



Isolation of Phytoconstituents and Antihyperglycemic Activity of *Bougainvillea spectabilis* Root Bark Extracts

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SUMMARY. *Bougainvillea spectabilis* is used in various herbal formulations for treatment of diabetes. The present study aimed on isolation of phytoconstituents and antihyperglycemic screening of *B. spectabilis* root bark extracts. The EtOH extract of *B. spectabilis* root bark fractionated and upon repeated column chromatography of fractions on silica gel (CHCl₃: MeOH), Sephadex LH-20 (CHCl₃: MeOH) and ODS column (MeOH: H₂O) afforded four compounds: pinitol, β -sitosterol, quercetin and quercetin-3-O-rutinoside. The EtOH extract was administered to both normal and alloxan induced diabetic albino (Wistar) rats. The blood glucose levels were measured at 0, 0.5, 1, 2, 4, and 6 h, and on 0, 1, 3, 5, and 7th day after oral administration of extract at doses of 100, 300, and 500 mg/kg/day. The EtOH extract (500 mg/kg) found to be 18.8% more potent than standard oral hypoglycemic drug, glibenclamide 0.2 mg/kg b.w. after a week. Pinitol, β -sitosterol, quercetin and quercetin-3-O-rutinoside have been isolated for the first time from *B. spectabilis* root bark.

KEY WORDS: Alloxan, Blood glucose level, *B. spectabilis*, Glibenclamide, Pinitol, Root bark.

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