Synchronizing positive effect of vitamin c and chromium on hyper lipidemia, hyperglycemia, liver enzymes and bmi of diabetes mellitus type 2 patients

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Abstract: This study investigates the combined effect of vitamin C and chromium on BMI, lipid profile, LFTs and HbA1c of Diabetes Mellitus type 2 patients. This is randomized controlled trial study. For this study a total of 60 patients (n=28 female, n=32 male) Diabetes Mellitus type 2 patients were selected. They were divided into treatment group (vitamin C (500mg) Chromium (200 μ g) and control group (placebo) comprising thirty patients per group. Mean age in control group and treatment group is 33 \pm 5.729 and 33 \pm 7.017 respectively. Statistical analysis showed significant results of lipid profile; total cholesterol (mg/dl) 198 \pm 66.1 P=0.008, High-Density Lipoprotein 38 \pm 7.5, P<0.001, Low Density Lipoprotein (LDL) (mg/dl) 105.1 \pm 22.4, P=0.002 and Triglycerides 191 \pm 64.3, P=0.02 are respectively. Levels of serum ALT (u/l) (34.7 \pm 9.1, P<0.001) and AST (u/l) (31.6 \pm 8.6, P<0.001) were significantly lower as compared to control group. HbA1c percentages were also normalized (5.45 \pm 0.2, P<.001) as compared to group 2. BMI values were also improved (P=0.01) after treatment. Combined supplementation of vitamin C and chromium reduce the plasma lipid percentage, blood glucose levels and also improve the ALT and AST functions.

Keywords: Vitamin C; Chromium Picolinate; Lipid profile; Diabetes Mellitus type 2; HbA1c, AST; ALT;