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**DETERMINATION OF PRE-TREATMENT AND POST-TREATMENT RESULTS OF
IMMUNO-HISTO-CHEMICAL EXAMINATION METHOD IN THE DEVELOPMENT OF
THE BACKGROUND OF THE MAIN DISEASE IN PATIENTS WITH NICOTINE
STOMATITIS.**



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ABSTRACT

In recent years, there has been an increasing incidence of nicotine stomatitis among the population, which is causing medico-social, economic problems. In particular, the development of this pathology with the consumption of tobacco products occupies a special place in the fact that it creates complexity in their diagnosis and treatment. Several types of cigarettes are found. Cigarettes are distinguished by their multifaceted effect on the body. Dental diseases caused by the action of cigarettes have a special place in the prevalence, complexity in diagnosis and treatment.

Keywords. Nicotine stomatitis, immunohistochemical method, caries, pulpitis, periodontitis, leukoplakia, leukogram.



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**“NIKOTINLI STOMATIT MAVJUD BEMORLARDA ASOSIY KASALLIK FONINING
RIVOJLANISHIDA IMMUNO-GISTO-KIMYOVIY TEKSHIRISH USULINI
DAVOLASHDAN OLDIN VA DAVODAN KEYINGI NATIJALARINI ANIQLASH”**

ANNOTATSIYA

Oxirgi yillarda aholi orasida nikotinli stomatit bilan kasallanish ko'payib bormoqda, bu esa tibbiy-ijtimoiy, iqtisodiy muammolarga sabab bo'lmoqda. Ayniqsa, bu patologiyani tamaki mahsulotlari iste'moli bilan rivojlanishi ularni tashhishlash va davolashda murakkablik vujudga keltirishi bilan alohida o'rin tutmoqda. Sigaretalarning bir necha turlari uchraydi. Sigaretalar organizmga o'zining ko'p qirrali ta'siri bilan ajralib turadi. Sigaretalarning ta'siri natijasida yuzaga keladigan stomatologik kasalliklar keng tarqalganligi, tashxislash va davolashda murakkabligi bilan alohida o'rin egallaydi.

Kalit so'zlar. Nikotinli stomatit, immuno-gisto-kimyoviy usul, karies, pulpit, periodontit, leykoplakiya, leykogramma.

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**«ОПРЕДЕЛЕНИЕ РЕЗУЛЬТАТОВ ИММУНОГИСТОХИМИЧЕСКОГО
ИССЛЕДОВАНИЯ ДО И ПОСЛЕ ЛЕЧЕНИЯ В ЗАВИСИМОСТИ ОТ РАЗВИТИЯ
ОСНОВНОГО ЗАБОЛЕВАНИЯ У ПАЦИЕНТОВ С НИКОТИНОВЫМ
СТОМАТИТОМ»
АННОТАЦИЯ**

В последние годы наблюдается рост заболеваемости никотиновым стоматитом среди населения, что вызывает медико-социальные, экономические проблемы. В частности, развитие этой патологии при потреблении табачных изделий занимает особое место в том, что создает сложности в их диагностике и лечении. Существует несколько видов сигарет. Сигареты отличаются многогранным воздействием на организм. Стоматологические заболевания, вызванные действием сигарет, занимают особое место по распространенности, сложности диагностики и лечения.

Ключевые слова: Никотиновый стоматит, иммуногистохимический метод, кариес, пульпит, периодонтит, лейкоплакия, лейкограмма.

In recent years, the incidence of nicotine stomatitis has been increasing among the population, which causes medical, social, and economic problems. In particular, the development of this pathology with the use of tobacco products is of particular importance, as it creates difficulties in their diagnosis and treatment. There are several types of cigarettes. Cigarettes are distinguished by their multifaceted effect on the body. Dental diseases resulting from the effects of cigarettes occupy a special place due to their widespread distribution and complexity in diagnosis and treatment. Scientific sources have shown that the prevalence of oral diseases caused by cigarettes is up to 22.4%, and in combination with various syndromes - up to 39.3%. At the same time, the prevalence of nicotine stomatitis caused by cigarettes, which ranges from 19.7% to 31.4%, indicates the high prevalence of the pathology. This is explained by the fact that the initial stages of the disease proceed without clear symptoms, the lack of sufficient information about changes in both clinical and



laboratory tests, and the lack of a single etiopathogenetic approach among specialists. This indicates the need to improve methods of treatment and prevention of the problem [1,5].

