

Impact of Quality of Life on Formation of Disocclusion of Frontal Teeth in Children with Chronic Diseases of the Respiratory System

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Abstract:

Defects and deformations of the dentition are often the reasons for the development of functional, morphological and aesthetic disorders in the dento-maxillofacial region (DMFR), and in the presence of anomalies of occlusion, the existing deviations are aggravated. The main functions of the DMF are breathing, swallowing, speaking and chewing. With deformities of the dentition, narrowing of the dental alveolar arches (DAA) of the jaws is frequent in 30.5% - 58% of cases, narrowing of the jaws, especially the upper one, is often combined with other dento-maxillofacial anomalies (DMFA). The relationship between narrowing of the jaws and impaired nasal breathing (NB) has been studied by many specialists. Facial attractiveness plays a huge role in the social life (SL) of people, being an essential psychosocial factor. The face largely determines its attractiveness and is the main means of identification and non-verbal communication.

Keywords: diagnostics, Defects and deformations of the dentition, disorders in the dento-maxillofacial region, telereöntogenografiya, ortopantografiya.

Relevance: Facial attractiveness plays a huge role in the social life (SL) of people, being an essential psychosocial factor. The face largely determines its attractiveness and is the main means of identification and non-verbal communication. According to the results of the study [1, 3, 5], 63% of patients believe that their problems with appearance negatively affected their personal life, and 44% - on SL (Shurbeleva 2003) [2, 4, 7]. Very often, it is the desire to improve the aesthetics of teeth and face that is the main reason for visiting an orthodontist [6, 7, 10, 15].

However, the opinions of experts on the reasons for the violation of NB are ambiguous. A number of experts indicate that narrowing of the upper jaw (u/j) causes a violation of NB (Poole MD 1998) [2, 4, 11, 13], others believe that violation of ND is the cause of DAD [7, 8, 10, 14], at the same time it is believed that pathology bite does not depend on the type of breathing [2, 15], other authors claim adenoids serve as an obstacle to the passage of an air stream, and also cause stagnation in the mucous membranes (MM) of the nose and often in its paranasal sinuses [1, 12], there are also a number of scientific works that assert the quality of life (QOL) of children also plays a very important role for the formation of DAA and DAD in children [3, 4, 6, 9, 15].

The aim of the study was to study the effect of the quality of life on the formation of congestion in the u /j in children with pathologies of the respiratory system.

Material and methods of research: to determine the child's quality of life, we used a questionnaire- Oral Health - Related Quality of Life (OHRQoL), proposed by Jonu M.Tefal (2002) and Pahel B.Tefal (2007) modified by Yariev O.A. (2019) in 300 children and with disorders in the maxillo(jaw)facial region (MFR), a retrospective analysis of 150 case histories of patients aged 7-15 years observed in 2015-2019 was carried out in the "Dentistry" center on the base of the Bukhara Medical Institute and the regional children's dental clinic.

The photographs of the face were taken with the natural position of the head and the shape of the face was determined using the Izard G facial index. In addition, 43 panoramic radiographs (PR) and the telerradiograph (TRG) with a visual assessment, a description of the position of the roots of the incisors in the u/j, the state of the maxillary sinuses and the nasal septum were carried out.

Results and its discussion: The obtained results on clinical disorders of DAS, somatic and ENT pathology in children with narrowing u/j in 43 children of 7-11 years old with varying degrees of narrowing u/j were divided into 2 groups, for further continuation of the therapeutic measure: 22 children with habitual mouth breathing (MB), with a expressed narrowing of the u/j, in which the distance between the palatal surfaces of the first molars of u/ j was less than 35 mm (main group - MG); and 21 children with nasal breathing, with a sufficient width of u/j (comparison group - CG) were identified. The patients' mental and physical development did not differ from the average characteristics.

Table No. 1.

Parameters	MG(n=22)	CG (n=21)
The amount of narrowing of the upper dentition in the premolar region (mm)	9,20 ± 1,8	4,4± 0,90
The amount of narrowing of the upper dentition in the molar area (mm)	8,88 ± 1,89	4,20± 0,51
The amount of shortening of the dentition (mm)	10,6± 2,3	2,8± 0,71
p	0,03	0,03

Adenotomy in preschool age in OH was performed in 30% of cases, of which 10% of children had a relapse of adenoid vegetations. Among the pathological changes in the intranasal structures in 93% of cases of OH, curvature of the nasal septum was found (GS-28%), in 64.0% of cases in children with MG, hypertrophy of the turbinates was observed (HS - 28%). Such changes in the structures of the nose cause a narrowing of the lumen of the nasal passages and indicate the presence in children of a long-term violation of NB. Changes in the maxillary sinuses (CG - 12%) in the form of edema of the maxillary sinus were revealed in 24.0% of cases in children in MG.

