THE DEVELOPMENT OF PERIODONTAL DISEASES IN A CHEMICAL PRODUCTION WORKER

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Annotation:

In the conditions of intensive development of industry, the relevance of studying the role of harmful production factors in the formation of various pathological processes in employees of enterprises increases. The long-term influence of a complex of factors, simultaneously with the deterioration of the health of workers, can lead to pathological changes in the oral mucosa, periodontal diseases, and hard tissues of the teeth. Of particular relevance is the problem of the prevalence and intensity of diseases of the hard tissues of the teeth and periodontal pathology

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In the conditions of intensive development of industry, the relevance of studying the role of harmful production factors in the formation of various pathological processes in employees of enterprises increases. The long-term influence of a complex of factors, simultaneously with the deterioration of the health of workers, can lead to pathological changes in the oral mucosa, periodontal diseases, and hard tissues of the teeth. Of particular relevance is the problem of the prevalence and intensity of diseases of the hard tissues of the teeth and periodontal pathology. At present, one of the highly automated and constantly developing sectors of the national economy deserves special attention - energy, which largely ensures the scientific and technological progress of the country. Among the enterprises that generate electricity, the largest share is occupied by thermal power plants. The peculiarities of the technological process at all stages lead to air pollution with harmful substances, such as: carbon monoxide, sulfur dioxide, nitrogen oxide and dioxide, hydrocarbons, hydrogen sulfide, etc. In addition, occupational hazards are unfavorable microclimate, high noise levels, labor intensity, low light. However, in the available literature, we have not found any studies on the influence of a complex of factors of the production environment on the state of the oral cavity and periodontal tissues in workers in the workshops of thermal power plants. The results of the research are the basis for the development of measures to improve working conditions, taking into account the harmful factors of the production environment. The findings contribute to a more in-depth understanding of the causes of dental health deterioration. Based on the results of the study, the theoretical position was further developed that in enterprises with harmful factors of the production environment, the deterioration of dental health, along with other factors, is based on the influence of unfavorable working conditions on the health of employees.

A system of scientifically-based preventive measures to reduce the dental morbidity of employees has been developed. The identified features of the dental health of employees make it possible to approach the medical examination in a differentiated way. The proposed practical recommendations will serve to solve the problems of dental health protection and practical problems of improving working conditions in the studied production. In those working in the production of zinc, lead and copper, the gum mucosa is characterized by the presence of dark brown and dust-like inclusions, which can be interpreted as a specific impregnation of the surface layers of the gums of industrial polymetallic dust. The inflammatory process in the periodontal tissues is supported by the presence of a large number of dental deposits of different consistency and color (from 59.8% to 81.2% of the examined). In the workers of the zinc plant, a characteristic occupational lesion was pathological tooth abrasion and enamel necrosis. There were cases of acute course of the process, when the wearability of teeth reached the III degree in workers with 1-3 years of

work experience, and cases of its chronic course, in which after 10-15 years of work, the wearability of hard tooth tissues did not exceed the II degree. Such teeth usually had a smooth surface from yellowish to brown-black color. Periodontal diseases were observed in 25.6-50.2% of cases. Almost half of these patients had pronounced bleeding gums, looseness of the gingival margin, and the phenomenon of congestive hyperemia. In the workers of the asbestos-processing plant, the following were revealed: 100% dental caries damage at CPU=12.84±0.58, periodontal tissues, as well as a high prevalence of non-carious lesions (51.6%) and diseases of the oral mucosa (23.4%). The greatest risk of developing oral diseases is observed in workers 40-49 years old who have more than 10 years of work experience in the enrichment shop. The study of the trace element composition of the hard tissues of the teeth, saliva and blood of the workers of the Bukhara Chemical Fiber Plant allows us to conclude that the chemicals released during the synthesis of chemical fiber have a harmful effect on the hard tissues of the teeth, as a result of which the processes of remineralization and demineralization are activated. The observed significant decrease in the microhardness of the dentin and cement layers leads to a sharp release of calcium ions and a violation of the process of remineralization of dentin. Along with dental caries and its complications in the general structure of dental diseases in military personnel, periodontal tissue diseases are most widely represented: gingivitis, periodontitis, less often periodontal disease. Tank officers were more often diagnosed with bleeding gums and a positive Schiller-Pisarev test of 78.2±3.21. T. A. Agapova (1992) when examining the crew of long voyages, a high frequency of periodontal tissue diseases (82.6±2.4%) was noted, which correlated with the number and duration of voyages per year. 597 seafarers aged from 20 to 60 years were examined. It was noted that the prevalence of periodontal disease among them reaches 96.7%, caries-98.5% with a significant progression of the process with age. In those working in radiation-harmful working conditions, the level of intensity of periodontal diseases differs significantly from the same indicator in the control groups. It is known that periodontal diseases are largely associated with the intensity of plaque formation. With gingivitis, there are significant changes in the elemental composition of the oral fluid. Thus, the content of all major electrolytes, with the exception of magnesium, is increased by 1.5-2.5 times compared to the norm. Periodontal diseases and plaque deposits among people who do not brush their teeth were 15.5-22.3% more common in all age groups.

The clinical manifestations of periodontal diseases in the workers of the main workshops often depended on the nature of the harmful production factor. So, in the workers of the metallurgical shop, roasting, crushing and reagent shops, where high temperature, humidity and the presence of polymetallic dust aerosols in the air of the working area predominated, periodontitis of various forms, expressed in bleeding, swelling of the gums, tooth mobility and the presence of pathological tooth-gingival pockets.