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In-Vitro Models for the Investigation of Antidiabetic activity for the treatment of Diabetes mellitus type-1

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Abstract : There is prevalence of Diabetes mellitus type-1 in the country as well as worldwide. The available treatment for Diabetes Mellitus type-1 is Insulin treatment given i.m which causes various symptoms like phelebitis, pain at the site of injection, Severe hypoglycemia which leads to increased risk of heart disorders, kidney complication, liver complication. Various drug used for the therapy like glargine increased risk of breast cancer. However, No single monotherapy like *Digitalis* is available. Current therapy includes Insulin along with it oral hypoglycemic agent and immunosuppressant agent has to be taken. The objective of the study is to determine drug which lowers down serum glucose, and reduces all the micro and macro complication which causes mortality in the Diabetic patient. For this purpose various invitro models were performed like "Antioxidant model", "Hypoglycemic Model". By performing the experiment results were obtained like 0.69 ± 0.01, 0.87 ± 0.05 respectively. Results of hypoglycemic model was found to be 75±0.005 and 83± 0.001 respectively. The suspension of *digitalis purpurea* found to have better hypoglycemic and antioxidant property compared to that of standard.
Keywords : Diabetes mellitus type-1, *Digitalis Purpurea,* In-vitro models.

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