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Original article

Antidiabetic and Antioxidant Activities of Ethanolic Extract of Dried Flowers of *Moringa oleifera* in Streptozotocin-induced Diabetic Rats

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SUMMARY

This study was undertaken to determine the antidiabetic and antioxidant effects of oral administration of ethanolic extract of *Moringa oleifera*flower on stretozotocin-induced diabetic rats at 100, 200, and 300 mg/kg b.w.

Thirty (30) male experimental albino rats were grouped randomly into six groups: groups A, B, and F are the control, diabetic control and reference drug groups, while C-E received 100, 200, and 300mg/kg b.w of the extract, respectively. Blood samples and organs were collected to assay for blood glucose level and antioxidant enzymes.

Levels of blood glucose, serum lipids and lipid peroxidation as well as aspartate aminotransferase (AST), alkaline phosphatase (ALP), and alanine aminotransferase (ALT) activities were significantly reduced ($p<0.05$) in STZ-induced diabetic rats orally administered ethanolic extract of *M. oleifera* flower. However, the body weight; catalase and superoxide dismutase activities were significantly increased ($p < 0.05$) when compared with the controls.

***M. oleifera* flower ethanolic extract administered orally therefore exhibited improved lipid metabolism, glucose-lowering potential and is hence beneficial in preventing diabetic complications as a result of lipid peroxidation and oxidative systems in streptozotocin-induced diabetic rats. It could thus be employed therapeutically in managing diabetes mellitus.**

*Key words:***ethanolic extract, antidiabetic, antioxidant enzymes, *Moringa oleifera*, streptozotocin**

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