

Antidiabetic and cytoprotective effect of few novel plants against diabetes in mice

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Diabetes mellitus is a universal problem affecting human societies at all stages of development. It is a condition where sufficient amount of insulin is either not produced or the body is unable to use the insulin that is produced, leading to increase in the levels of glucose in the blood. The aim of this study was to investigate the anti-hyperglycemic activity of few novel plants on alloxan induced diabetic mice and its cytoprotective effect on various organs. Mice were alloxanized (alloxan monohydrate 150 mg/kg body weight administered *intra peritoneally*) and to this group ethanolic extract of novel plants were administered for 30 days (after estimation of its LD₅₀ value) to evaluate its anti-hyperglycemic activity. Their serum glucose levels as well as the other biochemical tests were analyzed statistically using ANOVA and Dunnett's tests. Alloxan caused significant increase in the levels of serum glucose as well as other biochemical tests but after administration of ethanolic extract of the novel plants there was significant decrease in the serum glucose levels as well as other biochemical levels. The study suggests that the ethanolic extract of these novel plants possesses antidiabetic and cytoprotective effects.

Keywords: Antidiabetic, Cytoprotective, Novel plants, Alloxan.

Biography

Arun Kumar has completed his Ph.D. in 2008 from Patna University, Bihar, India. He is presently serving as Scientist- I at a premier institute, Mahavir Cancer Institute & Research Centre, Patna, Bihar, India since last 5 years. He has published more than 30 research papers in reputed journals. He has received various awards during his academic career. He has been author & Co-author of 3 international books published in year 2012. He has supervised 46 M.Sc. students for their M.Sc. dissertation work on various topics and co-supervised 2 Ph.D. students.

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