



Effect of Turmeric on Glycemic Status, Lipid Profile, hs-CRP and Total Antioxidant Capacity in Hyperlipidemic Type 2 Diabetes Mellitus Patient

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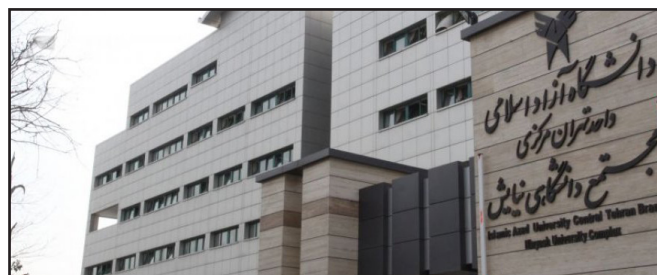
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Abstract:

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 received Bachelor degree in Nutrition Science and Food Chemistry 1975, from Shahid Beheshti University of Medical Sciences, Tehran; MSPH degree in Nutrition, 1977, from Tehran University of Medical Sciences, Tehran and PhD from University of California at Davis (UCD), USA, in Nutrition (1985). He served as Visiting Scientist in USDA Human Nutrition Research Center on Aging (HNRC), Boston, USA (1994-1995); full professor of Tabriz, Iran and Tehran Universities of Medical Sciences and currently serves as Professor of Azad University, Science & Research Branch. He was the chairs of Departments of Nutrition and Biochemistry, Biochemistry



& Clinical Nutrition, Public Health Nutrition and Nutrition in aforementioned Universities. Also Served as Associate Dean and Dean of School of Public Health & Nutrition and School of Public Health of Tabriz and Iran Universities of Medical Sciences respectively. He was selected as distinguished professor and Scientist. For long and extended period of time, experienced teaching various courses in nutrition in undergraduate, graduate and postgraduate and international Bureau programs and directed many projects and dissertation of MS and PhD programs and Published numerous peer reviewed articles in journals and also edited several books and finally served as Principal Investigator of World Bank Project for Capacity Building in Nutrition in Iran.

Recent Publications:

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2. Shahryar Eghtesadi et al; Effects of Probiotics on Biomarkers of Oxidative Stress and Inflammatory Factors in Petrochemical Workers: A Randomized, Double-blind, Placebo-controlled Trial, 2015 Sep 1.
3. Shahryar Eghtesadi et al; High-cocoa polyphenol-rich chocolate improves blood pressure in patients with diabetes and hypertension, 2015 Jan 15.
4. Shahryar Eghtesadi et al; The Effects of Tocotrienols Added to Canola Oil on Microalbuminuria, Inflammation, and Nitrosative Stress in Patients with Type 2 Diabetes: A Randomized, Double-blind, Placebo-controlled Trial, 2014 May.
5. Shahryar Eghtesadi et al; The Effect of Quercetin on Plasma Oxidative Status, C-Reactive Protein and Blood Pressure in Women with Rheumatoid Arthritis, 2014 Mar.

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Citation: Shahryar Eghtesadi; Effect of Turmeric on Glycemic Status, Lipid Profile, hs-CRP and Total Antioxidant Capacity in Hyperlipidemic Type 2 Diabetes Mellitus Patient ; Nursing Research 2020; April 17, 2020; Singapore City, Singapore.