

# Comparative Analysis of the Quality of Life in Orthopedic Treatment of Patients with Diseases of the Oral Mucosa

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**Abstract:** Low awareness of patients about the rules for using orthopedic structures and caring for them negatively affects their quality of life, and also affects the increase in the incidence of the oral mucosa. Methods for the prevention and treatment of this pathology are proposed.

**Keywords:** quality of life, oral cavity, mucous membrane, orthopedic treatment.

**Introduction.** In recent years, dentists have seen an increase in the number of people seeking treatment for diseases of the oral mucosa (OM) and the red border of the lips (RCL). More often this is due to a deterioration in the general somatic status of patients, new manifestations of systemic diseases in the oral mucosa, a tendency to increase life expectancy, adverse effects of occupational hazards, bad habits, local traumatic and allergenic factors of an iatrogenic nature.

Multifactorial genesis of severe forms of pathology of oral mucosa is most fully manifested in the elderly and senile age, as well as in patients with reduced immune resistance of the body, especially due to the presence of many chronic diseases, as well as in conditions of often complete or partial absence of teeth, low level of oral hygiene and dentures, violations of microbiocenosis and salivation. Atrophic and hyperplastic processes in the tissues of the oral cavity can be intensified under the influence of local traumatic factors (prosthetic constructions, restorations, etc.), leading to the development of ulcers or hyperplasia that do not heal for a long time, resistant to traditional therapy, with the possibility of malignancy .

Chronic diseases of the oral mucosa are manifested by functional and aesthetic disorders, which can lead to anatomical changes in the tissues of the oral cavity, including the prosthetic bed. Edema, erosion , atrophy, hyperplasia, sclerosis of the oral mucosa, manifested by primary and secondary changes in the mucous membranes of the cheeks, palate, tongue, gums and in the corners of the mouth, create unfavorable conditions for the use of dentures, fixation of orthopedic structures and hygienic care [1, 2] .

The anatomical and functional disorders detected by the oral mucosa further reduce the already insufficient chewing efficiency in the absence of teeth. As a result, a joint solution of the problems relevant for therapists and orthopedic dentists is required: a reasonable choice of material and the actual design of the denture, sparing instrumental and technological support for prosthetic treatment, optimal terms of dental rehabilitation after prosthetics, a rational choice of special means for fixing dentures and hygienic care for them , special psychological patronage of the patient.

In modern specialized literature, the issues of improving the conservative and medical treatment of diseases of the oral mucosa are more often addressed [3], while orthopedic dental rehabilitation and the features of the prosthetic approach to patients with specific forms of pathology of the oral mucosa are given insufficient attention.

Undoubtedly, orthopedic structures can initiate the development of diseases of the oral cavity and be a complex problem in the rehabilitation of patients with diseases of the oral mucosa and CCH. According to the literature, in patients with complete removable lamellar dentures, diseases of the oral mucosa are detected 3.3 times more often than in patients with intact dentition in both jaws [4].

Individualized rational prosthetics should consolidate the result of conservative treatment and contribute to the speedy elimination of structural, functional and aesthetic disorders that could be associated with both oral mucosal lesions and the absence of teeth. The ultimate goal of complex conservative and prosthetic treatment of patients should be to improve the quality of life (QoL) of a patient with chronic mucosal pathology [5].

**The purpose** of this study was to establish the role and to determine the features of prosthetic treatment in the complex dental rehabilitation and improvement of the quality of life of patients with chronic diseases of the oral mucosa.

**Materials and methods.** The study was conducted on the basis of the Department of Orthopedic Dentistry and Orthodontics of the Bukhara State Medical Institute named after Abu Ali ibn Sino . Patients who applied for therapeutic and advisory assistance with complaints about previously unsatisfactorily made dentures, which led to diseases of the oral mucosa and CCG, underwent a general clinical examination, which included: questioning, examination, palpation, percussion, probing, calculation of index indicators. When assessing the general somatic status, the conclusions of the faculty of the department, extracts from outpatient cards were taken into account.

Special attention was paid to assessing the initial level of dental care for patients with chronic pathology of oral mucosa: the presence of a systematic and integrated approach to treatment, the completion of sanitation of the oral cavity, the elimination of general and local risk factors, the selection of rational hygiene protocols, and, if necessary, the availability of dispensary observation of patients and its efficiency.

The examination was performed in 72 patients of both sexes (aged 40 to 65 years) with the most common pathology - lichen planus (LP) of the oral cavity and oral candidiasis, in whom, after a clinical examination, it was decided to conduct a prosthetic stage of complex treatment for consolidation of the results of conservative treatment and the most complete restoration of the anatomical and functional state of oral tissues.

The initial orthopedic status was assessed with an analysis of the type of prosthetic structures available, the orthopedic materials used, the quality of prosthesis manufacturing and their hygienic condition. Since a wide range of materials, including metals, is used for the manufacture of prosthetic structures, special attention was paid to the possible presence of galvanism in the oral cavity in the pathology of oral mucosa. The results were statistically processed using the standard Microsoft Office 2007 software package.

