

# PLAGIAT MERUPAKAN TINDAKAN TIDAK TERPUJI

## INTISARI

Jenis penelitian yang dilakukan adalah eksperimental murni dan dikerjakan mengikuti rancangan acak lengkap pola searah. Penelitian ini dilakukan dengan menggunakan 35 ekor tikus yang terdiri atas tujuh kelompok perlakuan. Kelompok I sebagai kontrol negatif diberi perlakuan aquades, kelompok II sebagai kontrol negatif diberi perlakuan CMC 1%, kelompok III diberi perlakuan glibenklamid sebagai kontrol positif dan kelompok IV, V, VI dan VII diberi perlakuan undur-undur darat dengan peringkat konsentrasi yang berbeda, semua pemberian dilakukan secara per-oral. Efek hipoglikemik undur-undur darat diuji mengikuti metode uji toleransi glukosa oral (UTGO). Kadar glukosa darah ditetapkan pada menit ke-0 sebelum UTGO dan menit ke-5, 15, 30, 60, 90, 120, 180, 240, dan 300 setelah UTGO dari hewan uji yang sebelumnya telah mendapat pra-perlakuan kontrol negatif, positif, dan undur-undur darat. Data kadar glukosa darah pada tiap kelompok dianalisis secara statistik menggunakan metode *GLM Repeated Measure*. Kemudian  $AUC^{0-300}$  diuji dengan *Kruskall-Wallis* dan dilanjutkan uji *Mann-Whitney* bertaraf kepercayaan 95%.

Hasil penelitian menunjukkan adanya undur-undur darat dengan dosis 6,3 mg/kgBB dan konsentrasi 0,63 mg/ml; 1,26 mg/ml; 2,52 mg/ml; dan 5,04 mg/ml memberikan penurunan kadar glukosa darah sebesar 20,47 %; 27,85 %; 20,15 %; 20,41 % terhadap kontrol negatif. Peringkat konsentrasi undur-undur darat sebesar 0,63 mg/ml; 1,26 mg/ml; dan 5,04 mg/ml menunjukkan penurunan kadar glukosa darah secara bermakna terhadap kontrol negatif. Peringkat konsentrasi undur-undur darat sebesar 0,63 mg/ml; 1,26 mg/ml dan 5,04 mg/ml juga menunjukkan penurunan kadar glukosa darah secara bermakna terhadap kontrol positif. Hal ini menunjukkan bahwa undur-undur darat terbukti memiliki efek hipoglikemik tetapi potensi yang dimiliki kecil dibandingkan potensi glibenklamid.

Kata kunci: undur-undur darat, diabetes mellitus, efek hipoglikemik

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## ABSTRACT

The research type was the pure experimental and worked by following the complete-random-design of one way-pattern. This research was tested by using thirty five white-male-rat which were divided into seven different treatment groups. The First group was given to the aquadest treatment as the negative control, the second group was given to the CMC 1% as the negative control; while third group as the positive control was given to the glibenclamida treatment and the rest of the groups were given to undur-undur darat treatment with different concentration given for each group, all of the processes were given through the oral method. The hypoglycemic effect of undur-undur darat was tested by following the Oral Glucose Tolerance Test (UTGO) method. The blood-glucose-contents were taken, at the 0 minutes before the UTGO and also taken at minutes of 5, 15, 30, 60, 90, 120, 180, 240, and 300 after the UTGO, from the tested animal that had been gotten the pre-treatment of the negative control, positive control and undur-undur darat control before. Then the data of blood-glucose-contents was analyzed statistically using GLM Repeated Measure design. The  $AUC^{0-300}$  was statistically analyzed using the Kruskal-Wallis test and then continued by using the Mann-Whitney test with 95 % level of confidence.

The result of the research showed that the 6,3 mg/kgBB doses of undur-undur darat reduced the concentration blood glucose contents for 20, 47 % of the 0,63 mg/ml concentration given; for 27, 85 % of the 1,26 mg/ml concentration given; for 20, 15 % of the 2,52 mg/ml concentration given; for 20, 41 % of the 5,04 mg/ml concentration given; toward the negative control. The concentration given ranks of 0,63 mg/ml; 1,26 mg/ml; and 5,04 mg/ml which gave the significantly effect in reducing the concentration blood glucose contents towards the negative control. While the given concentration ranks of 0,63 mg/ml; 1,26 mg/ml; and 5,04 mg/ml also gave the significantly effect in reducing the blood-glucose-contents towards the positive control. Thus, it can be concluded that undur-undur darat did prove gives the hypoglycemic effect but just small potensial if compared with glibenclamida.

Key words: *Myrmileon* sp., Undur-undur darat, Diabetes Mellitus, Hypoglycemic Effect.