

## C-REACTIVE PROTEIN STAATUS IN PATIENTS WITH PEMPHIGUS ACANTHOLITICUS

**Shakhnoza Zakirovna Mavlyanova**

DSc, Professor, Head of the Scientific Laboratory of the Republican Specialized Scientific and Practical Medical Center for Dermatovenerology and Cosmetology, Ministry of Health of the Republic of Uzbekistan, Tashkent, Uzbekistan, e-mail: [shahnoza\\_m@mail.ru](mailto:shahnoza_m@mail.ru)

**Ulugbek Yusufhanovich Sabirov**

DSc, Professor, Director of the Republican Specialized Scientific and Practical Medical Center for Dermatovenereology and Cosmetology, Ministry of Health of the Republic of Uzbekistan, Tashkent, Uzbekistan

**Minnura Algapparovna Kodirova**

Republican Specialized Scientific and Practical Medical Center for Dermatovenereology and Cosmetology, Ministry of Health of the Republic of Uzbekistan, Tashkent, Uzbekistan

**Mansur Saydullayevich Mutavaliev**

Republican Specialized Scientific and Practical Medical Center for Dermatovenereology and Cosmetology, Ministry of Health of the Republic of Uzbekistan, Tashkent, Uzbekistan

## ABSTRACT

The article presents a study of the detection of levels of C-reactive protein in blood serum in patients with acantholytic pemphigus. The analysis of the obtained results shows that in patients with true pemphigus, an increased detectability of C-reactive protein is observed, which amounted to 87.7% of cases. Analysis of the quantitative characteristics of C-reactive protein in the blood serum of patients with pemphigus revealed a 3.8-fold increase in titer compared to the control group, indicating the development of a pronounced inflammatory nature in the body and predicts the risk of developing complications of a bacterial and / or viral, fungal nature

**KEY WORDS:** Acantolytic pemphigus, autoantibodies, C-reactive protein.

## INTRODUCTION

The pemphigus acantholiticus is one of the heavy dermatoses, accompanied by lesion of the skin and / or mucous membranes, leading the role in the pathogenesis of which is removed by autoimmune reactions, leading to a harmful effect of circulating auto-antibodies, which are directed against the despair components. [1, 2, 3]

In the development of an immune response, along with antibodies and cytokines, isolated by lymphocytes, sera-phase proteins are also involved, the concentration of which is rapidly increasing at an

\**Autora de correspondencia / Corresponding author.*

infectious process. [4, 5, 6, 7, 8, 9, 10, 11, 12] It is known that any inflammatory process proceeds along a single system with the participation of common and local reactions, the course and character of which depends on the reactivity of the body, the state of the immune, nervous and endocrine system. [13,14, 15, 16, 17]

It should be noted that the proteins of the complement system serve as mediators of phagocytosis, regulate the inflammatory response and interacting with antibodies, participate in the immune defense of the body. [18, 19, 20]

Thus, the C-protein is able to bind a wide range of ligands - components of microorganisms, toxins, also particles of damaged tissues, thereby disseminating them. [18-21] with, the binding of a C-reactive protein with a ligand on the cell surface, on the one hand, leads to the opsonization of bacteria and enhances phagocytosis, and on the other hand, activates the complement system. The concentration of C-reactive protein in the serum increases with different inflammatory and necrotic processes and is an indicator of the acute phase of their flow.

The purpose of our research was the assessment of the condition of the C-reactive protein in serum in patients with pemphigus acantholiticus.

## MATERIALS AND METHODS

We examined 57 patients with a pemphigus acantholiticus in obvious from 18 years to 71 years. All patients had clinical, cytological, biochemical and immunological studies. The determination of the level of reactive protein in serum was determined by the method of solid-phase ELISA - research. (The company "Vector-Best"). All patients were consulted by adjacent specialists: therapist, endocrinologist, etc.

## RESULTS

According to clinical form, among 57 patients with pemphigus acantholiticus vulgar form were - 51 patients (89.5%), seborrheic form - 4 (7.01%) and vegetative - 2 (3.5%), respectively.

The results of the ELISA study on the detectability of C - reactive protein in patients with a pemphigus acantholiticus showed that among 57 patients, 50 patients in serum were noted to increase the level of the C-protein, which amounted to 87.7% of cases. In the group of healthy persons among 22 persons, only one has noted an increased level of CRH, which was 4.5% of the case. (Table 1). The results obtained indicate the severity of the inflammatory response in the body of patients with a pemphigus acantholiticus.

