

## ABSTRACT

This study is focused on the possible effects of the consumption of recommended dosages of commercial grade virgin coconut oil (VCO) and corn oil of the total serum cholesterol levels and tissue integrity of *Rattus norvegicus* (Albino rats). Our experiment involved the cholesterol analysis and histopathologic examination of tissues samples from the heart liver and small intestine of 25 laboratory rats. The rats were divided into four groups which included two placebo groups; one was sacrificed after the acclimatization period of our experiment. The remaining two groups were administered recommended dosages of VCO and corn oil. The total serum cholesterol levels of each rat was then obtained by the use of cholesterol assay kits and compared with that of the first placebo group. Aside from the administered treatments, all test subjects were kept in the same environment and subjected to similar stress factors.

Our results show that among the three groups sacrificed after the acclimatization period and compared with the first placebo group, the test subjects forced fed with corn oil show the most significant increase in total serum cholesterol levels. Upon histopathologic examination, all tissue samples were found to be unremarkable except three liver samples from subjects in the corn oil group that developed benign cystic structures. These results may lead to the conclusion that the unsaturated fat and active ingredient found in corn oil, oleic acid, may be responsible for raising total serum cholesterol levels and a factor in the development of cystic structures.