

PENGARUH PEMBERIAN EKSTRAK BUAH BLUBERI (*Vaccinium spp.*) TERHADAP KADAR HDL DARAH PADA MODEL TIKUS DIABETES.

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ABSTRAK

Diabetes melitus berhubungan dengan dislipidemia, terutama penurunan kadar *High-Density Lipoprotein* (HDL), yang dapat meningkatkan risiko penyakit jantung. Bluberi (*Vaccinium spp.*) mengandung senyawa fenolik seperti flavonoid dan antosianin dalam memperbaiki kadar HDL. Penelitian ini bertujuan untuk menganalisis pengaruh pemberian ekstrak buah bluberi terhadap kadar HDL pada model tikus diabetes. Penelitian *true experimental* dengan desain *posttest-only control group* pada 30 tikus putih jantan Sprague-Dawley yang dibagi menjadi kelompok 1, akuades dengan pakan; 2, pakan tinggi lemak dan aloksan; 3, pakan tinggi lemak + aloksan dan simvastatin; 4,5, dan 6, pakan tinggi lemak + aloksan dan ekstrak buah bluberi dosis (125, 250, 500) mg/kgBB tikus perlakuan selama 14 hari. Tikus dianastesi, dibedah, diambil darah, dan diperiksa HDL dari plasma dengan spektrofotometer λ 546 nm. Uji Kruska-Wallis, terdapat pengaruh pemberian ekstrak buah bluberi terhadap kadar HDL pada model tikus diabetes ($p=0.003$). Uji Mann-Whitney pemberian ekstrak buah bluberi dosis 125 mg/kgBB dapat memperbaiki kadar HDL yang hampir sama dengan kelompok simvastatin ($p=0.248$).

Kata Kunci : Antioksidan; Ekstrak buah bluberi; Diabetes melitus; HDL

THE EFFECT OF BLUEBERRY (*Vaccinium spp.*) FRUIT EXTRACT ADMINISTRATION ON BLOOD HDL LEVELS IN DIABETIC RAT MODELS

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ABSTRACT

*Diabetes mellitus is associated with dyslipidaemia, particularly a reduction in High-Density Lipoprotein (HDL) levels, which can increase the risk of heart disease. Blueberries (*Vaccinium spp.*) contain phenolic compounds such as flavonoids and anthocyanins that help improve HDL levels. This study aimed to analyse the effect of blueberry fruit extract administration on HDL levels in a diabetic rat model. A true experimental study with a posttest-only control group design was conducted on 30 male Sprague-Dawley white rats, divided into the following groups: 1, distilled water with standard diet; 2, high-fat diet and alloxan; 3, high-fat diet + alloxan and simvastatin; 4, 5, and 6, high-fat diet + alloxan and blueberry fruit extract at doses of (125, 250, 500) mg/kg body weight for 14 days. The rats were anaesthetised, dissected, blood was collected, and HDL levels in the plasma were measured using a spectrophotometer at λ 546 nm. The Kruskal-Wallis test revealed that the administration of blueberry fruit extract had an effect on HDL levels in the diabetic rat model ($p=0.003$). The Mann-Whitney test showed that the administration of blueberry fruit extract at a dose of 125 mg/kg body weight improved HDL levels to a degree almost comparable to the simvastatin group ($p=0.248$).*

Keyword : Antioxidant; Blueberry extract; Diabetes mellitus; HDL