The effect of Singawalang (Petiveria alliaceae) leaves extract on the blood cholesterol level, profile of liver and blood vessel in Hypercholesterolemic rats

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Abstract

This study has been conducted to determine the effects of Singawalang (Petiveria alliaceae) leaves extract on cholesterol blood level, profile of liver and blood vessel in hypercholesterolemic rats. The research is essential to attain a scientific evidence, for the use of Singawalang leaves extract, as treatment for hypercholesterolemia. Twenty-five hypercholesterolemic rats were randomly assigned into five different groups. Group 1 received the drug vehicle, group 2 were treated with simvastatin at a dose of 0.18mg / head / day/ orally. Whereas groups 3, 4, and 5 were treated with the Singawalang leaves extract at doses of 90 mg / kg bw; 180 mg / kg bw and 360 mg / kg bw respectively. The treatment was administered once-a-day, orally for 14 days. On the 15th day, those rats were sacrificed for organs and blood investigations. The results showed a decrease in cholesterol levels in all groups following the treatment. Differences in cholesterol levels before and after treatment were significant (p = 0.000; p<0.05). In addition, there were no improvement in the profile of liver and blood vessel following the treatment. This research concluded that the extract of Singawalang leaves decreased total cholesterol level in hypercholesterolemic rats.

Keywords: Petiveria alliaceae; hypercholesterolemic; liver; blood vessel

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