



WAYS TO OPTIMIZE THE TREATMENT OF ACUTE HERPETIC STOMATITIS IN CHILDREN

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Abstract

Diseases of the oral mucosa represent one of the most difficult problems in dentistry due to the difficulties in diagnosis and treatment. A variety of clinical manifestations, the ability to affect different organs and tissues, the characteristics of pathogens, the possibility of their spread in almost all possible ways allowed the WHO Regional Office for Europe to classify herpesvirus infection as a group of diseases that determine the future of infectious pathology in the current century. The study of the incidence and characteristics of the clinical course of herpetic stomatitis is a necessary measure for planning dental care and improving the quality of diagnosis.

Keywords: acute herpetic stomatitis; G. Lucidum; PMA; children.

Introduction

Diseases of the oral mucosa represent one of the most difficult problems in dentistry due to difficulties in diagnosis and treatment [2]. The term "herpes" (from the Greek. herpo - to crawl) has been known to doctors for over 2000 years. The "cold" or "herpes fever" was described by the physician Herodotus in 100 BC. Mentions of him are found in the treatises of famous doctors, the fathers of medicine - Hippocrates, Avicenna and Paracelsus a . In the last decades, scientists have mainly paid considerable attention to the problem of prevention and treatment of chronic diseases of the oral mucosa in the works of domestic and foreign researchers [5]. A variety of clinical manifestations, the ability to affect different

organs and tissues, the characteristics of pathogens, the possibility of their spread in almost all possible ways allowed the WHO Regional Office for Europe to classify herpesvirus infection into a group of diseases that determine the future of infectious pathology in the current century [6]. The study of the incidence and characteristics of the clinical course of herpetic stomatitis is a necessary measure for planning dental care and improving the quality of diagnosis [3]. The main feature of herpes - viral diseases is their tendency to chronic relapsing course. The herpes simplex virus enters the human body through the mucous membranes or areas of damaged skin, in which its primary replication occurs in the cells of the epidermis and the skin itself, leading to damage to various organs and systems [4]. The efferent spread of viruses to the skin along the peripheral sensory nerves makes it possible to explain the fact of extensive involvement of new surfaces and high. the frequency of new lesions located at a considerable distance from the site of primary localization of vesicles [1]. A kind of vicious circle is formed, where each of the main components of etiopathogenesis can be primary . The relevance of research on herpetic stomatitis is also due to the fact that the site of manifestation of primary herpesvirus infection is most often the oral mucosa and infection, in most cases, occurs in early childhood.

The aim of the research

Conduct a comparative clinical and laboratory differential diagnosis of the use of various drugs used in the treatment of acute herpetic stomatitis in children.

Material and Methods

We examined 60 children aged 3 to 6 years who applied to the TSSI pediatric therapeutic dentistry clinic with a diagnosis of acute herpetic stomatitis of moderate severity. In patients with acute hepatitis C, the clinical condition was studied, the microflora of the oral fluid was determined before and after treatment, the number of lactobacilli and the content of immunoglobulins.

The selection of patients for the study was carried out in compliance with the principles of randomized sampling. All parents or legal representatives of the children selected for participation in the study were thoroughly acquainted with the objectives of the study, the program of treatment and diagnostic measures, and gave their written informed voluntary consent to the treatment. Prior to the treatment of herpetic stomatitis, patients underwent: clinical analysis, index assessment of the state of the oral cavity (Green- Vermillion index , RMA).

All patients were divided into 3 groups of 20 each. Patients of the 1st group underwent treatment of the oral cavity with a 0.1% solution of chlorhexidine and treatment of the oral cavity with benzidamine (Tantum Verde) at a dilution of

1:1, as well as applications of 3% acyclovir against the background of general therapy. Group 2 patients were treated with a biologically active supplement based on a lipid concentrate from the biomass of snakes of the ERYX genus (Reptinplant). Group 3 patients were treated with an active substance based on Ganoderma Lucidum using Ispring gel.

