



Functional Assessment of Marginal Gum Tissue of Supporting and Retaining Teeth, Taking into Account the Design Features of Metal-Ceramic Prostheses

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Abstract: Relevance. In this regard, to improve methods for diagnosing the condition of oral tissues; development of new models of dentures; development of orthopedic prostheses for internal bone implants; to determine the shape of dentures, as well as their physico-chemical properties; detection of cancer in the area of periimplantitis; development of prostheses of special design with a different set of shapes and sizes that allow patients to operate in any clinical setting; The priority area of research remains the improvement of modern technologies in dentures. In addition, preventing possible complications by creating dentures, determining the state of microcirculation in the tissues around dentures, determining the level of pressure on the periodontal teeth after prosthetics with insoluble dental structures and adapting to the dentition to restore chewing function are the most pressing issues.

Such tasks as increasing the efficiency, quality and popularity of medical care, as well as the formation of a system of medical standardization, the introduction of high-tech methods of diagnosis and treatment, the creation of effective models of patronage and dispensary, support of a healthy lifestyle and the function of preventive diseases are noted. One of the important tasks in this regard is to bring dentures in line with international standards and to develop highly effective modern methods of orthopedic treatment based on dentures among people of different age categories.

Today, a number of research projects are being carried out in the world to improve various methods of prosthetics using dentures, including in the following priority areas: Improvement of methods for diagnosing the condition of oral tissues; development of new models of dentition; development of fixed orthopedic prostheses; determination of materials of fixed orthopedic prostheses and their physico-chemical properties; development of structural prostheses with various kits; improvement of modern technologies in dentures.

The installation of dentures eliminates the shortcomings of the dentition not only functionally, but also aesthetically, which increases its social significance. Despite the development of dental science, the growth of diseases of the oral cavity remains high, which is expressed in the need for prosthetics of dental defects. The main problem for the patient is the issue of prosthetics and service life, changes in the state of tissues (Khabilov N.L., Akbarov A.N., Arslanov O.Yu., Usmanov F.K., Ziyadullayeva N.S., 2018).

In the articles of researchers from Hadas University (Israel), the level of bone tissue from the mesial and distal sides of dentures was measured directly on the day of implantation, 3 and 6 months after implantation and a year after radiography. One-stage and two-stage protocols showed that there was

no difference in the rate of reduction of marginal bone loss and that the survival rate of the main teeth was 100% (Vanyan N.G., 2011). However, the problem of determining the criteria for choosing models of dentures by assessing their immunological, functional characteristics of the oral cavity, their osseointegration in accordance with the condition of the soft tissues of the bone and jaw remains relevant.

Evaluation of the physico-chemical properties of metal-ceramic structures is an achievement of effective treatment of dental anomalies, prevention of complications of the disease, restoration of the normal physiological state of chewing ability after recovery [2.4.6.8.10.12].

The scientific significance of the results of the study consisted in the clinical and pathogenetic substantiation of the effectiveness of various methods of prosthetics with dentures, which marked the beginning of further in-depth research in the country; for the first time in a month there was a doubling of blood supply around the tooth, and this is explained by the fact that under the influence of early functional load, the rhythmic blood circulation of connective tissue was reduced, the tone of the vascular wall was increased and new aspects of the pathogenesis of diseases.

The practical significance of the results of the study lies in the fact that the use of metal ceramics and dentures made of zircon to increase the effectiveness of prosthetics and treatment of secondary partial adentias led to effective treatment of toothless dentition instead of traditional treatment. The use of metal ceramics and dentures made of zircon can be successfully used in the practice of dentists in the effective treatment of dental anomalies.

Immunological studies were conducted in the laboratory of Immunology of the Institute of Human Immunology and Genomics of the Academy of Sciences of the Republic of Uzbekistan. 210 people were examined: the main group consisted of 180 patients with defects of dentition and hard tissues of teeth. Immunological studies were carried out using enzyme immunoassay (ELISA) to determine the amount of IgG, IgM and sIgA class immunoglobulins, cytokines - IL - 4, IL - 6, TNF- α , IL-1 β . oral fluid (RV).

