

Antidiabetic Effects of Aqueous Leaf Extracts of *Acacia nilotica* in Alloxan Induced Diabetic Mice

Mwangi J. Mukundi, Ngugi M. Piero, Njagi E.N. Mwaniki, Njagi J. Murugi, Agyirifo S. Daniel, Gathumbi K. Peter and Muchugi N. Alice

E-mail: johnmukundi1973@gmail.com

Abstract

Diabetes is increasingly affecting a growing number of patients and seriously reducing their quality of life. Use of conventional drugs in diabetes management is expensive, thus, unaffordable to most patients. Furthermore most of these conventional drugs are associated with undesirable side effects. Incorporation of herbal medicine into conventional healthcare system may significantly improve the overall healthcare system. Evaluation of efficacy and safety by scientific method is necessary to validate herbal medicine utilization, in most cases even where efficacy of the plants has been established the standard dosage required to bring about healing is not clear. This study was designed to evaluate the antidiabetic potential of aqueous leaf extracts of *Acacia nilotica* in alloxan induced diabetic mice. As the results show, the aqueous leaf extracts of *A. nilotica* showed antidiabetic activity. The intraperitoneal route of herbal extract administration was found to be more effective than the oral route. Further, qualitative and quantitative phytochemical screening of aqueous leaf extracts of *A. nilotica* indicated the presence of phenols, alkaloids, flavonoids, tannins and saponins. However, cardiac glycosides and phylobatanins were not detected.

Key word: Diabetes mellitus; Aqueous extracts; Antidiabetic activity; Phytochemicals