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CLINICAL EVALUATION OF PATHOLOGICAL CHANGES IN PATIENTS WITH CARDIOVASCULAR DISEASE

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Relevance of the study. In patients with cardiovascular diseases, the etiological structure of infection processes has changed significantly in the last decade, which is due to the constant evolution of microbes and the involvement of conditional-pathogenic microbes in the pathological process as commensals in the composition of normal microflora and can manifest their pathogenicity when the immune state in the body decreases. Data from studies indicate that inflammatory processes in the oral cavity are sometimes detected not only in the oral cavity, but also in other systems of the body with endogenous infection, which is called due to resident flora. In patients with cardiovascular diseases, periodontopathologies change the composition of microflora and microorganisms that are part of the oral cavity during the development of inflammation. At an early stage of the disease, it is possible to observe a decrease in normal microflora and the appearance of conditionally-pathogenic bacteria. Over time, an increase in pathogenic microorganisms occurs in the tissues of the parodont, which leads to purulent processes. In patients with cardiovascular disease, periodontopathologies have confirmed that inflammatory diseases are accompanied by oral dysbiosis. The signs and accuracy of the clinical picture correspond to the degree of damage to the parodont, as a result of which the growth of pathogenic and conditional-pathogenic microorganisms occurs, and the quantitative composition of normal microorganisms decreases [2.4.6.8.10.12.14].

The bacterial composition of the oral microflora determines various exogenous and endogenous factors. A violation of the balance between Normal and pathogenic microflora creates conditions for the development of dysbacterioses, leads to a decrease in the concentration of lactobacilli and Bifidobacteria. It is periodontitis that is the most common disease in the form of such a dysbalance. In the development of periodontitis, microflora P.gingivalis, T.denticola, T.forsythensis (B.forsythus), Fusobacteriumspp. such representatives and other microorganisms of the series play an important role.

In patients with cardiovascular diseases, periodontopathologies microbiological analysis is of great importance when choosing the right method of treatment for chronic inflammatory diseases, therefore it is the Central Link in scientific research. The emergence of new styles in this area made it possible to identify microorganisms that were not previously studied in the structure of microbial colonies, which provides a more detailed study of the mechanisms of chronic generalized periodontitis. It is for this reason that microbiological studies have important theoretical and practical significance, showing the mechanisms of interaction of microorganisms in the oral cavity. The species composition of oral microflora is diverse and includes representatives of different groups of microorganisms. Under Normal conditions, when various antiseptics and antibiotics or other drugs are not used, most of the composition of the species in the patient remains unchanged for a long time. The quantity and type ratio of microorganisms is strongly influenced by the conduct of hygiene measures. A sharp increase in the amount of bacteria (anaerobes and rotting bacteria) occurs when the personal hygiene of the oral cavity is neglected. In patients with cardiovascular disease, periodontopathologies the microbiological study of inflammatory diseases is not considered an easy and simple task. As you know, gum cracks and periodontal pockets have a huge amount of microorganisms, some of which are obligate anaerobes and call the pathological process. It is known that the result of inflammatory diseases in parodont is a fairly large accumulation of dental Carache, regardless of whether the bacteria belong to the species. From this it can be concluded that the whole karash is potentially dangerous. In patients with cardiovascular disease, periodontopathologies begin with the formation of inflammatory dental

Carache. The surface of the tooth is initially covered with facultative-anaerobic microorganisms (streptococci, actinomycetes), which are capable of adgesia. Then, on the surface of the microbial cells, the attachment of other microorganisms (anaerobic bacteria, spirochetes) is formed, which cannot independently unify on the surface of the tooth. Inside the dental Carache, positive conditions are created for the reproduction of microorganisms, access to the process of infection to microorganisms of the anaerobic type. Thus, At First, chronic generalized periodontitis settles in the area of the gum fissure. In chronic generalized parodontitis, the microbial flora in the parodontal pockets depends on the variety and the form of manifestation of the disease [1.3.5.7.9.11.13].

