

Effects of Miraculous Oil™ on the liver function markers and histology in Sprague-Dawley rats

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Structured Abstract

Background: Food patterns can compromise the structure and function of the liver. Miraculous Oil™ is a nutraceutical product formulated from an optimised blend of *Moringa oleifera* extract, *Ganoderma lucidum* extract, virgin coconut oil, and black seed oil. This innovative formulation is known to be rich in antioxidants and could potentially have organ-protective effects. However, whether the oral intake of Miraculous Oil™ is safe for the liver remains to be investigated.

Methods: 24 healthy female rats were randomly divided into four groups: normal control groups treated with 0.9% saline, and treatment groups receiving Miraculous Oil™ at three different concentrations (200mg/kg, 400 mg/kg, and 600mg/kg body weight). All treatments were administered orally for a period of 28 days. Animals were sacrificed at the end of the experimental period, and livers were harvested and weighed. Serum levels of alanine transaminase (ALT), aspartate transaminase (AST), and alkaline phosphatase (ALP) were measured to monitor liver function. Histological assessments on Haematoxylin and Eosin (H&E)-stained tissue sections were performed under a light microscope.

Results: This study showed that oral intake of Miraculous Oil™ at a dosage of 600 mg/kg body weight significantly increased body weight and food intake. However, no significant difference was observed in absolute and relative liver weights as well as in the values of ALT, AST, and ALP in all treated groups. H&E staining of liver tissues demonstrated that intake of Miraculous Oil™ at all dosages did not result in any noticeable structural changes.

Conclusion: In conclusion, the study showed, for the first time, that oral intake of Miraculous Oil™ up to a level of 600 mg/kg body weight is safe for liver structure and function. Further analyses of biochemical and hormonal parameters are needed to strengthen the findings.

Keywords: ALT, ALP, AST, liver function markers, Miraculous Oil™

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