ABSTRAK

WIBOWO, B. T. 2026. PENGARUH KONSENTRASI PELARUT ETANOL DALAM EKSTRAKSI DAUN COCOR BEBEK (*Kalanchoe pinnata* (Lam.) Pers) TERHADAP AKTIVITAS ANTIDIARE PADA MENCIT JANTAN DENGAN METODE TRANSIT INTESTINAL, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Diare merupakan gangguan saluran pencernaan yang ditandai dengan peningkatan frekuensi buang air besar dan feses cair, sehingga diperlukan alternatif antidiare berbahan alam seperti daun cocor bebek (*Kalanchoe pinnata* (Lam.) Pers) yang mengandung senyawa aktif, dengan aktivitas yang dipengaruhi oleh proses ekstraksi dan konsentrasi pelarut etanol. Penelitian ini bertujuan untuk mengetahui konsentrasi etanol 50%, 70%, dan 96% yang menghasilkan ekstrak paling kuat pada aktivitas antidiare dan setara dengan kontrol positif, serta hubungannya dengan kadar fenol total.

Ekstraksi dilakukan menggunakan metode maserasi. Uji aktivitas antidiare dilakukan pada mencit jantan (*Mus musculus*) yang diinduksi oleum ricini dan dibagi menjadi enam kelompok, yaitu kontrol normal, kontrol negatif (CMC-Na), kontrol positif (loperamid HCl), serta tiga kelompok perlakuan ekstrak etanol 50%, 70%, dan 96% pada dosis 52 mg/kgBB. Aktivitas antidiare dievaluasi menggunakan metode transit intestinal dengan parameter rasio lintasan marker norit terhadap panjang usus, kemudian dianalisis menggunakan uji normalitas, homogenitas, One Way ANOVA, dan uji lanjut Tukey.

Hasil penelitian menunjukkan bahwa perbedaan konsentrasi pelarut etanol memberikan pengaruh signifikan terhadap aktivitas antidiare ekstrak daun cocor bebek. Disimpulkan bahwa ekstrak etanol 70% menghasilkan aktivitas antidiare paling kuat, setara dengan kontrol positif. Ekstrak etanol 96% menghasilkan kadar fenol total paling tinggi. Ekstrak etanol 96% dengan kandungan fenol total tertinggi tidak menghasilkan aktivitas antidiare terbaik.

Kata kunci : diare, daun cocor bebek, aktivitas antidiare, kadar fenol total, transit intestinal

ABSTRACT

WIBOWO, B. T. 2025. THE EFFECT OF ETHANOL SOLVENT CONCENTRATION IN THE EXTRACTION OF COCOR BEBEK (*Kalanchoe pinnata* (Lam.) Pers) LEAVES ON ANTIDIARRHEAL ACTIVITY IN MALE MICE USING THE INTESTINAL TRANSIT METHOD. THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Diarrhea is a gastrointestinal disorder characterized by an increased frequency of defecation and watery stools; therefore, alternative antidiarrheal agents derived from natural sources, such as cocor bebek leaves (*Kalanchoe pinnata* (Lam.) Pers), which contain bioactive compounds, are needed. The antidiarrheal activity is influenced by the extraction process and the concentration of the ethanol solvent. This study aimed to determine the ethanol concentrations of 50%, 70%, and 96% that produce the strongest antidiarrheal activity comparable to the positive control, as well as their relationship with total phenolic content.

Extraction was performed using the maceration method. Antidiarrheal activity was evaluated in male mice (*Mus musculus*) induced with castor oil and divided into six groups: normal control, negative control (CMC-Na), positive control (loperamide HCl), and three treatment groups receiving ethanol extracts of 50%, 70%, and 96% at a dose of 52 mg/kg body weight. Antidiarrheal activity was assessed using the intestinal transit method, with the parameter measured being the ratio of the distance traveled by the charcoal marker to the total intestinal length. The data were analyzed using normality and homogeneity tests, One Way ANOVA, and Tukey's post hoc test.

The results showed that differences in ethanol solvent concentration had a significant effect on the antidiarrheal activity of cocor bebek leaf extracts. It was concluded that the 70% ethanol extract produced the strongest antidiarrheal activity, comparable to the positive control. The 96% ethanol extract yielded the highest total phenolic content; however, the extract with the highest phenolic content did not produce the best antidiarrheal activity.

Keywords: diarrhea; cocor bebek leaves; antidiarrheal activity; total phenolic content; intestinal transit