

yoshgacha bo'lgan aralash tishlarda 10 nafar (43,48 foiz) o'g'il va 13 nafar (56,52 foiz) qiz, fiziologik okklyuziyon va tish tizimining anomaliyalari va deformatsiyalari yo'qligi, tibbiy ko'rik davomida tanlangan. Toshkent shahridagi maktab o'quvchilari soni, shu jumladan, 6 nafar (28,21 foiz) boshlang'ich aralash tish tishlari va 17 nafar (71,79 foiz) kech aralash tishlar. **Natijalar:** tavsiya etilgan qurilma stomatologik tizimning anomaliyalari va deformatsiyalarini, ya'ni yuqori jag'ning torayishi bilan ortodontik davolashda sinovdan o'tkazildi. Foydalanish natijalariga ko'ra quyidagilar qayd etildi: terapevtik ta'simi tezda olish, yuqori jag'ning nosimmetrik kengayishini amalga oshirish imkoniyati; boshqa nosozliklarni tuzatish uchun stasionar asboblardan bilan kombinatsiya. **Xulosa:** tavsiya etilgan ortodontik qurilma foydalanish mumkin, davolashda samarali, foydalanish uchun qulay va amaliy ortodontik stomatologiyada foydalanish uchun tavsiya etilishi mumkin.

Kalit so'zlar: tish, tishlash, ortodontik davolash, ortodontik apparatlar, jag'ning torayishi, rentgenografiya, antropometriya.

Objective: To improve the method of orthodontic treatment of narrowing of the upper jaw dentition in children. **Material and methods:** 116 children aged 6 to 14 years with mixed and

permanent dentition with a narrowing of the upper jaw and speech impairment were observed, of which 67 (57.76%) were girls and 49 (42.24%) boys. The control group consisted of 23 children: 10 (43.48%) boys and 13 (56.52%) girls in mixed dentition from 6 to 14 years old with physiological occlusion and the absence of anomalies and deformations of the dental system, selected during a medical examination of schoolchildren in Tashkent, including 6 (28.21%) with initial mixed dentition and 17 (71.79%) with late mixed dentition. **Results:** The proposed device has been tested in the orthodontic treatment of anomalies and deformations of the dental system, namely with a narrowing of the upper jaw. Based on the results of use, the following was noted: rapid receipt of a therapeutic effect, the possibility of performing a symmetrical expansion of the upper jaw; combination with fixed appliances to correct other malocclusions. **Conclusions:** The proposed orthodontic device is accessible, effective in treatment, convenient to use, and can be recommended for use in practical orthodontic dentistry.

Key words: tooth, bite, orthodontic treatment, orthodontic apparatus, jaw narrowing, radiography, anthropometry.

UDK: 616.314.26-007.1/26-089.819.843

FEATURES OF DIAGNOSIS IN CHILDREN WITH OPEN BITE



Aralov M.B.

Tashkent State Dental Institute

Recently, a set of measures has been implemented in the city of Tashkent aimed at improving, diagnosing and treating vertical anomalies, namely open bite, and at the moment many scientists and practitioners have begun to study more deeply the factors leading to the development of this anomaly. In clinical practice, etiological factors, endogenous and exogenous factors, as well as the living conditions of the patient, taking into account the patient's age, are of particular importance. We carried out preventive measures for children aged 6 to 15 in 35 patients with open bite [1,2].

Taking into account all aspects of this anomaly, we set ourselves the task of diagnosing patients with open bite using modern methods,

taking into account their age and type of anomaly.

Open bite is considered as an independent form of dental anomalies, and can be combined with other disorders in the transversal or sagittal direction [3].

According to the literature, open bite in 62% of cases occurs together with the mesial relationship of the dentition.

An open bite is a serious anomaly of the dental system. Based on the results of the survey and observation of Nigmatov R.N., Shaamukhamedova F.A., Nigmatova I.M. (2017) among children aged 3-6 years, open bite was 1.4%. According to L.P. Grigorieva (1995), 1.12% in children 7-16 years old. 2.7% in the

distribution of anomalies of the dentofacial system [5,6].

