



STATUS OF THE IMMUNE SYSTEM IN HERPETIC STOMATITIS IN TORCH INFECTED PATIENTS (LITERATURE REVIEW)

Sharipova Gulnihol Idiyevna

Bukhara State Medical Institute

<https://www.doi.org/10.5281/zenodo.10211996>

ARTICLE INFO

Received: 20th November 2023

Accepted: 27th November 2023

Online: 28th November 2023

KEY WORDS

TORCh, toxoplasmosis, rubella, Cytomegalovirus, Herpetic infection, herpes, replication.

ABSTRACT

The clinical rate of herpetic stomatitis in patients infected with TORCh is directly related to the state of the body's immune system, it affects the development of the herpes infection process by changing the ratio of its components. Patients suffering from herpes virus infection have various symptoms of immunodeficiency, which indicates that herpes infection is a disease of the immune system [1.4.5].

The duration and quality of life of a particular person, the characteristics of the course of the disease and the prognosis are directly proportional to the disorders in the joints of the immune system. Herpetic stomatitis in patients infected with TORCh occurs with secondary immunodeficiency, which is associated with a functional deficiency of cells or a decrease in their number, or with instability of the components of the immune system [2.4].

Sometimes, antibodies cause infection by directing their action against the cell, for example, a molecule in NK cells binds to cells in a specialized way through receptors for the Fc enzyme and, facilitating the entry of the virus into the cell, the virus envelope and the cell provides a close relationship between the surface [1.2.3].

Another protective mechanism is the persistence of the virus in tissues that are not controlled by the immune system (the affected nerves are the neurons of the regional ganglia). These cells are unable to express type I histocompatibility complex, as a result of which the virus accumulates in them without obstacles [1.3].

There are significant differences in the infection of lymphocytes and epitheliocytes. Virus replication occurs with the formation of virions in epitheliocytes and damage to the nearest cells in this lupus. When V-lymphocytes are infected, the virus rarely replicates, in other cases it is in a latent state. In the early stages of the development of the disease, there is a possibility of infection with NK-cells and T-lymphocytes with the circulation of viruses in lymphocytes throughout life and the formation of chronic infection. The ability of the herpes virus infection to exist in various cells of the immune system allows it to evade the body's defense systems [3.4].

The immune response of the microorganism is directed both against the cells damaged by the virus and against the virus itself and is determined by two defense mechanisms:



specialized immunity formed after an experienced disease or artificial immunity and based on innate tolerance to the reproduction of viruses natural resistance [4.6].

Herpetic stomatitis in infected patients is considered a systemic human disease due to the ability to provoke the development of chronic infection in the human body.

Initially, non-specialized protective factors in the body are affected by the viral agent. Various components of non-specialized resistance are considered one of the ancient mechanisms in the human body and make a significant contribution to the body's response to virus aggression [2.3.4].

Tissue macrophage is one of the first cells involved in the immune response to viral infection. Macrophages are directly involved in both specialized and non-specialized immune responses to foreign agent entry. They capture and engulf pathogens and present antigenic proteins to T- and V-lymphocytes, triggering cellular and humoral immune responses. Macrophages respond to viral aggression by simultaneously producing inflammatory cytokines due to the activation of neutrophils, monocytes/macrophages, NK-cells, and affect T- and V-lymphocytes, particularly the specialized immune response. The contagiousness of the disease and the appearance of mature extracellular forms of the virus are associated with the persistence of OVG in the cell during incomplete phagocytosis.

Neutrophils are important elements of herpes immunity that synthesize interferon, cytokines and defensins.

Immune complexes circulating in the blood are an indicator of the development of all possible inflammatory processes in the body and the activity of the course of autoimmune diseases. Immune complexes circulating in the blood include antigen, antibody and complement components. The formation of immune complexes circulating in the blood is a physiological defense mechanism of the body when a foreign agent enters, it leads to the rapid release of exogenous and endogenous antigens through the reticulo-endothelial system. Immune complexes circulating in the blood are usually captured by phagocytes, broken down and subsequently released [5.6].

An increase in the amount of circulating immune complexes in the blood serum leads to the involvement of new systems in the body in the process of inflammation and the expansion of the focus of infection. A systemic syndrome of endogenous intoxication is formed, which is evidenced by an increase in the level of malondialdehyde, which is an indicator of lipid peroxide oxidation.

References:

1. Abdurakhmonov M.A., Kosimova R.I. Clinical and laboratory features of herpetic infection in children // Economy and Society. 2021. No. 10 (89).
2. Alekseeva M.L., Kolodko V.G., Mullabaeva S.M. and others. Some infections of the TORCH complex // Problems of reproduction. 2022. - No. 4 P.12-20.
3. Muratovich M. R., Rajaboevich I. A. AS A CONTINUOUS PROCESS IN FORMING AND DEVELOPING THE PROFESSIONAL CONSCIOUSNESS OF MILITARY SERVANTS //PEDAGOGS journal. - 2023. - T. 36. – no. 1. – S. 32-34.



4. Sharipova G. I. The use of flavonoid based medications in the treatment of inflammatory diseases in oral mucus //Asian journal of Pharmaceutical and biological research. India. – 2022. – T. 11. – №. 1. – C. 2231-2218. (Impact factor: 4.465)
5. Sharipova G. I.Changes in the content of trace elements in the saliva of patients in the treatment of patients with traumatic stomatitis with flavonoid-based drugs // Journal of research in health science. Iran. – 2022. – T. 6. – № 1-2. – C. 23-26. (Scopus)
6. Sharipova G. I., Nuraliyev N. A. General description and research methods used in children with traumatic stomatitis // European Journal of Research. Austria. – 2022.– T. 7. – № 1. – C. 51-56. (Impact factor: 4.981)
7. Sharipova G. I. Paediatric Lazer Dentistry //International Journal of Culture and Modernity. Spain. – 2022. – T. 12. – C. 33-37.
8. Sharipova G. I. The effectiveness of the use of magnetic-infrared-laser therapy in traumatic injuries of oral tissues in preschool children //Journal of Academic Leadership. India. – 2022. – T. 21. – №. 1.
9. Sharipova G. I. Discussion of results of personal studies in the use of mil therapy in the treatment of trauma to the oral mucosa //European journal of molecular medicine. Germany. – 2022. – T. 2. – №. 2. – C. 17-21.
10. Sharipova G. I. Peculiarities of the morphological structure of the oral mucosa in young children // International journal of conference series on education and social sciences. (Online) May. Turkey. – 2022. – C. 36-37.
11. Sharipova G. I. Dynamics of cytological changes in the state of periodontal tissue under the influence of dental treatment prophylactic complex in young children with traumatic stomatitis // Multidiscipline Proceedings of digital fashion conference April. Korea. – 2022. – C. 103-105.
12. Sharipova G.I. Assessment of comprehensive dental treatment and prevention of dental diseases in children with traumatic stomatitis // National research in Uzbekistan: periodical conferences: Part 18. Tashkent. -2021. - S. 14-15.
13. Sharipova G.I. Effectiveness of applying magnetic-infrared-laser therapy in the complex treatment of soft tissue injuries of the oral cavity in preschool children // Methodological recommendation. Bukhara. - 2022. - 21 p.