CHARACTERISTIC CHANGE IN THE PROTRUSION OF THE UPPER JAW IN CHILDREN

Fozilov U.A., Olimov S.Sh., Badriddinov B.B.
Bukhara State Medical Institute, Uzbekistan

Abstract. Dental deformities are among the main dental diseases and are characterized by a high prevalence. The study of the prevalence of dentofacial deformities and their individual nosological forms in different periods of bite formation is important in solving various issues: calculating the required number of orthodontists, organizing a network of orthodontic departments and offices, planning treatment and preventive measures, etc.

Key words. dentoalveolar deformities, orthodontic departments, nosological forms.

The frequency of dentoalveolar deformities in children of the Republic of Uzbekistan, according to different authors, can be explained by the regional features of the spread of pathology, the difference in indicators of dental caries, the authors' individual approach to research methods and the assessment of deviations from the norm, the lack of a unified classification of dentoalveolar anomalies, and also the fact that not all The authors differentiate dentition anomalies by individual ages, analyzing only individual risk factors that contributed to the occurrence of dentoalveolar anomalies.

Obtaining scientifically comparable indicators of the prevalence of dentoalveolar anomalies can be achieved with strict adherence to the principles of the age grouping of the examined contingents, the same methodological approach to assessing the condition of the teeth, dentition and occlusion based on a single classification, taking into account the ethnic features of the structure of the face and its individual parts.

S.Sh. Olimov (2019) published the results of a survey of children, where, according to the author, the deformation of the maxillofacial region in children has increased dramatically in the last 10-15 years and averaged from 15-18% to 40%. At the same time, the author noted that 4% of completely healthy children in the Bukhara region, 7% of dentally healthy children, 30% had emerging anomalies in the position of the teeth, dentition and occlusion, 45% had formed dentoalveolar anomalies, 56% had signs violations. At the same time, it was noted that their prevalence tends to increase with age and ranges from 9.9 to 42.8% per 100 examined. In 30.1% of cases, the examined preschool children needed prosthetics. The maximum value of the indicator of prevalence of AP was noted in the final stage of the mixed dentition period.

Summarizing the studies carried out by the domestic author, we can conclude that

there are significant fluctuations in the prevalence of dentoalveolar deformities in different regions of the region. At the same time, it should be noted that the analysis of the literature data indicates the absence of a trend towards a decrease in the frequency of dentoalveolar deformities over the past decades.

Thus, the need to conduct scientific research in various regions of the Bukhara region in order to identify and analyze the influence of risk factors on the prevalence of dentoalveolar deformities in children is of great importance for the development of a comprehensive program for the prevention of dentition anomalies, taking into account the regional component. The above necessitated the continuation of scientific research in this subject area in terms of the development of new, more effective approaches to the complex prevention of dentoalveolar deformities requiring orthodontic treatment, with their subsequent implementation in the activities of the territorial specialized healthcare unit.

Early diagnosis of clinical signs of disease in orthodontic patients, restoration of physiological functions of chewing efficiency in children is one of the urgent problems of children's orthodontic dentistry today. In children with pathological occlusion, the tooth-jaw system allows to use the advantages of growth and eruption of teeth, and to get before the occurrence of deformations that occupy a large space, which are difficult to pathological development and treatment. It is considered promising to create a new method of correcting pathological occlusion in the period of primary tooth eruption and tooth replacement in order to restore physiological development in the field of the tooth-jaw system, prevent serious disturbances in the tooth-jaw system, and restore the health of children.

Today, there are many children with tooth row and occlusion disorders, problems with sucking mother's milk, speaking, breathing and feeding are the basis for the development of this device. There are analogs of the orthodontic device used in early youth to move teeth and rows, for example, myofunctional trainers and removable orthodontic devices based on plates prevent the developing tooth-jaw deformations, help better during the period of rapid growth of the facial skeleton.

In Fundamental Research on the Development of the Dento-jaw System, Bjork A. as the main factor in the formation of deep incisors, it is shown that the violation of the growth direction of the lower jaw depends on its forward rotation. Also, hereditary sagittal disproportion of the jaws plays an important role in these pathologies, in which the occlusion is also disturbed in the vertical plane.

According to the researchers, the best way to correct the bite pathology during the period of teeth replacement is that it often excludes the need for treatment in older children. But in the last decade, in most cases, treatment is carried out at the age of 13-15, when the development is almost complete. Refusal to correct teeth-jaw anomalies in the early stages of development leads to expressive disorders in the facial skeleton.

Quality and sustainability of results, Persin L. S. (2020) believe that early diagnosis and treatment of children with dental and jaw anomalies is crucial. The results of early treatment are more stable and rarely recur, as it has been found to be related to factors such as growth of the alveolar barrier in the development of growing tissues, tooth eruption and root formation.

Deep crowding of the incisors is a generalized meaning of overcrowding of the lower jaw teeth with the upper jaw teeth. Deep incisor crowding is defined as the crowding of the lower incisors by the upper incisors for more than 1/3 of the tooth crown. A. I. Deep occlusion of incisors according to Evdakimov's classification includes deep occlusion of incisors - incisor contact is preserved and deep disocclusion of incisors - there is no union of incisors, which is expressed by more deep bite.

According to various authors, deep crowding of incisors is the most common form of pathology in children and adolescents, it accounts for 37.3% to 65% of the total number of anomalies of the dental and jaw system. The prevalence of this pathology has been found to be associated with the difficulty of correction in childhood and the deterioration of the clinical condition when teeth are frequently lost.

