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Oral hypoglycaemic effect of Ipomoea aquatica in maturity-onset diabetics

The oral hypoglycaemic effect of Ipomoea aquatica in healthy Wistar rats and its comparison with tolbutamide have already been reported. No scientific reports are available on its activity in humans. Since there can be considerable species variation in the activity of drugs, the present study was undertaken to determine the oral hypoglycaemic effect of the blended extract of *I.aquatica* on serum glucose levels of maturity onset (Type II) diabetic patients)

Following an overnight fast, a standard glucose challenge test was performed with 14 experimental subjects receiving distilled water instead of the plant extract half an hour prior to glucose loading. Blood samples were collected before glucose loading and at 1hr and 2hrs after glucose loading. The oral glucose challenge test was repeated on a subsequent day, with the same subjects receiving the extract of *I.aquatica* (blended in boiling water), equivalent to 100g of the fresh edible portion, ½ hr before glucose loading. Glucose loading and blood sampling were performed as stated.

Glucose concentrations of serum were determined by using DMA reagent kits employing the glucose oxidase method. The mean fasting serum glucose levels during the Test and Control studies were 151.6±18.4mg/dl and 153.3±12.0 mg/dl respectively and these values were not statistically significant (p=0.915267). Percentage increase (mean±SEM) in glucose levels after glucose loading in Test and Control at 2 hrs post glucose were 178.5±8.7% and 210.8±12.4% respectively while at one hour the values were 184.3±12% and 199.6±11.9% in the Test and Control respectively. Statistical analysis by the Student's *t* testrevealed a significant difference between the glucose levels of the Test and Control groups at 2 hrs (p=0.000395), whereas it was not significant at 1hr (p=0.466167). The results indicate that a blended extract of *i.* Aquatica could improveglucose tolerance in maturity - onset (Type II) diabetics.