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WAYS TO IMPROVE THE TREATMENT OF PERIODONTAL DISEASE IN WORKERS EXPOSED TO STYRENE POLYMERS

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Annotation. *Periodontal disease, a severe infection of the gums and bone supporting the teeth, has been a significant concern for individuals working in industries that involve exposure to hazardous chemicals. One such group of workers at risk is those exposed to styrene polymers, a common material used in the manufacturing of plastics and resins. Research has shown that prolonged exposure to styrene polymers can lead to various health problems, including periodontal disease. This article aims to discuss the various ways to improve the treatment of periodontal disease in workers exposed to styrene polymers.*

Keywords: *styrene polymers, approaches, risks, oral health, hygienists, workers, screening programs*

Purpose.

To improve methods of prevention and treatment of chronic generalized periodontitis in workers exposed to styrene polymers (production of rubber products).

Material and methods.

In the process of intensive development of industry, the study of the role of harmful and health-risk factors of the production environment is timely and very important. After all, unfavorable working conditions contribute to the formation of various pathological processes in the human body (Amirov N.Kh., 2016). Long-term influence of a complex of production factors simultaneously with the deterioration of the health of workers, as a rule, can lead to pathological changes in the oral mucosa, periodontal diseases, hard dental tissues (Galiullin A.N., 2014). The Andijan rubber plant has a number of workshops with harmful working conditions. Workers in the workshops are exposed to a complex of harmful substances (styrene, butadiene-styrene, sulfur dioxide, carbon monoxide, amino compounds, talc, rubber dust, benzene, etc.), unfavorable microclimate and noise that exceeds permissible levels. Risk factors of production can negatively affect the state of the body's resistance with a violation of local immunity of the oral cavity, which causes pathological changes in the mucous membrane, damage to the hard tissues of the teeth and periodontium. Due to the lack of sufficient information on the stated problem, the study of dental diseases among workers in the production of rubber products is of particular relevance.

The following methods will be used:

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a) epidemiological;

b) clinical and functional;

c) biochemical;

d) immunological;

d) statistical methods.

Results.

Styrene polymers are known to release volatile organic compounds (VOCs) into the air, which can be inhaled by workers. Prolonged exposure to these VOCs has been linked to various health problems, including respiratory issues, skin irritation, and periodontal disease. The chemicals in styrene polymers can damage the gums and bone supporting the teeth, leading to inflammation and infection. Studies have shown that workers exposed to styrene polymers are more likely to develop periodontal disease, which can lead to tooth loss and other oral health problems if left untreated.

Ways to Improve Treatment

Several ways can improve the treatment of periodontal disease in workers exposed to styrene polymers. These include:

Regular Dental Check-Ups

Regular dental check-ups are essential for early detection and treatment of periodontal disease. Workers exposed to styrene polymers should visit their dentist regularly for thorough dental exams and cleanings. This can help identify any oral health problems early on, allowing for prompt treatment and prevention of further damage.

Wearing Personal Protective Equipment (PPE)

Wearing PPE, such as masks and gloves, can help reduce exposure to VOCs emitted by styrene polymers. This can help prevent the chemicals from entering the body and causing damage to the gums and bone supporting the teeth.

Engineering Controls

Engineering controls, such as ventilation systems and local exhaust ventilation (LEV) systems, can help reduce worker exposure to VOCs. These systems can capture and remove VOCs from the air, preventing them from being inhaled by workers.

Substitution with Safer Alternatives

Substitution with safer alternatives is another way to reduce exposure to styrene polymers. Employers can explore alternative materials that are less hazardous to worker health and the

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environment.

Worker Education and Training

Worker education and training are essential for raising awareness about the risks associated with styrene polymers and the importance of proper oral hygiene. Employers should provide regular training sessions and educational materials to workers on the safe handling of styrene polymers and proper oral hygiene practices.

Screening for Periodontal Disease

Employers can also establish a screening program to detect periodontal disease early on. This can involve regular dental exams and cleanings, as well as risk assessments for workers exposed to styrene polymers.

Interdisciplinary Approach to Treatment

A multidisciplinary approach to treatment is essential for managing periodontal disease in workers exposed to styrene polymers. This can involve collaboration between dentists, hygienists, and other healthcare professionals to provide comprehensive care and treatment.

Conclusion.

Periodontal disease is a significant concern for workers exposed to styrene polymers. To improve the treatment of periodontal disease in this population, it is essential to adopt a multifaceted approach that includes regular dental check-ups, wearing PPE, engineering controls, substitution with safer alternatives, worker education and training, screening for periodontal disease, and an interdisciplinary approach to treatment. By taking these measures, workers can reduce their risk of developing periodontal disease and maintain good oral health.