

## *Letter to Editor*

# Relationship between the serum levels of IL-2 and recurrence of pemphigus vulgaris

### To Editor

Pemphigus vulgaris (PV) is an autoimmune disease with the characteristics of the epithelial layer destruction and production of blister lesions. Antibodies attack desmoglein 1 and 3 which play a crucial role in the epithelial cell adhesion, and this event is the main cause of this disease. If PV left untreated it would be fatal [1]. From the epidemiological point of view, it is more prevalent in females than males and it is more common in the 4th and 5th decades of life. Its treatment is mainly by the administration of corticosteroids, nevertheless in spite of appropriate curative measures, PV sometimes relapses and becomes problematic [2]; hence finding suitable solutions to prevent its recurrence will be of great help for the patients.

In this regard two men aged 56 and 59 years old from Isfahan, Iran, were referred to the Dermatology Clinic of the Alzahra Hospital. They showed some lesions on their trunks. Referring to their past medical history, we found that both of them had PV, and the direct immunofluorescence test corroborated the disease by showing the characteristic deposition of IgG in a lace like pattern. The patients were treated by corticosteroids, (prednisolone 70 mg/day) and azathioprine 50mg/Day. Finally, they were discharged from the hospital after successful remedy.

Cytokines profile analysis by the ELISA method (ELISA kit for IL-2 supplied by the U-CyTech Biosciences, Yalelaan 48, 3584 CM Utrecht and Netherlands) showed that the serum levels of IL-2 increased in the two patients (95 pg/ml and 169 pg/ml, respectively).

This finding is consistent with the finding of Blitstein et al. [4] who have found that an increase in the serum

levels of IL-2 plays an essential role in the PV recurrence. In addition, Prussick et al. [3] have also found that IL-2 therapy has been associated with the recurrence of PV, perhaps due to its ability to trigger autoantibody generation due to stimulation of both T and B cells. Thus by designing the monoclonal antibody drugs against IL-2 and its administration, we may prevent the disease recurrence and therefore, enhance the life span in the patients [3]. Nevertheless, more studies are needed to clarify the role of IL-2 in PV recurrence in the future.

### References

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