Summary

Anti-hyperglyccmic and anti-oxidant properties of methanolic (MEMS) and aqueous (AEMS) extracts of *Musa sapientum* roots were investigated in alloxan-induced diabetic rats. Thirty adult male Wistar albino rats divided into five groups of 6 rats each were used:- group 1 - non-diabetic untreated (controls), group 2 - diabetic untreated, and groups 3, 4 and 5 - diabetic rats treated with 250mg/kg bodyweight MEMS and AEMS, and 500mg/kg bodyweight glibenclamide (a standard anti-diabetic drug), respectively. There was severe progressive weight loss in the untreated diabetic rats, while the rats in all the treated diabetic groups gained weight. While there was progressive hyperglycaemia in untreated diabetic rats; with blood glucose levels reaching a peak of 335.5±l.lmg/dl on day 7 post-induction, compared to 76.8±0.8mg/dl on day 0, these values were reduced to 80.7±0.5, 86.6±0.6 and 86.8±0.5 in MEMS, AEMS and glibenclamide-treated diabetic rats 15 days post-treatment. Also there were decreases in serum lipid peroxidation and increases in serum superoxide dismutase activities in MEMS, AEMS and glibenclamide-treated diabetic rats 15 days post-treatment. Lesions observed in the organs of untreated diabetic rats include selective necrosis of pancreatic beta islet cells, hepatocellular degeneration and necrosis, glomerulonephrosis and cardiovascular degeneration. Treatment of diabetic rats with AEMS and glibenclamide caused a total mitigation, while treatment with the MEMS achieved partial but considerable reduction in the severity of the lesions. It is concluded that aqueous and methanolic extracts of *Musa sapientum* roots possess anti-diabetic activities comparable to glibenclamide.