

Chapter 15

Discussion and Conclusion

The author's present study shows that the average levels of anti-desmoglein (DSG) 1 in the three phenotypes of pemphigus are significantly different. Furthermore, the cutaneous form had a higher average level of desmoglein 1 than 2 other forms. Also, in the patients with the mucosal form of the disease whose remission took more than 10 days, the average level of desmoglein 1 was significantly more than in the patients who needed less than 10 days for remission.

Considering the 52 patients in all 3 forms of disease, it was revealed that the level of desmoglein 3 and Pemphigus Disease Area Index (PDAI) was significantly lower in patients who had remission in less than 10 days when compared to the patients whose remission occurred in more than 10 days. As correlation coefficients showed, cutaneous PDAI and desmoglein 1, cutaneous PDAI and mucosal remission, and cutaneous remission and desmoglein 1 have positive significant relations.

In the study by Valikhani et al. in 2007, the level of anti-DSG 1 and 3 were tested in 73 pemphigus vulgaris patients and compared with the clinical symptoms of the patients [1]. The average levels of anti-DSG1 in the patients with cutaneous, mucosal, and mucocutaneous forms of the disease were 136.8 ± 28.5 , 11.4 ± 3.3 , and 131 ± 7.8 , respectively ($P < 0.001$). Also, the average levels of anti-DSG1 in the patients with cutaneous, mucosal, and mucocutaneous forms of the disease were 117.3 ± 44.4 , 236 ± 48 and 457.2 ± 26.2 , respectively ($P < 0.001$). The severity of cutaneous involvement has a positive significant relation with DSG3 level ($P < 0.001$ and $r = 0.38$).

Harman et al. investigated the relationship between the levels of anti-DSG 1 and 3 autoantibodies with the severity of pemphigus vulgaris. The level of anti-DSG1 has a strong correlation with the severity of cutaneous involvement, and the level of anti-DSG3 has a strong correlation with the severity of mucosal involvement. The level of anti-DSG 1, even after adjusting for the effect of anti-DSG3, had no relationship with oral involvement [2].

In Iranian pemphigus vulgaris patients, anti-DSG 1 and 3 autoantibodies exist that result in a more severe form of the disease making the disease duration and time interval to the remission even longer.

It has been hypothesized that the high emergence of pemphigus vulgaris in countries such as Iran and India is due to the overconsumption of garlic.

In our study, the age of the patients who had remission in less than 10 days had no significant difference compared to age of the patients whose remission occurred in more than 10 days. This result is in accordance with the results of Saha et al.'s study, in which remission was not associated with the age [3]. However, Savin reported that higher age at the time of diagnosis would be with worse prognosis [4].

Our study shows a positive significant relationship between the level of anti-DSG1 and cutaneous remission and between cutaneous PDAI and anti-DSG. However, in the study of Saha et al., the level of anti-DSG1 and cutaneous remission was not related to each other [3]. This difference in the results could be due to different methods of selecting patients and measurements.

In our study, the level of DSG3 and remission had positive significant relationships, and the level of DSG3 was significantly lower in the patients with the mucocutaneous form of the disease whose remission took less than 10 days.

In a study by Cozzani et al. of 20 patients—including 3 mucosal, 9 cutaneous, and 8 mucocutaneous forms of pemphigus vulgaris—there was no relationship between anti-DSG 1 and 3 autoantibodies and severity of the disease [5]. However, in the patients with the mucosal form, the autoantibody profile was in accordance with mucosal involvement [5].

In the study by Patsatsi et al., flowing autoantibody titers in the serum of 35 pemphigus vulgaris patients were assessed by the enzyme-linked immunosorbent assay (ELISA) method; they found that anti-DSG1 shows the extent of disease activity in cutaneous and mucocutaneous forms better. Anti-DSG3 is good for diagnosis, but it does not seem to show the activity of the disease [6].

Conclusion

The level of antibodies could be considered as a predictive factor for acute remission in the cutaneous and mucosal forms of pemphigus vulgaris.

References

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