In patients with cardiovascular disease, 5 to 9 types of microorganisms have been identified in the structure of the parodontal pockets in parodontopathologies. From the composition of the periodontal pockets, the authors often distinguished anaerobic streptococci, actinomycetes, bacteroids and Fusobacteria. Bacterioscopic and bacteriologicusullary are used to detect chronic generalised periodontitis triggers. Bacterioscopic methods include and apply dark-colored or phase-contrast microscopy. Such studies show the presence of difficult-growing spirochaetes and other excitable forms of microorganisms. For Bacteriological Analysis of the structure of the periodontal pockets, special food environments specific to this generation and species are used, incubated under aerobic and anaerobic conditions and identified to the species. The effect of the bacteriological method is recognized as high compared to the bacterioscopic method. Smoking and stress are risk factors for parodontopathologies in patients with cardiovascular disease; based on the correlation between chronic general parodontitis and diseases of the cardiovascular system, lies the macrophage phenotype, which causes excessive excretion of anti-inflammatory cytokines and inflammatory mediators when they come into contact with lipopolysaccharides of Gram-negative bacteria. In this case, atherosclerotic changes are a consequence of excessive detachment of inflammatory mediators. It is for this reason that it is also necessary to correctly assess the importance of periodontopathogens, which are considered their inductors in the occurrence of atherosclerotic changes. A number of authors have proven that microorganisms produced with chronic apical periodontitis in the root canals of periodontal pockets and teeth can be calculated as a potential cause of diseases in the cardiovascular system. Many authors separately note the negative effects of Porphyromonas gingivalis, Aggregatibacter actinomycetemcomitans, Bacteroides forsythus, since it was these periodontopathogens that were detected in the atheromatous rash when a study was carried out with the ptsr method. The danger in periodontopathologies in patients with cardiovascular disease is that they can aggravate the course of cardiovascular disease by colonizing the vascular endothelium. A number of authors of our country and abroad believe that the microbial factor of bioplyonka plays a key role in the modern concept of the occurrence and development of chronic inflammatory diseases in parodont, it clarifies the occurrence and acceleration of parodontitis in parodontal tissues. Tissues and periodontal pockets adjacent to the area of the milk ditch are Loesche W.J. (2013) suggested that the periodontopathogen was colonized by microflora. There is no specific causative agent of periodontitis, but a number of microorganisms that occur in the periodontal pockets are the cause of inflammatory processes in the periodontitis. The balance and dysbiosis of human microbiota is inextricably linked with health and disease. There are many different and specific microbial habitats in the human body. Each microbial habitat shows a different microbial population pattern, and microbial interactions from the same location or from different spaces are important for microecological balance and host health. The oral cavity and gut are the most complex habitats of microbes. The interaction between the oral and intestinal microbiota is complex, unstable and interrelated. Under normal physiological conditions, they can maintain a delicate balance, but an imbalance of cross-linking contributes to the emergence and development of diseases. The passage of microorganisms from the mouth to the intestine and from the intestine to the oral cavity can form a microbial ecosystem in both living environments and / or lead to a pathological condition. Gut microbiotics include long-term use of proton pump inhibitors and the transition of Helicobacter pylori-produced urease to Oral Microbiology under conditions of low acidity, indicating the transition of oral and intestinal microbiota to internal organs. H. pylori, a gram-negative pathogenic microorganism, is present in about 50% of people worldwide.

Conclusion. The role of specific genes, cells, or cellular mechanisms underlying the pathogenesis of periodontopathologies in patients with cardiovascular disease is unclear.Therefore, to this day, there are no pre-diagnostic signs or therapeutic purposes for this disease.Previous studies have reported inconsistent findings related to genetic predisposition to periodontitis.An improved conceptual model of periodontitis pathogenesis in was developed by Kornman to take advantage of the dynamic nature of biochemical processes in periodontitis by omic technologies, i.e. genomic, Advanced by proteomic or metabolomic correlations.

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