**Table 1. Frequency of detectability - reactive protein in serum in patients with pemphigus acantholiticus (ABS, %)**

№	Groups	Frequency of increased concentration of C-reactive protein	
		ME/I	
		* n	%
1	<b>Patients with pemphigus acantholiticus</b> N = 57	50	87,7
2	<b>Control group (healthy)</b> N=18	1	4,5

Note: N-issue examined patients; \* N - the number of revealed levels of the C-protein

Analysis of the quantitative characteristics of the C-auto-antibody to the native DNA in the serum in patients with a pemphigus acantholiticus revealed an increase in concentration by 3.8 times compared with the indicators of the control group and was an average of  $18.3 \pm 0.5$  me / ml and had a statistically significant character. ( $P < 0.05$ ).

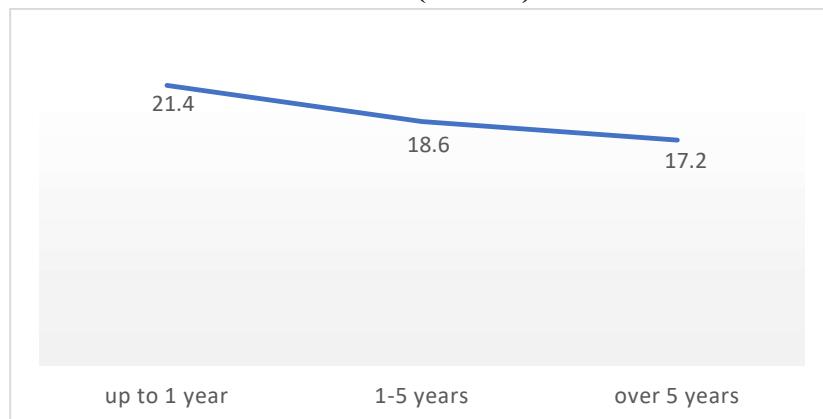
**Table 2. Indicators of the level of C - reactive protein in serum in patients with a true pemphigus acantholiticus (M + m)**

Groups	DNA-ds (ME/ml)
<b>Patients with pemphigus acantholiticus</b> <b>N = 57</b>	$18.3 \pm 0.5^*$
<b>Control group (healthy)</b> <b>N=18</b>	$4.8 \pm 0.2$

**Note:** \* - An indication of the accuracy in relation to the indicators of healthy persons.

The results obtained are analyzed with regard to the prescription of the disease. (Fig.1.).

**Figure 1. Indicators of the concentration of C-protein, taking into account the prescription of the disease (IU / ml)**



As can be seen from Fig. 1. The level of C - reactive protein with the surrender of the disease was on average  $21.4 \pm 0.6$  me / ml, with a prescription of 1-5 years -  $18.6 \pm 0.8$  me / ml and more than 5 Years -  $17.2 \pm 1.3$  me / ml, respectively. ( $P < 0.05$ ). A sharp increase in the level of CRH in patients with pemphigus acantholiticus causes the initial stage of the organism's island reaction on the production of an autoantibhel. With increasing illness of the disease, the C-protein level is also within high concentrations, but compared with the prescription up to 1 year, it is 1.2 times. ( $P < 0.05$ )

## CONCLUSION

Thus, the analysis of the results obtained shows that the patients with a true pemphigus acantholiticus with an increased detectability of C-reactive protein is observed, which amounted to 87.7% of cases. The analyzes of the quantitative characteristic of the reactive protein in serum in patients with a pemphigus acantholiticus revealed an increase in the title of 3.8 times compared to with the indicators of the control group

and amounted to an average of  $18.3 \pm 0.5$  th / ml and had a statistically reliable character. ( $P < 0.05$ ).

The results indicate the development of a pronounced inflammatory nature in patients with the pemphigus acantholiticus and an increase in the level of C-protein testifies to the activation of an autoantibodent, promoting the development of complications as bacterial and / or viral, fungal nature. In our opinion, the data obtained have diagnostic and prognostic importance in the clinical course of the disease and the definition of the CRB titer will contribute to the further choice of adequate treatment.

