

ABSTRACT

Hypertension, also known as the silent killer, is one of the deadliest diseases in the world. As of today, it ranks as the thirteenth leading cause of mortality in the world and the number one killer disease in the Philippines.

There are various drugs in the market today that could treat hypertension, atherosclerosis and other heart diseases by lowering the amounts of cholesterol in the blood. Virgin coconut oil is one of the leading natural medicinal products capable of lowering the risk of heart diseases.

This experimental study used a pretest – posttest design to determine the effects of different dosing frequencies of virgin coconut oil on the blood cholesterol level of *Cavia porcellus* (guinea pigs). It made use of the complete block design (CBD) with four treatments: T_0 = control (no virgin coconut oil given), T_1 = virgin coconut oil given once a day, T_2 = virgin coconut oil given twice a day, T_3 = virgin coconut oil given thrice a day. The guinea pigs were acclimatized for a week and were then subjected to a high fat diet, consisting of buttered pellets and water, for three weeks. The guinea pigs, then, were given 0.10ml. each of Theraherb virgin coconut oil in different dosing frequencies. Blood serum extraction and cholesterol analysis were done after acclimatization, after high fat diet, and before and after virgin coconut oil treatment. Results showed that the control group (T_0 = no VCO induced) inhibited a small 0.012 decrease in their cholesterol level. Treatment 1 (T_1 = VCO induced once a day) showed that there was a dramatic decrease of cholesterol level in the blood of the guinea pigs. From the initial serum analysis 0.701 to the final analysis after the treatment 0.529, the cholesterol level of T_1 diminished by 0.172. Treatment 2 (T_2 = VCO induced 2 times a day) showed a slight decrease by 0.069. Treatment 3 (T_3 = VCO induced 3 times a day) showed a 0.094 decrease in its cholesterol level. Results were tested statistically using the paired T-test and one way ANOVA at a 0.05 probability. The experiment proved that virgin coconut oil given at the three different dosing frequencies had a significant effect in lowering blood cholesterol level. It was also proven that the most efficient dosing frequency of virgin coconut oil is once a day.