

INTISARI

KOLOBANI, M.N. 2014. AKTIVITAS ANTI-ARTRITIS DAN ANTI-INFLAMASI HERBA ANTING-ANTING (*Acalypha indica* L.) PADA TIKUS PUTIH JANTAN GALUR WISTAR, TESIS, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Anting-anting (*Acalypha indica* L.) telah digunakan sebagai obat anti-artritis dan anti-inflamasi. Penelitian ini bertujuan untuk mengetahui aktivitas anti-artritis dan anti-inflamasi serta senyawa kimia yang bertanggung jawab terhadap aktivitas anti-inflamasi dari herba anting-anting.

Penelitian dilakukan menggunakan metode acak lengkap. Pada uji anti-artritis, hewan uji dibagi menjadi 6 kelompok dengan masing-masing kelompok 5 ekor tikus. Kelompok 1: kontrol normal; kelompok 2: kontrol negatif; kelompok 3: Triamsinolon; kelompok 4-6: EEAA 50, 100, 200 mg/kg bb secara berturut-turut. Hewan uji diinduksi dengan 0,2 ml CFA dan diamati hingga tampak gejala artritis yaitu udem dan eritem kemudian diberi perlakuan dan diamati penurunan volume udem serta profil histopatologi. Pada uji anti-inflamasi hewan uji dibagi menjadi 8 kelompok dengan masing-masing hewan uji 6 ekor tikus. Kelompok 1: kontrol normal; kelompok 2: kontrol negatif; kelompok 3: Na. diklofenak; kelompok 4 dan 5: masing-masing EEAA 100 dan 200 mg/kg bb; kelompok 6-8: berturut-turut fraksi II, IV dan V masing-masing 100 mg/kg bb. Hewan uji diberi perlakuan dengan sampel uji kemudian diinduksi karagenan 1 jam kemudian. Diamati penurunan volume udem setiap jam selama 6 jam.

Hasil uji aktivitas anti-artritis menunjukkan bahwa ekstrak etanol anting-anting 200 mg/kg bb memberikan penurunan volume udem dan profil histopatologi yang sebanding dengan triamsinolon ($p < 0,05$). Uji anti-inflamasi menunjukkan bahwa fraksi II memberikan efek anti-inflamasi yang sebanding dengan Na. Diklofenak ($p < 0,05$). Senyawa kimia yang bertanggung jawab terhadap aktivitas anti inflamasi adalah triterpenoid, steroid dan polifenol.

Kata kunci : *Acalypha indica* L., anti-artritis, anti-inflamasi, triterpenoid, steroid, polifenol

ABSTRACT

KOLOBANI, M.N. 2014. ANTI-ARTHRITIC AND ANTI-INFLAMMATORY ACTIVITY OF ANTING-ANTING (*Acalypha indica* L.) WHOLE PLANT IN WISTAR MALE ALBINO RATS. THESIS. FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Acalypha indica L. has been used as anti-arthritic and anti-inflammatory medicine. The study aims to determine anti-arthritic and anti-inflammatory activity as well as chemical compounds responsible for anti-inflammatory activity from *Acalypha indica* L. whole plant.

The research was conducted by completely randomized method. In anti-arthritic test, test animals were divided into six groups by five rats in every group. Group 1: normal control; group 2: negative control; group 3: triamcinolone; group 4-6: *Acalypha indica* ethanol extract (AIEE) 50, 100, 200 mg/kg bw, respectively. Test animals induced with 0.2 ml of CFA and observed that edema and erythema is a symptom of arthritis, then treated and observed a decrease in volume of edema and histopathological profile. In anti-inflammatory test, test animals were divided into eight groups by six rats in every group. Group 1: normal control; group 2: negative control; group 3: diclofenac sodium; group 4 and 5: (AIEE) 100, 200 mg/kg bw, respectively; group 6 – 8: fraction II, IV, and V 100 mg/kg bw, respectively. Test animals were treated with the test sample, then the animals test induced by carrageenan 1 hour later. Observed decrease in edema volume every hour for 6 hours.

The result of anti-arthritic activity test showed that *Acalypha indica* L. ethanol extract dose 200 mg/kg bw provided edema volume decrease and histopathological profile comparable with triamcinolone ($p < 0.05$). Anti-inflammatory test showed that the fraction II provides anti-inflammatory effects comparable with Na. Diclofenac ($p < 0.05$). Chemical compounds responsible for the anti-inflammatory activity was triterpenoids, steroids and polyphenols.

Keywords : *Acalypha indica* L., anti-arthritic, anti-inflammatory, triterpenoids, steroids, polyphenols.