

Antidiabetic activity and phytoconstituents of *Anthocleista nobilis*

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The incidence of diabetes mellitus is rising at an alarming rate but the conventional drugs used for its management have many limitations. Herbal medicines are known to be effective and safe for use in its management. *Anthocleista nobilis* G. Don (*Gentianaceae*) is a plant used in the traditional management of diabetes. The present study was therefore designed to establish and hence validate the use of the plant for the management of diabetes. It was also aimed at investigating quantitatively the class of phytoconstituents present in the root and stem bark the plant. Phytochemical studies were done by the standard procedures. The root and stem bark extracts of the plant were investigated for antidiabetic activity in alloxan-induced diabetic rats. The animals were treated orally with 100, 200 and 400 mg/kg of both extracts for seven days. The fasting blood glucose (FBG) of the animals was monitored for seven days. Abundance of terpenoids, alkaloids, flavonoids and tannins were observed in both parts of the plant. Results also showed that the root and stem bark extracts significantly ($p < 0.001$) reduced the FBG of the diabetic animals in a dose related manner. The present study has validated the acclaimed traditional use of *A. nobilis* in the management of diabetes. Terpenoids, alkaloids, flavonoids and tannins could be responsible for the antidiabetic activity of the plant.

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