According to most authors, bilateral complete defects of the jaws in children are hereditary. Bilateral complete defects of the jaws in children are changes in the facial skeleton, one of the jaws - macro - or micrognathia size disorder; the middle part of the face, teeth - extreme sagittal development of the jaw and reduction of the lower third of the face; teeth - an increase in the size of the jaw and the bending of the base; the anterior location of the maxillary and mandibular apical bases; deviation of both jaws, lower jaw - and retrognathia; horizontal location of the lower jaw, occlusion and palate planes; reduction of the gonial angle; the overall development of the lower jaw, which is reflected in the tooth-alveolar height and leads to a decrease in the height of the face; temporomandibular joint and mandibular retroposition; the size of the lower symphysis; is characterized by the stoppage of development of the lower jaw branches.

Bjork A., who first conducted fundamental research on the development of the tooth-jaw system. , in the opinion of children, in the formation of bilateral complete defects of the jaws, the direction of growth of the lower jaw, namely anterior rotation, or the centers of rotation located in the area of the head of the lower jaw, in the area of the premolars, are of primary importance. In this case, the author believes that if the center of rotation of the lower jaw is in the area of its head, then in the development of bilateral complete defects of the jaws in children, a decrease in the front height of the face occurs, if the center of rotation is in the area of the premolars, not only a decrease in the front height, but also an increase in the height of the back occurs.

Due to the high prevalence of caries and its complications among children, domestic and foreign authors have devoted their research to the importance of morphological changes in the dental-alveolar area associated with the early loss of

temporary and permanent teeth, often lateral teeth. According to these authors, in the development of pathological occlusion in children, the disruption of the sequence of eruption of canines and premolars after the early loss of milk teeth is important. Space deficiency occurs when abutment teeth and premolars erupt simultaneously or asymmetrically, as a result of which the abutment teeth move mesially, accumulate in the frontal area, and occlusal contacts are broken.

Kazakova A.V., Timchenko V.V., [2003] among the reasons for the development of bilateral deformities of the jaws in children, it was determined that bad habits, the pathology of the attachment of the lower lip and tongue tubercles, and the dysfunction of the masticatory muscles are related. When the tongue is located in the lateral area between the occlusions, it is observed that the teeth are not fully erupted, which leads to deepening of the bite. A short tubercle of the tongue often stops the growth of PJ in the front, which also leads to reduced bite.

Carloson J.E. [2012] distinguished the following factors that affect the development of pathological occlusion of the jaws in children: the shape of Spee's occlusion line; the ratio of the mesiodistal width of the teeth; the ratio of the shape of the crowns of the upper and lower jaw teeth; axial deviation of front tooth groups; the size of the angle between the cutting teeth.

Acharya, P. [2008] showed in their study that the formation of defects of the jaws in children was caused by incomplete development of the lower jaw.

Gadotti, I.C. [2016] show the association of bilateral complete jaw defects in children with incomplete development of the lateral jaws, suggesting that the etiological factor is most likely hypertonus of the masticatory muscles.

Timchenko V.V., Treil J., Boriann P., Castergt J. [2002] also note that hypertrophy of the masseter muscles and infraocclusion of the posterior teeth are involved in the development of bilateral complete jaw defects in children.

Kumar P. [209] believed that overocclusion of the incisors is caused only by the dento-maxillary system and infraocclusion of the incisors and mandibular molars.

REFERENCES:

1. Олимов С.Ш., ФозиловУ.А. Туғматанглай ва лаб нуқсонларида шакллантирувчи обтураторларни тайёрлаш ва қўллашнинг клиника сослари //Медицинаиинновации. – Ташкент, 2021. – Том 1, № 4. – С. 693-700.

2. Олимов С.Ш., Гаффоров С.А. Заболевания твердых тканей зубов у работников Мубаракского газоперерабатывающего завода //Российский стоматологический журнал. – 2008. – №. 6. – С. 39-40.

3. Шайтор В.М., Пономарева Е.А., Шайтор И.Н. Использование новейших медицинских технологий в реабилитации детей с врожденной краниофациальной патологией и последствиями перинатальных повреждений нервной системы // Клиническая имплантология и стоматология. - 2021. - № 1-2. - С. 88-90.

4. Цыплакова М.С. Хирургическое лечение расщелин неба // Клиническая имплантология и стоматология. - 2021. - № 1-2. - С. 88-90.

5. Eshiev A.M., Darbishev E.P., Davydova A.K. Frequency and reasons for the birth rate of children with congenital clefts in the southern region of Kyrgyzstan // Young scientist. - 2014. - No. 21. - P. 39-41.

6. Fozilov U.A. Prevention of caries development during orthodontic treatment //World Bulletin of Social Sciences. – 2021. – Vol. 3. – N10. – P. 61-66.

7. Fozilov U.A. Diagnosis and Prevention of Caries Development in Orthodontic Treatment //World Bulletin of Social Sciences. – 2021. – Vol. 3. – N10. – P. 97-104.

8. Fozilov U.A. Evaluation of the Efficiency of Demineralizing Agents in Treatment with Removable and Fixed Orthodontic Equipment in Children //International Journal on Integrated Education. – 2020. – Vol. 3. – N7. – P. 141-145.

9. Shakirova R.R., Uskova M.P., Bibik T.V. Dental anomalies in children with congenital cleft lip and/or palate in the Udmurt Republic // Practical Medicine. - 2009. - No. 1. - P. 87-88.

10. Starikova N.V., NadtochiyA.G., UdalovaN.V. Orthodontic correction of abnormal tongue position and function in children with unilateral cleft lip and palate: abstracts // 9-th European Craniofacial Congress. - Salzburg, Austria, 2021. - P. 253.

Tokarev P.V., Shulaev A.V., Plaksina L.V., Marapov D.I. The prevalence of congenital cleft lip and/or palate in the Republic of Tatarstan // Practical Medicine. - 2015. - No. 2-2. -P. 101-103.