

**DENTAL STATUS OF ORAL CAVITY OF BUKHARAGIPS WORKERS,
DEVELOPMENT OF WAYS OF PREVENTION**

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Diseases of the oral cavity are a common pathology that leads to the loss of teeth, the formation of foci of chronic odontogenic infection and other disorders both in the maxillofacial region and in the body as a whole. Serious medical and social consequences of inflammatory periodontal diseases and the absence of noticeable positive shifts in their mass prevention determine the need to deepen and concretize ideas about the etiology and pathogenesis of these diseases [1].

Gypsum dust can cause irritation of the oral mucosa (OOM). A number of diseases of the oral cavity should be taken care of in advance.

Today, many people care about the environmental safety of their loved ones. Experts say that drywall is practically harmless. But the lack of drywall can manifest itself over time, since the gypsum included in its composition turns into dust, which can become a problem for the respiratory system.

However, the large-scale mining and processing of gypsum, which is being carried out now, cannot but affect the environment. The ecological problem is one of the most acute problems in the whole world, it is also relevant for our region. It is not enough just to get the gypsum; it must be processed at the enterprise. Chemical plants are a source of air pollution. In addition to dust, they emit harmful substances into the air, which, interacting with each other, create an unfavorable environmental background. A large amount of transport is required to deliver the finished gypsum products to consumers. And it runs continuously creating additional noise, raising dust and emitting harmful exhaust gases into the atmosphere. We can observe this at a gypsum plant located in the city of Bukhara.

The Bukhara gypsum plant employs about 500 workers. We investigated the clinical and functional characteristics, using modern objective examination methods (electrodontology, esthesiometry, electrogustometry, etc.), the state of organs and tissues of the masticatory apparatus of persons working at the Bukharagips plant.

Any dust has a bad effect on the human body, because consists of solid particles that enter the respiratory tract. In nature, gypsum is extracted from rock, and it contains many other impurities. Gypsum is hydrated calcium sulfate $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$, but in

deposits it is found in various forms and is often associated with other minerals such as quartz. Pneumoconiosis has been observed in gypsum mining workers, which is attributed to silica impurities found in the deposits. Gypsum dust can irritate the eyes and respiratory tract. Gypsum particles on the skin can irritate the skin [1].

Along with this, a chronic process in the lungs leads to a decrease in the general immunological reactivity of the body, which can provoke an exacerbation of inflammatory periodontal diseases [3,4,5].

Against the background of existing metabolic disorders, oxygen deficiency in the periodontal tissues additionally inhibits the regenerative and reparative processes, while microcirculation is disturbed, which leads to the initiation of destructive processes in the periodontal tissues. The literature data on the incidence and clinical features of diseases of organs and tissues of the oral cavity are rather contradictory. The subject of discussion is the effect of basic COPD therapy on the state of the oral cavity, which dictates the need for further research [6,7,8].

When studying the intensity of salivation in Bukharagips workers, symptoms of hyposalivation were detected in 35.1% of people, while in the control group, hyposalivation was diagnosed only in 10.1% of people. At the same time, it was noticed that the longer the surveyed worked in the production of gypsum, the more often they had impaired salivation. At the same time, the results of measuring the pH of mixed saliva in gypsum packers did not reveal statistically significant differences from that of workers in the control group.

Purpose: To reveal the peculiarities of the state of organs and tissues of the oral cavity in gypsum production workers and to increase the effectiveness of dental treatment and prophylactic measures.

Research objectives:

1. Conduct a comprehensive hygienic assessment of the professional environment of Bukharagips employees.
2. To study the prevalence and intensity of the main dental diseases in persons employed at various stages of the production of plaster.
3. To give a clinical and functional characteristic, using modern objective examination methods (electrodontometry, esthesiometry, electrogustometry, etc.) of the state of organs and tissues of the masticatory apparatus of persons working at the Bukharagips plant.
4. To investigate the composition and properties of mixed saliva in persons whose work takes place in the presence of harmful production factors.
5. To develop a set of therapeutic and preventive measures aimed at increasing the resistance of employees to the occurrence and recurrence of major dental diseases.

Research results:

The hygienic components of the professional environment of workers in a gypsum

plant have been investigated. For the first time, a comparative assessment of the structure of dental morbidity in people working at various stages of gypsum production, as well as in people who do not work in such a production, but live near such an enterprise, as well as in residents of those areas of the region where there are no industrial production harmful to human health, is presented.

With the help of modern objective research methods, a clinical and functional characteristic of the state of organs and tissues of the masticatory apparatus is given, the composition and properties of mixed saliva from workers at the Bukharagips plant are studied.

The features of the clinical course of the main dental diseases were studied and a dispensary system of dental services for workers at the Bukharagips plant was proposed, which made it possible to improve their oral cavity condition, to increase the period of remission of the main dental diseases.

Conclusions

1. Concentrations of harmful air components in the working area of a gypsum plant throughout the study in 2018-2020. according to the levels of the total emission of gypsum dust, Pneumoconiosis was observed in workers engaged in gypsum mining, its occurrence was attributed to silica impurities found in the deposits.

2. A significant increase in the intensity of caries, an increase in the frequency of inflammatory periodontal diseases, as well as diseases of the mucous membrane of the cavity were revealed among those working at an enterprise for the manufacture of gypsum, in conditions of the combined effect of a complex of unfavorable factors of the working environment.

3. When working under conditions of action of ecopathogenic production factors lasting up to a year, the appearance of electrolyte imbalance was noted. With a longer period of work in this production, in addition to the development of a pronounced electrolyte imbalance, the colloidal properties of the mixed saliva change; the amount of protein in it increases, its viscosity rises.

4. Revealed functional disorders in the organs and tissues of the oral cavity, expressed in a decrease in the electrical excitability of the dental pulp, the sensitivity of the oral mucosa, changes in the taste analyzer, a decrease in the secretory function of the salivary glands, a shift in the pH of mixed saliva to the acidic side, are reliably diagnosed during work, in conditions the action of unfavorable factors of the working environment lasting more than a year.

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