As a tool for assessing the quality of life of patients , various test questionnaires were used, including the Eysenck test . The effectiveness of treatment in terms of assessing the quality of life of patients was analyzed by the method of variation statistics according to Student with the calculation of a paired t-test. Differences were considered significant at  $p < 0.05$ .

**Results.** The analysis showed that the following prevailed in the structure of OM and CCG diseases: LP (28.5%), candidiasis (17.0%), chronic recurrent aphthous stomatitis (10.5%) and leukoplakia (8.5%). Various forms of precancerous diseases of CCG were detected in 3% of patients.

In most cases, diseases of the oral mucosa were accompanied by severe edematous pain and xerostomic symptoms. Patients were worried about the unusual appearance of the mucous membrane (80.4%), bad breath (78.6%), speech and diction disorders (68.2%), aesthetic problems (63.6%).

An analysis of the orthopedic status in patients with LP and candidiasis of the oral mucosa showed that 65.8% of the examined patients needed prosthetic treatment, while 45.2% had previously used dentures, however, preparation for orthopedic treatment was carried out without taking into account the pathology of the oral mucosa and, therefore, without justification the use of materials for constructions and the prediction of possible complications - LP and candidiasis of the oral mucosa.

Unsatisfactory hygienic condition of removable dentures in the oral cavity was observed in 85% of patients. In 82.5% of cases, when assessing the quality of prostheses, chips, roughness, discoloration,

cracks, undercuts, etc. were detected, which was due not only to prolonged use of prostheses, but also to aggressive hygienic cleaning of prosthetic structures (the use of too hard for denture brushes, abrasive cleaners). None of the patients with removable prosthetic structures in the oral cavity used specialized safe and effective means for cleaning dentures.

Among patients using removable dentures, 77.8% had not previously used means for fixing prostheses in the oral cavity (35.5% of them were satisfied with the fixation of their prosthetic structures, and the rest did not know about the existence of such means); 25.0% of patients used fixatives, but were not satisfied with the quality of the latter or the organoleptic properties of the preparations used. Only 4 patients constantly used means for fixing prostheses.

All patients with LP and oral candidiasis required prosthetics or replacement of existing structures with new ones. The decision on prosthetics was made when achieving remission of LP and candidiasis of the oral mucosa after conservative treatment.

During orthopedic rehabilitation adhered to the following principles. In case of prosthetics with non-removable structures, a sparing mode of preparation of abutment teeth was used. Casts were made with alginate and silicone impression materials. Particular attention was paid to the edges of artificial crowns: they should not be sharp and sink deep into the periodontal groove, injuring the periodontal attachment. The intermediate part of the bridge should be flush and tangential; the saddle shape was ruled out due to the high likelihood of pressure sores on the gums.

When choosing removable structures, preference was given, if possible, to clasp prostheses. In all cases, individual trays and an unloading technique for obtaining functional impressions were used. Particular attention was paid to the correct design of the functional edge of the prosthesis with isolation of cords and bone protrusions. The quality of plastic polishing was taken into account - all surfaces of the prosthesis were rounded, sharp edges, roughness and undercuts of the prosthesis were excluded. Good fixation and stabilization of the prosthesis are the key to successful orthopedic treatment of patients with diseases of the oral mucosa, so patients were recommended to use special means for fixing removable dentures (for example, Corega cream).

The most important component of the successful rehabilitation of patients with diseases of the oral cavity is rational oral hygiene. Patients were advised to use effective and safe toothpastes for OOM (Sensodyne F, Parodontax + fluoride), rinses with a pronounced anti-inflammatory effect without alcohol, moderately hard toothbrushes for the period of remission and soft ones at the time of exacerbation of OOM disease.

Rational care of removable dentures, which can form a microbial plaque on the surface, is an essential component of perfect hygiene. To prevent the occurrence of prosthetic stomatitis, it was recommended to use specialized products for effective cleaning of dentures (for example, Corega Bio Formula tablets). The use of such agents with pronounced antimicrobial and antifungal activity [6, 7] prevents the occurrence of microscratches on their surface, prolongs the use of prostheses, as well as the appearance of Candida-associated prosthetic stomatitis.

After orthopedic rehabilitation of 48 patients with LP or oral candidiasis, 37 complete removable lamellar dentures (20 for the upper and 17 for the lower jaw), 30 partial removable lamellar dentures (18 for the upper and 12 for the lower jaw), 10 bridges were made. prostheses and 47 single-standing crowns. After completion of orthopedic rehabilitation and a period of adaptation to removable structures, test surveys were repeated, which confirmed that effective conservative treatment of destructive diseases of the oral mucosa after rationally performed orthopedic treatment is not always accompanied by normalization of dental parameters.

**Conclusion.** The severity of the problem of orthopedic care is associated with the high need for prosthetics in patients, the growing role of prosthetic structures as risk factors for the development of diseases of the oral mucosa, the lack of clear recommendations for working with these patients at the stages of complex treatment and clinical examination, the lack of clear instructions for the regulated use of specialized prosthetic care products and oral cavity, psycho-emotional mood of doctors and

patients. Individualized rational prosthetic treatment consolidates the result of conservative therapy and contributes to the speedy recovery of impaired functions associated with both oral mucosal diseases and the absence of teeth, and also improves the quality of life of patients.

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