ABSTRACT

THE EFFECT OF RED GINGER (Zingiber officinale Roscoe) EXTRACT ON MALE MICE (Mus musculus) UNDERGO GASTRIC PEPTIC ULCERS INDUCED BY INDOMETHACINE

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Introduction: Zingiber officinale Roscoe has an oil contents of volatile components (essential oil) and non-volatile components (Oleoresin) which can be used as a drug to treat digestive problems through anti-inflammatory mechanism. The main mechanism of occurrence of peptic ulcer induced by indomethacine is an inflammatory effect due to non-selective COX inhibitor. The purpose of this study is to find out the protective effects of the Zingiber officinale Roscoe usage in reducing the occurrence of peptic ulcer.

Methods: This study used post test control group design. Randomly selected of 28 male mice were classified into four groups. Group I (Negative Control, received 30 mg/kg bodyweight of indomethacine), Group II (Dosage 1, receive 30 mg/Kg bodyweight of indomethacine and Zingiber officinale Roscoe 70 mg/Kg bodyweight), Group III (Dosage 2, receive 30 mg/Kg bodyweight of indomethacine and Zingiber officinale Roscoe 140 mg/Kg bodyweight), and Group IV (Dosage 3, receive 30 mg/Kg bodyweight of indomethacine and Zingiber officinale Roscoe 280 mg/Kg bodyweight). Indomethacine and Zingiber
Zingiber officinale Roscoe was given orally. The parameters measured in this study are the number of macroscopic gastric lesion as a manifestation of peptic ulcer.

**Results**: the results of this study showed significant differences in the number of lesions among the first group as a negative control group and Group III as a treatment group (F test, p<0.05), and there is no significant difference between treatment groups (II, III, IV) with different doses (F test, p>0.05).

**Conclusion**: Zingiber officinale Roscoe can reduce the occurrence of gastric peptic ulcer.

**Key words**: Indometachine, Zingiber officinale Roscoe, Peptic ulcer, Gastric macroscopic lesion