

عنوان مقاله:

Increase in TGF- β and CD ϵ + CD γ δ + regulatory T cells in Iranian patients with type γ diabetes

محل انتشار:

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خلاصه مقاله:

Background and Aims Since in patients with type γ diabetes (T γ DM), there is an imbalance of inflammatory cells, the presence of inflammatory cytokines and defects in homeostasis are possible. The present study aimed to evaluate the percentage of Treg cells, lymphocytes, T cells, and T helper cells and gene expression of TGF- β cytokine in the T γ DM patients. **Methods** Fifty patients with T γ DM and 50 healthy controls were included in this study, according to the inclusion criteria. The percentage of Treg cells, T cells, and T helper cells was determined by flow cytometry. Also, the expression of CD ϵ , CD γ δ , and FOXP ϵ markers of Treg cells was examined. The gene expression of TGF- β cytokine was evaluated by real-time polymerase chain reaction (PCR). **Results** The percentage of Treg cells was significantly lower in patients with T γ DM than in healthy controls. The number of T helper cells and lymphocytes decreased in T γ DM patients as compared to the healthy controls. Based on the results, the percentage of T cells was higher in T γ DM patients than in healthy controls. The expression of CD γ δ and FOXP ϵ markers in Treg cells significantly reduced in T γ DM patients compared to the healthy controls; however, this decrease was not significant for the CD ϵ marker. Conversely, the expression of TGF- β cytokine increased in patients with T γ DM compared to the healthy controls. **Conclusion** The expression of TGF- β and the percentage of CD ϵ + CD γ δ + regulatory T cells are impaired in patients with type γ diabetes.

کلمات کلیدی:

(regulatory T cells, Transforming growth factor β (TGF- β), type γ diabetes mellitus (T γ DM

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