The method of immune analysis used by us was carried out in two stages. To detect immunoglobulins of the sIgA, IgG, IgM classes in patients with inflammatory diseases of various orthopedic structures and periodontitis and in the control group, at the first stage, caliber samples with a known concentration of the corresponding immunoglobulin and analyzed samples with immobilized monoclonal antibodies to specific immunoglobulins were isolated. Immunoglobulin binds to monoclonal antibodies immobilized in the cell, then the tablet is washed with a voshler to separate it from the excess conjugate.

Thus, immune complexes "immobilized monoclonal antibody-IgG conjugate" were formed, followed by an enzymatic reaction with a chromogen (tetramethylbenzidine) using hydrogen peroxide and peroxidase, which were detected in this way. The chromogen staining intensity corresponded to the IgG concentration in the analyzed sample.

At the first stage, we conducted a retrospective analysis of outpatient medical records of 1984 patients aged 18 to 70 years who sought dental care in 2015-19. As a result of the analysis, we found that 1,154 (58.1%) patients needed orthopedic treatment, including 793 people who sought orthopedic help. Among those who applied for orthopedic care, 486 (61.3%) were women and 307 (38.7%) men.

As a result of our study, the majority of patients with orthopedic profile were patients with DZR1 - 31%, followed by patients with DTTZ - 28%, patients with DZRSH - 18%, DRZ11 - 15% and DZR1U - 6%. The lowest proportion was in the category of patients without teeth - 2%. The prevalence of defects in dentition and hard tissues of teeth among patients seeking orthopedic care.

Diagnostic monitoring of the periodontal condition was carried out before and after the installation of cermets and zirconium coatings, as well as for 1, 3, 6, 12 months after primary and repeated prosthetics in the area of the location of the main teeth.

At the second stage, we conducted a study involving 420 patients in the period from 2019 to 2021 who did not have severe concomitant visceral pathology, defects of dentition and hard tissues of teeth, as well as PVZ. Of these, 296 were women, which was 70.5%, and 124 men - 29.5%, respectively. Gingivitis was 26.9% (113 people) in patients with defects of dentures and hard tissues of teeth, CPLS - 33.3% (140 people), CPSS - 32.4% (136 people), CPT - 7.4% of cases (31 people) was identified.

We analyzed the prevalence of defects in the dentition and hard tissues of the tooth, taking into account age and gender differences in patients with inflammatory periodontal diseases. It was revealed that 18-29-year-olds have defects in dentures and hard tissues of teeth, as well as 49 people (11.7%) in the group of patients with PVZ, 47 people (11.2%) in the group of patients in the group of patients aged 30-39 years and 40-49 years. In the group of patients older than 50 years, 59 people (14.0%) - 265 people (63.1%) were identified.

During repeated prosthetics, removal of bridges, X-ray examination was performed to obtain images of the oral cavity or orthopantomograms to determine the condition of the dental periodontal complex.

As a rule, the diagnosis is formulated as "galvanosis", "electrogalvanosis". Due to the lack of sufficient sensitive research methods proving the presence of metal corrosion in the aggressive environment of the oral cavity, this diagnosis was made based on the clinical picture and measurement of microcurrents.

When using plastic joints of bridges, the above complaints are aggravated. Hypo- or hypersalivation, a change in taste sensitivity (up to loss of taste), paresthesia, a feeling of tightness, soreness of the oral mucosa, swelling of the tongue, palate and oral cavity. There is a feeling that "the tongue is on the way", "it is difficult to swallow". Patients cannot use the prosthesis due to salivation during feeding, during conversation and in large quantities. Occasionally, a mucous plaque or film appears on the inner surface of the tongue, palate and cheeks [1.3.5.7.9.11].

Against the background of single studies, hemodynamic changes in the microcirculation of the supporting teeth in the jaw cannot give an objective assessment reflecting the real picture during their bridge prosthetics or use for a long period of time. In our opinion, special attention should be paid to measuring the condition of the marginal periodontal with modern types of prosthetics (metal-ceramic, zirconium) at the level of microcirculation, which is the subject of this study.

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