

## عنوان مقاله:

Effect of Genistein and L-carnitine and Their Combination on Lipid Profile and Inflammatory Cytokines in Experimental Nephrotic Syndrome

## محل انتشار:

مجله گزارش های بیوشیمی و زیست شناسی مولکولی، دوره 7، شماره 1 (سال: 1397)

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## نویسندگان:

Abbas Yousefinejad - *Department of Nutrition, School of Public Health, Bushehr University of Medical Sciences, Bushehr, Iran. & Department of Cellular and Molecular Nutrition, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran*

Fereydoon Siassi - *Department of Community Nutrition, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran*

Mohammad Hassan Javanbakht - *Department of Cellular and Molecular Nutrition, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran*

Hamed Mohammadi - *Department of Community Nutrition, Student Research Committee, School of Nutrition and Food Science, Isfahan University of Medical Sciences, Isfahan, Iran*

Ehsan Ghaedi - *Cancer, environmental and petroleum pollutant research center, Ahvaz Jundishapur university of Medical sciences, Ahvaz, Iran*

Mahnaz Zarei - *Department of Cellular and Molecular Nutrition, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran*

Ehsan Djalali - *Department of Veterinary, Science and Research Branch of Islamic Azad University, Tehran, Iran*

Mahmoud Djalali - *Department of Cellular and Molecular Nutrition, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran*

## خلاصه مقاله:

Background: Nephrotic syndrome is a disorder caused by kidney damage that results in severe leakage of protein from blood into urine. Hyperlipidemia is one complication of nephrotic syndrome. L-carnitine and genistein can control cardiovascular diseases by causing changes in lipid metabolism and cytokine production. This study was designed to examine the effects of genistein and L-carnitine on serum lipid and cytokine profiles in experimental nephrotic syndrome. Methods: In this study, 50 male Sprague–Dawley rats were randomly divided into five groups of 10 animals each with similar mean body weights ( $300 \pm 50$  g). The five groups were NC (normal-control), PC (patient-control), LC (L-carnitine), G (genistein), and LCG (L-carnitine-genistein). Serum HDL-cholesterol (HDL) LDL-cholesterol (LDL), triglyceride, cholesterol, IL-6, and TNF- $\alpha$  were measured. Statistics were analyzed using SPSS 18.0. Results: At the end of the study, of the patient groups, HDL was significantly greater in the LC than in the PC or G groups ( $P < 0.001$ ).

LDL was significantly less in the G than in the PC, LC, or LCG groups ( $P<0.001$ ). Interleukin-6 was significantly greater in the PC than in the LC, G, or LCG groups, and significantly greater in the LC than in the G group. ( $P<0.001$ ), but no significant differences were found for triglyceride, cholesterol, or TNF- $\alpha$  between the patient groups. Conclusions: Genistein had less effect on HDL and triglyceride levels than LC or LCG. Regarding inflammatory cytokines, genistein and L-carnitine had less effect on TNF- $\alpha$  than on IL-6

### کلمات کلیدی:

Genistein, Hyperlipidemia, Interleukin 6, L-carnitine, Nephrotic syndrome, TNF-alpha

### لینک ثابت مقاله در پایگاه سیویلیکا:

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