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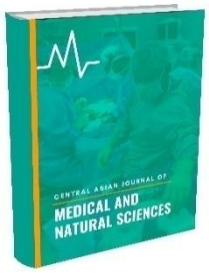

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IMMUNOLOGICAL EFFECTIVENESS OF IMMUNO- AND BIOCORRECTIVE TREATMENT OF DENTAL DISEASES IN PREGNANT WOMEN

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Abstract: During pregnancy, inflammation and retraction of the gums, marginal periodontitis, a decrease in the density of collagen fibers in the periodontium, a decrease in the mesiodistal diameter of the interdental septa can develop from the maxillofacial region, which leads to fibrous degeneration of the walls of periodontal blood vessels and, as a result, the development of periodontitis [1, 2, 9].

Key words: Biocorrective Treatment.

This condition often occurs against the background of a decrease in the local immunity of the oral cavity. During pregnancy, a quantitative decrease in these factors contributes to the aggravation of periodontal conflict [4, 5, 7, 8], this dictates the need to include immunocorrective drugs in complex therapy [6].

In this regard, the purpose of our study was to study the clinical and immunological effectiveness of immuno- and biocorrective treatment in pregnant women living in various ecological and geographical conditions.

Materials and methods. The condition of the oral cavity was studied in 63 pregnant women aged 20-35 years, in various stages of pregnancy, living in rural areas of the Khorezm region with a diagnosis of gingivitis, periodontitis, stomatitis. Before and after treatment, the Green-Vermillion hygienic index, periodontal index, and Kulazhenko capillary resistance were determined. To determine the concentration of secretory immunoglobulin A (sIgA) in saliva, the method of simple radial immunodiffusion (Mapsi 1964) was used, the lysozyme titer in saliva was determined by the method of Kagramanova K.A. and Ermolyeva Z.V. (1966), modified by Bektimirov A.M.T. and Adylov S.K., (1987). To determine the cellular composition of the oral fluid, the method proposed by Leonov L.E. and co-authors (2002) was used.

Taking into account the diversity of the clinical picture, characterizing and accompanying infectious and inflammatory diseases of the oral mucosa and periodontal, the severity of the patient's clinical condition, we used a point system. The list included the main symptoms that determine the

characteristics of the pathological process: gum pasty, congestive hyperemia, bleeding, periodontal pockets, suppuration, sub- and supra-gingival stones, tooth mobility, pain, tooth loss, lymphadenitis, bad breath. In addition, the general symptoms of intoxication were taken into account: fever, irritability, increased fatigue, sleep disorders, decreased performance, and attention was also paid to the patient's self-assessment of his psychological and social comfort.

Tableted immunomodulin (immunomodulator) and lactobacterin (probiotic) were included in the complex of generally accepted treatment of pregnant patients with periodontal pathology. Both are made in Uzbekistan.

The therapeutic effect of immunomodulin is explained by its positive effect on the immune system, which is expressed in an increase in the phagocytic activity of neutrophils, an increase in the content of lysozyme in saliva and the number of immunocompetent cells, as well as an increase in the titer of sIgA. The antimicrobial and anti-inflammatory activity of the drug is the basis for its use both for the treatment of relevant oral diseases and for the prevention of relapses in pregnant women. [3].

Treatment of pregnant women with diseases of the oral mucosa and periodontal pathology was carried out according to the following scheme: a course of local immunocorrection with tableted immunomodulin - 2 tablets per day for 28 days sublingually.

The contents of the ampoule with lactobacillus were diluted with distilled water (1 ml) and the resulting mixture was injected with cotton wool for 30 minutes directly into periodontal pockets (1 dose contains at least 107 live lactobacilli), the procedure was performed daily for 4 weeks. In order for the saliva not to wash off and dilute the mixture, the periodontal areas were previously isolated using cotton pads and a saliva pump.

The generally accepted treatment of periodontitis included teaching patients the rules of oral hygiene, constant monitoring of their observance, and removal of supra- and subgingival dental deposits. After achieving consistently good hygiene, local anti-inflammatory therapy was started, which consisted in rinsing the periodontal pockets with 0.2% chlorhexidine solution, introducing Metrogil-dent gel into the periodontal pockets. Conventional treatment of stomatitis included topical treatment of the oral cavity with anti-inflammatory, antiseptic and keratoplastic agents.