Investigated parameters of u/j	MG(22)	CG (21)	T	Differences are valid
Width of the incisor / base of the nose (Cl - Cr)	26,9	28, 18	2,6	Differences are valid
The width of the left half of the incisal region of the u/j (Cl-M)	13,1	13,1	1,5	Results are random
The width of the right half of the incisal region of the u/j (M-Cr)	12,7	14,58	2,19	Differences are valid

Thus, the lumen of the airways according to TRG data in the group of children with narrowing u/j (MG) is significantly less (38%) than in children with in CG (46.2%). R-signs according to OPG data: narrowing of the nasal passages, curvature of the nasal septum, convergence of the roots of the upper permanent incisors are symptoms of narrowing of u/j and should be taken into account when planning orthodontic correction.

From the anamnesis, we found that children with significant narrowing of u/j in 64% of cases had ENT diseases in the anamnesis. A clinical analysis of these cases showed that children quickly fatigue during physical exertion and after school (40%), a disorder of lip closure (32%), a violation

of the purity of the pronunciation of speech sounds (24%). Disorder in NB caused by chronic diseases of the nasopharynx persisted for a long period of time in 48% of patients. When determining the facial index of Izard G., we found that children with narrowing of u/j are more often characterized by a "narrow face", which indicates a tendency to an increase in the height of the face with prolonged MB in children. Bilateral exo-occlusion in 52% of cases, unilateral exo-occlusion with displacement of the l/j in 28% of children indicate skeletal insufficiency of the width of the u/j in the MG.

Literature.

1. Постолаки А. Фрактальная организация в природе и зубочелюстной системе человека на основе спиральной симметрии/ А. Постолаки // ДентАрт. – 2009. – №4. – С. 51-63.
2. Семкин В.А. Изменения функционального состояния жевательных мышц при врожденных деформациях нижней челюсти на этапах лечения / В.А. Семкин, Т.А. Лакшина, В.С. Серпуховитин // Стоматология. – 2006. – Т. 85, №1. – С. 46-49.
3. Гиззатуллина Ф.В., Маннанова Ф.Ф. Алгоритм комплексной ортодонтической реабилитации детей в периоде прикуса смены зубов с суставной формой трансверсальной аномалии окклюзии // ДЕТСКАЯ СТОМАТОЛОГИЯ и ОРТОДОНТИЯ / Dentistry of childhood and Orthodontics - 2015. № 1 - С. 50-53.
4. Яркин В.В. Взаимосвязь асимметрии и морфофункционального состояния зубочелюстнолицевой системы // В.В. Яркин, Г.Б. Оспанова // Ортодонтия. – 2009. – № 1(45). – С. 95-96.
5. Слабковская А.Б. Ортодонтия. Диагностика и лечение трансверсальных аномалий окклюзии / А.Б. Слабковская, Л.С. Персин. – М.: ООО «Балтопринт», 2010. – 228 с.
6. Манин А.И. Распространенность аномалий зубов у жителей различных регионов России / А.И. Манин, М.В. Ретинская, В.Л. Тачиева [и др.] // Ортодонтия. – 2008. – № 1(25). – С. 9-12.
7. Персин Л.С. Основы протетической стоматологии детского возраста / Л.С. Персин. – М.: ФГОУ «ВУНМЦ Росздрава», 2008. – 191 с.
8. Хорошилкина Ф.Я. Ортодонтия. Профилактика и лечение функциональных, морфологических и эстетических нарушений в зубочелюстно-лицевой области / Ф.Я. Хорошилкина, Л.С. Персин, В.П. Окушко - Калашникова. – М., 2005. – Кн. IV. – 454 с.
9. Durdiev J.I. Influence of the quality of life on the formation of the upper jaw in children with pathologies of the respiratory system // world medicine journal. Poland // 2021. pp. 182-186.
10. Durdiev J.I., Gaffarov S.A. Influence of the quality of life on the formation of the upper jaw in children with respiratory system pathologies. // International Journal of Innovations in Engineering Research and Technology [IJERT] August, 2020. Page :19-23
11. Durdiev J.I., Gaffarov S.A., Olimov S.Sh. Morphometric features of the dentition in children with chronic diseases of the upper and middle respiratory organs // Uzbek Medical Journal. – 2020. – №3. – С. 28-32 (14.00.00; №8)
12. Durdiev J.I, Badriddinov B.B, Olimov S.Sh., Nafas olish tizimi kasalliklarida bolalarda tish jag'suyak a'zolari shakllanishining morfometrik xususiyatlari // Journal of medicine and innovations. Toshkent // 2021. pp 261-273.

13. Gafforov S. A., Durdiev J. I. Violation of the formation of bone organs of the dentition system in children with respiratory system pathologies //ACADEMICIA: An International Multidisciplinary Research Journal. – 2020. – T. 10. – №. 4. – C. 325-333. (Impact factor 7,492)
14. Saidov A.A. Assessment of some indicators of oral liquid in children with the pathology of the temior-lower under jaw joint // Asian Journal of Multidimensional Research, Indiya, 2020.Vol 9, Issue 1, january. – P. 59-63.
15. Olimov S.Sh., Durdiev J.I. The effect of quality of life on the formation of the dental system in children with pathology of the respiratory system // Asian Symposium on Humanitarian Analyses The conference will be on 29-30th of September in Amsterdam, Netherlands. USA 2021 pp. 122-125.