

## عنوان مقاله:

THE EFFECTS OF VITAMIN D3 SUPPLEMENTATION ON SOME METABOLIC AND INFLAMMATORY MARKERS IN DIABETIC NEPHROPATHY PATIENTS WITH MARGINAL STATUS OF VITAMIN D: A RANDOMIZED DOUBLE BLIND PLACEBO CONTROLLED CLINICAL TRIAL

## محل انتشار:

سومین کنگره بین المللی و پانزدهمین کنگره تغذیه ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

**Background and Aim:** Diabetic nephropathy is known to be an independent risk factor in the progression of renal and cardiovascular disorders. Due to the association between vitamin D deficiency and diabetic nephropathy, vitamin D deficiency in the diabetic nephropathy population, this study conducted to examine the effects of Vitamin D3 on metabolic and inflammatory parameters in patients with diabetic nephropathy. **Methods:** This eight-week, randomized, double-blind, placebo-controlled trial was carried out on 50 diabetic nephropathy patients with marginal status of vitamin D. Participants were randomly assigned to two groups: control and intervention. Participants received a vitamin D3 (50000 IU) supplement weekly on a specific day. Fasting blood samples were collected from all patients at their entry to the study, and eight weeks after intervention. **Results:** Analyses showed significance differences in physical activity between the intervention and placebo groups ( $P=0.018$ ). There were no significant differences between the percentage changes of HbA1c, insulin and, inflammatory parameters such as TNF- $\alpha$  and IL-6 ( $P>0.05$ ), while the percentage change of FBS was significantly higher in the placebo group compared to the treatment one ( $p<0.0001$ ). Lower levels of FBS ( $p<0.0001$ ), insulin ( $p<0.069$ ), HOMA-IR ( $p<0.001$ ), TNF- $\alpha$  ( $p<0.002$ ) and IL-6 ( $p<0.037$ ) were found after supplementation in treatment group. However, the phosphorous and protein percentage change in urine were lower ( $p=0.07$ ) and higher ( $p=0.003$ ) between groups. **Conclusion:** It was found that vitamin D supplementation can be regarded as an effective way to prevent the progression of diabetic nephropathy by reducing levels of proteinuria, and inflammatory markers such as TNF- $\alpha$  and IL-6

## کلمات کلیدی:

Vitamin D, Nephropathy, Diabetes

