ABSTRAK

Latar Belakang. Diabetes melitus merupakan penyakit metabolik yang ditandai dengan peningkatan kadar glukosa darah akibat gangguan produksi insulin. Daun ekor naga dan daun kayu manis berpotensi sebagai bahan obat tradisional yang digunakan untuk mempercepat penyembuhan luka, mengurangi peradangan, sebagai agen antimikroba, antihiperglikemik, antioksidan, antijamur, antivirus. Penelitian sebelumnya mengenai aktivitas antidiabetes daun ekor naga dan daun kayu manis dilakukan secara terpisah berupa ekstrak tunggal, sehingga perlu dilakukan kombinasi dari ekstrak daun ekor naga dan daun kayu manis. Tujuan penelitian ini untuk mengetahui aktivitas antidiabetes dan melihat efek sinergis dari kombinasi ekstrak daun ekor naga dan daun kayu manis terhadap penurunan kadar glukosa darah pada mencit.

Metode. Penelitian ini bersifat eksperimental laboratorium dan menggunakan Rancangan Acak Lengkap (RAL) dengan desain kelompok *post-test group design* melalui 8 perlakuan yaitu kelompok normal, kontrol negatif (Na-CMC 0,5%), kontrol positif (glibenklamid), P1= ekstrak daun ekor naga 250 mg/kgBB, P2= ekstrak daun kayu manis 250 mg/kgBB, P3= kombinasi ekstrak daun ekor naga 125 + daun kayu manis 125 mg/kgBB, P4= kombinasi ekstrak daun ekor naga 100 + daun kayu manis 150 mg/kgBB, P5= kombinasi ekstrak daun ekor naga 150 + daun kayu manis 100 mg/kgBB. Parameter yang diamati adalah kadar gula darah dan berat badan hewan uji. Hasil yang diperoleh dianalisis dengan menggunakan One Way Anova yang dilanjutkan dengan uji Duncan.

Hasil. Hasil penurunan kadar glukosa darah menunjukan bahwa efek paling tinggi dari kombinasi ekstrak daun ekor naga dan daun kayu manis pada variasi dosis terdapat pada kelompok perlakuan 4 (kombinasi ekstrak daun ekor naga 100 + daun kayu manis 150 mg/kgBB) dengan persentase yaitu 77,18%.

Kesimpulan. Kombinasi ekstrak daun ekor naga dan daun kayu manis dapat memberikan efek sinergis lebih besar terhadap penurunan kadar glukosa darah dibandingkan ekstrak tunggal.

Kata kunci: Antidiabetes, Ekstrak Daun Ekor Naga, Ekstrak Daun Kayu Manis, Kadar Gula Darah, Mencit.

ABSTRACT

Background.*Diabetes mellitus is a metabolic disease characterized by increased blood glucose levels due to impaired insulin production. Dragon tail leaves and cinnamon leaves have the potential as traditional medicine ingredients used to accelerate wound healing, reduce inflammation, as antimicrobial, antihyperglycemic, antioxidant, antifungal, and antiviral agents. Previous studies on the antidiabetic activity of dragon tail leaves and cinnamon leaves were conducted separately in the form of single extracts, so a combination of dragon tail leaf and cinnamon leaf extracts is needed. The purpose of this study was to determine the antidiabetic activity and to see the synergistic effect of the combination of dragon tail leaf and cinnamon leaf extracts on reducing blood glucose levels in mice.*

Method.*This research is a laboratory experiment and uses a Completely Randomized Design (CRD) with a post-test group design through 8 treatments, namely the normal group, negative control (0.5% Na-CMC), positive control (glibenclamide), P1 = dragon's tail leaf extract 250 mg / kgBW, P2 = cinnamon leaf extract 250 mg / kgBW, P3 = combination of dragon's tail leaf extract 125 + cinnamon leaf 125 mg / kgBW, P4 = combination of dragon's tail leaf extract 100 + cinnamon leaf 150 mg / kgBW, P5 = combination of dragon's tail leaf extract 150 + cinnamon leaf 100 mg / kgBW. The parameters observed were blood sugar levels and body weight of the test animals. The results obtained were analyzed using One Way Anova followed by the Duncan test.*

Results.*The results of the decrease in blood glucose levels showed that the highest effect of the combination of dragon tail leaf extract and cinnamon leaves at various doses was in treatment group 4 (combination of dragon tail leaf extract 100 + cinnamon leaves 150 mg/kgBW) with a percentage of 77.18%.*

Conclusion.*The combination of dragon tail leaf extract and cinnamon leaf extract can provide a greater synergistic effect on reducing blood glucose levels compared to single extracts.*

Keywords:*Antidiabetic, Dragon Tail Leaf Extract, Cinnamon Leaf Extract, Blood Sugar Levels, Mice.*