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**ТИББИЁТДА ЯНГИ КУН
НОВЫЙ ДЕНЬ В МЕДИЦИНЕ
NEW DAY IN MEDICINE**

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RESEARCH METHODS USED TO INVESTIGATE CHANGES IN THE ORAL CAVITY IN SMOKERS

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✓ *Resume*

Currently, one of the main directions of health care development in our country and around the world is the comprehensive study of the effects of smoking on human health and the development of optimal methods of prevention, diagnosis and treatment. Diseases caused by this disease Despite the fact that the main harmful effects of the components of tobacco smoke on health have been well known for many years, the disease of smoking is developing. According to the statistical data of our republic, up to three quarters of men smoke. Women usually smoke less than men, their share is about 3% in our country. The increase in the number of female smokers is related to the change in the role of women in modern society, their economic independence from men.

Keywords: Tobacco, oral cavity, sick children, leukoplakia, cytological examination.

МЕТОДЫ ИССЛЕДОВАНИЯ, ПРИМЕНЯЕМЫЕ ДЛЯ ИЗУЧЕНИЯ ИЗМЕНЕНИЙ В ПОЛОСТИ РТА У КУРИЛЬЩИКОВ

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✓ *Резюме*

В настоящее время одним из основных направлений развития здравоохранения в нашей стране и во всем мире является комплексное изучение влияния курения на здоровье человека и разработка оптимальных методов профилактики, диагностики и лечения. Заболевания, вызываемые этим заболеванием Несмотря на то, что основные вредные воздействия компонентов табачного дыма на здоровье известны уже много лет, болезнь курения развивается. По статистическим данным нашей республики курят до трех четвертей мужчин. Женщины обычно курят меньше мужчин, их доля в нашей стране составляет около 3%. Увеличение числа курящих женщин связано с изменением роли женщин в современном обществе, их экономической независимостью от мужчин.

Ключевые слова: Табак, полость рта, больные дети, лейкоплакия, цитологическое исследование.

TAMAKI CHEKUVCHILARDA OG'IZ BO'SHLIG'IDAGI O'ZGARISHLARNI TEKSHIRISHDA FOYDALANILGAN TADQIQOT USULLARI

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✓ **Rezyume**

Hozirgi vaqtda mamlakatimizda va butun dunyoda sog'liqni saqlashni rivojlantirishning asosiy yo'nalishlaridan biri chekishning inson salomatligiga ta'sirini har tomonlama o'rganish va oldini olish, tashxislash va davolashning maqbul usullarini ishlab chiqish dolzarb muammolardan biridir. Ushbu illat tufayli kelib chiqqan kasalliklar ko'p yillar davomida tamaki tutunining tarkibiy qismlarining salomatlikka asosiy zararli ta'siri yaxshi ma'lum bo'lishiga qaramay, chekish illati rivojlanib kelmoqda. Respublikamiz bo'ylab statistik ma'lumotlar o'rganilganda erkaklarning to'rttdan uch qismigacha chekadi. Ayollar odatda erkaklarnikiga qaraganda kamroq chekishadi, ularning ulushi taxminan mamlakatimizda 3 % ni tashkil qiladi. Chekuvchi ayollar sonining ko'payishi ayollarning zamonaviy jamiyatdagi rolining o'zgarishi, ularning erkaklardan iqtisodiy mustaqilligi bilan bog'liq.

Kalit so'zlar. Tamaki, og'iz bo'shlig'i, bemor bolalar, leykoplakiya, sitologik tekshiruv.

The purpose of the study: A comprehensive clinical-morphological study of the condition of the mucous membrane of the oral cavity, features of morphogenesis and the clinic of dental diseases in smokers and the development of new directions for their diagnosis.

Object of research: 160 patients undergoing treatment at the Bukhara regional branch of the Republican Narcology Center

Research methods:

Dental, microbiological, morphological, statistical methods were used.

Scientific novelty of the research:

A comprehensive approach using clinical, functional, histological and histochemical research methods in the development of oral mucosa and salivary gland diseases in smokers.

Determination of prevalence, structure and clinical characteristics of oral mucosa and salivary gland diseases in smoking patients depending on the duration of smoking.

Determination of the effect of smoking patients on the acid-alkaline balance in the oral cavity during the study. To study the shift of the pH value in the oral fluid of patients before and after smoking to the alkaline side. Showing the increase of saliva in smokers, as well as its significant acceleration after smoking.

It was found that the rate of salivary gland secretion in long-term smoking patients is significantly reduced compared to non-smokers. Long-term smoking leads to a decrease in the functional activity of the salivary gland, which primarily leads to progressive chronic atrophic sialoadenitis.

