ABSTRACT

THE EFFECT OF KEPOK BANANA (Musa acuminata) PEEL EXTRACT ON HISTOPATHOLOGICAL FINDING OF GASTRIC ULCER IN Sprague Dawley STRAIN WHITE RAT (Rattus Norvegicus) INDUCED BY ASPIRIN

BY

DEBORAH NATASHA

Gastric ulcer is an ulceration or open sore of mucose layer caused by damage in gastric mucose barrier. Overcoming upon that, antioxidant compound in banana peel extract is necessary. The goal of study is to observe whether kepok banana (Musa acuminata) peel ethanol extract able to repair gastric histopathological finding induced by aspirin in Sprague dawley strain white rat (Rattus norvegicus). The experimental study uses 25 Sprague dawley strain white rats (Rattus norvegicus) lotted into 5 groups, consist of Group Control 1 (K1) which does not have any treatment intervention, Group Control 2 (K2) which is given aspirin with 90 mg/day dosage, on Group Treatment 1 (P1), Treatment 2 (P2) and Treatment 3 (P3) are given kepok banana (Musa acuminata) peel ethanol extract with gradual dose 100, 200, 400 mg/kgBW and induced by oral aspirin with 90 mg dosage for 14 days. After interventions, euthanasia is done with all animal samples by ketamine injection subcutaneously, afterwards stomach organ is taken and convert it into histopathological smear with Hematoxilin-eosin (HE) staining. Histopathological findings are classified into normal, inflammation, superficial mucose damage and deep mucose damage. Results are analyzed with statistic Kruskal–Wallistest then continue with Mann–Whitney test. Based on statistic results, there are significant differences between K1 and K2, K1 and P1 (p=0.016), K2 and P3 (p=0.049), P1 and P3 (p=0.058). Meanwhile on K1 and P2 (p=0.212), K1 and P3 (0.339), K2 and P1 (p=0.650), K2 and P2 (p=0.100), P1 and P2 (0.142), P2 and P3 (p=0.650) there is no significant difference. Aspirin can influence white rat gastric mucose structure and kepok banana peel ethanol extract can repair cell damage on 200 mg/kgWB dosage.

Keywords : antioxidant, banana, gastric, mucosa, peel, ulcer