

determine the clinical efficacy of the comprehensive therapy, all patients were divided into two groups, equal in number.

Treatment of the main group was carried out according to our proposed method. HT without recession gum used the material for deep fluoridation Ftorcalcit-E. In the case of HT with localized recession, restoration of lost periodontal structures by directional regeneration using the absorbent barrier collagen membrane «Mucograft» was performed.

For the treatment of patients in the control group, a traditional regimen was selected that included applications of phosphate-containing toothpastes and electrophoresis of 2.5% calcium glycerophosphate. In the comprehensive treatment of patients in the both clinical group, «Calcium-D₃ NicoMed» was used.

Research results. The examination of patients with HT before treatment allowed to confirm the presence of morphofunctional inferiority of enamel and dentin in these persons, which is a consequence of the combined effect of a number of local and general factors. Of particular importance in the pathogenesis of this disease are disorders of inorganic metabolism in the body, which is reflected in the process of remineralization of hard tissues of the teeth and metabolism in the alveolar bone.

Subsequent examinations, during which the regression dynamics of the signs of this pathological condition was detected in patients with HT under the influence of therapy, it was found that this process was more effective in the main group. Thus, in the control clinical group, 2 weeks after initiation of treatment, 27 patients (62.8%) reported that complaints were completely absent. The tests conducted after 1 month found that the results of treatment of 22 patients (51.1%) were stable. In the main clinical group, already in 2 weeks after the initiation of treatment, positive dynamics was observed in all patients of this group. Thus, complete elimination of pain sensations was recorded in 32 patients (74.4%) with HT. Results of therapy after 1 month in patients of main group indicated that excellent therapeutic effect was in 39 patients (88.4%), in all other cases patients reported about significant decreasing of signs of HT. Long-term investigations in main group found that relapse of the disease was not observed.

Thus, the use of the proposed treatment regimens with combination of conservative and surgical treatment allowed us not only to achieve a noticeable therapeutic effect in relation to the clinical manifestations of HT. The effectiveness of the proposed therapeutic regimens, confirmed by clinical and laboratory studies, allows them to be recommended for widespread introduction into dental practice to improve the quality of treatment for patients with HT.

Key words: teeth hypersensitivity, gum recession, complex treatment.

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ASSESSMENT OF THE PREVALENCE OF INFLAMMATORY DISEASES OF HARD AND SOFT TISSUES OF THE ORAL CAVITY IN ATHLETES OF CONTACT SPORT

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Publication relation to planned scientific research projects. The present work is a fragment of integrated research topic «Development of modern approaches to the diagnostic, treatment and rehabilitation of patients with defects, deformations, inflammatory diseases and injuries, tumors of the maxillofacial region, taking into account the impact of environmental factors» (state registration No.011400196).

Introduction. Today, in practical medicine, it becomes an integral part of medical and hygienic programs to optimize treatment and preventive measures and all medical supervision in sports of the highest achievements. At the same time, it is very important to note the growing popularity of various power and contact types of sports activities, and the increase in the frequency of injuries of the musculoskeletal system and maxillofacial region for this reason [1,2,3,4]. According to many experts in the field of sports medicine, the functional state of various body systems, including organs and tissues of the oral cavity, as the most important element and indicator of the overall health of professional athletes,

should be adopted as a standard for participation in important and major international competitions [5,6,7,8].

The aim of this study was to study the relationship of oral diseases and functional disorders of the body of athletes involved in contact sports against the background of intense physical training.

Object and methods. In the period from 2017 to 2018, a dental examination of 64 professional athletes of various levels of training involved in contact (wrestling, boxing) sports in the pre-competitive and competitive periods of the training process at the age of 16-24 years with a length of sports experience of 2-5 years was carried out and 14 practically healthy individuals who are not engaged in sports of the highest achievements. On the first at the research stage, a survey was conducted of all study participants using the developed specialized card, and data were obtained on sports injuries of the maxillofacial region, as well as of the experience of using protective sports mouth guards. At the second stage of the study, the dental status of the examined highly qualified athletes was determined, the prevalence and intensity of major dental diseases, caries, non-carious

Table 1 – The incidence of periodontal disease among professional boxers (CPITN index)

