



ABSTRACT

This study aimed to determine the effects of *Delonix regia* leaf and bark extract to the blood cholesterol level of albino mice. Each of the albino mice was given 5g butter/meal twice a day incorporated to their regular pellet diet. This served as high-fat diet. After two weeks, hypercholesterolemia ($p=0.0187$) was achieved and this was determined by the use of Easy Touch GCU Cholesterol meter. The high cholesterol level of albino mice was treated with 100% leaf and bark extracts that was obtained through rotary vacuum evaporation and was induced to the mice using gavage method with the assistance of a licensed veterinarian. Results showed that the *D. regia* leaf extract significantly reduced ($p=0.0085$) the blood cholesterol of albino mice that may be due to the presence of phytochemical constituents such as terpenoids, tannins, saponins, glycoside, afzelin, flavonoids, and sterol that has free-radical scavenging property and inhibitory activity for lipid absorption. This is in contrary to the bark extract that insignificantly increased ($p=0.1505$) the blood cholesterol level of albino mice that may be due to the presence of Myristic acid, a fatty acid that increases high-density lipoprotein (HDL) and less-dense lipoprotein (LDL) level.