

PENGARUH SEDUHAN BAWANG LANANG HITAM TERHADAP PENURUNAN KADAR *C-REACTIVE PROTEIN* TIKUS MODEL DIABETES MELITUS DENGAN INFLAMASI

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ABSTRAK

Latar Belakang: Diabetes melitus merupakan gangguan metabolisme yang ditandai dengan hiperglikemi yang dapat mengakibatkan komplikasi inflamasi dan ditandai oleh peningkatan CRP. Bawang lanang hitam memiliki kandungan flavonoid yang dapat menurunkan risiko inflamasi.

Tujuan: Mengetahui pengaruh seduhan bawang lanang hitam terhadap kadar CRP pada tikus yang diinduksi STZ.

Metode: Metode yang dilakukan adalah eksperimental murni desain *pre-post test with control group design* pada 29 tikus. Tikus dikelompokkan menjadi 6 kelompok yakni kelompok sehat (A), kelompok sakit (B), kelompok perlakuan seduhan bawang lanang hitam 1,3 g/200gBB (C), 2,6 g/200gBB (D), 5,2 g/200gBB (E), dan Glibenklamid 0,09 mg/200gBB (F). Perlakuan seduhan bawang lanang hitam dilakukan selama 14 hari dengan metode *pre-post test* dan dianalisis uji *One Way Anova*, *Pos Hoc Duncan* dan *Kruskal Wallis* serta *Man Whitney*.

Hasil: Hasil penelitian menyatakan terdapat perbedaan yang signifikan pada perlakuan seduhan bawang lanang hitam $p=0,007$ ($p<0,05$) pada hewan coba. Dosis paling efektif ditunjukkan pada kelompok E (5,2 g/200gBB).

Kesimpulan: Pemberian seduhan bawang lanang hitam dengan dosis 1 sampai 3 dapat menurunkan kadar CRP, namun penurunan secara bermakna didapatkan dengan dosis 5,2g/200gBB dan dapat menjadi alternatif obat Glibenklamid.

Kata kunci: Diabetes Melitus, Bawang Lanang Hitam, CRP, Streptozocin.

THE EFFECT OF SINGLE CLOVE BLACK GARLIC BREWED WATER ON C-REACTIVE PROTEIN REDUCTION LEVELS RATS OF DIABETES MELITUS MODEL WITH INFLAMMATION

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ABSTRACT

Background: Diabetes mellitus is metabolic disorder that signed by hyperglycemia which could cause inflammatory complications and signed by an increased CRP. Single clove black garlic contains flavonoids which could reduce the risk of inflammation.

Objective: To find out the effect of brewed water single clove black garlic on CRP levels in STZ induced mice.

Method: This study used a purely experimental method pre-post test design and control group design in 29 mice. Mice were grouped into 6 groups, consisting of healthy group (A), negative group (B), brewed water of single clove black garlic group 1,3 g/200gBB (C), 2,6 g/200gBB (D), 5,2 g/200gBB (E), Glibenclamide 0,09 g/200gBB. The brewed water treatment took for 14 days and data analysis used One Way Anova, Pos Hoc Duncan, Kruskal Wallis and Man Whitney.

Result: The result of research proved that there was significant differences between the treatment of single clove black garlic $p=0.007$ ($p<0.05$) in mice. The most effective dosage in group E (5,2 g/200gBB).

Conclusion: Single clove black garlic brewed with a dose 1 to 3 could reduce CRP levels. But, a significant reduction was obtained with a dosage of 5,2 g/200gBB and could be an alternative to Glibenclamide.

Keywords: Diabetes Mellitus, Single Clove Black Garlic, CRP, Streptozocin