Age	Number of studied athletes	The average number of sextants				
		Healthy parodontium	Stomator rhagia	Dental calculus	Parodontal pocket	
					4-5 mm	6 mm and more
16-19	34	0,72 ± 0,06	1,39 ± 0,12	1,48 ± 0,13	1,05 ± 0,09	0,33 ± 0,02
20-24	30	0,14 ± 0,01	0,42 ± 0,04	2,26 ± 0,14	1,60 ± 0,14	0,66 ± 0,05

Note: * - reliability of differences P < 0,05.

lesions, inflammatory periodontal diseases, oral mucosa and lips were studied. The assessment of the dental status, prevalence and intensity of inflammatory periodontal diseases was carried out using the WHO methods and criteria, and more precisely, with the use of the need index for the treatment of periodontal diseases – CPITN, 1980.

The results of the study were processed by the method of variation statistics. To characterize the group of homogeneous units, their arithmetic mean values (M) and its standard error (m) were determined. A statistical difference between the groups was considered significant at p < 0.05. Statistical processing of the obtained data was carried out on a personal computer using modern software and the Statistica 7.0 application package.

Results and discussion. Clinical and epidemiological studies to identify the prevalence and intensity of inflammatory periodontal diseases among professional boxers revealed an increase in the frequency of occurrence of inflammatory and destructive pathological processes in soft periodontal tissues as the intensity and duration of the training process increased, that is, in the pre-competition period (table 1).

So, the number of sextants with a healthy periodontal period began to decrease markedly with increasing skill and age of athletes, and against the background of intense physical training, it was less in the age group of 20-24 years old – 0.14 ± 0.01. In this age group, on the contrary, the number of sextants with bleeding and hard dental deposits increased, the indices for which were 0.42 ± 0.04 and 2.26 ± 0.14, respectively. In terms of the number of pathological periodontal pockets compared with the previous observation group, comparatively smaller values were recorded. The maximum data on

Table 2 – The prevalence of non-cariou dental lesions among boxers (in % of the number examined; M ± m)

Age (years)	Number of examined athletes	Prevalence					
		fluorosis		Hypoplasia		Total	
		abs.	%	abs.	%	abs.	%
16-19	34	4	3,66 ± 2,15	5	4,93 ± 1,76	9	8,59 ± 0,94
20-24	30	5	2,69 ± 1,51	6	2,51 ± 1,25	11	5,20 ± 0,67

Note: * – reliability of differences P < 0.05.

Table 3 – Age-specific prevalence of cheilitis among professional boxers

Age-depended (years)	Number of studied boxers	Cheilitis prevalence	
		abs.	%
16-19	34	14	42,54 ± 3,14
20-24	30	7	23,68 ± 3,71

the structural elements of the studied index, reflecting the clinical manifestations of inflammatory diseases of periodontal tissues of moderate and severe degrees, were identified in the oldest age group of boxers.

Our studies have shown that the prevalence of caries and non-cariou lesions of teeth in qualified athletes was higher than in individuals not involved in sports professionally. Among 64 athletes, the average number of subjects amenable to tooth hypoplasia in the youngest age group was 4.93 ± 1.76%,

while in the older age group the indicators were significantly lower and were determined at a value of 2.51 ± 1.25% (table 2).

Low rates in the prevalence and intensity of dental fluorosis among the examined boxers in all age groups testified to normal indicators in the quantitative content of fluoride in drinking water in the regions of their permanent residence and professional activity.

Therefore, among the athletes involved in the research, tooth fluorosis is detected in very rare cases. For example, those in the first age group turned out to be on average 3.66 ± 2.15% in all examined. A little more in this group there was revealed hypoplasia of the teeth.

Since both pathologies studied belong to non-cariou lesions of the teeth and are caused by a violation of the formation of tooth enamel under the influence of exogenous and endogenous factors, we found it was possible to study both factors simultaneously. As a result, an average of 5.20 ± 0.67% of boxers suffer from the above mentioned pathologies from all examined professional athletes.

Considering the specifics of the training process and mainly oral breathing during prolonged physical exertion, a study was made of the state and frequency of prevalence among boxers of diseases of the oral mucosa and lips (table 3).

On average, for all age groups of the examined athletes, lip lesions, that is, cheilitis, were registered in every third athlete in the oldest age group and in almost every second representative of professional boxing of youth – 23.68 ± 3.71% and 42.54 ± 3.14%, respectively.