The pregnant women were divided into four groups.

Group 1 - 20 women who took conventional treatment (OL) and immunomodulin;

Group 2 - 20 women who took OL and lactobacillus was topically used;

Group 3 - 23 women who took immunomodulin and lactobacillin, as well as OL;

Group 4 - 15 women received only OL (control group).

The generally accepted treatment included teaching patients the rules of oral hygiene, constant monitoring of their observance, removal of supra- and subgingival dental deposits, local anti-inflammatory therapy, which consisted in rinsing periodontal pockets with 0.2% chlorhexidine solution, introduction of metrogil-dent gel into periodontal pockets. Standard treatment of stomatitis included topical treatment of the oral cavity with anti-inflammatory, antiseptic and keratoplastic agents.

Each of the groups was divided into 3 subgroups according to the severity of the process: mild, moderate and severe. In order to determine the effectiveness of the studied drugs, preliminary treatment consisted only in manual removal of dental deposits without the use of antimicrobial and anti-inflammatory drugs.

The obtained data were statistically processed with the calculation of the Student and Fisher criteria.

Results and discussion. The results were evaluated 3-4 weeks after the end of the course of treatment. The transition of a more severe degree of periodontal pathology to a less severe or normalization of the condition was considered a positive result. The clinical effect was expressed in a decrease in acute inflammatory phenomena and soreness in the affected areas, as well as in a decrease in burning sensation and discomfort.

When using immunomodulin and lactobacterin, patients in most cases noted an improvement in subjective sensations, saliva separation improved from the oral cavity, unpleasant taste sensations and bad breath disappeared, the amount of plaque and deposits on the tongue and teeth decreased ($p<0.05$).

In the 3rd group of patients, already on the 3rd day of taking the drug, 85% of patients noted a decrease in painful sensations and bleeding gums during oral hygiene measures ($p<0.05$). On examination, a decrease in pasty and puffiness, restriction and reduction of the zone of inflammatory changes, cleansing and reduction of ulceration, the appearance of fresh granulations were noted. After 3 months, in 96% of cases, the patients noted a positive result of treatment with immunomodulin and lactobacillus ($p<0.01$).

An objective examination of the oral mucosa immediately after the end of the course of therapy with immunomodulin and lactobacillin revealed the absence of signs of an acute inflammatory process and its chronization, improvement in the condition of the mucous membranes, pronounced positive dynamics in initial sluggish and recurrent lesions.

The effectiveness of treatment in group 3 was assessed by the self-assessment of patients and the results of studying objective evaluation criteria - "positive", "satisfactory", "and negative" and "not evaluated" (Figure).

For all analyzed characteristics, more pronounced positive results were noted in group 3. The greatest clinical effect was determined by the symptoms reflecting local changes in the pathological focus. At the same time, within the first 3-5 days from the start of taking immunomodulin and lactobacillus, 68% of patients noted a significant decrease in swelling, pain, and hypersensitivity to irritating factors.

The indices of monocytes and lymphocytes changed statistically significantly, the level of which decreased by 1.4-1.6 times, respectively ($p<0.05$). The complex administration of immuno- and biocorrective treatment to pregnant women led to a decrease in the indicators of cellular inflammatory reactions.

When studying the dynamics of humoral factors of nonspecific resistance among the observed contingent, it was found that humoral factors in all groups changed upward (positive effect). However, the sIgA level and lysozyme titer increased most significantly in group 3.

Conclusions:

1. When tableted immunomodulin and lactobacterin are included in the complex of treatment of pregnant women with periodontal pathology and oral mucosa, there is a significant reduction in the duration of the inflammatory process, a significant decrease in painful manifestations, a decrease in the timing of reparative processes, and a decrease in the need for antibacterial drugs.
2. After the complex treatment, a significant decrease in the indicators of the hygienic index, periodontal index, and an increase in the resistance of the capillaries of the gums in pregnant women was revealed.
3. The clinical effect of the drugs was correlated with a significant increase in the factors of nonspecific resistance of the oral cavity, mainly with lysozyme and sIgA.

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