

***Intervention of Cocoa Powder on Hemoglobin Levels
Wistar Anemia Mouse***

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ABSTRACT

Anemia describes a condition of low hemoglobin concentration or hematocrit incompatibility with threshold values. The purpose of this study was to determine the effect of cocoa powder intervention on hemoglobin levels in white Wistar anemic rats. This experimental research uses a pretest and post test with control group design. Sampling was carried out randomly into 3 treatment groups, negative control group (K-), positive control (K +), and treatment (P). The samples used were 21 white male Wistar rats aged 2-3 months, body weight 200-300 grams, and mice in good health (active). Rats in the positive and treatment group were given induction of 50 mg/kg NaNO₂ at intervals of 5 hours, 24 hours, 48 hours, 5 days, 10 days, 20 days, 30 days, 32 days, and 34 days. In an anemic condition, rats were given oral intervention of cocoa powder for 2 weeks at a dose of 2.6 grams. This dose is divided into 2 times, namely in the afternoon and evening. The result were analyzed with one way annova test and Paired T Test. The results showed a mean value of Hb levels before intervention in the (K-) 15,9 g/dl, (K+) 12,6 g/dl, (P) 12,2 g/dl and value after intervention in (K-) 15,6 g/dl, (K+) 14,1 g/dl, (P) 15,5 g/dl. Paired T test results before and after treatment of hemoglobin levels showed a significant difference in the treatment group ($p=0.009$). The conclusion of this study is that cocoa powder can increase hemoglobin levels in anemic mice.

Keywords: *cocoa powder, anemia, flavonoids, hemoglobin levels.*