Scientific and practical significance of the work.

The practical significance of the work consists in the study and analysis of the degree of prevalence and main risk factors of dental diseases in patients with nicotine stomatitis as a result of cigarettes.

In patients belonging to this contingent, the specifics of clinical signs of nicotine stomatitis are determined, and Prevention guidelines are developed, using an individual approach for each group.

The implementation of the results of the study into theoretical and practical medicine serves to increase the effectiveness of the Prevention of nicotine stomatitis as a result of cigarettes.

Depending on the degree of spread of nicotine stomatitis as a result of cigarettes, it is possible to improve oral hygiene, increase preventive effectiveness and reduce the development of complications.

Particular attention is paid to scientific research aimed at improving the treatment of oral diseases that occur as a result of an unhealthy lifestyle among the world's population. In this regard, in modern dentistry, it is of particular importance to identify the clinical and functional characteristics of the specific course of diseases associated with oral diseases that develop as a result of smoking; assess the role of dental and physiotherapeutic measures in the complex treatment process; develop a comprehensive step-by-step approach plan that takes into account the somatic condition of patients; propose preventive treatment methods based on the dysfunction of the oral cavity organs caused by smoking; and improve the development of methods for assessing the effectiveness of treatment [2,8].

The purpose of the study: To improve the modern approach to the detection, early diagnosis and treatment and prevention of nicotine stomatitis caused by cigarettes.

Material and methods of the study. The objects of the study were 115 patients with nicotine stomatitis caused by cigarettes who applied to the admission department of the CENTRAL ASIAN MEDICAL UNIVERSITY clinic, and 65 volunteers of the same age group without this disease were selected for the control group.

Results and discussion. The application of the results of the study to theoretical and practical medicine will serve to increase the effectiveness of preventing nicotine stomatitis caused by cigarettes. Depending on the prevalence of nicotine stomatitis caused by cigarettes, it will be possible to improve oral hygiene, increase the effectiveness of prevention, and reduce the development of complications.

Studies conducted in different countries have shown that the mortality rate among male smokers is 70% higher than that of non-smokers. Smoking is the leading cause of death in 36.4% of all deaths in men and 7.5% of all deaths in women worldwide. Every 14 seconds, someone dies from a disease caused by smoking. Every year, 3 million people die from smoking-related diseases worldwide. The number of smokers who die from cardiovascular disease, lung disease, and cancer is increasing. The economic damage caused by the high level of disease among smokers is significantly higher than the income from the sale of tobacco products. A smoker with 10 years of experience is 3.5 times more likely to get sick than a non-smoker, and they are 5 times more likely to miss work due to illness. Therefore, smoking is a serious socio-economic problem [3,7].

Objectives of the study:

Study of the relationship of changes in the body as a result of cigarettes with the formation of diseases of the oral cavity;

Determination of the progression of the disease by studying the leukogram in patients with nicotine stomatitis as a result of cigarettes;



Determination of the results before and after treatment of the IGK (immuno-histo-chemical) examination method in the development of the background of the main disease in patients with nicotine stomatitis;

Evaluation of the effectiveness of the development and Prevention of a pathogenetically based method of complex treatment of nicotine stomatitis as a result of cigarettes;

The gaseous phase includes hydrocyanic acid, acrolein, ammonia, acetaldehyde, formaldehyde and nitric oxide, which have an irritating and toxic effect on the cells of the ciliated epithelium of the upper respiratory tract. The nitrosamines, hydrazine and vinyl chloride, which make up the gaseous phase of tobacco smoke, have a pronounced carcinogenic effect. The solid phase consists of black oil, polynuclear aromatic hydrocarbons, B-naphthylamine, N-nitrosornicotine, benz(a)pyrene, polonium-210 and others, which have a carcinogenic effect on the body of the smoker, while substances such as indole and carbazole accelerate the growth of various tumors in the body[1,4].

