

Etiology and Causes of Chronic Herpetic Stomatitis of the Oral Cavity in Patients Infected with Torch

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Abstract The relevance of this article is due to the fact that diseases of the oral mucosa, in particular herpetic stomatitis, are significantly common. With the development of medicine and pharmacology in the 21st century. There are many methods and drugs to treat this disease, but there is still no fully effective treatment. This is due to the fact that stomatitis has many causes of development, as a result of which treatment must be comprehensive and versatile. The problems of relapse and treatment of stomatitis are still relevant today, which motivates specialists to conduct research in this area of dentistry.

Keywords Herpes simplex virus (HSV), Stomatitis, Oral mucosa, Patient, Etiology, Treatment, Pathogenesis

1. Introduction

The purpose of the study is to review the currently known literature concerning the problems of treatment of chronic herpetic stomatitis (CHS) and study the causes of its occurrence.

CHC represents a significant problem in medicine due to the high increase in incidence and severe clinical manifestations. Among diseases of the oral mucosa (OMD), CHC is the most common. After a person has had this disease, the virus remains in the body in the latent phase and worsens with various pathologies in the body, leading to a decrease in immunity.

The word "herpes" comes from the Greek meaning "to crawl", a term that was known to doctors as early as 100 BC. Febrile herpes is indicated in many works and historical information by the founders of medicine, Hippocrates, Avicenna and Paracelsus.

Herpes simplex virus (HSV) is the most common infection among the world's population; it can affect various human organs and causes latent, acute and chronic forms. About 90% of the population of large cities are carriers of one or more strains of the virus. About 1 billion people infected with HSV 1 and 2, in addition, about 25 million people per year. are infected with HSV for the first time. Treatment and prevention of patients with recurrent stomatitis is a complex and poorly controlled task. Often, when treating patients with CHC, therapy does not prevent relapses and does not affect the frequency of their manifestations.

Based on data from the World Health Organization,

herpes viral infection affects about 20% of the world's population; also, according to research by many authors, 20% of the population experiences aphthous rashes at one time or another in their lives. About 95% of the world's population are direct carriers of herpes viral infection. The age category of patients with CHC ranges from 18 to 45 years. Among patients suffering from CHC, women predominate.

Recently, the incidence of HSV disease has increased significantly around the world. During primary infection, no symptoms of the disease are observed, and only 20–30% of those infected with HSV develop a relapse of the disease within 2–3 years, and therefore it is impossible to establish the exact number of cases. The increase in the number of patients with this disease is to some extent associated with an increase in the asymptomatic course of the disease, its undiagnosed form.

Herpes viral infection disrupts the functioning of the organ systems of the human body. Manifestations are observed in three clinical forms: latent, acute and chronic. Treatment and prevention of herpes viral infection for a long time is a complex and significant task. Often, even complex treatment of patients with CHC does not prevent relapses of the disease and does not have a significant effect on the frequency of their manifestations.

In the last ten years, the number of common diseases, such as HIV, hepatitis, tuberculosis, etc., has increased significantly, this is due to a decrease in the body's immunity, with an increase in the growth of allergic and autoimmune diseases. Chronic inflammatory diseases that occur in a latent stage and are of a viral nature are also a significant problem in medicine.

The herpes virus is still the most common and poorly controlled infection. HSV 15.8% ranks second among the causes of death after acute respiratory viral infections (ARVI) 35.8%.

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The significance and importance of the disease is due to the fact that the disease manifests itself as a cold; after a change in the body's reactivity, the virus is able to disseminate and cause various complications. Herpes viral infection affects the nervous system, internal organs and reproductive system.

Herpetic stomatitis is an endogenous infectious disease, the causative agent of which is HSV, the mechanism of transmission of infection is airborne, contact or transplacental. The source of the spread of infection is a sick person – a virus carrier.

2. Materials and Methods

The resistance of the virus to low temperatures is high; HSV safely retains its viability and can persist for decades. On the contrary, when exposed to high temperatures, like many other viruses, HSV is inactivated, so at 50°C HSV loses its stability after 30 minutes, at 37°C the virus dies within 10 hours. The virus is destroyed by exposure to X-rays and ultraviolet rays, exposure ethyl alcohol and other organic solvents also have a detrimental effect on the virus. At room temperature, on human skin and other household items, the herpes simplex virus can live for 1–5 hours.

HSV type 1 is characterized by three factors: a short-term self-reproducing cycle; high cytopathic viability; the ability to reside in the nerve ganglia in a latent form.

The source of the spread of the virus is sick people whose virus is in the latent stage, without showing a clinical course.

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Failures in the immune system affect the clinical course and relapses of diseases of the oral mucosa.

Most authors establish that the detected circulating immune complexes play a special role in tissue damage in CHC.

According to a number of authors, according to their new concepts about the pathogenesis of CHC, the immune system plays an important role in its development. And it is in patients with CHC that suppression of immunity at the cellular level has been determined.

Other authors attach a certain importance to the hereditary factor in the occurrence of CHC, i.e. The studied patients with CRH indicated a genetic predisposition to the occurrence of this disease. Various literary sources mention quite a few cases of family diseases with this pathology. According to the observations of V.A. Epishev, cases with chronic stomatitis occurred in 15.2% of cases, according to G.V. Banchenko – only in 12%.

Most patients often seek help in the acute phase of the disease, when pain and burning appear in the oral cavity, a disturbance in the general condition of the body, which in turn leads to a decrease in the quality of life of patients.

