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Anti-diabetic activity of compound isolated from *Physalis angulata* fruit extracts in alloxan induced diabetic rats

Porika Raju and Estari Mamidala

Department of Zoology, Kakatiya University, Warangal-506 009. Telangana State, India
E-mail: raju42648@gmail.com

Abstract

Excessive food consumption regarding to high calorie, obesity, cardiovascular disease, stress, and lack of exercise are risk factors for diabetes mellitus (DM). One alternative therapeutic approach in DM patients is traditional use of herbal medicines such as *Physalis angulata* herbs. The aim of the study was to evaluate the anti-diabetic effect of isolated compound from *P. angulata* in alloxan induced diabetic rats. Anti-hyperglycemic effect was investigated in normal and alloxan induced diabetic rats. Glibenclamide (150 mg/kg, p. o.) were used as reference drugs for comparison. The active compound was isolated by using chromatographic techniques. The isolated compound significantly ($P < 0.05$) reduced blood sugar level in alloxan induced diabetic (hyperglycaemic) rats orally at 25 mg/kg and 50 mg/kg body weight respectively. The findings of this experimental animal study indicate that the compound isolated from *P. angulata* fruit extract possesses antihyperglycemic properties; and thus lend pharmacological credence to the folkloric, ethnomedical uses of the plant in the treatment and as well as in the management and/or control of type 2 diabetes mellitus.

Key words: *Physalis angulata*, Diabetes mellitus, Antihyperglycemic, OGTT and herbal medicines.

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