However, a number of researchers claim that by the age of 9-10 years, the incidence of open bite decreases, which is associated with the elimination of bad habits that contribute to the development of the anomaly, as well as with the normalization of breathing and swallowing functions. In later adolescence, there may be a resurgence in the prevalence of open bite due to delayed bone growth in the facial region [4,7,8].

Worldwide among hereditary factors underdevelopment in the frontal area of the alveolar process, have an important role in the growth and development of the child, as well as sleep, because during sleep, the child lies with his head thrown back and the increased size of the volume of the tongue is macroglossia, which in the future can lead to the development of Vitamin D-dependent rickets (VDR).

An important causative factor in the development of VDR is the premature removal of primary lateral teeth in the lower jaw in children and the development of the Popov-Godon phenomenon with dentoalveolar elongation in the area of the upper lateral teeth.

Taking into account all of the above factors that led to the development of VDR, it is necessary to improve the method of diagnosis and treatment aimed at preventing the development of this anomaly. To improve the quality of early diagnosis and treatment of patients with dentoalveolar anomalies with predominant localization of disorders in the vertical direction by developing new preventive treatment methods and modifying methods for

cephalometric analysis of the face and prediction of the occlusal plane.

Purpose of the study

Defining diagnostic criteria using cephalometric measurements; specific parameters of the dentofacial complex in children with an open bite, narrowing and shape of the dentition using anthropometric and graphic research methods.

Materials and methods

The study was conducted among schoolchildren in the city of Tashkent No. 279, No. 256 aged 6 to 15 years. Of the 398 students examined, 35 had an open bite, of which 16 were boys and 19 were girls, representing 8.8%, the average age of the children was 6-15 years. The following examination methods were performed: clinical examinations (photometry), biometric methods, x-ray examinations (frontal and lateral TRG and cephalometric analysis) and the main functions of the dental system were determined.

Biometric research methods according to Pon were carried out to determine the degree of narrowing of the dentition in adolescents with VDR during the period of mixed and permanent dentition, using plaster models of patients and measuring the width of the dental arches using measuring points.

We carried out X-ray studies using OPTG and TRG, carried out calculations of TRG and analyzed these results, and found that when studying teleroentgenograms of the head in the lateral projection, they revealed a displacement of the lower jaw, an increase in $B, NSe/MP$, as well as a decrease in the horizontal angle, inclination Pn/MP , NSe/Po , $Is-SPp$.

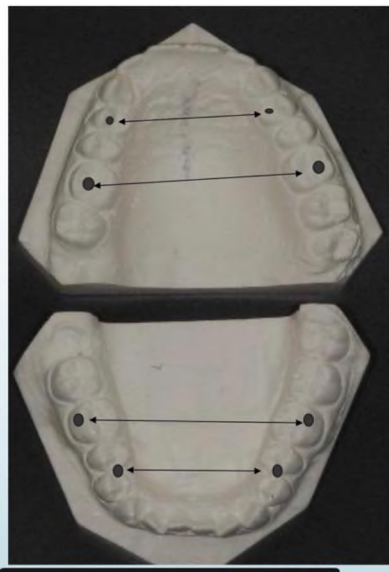


Fig. 1. Patient T. 15 years old, plaster model using the Pont method.



Fig. 2. Photometry of the same patient.



Fig. 3. OPTG of the same patient.

Fig. 4. TRG of the same patient.

