

## ABSTRAK

### EFEK PROTEKTIF EKSTRAK DAUN JAMBU AIR (*Syzygium aqueum*) TERHADAP KERUSAKAN LAMBUNG TIKUS PUTIH JANTAN (*Rattus norvegicus*) GALUR WISTAR YANG DIINDUKSI INDOMETASIN

Oleh

ADILLA JUSTISIA

**Latar Belakang:** Prevalensi ulkus peptikum yang disebabkan oleh penggunaan *Nonsteroidal Anti-Inflammatory Drugs* (NSAID) mengalami peningkatan dalam kurun waktu 10 tahun. Stres oksidatif yang disebabkan oleh NSAID dapat memicu terbentuknya ulkus peptikum. Tujuan penelitian ini untuk mengetahui efek protektif ekstrak daun jambu air (*Syzygium aqueum*) terhadap kerusakan lambung tikus putih jantan (*Rattus norvegicus*) galur Wistar yang diinduksi indometasin.

**Metode :** Penelitian eksperimental laboratorik dengan rancangan *randomized post-test only control group* ini menggunakan 24 tikus putih jantan galur Wistar yang dibagi ke dalam 6 kelompok. K(0) diberikan makan dan minum, K(-) diberikan indometasin 30 mg/kgBB, K(+) diberikan vitamin C 9 mg/kgBB dan indometasin 30 mg/kgBB, serta P1, P2, P3 diberikan ekstrak daun jambu air dengan dosis berturut-turut 100 mg/kgBB, 300 mg/kgBB, 900 mg/kgBB dan indometasin 30 mg/kgBB.

**Hasil:** Hasil analisis uji statistik *Mann-Whitney* didapatkan perbedaan bermakna ( $p < 0.05$ ) antara kelompok K(-) yang hanya diberikan indometasin dengan kelompok P2 dan P3 yang diberikan ekstrak 300 mg/kgBB dan 900 mg/kgBB serta indometasin 30 mg/kgBB.

**Kesimpulan:** Ekstrak daun jambu air (*Syzygium aqueum*) memberikan efek protektif terhadap kerusakan lambung tikus putih (*Rattus norvegicus*) jantan galur Wistar yang diinduksi indometasin.

**Kata Kunci:** Daun Jambu Air, *Syzygium aqueum*, Antioksidan, Indometasin, Ulkus Peptikum

## ABSTRACT

### PROTECTIVE EFFECT OF WATER APPLE LEAF EXTRACT (*Syzygium aqueum*) ON GASTRIC DAMAGE OF MALE WHITE RAT (*Rattus norvegicus*) WISTAR STRAIN INDUCED BY INDOMETHACIN

By

ADILLA JUSTISIA

**Background :** The prevalence of peptic ulcers caused by the use of Nonsteroidal Anti-Inflammatory Drugs (NSAID) has increased over the past 10 years. Oxidative stress induced by NSAID can trigger the formation of peptic ulcers. The objective of this research was to determine the protective effect of water apple leaf extract (*Syzygium aqueum*) on gastric damage of male white rats (*Rattus norvegicus*) Wistar strain induced by indomethacin.

**Methods :** This laboratory experimental study with a randomized post-test only control group design involved 24 male Wistar strain white rats divided into 6 groups. Group K(0) was given food and water, K(-) was administered indomethacin at a dose of 30 mg/kgBW, K(+) received vitamin C at a dose of 9 mg/kgBW and indomethacin at 30 mg/kgBW, while P1, P2, and P3 were given water apple leaf extract at doses of 100 mg/kgBW, 300 mg/kgBW, and 900 mg/kgBW, along with indomethacin at 30 mg/kgBW.

**Results:** The results of the Mann-Whitney statistical test analysis showed a significant difference ( $p < 0.05$ ) between group K(-), which was administered only indomethacin, and group P2 and P3, which were administered extracts of water apple leaf at doses of 300 mg/kgBW and 900 mg/kgBW along with indomethacin at 30 mg/kgBW.

**Conclusion:** There is an protective effect of water apple leaf extract (*Syzygium aqueum*) on gastric damage of male white rats (*Rattus norvegicus*) Wistar strain induced by indomethacin.

**Keywords:** Water Apple Leaf, *Syzygium aqueum*, Antioxidants, Indomethacin, Peptic Ulcer