# AUTOANTIBODIES TO DESMOGLEIN-3 IN PATIENTS WITH ACANTHOLYTIC PEMPHIGUS

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| **Heading** | ORIGINAL RESEARCHES |
| **Type of article** | Scientific Article |
| **Annotation** | **Introduction.** Current data on the pathogenesis of acantholytic pemphigus emphasize the important role of desmoglein 3 (Dsg 3) in the initiation of the autoimmune process and the formation of the clinical phenotype of the disease**.** **The aim** is to determine the level of circulating antibodies to Dsg3 in patients with different clinical forms of pemphigus and assess the relationship with the severity of the disease.<br>**Materials and methods.** The study included 24 patients with acantholytic pemphigus (4 patients with the debut of the disease and 20 patients at different stages of the disease: exacerbation of dermatosis, relapse, induction of remission, remission stage) and 4 patients with sheet-like pemphigus. Disease severity was assessed using a validated dissemination index scoring system – IKEDA. Using an enzyme-linked immunosorbent assay using a kit for determining human Dsg 3 (Desmoglein-3), FineTest (China) Enzyme-Linked immunosorbent assay Kit for research use only Human DSG 3 ELISA Kit, the levels of anti-Dsg 3 antibodies in the blood serum of patients with acantholytic and foliate pemphigus and control group individuals were determined.<br>**Results.** 4 (16.7%) patients had mild disease, 11 (45.8%) had moderate disease, and 9 (37.5%) had severe disease. In 24 out of 24 serum samples from patients with vulgar pemphigus and 4 out of 4 serum samples from patients with foliate pemphigus, the level of anti-desmoglein-3 exceeded the limit value. None of the 10 control samples were positive for antibodies to desmoglein-3. Antibody levels to desmoglein 3 correlate with the severity of acantholytic pemphigus, decreasing as the severity of the dermatosis decreases from severe to mild. The possibility of using anti-Dsg 3 antibody levels as a prognostic marker of the course of the disease was assessed.<br>**Conclusions**. It was found that the levels of antibodies to desmoglein 3 correlate with the severity of acantholytic pemphigus, decreasing as the severity of the dermatosis decreases from severe to mild. Determination of the level of antibodies to desmoglein-3 in the serum of patients with acantholytic pemphigus can be used as a means of monitoring the activity of the process and the effectiveness of treatment. |
| **Tags** | *acantholytic pemphigus, IKEDA index, anti-desmoglein-3 antibodies* |
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| **Publication of the article** | «DERMATOLOGY AND VENEREOLOGY» №3(109), 2025 year, 7-10 pages, |
| **DOI** | 10.33743/2308-1066-2025-3-7-10 |