

PENGARUH KOMBINASI EKSTRAK ETANOL DAUN SIRSAK DAN DAUN SALAM TERHADAP KADAR HDL SERUM TIKUS JANTAN GALUR WISTAR MODEL HIPERLIPIDEMIA

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ABSTRAK

Hiperlipidemia dapat meningkatkan risiko penyakit kardiovaskuler melalui pembentukan aterosklerosis. Tanaman obat tradisional dipercaya menjadi salah satu alternatif untuk menurunkan kadar lipid darah, termasuk daun sirsak (*Annona muricata L.*) dan daun salam (*Eugenia polyantha*) karena mengandung antioksidan yang dapat menghambat radikal bebas pada hiperlipidemia sehingga dilakukan penelitian untuk mengetahui pengaruh kombinasi ekstrak etanol daun sirsak dan daun salam terhadap kadar HDL serum tikus model hiperlipidemia. Metode penelitian adalah eksperimental dengan *post test only with control group design*. Intervensi dilakukan dengan pemberian pakan tinggi lemak selama 7 minggu dan perlakuan ekstrak selama 15 hari pada 30 ekor tikus putih yang dibagi dalam 5 kelompok: Kelompok 1 (kontrol sehat), 2 (kontrol sakit), 3 (ekstrak etanol daun sirsak 100 mg/ 200 gBB tikus), 4 (ekstrak etanol daun salam 720 mg/ 200 gBB tikus), 5 (kombinasi ekstrak etanol daun sirsak 100 mg/ 200 gBB tikus dan daun salam 720 mg/ 200 gBB tikus). Kadar HDL selanjutnya diperiksa dengan metode direk menggunakan alat CS-300B *Auto-Chemistry Analyzer* Dirui. Hasil Rerata kadar HDL serum kelompok 1: 20,00 mg/dl, 2: 13,42 mg/dl, 3: 20,46 mg/dl, 4: 17,00 mg/dl, dan 5: 17,57 mg/dl. Uji *One Way Anova* menunjukkan nilai $p=0,003$ ($p<0,05$). Uji *post Hoc Bonferonni* menunjukkan terdapat perbedaan bermakna antara kelompok 1 dengan 2, serta kelompok 2 dengan 3. Pemberian ekstrak etanol daun sirsak dosis 100 mg/ 200 gBB paling signifikan dalam meningkatkan kadar HDL tikus putih model hiperlipidemia dibandingkan dengan kombinasi ekstrak etanol daun sirsak dan daun salam.

Kata kunci: Daun sirsak, daun salam, hiperlipidemia, induksi pakan tinggi lemak, perlakuan ekstrak etanol, kadar High Density Lipoprotein.

COMBINATION EFFECT OF ETHANOLIC EXTRACT OF SOUR SOP AND BAY LEAF TO HDL LEVEL IN HYPERLIPIDEMIC MALE WISTAR RATS MODEL

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ABSTRAK

Hyperlipidemia increases the risk of cardiovascular disease through formation of atherosclerosis. Tanaman obat tradisional, including sour sop (*Annona muricata L.*) and bay leaf (*Eugenia polyantha*) are believed as an alternative treatment to lower blood lipid levels due its antioxidant contents which can inhibit free radical damage. This study aims to observe the effect of ethanol extract combination of sour sop and bay leaf on serum HDL level in hyperlipidemic rats. This experimental study used *post test only with control group design*. Thirty rats were fed on high-fat diet for 7 weeks and were given the extracts for 15 days. Subjects were divided into 5 groups: Group 1 (positive control), Group 2 (negative control), Group 3 (100 mg/ 200 gBB/rat of ethanol extract of sour sop), Group 4 (720 mg/ 200 gBB/ rat of ethanol extract of bay leaf), and Group 5 (combination of 100 mg/ 200 gBB/ rat of ethanol extract of sour sop and 720 mg/ 200 gBB/ rat of ethanol extract of bay leaf). HDL levels were measured using direct method of CS-300B *Auto-Chemistry Analyzer* Dirui. HDL levels measurement resulted in a mean of 20,00 mg/dl for Group 1, 13,42 mg/dl for Group 2, 20,46 mg/dl for Group 3, 17,00 for Group 4, and 17,57 mg/dl for Group 5. One Way ANOVA analysis resulted in a p value of 0,003 ($p < 0,05$). Bonferonni post hoc test showed a significant difference between Group 1 with Group 2, and between Group 2 with Group 3. Ethanol extract of sour sop in a dose of 100 mg/ 200 gBB/ rat is the most significant to increase serum HDL levels in hyperlipidemic rats compared to combination of ethanol extract of sour sop and bay leaf.

Keywords: Sour sop, leaf bay, hyperlipidemia, high fat diet, ethaolic extract, High Density Lipoprotein Level.