Their lowest frequency occurred in the age group of 20-24 years, which, in our opinion, is associated with the still insufficient level of adaptation of the body to intense and prolonged physical and psycho-emotional stress. In the course of clinical studies, to identify the relationship between violations of dental status and the focus of the training process, a statistical analysis of the relevant indicators was carried out among representatives of the free and classical types of wrestling – 20; professional boxers – 64 and persons who made up the control group – 14.

When analyzing the prevalence of pathological changes in tissues and organs of the oral cavity among professional athletes involved in various sports, it was found that anomalies in the development of maxillo-dental anomaly (MDA) were more often diagnosed in persons involved in professional boxing – 72.1 ± 5.61% of cases. And in the same group, the maximum values were recorded for the frequency of occurrence of mul-

multiple dental caries and its complications – 52.5 ± 4.53% of cases (table 4).

According to the results of our clinical studies and diagnosis of the degree of development of the pathological process in periodontal tissues in all groups of athletes, a high level of chronic generalized periodontitis of mild severity and chronic catarrhal gingivitis was determined in comparison with the control group.

Thus, according to clinical observations and an index score, the average incidence of periodontopathy in the examined contingent of boxing athletes was 72.0 ± 5.68%, which was significantly different from the indicators in the control group – 17.2 ± 1.64%. A healthy periodontium in the group of athletes was much less common.

In a comparative assessment of the results obtained, the most often inflammatory changes in the teeth were detected in freestyle wrestlers – 67.5 ± 4.89%, respectively (p<0.05). The next place in terms of the prevalence of generalized forms of periodontitis and gingivitis

Table 4 – Frequency of occurrence of major dental diseases and AF in different types of sports

Types of sports	Frequency of occurrence of dental diseases					
	caries		MDA		periodontitis	
	abs.	%	abs.	%	abs.	%
wrestling	20	48,0 ± 3,76*	5	39,5 ± 2,95*	15	67 ± 4,89*
boxing	16	52,5 ± 4,53*	30	72,1 ± 5,61*	18	72,0 ± 5,68*
control	4	15,0 ± 1,64	3	9,51 ± 0,87	5	17,2 ± 1,64

Note: * – significance of differences P < 0.05.

was occupied by professional boxers who use protective tooth mouth guards in their sports activities.

Conclusions. The highest level of prevalence of inflammatory diseases of hard and soft tissues of the oral cavity was detected precisely in representatives of contact sports, like boxing.

Prospects for further research. Further research will focus on improving the treatment and prevention complex with a view to systematically improving the provision of dental care and improving the health of contact sports athletes.

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ОЦІНКА ПОШИРЕНОСТІ ЗАПАЛЬНИХ ЗАХВОРЮВАНЬ ТВЕРДИХ І М'ЯКИХ ТКАНИН ПОРОЖНИНИ РОТА У СПОРТСМЕНІВ КОНТАКТНОГО ВИДУ СПОРТУ

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Резюме. Метою цього дослідження стало встановлення взаємозв'язку захворювань порожнини рота і функціональних порушень організму спортсменів, що займаються контактними видами спорту на тлі інтенсивних фізичних тренувань. Обстежено 64 професійних спортсмена різного рівня тренуваності, що займаються контактними (боротьба, бокс) видами спорту в передзмагальний і змагальний періоди тренувального процесу у віці 16-24 роки з тривалістю спортивного стажу – 2-5 років і 14 практично здорових осіб, не зайнятих в спорті вищих досягнень. Вивчено стоматологічний статус і проведено анкетування всіх учасників дослідження за допомогою розробленої спеціалізованої карти і були отримані дані про спортивні травми щелепно-лицевої ділянки, а також про досвід застосування захисних спортивних кап. Найбільш високим рівнем поширеності запальних захворювань твердих і м'яких тканин порожнини рота виявлявся саме у представників контактних видів спорту, таких як бокс.

Ключові слова: спорт, стоматологічний статус, травми і запальні захворювання.

ОЦЕНКА РАСПРОСТРАНЕННОСТИ ВОСПАЛИТЕЛЬНЫХ ЗАБОЛЕВАНИЙ ТВЕРДЫХ И МЯГКИХ ТКАНЕЙ ПОЛОСТИ РТА У СПОРТСМЕНОВ КОНТАКТНОГО ВИДА СПОРТА

Інагамов Ш. М., Різаєв Ж. А., Садиков А. А., Муратходжаєва Л. Э., Даїнова Н. Р.

