



UNIVERSITAS ANDALAS

**POTENSI NEFROPROTEKTIF EKSTRAK ETANOL BUNGA
KECOMBRANG (*Etilingera elatior* (Jack) R.M Sm.) TERHADAP
KADAR TOTAL PROTEIN DAN ALBUMIN PADA MENCIT
(*Mus musculus*) JANTAN YANG DIINDUKSI PARASETAMOL**

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FAKULTAS KESEHATAN MASYARAKAT

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xiii + 64 halaman + 8 tabel + 6 gambar + 11 lampiran

ABSTRAK

Tujuan

Kecombrang memiliki efek antioksidan yang dapat mencegah terjadinya nefrotoksisitas akibat overdosis parasetamol. Penelitian ini bertujuan untuk mengetahui karakterisasi dan potensi nefroprotektif ekstrak etanol bunga kecombrang (*Etilingera elatior*) pada mencit (*Mus musculus*) jantan yang diinduksi parasetamol.

Metode

Penelitian ini bersifat eksperimental laboratorik dengan metode *post test only controlled group design* menggunakan mencit putih jantan sebanyak 25 ekor yang dibagi menjadi 5 kelompok. K1 hanya diberikan Na-CMC, K2 diberikan Na-CMC dan parasetamol, P1, P2, P3 berturut-turut diberikan 200mg/kgBB, 300mg/kgBB, 400mg/kgBB ekstrak etanol bunga kecombrang dan parasetamol. Seluruh perlakuan dilakukan selama 7 hari melalui rute oral menggunakan sonde. Pada hari ke-5, 6, dan 7 mencit diberi parasetamol sesuai dosis. Pada hari ke-8 mencit dikorbankan dan diperoleh serumnya. Data dianalisis menggunakan uji One-way ANOVA (*Analysis of Variance*) dengan derajat kemaknaan $p < 0,05$.

Hasil

Ekstrak bertekstur kental, bewarna coklat kemerahan, pahit, dan berbau khas. Kadar abu ekstrak sebesar 22,43331%. Sedangkan, susut pengeringan sebesar 13,45585%. Ekstrak mengandung alkaloid, flavonoid, triterpenoid, dan tanin. Uji statistik kadar albumin menunjukkan $(p) = 0.656$ ($\alpha > 0,05$); sedangkan kadar total protein $(p) = 0.135$ ($\alpha > 0,05$).

Kesimpulan

Hasil analisis kadar total protein dan albumin menunjukkan tidak ada hubungan nyata, akan tetapi tren kadar total protein dan albumin menunjukkan adanya potensi nefroprotektif ekstrak kecombrang terhadap kerusakan ginjal yang diinduksi parasetamol.

Daftar Pustaka: 67 (1964-2023)

Kata Kunci : kecombrang (*Etilingera elatior*), nefroprotektif, total protein, albumin, ginjal, parasetamol

**FACULTY OF PUBLIC HEALTH
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**NEPHROPROTECTIVE POTENTIAL OF KECOMBRANG (*Etlingera elatior*
(Jack) R.M Sm.) FLOWER ETHANOL EXTRACT ON PARACETAMOL-
INDUCED TOTAL PROTEIN AND ALBUMIN LEVELS IN MALE MICE
(*Mus musculus*)**

xiii + 64 pages + 8 tables + 6 pictures + 11 attachments

ABSTRACT

Objective

Kecombrang has antioxidant effects that can prevent nephrotoxicity resulting from paracetamol overdose. This research aims to understand the characterization and nephroprotective potential of ethanol extract from kecombrang flowers (*Etlingera elatior*) on male mice (*Mus musculus*) induced with paracetamol.

Method

This study is an experimental laboratory research with a post-test only controlled group design using 25 male white mice divided into 5 groups. K1 received Na-CMC, K2 received Na-CMC and paracetamol, P1, P2, P3 received 200mg/kgBW, 300mg/kgBW, 400mg/kgBW of ethanol extract of kecombrang flowers and paracetamol, respectively. All treatments were administered orally through a probe for 7 days. On the 5th, 6th, and 7th days, mice were given paracetamol. On the 8th day, mice were sacrificed, and their serum was obtained. Data were analyzed using One-way ANOVA with a significance level of $p < 0.05$.

Result

The extract had a thick texture, reddish-brown color, bitter taste, and a distinctive odor. The ash content was 22.43331%, while the drying loss was 13.45585%. The extract tested positive for alkaloids, flavonoids, triterpenoids, and tannins. Statistical analysis of albumin levels showed $(p) = 0.656$ ($\alpha > 0.05$); meanwhile, total protein levels $(p) = 0.135$ ($\alpha > 0.05$).

Conclusion

The analysis of total protein and albumin levels indicates no significant correlation. However, the trends suggest the nephroprotective potential of kecombrang extract against paracetamol-induced kidney damage.

References : 67 (1964-2023)

Keyword : kecombrang (*Etlingera elatior*), nephroprotective, total protein, albumin, kidney, paracetamol