When the authors examined patients suffering from HSV, they assessed the hygienic status of the oral cavity, identified the intensity and prevalence of inflammatory periodontal diseases, the prevalence, course and severity of CHC. Patients with severe CHC, hygiene index indicators showed a high level, simplified oral hygiene index (OHI-S) from 3.9 ± 0.0012 to 3.1 ± 0.0013 ($p < 0.001$), bleeding index reached 3 and 4 degrees, the PMA index (papillary-alveolar-marginal index) reached 60% or more, the values of the KPI index (complex periodontal index) ranged from 3 to 3.7 points, for the KPU index (K - caries, P - filling, U – deleted) the predominance of the constant "K" is characteristic. In patients suffering from chronic herpetic infections, the tendency to develop cancer is high; such patients also have a possible risk of developing autoimmune diseases, diseases of the reproductive system and the development of fetal pathologies.

Untimely treatment and periodic relapses of CHC can become precursors for the development of oncological pathology in the body, as well as affect the psychological status of the patient and cause nervous system disorders.

Herpes viruses are capable of producing disruptions in the immune system, namely suppressing immunity at the cellular level with the further formation of a secondary deficiency in the immune system.

Against the background of an acquired or physiological immunodeficiency state of the patient's body, the herpes

virus manifests itself in a severe stage of its course, as can happen during pregnancy. This factor gives significant interest and provokes the solution of this problem.

In recent years, varying degrees of immunodeficiency have been observed, and therefore the number of patients with herpes viral infection is increasing.

According to the results of a study by many authors, in pregnant women suffering from the herpes virus, the leading condition for the manifestation of complications is considered to be an immunological disorder in the body.

The presence of HSV in the blood of a pregnant woman can lead to various pathologies (miscarriages, prematurity, stillbirth). The cause of spontaneous miscarriages, 30% in early and 50% in late pregnancy, may be the presence of a herpes viral infection in the mother's body. According to statistics, these cases rank second after rubella.

3. Result and Discussion

Domestic and foreign authors have established that patients with herpetic lesions exhibit secondary immune deficiency. Until now, the problem of the immunological status of pregnant women with herpetic stomatitis remains a relevant and significant problem in medicine, given that there has been some progress in studying the etiopathogenesis of this disease.

Often, primary infection with a herpes viral infection occurs in early childhood, so this problem is also relevant in pediatric dental practice.

Relapses of the disease in children (6-8 in every child) who have had acute herpetic stomatitis occur in 73% of cases, and repeated manifestations occur after a year.

A number of authors associate the role of diseases of the digestive system (diseases of the gastrointestinal tract, liver, etc.) in the pathogenesis of stomatitis, as evidenced by studies of patients suffering from various diseases of the gastrointestinal tract, liver, in whom pathological formations in the oral cavity were subsequently identified.

Many researchers, dentists and gastroenterologists, focus on the problem of pathological manifestations in the oral cavity associated with diseases of the gastrointestinal tract. There is an opinion that the oral cavity is a reservoir for *Helicobacter pylori*, which is an etiopathogenetic factor in the development of chronic gastritis and gastric and duodenal ulcers. HSV type I is found in gastric and duodenal ulcers; this localization of the virus can lead to chronicity of the ulcerative process.

Many authors believe that strains of the *Helicobacter pylori* species are equally found in both the stomach and the oral cavity. The oral cavity is a repository of microorganisms, causing relapses of gastrointestinal diseases, thereby leading to a decrease in the effectiveness of antiviral therapy.

The choice of treatment tactics for CHC depends on the period of development of the disease and the degree of severity. Therapy should include both general and local effects. Bed rest and isolation measures must be observed.

Also, in addition to the basis of clinical picture data, several dozen different methods are used. The sensitivity and specificity of laboratory methods should be assessed when selecting and interpreting laboratory test results.

Currently, there are a variety of laboratory diagnostic methods:

- 1) cytomorphological methods;
- 2) methods for detecting viral antigens - immunofluorescence and enzyme immunoassay;
- 3) polymerase chain reaction (PCR);
- 4) detection of antibodies using ELISA (enzyme-linked immunosorbent assay);
- 5) methods of research and assessment of immune status;
- 6) virological methods for detecting and identifying viruses, scraping cells from the mucous membrane, blood.

Many authors in their studies pointed out the importance of rational oral hygiene in the treatment of CHC. Brushing your teeth regularly, using medium-hard toothbrushes, and brushing after each brushing. At the height of the disease and the manifestation of acute phenomena in the oral cavity, patients with CHC need to get a new toothbrush and, after the disease subsides, they need to renew the brush. Change your toothbrush 11–15 times a year.

4. Conclusions

Thus, despite the identified and various etiological factors for the development of CHC described by domestic and foreign authors in the presented article, CHC is one of the important medical and social problems. The causes of HSV are still not fully understood. Today there are a large number of means and methods for treating stomatitis, but a complete algorithm for complex treatment and supportive care has not been developed due to the incompletely studied etiology. Thus, this problem remains an urgent task and requires further research.

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] 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)
- [4] 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)
- [5] 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)
- [6] Sharipova G. I. Paediatric Lazer Dentistry // *International Journal of Culture and Modernity*. Spain. – 2022. – T. 12. – C. 33-37.
- [7] 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.
- [8] 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.
- [9] 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.
- [10] 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.
- [11] 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.
- [12] 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.