

**MODERN TREATMENT WITH DENTAL ALIGNERS: THE PROSPECTS OF A
PRACTICING PHYSICIAN**

Mehriniso Kilichevna Kamalova ¹,

Zamira Akramovna Usmonova ²

¹DSc., Professor of the Department of Surgical Dentistry
of the Abu Ali ibn Sina Bukhara State Medical Institute, Uzbekistan.

ORCID ID 0000-0003-1603-9164

E-mail: mexriniso.stomatolog@mail.ru

²Dentist of the 3rd family polyclinic of the city of Bukhara,
Research Candidate, Uzbekistan

Introduction

Malocclusion is a problem that affects 70% of the world's population. Both conservative and surgical methods are used to correct this defect. Modern orthodontics has a lot of opportunities for non-surgical restoration of the aesthetics of the dentition, the most common and effective structures are aligners. This analysis presents the frequency of use of dental aligners, which have a great influence on the formation of the dental system of the patient. The data presented in the article can be useful for the development of preventive and therapeutic measures, in the prognosis and management of children with this pathology in an individual and family perspective.

Keywords: orthodontic equipment, dental aligners, braces, aesthetic discomfort, maxillofacial area.

Purpose of the study. To study the dental components of the quality of life of adult patients undergoing orthodontic treatment using dental aligners.

Material and methods of research. The modern scientific literature on the types, materials and diagnostics of dental aligners has been studied. The search was carried out in Pubmed, e-library and other systems by keywords: children, from 6 to 35 years old, organization of medical care, orthodontic appliances, maxillofacial deformities, risk factors for jaw deformities. In total, 50 works published on the topic of the study in Russian and English in the period from 2013 to 2023 were critically analyzed on the topic of the study.

Results and discussions. The duration of treatment with aligners coincides with the correction of bite by braces and varies from 9 months to 2 years, depending on the characteristics of the anomaly and how responsibly the patient follows the doctor's recommendations during treatment. The frequency of visits to the orthodontist to monitor the treatment and correction process is

approximately once every 2 months. During the first weeks of wearing the structures, there is a movement of teeth up to 1 mm. In the absence of teeth. If the patient does not have a significant number of supporting teeth, then treatment is impossible. However, sometimes it is necessary to remove some teeth in order to correct the bite. Most often these are wisdom teeth or premolars. The question of treatment with aligners in the absence of teeth, as well as the need for tooth extraction before orthodontic treatment, is decided by the doctor. The distal occlusion (the lower jaw is shifted backwards) is well amenable to correction with the help of aligners. In comparison with braces, the process will be slower, but the absence of discomfort and dietary restrictions make this treatment option softer and more convenient. Mesial occlusion (the lower jaw protrudes forward) in most cases requires a comprehensive correction, which combines the wearing of braces or aligners with surgery on the jaw. Mouthguards in this scheme perform the function of aligning teeth and ensuring their closeness and can be a good alternative to braces. Crossbite is characterized by an asymmetrical closure of the teeth and a violation of the function of chewing. Pathology is visible from childhood and should be corrected from an early age. Effective treatment in childhood is possible with the help of transparent mouthguards. The older the patient, the more likely they are to need braces and even surgery. If the jaws are not closed, the treatment with aligners is possible, The effectiveness of the method depends on the initial situation. It should be understood that achieving an even dentition does not mean correcting all bite problems. If the teeth do not close after aligners, this is a sign of poor-quality orthodontic treatment. Aligners for the TMJ (temporomandibular joint) with its dysfunction are not contraindicated, however, it should be understood that only wearing mouthguards will not solve the problem with the joint. It requires a search for the causes of dysfunction and a comprehensive approach to their elimination.

Conclusion. The idea of using clear aligners with little or no investment is really appealing. One can imagine the many benefits of this aligner system for intensive practice seeking greater efficiency, patient satisfaction, and profitability. Indeed, a large number of nozzles for clear aligner cases is not always necessary or desirable.

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