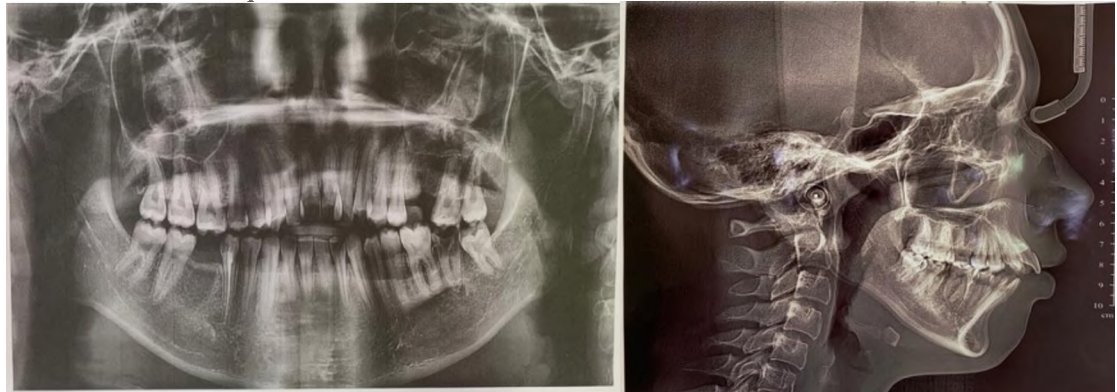


Fig.5. Patient A, 17 years old, OPTG.

Fig.6. Patient A, 17 years old TRG.

Conclusion

1. Based on the results of a survey of 35 adolescents using clinical and radiological studies, it was revealed that an open bite developed in children as a result of bad habits 4, hereditary factor 3 and - in 6 children, a rachitic open bite. In the biometric analysis of control models according to Pont, a narrowing of the dentition was found in 10 patients. In the anterior part of the teeth according to Corkhouse, 5 cases of protrusion and 7 cases of retrusion were identified.

2. We also carried out X-ray (TRG) studies, which determined changes in the position of the lower jaw, increasing the angle B, NSe/MP, FMA and decreasing the horizontal angle, inclination Pn/MP, NSe/Po, Is-SPp, CF.

3. Taking into account all of the above research methods, which is aimed at early diagnosis and proper treatment.

References

1. Анохина А.В., Хабибуллина Л.Ф. Оценка частоты и структуры зубочелюстных аномалий у школьников г. Казани в возрасте 12-15 лет // Здоровье и образование в XXI веке. – 2016. – №2.
2. Аралов М., Нигматова И. Дифференцированный подход коррекции речи детей с открытым прикусом // Акт. пробл. стоматол. и челюстно-лицевой хир. – 2021. – Т. 1, №01. – С. 195-196.

3. Ипполитов Ю.А., Татринцев М.М., Коваленко М.М. и др. Оценка эпидемиологической картины зубочелюстных аномалий и деформаций у детей дошкольного возраста с ранней потерей временных зубов // Вестн. новых медицинских технологий. Электронное издание. – 2013. – №1.

4. Морозова Н.В., Слабковская А.Б. Влияние ранней потери молочных зубов на формирование постоянных зубов // Ортодонтия. – 2016. – №4. – С. 2-7.

5. Морозова Н.В., Слабковская А.Б. Влияние ранней потери передних молочных зубов на формирование зубочелюстных аномалий // Ортодонтия. – 2018. – №3 (83). – С. 26-33.

6. Нигматов Р. и др. Анализ современных методов оценки окклюзии у детей с ранней потерей молочных зубов // Stomatologiya. – 2021. – №2 (83). – С. 36-39.

7. Рузметова И.М., Нигматов Р., Шомухамедова Ф.А. Изучение аномалии зубочелюстной системы и профилактика вторичных деформаций зубной дуги у детей в период сменного прикуса // Вестн. КГМА им. И.К. Ахунбаева. – 2015. – №4. – С. 50-55.

8. Рузметова И.М., Нигматов Р.Н. Анализ ортопантограммы при вторичных деформациях зубного ряда у детей в период сменного прикуса // Stomatologiya. – 2017. – №4. – С. 56-58.

