



ROLE OF CLINICAL AND FUNCTIONAL STUDIES IN THE DIAGNOSIS OF PERIODONTAL DISEASES DURING ORTHOPEDIC TREATMENT

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<https://doi.org/10.5281/zenodo.10650883>

ARTICLE INFO

Received: 07th February 2024

Accepted: 09th February 2024

Published: 12th February 2024

KEYWORDS

*Caries, periodontium, disease,
prevalence, oral cavity,
orthopedic treatment.*

ABSTRACT

In modern society, oral diseases have humanitarian, socio-economic significance. Today, caries and periodontal disease remain the most common diseases dental problems not only among adults, but also among younger populations throughout the world. According to recent epidemiological studies conducted on healthy children, the incidence of dental pathology is high, with the prevalence of caries among healthy age groups 12–15 years being 63.3–83 years, 4% and 81.7–88.7%, intensity 3.02 -3.75 and 4.6-5.73, and the prevalence of periodontal tissue diseases in the group of healthy 12-year-old children ranged from 37.8% to 50%, in the 15-year-old group of children it ranged from 57.7% to 84.7%.

Purpose of the study : Increasing the effectiveness of early diagnosis, prevention of caries and periodontal diseases in individuals using fixed orthodontic structures.

Introduction: Dentofacial anomalies belong to the group of major dental diseases and are characterized by high prevalence. Caries is a complex, slow-flowing pathological process that occurs in the hard tissues of the tooth and develops as a result of the complex influence of unfavorable external and internal factors. Currently, the prevalence of dentofacial anomalies in children and adolescents in the CIS countries is 50-80%, with 37% of the population in need of specialized orthodontic care. If previously removable appliances were used in 90% of cases, now they are used in only 16% of cases. Today, 84% of patients are treated using fixed appliances Dental occlusion increases the risk of other dental diseases and complicate the process of preparing food for digestion and assimilation, creating aesthetic and associated psychological problems. Real or imagined cosmetic defects accompanying anomalies in the structure of the dental system can become a source of moral suffering and inferiority complexes for a person. The prevalence of inflammatory periodontal diseases remains at a high level. In the initial stage of development, caries is characterized by focal demineralization of the inorganic part of the enamel and destruction of its organic matrix.

The introduction of new technologies and materials into dentistry makes it possible to achieve optimal functional and aesthetic results during orthodontic treatment using fixed equipment.

Purpose of the study: Increasing the effectiveness of early diagnosis, prevention of caries and periodontal diseases in individuals using fixed orthodontic structures

Materials and methods of research. The study used clinical, laboratory, biochemical and statistical research methods. Subject of the study: 120 young people aged 13-20 years, with dentofacial anomalies and deformities, requiring orthodontic treatment using a brace system fixed vestibularly in the Samarkand children's and adult regional dental clinics. Subject of research: hard dental tissues and periodontium. The information received will be entered into the Excel "database", and the material will be analyzed using multivariate mathematical statistics methods.

Scientific novelty of the research.

For the first time, a comprehensive assessment of the condition of hard dental tissues and periodontal tissues will be carried out, and the dynamics of changes in the hygienic state of children and adolescents with dentofacial anomalies and deformities will be established using a brace system.

Differential signs of the severity of inflammatory and destructive changes in the periodontium will be determined, and the mineralizing properties of the oral fluid will be studied.

the mucosal epithelium and the cell population of epithelial cells, leading to a weakening of the barrier properties in patients using a fixed orthodontic structure, will be studied using the cytomorphometry method.

The proposed complex of treatment and prophylactic methods and means will reduce the risk of the initial stages of dental caries and periodontal tissue diseases during treatment with fixed orthodontic appliances and can be used in the daily practice of an orthodontist.

Conclusions: The identified dynamics of clinical and microbiological changes will make it possible to clarify recommendations for early diagnosis and prevention of dental diseases, as well as dysbiotic changes at various stages of orthodontic treatment with fixed appliances.

For practical healthcare, high-quality diagnostic criteria will be developed and proposed, allowing for a differentiated approach in predicting the risks of developing caries and exacerbation of inflammatory periodontal diseases, as well as facilitating the selection of the most rational treatment and preventive measures with an assessment of their effectiveness.

The use of the cytomorphometric method when examining patients with dentoalveolar anomalies will make it possible to rationally apply the developed algorithm of treatment and preventive measures in the process of orthodontic treatment, which allows obtaining a significant clinical effect and reducing the number of inflammatory complications in periodontal tissues.

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