

INTISARI

DOKO M., 2013, EFEK INFUSA BATANG BROTOWALI TERHADAP KADAR GLUKOSA DARAH DAN KADAR KOLESTEROL TOTAL DARAH MENCIT PUTIH DIABETES AKIBAT INDUKSI ALOKSAN DAN PEMBERIAN PAKAN KAYA LEMAK, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Kondisi diabetes mellitus dapat menyebabkan peningkatan kadar glukosa darah dan peningkatan kadar kolesterol darah. Secara empiris, rebusan batang brotowali digunakan masyarakat untuk mengobati diabetes mellitus. Tujuan dari penelitian ini untuk menentukan dosis efektif infusa batang brotowali terhadap penurunan kadar glukosa darah dan kadar kolesterol total darah mencit putih jantan yang dibuat diabetes melalui induksi aloksan dan pemberian pakan kaya lemak.

Penelitian ini menggunakan 30 ekor mencit putih jantan yang dibagi dalam 6 kelompok, yaitu K I (kontrol normal), K II (kontrol positif), K III (kontrol negatif), K IV (pemberian dosis infusa batang brotowali 28 mg/20 g BB), K V (pemberian dosis infusa batang brotowali 56 mg/20 g BB), K VI (pemberian dosis infusa batang brotowali 112 mg/20 g BB). Kadar glukosa darah puasa dan kadar kolesterol total puasa diukur menggunakan alat *Easy Touch GCU*[®]. Data kuantitatif hasil pengukuran dianalisis menggunakan uji *Kruskal Wallis* dilanjutkan dengan uji *Mann Whitney*.

Hasil penelitian menunjukkan bahwa infusa batang brotowali menunjukkan infusa batang brotowali dapat menurunkan kadar gula darah dan kadar kolesterol total. Dosis efektif untuk menghasilkan efek penurunan kadar glukosa darah dan penurunan kadar kolesterol total darah mencit adalah 112 mg/20 g BB setara dengan kontrol normal.

Kata kunci: Infus, batang brotowali, diabetes mellitus, glukosa darah, kolesterol total

ABSTRACT

DOKO M., 2013, THE EFFECT OF BROTOWALI STEMS INFUSION AGAINST BLOOD GLUCOSE LEVELS AND TOTAL MICE WHITE BLOOD CHOLESTEROL LEVELS OF DIABETES WHITE MICE WITH ALOXAN INDUCED AND THE ADMINISTRATION OF FEED RICH IN FAT, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

The condition of diabetes mellitus cause of impaired metabolism of carbohydrates that is increasing blood glucose and disorders of fat metabolism that is increases blood cholesterol. Empirically, stew stems of brotowali is used to treat of diabetes mellitus. The purpose of research is for measuring and determine effective doses of brotowali stems infusion to decrease blood glucose and total blood cholesterol of white mice diabetes with aloxan induced and provision of feed rich in fat.

This research used 30 male white mice which were divided into 6 groups : K I (normal control), K II (positive control), K III (negative control), K IV (brotowali stems infusion dose of 28 mg/20 g BW), K V (brotowali stems infusion dose of 56 mg/20 g BW) and K VI (brotowali stems infusion dose of 112 mg/20 g BW). Fasting blood glucose and total cholesterol measured by *Easy Touch GCU*[®]. The results analyzed by *Kruskal Wallis* test and *Mann Whitney* test.

The results showed that brotowali stems infusion can be decreased blood glucose and total cholesterol levels. The effective dose of brotowali stems infusion to decreased blood glucose and total cholesterol is 112 mg/ 20 g BW, similar with normal control.

Keywords: infusion, brotowali stems, diabetes mellitus, blood glucose, total cholesterol.