The scientific novelty of the study consists of:

Study of the relationship of nicotine stomatitis (caries, pulpitis, periodontitis) caused by cigarettes with the formation of diseases of the oral cavity;

determination of the high clinical effectiveness of this method by assessing the risk factors leading to other diseases by studying the method of examination of the leukogram in patients with nicotine stomatitis against the background of the underlying disease;

to study and practice the IGK (immuno-histo-chemical) examination method before and after treatment to determine the degree of development of the disease in patients belonging to this contingent;

To propose an algorithm for the Prevention of nicotine stomatitis as a result of cigarettes, develop recommendations for practical application.

Summarizing the literature review, it can be said that the problem of smoking and related diseases is far from its final solution. The analysis of the published works allows us to draw conclusions about the comprehensive negative effects of smoking on human organs and body systems, including the oral cavity. Despite the serious risk of developing various diseases, people in all countries continue to smoke. Nowadays, cigarette consumption is increasing in the world, especially among women, youth and teenagers. If this trend continues, then in 2025, according to WHO forecasts, the number of smokers in the world will reach 1 billion 700 million, and the death due to cigarettes will be 10 million people per year in 2020, which will require a significant increase in government spending on health financing in many countries. is enough[2].

All this makes it possible to consider the fight against tobacco smoking as an important medical-social and socio-economic problem. More in-depth study of diseases related to smoking, especially using the complex of clinical and morphological analysis, remains relevant. Especially for a dentist, it is very important to clarify the special rules about the mechanism of the effect of tobacco smoking on the organs and tissues of the oral cavity, the mucous membrane of the oral cavity, periodontal tissues, teeth and salivary glands, depending on the duration and intensity of smoking. Currently, methods of prevention and treatment of diseases caused by smoking are not fully developed. All these issues have not yet been adequately described in the scientific literature of our country and abroad.

Smoking is the main cause of chronic bronchitis and emphysema. The incidence and mortality of chronic bronchitis and emphysema in smokers is directly related to the duration and intensity of smoking. Emphysema is 12.9 times more common in smokers than in non-smokers, and smoking is the main etiological factor in 82% of cases of chronic bronchitis. Depending on the level of exposure to tobacco smoke, male smokers are 4-25 times more likely to die from upper respiratory tract infections than non-smokers. Smokers have more abnormalities in functional lung tests than nonsmokers, including lung tissue elasticity tests, large and small airway permeability, and diffusion



capacity. Mild obstruction of small airways is observed even in adolescent smokers. Studies of the pathogenesis of pulmonary emphysema have shown that smoking leads to an increase in the amount of proteases in the lungs that can damage lung tissue. This damage is most likely due to the release of elastases from increased numbers of lung leukocytes, as well as the inactivation of pulmonary antiproteases by oxidants in tobacco smoke. Smoking leads to an increase in the frequency of respiratory infections and an increase in the frequency of deaths from pneumonia and influenza in smokers. Chronic laryngitis and tracheobronchitis develop more often in them than in nonsmokers [3,4].

Smoking can be considered a cause of cancer of the larynx, mouth, and esophagus. According to foreign scientists, the relative risk of developing esophageal cancer in smokers is 2.1 times higher than in non-smokers, and when smoking is combined with alcohol consumption, this risk increases by 8.1 times. It is known that alcohol consumption increases the risk of developing oncological diseases and has a synergistic effect with smoking.

Leukoplakia, according to many researchers, should be considered a precancerous process. According to data from our country and foreign authors, it is detected in 22-38% of cigarette smokers, 13.8% of cigar smokers, and 28.3% of pipe smokers. No statistically significant difference was found between the effect of filtered or unfiltered cigarette smoking on the development of leukoplakia. Leukoplakia is 4 times more common in men than in women, and occurs in 59.7-64.3% of patients aged 40 to 70 years. In smokers, leukoplakia is more common on the mucous membrane of the oral cavity and the red border of the lips, which are constantly exposed to tobacco smoke during smoking. Most authors noted that the process is most often detected in the mucous membrane of the pharynx - 48.4%, on the lips - 25.7%, on the tongue - 9.0%, on the palate - 5.9%, on the floor of the mouth - 2.1% and in other areas - 8.9%. In the mucous membrane of the pharynx, the areas of damage are most often located in the corners of the mouth - 65.2%. Leukoplakia foci can be located in one or several areas of the oral mucosa[1,4].

