

ABSTRAK

KUSRIFANI, E. I., 2022, UJI EFEKTIVITAS ANTIDEPRESAN EKSTRAK ETANOL RIMPANG TEMULAWAK (*Curcuma xanthorrhiza*, Roxb) TERHADAP MENCIT PUTIH JANTAN (*Mus musculus*) DENGAN METODE TAIL SUSPENSION TEST (TST) DAN OPEN FIELD TEST, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA. Dibimbing oleh Dr. apt. Gunawan Pamudji Widodo, M.Si dan apt. Fransiska Leviana, S.Farm., M.Sc.

Tanaman temulawak mengandung senyawa kurkumin yang memiliki aktivitas antidepresan dengan memodulasi sistem monoaminergik dengan meningkatkan kadar serotonin, norepinefrin, dan dopamin. Penelitian ini melanjutkan penelitian sebelumnya yang telah membuktikan bahwa ekstrak etanol rimpang temulawak memiliki aktivitas antidepresan dengan metode *forced swimming test*. Tujuan penelitian ini adalah untuk mengetahui *immobility time*, aktivitas lokomotor berupa durasi *central square* serta durasi *grooming*, dan dosis efektif antidepresan ekstrak etanol rimpang temulawak.

Penelitian ini menggunakan dua metode yaitu pengamatan terhadap *immobility time* menggunakan metode *tail suspension test* dan aktivitas lokomotor berupa durasi *central square* dan *grooming* menggunakan metode *open field test*. Hewan uji yang digunakan sebanyak 25 ekor mencit putih jantan dengan lima kelompok perlakuan, yaitu kelompok kontrol positif *amitriptyline*, 3 dosis ekstrak etanol rimpang temulawak 7 mg/kg BB; 14 mg/kg BB; 28 mg/kg BB dan kelompok kontrol negatif CMC Na 0,5%.

Hasil penelitian menunjukkan ekstrak etanol rimpang temulawak dosis 28 mg/kg mampu menurunkan durasi imobilitas dan meningkatkan aktivitas lokomotor mencit berupa peningkatan durasi *central square* dan penurunan durasi *grooming*. Dosis ekstrak etanol rimpang temulawak yang menghasilkan efek antidepresan paling efektif yaitu dosis 28 mg/kg BB.

Kata kunci : Depresi, rimpang temulawak, waktu imobilitas, aktivitas lokomotor

ABSTRACT

KUSRIFANI, E. I., 2022, ANTIDEPRESSANT EFFECTIVENESS TESTING ETHANOL EXTRACT OF JAVA TURMERIC (*Curcuma xanthorrhiza*, Roxb) AGAINST MALE WHITE MICE (*Mus musculus*) USING TAIL SUSPENSION TEST AND OPEN FIELD TEST METHODS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA. Supervised by Dr. apt. Gunawan Pamudji Widodo, M.Si and apt. Fransiska Leviana, S.Farm., M.Sc.

Java turmeric contains curcumin which has antidepressant activity by modulating the monoaminergic system by increasing levels of serotonin, norepinephrine and dopamine. This study continues previous research which has proven that the ethanol extract of java turmeric rhizome has antidepressant activity using the forced swimming test method. The purpose of this study was to determine immobility time, locomotor activity in the form of central square duration and grooming duration, and the effective antidepressant dose of java turmeric ethanol extract.

This study used two methods, namely observing immobility time using the tail suspension test method and locomotor activity in the form of central square duration and grooming using the open field test method. The test animals used were 25 male white mice with five treatment groups, namely the amitriptyline positive control group, 3 doses of temulawak ethanol extract 7 mg/kg; 14 mg/kg ; 28 mg/kg and the negative control group was CMC Na 0.5%.

The results showed that the ethanol extract of java turmeric rhizome at a dose of 28 mg/kg was able to reduce the duration of immobility and increase the locomotor activity of mice by increasing the duration of central square and decreasing the duration of grooming. The dose of java turmeric rhizome ethanol extract that produced the most effective antidepressant effect was a dose of 28 mg/kg.

Keywords : Depression, java turmeric, immobility time, locomotor activity