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**CHARACTERISTICS OF CYTOKINE STATUS AND METHODS OF ITS CORRECTION
IN PATIENTS WITH CHRONIC GENERALIZED CATARRAL GINGIVITIS**

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Catarrhal gingivitis is one of the most common pathologies of periodontal tissues in young people, as evidenced by numerous epidemiological studies by local and foreign authors.

The immune mechanisms involved in the formation of clinical variants of generalized catarrhal gingivitis have been insufficiently studied. That is why it is important to study the features of local immunity, which would clarify the pathogenesis of chronic generalized catarrhal gingivitis.

In this regard, the aim of our study is to analyse the results of the study of the cytokine system before and after complex therapy in patients with chronic generalized catarrhal gingivitis. The study involved 33 patients with chronic generalized catarrhal gingivitis aged from 18 to 30 years. The content of the concentration of IL-1 β , TNF- α , and IL-4 was determined in the oral fluid using sets of reagents “Protein Contour”, “Cytokine” (RF) by solid-phase enzyme-linked immunosorbent assay according to standard methods, according to the manufacturer's instructions.

Analysis of the results of the content of cytokines in the oral fluid revealed statistically significant deviations of the levels of IL-1 β , TNF- α , and IL-4 from the values of the accepted norm in patients with chronic generalized catarrhal gingivitis. However, the identified abnormalities did not indicate an imbalance in the functioning of the cytokine system, as their production in the oral fluid increased or decreased insignificantly and did not exceed the range of generally accepted reference values.

Taking into account all the identified etiological and pathogenesis links of the disease, we have developed and implemented a comprehensive therapy, which involves the use of professional hygiene measures, antibacterial and immuno-corrective agents with a certain sequence.

All patients, at the first stage of treatment, underwent professional hygiene measures in combination with irrigation of the interdental spaces and application of gingival mucosa with chlorhexidine-containing agents. In the second stage of treatment, patients received basic treatment: standard antibacterial therapy with chlorhexidine-containing drugs. Additionally, a probiotic (“Bifidobacterin” 5 doses 2 times a day, for up to 10 days) and an immuno-corrector (“Cycloferon” orally, 300 mg per day, for up to 10 days) were prescribed.

Thus, the complex staged treatment of generalized catarrhal gingivitis provides a positive dynamics of the cytokine profile, leads to the elimination of inflammatory phenomena in the gums after 6-7 visits in 93.3% of patients with chronic disease.

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**OPTIMIZATION OF THE SCHEME OF TREATMENT OF INFLAMMATORY
DISEASES OF PERIODONTAL TISSUES IN WORKERS OF THE PRIMARY
WOODWORKING INDUSTRY**

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Long-term use in medical practice of broad-spectrum antibiotics is accompanied by the formation and spreading of microorganisms with pronounced multiple antibiotic resistance. The arsenal of antibacterial agents used for the prevention, rehabilitation and treatment of inflammatory diseases of the maxillofacial area is quite large, but does not contain highly effective one against microorganisms, which are polyresistant to antibiotics. On the other hand, the prevention and treatment of inflammatory diseases of the maxillofacial area are currently complicated by the great variety of microorganisms with different degrees of sensitivity to antibiotics, located on the anatomical formations of the oral cavity. That is why it is extremely important to choose a solution that has both antiseptic and antiinflammatory properties. Due to the high prevalence of periodontal disease among workers in the woodworking industry and the lack of effectiveness of existing



preventive and curative means, we propose antiseptic composite solution DEPS for treatment of inflammatory diseases of periodontal tissues in workers in the woodworking industry.

Purpose of our study was to improve the standard scheme of treatment of inflammatory diseases of periodontal tissues in workers in the woodworking industry.

For the study, we selected 28 employees of the primary woodworking industry aged 25 to 35 years with approximately the same work experience of 5 - 10 years with a previously diagnosed generalized periodontitis. All patients underwent a comprehensive examination of periodontal tissues and the treatment of generalized periodontitis which was the same in all subgroups according to the degree of development and the nature of the course of generalized periodontitis. They were divided into two subgroups: the main (14 patients) and the comparison group (14 patients). The distribution of patients by subgroups was almost the same according to the degree of disease, age and sex. All periodontal tissue irritants (dental plaque, tartar, etc.) were completely eliminated in both groups. Subsequently, complete removal of subgingival dental plaque was performed with treatment of tooth root surfaces (SRP - scaling and root planning). For maintenance therapy, patients of the main group were additionally prescribed mouthwash composite solution – DEPS, which includes: decamethoxine, etonia, propolis and ethanol. The solution restores the integrity of the epithelium of the oral mucosa, increases its resistance to local factors, especially biological (bacteria and fungi). Biologically active components that are part of the solution "DEPS" block the reproduction of microorganisms, inhibit their growth, which is very important for the treatment and prevention of complications and exacerbation of inflammation in periodontal tissues during its stabilization. To evaluate the condition of periodontal tissues before the treatment, we used the PSR-test and PMA index. To determine the effectiveness of the proposed composite solution DEPS, the same indicators were determined one month after treatment.

Before the treatment, the PSR test did not differ statistically significantly in both study groups and was $1,64 \pm 0,17$ and $1,57 \pm 0,13$. After the treatment, the value of the PSR test was $0,43 \pm 0,14$ in the main group and $0,71 \pm 0,12$ in the comparison group. It can be noted that the indicators in the main group are better than in the comparison group, but the difference in the value of the PSR test was not statistically significant. Indicators of the PMA index before treatment were $0,38 \pm 0,04$ in the main and $0,39 \pm 0,03$ in the comparison group. After the treatment, indicators of the PMA index was $0,18 \pm 0,03$ in the main group and $0,27 \pm 0,02$ in the comparison group. The difference in the indicators of the PMA index after the treatment was statistically significantly better in the main group where in the complex of maintenance therapy was used composite solution DEPS.

On the basis of the received data it is possible to state that the composite solution DEPS is effective and can be used in complex therapy of periodontal diseases in workers of the woodworking industry.

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**BIOCHEMICAL EVALUATION OF EFFICIENCY
OF COMPLEX TREATMENT OF PATIENTS WITH THE BEGINNING STAGE
OF CHRONIC PERIODONT WITHOUT X-RAY SIGNS**

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The purpose of the research was to evaluate laboratory criteria for the detection of the early stage of resorption process in the periodontal bone structures during preclinical and radiological development of periodontitis.

The study was conducted on 74 patients with periodontal disease. Levels of the products of osteomatrix destruction - fragments of collagen type 1 decay (β -Cross-Laps) was determined in the oral fluid (saliva). The level of β -Cross-Laps in saliva was determined by enzyme-linked immunosorbent assay on ELECSYS-2010 fluorescent analyzer using Hofman La Roshe diagnostic kits. Immediately after treatment, simultaneously with the normalization of IL-1 β in the oral fluid, the concentration of collagen breakdown fragments of β -Cross-Laps decreased equally in patients