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## L-carnitine supplementation in pemphigus vulgaris: A randomized Controlled trial

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**Background:** Pemphigus Vulgaris (PV) is an autoimmune blistering disease of skin and mucus membranes. The first-line treatment for PV involves corticosteroids and immunosuppressive agents, which can cause various side-effects.

**Objective:** The aim of this study was to investigate the impact of oral L-carnitine supplementation on oxidative stress index (OSI) and antioxidant capacity in patients suffering from PV.

**Methods:** In this clinical study, 52 PV patients were enrolled and randomly assigned to receive either 2g L-carnitine (n=26) or placebo (n=26) for 8 weeks. The serum levels of carnitine, OSI, total oxidative capacity (TOC) and total ant-oxidative capacity (TAC) were measured before and after intervention. Data were analyzed by student t-test, paired t-test and analysis of covariance.

**Results:** only 47 participants [LC group (n=24) and placebo group (n=23)] completed the trial. LC intake significantly decreased serum OSI ( $p<0.05$ ). There were considerable increases in serum levels of TAC and carnitine. However, no significant difference was demonstrated in TOC serum between the LC and placebo groups. Additionally, within-group comparisons indicated a remarkable increase in serum carnitine ( $p<0.001$ ) and a significant decrease in OSI ( $p=0.003$ ) and TOC ( $p=0.01$ ) in the supplemented group. No harmful effects were observed during the study.

**Conclusion:** This is the novel study to examine the beneficial impacts of LC supplementation on inflammatory mediators in patients with PV. To confirm these results, further trials are warranted.

### Biography

Yaghubi E is a student of public health sciences in Nutrition in Department of cellular and molecular Nutrition, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences (TUMS), 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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