

Pengaruh Pemberian Yogurt Ekstrak Seledri terhadap Kadar *Low-Density Lipoprotein* (LDL) dan *High-Density Lipoprotein* (HDL) Tikus *Sprague Dawley* yang Diberi Pakan Tinggi Lemak Teroksidasi

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INTISARI

Latar Belakang : Dislipidemia merupakan salah satu penyebab terjadinya penyakit jantung koroner. Penyebab utama tingginya dislipidemia adalah konsumsi tinggi lemak berlebihan. Yogurt dan seledri terbukti dapat menurunkan resiko dislipidemia dengan perbaikan profil lipid.

Tujuan : Mengetahui pengaruh pemberian yogurt ekstrak seledri terhadap kadar LDL dan kadar HDL tikus yang diberi pakan tinggi lemak teroksidasi (PTLO).

Metode Penelitian : Penelitian ini merupakan penelitian kuasi eksperimental dengan rancangan *pre-post control group design*. Subyek penelitian adalah 36 ekor tikus *Sprague Dawley* jantan usia 8 minggu dengan berat badan rata-rata 189,97±12,2 gram yang dibagi ke dalam 6 kelompok perlakuan. Kelompok K1 (kontrol normal) diberi pakan standar dan air mineral. Kelompok K2 (kontrol negatif) diberi PTLO dan air mineral. Kelompok K3 diberi PTLO dan yogurt biasa. Kelompok K4, K5, dan K6 diberi PTLO dan yogurt ekstrak seledri 0,5%; 1%; dan 1,5%. Pemberian intervensi yogurt selama 14 hari melalui sonde. Kadar LDL dan kadar HDL diukur sebelum dan sesudah intervensi. Analisis kadar LDL dan kadar HDL menggunakan metode presipitasi CHOD-PAP. Data yang diperoleh dianalisis menggunakan uji *paired t-test* dan *post-hoc ANOVA* pada derajat kemaknaan 5%.

Hasil : Pada pemberian yogurt ekstrak seledri menyebabkan penurunan kadar LDL dan peningkatan kadar HDL secara bermakna ($p < 0,05$). Perubahan terbesar pada pemberian yogurt ekstrak seledri 1,5% yaitu kadar LDL menurun 38,2% dan HDL meningkat 38,4% setelah pemberian selama 14 hari.

Kesimpulan : Pemberian yogurt ekstrak seledri 1,5% dapat menurunkan kadar LDL dan meningkatkan kadar HDL secara bermakna.

Kata kunci : yogurt ekstrak seledri, dislipidemia, LDL, HDL

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The Effect of Celery Extract Yogurt on Low-Density Lipoprotein (LDL) and High-Density Lipoprotein (HDL) Levels of Sprague Dawley Rats Fed with High Oxidized Fatty Foods

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ABSTRACT

Background : Dyslipidemia is one of the causes of coronary heart disease. The main cause of high dyslipidemia is high consumption of excessive fat. Yogurt and celery have been shown to reduce the risk of dyslipidemia by improving lipid profile.

Objective : To determine the effect of celery extract yogurt on LDL levels and HDL levels of mice fed high oxidized fatty foods (PTLO).

Method : This research is an experimental quasi research with pre-post control group design. The subjects were 36 male Sprague Dawley rats of 8 weeks old with average weight $189,97 \pm 12,2$ gram divided into 6 treatment groups. The K1 group (normal control) is fed standard feed and mineral water. The K2 group (negative control) is given PTLO and mineral water. The K3 group was given PTLO and ordinary yogurt. Groups K4, K5, and K6 were given PTLO and 0.5% celery extract yogurt; 1%; And 1.5%. Provision of yogurt intervention for 14 days through sonde. LDL levels and HDL levels were measured before and after the intervention. Analysis of LDL and HDL levels using CHOD-PAP precipitation method. The data obtained were analyzed using paired t-test and post-hoc ANOVA test on 5% significance degree.

Results: In administration of celery extract yoghurt caused significant decreases in LDL levels and significant increases in HDL levels ($p < 0.05$). The biggest change in 1.5% Celery extract yogurt is LDL decrease 38,2% and HDL increase 38,4% after administration for 14 days.

Conclusion: Provision of 1.5% celery extract yogurt can lower LDL levels and increase HDL levels significantly.

Keywords: celery extract yogurt, dyslipidemia, LDL, HDL