

**FAKULTAS KEDOKTERAN
UNIVERSITAS PEMBANGUNAN NASIONAL VETERAN JAKARTA**

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**PENGARUH PEMBERIAN EKSTRAK BLUBERI (*Vaccinium spp.*)
TERHADAP KADAR KOLESTEROL TOTAL PADA TIKUS SPRAGUE-
DAWLEY MODEL DIABETES**

RINCIAN HALAMAN (xvii + 92 halaman, 14 tabel, 3 gambar, 11 lampiran)

ABSTRAK

Diabetes melitus (DM) sering disertai dislipidemia yang meningkatkan risiko penyakit kardiovaskular. Pemanfaatan bahan alam seperti bluberi (*Vaccinium spp.*) yang mengandung flavonoid dan triterpenoid dapat digunakan sebagai alternatif dalam upaya pengendalian kondisi tersebut. Tujuan penelitian ini untuk mengetahui pengaruh pemberian ekstrak bluberi (EBB) terhadap kadar kolesterol total pada tikus Sprague-Dawley model diabetes. Desain penelitian adalah *true experimental* dengan *post-test only control group design*. Sampel tikus jantan Sprague-Dawley sebanyak 35 ekor dibagi menjadi K1 (pakan standar), K2 (pakan tinggi lemak), K3 (pakan tinggi lemak + aloksan), K4 (pakan tinggi lemak + aloksan + simvastatin), dan K5, K6, K7 (pakan tinggi lemak + aloksan + EBB dosis 125, 250, dan 500 mg/kgBB). Perlakuan dilakukan selama 14 hari. Tikus dianestesi dengan ketamine-xylazine, darah diambil secara intrakardium, dan kadar kolesterol total diukur menggunakan metode hidrolisis enzimatis CHOD-PAP. Hasil pengukuran dianalisis menggunakan uji Kruskal-Wallis dilanjutkan post-hoc Mann-Whitney. Hasil penelitian menunjukkan terdapat perbedaan bermakna kadar kolesterol total antar kelompok ($p = 0,005$) dengan hasil uji post-hoc Mann-Whitney menunjukkan EBB dosis 125 mg/kgBB merupakan dosis paling optimal daripada EBB dosis 250 dan 500 mg/kgBB.

Daftar Pustaka : 51

Kata Kunci : Antikolesterol, Antioksidan, Diabetes Melitus, Ekstrak Bluberi, Kolesterol Total

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**THE EFFECT OF BLUEBERRY EXTRACT (*Vaccinium spp.*) ON TOTAL
CHOLESTEROL LEVELS IN SPRAGUE-DAWLEY DIABETIC RATS
MODEL**

PAGE DETAIL (xvii + 92 pages, 14 tables, 3 pictures, 11 appendices)

ABSTRACT

*Diabetes mellitus (DM) is often accompanied by dyslipidemia, which increases the risk of cardiovascular disease. The utilization of natural ingredients such as blueberry (*Vaccinium spp.*), which contain flavonoids and triterpenoid, can be used as an alternative approach in managing this condition. The purpose of this study was to determine the effect of blueberry extract (BE) on total cholesterol levels in Sprague-Dawley diabetic rats model. The study design was true experimental with post-test only control group design. A total of 35 male Sprague-Dawley rats were divided into K1 (standard diet), K2 (high fat diet), K3 (high fat diet + alloxan), K4 (high fat diet + alloxan + simvastatin), and K5,K6,K7 (high fat diet + alloxan + BE at doses of 125, 250, and 500 mg/kgBW). The treatment was administered for 14 days. The rats were anesthetized with ketamine xylazine, blood samples were collected via intracardiac puncture, and total cholesterol levels were measured using the enzymatic hydrolysis-oxidation CHOD-PAP method. The results were analyzed using the Kruskal-Wallis test followed by the Mann-Whitney post-hoc test. The findings showed a significant difference in total cholesterol levels among groups ($p = 0.005$) with the results of the Mann-Whitney post-hoc indicating that BE at dose of 125 mg/kgBB was the most optimal dose compared to BE at doses of 250 and 500 mg/kgBW.*

References : 51

Keywords : *Anticholesterol, Antioxidant, Diabetes Mellitus, Blueberry Extract, Total Cholesterol*