INTISARI

SRINI, D., AKTIVITAS ANTIARTRITIS KOMBINASI EKSTRAK ETANOL TANAMAN CIPLUKAN (*Physalis angulate* L.), AKAR ALANG - ALANG (*Imperata cylindrica* Linn.) DAN DAUN SAMBILOTO (*Andrographis Paniculata* Burm.f) TERHADAP TIKUS YANG DIINDUKSI CFA

Artritis merupakan kelainan yang menyebabkan pembengkakan dan nyeri pada sendi selama periode waktu yang lama, dapat disebabkan oleh sistem kekebalan tubuh yang tidak berfungsi, genetika, atau cedera sendi di masa kanak- kanak. Pengobatan tradisional dapat menjadi alternatif pendamping pengobatan modern. Tumbuhan herbal seperti jamu, digunakan dalam pengobatan tradisional dan sering disebut fitoterapi. Pengobatan tradisional merupakan karya dalam bidang kesehatan yang diwariskan oleh nenek moyang. Masyarakat modern melestarikan pengobatan tradisional dengan menggunakan ramuan berbahan dasar tumbuhan alami.

Tujuan penelitian ini menilai aktivitas antiartritis ekstrak etanol tunggal dan kombinasi tanaman ciplukan, akar alang-alang dan daun sambiloto. Mekanisme inflamasi dipelajari menggunakan 65 tikus yang diinduksi CFA (Complete Freund's Adjuvant) melalui intraplantar terbagi menjadi 13 kelompok yaitu kelompok kontrol normal, kontrol negatif, kontrol positif, tiga kelompok ekstrak tunggal, dua kelompok ekstrak kombinasi, dua kelompok ekstrak kombinasi dengan pemberian topikal aloe vera, dua kelompok kombinasi dengan pemberian topikal aloe vera dan ekstrak kombinasi, satu kelompok kombinasi tiga ekstrak dan pemberian topikal. Penelitian selama 14 hari dilakukan pengamatan adanya perubahan berat badan, volume udem, jumlah sel darah putih dan profil histopatologi. Data yang diperoleh diolah dengan Uji ANOVA dan post Hoc.

Hasil penelitian menunjukkan ekstrak etanol yang memiliki efektivitas sebanding dengan kelompok kontrol positif adalah kombinasi ekstrak etanol tanaman ciplukan dan daun sambiloto perbandingan dosis 0,5 : 0,5 nilai DAI sebesar 32.01%, kombinasi ekstrak etanol tanaman ciplukan dan akar alang-alang dengan penambahan topikal aloe vera yang dikombinasi ekstrak etanol tanaman ciplukan dan akar alang-alang perbandingan dosis 0,5 : 0,5 nilai DAI sebesar 32,23%, kombinasi ekstrak etanol tanaman ciplukan dan daun sambiloto dengan penambahan topikal aloe vera yang dikombinasi ekstrak etanol tanaman ciplukan dan daun sambiloto perbandingan dosis 0,5 : 0,5 nilai DAI sebesar 34,31%, kombinasi ekstrak etanol tanaman ciplukan, akar alang-alang dan daun sambiloto dengan penambahan topikal aloe vera yang dikombinasi ekstrak etanol tanaman ciplukan, akar alang-alang dan daun sambiloto perbandingan dosis 0,3 : 0,3 : 0,3 nilai DAI sebesar 38,64%. Penelitian ini menunjukkan bahwa ekstrak etanol kombinasi tanaman ciplukan, akar alang-alang dan daun sambiloto memiliki potensi sebagai pengobatan alternatif untuk artritis.

Kata Kunci : Artritis, Tanaman Ciplukan, Akar Alang - Alang, Daun Sambiloto

ABSTRACT

SRINI, D., Anti-Arthritis Activity Combination of Ethanol Extract Ciplukan Plant (*Physalis Angulata* L.) with Alang-Alang Roots (*Imperata Cylindrica* Linn.) and Sambiloto Leaves (*Andrographis Paniculata* Burm.F) Against CFA-Induced Rats

Arthritis is a disorder that causes swelling and pain in the joints over a long period of time, can be caused by a malfunctioning immune system, genetics, or joint injury in childhood. Traditional medicine can be an alternative companion to modern medicine. Herbal plants such as jamu, are used in traditional medicine and are often called phytotherapy. Traditional medicine is a work in the field of health that is inherited from ancestors. Modern society preserves traditional medicine by using herbal ingredients.

The purpose of this study was to assess the antiarthritis activity of single and combined ethanol extracts of ground cherry, cogongrass roots and sambiloto leaves. The mechanism of inflammation was studied using 65 rats induced by CFA (*Complete Freund's Adjuvant*) via intraplantar divided into 13 groups, namely normal control group, negative control, positive control, three single extract groups, two combination extract groups, two combination extract groups with topical administration of aloe vera, two combination groups with topical administration of aloe vera and combination extract, one combination group of three extracts and topical administration. The study for 14 days was conducted to observe changes in body weight, edema volume, white blood cell count and histopathological profile. The data obtained were processed using ANOVA and post Hoc tests.

The results of the study showed that the ethanol extract that had comparable effectiveness to the positive control group was a combination of ethanol extract of ground cherry plants and sambiloto leaves with a dose ratio of 0.5:0.5 with a DAI value of 32.01%, a combination of ethanol extract of ground cherry plants and cogongrass roots with the addition of topical aloe vera combined with ethanol extract of ground cherry plants and cogongrass roots with a dose ratio of 0.5:0.5 with a DAI value of 32.23%, a combination of ethanol extract of ground cherry plants and cogongrass leaves with the addition of topical aloe vera combined with ethanol extract of ground cherry plants and cogongrass leaves with a dose ratio of 0.5:0.5 with a DAI value of 34.31%, a combination of ethanol extract of ground cherry plants, cogongrass roots and bitter leaves with the addition of topical aloe vera combined with ethanol extract of ground cherry plants, cogongrass roots and bitter leaves with a dose ratio of 0.3:0.3:0.3 with a DAI value of 38.64%. This study shows that the ethanol extract of the combination of ground cherry plants, cogongrass roots and sambiloto leaves has the potential as an alternative treatment for arthritis.

Keywords : Arthritis, Ciplukan Plants, Alang - Alang Roots, Sambiloto Leaves