

Hypoglycemic activity of Dianova (powder of herbal formulation) in alloxan – induced diabetic rats

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Dianova, a poly herbal powder (churnam) formulation was used to study in the blood glucose on diabetes mellitus. It consists of six herbs such as *Gymnema sylvestre*, *Eugenia jambolana*, *Salasia riticulata*, *Curcuma longa*, *Terminalia chebula* and *Phyllanthus embilica*. Experimental diabetes was induced in rats by injecting alloxan monohydrate intraperitoneally at a dose of 120mg/kg body weight in ice cold citrate buffer ph - 4.5. After 72 hours, the blood was collected from the tail vein of rats and blood glucose levels were determined. Rats with blood sugar level of 200 – 350 mg/dl were considered as diabetes. The mortality rate of the rat after treatment was found to be 25%. The rats were randomly divided into 4 groups of 10 animals each. Only male animals were selected for this study. Group 1: These animals several as untreated control. Group 2: These animals were given alloxan and the fasting blood sugar level was checked on days 1, 3, 5, 7, 9, 11, 13 & 15 in the morning. Group 3: These animals were given alloxan and compound of interest, the dose was given around 12mg/

animal and the fasting blood sugar levels were checked as above days. Group4: These animals were given alloxan and the compound of interest and compound of standard drug i.e. metformin + Glibenclamide was given as 12 mg/ animal and the fasting blood sugar level was checked on days 1, 3, 5, 7, 9, 11, 13 & 15 in the morning. All the animals were given normal food and water. The aim of the present study was to investigate the antihyperglycaemic activity of dianova powder. The restoration of blood sugar level to normalcy in the rats fed with the Dianova states that the metabolic dysfunction which was brought about by alloxan was reverted back to absolute normalcy and perse this emphatically proves that pancreatic function disrupted due to alloxan return back to very normal level with appreciable production of insulin secretion. The improvements were noted emphatically very similar in the groups 3 and 4, Dianova churnum showed effective hypoglycemic activity when compared with the control groups (86+/- 2.1 and 85+/- 1.3 mg/ml, $P < 0.05$ respectively). This experimental study of Dianova shows a statistically significant oral antihyperglycemic effect.