Abstrak

PENGARUH PEMBERIAN KOMBINASI REBUSAN DAUN GEDI (*Abelmoschus manihot*) DAN DAUN KELOR (*Moringa oleifera*) TERHADAP KADAR *LOW DENSITY LIPOPROTEIN* (LDL) PADA TIKUS PUTIH (*Rattus norvegicus*)

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Latar Belakang: Peningkatan *Low Density Lipoprotein* (LDL) dapat meningkatkan risiko aterosklerosis. Diperlukan penanganan untuk menurunkan kadar kolesterol dalam darah. Tujuan penelitian ini adalah mengetahui pengaruh pemberian kombinasi rebusan daun gedi (*Abelmoschus manihot*) dan daun kelor (*Moringa oleifera*) terhadap kadar LDL pada tikus putih yang diinduksi *high fat diet* (HFD) dan propiltiourasil (PTU).

Metodologi: Penelitian ini menggunakan metode *true experimental pretest-posttest with control group design*. Sampel berjumlah 30 ekor tikus yang terbagi dalam 6 kelompok perlakuan. Kelompok (A) kontrol sehat, kelompok (B) kontrol negatif, kelompok (C) kombinasi dosis 1:1, kelompok (D) kombinasi dosis 1:2, kelompok (E) kombinasi dosis 2:1, dan kelompok (F) simvastatin. Intervensi dilakukan selama 14 hari. Kadar LDL diukur menggunakan spektrofotometer pada λ 546 nm. Kadar LDL *pretest-posttest* diuji dengan *One Way* ANOVA dan dilanjutkan uji *post hoc Duncan*.

Hasil Penelitian: Hasil penelitian menunjukkan bahwa pemberian kombinasi rebusan daun kelor dan daun gedi terbukti dapat menurunkan kadar LDL. Rerata selisih penurunan kadar LDL pada masing-masing dosis perlakuan adalah 13,275±7,1923 mg/dl, 9,550±4,8003 mg/dl, dan 5,450±3,0116 mg/dl.

Kesimpulan: Pemberian kombinasi rebusan daun kelor dan daun gedi pada dosis 80 mg/200grBB : 30 mg/200grBB merupakan dosis efektif dalam menurunkan kadar LDL.

Kata kunci: Daun Gedi (*Abelmoschus manihot*), Daun Kelor (*Moringa oleifera*), Kadar LDL, Tikus Putih.

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Abstract

THE EFFECT OF COMBINATION OF GEDI LEAVES (*Abelmoschus manihot*) AND MORINGA LEAVES (*Moringa oleifera*) ON LOW DENSITY LIPOPROTEIN (LDL) LEVELS IN WHITE RATS (*Rattus norvegicus*)

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Background: Increased Low Density Lipoprotein (LDL) increases the risk of atherosclerosis. Treatment is needed to lower cholesterol levels in the blood. The purpose of this research was to find out the effect of combination of boiled water of gedi leaves (*Abelmoschus manihot*) and moringa leaves (*Moringa oleifera*) on LDL levels in white rats induced High Fat Diet (HFD) and propyltiouracil (PTU).

Methods: This study was an experimental study using true experimental pretest-posttest method with a control group design. The sample consisted of 30 rats which were divided into 6 treatment groups. Group (A) healthy control, group (B) negative control, group (C) 1:1 dose combination, group (D) 1:2 dose combination, group (E) 2:1 dose combination, and group (F) positive control treated with simvastatin. The intervention was given for 14 days. LDL levels were measured using a spechtrophotometer at λ 546 nm. LDL levels were tested by *dependent t-test* with *one way* ANOVA followed by *post hoc Duncan.*

Results: The results showed that giving a combination of boiled water of moringa leaves and gedi leaves was proven to reduce LDL levels. The mean pretest-posttest difference in LDL levels at each treatment dose was 13,275±7,1923 mg/dl, 9,550±4,8003 mg/dl, dan 5,450±3,0116 mg/dl.

Conclusion: The combination of boiled water of moringa leaves and gedi leaves at a dose of 80 mg/200gBB : 30 mg/200gBB ia an effective dose in lowering LDL levels.

Keywords: Gedi Leaf (*Abelmoschus manihot*), LDL Level, Moringa Leaf (*Moringa oleifera*), White Rats.

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