Periodontitis as a chronic infectious process and its optimization treatment by influencing pathogenetic mechanisms

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Periodontal diseases are mainly caused by infectious processes of a bacterial nature, in which nearby tooth structures are involved. With periodontitis, destruction of dental cells and collagen tissues occurs, followed by tooth loss. In this disease, the main role is assigned to the bacteria of the supragingival dental deposits, which stimulate a number of responses of the immune system (inflammatory and specific), which determines the action of most pathogenetic mechanisms. On this basis, periodontitis can be considered a chronic infectious disease with numerous specific characteristics.

2008-2009 biennium collective doctors Clinics Eastern and Restorative medicine "Teida" together with dentists of the Ivanovo city dental center "Kraneks" carried out diagnostic, medical and scientific work to identify and eliminate pathogenic factors of periodontitis. 86 women (6 of them pregnant) were examined by dentists and diagnosed by doctors of the Teida Clinic, who had different stages of periodontitis, 5 of them. aged 15 to 18, 18 people - from 19 to 25 years old, 29 people - from 26 to 45 years old, 34 people - over 45 years old. It has been established that the leading pathogenetic individuals are gram-negative bacteria, which themselves do not damage tissues, but stimulate the immune response, on which the manifestation of the inflammatory process depends, which determines itself
damage to the periodontal. For example, a chronic process in porphyromonas gingivalis (gram-negative bacteria found in the peri-gingival pockets of patients with periodontitis) forms a specific lymphocytic response.

The antibody titration method revealed an immunodominant antigen that differs from ordinary lipopolysaccharides, which are usually not present in normal organisms. 96.9% of patients with periodontitis had high rates of bacterial carriage of the oral cavity. We carried out diagnostics by the method of vegetative resonance test (ART) in all these patients for bacterial carriers, immune status, nutritional adequacy, studies of tissue reserves, psycho-vegetative loads, blood tests, saliva, immunological tests.

It was found that immunological status patients and the balance of their nutrition are the determining, the main factors of morbidity. Formation of oxidative molecules
produced by the body to counteract bacteria in periodontitis represent the main cause of tissue damage. With insufficient and incorrect nutrition in the oral cavity, significant changes in microbial ecology are observed with a predominance of anaerobic bacteria. Diagnostics using the ART method has shown an important role of the psychological component in porphyromonas gingivalis infection, when an increased inflammatory response occurs. In response to an infectious stimulus, through the secretion of hormones-immunomodulators, a chain of "hypothalamus

pituitary-adrenal-autonomic nervous system ", which is regulated by the hippocampus (the brain structure involved in learning and memory). It has been noticed that disorders in the hippocampus area contribute to the development of periodontitis itself. In parallel, the levels of female hormones were investigated. There appears to be a possible link between periodontitis and hormonal changes in women, especially during puberty, pregnancy, menopause, and osteoporosis. It is known from scientific literature that
unsatisfactory periodontal condition in pregnant women can lead to the birth of a child with low weight; some bacteria, for example, streptococcus mutans, can be transmitted from mother to fetus, which causes the development of caries in children after the first year of life; the connection between infections of the oral cavity, especially peridontitis, and the course of cardiovascular diseases, diabetes mellitus, pneumonia is emphasized.

There are three main mechanisms that determine this phenomenon:

1. Metastatic spread of infection in the oral cavity as a result traizitorny bacteremia.

2. Metastatic lesion under the influence of circulating microbial toxins.

3. Metastatic inflammation caused by the immune response to microbes in the mouth.

The literature describes "periodontitis-atherosclerosis syndrome"; it's obvious that damage to the oral cavity can be an important factor risk of patients, predisposed to cardiovascular disease, bronchial infection, and to chronic rheumatoid arthritis.

It is estimated that over 400 species of bacteria live in the oral cavity. Some of them are the cause of inflammation (especially periodontitis), which involves monocytes in endothelial cells, epithelial cells, macrophages, leukocytes and salivary fibroblasts. The concentration of monocytes in the peripheral blood also depends on the state of the inflammatory process in the body, both local and systemic.

Accordingly, acting on the environment of the oral cavity of patients with a BR preparation in the form of a spray, carrying out BR programs to increase the general and cellular immunity of the oral cavity in combination with dental treatment, we achieved a significant change in the state of the oral cavity environment and, as an indicator of this, a decrease in the fibroblasts of saliva and gums, demobilization of neutrophils and renewal of the epithelium. 30-40 minutes after BRT sessions, the peripheral blood formula responds with a significant increase in the monocyte content, which is evidence of suppressing the inflammatory process and allows suppressing periodontitis. The course of treatment consisted of 15–20 sessions of BRT, local hirudotherapy, home use of antinosodes-sprays locally and sublingually, treatment of the oral cavity with gel with a hay stick and an extract from antlers.

Optimization of the treatment of periodontitis by interrupting the pathogenetic chain of the disease with the use of joint dental treatment and bioresonance therapy leads to a stable visible positive

immune response of patients with chronic periodontitis.

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