

INTISARI

Diabetes melitus merupakan salah satu penyakit yang cukup berbahaya. Selama ini pengobatan yang dilakukan dengan obat hipoglikemik oral membutuhkan biaya yang tidak murah dan digunakan dalam jangka waktu yang cukup lama sehingga tidak semua masyarakat dapat menjangkaunya. Sementara itu, fenomena *'back to nature'* saat ini semakin berkembang luas di masyarakat. Maka muncullah pemikiran untuk membuktikan kebenaran manfaat ekstrak daun binahong sebagai obat diabetes melitus.

Penelitian ini merupakan penelitian eksperimental murni dengan rancangan acak lengkap pola searah. Efek hipoglikemik ekstrak daun binahong pada tikus putih jantan yang dibebani glukosa ditetapkan melalui uji toleransi glukosa oral (UTGO). Tiga puluh ekor tikus dibagi kedalam enam kelompok perlakuan. Kelompok I diberi aquadest 5 ml/kgBB sebagai kontrol negatif, kelompok II diberi larutan glibenklamida 0,45 mg/kgBB sebagai kontrol positif, dan kelompok III sampai VI diberi perlakuan ekstrak daun binahong dengan peringkat dosis 1,20 g/kgBB, 1,80 g/kgBB, 2,70 g/kgBB, dan 4,05 g/kgBB secara per-oral. Kadar glukosa darah ditetapkan dengan metode enzimatik *Glucose Oxidase Phenol Antipirin* (GOD-PAP). Data kadar glukosa darah pada tiap waktu sampling pada tiap kelompok dianalisis secara statistik menggunakan metode *GLM Repeated Measure*. Sedangkan nilai $LDDK^{0-300}$ glukosa darah dianalisis secara statistik menggunakan uji *Kruskal Wallis* dan kemudian dilanjutkan dengan uji *Mann Whitney* bertaraf kepercayaan 95%.

Hasil penelitian menunjukkan bahwa ekstrak daun binahong dengan dosis 1,20 g/kgBB sampai 4,05 g/kgBB memberikan penurunan kadar glukosa darah sebesar 10,85% sampai 23,67% terhadap kontrol negatif. Peringkat dosis 3 dan 4 memberikan efek penurunan kadar glukosa darah secara bermakna terhadap kontrol negatif. Dengan demikian dapat disimpulkan bahwa ekstrak daun binahong mempunyai efek hipoglikemik.

Kata kunci: daun binahong, GOD-PAP, efek hipoglikemik, diabetes melitus

ABSTRACT

Diabetes mellitus was one of those quite dangerous diseases. So far the use of oral hypoglycemic medicine as the treatment costs very much and it has to be used in long period so not all of people can afford it. Meanwhile, the phenomenon of “back to nature” has now been very popular in the society. As the result, came the research to prove the truth about the capability of the extract of *Anredera baselloides* Baill leave to be the alternative treatment to the disease.

This research was purely experimental with complete random pattern design. The hypoglycemic effect on male rat which had been given glucose was tested through Oral Glucose Tolerance Test (OGTT). Thirty mice were divided into six groups with six different kinds of treatment for each group. Group I was treated by aquadest 5 ml/kg bw as negative control, group II was treated by glibenclamide 0,45 mg/kg bw as positive control, group III, IV, V, and VI were treated extract of the leaves of *Anredera baselloides* Baill which have equivalent dosage 1,20 g/kg bw, 1,80 g/kg bw, 2,70 g/kg bw, and 4,05 g/kg bw, and all the dispersion were per os. Blood glucose level was assayed with Glucose Oxidase Phenol Antipirin (GOD-PAP) enzymatic method. The data of blood glucose level from each sampling time on each group was statistically analyzed using GLM Repeated Measure design. The AUC⁰⁻³⁰⁰ of blood glucose was statistically analyzed using Kruskal Wallis test and then continued with Mann Whitney test with 95% level of confidence.

The result indicated that extract of the leaves of *Anredera baselloides* Baill with 1,2 g/kg bw until 4,05 g/kg bw dosages decreased the concentration of blood glucose from 10,85% until 23,67% to negative control. Level dosage 2,70 g/kg bw, and 4,05 g/kg bw decreased the concentration of blood glucose significantly to negative control. Thus, it can be concluded that extract of the leaves of *Anredera baselloides* Baill has hypoglycemic effect.

Keyword : *Anredera baselloides* Baill., GOD-PAP, hypoglycemic effect, diabetes mellitus