An etiopathogenetic classification of leukoplakia is proposed, taking into account the development characteristics, pathogenesis, morphology, growth pattern, number of lesions and the combination of its various variants. Evaluation of the benefits of treatment with ozone therapy compared to conventional treatment of the development of leukoplakia in smokers.

Conclusions on the appropriateness of the study:

- Taking into account the information obtained during the research on the high prevalence of diseases of the oral mucosa and salivary glands in smokers, the characteristics and morphology of the clinical course, for the diagnosis, prevention and treatment of diseases of this category of patients.

- Use of functional (pH-metry of oral fluid, photoplethysmography of the oral cavity, determination of the rate of salivation and clinical and functional parameters of the salivary gland) and morphological examination methods to diagnose diseases in smoking patients offer.

-Using the information obtained on the stages of development of progressive chronic atrophic sialoadenitis in tobacco smokers in clinical practice for early diagnosis and prognosis of the dynamics of the disease, its treatment.

-Determining the need for dental care and its nature from the information on the prevalence and intensity of diseases of the oral mucosa and salivary glands in smokers and providing dental care to this category of patients use to develop organizational frameworks.

-characteristic changes studied in the mucous membrane of the oral cavity and oral fluid in smoking patients under control in the Bukhara region during preventive examinations, medical examinations and individual smoking cessation under the slogan "We are against smoking" improving the conduct of conversations.

160 smoking male patients, aged 18-70, who were treated in the "Voluntary Patients" department of the Bukhara branch of the Republican Specialized Narcology Scientific and Applied Medical Center

(RI narcology IATM Bukhara branch) and were registered as "D" at the address of residence in the city and district polyclinics of Bukhara. Patients from 18 to 70 years of age, that is, at all ages, are considered to be at high risk of oral cavity infections, for this purpose, we conducted our research in male smoking patients of different ages. Age levels of male smoking patients were compiled according to the WHO classification (Table1). 45 (28.1%) male smokers aged 18-39 years, 76 (47.5%) male children aged 40-59 years and 39 (24.4%) male patients aged 60-70 years.

Table1

Age relationship	Research groups			
	Monitoring group		Control group	
	Number of patients	%	Number of patients	%
18-39 young	45	28,1	18	60,0
40-59 young	76	47,5	8	26,7
60-70 young	39	24,4	4	13,3
Total	160	100	30	100

In the control group, there were 30 non-smoking patients aged 18-70 with inflammatory disease in the oral cavity. The clinical examination of the oral cavity of the patients during the study was carried out in Bukhara dental polyclinic No. 1.

During our study, we divided male smoking patients into 2 large groups based on the duration of smoking: group A (those who have smoked for at least 5 years up to 10 years) and group B (those who have smoked for more than 10 years), which constitutes the observation group of our study.

A total of 64 male smoking patients were recruited in group A and a total of 96 male smoking patients were recruited in group B (Table 2).

Table 2

Age relationship	Total number of patients	A group		B group	
		Number of patients	%	Number of patients	%
18-39 young	45	22	13,75	23	14,4
40-59 young	76	28	17,5	48	30,0
60-70 young	39	14	8,75	25	15,6
Total	160	64	40	96	60

Table 3

Prevalence of oral mucosa diseases in male smoking patients by groups

Diseases	A group		B group	
	Number	%	Number	%
Chronic catarrhal stomatitis	31	19,4	9	5,7
Chronic catarrh is common	13	8,1	27	16,9
Leukoplakia	12	7,5	39	24,3
Minor salivary gland lesions	8	5,0	21	13,1
Total	64	40	96	60
Total observation groups	160 (100%)			

The diagnosis was made on the basis of clinical, general laboratory and equipment research methods. All clinical and laboratory studies were carried out under controlled dynamics, at admission to the hospital, before discharge (after 3 and 6 months) and after discharge from the hospital.

During the study of male smokers, it was noted that diseases of the oral mucosa are more common, especially compared to other population groups (Table 3). Found in all age groups.

Inclusion criteria for the study:

1. Informed written consent of patients to participate in research;
2. Participation of patients under the age of 18 and under the age of 70;

3. Willingness to follow the recommendations of the dentist;

Exclusion criteria for the study:

1. Incompatible age group;
2. Surgical practice;
3. Presence of accompanying pathology: immune deficiency, autoimmune and oncological diseases;

Exclusion criteria from the study:

1. Voluntary refusal to participate in research at any stage;
2. Detection of somatic diseases during the research period;
3. Violation of doctor's recommendations and dispensary monitoring steps.

Research design

The clinical study was conducted according to an observational, controlled, non-randomized, prospective, cohort study design in voluntary participants.

The dynamic observation of male smoking patients was assigned to a specially designed research map.

