

Beneficial Effect of Lupeol in Diabetes Induced Oxidative Damage

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Abstract : Present research was aimed to investigate antidiabetic and antioxidant status of Lupeol in streptozotocin induced diabetes. Rats were divided into following groups mainly: control, diabetic, normal group as well as diabetic treated with Lupeol at 25 and 35 mg/kg b.wt./day for 21 days, diabetic group treated with glibenclamide. Tissue (pancreas, kidney and liver) as well as serum biochemical parameters were analysed for any abnormal behavior. Lupeol administration reduced diabetes onset with significant improvement in serum insulin level also strengthened by increase in β -Cell counts. A significant decrease was observed in serum glucose level. Furthermore, Lupeol treatment increased the antioxidant enzymes, glycolytic enzymes and also protein levels with a decrease in the level of thiobarbituric acid-reactive oxygen species and gluconeogenic enzymes. Present study proves that Lupeol administration significantly reinstated serum and tissue biochemical parameters and thus strengthening its antidiabetic potential.

Keywords : oxidative stress, pterostilbene, thiobarbituric acid, reactive oxygen species

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