All material was subjected to statistical processing using parametric and non-parametric research methods.

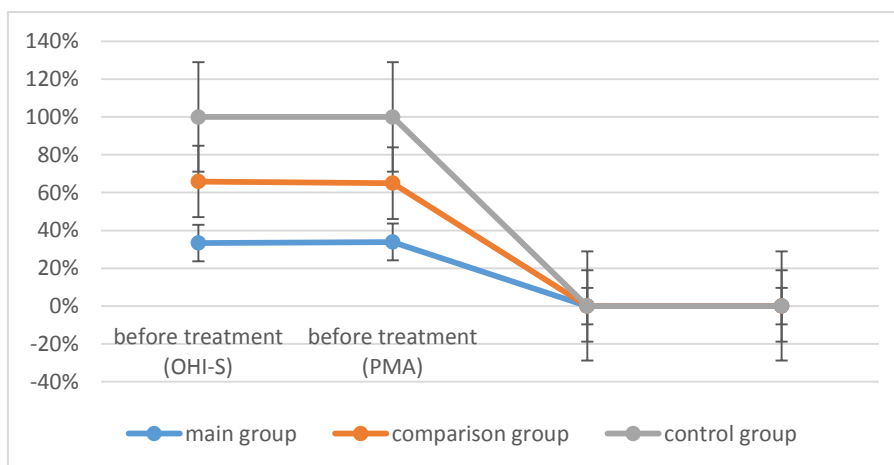
Results and Discussion

Patients in both groups had a history of acute and chronic respiratory diseases. When examining the edematous and hyperemic oral mucosa, multiple, sometimes sharply painful erosions of various localization merging with each other were revealed.

As a result of the study, 71.4% of girls and 28.6% of boys had acute herpetic stomatitis. Herpes simplex lip was observed in 34.5% of boys and 65.5% of girls, respectively. Acute herpetic stomatitis (AHS) was more common in girls than in boys ($p < 0.05$). Patients with severe acute hepatitis C were characterized by high hygiene index OHI-S from 3.9 ± 0.0012 to 3.1 ± 0.0013 ($p < 0.001$), the bleeding index reached grades 3 and 4, the PMA index reached 60% and more, the values of the KPI index ranged from 3 to 3.7 points, the KPI index is characterized by the predominance of the constant "K". When determining indices in patients with moderate severity, values exceeding the normal range were obtained: the bleeding index ranged from 1.2 ± 0.001 to 1.64 ± 0.001 .