Objective: Defining diagnostic criteria using cephalometric measurements; specific parameters of the dentofacial complex in children with an open bite, narrowing and shape of the dentition using anthropometric and graphic research methods. **Materials and methods:** The study was conducted among schoolchildren in the city of Tashkent No. 279, No. 256 aged 6 to 15 years. Of the 398 students examined, 35 had an open bite, of which 16 were boys and 19 were girls, representing 8.8%, the average age of the children was 6-15 years. The following examination methods were performed: clinical examinations (photometry), biometric methods, x-ray examinations (frontal and lateral TRG and cephalometric analysis) and the main functions of the dental system were determined. **Results:**

Цель: определение диагностических критериев с использованием цефалометрических измерений; специфические параметры зубочелюстного комплекса у детей с открытым прикусом, сужением и формой зубных рядов с использованием антропометрических и графических методов исследования. **Материал и методы:** среди учащихся школ №279 и №256 г. Ташкенте в возрасте от 6 до 15 лет проводились клинический осмотр (фотометрия), биометрические методы, рентгенологические исследования (фронтальная и боковая ТРГ и цефалометрический анализ), определяли основные функции зубочелюстной системы. Открытый прикус диагностирован у 35, из них 16 мальчиков и 19 девочек. **Результаты:** было выявлено, что открытый прикус развился у детей вследствие вредных привычек, наследственного фактора, у 6 детей был рахитический открытый прикус. При биометрическом анализе контрольных моделей по Понту у 10 обследованных обнаружено сужение зубного ряда. В переднем отделе зубов по Коркхаусу выявлено 5 случаев протрузии и 7 случаев ретрузии. **Выводы:** перечисленные методы исследования обеспечивают на раннюю диагностику и помогают выбрать правильное лечение.

Ключевые слова: дети, открытый прикус, вредные привычки, наследственный фактор.

Maqsad: sefalometrik o'lchovlar yordamida diagnostika mezonlarini aniqlash; Antropometrik

va grafik tadqiqot usullaridan foydalangan holda ochiq tishlash, torayish va tishlarning shakli bo'lgan bolalarda dentofasial kompleksning o'ziga xos parametrlari. **Material va metodlar:** Toshkent shahridagi 279 va 256-sonli maktab o'quvchilari o'rtasida 6 yoshdan 15 yoshgacha bo'lgan o'quvchilar o'rtasida klinik ko'rik (fotometriya), biometrik usullar, rentgenografiya (frontal va lateral TRG va sefalometrik tahlil) o'tkazildi, va stomatologik tizimning asosiy vazifalari aniqlandi. Ochiq tishlash 35 nafar bemorda aniqlangan, ulardan 16 nafari o'g'il bolalar, 19 nafari qizlar. **Natijalar:** yomon odatlar va irsiy omil tufayli bolalarda ochiq tishlash rivojlanishi aniqlandi, 6 bolada raxitik ochiq tishlash kuzatildi. Pontga ko'ra nazorat modellarining biometrik tahlili davomida tekshirilgan 10 bemorda tishlarning torayishi aniqlangan. Tishlarning oldingi qismida, Korkhaus ma'lumotlariga ko'ra, 5 ta protrusion va 7 ta retrusion holati aniqlangan. **Xulosa:** sanab o'tilgan tadqiqot usullari erta tashxis qo'yish va to'g'ri davolanishni tanlashga yordam beradi.

Kalit so'zlar: bolalar, ochiq tishlash, yomon odatlar, irsiy omil.

Objective: Definition of diagnostic criteria using cephalometric measurements; specific parameters of the dentofacial complex in children with an open bite, narrowing and shape of the dentition using anthropometric and graphic research methods. **Material and methods:** Among students of schools No. 279 and No. 256 in Tashkent aged 6 to 15 years, a clinical examination (photometry), biometric methods, X-ray studies (frontal and lateral TRG and cephalometric analysis) were carried out, and the main functions of the dental system were determined. Open bite was diagnosed in 35 patients, of which 16 were boys and 19 were girls. **Results:** It was revealed that an open bite developed in children due to bad habits and a hereditary factor; 6 children had a rachitic open bite. During biometric analysis of control models according to Pont, a narrowing of the dentition was found in 10 examined patients. In the anterior part of the teeth, according to Corkhouse, 5 cases of protrusion and 7 cases of retrusion were identified. **Conclusions:** The listed research methods provide early diagnosis and help choose the right treatment.

Key words: children, open bite, bad habits, hereditary factor.