



Improving the Methods of Treatment and Prevention of Complications of Odontogenic Diseases of the Jaws in Children

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ABSTRACT

Treatment and prevention of inflammatory diseases of the maxillofacial region are one of the main problems of pediatric dentistry. According to a number of researchers, inflammatory diseases of the maxillofacial region account for up to 21% of all surgical and 52% of dental diseases in childhood. In most children, the source of odontogenic inflammatory diseases are complications of caries of temporary teeth. Depending on the nature of the pathogen and the reaction of the child's body, ways of infection, etc., inflammatory diseases in the maxillofacial region can be both acute and chronic [1].

Keywords:

odontogenic diseases, causative tooth, prevention, oral cavity, microbes, purulent infection.

For the development of odontogenic inflammatory diseases, one exposure to microorganisms is not enough. Most often, the process develops during a decrease in the protective reaction of the body as a whole and locally. The emergence of the process is facilitated by hypothermia or overheating of the body, weakening of the child's body due to infectious diseases, etc. [1,2]

Among inflammatory diseases of the maxillofacial region in children, periostitis is more common than abscesses, phlegmon and osteomyelitis. Unfortunately, both their number and the frequency of complicated forms of these diseases continues to grow [4,5]. Periostitis of the jaws in children occurs in 15 to 35% of diseases [3].

Even A. Sobolev first described odontogenic periostitis as a separate nosological unit, and in the twentieth century a number of prominent scientists believed that jaw periostitis occurs as a complication of the

carious process and has a characteristic clinical picture. And today, a number of well-known dentists refer periostitis to purulent periodontitis, others - to limited osteomyelitis. Therefore, the interest of scientists and practitioners in this problem is quite understandable [6,7]

In children, phlegmon of the jaw is usually a complication of acute or exacerbated chronic periodontitis (apical or marginal). The disease develops most often from destroyed temporary molars of the lower and upper jaws, permanent molars of the lower jaw, less often other foci of odontogenic infection [8,9]. The process is more often localized in the upper jaw. Symptoms of intoxication in the form of pale skin and mucous membranes, lethargy, and malaise are not expressed in all cases. The onset of the disease is characterized by pain localized in half of the cases in the affected tooth [10].

Purpose of the study: Improving the treatment and prevention of complications of

acute odontogenic diseases with the inclusion of bacterial lysate IRS-19 in the complex therapy.

Materials and methods: This study is based on the results of treatment of 551 children treated in 3 clinics of TSI and surgical dentistry of the State Medical Institute in 2015-2019. Taking into account the formation of the dentoalveolar system and the change of teeth, all children were divided into 3 groups. The first group consisted of 336 patients aged 2-5 years

with a temporary bite. The second group included 175 children aged 6-9 years old with mixed dentition, the third group - 40 children aged 10-13 years old, who mostly had a change of temporary teeth to permanent ones. In all patients, the localization of the inflammatory process (upper, lower jaws, on the right and left), "causal" teeth, which were the entrance gates of infection, etc., were studied.

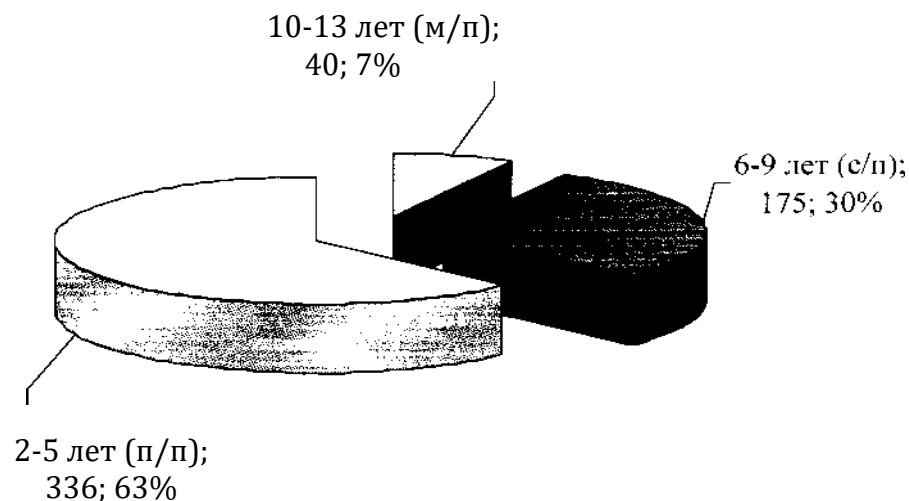


Fig.1. Total number of examined patients (n=551)

Of 551 patients, we carried out detailed clinical, microbiological and immunological studies in 85 patients.