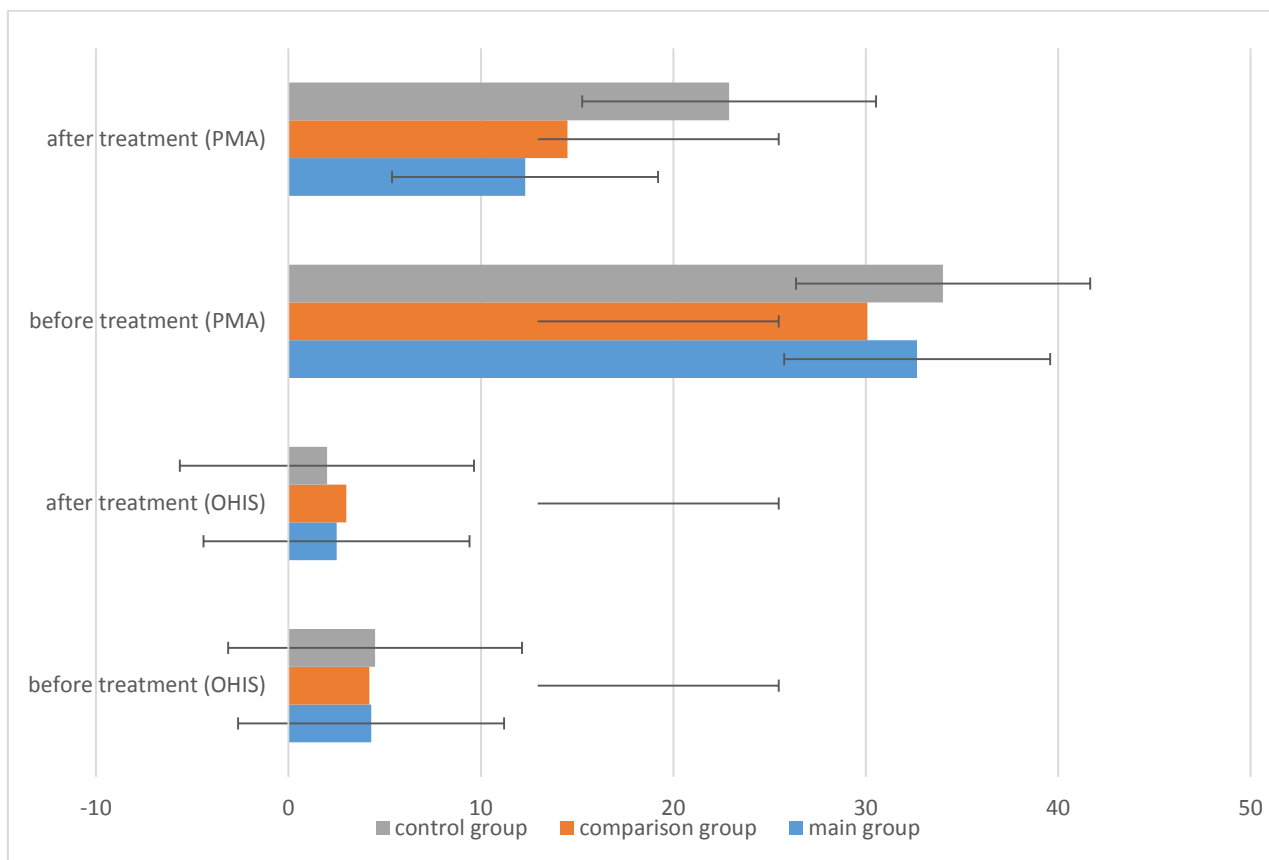
Before treatment in the second period of the disease (prodromal period), there was general weakness, loss of appetite, anxiety and capriciousness of children, which in some places were accompanied by symptoms of catarrhal tonsillitis or symptoms of acute respiratory infection. The maxillary lymph nodes were enlarged and moderately painful on palpation. Body temperature indicators varied within subfebrile condition $37.0-37.5^{\circ}\text{C}$, as the disease progressed, body temperature increased to $38.0-39.0^{\circ}\text{C}$, as well as headache, nausea, pallor of the skin. Morphological elements of the lesions were located both on the oral mucosa and on the skin of the face and oral region. The number of elements varied from 10 to 25. The consistency of saliva was viscous, viscous and plentiful. On the part of the gums, a pronounced gingivitis and bleeding were detected. Primary rashes were accompanied by a decrease in temperature manifestations to subfebrile - $37.0-37.5^{\circ}\text{C}$, respectively, subsequent rashes (relapses) were repeated manifestations of temperature increases to the previous figures. In children, periodic disturbances in sleep and appetite were observed, an increase in symptoms of secondary toxicosis was manifested. An increase in the erythrocyte sedimentation rate was recorded in

