

## INTISARI

PUSPITASARI, I., 2014, AKTIVITAS ANTIARTRITIS KOMBINASI EKSTRAK ETANOL RIMPANG JAHE MERAH (*Zingiber officinale* Rosc.) DAN TANAMAN ANTING-ANTING (*Acalypha indica* Linn.) TERHADAP TIKUS YANG DIINDUKSI *COMPLETE FREUND'S ADJUVANT* , SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Artritis merupakan penyakit yang menyerang sistem muskuloskeletal. Artritis rematoid adalah salah satu jenis artritis yang disebabkan oleh reaksi autoimun. Tujuan dari penelitian ini adalah untuk mengetahui aktivitas antiartritis kombinasi ekstrak etanol rimpang jahe merah dan tanaman anting-anting.

Penelitian ini menggunakan 5 kelompok tikus dan diinduksi *complete Freund's adjuvant* pada plantar kaki. Masing-masing kelompok diberi perlakuan. Kelompok 1 diberikan ekstrak tunggal rimpang jahe merah 56 mg/200g BB tikus, kelompok 2 diberikan ekstrak tunggal tanaman anting-anting 200 mg/kg BB, kelompok 3 diberikan kombinasi ekstrak rimpang jahe merah dan tanaman anting-anting (0,5:0,5), kelompok 4 diberikan triamsinolon 0,072mg/200g BB tikus, dan kelompok 5 diberikan CMC 1%. Bahan uji diberikan secara oral, kemudian dilakukan pengukuran volume udem menggunakan *plethysmometer*.

Hasil penelitian menunjukkan bahwa ekstrak tunggal tanaman anting-anting memiliki kemampuan menurunkan volume udem paling baik. Sementara triamsinolon memberikan perbaikan profil histopatologi persendian melalui perbaikan jarak ruang sendi dan tidak adanya infiltrasi sel. Sedangkan kombinasi ekstrak rimpang jahe merah dan tanaman anting-anting memiliki kemampuan menurunkan jumlah leukosit. Namun berdasarkan analisa statistik, tidak terdapat perbedaan yang nyata antara kelompok ekstrak tunggal rimpang jahe merah, ekstrak tunggal tanaman anting-anting, dan kombinasi ekstrak rimpang jahe merah dan anting-anting terhadap kontrol positif triamsinolon. Dengan demikian, kombinasi ekstrak rimpang jahe merah dan tanaman anting-anting mempunyai aktivitas antiartritis yang sebanding dengan sediaan tunggal masing-masing tanaman tersebut.

Kata kunci : Rimpang jahe merah, tanaman anting-anting, *complete Freund's adjuvant*, antiartritis, triamsinolon.

## ABSTRACT

PUSPITASARI, I., 2014., ANTIARTHRITIS ACTIVITY OF COMBINATION ON RED GINGER RHIZOME (*Zingiber officinale* Rosc.) AND ACALYPHA PLANT (*Acalypha indica* Linn) ETHANOLIC EXTRACTS ON COMPLETE FREUND'S ADJUVANT INDUCED ARTHTRITIS RAT.

Arthritis is a disease affecting the musculoskeletal system. Rheumatoid arthritis is a type of arthritis that is caused by an autoimmune reaction. The purpose of this study was to determine the antiarthrititis activity of combination on red ginger rhizome and acalypha plant ethanolic extracts.

This study used five groups of rats and induced complete Freund's adjuvant on plantar foot. Each group was given treatment. Group 1 was given a red ginger rhizome single extract 56 mg/200g BB rats, group 2 was given a acalypha plant single extract 200 mg/kg, group 3 was given a combination on red ginger rhizome and acalypha plant extracts, group 4 was given of triamcinolone 0,072 mg/200g BB rats, and group 5 was given CMC 1% . Test material is administered orally, and edema volume measurements using plethysmometer.

The results showed that a acalypha plant single extract have the ability to reduce both the volume of the edema. While triamcinolone provide improved histopathology profile joints through improved joint space distance and the absence of cell infiltration. While the combination of red ginger rhizome and acalypha plant extracts have the ability to reduce leukocyte counts. However, based on statistical analysis, there were no significant differences between the groups of red ginger rhizome single extract, acalypha plant single extract and a combination of red ginger rhizome and acalypha extracts against a positive control triamcinolone. Thus, the combination of red ginger rhizome and acalypha plant extracts have antiarthrititis activity comparable with single dosage of each of these plants.

Keywords : red ginger rhizome, acalypha plant, complete Freund's adjuvant, antiarthrititis, triamcinolone.