



Effect of turmeric on glycemic status, lipid profile, hs-CRP and total antioxidant capacity in hyperlipidemic type 2 diabetes mellitus patients

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Abstract:

Diabetes Mellitus (DM) is the most common metabolic disorder worldwide. The increase in blood lipids and sugar in diabetic patients exacerbates the incidence of DM late-onset complications. This study examined the effect of turmeric supplementation on glycemic status, lipid profile, hs-CRP and total antioxidant capacity in hyperlipidemic type 2 diabetic patients. In this double blind, randomized clinical trial, 80 hyperlipidemic type 2 diabetic patients were divided into two groups. The intervention group received 2100 mg of turmeric powder daily for 8 weeks; while the placebo group received placebo over the trial period. Body weight, fasting plasma glucose, HbA1c, serum insulin, insulin resistance index, triglyceride (TG), total cholesterol (TC), LDL-c, HDL-c, apolipoprotein A1, apolipoprotein B, hs-CRP, and total antioxidant capacity were measured before and after intervention. Statistical analysis was carried out using paired and independent t and chi-square tests. Seventy five patients completed the study. After 8 weeks of intervention, the turmeric group showed significant decreases in body weight (P value = 0.000), BMI (P value = 0.000), TG (P value = 0.000), and LDL-c (P value = 0.009) compared with baseline. BMI, TG, and TC decreased significantly in the turmeric group compared with the placebo group (P value < 0.05). No significant changes were observed in body weight, fasting plasma glucose, HbA1c, serum insulin, insulin resistance index, HDL-c, LDL-c, apolipoprotein A1, apolipoprotein B, hs-CRP, and total antioxidant capacity between the two groups after intervention (P value < 0.05). In conclusion, turmeric powder improved some fractions of lipid profile and decreased body weight in hyperlipidemic patients with type 2 DM. It had no significant effect on



glycemic status, hs-CRP, and total antioxidant capacity in these patients.

Biography:

Shahryar Eghtesadi is currently working as faculty of Public Health at Iran University of Medical Sciences, Tehran, Iran.

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