



BRITISH **MEDICAL JOURNAL**



British Medical Journal

Volume 2, No.5, September 2022

Internet address: <http://ejournals.id/index.php/bmj>

E-mail: info@ejournals.id

Published by British Medical Journal

Issued Bimonthly

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Chief editor

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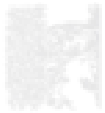
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IMPROVING THE PREVENTION OF OCCUPATIONAL DISEASES AMONG DENTISTS.

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It is also known that the complex of occupational factors contribute to the development of chronic diseases of the oral cavity, such as hypertrophy of the palatine tonsils, subatrophic diseases of the oral mucosa, periodontal inflammation, carious and non-carious dental hard tissue lesions. Research of epidemiology of stomatological diseases, carried out in many countries of the world testifies to essential distinctions in prevalence and ilgreness of dental caries, periodontal and oral mucous membrane diseases, determining role of natural, social, household, cultural and professional-industrial factors in development of these processes

Analyzing literature data on the impact of occupational factors of various chemical industries on the formation of dental pathology, we can state that the prevalence of dental hard tissue disease, periodontal tissues and oral mucosa of these industries occur significantly more often than in the control group, where the impact of chemicals on oprami oral cavity is absent. However, there was no assessment of the impact of a complex of harmful substances in combination with unfavorable physical factors of the working environment on the condition of the hard tissues of the teeth, periodontium and the mucous membrane of the oral cavity. The study of pathogenetic conditionality of the main dental diseases under the action of different industrial factors is one of the priority directions in dentistry and allows you to develop an effective program of prevention of major dental diseases.

STUDY OBJECTIVE: To develop a basis for improving the effectiveness of pathogenetic prevention and treatment of caries, periodontal tissues and oral mucosa diseases under the influence of industrial factors of petrochemical enterprises. To implement the goal of the study the following tasks were set:

1.To study the prevalence of caries, iecarious dental lesions, diseases of periodontal tissues and oral mucosa, the level of nonspecific resistance and local immunity of the oral cavity, the effectiveness of oral antioxidant protection of oral fluid in workers of primary specialties, exposed to the complex of harmful substances of petrochemical production.

2.Conduct a hygienic assessment of working conditions of workers exposed to complexes of harmful industrial factors of petrochemical production.

For the first time on the basis of the complex clinical laboratory and statistical studies the pathogenetic mechanisms of the appearance and development of the main stomatological diseases under the action of production factors consisting in the change of the free-radical oxidation state of the oral liquid and the change of the local immunity state of the oral cavity were determined. The method of evaluation of professional suitability of workers exposed to the complex of ICE factors on the basis of the local immunity coefficient values was developed.

A method for differential diagnosis of inflammatory periodontal diseases based on critical values of the concentration of lysozyme, secretory immunoglobulin A and the light-sum index of oral chemiluminescence was developed.

A method for the correction of free-radical oxidation of oral fluid using laser therapy

has been developed.

Based on the data of clinical studies, indicators of the coefficient of balance of local immunity of the oral cavity, reaction of adsorption of microorganisms by epithelial cells, chemiluminescence of oral liquid, quality criteria of treatment of main dental diseases in workers exposed to harmful factors of petrochemical production were developed.

The significance of the work is due to the fact that the developed methods of a comprehensive assessment of the state of free radical oxidation and oral immunity improve the quality of diagnosis of major dental diseases and are the basis of a differentiated approach in the treatment and prevention. The data obtained as a result of the study can be used to improve the medical efficiency of the dentist. The results of the study of the prevalence of basic dental diseases, indicators of quality of life of the workers of the National Harvest industry are directed to the improvement of dental care for the working population and allow the differentiated implementation of rehabilitation measures. The criteria of the quality of dental care were developed and evaluated, allowing to evaluate the treatment of patients taking into account the state of SRO, local immunity, quality of life indicators.

