Effects of hesperidin supplementation on weight , glycemic control, lipid profile and inflammatory factors in patients with type 2 diabetes: A Randomized, Double-Blind and Clinical Trial Placebo-Controlled

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Abstract:

This study was conducted to investigate the effects of hesperidin (a common constituent of citrus fruits) supplementation on weight ,indices of glycemic control, insulin resistance, lipid profile, and inflammatory markers in patients with type 2 diabetes. Forty-five patients participated in this randomized, double-blind controlled clinical trial who were randomly assigned to 2 intervention and control groups. Participants consumed either 500 mg/d pure hesperidin supplement or placebo in the intervention and control groups for 8 weeks, respectively. Hesperidin supplementation led to significant decrease in fasting blood glucose (FBG) and glycated hemoglobin (HbA1c) ($p = 0.041$ and $p = 0.028$, respectively). A significant increase in serum insulin ($p = 0.018$) and decrease in total cholesterol ($p = 0.049$) were also observed in the hesperidin group, whereas no significant changes occurred in the placebo group. Inflammatory factors, high-sensitivity C-reactive protein (hs-CRP) and interleukin-6 (IL-6) were not significantly changed in the hesperidin group compared to the control group. In conclusion hesperidin supplementation lowered the plasma level of total cholesterol and improved glycemic control and insulin resistance in patients with type 2 diabetes.

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 (HNRCA), at Tufts University ,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 .

Recent Publications:

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