Carnitine and lipid profile in pemphigus vulgaris patients: A double-blind randomized controlled trial

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Background: Pemphigus Vulgaris (PV) is a rare, autoimmune bullous disease of the skin and mucous membranes. Corticosteroids are usually the main core treatment for control of PV, which could result in complicating disorders.

Objective: This study aimed to determine the lipid-lowering effects of L-carnitine supplementation in PV patients.

Methods: In this randomized, double-blind, placebo-controlled clinical trial, 52 patients with PV were divided randomly into two groups to receive 2 g L-carnitine (n=26) or placebo (n=26) for 8 weeks. Serum levels of L-Carnitine (LC) and lipid profiles were evaluated at the beginning and end of the study.

Results: Only 47 participants [LC group (n=24) and placebo group (n=23)] completed the trial. L-carnitine intake considerably decreased serum levels of triglycerides (TG, P=0.02), total cholesterol (TC, P<0.001), low density lipoprotein-cholesterol (LDL-C, P=0.01) and very low density lipoprotein-cholesterol (VLDL-C, P=0.02). In addition, there was a significant increase in serum carnitine (P<0.001) and non-significant change in high density lipoprotein-cholesterol (HDL-C, P=0.06) in comparison with the placebo. Within-group comparisons also demonstrated that serum TG (P=0.001), TC (0.001), LDL-C (P=0.003) and VLDL-C (P=0.001) significantly declined and the mean concentration of carnitine (P<0.001) and HDL-C (P<0.001) significantly increased following L-carnitine supplementation. During the study, no harmful effects were reported by patients.

Conclusion: This is the novel study to determine the favorable effects of L-carnitine supplementation on lipid profiles in PV patients. However, further investigations are required to confirm these results.

Biography
Elham Yaghubi has completed her MSc in Nutrition from School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran. Her field of interests is lifestyle/diet in the prevention of cardiovascular and inflammatory diseases, clinical/nutrition effects in relation to autoimmune diseases.

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