ABSTRACT

THE EFFECT OF ETHANOL EXTRACT OF CINNAMON BARK (Cinnamomum burmannii L.*) ON TOTAL SERUM CHOLESTEROL OF MALE WISTAR RATS INDUCED BY HIGH FAT DIET*

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Hypercholesterolemia causes cardiovascular disease due to increased serum total cholesterol levels. Cinnamon bark contains many chemical compounds, namely cinnamaldehyde, tannins, eugenol, flavonoids, cinnamate, essential oils, safrole, calcium oxalate, dammar, triterpenoids, saponins, and tanning agents. The purpose of the study was to determine the effect of Ethanol Extract of Cinnamon Bark (EEKBKM) on serum total cholesterol levels and compare it with simvastatin in male Wistar rats induced by High Fat Diet (PTL). The study used a real laboratory experiment with a completely randomized design (CRD), comparative. A total of 30 male Wistar rats were divided into six groups with a study period of 28 days. EEKBKM was tested for 14 days after PTL induction with different doses, namely in groups C1 (75 mg/kgBB), C2 (150 mg/kgBB), and C2 (300 mg/kgBB). Serum total cholesterol levels were measured before and after treatment. In the study, the data were not normally distributed, so the statistical analysis used the Kruskal Wallis test followed by the Mann Whitney test. The results of groups C1, C2, and C3 with PTL p value ≤ 0.01. Groups C1, C2, and C3 with p ≤ 0.01. Conclusion: EEKBKM can reduce serum total cholesterol levels and is not equivalent to simvastatin in reducing serum total cholesterol levels in PTL-induced male Wistar rats.

Key words: Ethanol extract of cinnamon bark, hypercholesterolemia, total cholesterol

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