

UJI EFEKTIVITAS HERBAL SEREH (*Cymbopogon citratus*) TERHADAP KADAR GLUKOSA DARAH TIKUS PUTIH JANTAN GALUR WISTAR YANG DIINDUKSI STREPTOZOTOCIN

ABSTRAK

Latar Belakang : Diabetes melitus merupakan penyakit metabolik berupa berkurangnya jumlah produksi hormon insulin karena ketidakmampuan organ pankreas memproduksi, atau sel tubuh tidak dapat menggunakan insulin. Herbal sereh mengandung flavonoid, tanin, saponin, polifenol, alkaloid, vitamin A dan C yang dapat menurunkan kadar glukosa darah.

Tujuan : Untuk mengetahui efektivitas penurunan kadar glukosa darah setelah diberi herbal sereh (*Cymbopogon citratus*) pada tikus putih galur wistar yang diinduksi streptozotocin dan nicotinamida (NA) dibandingkan dengan glibenklamid

Metode Penelitian : Penelitian ini menggunakan 30 ekor tikus putih jantan galur Wistar, dibagi menjadi 5 kelompok, yaitu kelompok kontrol negatif, kontrol positif, obat standar glibenklamid (0,09mg/ 200gr BB), herbal sereh 1 (0,09gr/200gr BB) dan herbal sereh 2 (0,18gr/200gr BB). Kadar glukosa darah ditetapkan sebelum dan sesudah perlakuan selama 28 hari dengan metode GOD-PAP.

Hasil Penelitian : Rerata kadar glukosa darah sesudah perlakuan pemberian herbal sereh dosis 1 dan 2 berturut-turut sebesar 146,63mg/dl dan 125,67mg/dl. Penurunan Kadar glukosa darah dipengaruhi oleh dosis herbal ($p < 0,05$). Penurunan kadar glukosa darah pada kelompok perlakuan herbal sereh dosis 1 dan 2 masih lebih rendah dibandingkan kelompok yang diberi obat standar glibenklamid ($p < 0,05$).

Kesimpulan : Herbal sereh mampu menurunkan kadar glukosa darah tikus diabetik.

Kata Kunci : Herbal sereh, kadar glukosa darah, tikus putih jantan.

THE EFFECTIVENESS OF LEMONGRASS HERBAL (*Cymbopogon citratus*) AGAINST BLOOD GLUCOSE LEVELS OF MALE WHITE RATS WISTAR STRAIN INDUCED BY STREPTOZOTOCIN.

ABSTRACT

Background: Diabetes mellitus (DM) is a metabolic disease marked by the decrease of insulin hormone production due to the inability of the pancreatic organs to produce, or the body's cells cannot use the insulin. Lemongrass herbs contain flavonoids, tannins, saponins, polyphenols, alkaloids, vitamin A and C which can reduce blood glucose levels.

Objective: To determine the effectiveness in decreasing blood glucose levels after being given lemongrass herbs (*Cymbopogon citratus*) in wistar white rat strains induced by streptozotocin compared to glibenclamide and nicotinamida.

Methods : This study used 30 male white rats of Wistar strain, divided into 5 groups, namely negative control group, positive control, standard glibenclamide drug (0.09 mg / 200gr BB), lemongrass herbs 1 (0.09gr / 200gr BB) and lemongrass herbs 2 (0.18gr / 200gr BB). Blood glucose levels were determined before and after treatment for 28 days using the GOD-PAP method.

Results : The average blood glucose levels after treatment of giving lemongrass herbal doses 1 and 2 were 146.63 mg/dl and 125.67 mg/dl respectively. Decreased blood glucose levels are influenced by herbal doses ($p < 0.05$). The decrease in blood glucose levels in the treatment groups of lemongrass herbal doses 1 and 2 was still lower than the group given the standard glibenclamide drug ($p < 0.05$).

Conclusion: Lemongrass herbs can reduce blood glucose levels diabetic rats.

Keywords: Herbal lemongrass, blood glucose levels, male white rats.