

COMPARATIVE EFFICACY OF COMPLEX THERAPY IN THE TREATMENT OF ODONTOGENIC PURULENT- INFLAMMATORY DISEASES IN CHILDREN

Tasheva G.S.

Bukhara state medical institute, Uzbekistan, Bukhara

Abstract. Odontogenic purulent-inflammatory diseases in children require more effective treatment strategies due to their rapid progression and frequent comorbid background. This study evaluated the efficacy of complex therapy using bacteriophage solution and sea buckthorn oil in 239 children aged 3–17 years. Patients receiving combined local therapy alongside standard treatment demonstrated improved wound management and enhanced reparative processes compared to conventional approaches. The findings support the clinical effectiveness of комплексной терапии as a rational method for optimizing treatment outcomes in pediatric patients, especially in the presence of premorbid conditions.

Keywords. Odontogenic infection, children, phlegmon, bacteriophage therapy, sea buckthorn oil, complex treatment, wound healing

Relevance. Odontogenic purulent-inflammatory diseases in children remain an important problem in pediatric dentistry and maxillofacial surgery because of their rapid progression, risk of local and systemic complications, and the frequent presence of comorbid conditions. Standard treatment does not always provide sufficiently rapid elimination of infection and restoration of damaged tissues. Therefore, the development of more effective therapeutic approaches aimed at improving local wound management and accelerating recovery is of particular clinical importance.

Aim. To evaluate the effectiveness of complex therapy using bacteriophage solution and sea buckthorn oil in comparison with conventional treatment in children with odontogenic purulent-inflammatory diseases.

Materials and methods. The study included 239 children aged 3 to 17 years with odontogenic purulent-inflammatory diseases. The patients were divided into three groups. Group I (n=105) included children with premorbid background and odontogenic phlegmon who received surgical treatment combined with local bacteriophage therapy and subsequent application of sea buckthorn oil, along with antibacterial, symptomatic, and supportive treatment. Group II (n=95) included children with premorbid background who received conventional treatment, including surgery, local antiseptic treatment, antibacterial therapy, and supportive care. Group III (n=39) included children without premorbid background who received standard treatment. Clinical and comparative analyses of treatment outcomes were performed.

Results. The main group received a complex therapeutic approach that combined surgical intervention with local bacteriophage treatment and the use of sea buckthorn oil during the wound-cleansing phase, whereas the control and comparison groups received conventional local treatment with antiseptics and standard supportive therapy.

The study design indicates that Group I was formed specifically to assess the clinical value of this combined local treatment strategy in children with premorbid background, in contrast to conventional treatment used in Group II under comparable background conditions. Group III served as a comparison group without premorbid pathology.

Such an approach was intended to improve local management of the purulent-inflammatory focus, promote wound cleansing, and support tissue repair in children with complicated odontogenic infection.

Conclusion. Complex therapy including local bacteriophage treatment and sea buckthorn oil represents a rational therapeutic approach in children with odontogenic

purulent-inflammatory diseases, especially in the presence of premorbid background. This treatment model is clinically justified as a method aimed at improving local wound care and optimizing recovery in pediatric patients.

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