Antidiabetic activity of curry leaves *Murraya koenigii* on glucose level, kidney and islets of langerhans in streptozotocin induced diabetes in rats

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Introduction: This study examined the antihyperglycemic effect of curry leaves, *Murraya koenigii* “MK” aqueous extract, and to examine its possible protective effects on the Islets of Langerhans and kidneys in streptozotocin (STZ) induced diabetic rats. **Methods:** Thirty healthy adult male Sprague Dawley rats were randomized into five groups (n=6); normal control, normal treated with “MK” control, diabetic control (non-treated with “MK”), diabetic treated with 200mg/kg MK aqueous leaf extract and diabetic treated with 400mg/kg MK aqueous leaf extract. Blood glucose levels and body weight were monitored. The animals were sacrificed on the 30th day; the kidney and pancreatic tissues were processed for histological studies. **Results:** The diabetic control group significantly (p<0.001) showed considerable loss of body weight and increase in blood glucose levels and degeneration of the glomeruli and renal convoluted tubules and atrophied islets with disintegration of β-cells. Treatment of diabetic rats with aqueous extract showed significant (p<0.001) improvement in blood glucose levels and body weight gain. The MK extract also caused an improvement in tissue injury induced by STZ injection in the kidney and endocrine pancreas. **Conclusions:** These findings highlighted the beneficial effects of MK aqueous extract against cellular oxidative damage in STZ-induced diabetic rats.

**KEYWORDS:** Blood glucose, Body weight, Curry leaves, Islet of Langerhans, Kidney.