Based on the results of a retrospective analysis, the analysis of the effectiveness of the traditional local treatment scheme of patients with red flat iron showed improvement in 48.7% of cases. Prednisolone in the form of tablets: administered orally every other day after breakfast in a dose of 20 mg in the 1st week, in a dose of 15 mg in the 2nd week, in a dose of 10 mg in the 3rd week, and in a dose of 5 mg in the 4th week; nicotinic acid in the form of tablets in a dose of 0.05 g 2 times a day; vitamin A (oil) 10 drops 3 times a day.

In 9% of cases, chronic catarrhal stomatitis, chronic catarrhal goitre, leukoplakia, and minor salivary gland lesions were transformed into a simple form of erosive-ulcerative form. Resistance to conventional therapy was observed in 42.3% of patients, which was manifested by frequent exacerbations and unstable remission from 2 to 5 times a year.

Thus, the results of the retrospective analysis show that the frequency of chronic catarrhal stomatitis, chronic catarrhal goitre, leukoplakia, and minor salivary gland damage among other diseases of the mucous membrane of the oral cavity is 44.3% (out of 442 patients). Associated diseases of chronic catarrhal stomatitis, chronic catarrhal gout, leukoplakia, and minor salivary gland lesions are diabetes in $14.80 \pm 2.54\%$ of cases, thyroid diseases in $6.12 \pm 1.71\%$ of cases; cardiovascular pathology (atherosclerosis in $4.08 \pm 1.41\%$ cases, hypertensive disease in $6.63 \pm 1.78\%$ cases), diseases of the gastrointestinal tract (chronic gastritis in 15.82 ± 2.61 cases (A, B) ; chronic cholecystitis in 8.67 ± 2.01 cases; chronic hepatitis (A, B, C) in 11.22 ± 2.25 cases; chronic pancreatitis in 6.12 ± 1.71 cases). Diseases of the urinary system were found in $11.73 \pm 2.30\%$ of cases. At the same time, among all forms of chronic catarrhal stomatitis, chronic catarrhal goitre, leukoplakia and minor salivary gland damage, the erosive-ulcer form was found in $33.67 \pm 3.38\%$ (66) patients, and 68.8% in people aged 51-60 years and older. % (135) increases. The most common location of morphological elements, in 95 (48.5%) patients is the lung mucosa, in the retromolar area - 30.1% (59). Low efficiency of traditional local treatment, high tolerance to treatment of patients with chronic catarrhal



stomatitis, chronic catarrhal goitre, leukoplakia and minor salivary gland lesions prompts to search for new methods and means of pathogenetic treatment.

During smoking, the organs and tissues of the oral cavity are exposed to excitatory, thermal, toxic and carcinogenic effects. The intensity of the effect is determined by many factors, including the individual morphological and functional characteristics of the oral mucosa, the duration and intensity of smoking. The physical and chemical damage caused by tobacco smoke depends on the type and quality of tobacco, its growing conditions (use of mineral fertilizers, pesticides) and drying. Temperature indicators are of great importance in the mechanism of damaging effects on the tissues of the oral cavity.

Conclusion. It has been proven that metaplasia of epithelial cells develops in the bronchial mucosa of smokers, the level of their expression depends on the number of cigarettes smoked. These changes are considered by many authors as precancerous changes. The risk of developing lung cancer is quantitatively related to the effects of cigarette smoke. In men who smoke one pack of cigarettes per day, this risk increases 10 times compared to non-smokers, and in those who smoke two packs per day - more than 25 times. Over the past 50 years, cigarette consumption among women has increased sharply, and currently the incidence of lung cancer among them is growing faster than that of men.

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