PENGARUH SINBIOTIK KEFIR TEPUNG PISANG BATU (*Musa balbisiana*) TERHADAP KADAR KOLESTEROL-LDL DAN KADAR KOLESTEROL-HDL TIKUS MODEL SINDROM METABOLIK

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Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh sinbiotik kefir tepung pisang batu terhadap kadar kolesterol-LDL dan kadar kolesterol-HDL tikus model sindrom metabolik. Penelitian *true experimental* ini menggunakan rancangan *pre-post test control group design*. Subjek adalah 24 ekor tikus jantan jenis *Sprague Dawley* yang terbagi menjadi 4 kelompok yaitu kelompok K- (tikus sehat yang diberi pakan standar), kelompok K+ (tikus sindrom metabolik yang diberi pakan standar), kelompok PI (tikus sindrom metabolik yang diberi pakan standar dan sinbiotik kefir tepung pisang batu 1,8 ml/200grBB tikus/hari), dan kelompok PII (tikus sindrom metabolik yang diberi pakan standar dan sinbiotik kefir tepung pisang batu 3,6 ml/200grBB tikus/hari). Proses intervensi dilakukan selama 3 minggu. Dilakukan pengambilan darah pada awal dan akhir intervensi. Data pengkondisian sindrom metabolik dianalisis dengan uji *Saphiro Wilk*, uji *One Way Anova* yang dilanjut uji *Post Hoc Bonferoni*. Data kadar kolesterol-LDL dan kadar kolesterol-HDL dianalisis dengan uji *Saphiro Wilk* dan uji *Paired Sample T Test*. Hasil penelitian menunjukkan pada kelompok perlakuan mengalami penurunan kadar kolesterol-LDL dan peningkatan kadar kolesterol-HDL secara signifikan (p<0,05). Pada kelompok PII menunjukkan penurunan kadar kolesterol-LDL sebesar 56,94% dan peningkatan kadar kolesterol-HDL sebesar 172,71%, dimana perbaikan fraksi lipid lebih baik dibandingkan kelompok PI.

Kata Kunci : Sindrom metabolik, Sinbiotik, Kolesterol-LDL, Kolesterol-HDL

THE EFFECT OF BANANA (*Musa balbisiana*) FLOUR KEFIR SYNBIOTIC ON LDL-CHOLESTEROL LEVEL AND HDL-CHOLESTEROL LEVEL OF METABOLIC SYNDROME RATS MODEL

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Abstract

This study is to analyzed the effects of banana (*Musa balbisiana*) flour kefir symbiotic on LDL-Cholesterol level and HDL-Cholesterol level of metabolic syndrome rats model. This is an experimental study with test control group design. Subject of this study are 24 males Sprague Dawley rats divided into 4 groups i.e positif control group (healthy rats given standar diet), negatif control group (metabolic syndrome rats given standar diet), intervention group I (metabolic syndrome rats given standar diet and banana flour synbiotic kefir 1,8 ml/200gr weight/day), and intervention group II (metabolic syndrome rats given standar diet and banana flour synbiotic kefir 3,6 ml/200gr weight/day). The intervention period is 3 weeks. At the beginning and end of the intervention, rats blood will be drawn. Data of metabolic syndrome condition is analyzed by Saphiro Wilk test, One-Way Anova test, and Post Hoc Bonferoni test. Different between before and after intervention is analyzed by Saphiro Wilk test and Paired Sample T Test. Result shows that both intervention group decrease LDL-Cholesterol level and increase HDL-Cholesterol level significantly (p<0,05). In intervention group II LDL-Cholesterol level is decreased by 56,94% while HDL-Cholesterol level increased by 172,71% which has better improvement of lipid fraction compared to intervention group I.

Keys : Metabolic Syndrome, Synbiotic, LDL-Cholesterol, HDL-Cholesterol