

INTISARI

NURAI SYAH, R., 2017, PENGARUH KOMBINASI EKSTRAK UBI JALAR UNGU (*Ipomoea batatas* L.) DAN GLIBENKLAMID TERHADAP KADAR GLUKOSA DARAH TIKUS PUTIH JANTAN HIPERGLIKEMIK YANG DIINDUKSI ALOKSAN, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Ubi jalar ungu (*Ipomoea batatas* L.) dan glibenklamid terbukti dapat menurunkan kadar glukosa darah. Tujuan penelitian ini adalah untuk mengetahui aktivitas kombinasi ekstrak ubi jalar ungu dan glibenklamid dalam menurunkan kadar glukosa darah tikus putih jantan hiperglikemik yang diinduksi aloksan.

Penelitian ini menggunakan 25 ekor tikus yang dibagi menjadi 5 kelompok. Kelompok I kontrol normal, kelompok II kontrol negatif (CMC 0,5%), kelompok III kontrol positif (glibenklamid 0,09 mg/ 200 gBB), kelompok IV kontrol ekstrak ubi jalar ungu dosis 200 mg/kgBB, kelompok V kombinasi ekstrak ubi jalar ungu : glibenklamid 50%:50% (dosis 0,045 mg/200 g BB tikus : 40 mg/200 g BB tikus). Tikus dibuat diabetes dengan penginduksi aloksan dosis 140 mg/kgBB secara intraperitoneal. Pemberian sediaan uji dilakukan selama 14 hari secara per oral. Pengukuran kadar glukosa darah dilakukan pada hari ke 0, 3, 7, dan 14 setelah perlakuan menggunakan metode glukosa oksidase (GOD-PAP). Data kadar glukosa darah dianalisis dengan uji *one way* ANOVA.

Hasil pengukuran kadar glukosa darah menunjukkan ekstrak ubi jalar ungu tunggal dan kombinasi ekstrak ubi jalar ungu : glibenklamid (50%:50%) memiliki aktivitas penurunan kadar glukosa darah yang setara, tetapi potensinya lebih rendah dibandingkan glibenklamid.

Kata kunci : ubi jalar ungu, glibenklamid, aloksan, glukosa darah

ABSTRACT

NURAI SYAH, R., 2017, THE INFLUENCE OF COMBINATION PURPLE SWEET POTATO (*Ipomoea batatas* L.) EXTRACT AND GLIBENCLAMIDE ON BLOOD GLUCOSE LEVEL IN HYPERGLYCEMIC MALE WHITE RATS WITH INDUCED ALLOXAN, UNDERGRADUATED THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Purple sweet potato (*Ipomoea batatas* L.) and glibenclamide were trust could decreased blood glucose effectively. The purpose of this study was to determine activity of combination purple sweet potato extract (PSPE) and glibenclamide in lowering blood glucose level of male white rats hyperglycemic induced with alloxan.

This research use twenty five rats were divided into 5 groups. Group I was normal control, group II was negative control (CMC 0,5%), group III was positive control (glibenclamide dose of 0,09 mg/200 g BW), group IV was purple sweet potato extract (PSPE) control (dose of 200 mg/kgBW), group V was combination of PSPE : glibenclamide 50%:50% (dose of 0,045 mg/200 g BW : 40 mg/ 200 g BW). Rats were induced with alloxan dose of 140 mg/kg BW intraperitoneally. The rats were treatment for 14 days orally. The measurement of blood glucose at days 0th, 3rd, 7th, 14th after treatment by using glucose oxidase (GOD-PAP) method. Glucose levels data was analyzed with *one way* ANOVA.

The result of glucose levels showed that PSPE and combination of PSPE : glibenclamide (50%:50%) could decreased blood glucose. This combination proportionated with PSPE control, but the potential lower than a single dose of glibenclamide.

Keywords: purple sweet potato, glibenclamide, alloxan, blood glucose