

**PENGARUH PEMBERIAN FORMULA BAREH RANDANG
DENGAN PENAMBAHAN DADIH TERHADAP PROFIL LIPID
PADA TIKUS WISTAR HIPERKOLESTEROLEMIA**

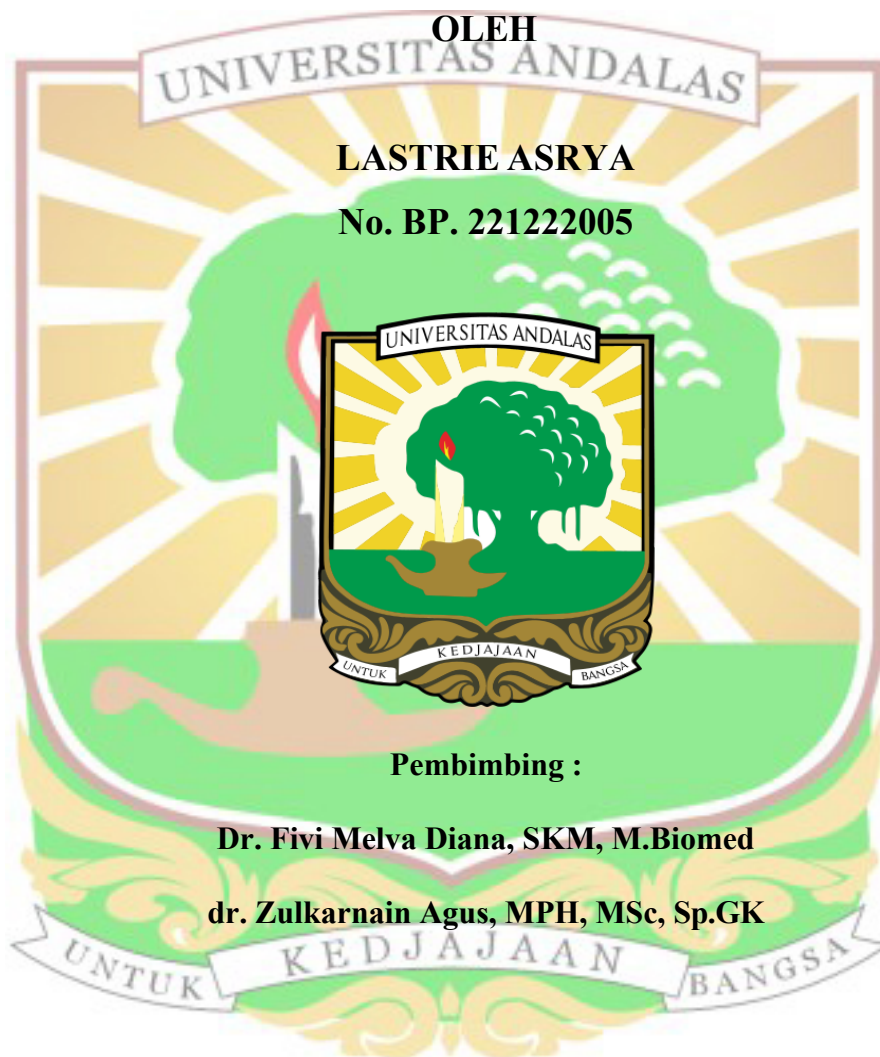
TESIS

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ABSTRAK

PENGARUH PEMBERIAN FORMULA BAREH RANDANG DENGAN PENAMBAHAN DADIH TERHADAP PROFIL LIPID PADA TIKUS WISTAR HIPERKOLESTEROLEMIA

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Latar belakang: Hiperkolesterolemia ditandai dengan kolesterol total ≥ 240 mg/dl, trigliserida ≥ 150 mg/dl, LDL ≥ 160 mg/dl, dan HDL < 40 mg/dl, merupakan faktor risiko penyakit jantung koroner dan aterosklerosis. Sehingga dibutuhkan adanya pengaturan pola makan yang sehat dan seimbang seperti mengkonsumsi pangan fungsional berupa bareh randang dengan penambahan dadih. Bareh randang dengan penambahan dadih mengandung bakteri asam laktat yang dapat menghambat bakteri patogen dan menurunkan profil lipid dalam darah.

