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Protective effects of a polyherbal preparation on fasting glucose, lipid and renal function in type 2 diabetes subjects with metabolic syndrome

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Objectives: In the present study, "Diabegon" a poly-herbal preparation, with hypoglycemic activity, was evaluated for its preventive effect in type 2 diabetes and also to reveal its side effects on kidney.

Methods: Type 2 diabetic subjects with metabolic syndrome (N=58) were categorized on the basis of age and fasting blood glucose. The grouping was as follows: Group I (35-50 yrs), Group II (51-65 yrs), Group III >65 yrs, Group IV FBS<145.9, Group V FBS>145. Each group was administered 4 gm of diabegon daily. Blood glucose levels, lipid profile, and kidney function of the subjects were regularly monitored within 3 months of interval to 18 months.

Results: The reduction in fasting blood glucose level ranged from 12.3% (P<0.05) to 42% (P<0.001) after 18 month of therapy whereas in postprandial blood glucose, the decrease ranged from 28% (P<0.05) to 32% (P<0.05) after 18 month of therapy. Overall reductions in the lipid parameters were seen. The urea, uric acid, creatinine decreases up to 30–60% in higher baseline values in groups and constantly maintained during the therapy. The urea level of the study subjects were found to be normal at base line which was maintain during the therapy in all groups of the subjects. Uric acid level was found to be normal at initial therapy which was seems to be constant in group I, II and IV. Creatinine in the studied subject was within the normal range except group I. For group I, when initial value was compared with 12 and 18 month of therapy, 68.7% and 53.7% reduction was observed which was found to be significant.

Conclusions: The study also revealed that therapy does not show any toxic effect on kidney. Moreover, the glucose and lipid parameters were improved.