## REFERENCES

1. Adskevich V.P. Diagnostic indexes in dermatology. M: Publi-in Panfilova; BINOMIAL. Laboratory of Knowledge 2014; p.352.
2. Kubanov A.A., Znamenskaya L.F., Abramova T.V., Svischenko S.I. - To the diagnosis of true pemphigus acantholiticus. VestdermatolVerol 2014; 6: p.121-130.
3. Alekperov R.T., Baranov A.A., Abaitova N.E. Clinical associations of C-reactive protein with systemic scleroderma. Ter. Archive, 2006, 78 (6), 30-35
4. Imamov O.S., Ikramova N.D. Complex therapy of patients with mycosis Stop of older age groups // Ukrainian magazine dermatology, venereology, cosmetology, No. 1 (44), 2012, p. 94-99
5. Nononic. L., Pop Knev. Cardiovascular problems of rheumatology. Scientific and practical rheumatology 2004; (4): 4-9.
6. Nevsky., Novikov A.A., Aleksandrova E.N., Mach E.S., Zakryakhaeva M.N., Speransky A.I., Guseva N.G., Ananyeva L.P. "The clinical significance of highly sensitive C-reactive protein with systemic scleroderma" / Scientific and practical rheumatology No. 4, 2007, p. 10-17
7. C-reactive protein in the development of atherosclerosis in women with a red lupus system. Clinical medicine 2006; 84 (10): 49-54
8. Junonin I.E., Butusova S.V., Shilkin N.P. Endothelium activation markers with systemic red lolly. Cytokines and inflammation 2011; (1): 26-9.
9. Barnes E.V., Narain S., Naranjo A. et al. High Sensitivity C-Reactive Protein in Systemic Lupus Erythematosus: Relation to Disease Activity, Clinical Presentation and Implications for Cardiovascular Risk. Lupus, 2005.14 (8), 576-582.
10. Bredal., Nozzim., De Sanctis S., Chiarellif. Laboratory Tests In The Diagnosis and Follow-Up of Pediatric Rheumatic Diseases: An Update. Seminarthritisrheum 2010; 40 (1): 53-72.
11. Decepti A, Omodei U, Robertson C, Bonanni B, Guerrieri-Gonzaga A, Ramazzotto F, et al. Effect of Transdermal Estradiol And Oral Conjugated Estrogen on C-Reactive Protein in Retinoid-Placebo Trial In Healthy Women. CIRCULATION (2002) 106 (10): 1224-8. DOI: 10.1161 / 01.Cir.0000028463. 74880.ea.
12. Devaraj S, Du Clos TW, Jialal I. Binding and Internalization of C-Reactive Protein by Fcgamma Receptors on Human Aortic Endothelial Cells Mediates BioLogical Effects. ARTERIOSCLERTHROMBVASCBIOL (2005) 26: 1359-63. DOI: 10.1161 / 01.ATV.0000168573. 10844.ee.
13. DU CLOS TW, MOLD C. C-REACTIVE PROTEIN: An Activator of Innate Immunity and A Modulator of Adaptive Immunity. Immunol Res (2004) 30 (3): 261-77. DOI: 10.1385 / IR: 30: 3: 261.
14. Eisenhardt SU, Thiele Jr, Bannasch H, Stark GB, Peter K. C-Reactive Protein: How Conformational Changes Influence Inflammatory Properties. Cell Cycle (2009) 8 (23): 3885-92.10.4161 / CC.8.23.10068.

15. COMPLEMENT SYSTEM I. CONSUMPTION OF HUMAN COMPLEMENT ASSOCIATED WITH THE REACTION OF C-REACTIVE PROTEIN WITH PNEUMOCOCCAL C-POLINE AND WITHIN AND SPHINGOMYELIN. J Immunol (1974) 112 (6): 2135-47.
16. Karadag O., Calgunerim., Atalare., Et al. Novel Cardiovascular Risk Factors and Cardiac Event Predictors in Female Inactive Systemic Lupus Erythematosus Patients. Clinrheumatol 2007; 26 (5): 695-9
17. Marnell L, Mold C, du Clos TW. C-REACTIVE PROTEIN: LIGANDS, RECEPTORS AND ROLE IN INFLAMMATION. Clinimmunol (2005) 117 (2): 104-11.10.1016 / J.clim.2005.08.004.
18. MOLD C, GEWURZ H, DU CLOS TW. Regulation of Complement Activation by C-Reactive Protein. Immunopharmacology (1999) 42: 23-30.10.1016 / S0162-3109 (99) 00007-7.
19. Mortensen RF. C-REACTIVE PROTEIN, INFLAMMATION, AND INNATE IMMUNITY. Immunol Res (2001) 24 (2): 163-76. DOI: 10.1385 / IR: 24: 2: 163
20. Tillet WS, Francis T. Serological Reactions in Pneumonia with a nonProtein Somatic Fraction Of Pneumococcus. J Exp Med (1930) 52 (4): 561-71. DOI: 10.1084 / JEM.52.4.561
21. Trial J, Potempa La, Entman ML. The Role of C-Reactive Protein In Innate and Acquired Inflammation: New Perspectives. INFLAMM CELL SIGNAL (2016) 3 (2): E1409.