Tujuan penelitian: Membuktikan pengaruh pemberian bareh randang dengan penambahan dadih terhadap penurunan profil lipid tikus wistar hiperkolesterolemia.

Metode Penelitian: True eksperimental dengan rancangan pre-post intervensi *only with randomized control group*. Subjek yang digunakan 36 ekor tikus wistar jantan hiperkolesterolemia, berusia 12 minggu, berat 200g yang dibagi menjadi 4 kelompok, yaitu kelompok kontrol(pakan standar); P1(pakan standar + bareh randang dosis 3,7g/hari); P2(pakan standar + dadih dosis 3,7g/hari); dan P3(pakan standar + bareh randang dadih dosis 3,7g/hari). Perlakuan intervensi dilakukan selama 14 hari. Uji beda perlakuan menggunakan uji *paired t-test*, Uji perbedaan antarkelompok menggunakan uji *One-Way Anova* dengan taraf kepercayaan $\alpha=0,05$ dan uji lanjut menggunakan *Tukey*.

Hasil: Keempat kelompok perlakuan mengalami penurunan kadar kolesterol total, trigliserida, kadar LDL, dan peningkatan kadar HDL secara signifikan ($p<0,05$). Kelompok P3 menunjukkan perubahan profil lipid yang lebih baik secara signifikan ($p<0,05$) dibandingkan Kontrol, P1 dan P2. Kelompok P3 menunjukkan penurunan kadar kolesterol total 31,07%; trigliserida 27,92%; kadar LDL 55,02%; dan peningkatan kadar HDL 35,58%.

Kesimpulan: Bareh randang dengan penambahan dadih dapat menurunkan kadar kolesterol total, trigliserida, LDL, dan meningkatkan kadar HDL secara signifikan.

Kata kunci: Hiperkolesterolemia; Profil lipid; Tikus wistar; Dadih; Bareh randang

ABSTRACT

THE EFFECT OF ADMINISTRATION OF BAREH RANDANG FORMULA WITH THE ADDITION OF CUDS ON LIPID PROFILES IN HYPERCHOLESTEROLEMIA WISTAR RATS

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Background: Hypercholesterolemia is characterized by total cholesterol ≥ 240 mg/dl, triglycerides ≥ 150 mg/dl, LDL ≥ 160 mg/dl and HDL < 40 mg/dl, which is a risk factor for coronary heart disease and atherosclerosis. So it is necessary to regulate a healthy and balanced diet, such as consuming functional food in the form of bareh randang with the addition of curd. Bareh randang with the addition of curd contains lactic acid bacteria which can inhibit pathogenic bacteria and reduce the lipid profile in the blood.

Research objective: To prove the effect of giving bareh randang with the addition of curd on decline the lipid profile of hypercholesterolemic Wistar rats.

Method research: True experimental with a pre-post intervention design only with randomized control group. The subjects used were 36 hypercholesterolemic male Wistar rats, 12 weeks old, weighing 200g which were divided into 4 groups, namely the control group (standard feed); P1 (standard feed + dry bed at a dose of 3.7g/day); P2 (standard feed + curd dose 3.7g/day); and P3 (standard feed + curd randang at a dose of 3.7g/day). Intervention treatment was carried out for 14 days. Testing the differences in treatment used the paired t-test, testing the differences between groups using the One-Way Anova test with a confidence level of $\alpha=0.05$ and further testing using Tukey.

Results: All four treatment groups experienced a significant decrease in total cholesterol levels, triglycerides, LDL levels and an increase in HDL levels ($p < 0.05$). The P3 group showed significantly better lipid profile changes ($p < 0.05$) compared to control group, P1 and P2. Group P3 showed a reduction in total cholesterol levels of 31.07%; triglycerides 27.92%; LDL level 55.02%; and an increase in HDL levels of 35.58%.

Conclusion: Bareh randang with the addition of curd can reduce total cholesterol, triglyceride, LDL levels, and increase HDL levels significantly.

Key words: Hypercholesterolemia; Lipid profile; Wistar rat; Curd; Bareh randang