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Identifying Anomalies and Deformations of the Dental System and Providing Orthodontic Assistance

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Abstract: Anomalies and deformations of the face-jaw area in Uzbekistan also have a tendency to increase sharply among children and adolescents, and it is stated in a number of literatures that they have reached from 15% to 40%. And in Russia - from 17% to 55%. We know that pathological bites, if not treated in time, are accompanied by changes in the elements of the temporomandibular joint. These conditions lead to occlusal-articulatory dysfunction syndrome. This article provides information on the level of need for orthodontic care in school-aged children.

Keywords: tooth-jaw system, deformity, orthodontic care, children.

Relevance of the topic. Among dental diseases, tooth-jaw anomalies occupy the third place after dental caries and periodontal diseases in terms of incidence and prevalence [Sysolyatin P.G., Ilin A.A., Dergilev A.P., 2001; Ozkan N., Sarikaya B., Erkorkmaz U. et al., 2010].

In most cases, as a result of the lack of early diagnosis and treatment of anomalies of the dental-jaw system among children, the issues of the origin of these defects and prevention of complications are considered one of the urgent problems of today [Minaeva R.N. 1994; Malygin Yu.M., Berseneva Ye.L. 2000; Bardsley P.F. 2004].

All of the above confirms the need for new approaches to the correct and timely organization of orthodontic care in children.

Purpose of the study. To determine the prevalence of dental and jaw anomalies among children and the extent of the need for orthodontic care and to prevent their negative consequences.

Material and methods. Observation method, photometric method, anthropometric examination, X-ray examination methods were used to determine anomalies and deformations of the tooth-jaw system.

During the clinical examination, anamnesis was collected, we paid attention to the presence of local and general body diseases, the state of taste perception, unpleasant taste in the mouth, salivation. During the examination of the teeth, we paid attention to its color, size, location, the presence of cracked and broken teeth, increased or decreased sensitivity, movement. During the examination of the organs and tissues of the oral cavity, we looked at teeth and rows of teeth, bite, periodontal condition, we paid attention to the presence of dental fillings, dental prostheses and their condition. .

The state of the soft tissues of the facial profile was assessed using the photometric method. Clinical photography in orthodontics includes external and intraoral photography. Before and after orthodontic treatment, it has important clinical value in the diagnosis of anomalies of the dental row, in evaluating the effectiveness of treatment methods and in order to further improve them. During the initial reception, it is not always possible to determine important changes such as the condition of the profile, the presence of facial asymmetry, bite characteristics. Photographs allow to determine the type of the disease in the absence of the patient. Unlike control models, they are always on the computer, and viewing them saves the doctor's time. In addition, photos are good visual material for scientific publications and presentations.

X-ray examination plays a key role in functional examinations of teeth, jaw and temporomandibular joint. X-ray examination methods were carried out at Denta Bio private clinic.

Our orthopantomogram examinations showed that the main group of our patients provided an opportunity to analyze the state of the arch of the upper and lower jaw rows, the relation of the bite and the sequence of teeth eruption.

Teleroentgenography is an X-ray examination method that is initially carried out at a long distance (about 1.5 meters). In this examination, the X-ray rays take a parallel direction relative to each other, and by minimizing projection distortions, they show the object under study in the minimum position. As a result, head and neck pictures can be taken in full size, which is also an advantage of this research method. Currently, there is a method of converting a three-dimensional image into a plane. There are two types of teleroentgenography: side (sagittal) projection and direct frontal (frontal) projection can be.

Monitoring results. We identified symptoms of tooth-jaw deformities in 76.5% of children. In order to fulfill the stated tasks, we examined 96 children in our scientific research, including 110 patients of middle school students with tooth-jaw anomalies. They applied to the Bukhara State Medical Institute "Educational-Scientific-Practical Center of Stomatology" and children's dental polyclinic in Bukhara for treatment.

In order to study and evaluate the dental condition of the oral cavity (OB hygiene status, periodontological index, caries indicators, facial morphometric parameters), anamnestic and medical-social data were collected from all subjects aged 6 to 18 living in Bukhara. data received.

Investigations showed that the prevalence of dental caries in children of this age was 69.8% on average. At the age of 10, the prevalence of caries is 64.3%; 62.1% at age 13; At the age of 15 - 45.1%, at the age of 18 - 38.6% ($r<0.001$). In children, carious cavities are distributed mainly on the occlusal surfaces of molars, in natural cavities and fissures, in addition, carious foci in the form of chalky spots were noted on the neck of incisors and on the proximal surface. The intensity of caries of permanent teeth was very high for this age and was 5.22 ± 0.16 in children of the main group. The level of caries intensity of permanent teeth in the children of the control group was significantly lower than that of the children in the comparison group and was 1.22 ± 0.34.

Studies have shown that the highest rate of growth of the physiological height of the face was observed in the main group of children aged 14-18 years. The physiological height of the face in healthy boys aged 14-18 years is 19.01±0.10 cm on average (there is no growth rate), and in girls this parameter is on average 18.00±0 ,10 cm (growth rate -2.0%) was around. The morphological height of the face in healthy children is on average 13.01±0.03 (growth rate - 1.2%), and in girls it is on average 13.00±0.06 (growth rate -1, 4%) was around.

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