

## A randomized clinical trials of novel supplement formulation for the management of diabetes

**Nazir Ahmad**

Department of Nutritional Sciences, Govt. College University Faisalabad, Pakistan

The deficiency of insulin production by pancreas results in high level of serum glucose leading to diabetes. In last 15 years, diabetes casts huge economic burden staggering of 1.0 trillion dollars. Many dietary supplements are proving to be effective in addressing in diabetes. A novel natural product containing garlic extract as key ingredient along with multivitamin and minerals was evaluated in human being with diabetes type 1 and type 2 through randomized control study of 200 patients. The serum samples as tested for fasting blood glucose (FBG), random blood glucose (RBG), hemoglobin A1C (HbA1c) and lipid profile. Participants had consumed daily dose of supplement along with their ongoing medication. Our results shows that this formulation significantly changed FBG, RBG, HbA1c and lipid profile. Principal component analysis (PCA) shows positive association between HbA1c and RBG and FBG in diabetes type 1 before and after intervention. However, HbA1c correlation change to negative with FBG and RBG in diabetes type 2 after intervention. Thus, we can conclude that this supplement formulation has positive association with diabetes type 1 and 2 and reverses dyslipidemia.

**Keywords:** supplement formulation, diabetes, fasting glucose, random glucose, hyperlipidemia