

## عنوان مقاله:

Effects of Oral L-Carnitine Supplementation on C-Reactive Protein and Blood Sugar in Hemodialysis Patients: A Randomized Clinical Controlled Trial

## محل انتشار:

مجله دیابت و چاقی ایران، دوره 6، شماره 4 (سال: 1393)

تعداد صفحات اصل مقاله: 6

## نویسندگان:

Shima Dehghan Banadaki - *Department of Nutrition, Faculty of Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran*

Hassan Mozaffari-Khosravi - *Department of Nutrition, Faculty of Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran Yazd Diabetic Research Center, Shahid Sadoughi University of Medical Sciences, Yazd, Iran*

Sedighe Ahmadi - *Department of Nutrition, Faculty of Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran*

Mohammad Kazem Hajimirzadeh - *Assistant Professor of Medicine, Department of Internal Medicine, Islamic Azad University, Yazd, Iran*

Mohammad Hassan Lotfi - *Associate Professor of Biostatistics and Epidemiology, Shahid sadoughi Medical Sciences and Health Services, Yazd, Iran*

## خلاصه مقاله:

**Objectives:** Inflammation is a common complication in patients treated with hemodialysis and increasing in inflammatory factors such as C-reactive Protein (CRP) is associated with increased cardiovascular disease and mortality in these patients. The purpose of this study was to investigate the effect of oral L- carnitine supplementation on serum CRP concentration and fasting blood sugar (FBS) in patients undergoing hemodialysis. **Materials and Methods:** This study was a randomized clinical trial on 50 patients (30 males and 20 females) undergoing hemodialysis in the age range of 21-84 years from hemodialysis units of Yazd hospitals. Participants randomly divided into two groups, the Carnitine group (CaG) consumed daily oral syrup of L- carnitine containing 1000 mg of Carnitine for three months and the control group (CoG) did not use Carnitine. Serum levels of CRP and FBS were measured at baseline and at the end of the intervention. Statistical analysis was performed using the SPSS version 16.0. **Results:** the mean difference in CRP concentration in CaG and CoG were,  $1.95 \pm 9.4$  and  $0.6 \pm 10.8$  ( $\mu\text{g/l}$ ), respectively ( $P\text{-value}=0.7$ ) and the mean of FBS at the baseline and after 12 weeks in the CaG were  $118.7 \pm 51.4$  mg/dl and  $110.1 \pm 48.2$  mg/dl, respectively ( $P\text{-value}=0.3$ ) and in the CoG were  $142.8 \pm 88.7$  mg/dl and  $131.8 \pm 68.9$  mg/dl ( $P\text{-value}=0.26$ ). **Conclusion:** The oral administration of daily 1000 mg of L-carnitine for three months doesn't effect on serum CRP and FBS concentrations in patients undergoing hemodialysis.

## کلمات کلیدی:

Blood sugar, Hemodialysis, Inflammation, L-carnitine