Clinical examination of the oral cavity of male smoking patients

It included identifying the complaints of male smokers, collecting anamnesis, visual examination and professional and individual hygiene of the oral cavity - examination of the condition of the organs of the oral cavity. Patients were examined in the dental office using a standard set of dental equipment. During the examination of the patients, the generally accepted sequence was observed: external examination, study of the functions of the maxillofacial area, examination of the lips and oral mucosa, study of the condition of the periodontal tissues.

In order to evaluate the somatic condition of smoking patients, the characteristics of the main disease were analyzed in the study groups. General clinical examination of male patients in the study is performed in inpatient and outpatient settings. Complaints of patients were made in accordance with the main principles of the Bukhara branch of the Republican Center of Specialized Narcology Scientific and Applied Medicine, as a result of the anamnesis, clinical presentation of the course of the disease, laboratory results and equipment research. When taking a medical history, smoking duration and different options are indicated. Special attention is paid to the subjective signs of the duration of smoking. During the study, the seasonality of the course of diseases in the oral cavity, the effectiveness of the treatment and the prevention of the disease were seen. In the research groups, the frequency of OSD manifestations and the prevalence of concomitant somatic diseases were studied.

Based on the results of the examination of male smokers and the dental formula of each patient, the intensity of dental caries in this group of patients was determined.

The prevalence of dental caries, characterized by the number of patients with at least one symptom of dental caries, was studied as a percentage of the total number of those examined.

To evaluate the prevalence of dental caries in the examined group, i.e. male smokers, WHO assessment criteria are used to compare the value of this indicator, according to which the prevalence of caries in patients aged 18-40 is divided as follows: from 0 to 30% - low, from 31 to 80% - moderate, 81 from to 100% - high.

Determination of hygienic indices in male smoking patients.

The simplest criterion for evaluating the oral hygiene of a male smoker is the numerical calculation of the surface of the teeth covered by dental plaque. For this we used the Green-Vermillon method. G. Green and Wermillon I.R. (1964) proposed a simplified index of oral hygiene, OHI-S (Oral Hygiene Indices-Simplified). To determine OHI-S, the surfaces of the following teeth are studied: facial and lingual surfaces 5|5 6|6 and lip surface 1|1. All surfaces are pre-dented. The amount of staining on the surface of the teeth is determined as follows: six permanent tooth surfaces are painted with iodine-containing mixture - the labial surface of the upper central incisors, the vestibular surface of the upper first permanent large molar teeth, the lingual surface of the lower first permanent large molar teeth.

The following system is used to determine the teeth of a smoking patient: 0 – no teeth (cannot be painted); 1 – caries covers less than 1/3 of the tooth surface; 2 - caries covers more than 1/3, but less than 2/3 of the tooth surface; 3 - caries covers more than 2/3 of the tooth surface. The amount of points in each tooth is added to the total and divided by six (the number of teeth). Three levels of hygiene in

the oral cavity can be distinguished based on the amount of damage detected on the surfaces of the teeth: good, satisfactory and bad. The condition in which the stained look is detected in the neck of individual teeth can be evaluated as good (0-1 points). Satisfactory condition - the crown covers up to 1/3 of the tooth crown and a little more than 1/3 of individual teeth (1-2 points). Bad – the caries covers almost the entire surface of the crown, i.e. more than 2/3 of all examined teeth (2-3 points). This index makes it possible to draw conclusions about the state of hygiene in the oral cavity of children during the mixed bite period.

Salivation rate in male smokers

The rate of salivation (Redinova T.L., Pozdeev A.R., 1994) To conduct the study, a graduated test tube and a stopwatch are needed. The patient is asked to tilt the head down, open the mouth slightly and not to swallow, and it is allowed to flow freely into a test tube placed on the lower lip. The start and end time for saliva collection is set (usually 5-15 minutes). Salivation rate is calculated according to the following formula:

$$C c = V t$$

Here:

Ss – the rate of salivation;

V – volume of secreted saliva (in ml);

t – saliva collection time (in minutes).

Unstimulated salivation

the standard rate is Ss = 0.31-0.6 ml/min,

Hyposecretion at Ss = 0.03-0.3 ml/min,

Hypersecretion is diagnosed at Ss = 0.61-2.40 ml/min.

Evaluation of Oral Mucosa and Salivary Gland Hemodynamics in Male Smoking Patients

Oral mucosa and salivary gland hemodynamics were studied using a photoplethysmograph (FPG). A photodiode FD-3 was used as a photodetector. Calibration was performed using a standard calibration signal of 500 mV. The sensor was placed on the mucous membrane of the lower lip. An ECG is recorded on the second standard lead synchronously with the FPG. Qualitative and quantitative indicators are taken into account in the analysis of FPGs. The qualitative characteristic was based on the description of the shape of the photoplethysmographic curve. Quantitative analysis involves the calculation of the main quantitative indices:

FPI - photoplethysmograph index, EI - elasticity index,

PQI- peripheral resistance index, QTTI-vascular tone index.

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