

Evaluation the Protective Effect of Moringa Oleifera Seeds Oil Against Diabetic Nephropathy in Male Rats.

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Abstract

This study was carried out to investigate the protective effect of Moringa Oleifera seeds oil on diabetic nephropathy in male rats. Forty adult male sprague dawley rats were divided into two main groups. The first main group: was divided into two subgroups (10 rats each). (G1) was fed standard diet only as a negative control group and (G2) was fed standard diet containing Moringa seeds oil (1.8 mg/kg). The second main group: intravenously injected by a single dose of streptozotocin (60 mg/kg), the diabetic rats were divided into two subgroups (10 rats each). (G3) diabetic rats were fed only standard diet and (G4) diabetic rats were fed on standard diet containing Moringa seeds oil (1.8 mg/kg). The study was conducted for four weeks. The obtained results showed that fasting blood sugar was increased in (G3) as a result of diabetes. The diabetic rats (G3) recorded significantly elevation in serum urea nitrogen, creatinine and uric acid as a sign of diabetic nephropathy. Moreover serum sodium levels was elevated and potassium levels was reduced in (G3). Serum total protein and albumin levels were significantly decreased in (G3) compared with (G1). Diabetic rats (G3) exhibited a significantly reduction in glutathione level in both serum and kidney tissue. Treating the diabetic rats with *Moringa* seeds oil (G4) ameliorated the levels of all these parameters approaching the negative control values. The results suggest that Moringa oleifera seeds oil has ability to protect against diabetic nephropathy due to its content of phytochemicals. MO almost restored the diabetic rats to the normal healthy status.

Keywords: Moringa oleifera seeds oil; Diabetic nephropathy; phytochemicals.