

ABSTRAK

Mutia Ashril Karim. 2015. Efek Ekstrak Etanol Daun Turi (*Sesbania grandiflora* L.) Terhadap Penurunan Kadar Glukosa Darah dan Peningkatan Sensitivitas Insulin pada Mencit Jantan (*Mus Musculus*). Skripsi. Program Studi S1. Jurusan Farmasi. Fakultas Ilmu-Ilmu Kesehatan dan Keolahragaan. Universitas Negeri Gorontalo. Pembimbing I Dr. Widysusanti Abdulkadir, M.Si.,Apt dan Pembimbing II Mohammad Adam Mustapa, S.Si.,M.Sc.

Daun turi merupakan salah satu tanaman yang berkhasiat sebagai antidiabetes. Penelitian ini bertujuan untuk mengetahui efek ekstrak etanol daun turi (*Sesbania grandiflora* L.) terhadap penurunan kadar glukosa darah dan peningkatan sensitivitas insulin pada mencit jantan (*Mus musculus*). Sampel daun turi yang digunakan, diekstraksi dengan cara maserasi dengan etanol 70%. Ekstrak daun turi yang diperoleh, dibagi kedalam 3 konsentrasi yaitu 10% b/v, 15% b/v, dan 20% b/v. Penelitian ini menggunakan 2 metode yakni tes toleransi glukosa oral (TTGO), dan tes toleransi insulin (TTI). Masing-masing metode terdiri dari 25 ekor mencit yang dibagi kedalam 5 kelompok yaitu kelompok I (kontrol negatif) diberikan suspensi Na-CMC 1% b/v, kelompok II (kontrol positif) diberikan suspensi glibenklamid 0,00195% b/v, kelompok III diberikan suspensi ekstrak etanol daun turi 10% b/v, kelompok IV diberikan suspensi ekstrak etanol daun turi 15% b/v, dan kelompok V diberikan suspensi ekstrak etanol daun turi 20% b/v. Hasil pengukuran kadar glukosa darah yang diperoleh dianalisis secara statistika menggunakan analisis data MANOVA (*Multivariate Analysis Of Variance*). Diperoleh hasil bahwa ekstrak etanol daun turi 20% b/v memberikan hasil yang paling baik diantara semua kelompok dalam hal penurunan kadar glukosa darah maupun peningkatan sensitivitas insulin.

Kata Kunci : Antidibetes, Glukosa darah, Sensitivitas Insulin, Ekstrak Daun Turi, MANOVA

ABSTRACT

Mutia Ashril Karim. 2015. Effect of Etanol Extract of Turi Leaf (*Sesbania grandiflora* L.) towards the Decrease of Blood Glucose Level and Increase of Insulin Sensitivity on Male Mice (*Mus musculus*). Skripsi. Study Program of S1 Pharmacy. Department of Pharmacy. Faculty of Health Sciences and Sports. State University of Gorontalo. The principal supervisor was Dr. Widisusanti Abdul Kadir, M.Si., Apt and the co-supervisor was Mohammad Adam Mustapa, S.Si., M.Sc.

Turi leaf is one of plant which has function as antidiabetic. This research aimed at investigating the effect of ethanol extract of turi leaf (*Sesbania grandiflora* L.) toward the decrease of blood glucose level and increase of insulin sensitivity on male mice (*Mus musculus*). Samples of turi leaf which were used were extracted by maceration with ethanol 70%. The extract of turi leaf divided into 3 concentrations namely, 10% w/v, 15% w/v, and 20% w/v. This research used 2 methods namely oral glucose tolerance test (OGTT) and insulin tolerance test (ITT). Each methods consisted of 25 male mice which were divided into 5 groups. Group I (negative control) was given Na-CMC 1% w/v suspension, group II (positive control) was given glibenclamide 0,00195% w/v suspension, group III was given ethanol extract turi leaf for 10% w/v suspension, group IV was given ethanol extract turi leaf for 15% w/v suspension, and group V was given ethanol extract turi leaf for 20% w/v suspension. The result of gained blood glucose measurement were analyzed statistically using MANOVA (*Multivariate Analysis of Variance*) data analysis. It gained that ethanol extract 20% w/v of turi leaf was the best concentration in case of both decreasing blood glucose level and increasing insulin sensitivity.

Keywords : Antidiabetic, Blood glucose, Insulin sensitivity, Turi Leaf Extract, MANOVA