

Таким образом, новые образовательные методики предоставляют учащимся возможность развивать широкий спектр навыков, необходимых в современном обществе. Они стимулируют учащихся к активному обучению, самостоятельности и уверенности в своих способностях.

Важно продолжать исследовать и внедрять эти методики в образовательный процесс, чтобы полностью раскрыть потенциал каждого ученика и обеспечить его готовность к будущим вызовам.

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CHANGES IN THE DENTAL SYSTEM IN CHILDREN AND ADOLESCENTS WITH HEARING LOSS

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Abstract. The article presents an analysis of the prevalence of malocclusion pathology and the nature of morphological changes in the dental apparatus in children and adolescents with hearing loss living in the Bukhara region. The prevalence of dental anomalies and deformities in schoolchildren with hearing impairment was $76.5 \pm 0.03\%$, dentoalveolar deformities were diagnosed in 78.9%, dental anomalies in 30.3% of students. The prevalence of dental anomalies and deformities in children and adolescents with hearing loss exceeded the corresponding indicator in conditionally healthy children of the corresponding age groups living in the Bukhara region. In connection with the above, the expediency of developing and implementing preventive measures in this contingent of the child population is justified.

Keywords: children, adolescents, hearing loss, dental anomalies, dental deformities.

ИЗМЕНЕНИЯ ЗУБОЧЕЛЮСТНОЙ СИСТЕМЫ У ДЕТЕЙ И ПОДРОСТКОВ С ПОНИЖЕНИЕМ СЛУХА

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Резюме. В статье представлен анализ распространенности патологии прикуса и характера морфологических изменений

зубочелюстного аппарата у детей и подростков с тугоухостью, проживающих в Бухарской области. Распространенность зубочелюстных аномалий и деформаций у школьников с нарушением слуха составила $76,5 \pm 0,03\%$, зубочелюстные деформации диагностированы у $78,9\%$, зубочелюстные аномалии у $30,3\%$ учащихся. Распространенность зубочелюстных аномалий и деформаций у детей и подростков с тугоухостью превышала соответствующий показатель у условно здоровых детей соответствующих возрастных групп, проживающих в Бухарской области. В связи с изложенным обосновывается целесообразность разработки и проведения профилактических мероприятий у данного контингента детского населения.

Ключевые слова: дети, подростки, тугоухость, зубочелюстные аномалии, и зубочелюстные деформации.

ESHITISH QOBILIYATINI YO'QOTGAN BOLALAR VA O'SMIRLARDA TISH-JAG' TIZIMIDAGI O'ZGARISHLAR

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Annotatsiya. Maqolada Buxoro viloyatida yashovchi eshitish qobiliyati zaif bolalar va o'smirlarda malokklyuzion patologiyaning tarqalishi va tish apparatlaridagi morfologik o'zgarishlarning tabiati tahlili keltirilgan. Eshitishda nuqsoni bo'lgan maktab o'quvchilarida tish anomaliyalari va deformatsiyalarining tarqalishi $76,5 \pm 0,03\%$, dentoalveolyar deformatsiyalar $78,9\%$, tish anomaliyalari $30,3\%$ o'quvchilarda aniqlangan. Eshitish qobiliyati zaif bolalar va o'smirlarda tish anomaliyalari va deformatsiyalarining tarqalishi Buxoro viloyatida yashovchi tegishli yosh toifalaridagi shartli sog'lom bolalardagi tegishli ko'rsatkichdan oshib ketdi. Yuqoridagilardan kelib chiqqan holda, bolalar populyatsiyasining ushbu kontingentida profilaktika choralarini ishlab chiqish va amalga oshirish maqsadga muvofiqligi oqlanadi.

Kalit so'zlar: bolalar, o'smirlar, eshitish qobiliyatini yo'qotish, tish anomaliyalari, tish deformatsiyalari.

Relevance. Hearing-impaired children and adolescents belong to the category of disabilities, that is, physical (mental) deviations that cause general developmental disorders, do not allow children to live a full life [4, 8, 9]. According to WHO data, in 2005, 1,517 children and adolescents were recognized as disabled due to diseases of the ear and mastoid process for

the first time, while in 2010, this figure was already 2,611 [2, 3]. In 2011, about 1.3 million children and adolescents lost their hearing ability, every year another 1.5-2 thousand children are born with congenital hearing loss, and 2 thousand children lose it later [5, 6]. Such patients need the attention of doctors of various specialties, a specific approach to preventive and treatment measures. The dentition of hearing impaired children has a number of characteristic morphological features due to the absence or uniqueness of speech articulation due to the primary pathology of the auditory analyzer [7, 10]. These features have been little studied to date, there is no information about the distribution and structure of dental anomalies and deformations, as well as specific features of organizing preventive care for the above categories of patients in educational and scientific literature.

The purpose of this work was to study the distribution and nature of morphological changes in dental apparatus, to determine the structure of dental anomalies and deformations found in children with sensorineural hearing loss living in Bukhara region.

