LOWERING EFFECTS OF DIFFERENT DOSING FREQUENCIES OF A COMMERCIALLY-AVAILABLE HERBAL FOOD SUPPLEMENT IN THE BLOOD CHOLESTEROL OF MALE *Cavia porcellus* (GUINEA PIG)

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ABSTRACT

The commercially-available herbal food supplement used by the researchers is claimed to promote better blood circulation. However, no approved therapeutic properties have yet been assured about this supplement. In this study, the researchers conducted an experiment to test the effectiveness of a commercially-available herbal food supplement in lowering the blood cholesterol amount using male *Cavia porcellus* (common guinea pig) as test organisms. Three dosing frequencies (once, twice and thrice a day) were used to determine which is the most efficient in normalizing the blood cholesterol, and it was compared with a positive control where atorvastatin was used.

The male guinea pigs were subjected to four weeks of acclimatization, four weeks of fattening to induce hypercholesterolemia, and two weeks of treatment. This was done to pattern the disease and treatment to human hypercholesterolemia to determine possible benefits of the food supplement regarding cholesterol lowering in human conditions. Data gathering included blood extraction of the test organisms through cardiac puncture, once after acclimatization, another after fattening and once every 7 days during the treatment period. Serum was then isolated and spectrophotometric analysis was done to determine cholesterol amounts. As statistical tool, the paired t-test was used to determine whether there was significant lowering in the blood cholesterol of the experimental groups. One way analysis of variance was used to compare the cholesterol decrease in both control groups and experimental groups and Tukey test to compare individual groups with each other.

The study proved that the commercially-available herbal food supplement administered thrice a day is most effective in lowering the blood cholesterol. However, the food supplement, regardless of dosing frequency, did not meet the efficiency of cholesterol lowering potential of atorvastatin.

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