

**THE EFFECT OF ROBUSTA GREEN COFFEE INFUSION
ON TOTAL CHOLESTEROL LEVELS IN OBESE RATS**

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ABSTRAK

Obesity is characterized by an abnormal accumulation of fat cells in the body, which disrupts lipid metabolism and leads to elevated total cholesterol levels, potentially increasing the risk of cardiovascular diseases. Increased cholesterol levels can generate Reactive Oxygen Species (ROS), raising free radicals in the body and posing health risks. Therefore, consuming antioxidants, like robusta green coffee, is a preventive measure. Robusta green coffee contains chlorogenic acid as well as phenolic compounds like caffeine, ferulic acid, and caffeic acid. Chlorogenic acid inhibits glucose absorption in the intestines and hinders cholesterol absorption in the gut. This study aims to investigate the impact of robusta green coffee infusion on total cholesterol levels in obese rats. The research adopts a True Experimental design with a Pretest-Posttest Control Group Design. The sample comprises 24 rats, divided into three groups: negative control (K-) fed Rat Bio diet, positive control (K+) and treatment group (P) induced with a high-fat diet containing 2 grams of liquid beef fat and 1 gram of fructose daily for 42 days. The treatment group received robusta green coffee infusion (3.6 ml) daily for 28 days. Median pretest cholesterol levels were (K-) = 52 mg/dL, (K+) = 62 mg/dL, (P) = 52 mg/dL. Means posttest total cholesterol levels were (K-) = 66,75 mg/dL, (K+) = 81 mg/dL, (P) = 71,13 mg/dL. A significant difference was observed in total cholesterol levels before and after robusta green coffee infusion in the treatment group with a p-value of 0.029, whereas no significant effect was found in the other groups (p = 0.358). In conclusion, robusta green coffee infusion did not significantly reduce total cholesterol levels in obese rats in this study.

Keyword: *Robusta Green Coffee Brewing, Total Cholesterol, Obesity*