ABSTRAK

Penelitian ini bertujuan untuk mengetahui efek antihiperglikemik kombinasi infusa kulit batang faloak dan metformin pada mencit yang terbebani glukosa. Penelitian ini termasuk jenis penelitian eksperimental murni dengan rancangan acak lengkap pola searah. Sebanyak 30 ekor mencit dibagi ke dalam 6 kelompok secara acak yaitu kelompok I diberikan akuades (25 g/KgBB), kelompok II diberikan glukosa (2 g/KgBB), kelompok III kontrol metformin (65 mg/kgBB), kelompok IV adalah kontrol infusa kulit batang faloak (IKBF) 3,33 g/KgBB, kelompok V dan VI adalah kombinasi metformin 65 mg/kgBB dan IKBF 3,3 g/KgBB; metformin 65 mg/kgBB dan IKBF 1,67 g/KgBB, Metode yang digunakan yaitu uji toleransi glukosa oral dimana kelompok III-VI hewan uji dibebani glukosa secara peroral 30 menit setelah perlakuan masing-masing kelompok. Pengukuran glukosa darah dilakukan pada menit ke-0 sebelum perlakuan dan menit ke-15, 30, 60, 90, dan 120 setelah diinduksi glukosa menggunakan glukometer. Nilai *Area under the Curve* (AUC) dihitung pada tiap kelompok perlakuan pada menit ke-0 sampai 120 dan selanjutnya dianalisis secara statistik. Hasil penelitian menunjukkan pada uji fitokimia IKBF mengandung flavonoid, tanin, dan saponin. Kombinasi infusa kulit batang faloak dan metformin tidak memberikan efek antihiperglikemik pada mencit yang terbebani glukosa.

Kata kunci : Antihiperglikemik, kombinasi, faloak, infusa, metformin

ABSTRACT

This study aims to determine the antihyperglycemic effect of the combination of faloak bark infusion and metformin on glucose-loaded mice. This research is a pure experimental research type with a completely randomized design with a unidirectional pattern. A total of 30 mice were randomly divided into 6 groups: group I was given aquadest (25 g/KgBW), group II was given glucose (2g/KgBW), group III was control metformin (65 mg/kgBW), group IV was control faloak bark infusion (IKBF) 3.33 g/KgBW, groups V and VI were a combination of metformin 65 mg/kgBW and IKBF 3.3 g/KgBW; metformin 65 mg/kgBW and IKBF 1.67 g/KgBW. The method used was an oral glucose tolerance test in which groups III-VI animals were tested for glucose orally 30 minutes after each group's treatment. Blood glucose measurements were carried out at 0 minutes before treatment and at 15, 30, 60, 90, and 120 minutes after glucose was induced using a glucometer. The Area under the Curve (AUC) value was calculated in each treatment group at 0 to 120 minutes and then statistically analyzed. The results showed that the IKBF phytochemical test contained flavonoids, tannins, and saponins. The combination of faloak bark infusion and metformin did not provide antihyperglycemic effect in glucose-loaded mice.

Keywords: Antihyperglycemic, combination, faloak, infusion, metformin