

Beneficial effect of Myricetin on glucose metabolism in STZ-Cd induced diabetic nephrotoxic rats

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Myricetin is a naturally occurring flavonol used in various diseases. The present study was performed to evaluate of myricetin on glucose metabolism in STZ-Cd induced diabetic nephrotoxic rats. The rats were injected with STZ intraperitoneally at a single dose of 40mg/kg b.w and Cadmium as CdCl₂ (100p.p.m) in drinking water for 12weeks. The rats were divided in to 4groups viz. Group 1 and 2 served as control and Myricetin control. Group 3 is diabetic nephrotoxic control and group-4 is diabetic nephrotoxic rats treated with Myricetin. All rats were sacrificed at the end of experimental period. The diabetic nephrotoxicity rats showed a significant increase in levels of plasma glucose, glycosylated haemoglobin and a significant decrease in the levels of insulin and total haemoglobin. In addition, diabetic nephrotoxic rats showed a significant reduction in the activities of hexokinase, glycogen synthase along with glycogen content. The activities of glucose-6-phosphate, fructose-1, 6-bisphosphate and glycogen phosphorylase were significantly elevated in diabetic nephrotoxic rats. Intraperitoneal treatment of Myricetin (1.0mg/kg b.w) that modulate glucose metabolism in STZ-Cd rats. The results of this study suggest that Myricetin showed a significant beneficial effect due to its antihyperglycemic properties.

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