To take into account the anamnestic, clinical and laboratory studies of the course of the disease, we developed an examination card for a patient with acute purulent periostitis, in which anamnestic information, general and local signs of the disease, and laboratory data were entered. All qualitative features were converted into quantitative terms (points). On the day of admission, when collecting an anamnesis, all complaints were carefully studied, local signs of the inflammatory process, the general reaction of the body, past and concomitant diseases, and previous treatment were taken into account. Hospitalization of children with phlegmon was carried out according to the indications established by the doctor on duty of the admission department of the clinic and the doctors of polyclinics.

Along with clinical and dental methods, microbiological and immunological studies were performed in 55 patients with phlegmon.

Before performing emergency surgical care, oral fluid was taken from children into a sterile test tube. During the operation, immediately after opening, a swab was taken from the wound discharge, which was introduced into a sterile test tube.

Microbiological and immunological studies were carried out in the tank laboratory of the 3rd clinic and the Department of Microbiology and Immunology of the TMA. Head Department, Doctor of Medical Sciences, Professor Mukhammedov E.M.

In the laboratory, serial dilutions were prepared from the obtained material using a phosphate buffer for better survival of asporogenic anaerobes. Subsequently, under boxing conditions, a certain volume was taken from the appropriate dilutions and inoculated on the surface of differential diagnostic and selective nutrient media, such as agar for anaerobes, medium for lactobacilli - MPC-4, for Escherichia, Endo medium, milk-salt agar - for staphylococci, Kalina medium for enterococci, blood agar - to determine hematological activity,

for fungi of the genus *Candida* Sabouraud medium. All crops were incubated for 24-72 hours in a thermostat at a temperature of 37°C. For the cultivation of anaerobes, an anaerostat was used. After a certain time of cultivation, Petri dishes were taken out, the number of colonies was counted. The number of bacteria of each species was expressed as Big cfu/ml.

All patients after a clinical and stomatological examination by a dental surgeon and the results of a laboratory blood test were examined by an anesthesiologist to resolve the issue of anesthesia. As a rule, children did not have any contraindications to general intravenous anesthesia. With the consent of the parents, all children underwent emergency surgery under premedication and intravenous anesthesia. In the complex treatment of purulent wounds in the first phase (at the stage of hydration), they tried to ensure a good outflow of inflammation products from the wound to the outside. Adequate drainage of the wound in many cases reduces the intoxication of the patient's body, helps him fight infection and prevents the development of purulent complications. The wound was repeatedly washed with antiseptic solutions. For this purpose, solutions of rivanol, furacilin, dimexide, chlorhexidine were used.

The drug treatment described above (traditional) was received by all 85 patients. Along with this, immediately after completion of the opening and irrigation of the wound, 35 children were injected with one dose of the aerosol preparation IRS-19 on its surface and the surrounding mucous membrane of the oral cavity. On the following days, this preparation was injected with 2 doses in the morning and evening. To assess the effectiveness of the use of bacterial lysate IRS-19 in the treatment of odontogenic diseases, the dynamics of the disappearance of clinical signs of the disease, the blood picture, microbiological and immunological parameters on the 3rd and 6th days of treatment were monitored. Clinical assessment of the effectiveness of the use of IRS-19 in the complex treatment of periostitis was assessed by the dynamics of the disappearance of clinical signs of the disease and the

normalization of clinical, laboratory and immunological parameters.