Резюме. Целью настоящего исследования явилось изучение взаимосвязи заболеваний полости рта и функциональных нарушений организма спортсменов, занимающихся контактными видами спорта на фоне интенсивных физических тренировок. Обследовано 64 профессиональных спортсмена различного уровня тренированности, занимающихся контактными (борьба, бокс) видами спорта в предсоревновательный и соревновательный периоды тренировочного процесса в возрасте 16-24 года с длительностью спортивного стажу – 2-5 лет и 14 практически здоровых лиц, не занятых в спорте высших достижений. Изучено стоматологический статус и проведено анкетирование всех участников исследования с помощью разработанной специализированной карты и были получены данные о спортивных травмах челюстно-лицевой области, а

также об опыте применения защитных спортивных капп. Наиболее высокий уровень распространенности воспалительных заболеваний твердых и мягких тканей полости рта выявлялся именно у представителей контактных видов спорта, таких как бокс.

Ключевые слова: спорт, стоматологический статус, травмы и воспалительные заболевания.

ASSESSMENT OF THE PREVALENCE OF INFLAMMATORY DISEASES OF HARD AND SOFT TISSUES OF THE ORAL CAVITY IN ATHLETES OF CONTACT SPORT

Inagamov Sh. M., Rizaev Zh. A., Sadikov A. A., Muratkhodzhaeva L. E., Daminova N. R.

Abstract. Today, in practical medicine, it becomes an integral part of medical and hygienic programs to optimize treatment and preventive measures and all medical supervision in sports of the highest achievements. According to many experts in the field of sports medicine, the functional state of various body systems, including organs and tissues of the oral cavity, as the most important element and indicator of the overall health of professional athletes.

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Our studies have shown that the prevalence of caries and non-carious lesions of teeth in qualified athletes was higher than in individuals not involved in sports professionally. Considering the specifics of the training process and mainly oral breathing during prolonged physical exertion, a study was made of the state and frequency of prevalence among boxers of diseases of the oral mucosa and lips.

Their lowest frequency occurred in the age group of 20-24 years, which, in our opinion, is associated with the still insufficient level of adaptation of the body to intense and prolonged physical and psycho-emotional stress. In the course of clinical studies, to identify the relationship between violations of dental status and the focus of the training process, a statistical analysis of the relevant indicators was carried out among representatives of the free and classical types of wrestling – 20; professional boxers – 64 and persons who made up the control group – 14. According to the results of our clinical studies and diagnosis of the degree of development of the pathological process in periodontal tissues in all groups of athletes, a high level of chronic generalized periodontitis of mild severity and chronic catarrhal gingivitis was determined in comparison with the control group.

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Key words: sport, stomatological status, injuries and inflammatory diseases.

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ЗАЛЕЖНІСТЬ ПОКАЗНИКІВ КАРІЕСУ ПОСТІЙНИХ ЗУБІВ У ДІТЕЙ ВІД КОНЦЕНТРАЦІЇ ФТОРУ У ПИТНІЙ ВОДІ ТА НАЯВНОСТІ ПРОЯВІВ ФЛЮОРОЗУ

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Зв'язок публікації з плановими науково-дослідними роботами. Дана робота є фрагментом НДР «Удосконалення методів профілактики та лікування хвороб твердих тканин зубів та тканин пародонта на фоні соматичної патології у дітей з урахуванням соціально-економічних факторів та психоемоційного стану», № державної реєстрації 0119U102852.

Вступ. Якість життя населення включає кілька критеріїв, серед яких особливе місце займає здоров'я, зокрема стоматологічний статус, що формується у дитячому віці. Незважаючи на профілактичну спря-

мованість сучасної стоматології, стоматологічне здоров'я дитячого населення нашої країни залишається незадовільним [1,2].

Карієс зубів є одним з найпоширеніших захворювань серед дитячого населення земної кулі [3,4]. Важлива роль фторидів у профілактиці карієсу зубів на сьогодні абсолютно констатована, прекрасно науково обґрунтована і втілена в практиці [5,6,7]. Авторами переконливо доведено, що у дітей, які мешкають у регіонах з оптимальною концентрацією фтору у питній воді, показники карієсу значно нижчі,