN

By

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Aspirin induces gastric mucosal cell damage from acute gastritis to gastric ulcers. *Curcuma xanthorrhiza* Roxb has an antioxidant effect which can prevent gastric mucosal cell damage caused by the longterm using of aspirin. The aim of this study is to determine the effects of *Curcuma xanthorrhiza* Roxb in preventing gastric mucosal cell damage of male white rats (*Rattus norvegicus*) strain *Sprague dawley* induced by aspirin.

In this study, 25 male *Sprague dawley* rats were divided randomly into 5 groups and were given treatment for 14 days. Group 1 (normal control, only received standard feed and aquadest), group 2 (positive control, received 90 mg aspirin), group 3 (dosage 1, received 90 mg aspirin and 1,3 g/kg bodyweight *Curcuma xanthorrhiza* Roxb decoction), group 4 (dosage 2, received 90 mg aspirin and 2,6 g/kg bodyweight *Curcuma xanthorrhiza* Roxb decoction), group 5 (dosage 3, received 90 mg aspirin and 5,2 g/kg bodyweight *Curcuma xanthorrhiza* Roxb decoction). After 14 days, we made Hematoxylin and Eosin preparation to observe the microscopic changes of gastric tissue.

The results showed the average of gastric mucosal cell damage in group 1:  $0,20 \pm 0,45$ , group 2:  $2,40 \pm 0,55$ , group 3:  $2,20 \pm 0,45$ , group 4:  $1,20 \pm 0,45$  and group 5:  $0,80 \pm 0,45$ . The dose of *Curcuma xanthorrhiza* Roxb decoction which has the highest protective effect of gastric mucosal cell damage in this study is 5,2 g/kg bodyweight.

**Key words:** Aspirin , *Curcuma xanthorrhiza* Roxb, gastric mucosal cell damage.