In children receiving IRS-19, collateral edema disappeared much earlier, the inflammatory infiltrate resolved, skin hyperemia disappeared, and lymph nodes decreased. IRS-19 had a charitable effect on the course of the wound process. Infiltration of the tissues of the transitional fold after the incision already disappeared in 50% of children on the 3rd day and was completely epithelialized on the 6th day, while in 1/4 of the children who did not receive IRS-19 it persisted and they had a smell of pus from the oral cavity. With a scoring assessment of the effectiveness of the treatment, it was found that with traditional treatment, on the 3rd day, the general signs of phlegmon decrease by only 25.7%, and by 6 days of treatment by 52.2% and, nevertheless, do not disappear, and in children who received IRS -19 general signs decreased by 3 days by 37.5%, by 6 days by 89.4%.

Conclusion: The clinical picture of odontogenic diseases depends on the age of the child: in the period of the formed milk occlusion (2-5 years), the general signs of inflammation are more pronounced due to the hyperergic reaction in the shift period (6-9 years), local signs of inflammation and their general manifestations correspond the severity of the disease. During the formation of a permanent occlusion (10-13 years), local signs of inflammation prevail in the picture of phlegmon. With odontogenic diseases in children, bacteria are sown from pus in the form of a monoinfection (*Str.pyogens*, *St.epidermidis*), and in an association of several microorganisms (*St.aureus*, *St.epidermidis*, *E.coli* JIH). The inclusion of the drug IRS-19 in the complex treatment of odontogenic diseases significantly reduces the contamination of the wound and saliva with epidermal staphylococcus, and *Staphylococcus aureus* disappears.

LITERATURE:

1. Kamalova F. R., Eshonkulov G.T. The study of the prevalence of anomalies of the dentition in the bukhara region, their early diagnosis and treatment// *Academica:*

- Vol. 10 Issue 1, January. Vol. 1. - 2020. - P. 61-63.
2. Kamalova F. R., Eshonkulov G.T., Radjabov A. A., Saidova M.A. The study of anomalies of maxilla-facial system of children's age in the Bukhara region// *Academica*: December. - 2019. Vol. 12. - P. 63-67.
 3. Kamalova F.R. Development and evaluation of the effectiveness of the dental examination program for children with diabetes in adverse environmental Conditions// *Academica* 10 Issue 1, January. - 2020. Vol. 1. - P. 1364 - 1366.
 4. Kamalova F.R. Elaboration and evaluation of the effectiveness of the dental examination program for children with diabetes// *Актуальные вызовы современной науки. Сборник научных трудов выпуск*. - 2020. - № 4 (48). - P. 55-56.
 5. Раджабов А.А., Раджабов А.Б., Темирова Н.Р., Камалова Ш.М. Оценка результатов первичной хейлопластики у детей с врожденной двусторонней расщелиной верхней губы и нёба// *Электронный научный журнал «Биология и интегративная медицина»*. - 2017. - № 5. - С. 36-46.
 6. Камалова Ф.Р. Изучение важных аспектов в развитии гнойно-воспалительных процессов челюстно-лицевой области у детей// *Проблемы биологии и медицины*. - 2017. - № 4,1 (98). - С. 69.
 7. Rakhmatillaevna, K. F. (2020). Diagnostic value of salivator cytokines in dental diseases in children with diabetes mellitus type 1. *European Journal of Molecular and Clinical Medicine*, 7(3), 1518-1523. Retrieved from www.scopus.com
 8. Rakhmatillaevna, K. F., & Torakulovich, E. G. (2020). Early diagnosis and prevention of dentoalveolar anomalies and cariogenic situation in children suffering from diabetes. *European Journal of Molecular and Clinical Medicine*, 7(3), 2468-2472. Retrieved from www.scopus.com
 9. Bux P., Mosca A., Del-Prete R. Importanza dell'indagine microbiologica nella terapia degli accessi odontogeni. Descrizione di un caso clinico // *Minerva- Stomatol.* - 1996.- Vol. 45, N 5.- P. 227-230.
 10. Carlstedt K. The effect of growth hormone therapy on craniofacial growth and dental maturity in children with Down syndrome. // *J Craniofac Genet Dev Biol.* - 1999 Jan-Mar; 19(1).- P.20