



damaged gum area 2 times a day in 2 hours after feeding the animals. Melted paraffin was used for the fixation of preparations on the surface of the wound.

In response to the damage and the appearance in the body of a large number of denatured protein structures from lesions that have antigenic features, the concentration of formation of general CICs had the same nature of changes in both experimental groups - a rapid increase in the initial time of observation and a gradual decrease to the level that is characteristic of intact one. However, in each individual group, the intensity and rate of changes were different.

On day 3, untreated animals in the control group showed an increase in total CIC content of 51.64% above the physiological index. At the level of reliable difference with intact animals. Also, the data obtained on the 5th day with an advantage of 36.36%.

However, by the 7th day, as a result of its further decrease, the studied index reached the value of statistically unreliable and prevailed the data of intact animals by 9.09%. Closer to the physiological norm, the CIC concentration was detected on the 10th day and amounted to 104.36%. At the same time, in the animals of the experimental group, the increase in the concentration of CIC at day 3 was significantly lower and was only 21.27% above the level in intact animals. By the 5th day, their value was within the statistical uncertainty and the physiological norm index was 11.27%. The tendency for normalization persisted in the future, and on the 7th and 10th days were obtained almost identical results: 102.90% and 102.36%, respectively, from the data of intact animals.

The protective properties of the developed complex of antioxidant preparations reduce the destructive processes in the area of damage, thereby reducing the antigenic load of the units of immunological reactivity of the body. As a result, their stress in the initial periods of the simulated ulcerative necrotic gingivitis is lower, as evidenced by significantly smaller quantitative values of the studied parameters and significantly faster normalization.

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**MICROBIOLOGICAL ASSESSMENT OF A COMPLEX OF THERAPEUTIC-  
PREVENTIVE MEASURES CONCERNING CHRONIC CATARRHAL GINGIVITIS IN  
CHILDREN AGAINST DIABETES MELLITUS**

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Dysbacteriosis of the oral cavity is known to complicate the course of chronic catarrhal gingivitis resulting from functional disorders of the macroorganism ecosystem, decreased the amount of probiotic and increased amount of opportunistic and pathogenic microflora. In this case the use of antiseptic, probiotics and stimulants in the complex of treatment is relevant.

The aim is to enhance the efficacy of treatment of chronic catarrhal gingivitis in children suffering from type 1 diabetes mellitus by means of improving the methods of pharmacological correction on the base of the study the microbiological properties of the disease.

We formed 2 groups of the study. Children received basic insulin therapy. The treatment of chronic catarrhal gingivitis in children from the main group was suggested the antiseptic solution "Decasan"; pill of a probiotic action "BioGaiaProDentis" and the immune modulator "Imupret". Children from the comparative group were treated according to the common scheme.

Biocoenosis of the oral cavity in children before the beginning of treatment was similar, and after the conducted first course of treatment microbiological status in both groups of the study improved immediately.

The results of a quantitative assessment of the oral microflora after the conducted treatment demonstrated 69,42 % ( $p < 0,05$ ) decrease of the general microbial number in children of the main subgroup, and in the children from the comparative group – 46,92 % ( $p < 0,05$ ). The number of gram-positive microorganisms in children from the main subgroup was found to be 73,69 % less as compared with the results of treatment ( $p < 0,05$ ), gram-negative microorganisms – 46,43 % less ( $p < 0,05$ ), and *Candida* fungi – 94,74 % ( $p < 0,05$ ). These findings are twice as less in the group of comparison than those among the children from the main subgroup: gram-positive microorganisms



– 54,77 % less ( $p < 0,05$ ), gram-negative microorganisms – 36,00 % ( $p < 0,05$ ), and *Candida* fungi – 42,86 % ( $p < 0,05$ ). Comparison of findings between the main subgroup and the group of comparison determined 39,53 % as much increased general amount of microorganisms, 47,37 % – gram-positive, 6,25 % – gram-negative and 87,50 % – *Candida* fungi ( $p_1 < 0,05$ ).

In addition to changes in the qualitative content of microorganisms found during inoculations from the oral cavity, the rate of their growth changed as well. In 100 % of cases among the children from the main subgroup very low colony growth was determined. Examination of inoculated cultures in the children from the group of comparison determined a moderate growth of the following microorganisms: streptococci (*Str. faecalis*, *Str. pyogenes*), staphylococci (*S. aureus*) and certain *Candidae* (*C. albicans*). Scanty growth of colonies was found concerning other microorganisms.

Therefore, after the course of treatment concerning chronic catarrhal gingivitis according to the suggested scheme, the contamination by associative opportunistic microflora in the oral cavity of children decreased reliably and the initiated course of treatment promoted a considerable improvement of the periodontal tissue state in children.

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### **IMOSGENT AS A DRUG OF CHOICE IN THE TREATMENT OF PATIENTS WITH ODONTOGENIC PHLEGMON OF THE MAXILLOFACIAL AREA**

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The problem of inflammatory processes treatment of the maxillofacial area remains relevant. Patients with this pathology predominate in surgical dental hospitals. The developed method is based on the removal of toxic metabolites of microbial cells and bacterial toxins from the wound in direct contact with the sorbent.

Objective: to study the effectiveness of treatment of odontogenic phlegmons with use of drug Imosgent based on sorbent Polysorb.

Patients with odontogenic phlegmon of the maxillofacial area were divided into two groups. Standardization of groups was achieved through proportional selection of researched patients with the same severity of disease, localization, and the healing process. In group 1 (control - 26 patients) traditional treatment was used, while in group 2 (28 patients) Imosgent drug was used. After opening of phlegmon, a dialyzer made of a semi-permeable membrane filled with Imosgent powder was placed into the wound. Dressing of the wound, during which the dialyzer was replaced with a new one, was performed once a day.

Imosgent possesses detoxic, osmolar, antimicrobial and proteolytic effects. There is a positive experience of its use for the local treatment of wounds in the first phase of post-operational period.

The results of clinical observations indicate that in patients from group 1 who received traditional treatment, the duration of pain and tissue infiltration in the wound area decreased by  $5.72 \pm 0.18$  days. Inflammatory contracture of the mandible and swallowing disorders decreased by  $4.27 \pm 0.029$  days, complete wound healing and granulation appearance were observed in  $4.34 \pm 0.16$  days. Much better results were obtained in the group 2 where the treatment was done using Imosgent. Duration of pain in the wound area decreased by  $3.46 \pm 0.11$  days, tissue infiltration in the wound area - by  $3.97 \pm 0.32$  days, inflammatory contracture and swallowing disorders – by  $3.45 \pm 0.20$  days. Examination of leukocytosis and wound pH is indicative of Imosgent's advantage over traditional treatment. The efficacy of local phlegmon treatment was also evaluated by cytological studies of the wound. When using Imosgent, the number of degenerative forms of neutrophilic leukocytes and macrophages decreases, but the number of fibroblasts increases. Thus, the use of Imosgent results in faster wound cleaning and stimulation of tissue regeneration processes.