Methods and means used for correction of oral cavity condition. Laser therapy (patent No. 2393893 of 10.07.2010) was used as the main treatment in persons with decreased values of oral CL values. We used a combination of MIL therapy (magnetic infrared laser therapy) and exposure to acupuncture points. MIL therapy is carried out by courses of 7-8 procedures (up to 12) daily. The therapeutic terminal is put in the projection area of the pathological focus and on the area under the angle of the lower jaw from the same side, the exposure - 2 min per point. Then, the area of the spinous process of the third cervical vertebra is affected for 1 min. After placing the therapeutic terminal near the front teeth (patient's mouth open), MIL exposure through 1 layer of a sterile gauze napkin is performed for 2 min on the oral tissues. Pulse repetition rate is 80 Hz, emission power of LEDs is 90 mW. At first, MIL-therapy was carried out on the pathological focus, then the impact on the TA was carried out. We also used "basic prescription" points - Monday, Wednesday, Friday: GI4 and E36 symmetrically, VC12; Tuesday, Thursday, Saturday: MS6 and RP6 symmetrically, VC12. Frequency 150 Hz, LED power 50 mW, exposure 0.5 min per point. In addition, we treated the points GI 1, GI 20, E 5, V 10. The treatment was performed every other day - 10 sessions.

Selection of toothpastes taking into account the state of free-radical oxidation. When choosing toothpastes we used the method proposed by A.M. Gadiullin et al: - In case of elevated CL RA indicators, toothpastes with antioxidant action were recommended: "Mexidol dent", "Blend-a-med blendax bee balm", "Silca complete Vitamin", "Colgate total propolis", "32 complex"; - In case of lower CL RA indicators, toothpastes with pro-oxidant action were recommended: "Lacalut aktiv", "Parodontax", "ROCS", "Cedar Balsam"; - with normal CL RA recommended toothpastes that have no effect on SRF processes: "Agua fresh", "Silica good morning", "Mint".

1. Among the workers of the main specialties exposed to the complex of harmful substances of the petrochemical production a high prevalence and intensity of the main dental diseases were determined: the CPU index averaged 17.7 ± 1.44 , the prevalence of parodontal tissue diseases was $94.5 \pm 2.34\%$, oral mucous membrane diseases $95.5 \pm 3.2\%$. The results of the evaluation of the coefficient of the local immunity factors balance showed that $53,5 \pm 1,25\%$ of the workers had a pronounced imbalance.

2. The leading harmful factors of the working environment and working process for the workers of the main professions in the petrochemical industry are: heaviness and intensity of work, vibration, noise, unfavorable microclimate. Integral evaluation of working conditions corresponds to Class 3.1.-3.4: for machine operators - Class 3.3, for machine operators - Class Z.2, for fitters - Class 3.2.-3.3, for mechatronics fitters - Class 3.1.

3. the study of the MOS SF-36 questionnaire profiles indicated a significant decrease in quality of life compared to the control group in the profiles: "Role-based physical functioning": 83.1 ± 4.2 points in the control group and 65.6 ± 3.1 points in the main group, "General Health": 79.9 ± 1.34 and 56.6 ± 1.54 points respectively, "Pain": 82.2 ± 2.6 and 64.9 ± 1.8 points respectively and "Social Functioning": 78.4 ± 2.5 and 49.2 ± 1.6 points respectively.

When conducting annual preventive examinations of workers of petrochemical production in the composition of interdisciplinary medical teams it is necessary to involve dentists to determine the prevalence and intensity of dental diseases, their early diagnosis and drawing up an individual scheme of dispensary taking into account the state of local immunity and processes of free radical oxidation of oral fluid. 2. For the prevention and treatment of major dental diseases, along with traditional methods of oral health care, the correction of the state of local immunity, free-radical oxidation: - in case of elevated CL RA as an antioxidant applications of 5% solution "Mexidol", the use of toothpastes with antioxidant action are recommended: "Mexidol dent", "Blend-a-med blendax bee balm", "Silca complete Vitamin", "Colgate total propolis", "32 complex",

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