the blood, where the limit reached 20 mm/h, in some places leukopenia, sometimes a slight leukocytosis. Monocytes and stab neutrophils were displayed in the borderline normal range, and lymphocytosis and plasmacytosis were also present. The process of epithelialization of the elements of the rashes persisted up to 5-6 days. Gingivitis, acute bleeding of oral mucosa and symptoms of regional lymphadenitis were noted for the longest time. There were 25 sick children with severe forms of herpetic stomatitis. Children with severe stomatitis were much less common than those with moderate ones. In the prodromal period with a severe form of herpetic stomatitis, all the symptoms of the initial stage of an acute infectious process were present: adynamia, capriciousness, headache, pain in the articular and muscle areas. Most of the children had nosebleeds, nausea and vomiting, lymphadenitis of the submandibular and cervical lymph nodes. In the initial period of the disease, the temperature indicators approached 39.0 - 40.0°C, and there were also manifestations of a runny nose, coughing and conjunctivitis. In the oral cavity, mucosal edema was found, which was brightly hyperemic, gingivitis was pronounced. After 1 - 2 days, elements of the lesion began to appear up to 20 - 25 pieces in different areas of the oral cavity, in addition, the same elements were located on the skin of the oral region, and around the entire circumference of the skin of the face. In the third period of the disease, the number of elements reached up to 30 pieces or more, which merged in places and created extensive areas of necrosis. Gingivitis in the places of teething became ulcerative-necrotic. The presence of a sharp putrefactive odor from the oral cavity was noted, profuse salivation with streaks of blood stood out. There were also discharges of secrets with streaks of blood from the nose and larynx. The maximum number of cases of ACS was registered in the age group from 1 to 2 years and ranged from 37.46±2.02% to 47.67±2.69% of all cases of ACS. Young children (1-3 years old) make up the most numerous age category among all those who apply for ACS to the clinic. This age category accounts for from 62.20±2.02% to 73.54±2.38% in different years of the study. Evaluation of the structure of the incidence of acute hepatitis C by gender did not reveal significant features. Thus, the results of our studies revealed a high proportion of ACS in the structure of the pathology of the OM. The most numerous category of patients were young children - from 1 to 3 years. The data obtained confirm the relevance of this study and are the basis for a subsequent deeper study of the problem. Also, these data allow us to improve the planning of care for children with diseases of the oral mucosa.

Fig.1. Indicators of the OHI-S hygiene index and PMA in children before treatment.

On the 3rd-4th day of treatment in patients of the 1st group, there was a decrease in gum bleeding, epithelialization occurred on the 4th day after treatment. The aphthae epithelialized more slowly, the hyperemic corolla around the aphthae decreased on the 5th day. Recovery did not come on the 8-9th day. Lymph nodes decreased on the 10th day. After treatment, the microbiological parameters of the oral mucosa also changed. Thus, the number of anaerobes increased to 6.12 ± 0.27 CFU / ml, the level of secretory IgA - up to 7.19 CFU. Patients of the 2nd group, who used benzidimamine, freely opened their mouths on the 1st day due to the analgesic effect of the drug and took food. In all patients, on the 3rd day, pronounced inflammation decreased. The mucosa of the gums acquired a pink color on the 4th day, the gingival papillae took the correct configuration on the 5-6th day, their tension and pastosity were eliminated, the amount of saliva secreted sharply decreased, the hygienic condition of the oral cavity improved, plaque on the teeth decreased. Complete recovery occurred on the 4-5th day.

After treatment, microbiological parameters also improved: the number of anaerobes was 5.3 ± 0.22 CFU/ml, the level of secretory IgA was 4.3 ± 0.1 , that is, it approached the norm. During the treatment of side effects associated with the use of *G. Lucidum* extract has not been observed.

Fig.2. Indicators of HIS and PMA in children after treatment.

It was found that complete epithelialization of erosions in the main group occurred on day 5.03 ± 0.12 , and in the comparison group on day 7.63 ± 0.15 . Resolution of gingivitis in the main group was observed at 7.53 ± 0.11 days, and in the comparison group at 11.40 ± 0.17 days. Lymphadenitis disappeared in the main group by 10.20 ± 0.16 days and in the comparison group only by 13.53 ± 0.18 days. relief of the main local manifestations.

Conclusions

Thus, our study allows us to say that the proposed method of treatment using a biologically active substance based on *G. Lucidum* allows significantly $p < 0.001$ to reduce the time for relief of local symptoms of acute hepatitis C and therefore to reduce the overall duration of treatment of the disease compared to the traditional treatment regimen.

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