Research materials and methods. In order to achieve this goal, 143 schoolchildren aged 7 to 16 years studying at the I-II correctional boarding school for deaf and hard-of-hearing children in Bukhara underwent a dental examination. To determine the influence of the severity of hearing impairment on the development of dental pathology, all examined subjects were divided into 2 groups: group 1 schoolchildren with sensorineural hearing loss - 68 people (57.3%); Group 2 - students with deafness of various etiologies - 75 people (42.7%). 68 of them (57.9%) are men, 75 (42.1%) are women. The physiological development of the dental apparatus corresponded to the following indicators: 62 (49.8%) students have removable teeth and 73 (50.2%) permanent teeth.

The orthodontic condition of the examined children and adolescents was determined by the following methods: clinical (survey, examination, clinical functional tests) and anthropometric. According to the classification of anomalies of the dental system proposed by A.I. Betelman, all anomalies of the dental apparatus are divided into 3 groups: anomalies of the teeth; dental anomalies; anomalies of the jaws and their separate anatomical parts.

The prevalence of dental anomalies and deformations is determined by the following formula:

$$R = [M / n] \times 100\%, \text{ where}$$

R - prevalence of dental anomalies and deformations; M - the number of individuals with dental anomalies and deformations; n is the total number of those examined.

The results of the examination are recorded on a specially prepared individual examination card. The obtained data were later recorded in a computer database with statistical processing. Based on the obtained absolute values, relative (intensive and extensive coefficients) and average values were calculated. Calculations were made using Excel spreadsheets, as well as a statistical software package.

Research results. The prevalence of dental anomalies and deformities among students of Bukhara specialized boarding school for deaf and hard-of-hearing children was $76.5 \pm 0.03\%$, while among boys and girls dental anomalies and the distribution of deformations does not differ significantly. In the era of removable teeth, 82.5% of children had dental anomalies and deformations, and in permanent teeth, 74.3% of teenagers had pathology. When analyzing the dependence of the distribution of dental anomalies and deformations depending on the degree of hearing impairment, orthodontic pathology, deafness of various etiologies (83.4%) were found in 78.6% of cases in children with hearing loss, which is 5.7% more than in children with severe hearing loss.

In the permanent teeth formed in hearing-impaired schoolchildren, anomalies in the position of individual teeth (77.6%) were identified, including: tortoanomaly, dispositions, endo- and expositions, posterior and mediopositions, as well as supra- and infraposition of individual teeth. Anomalies in the structure of the hard tissues of the teeth were the second most frequent - 27.8% in both groups. In children of the first group, 22.6% of cases, and in 23.5% of children of the second group, there was a violation of the time of eruption of permanent teeth. An analysis of the results of the parameters of the time of tooth eruption in children and adolescents with hearing loss showed that permanent teeth are delayed by an average of 6 to 12 months. Also, 4.1% of those examined had a broken sequence of eruption of permanent teeth. Anomalies in the number of individual teeth in the form of lateral incisors and/or first premolar adentia were detected in 5.2% of cases.

Anomalies of the shape and size of dental arches in group 1 were detected in 20 people (33.6%), in group 2 - in 22 people (32.4%). A high percentage of mesial displacement of the group of lateral teeth (21.0 and 23.2%) was noted, in 100% of cases, the history of temporary chewing teeth

was removed early. Among the occlusion anomalies, sagittal disocclusion was found in most cases (33.2%), in children, a decrease in the tone of the abdominal muscles and a mixed type of breathing aggravated the anomaly. The development of pathology was also helped by the carious removal of temporary teeth, which led to a slowdown in the growth of the alveolar processes of the jaws during the period of preparation for the change of teeth and tooth displacement. Dental alveolar form of orthodontic anomalies and deformations was noted in 80.4% of cases where permanent teeth were replaced by temporary teeth, which can serve as a promising condition for the use of myogymnastics to correct orthodontic anomalies and deformations in young age groups.

Conclusions. Thus, it can be noted that the prevalence of dental anomalies and deformations in children and adolescents with hearing loss is higher than the corresponding rate in conditionally healthy children of the corresponding age groups living in Bukhara region [1]. When planning dental prevention and rehabilitation measures for disabled children of this category, the noted changes in the morphological structure of the dental apparatus in children and adolescents with hearing loss, as well as the causal factors of their formation, should be taken into account.

The development and implementation of preventive measures reduces the negative impact of existing risk factors for the formation of dental anomalies and deformations, reduces the prevalence and severity of forms of orthodontic pathology in children with hearing loss.

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MORPHOLOGICAL CHARACTERISTICS OF THE THYROID GLAND IN POLYPHARMASIA WITH ANTI-INFLAMMATORY DRUGS

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Summary. Pathology of the thyroid gland is considered a marker of environmental distress. The most significant morphophysiological structure of the thyroid gland is a tissue microregion that combines a group of follicles and interfollicular space with an autonomous system of blood and lymph circulation. It is the structures of the tissue microregion that suffer the most under the action of pathogenic factors on the thyroid gland, reducing its role in providing morphological and metabolic changes in tissues and organs [Borodin Yu.I., et al., 2018]. But morphological and morphometric changes in the thyroid gland during polypharmacy with anti-inflammatory drugs are poorly understood. The article presents a review of the literature on structural changes in the thyroid gland during polypharmacy with anti-inflammatory drugs.

Key words: polypharmacy, thyroid gland, morphology, anti-inflammatory drugs.