

INTOLERANCE TO PLATE DENTURES IN ORTHOPEDIC DENTISTRY

PhD Muratova Saodat Kadirovna - Samarkand State Medical University
Gafforova Hojaroy - the student of the Samarkand State Medical University
Teshayev Shokhjakhon - the student of the Asian International University

Annotation. After the introduction of base materials based on acrylic polymers into prosthetic dentistry, reports of various reactions to these materials appeared. Among the most common and important causes of acrylate tolerance are the following: mechanical anal injury caused by spikes during the preparation and processing of protons call; chemical-toxic and allergic effects of substances included in the composition of prostheses; non-physiological conditions under removable dentures; bacteriological effects of prosthetic plaque; diseases of internal organs (anemia, diabetes, atherosclerotic changes, etc.), hormonal disorders.

Key words: acrylic polymers, cells, plastic, nervous system, dental plaque, metabolic products, mucous membrane.

The mucous membrane, which experiences mechanical stress from the white tissue, has less resistance to pathogenic factors and is overloaded. When properly manufactured, prostheses made of acrylic plastic are practically harmless and fears about the so-called “intolerance to acrylic prostheses” are exaggerated. Non-physiological conditions under a removable plate prosthesis are one of the main reasons for “intolerance” bridges of acrylates". The thermal insulating effect of removable dentures is manifested by two main irritating factors: isolation of the mucous membrane of the prosthetic bed from the external environment and disturbances of metabolic processes in it in the mytellar cells, migration of blood cells, lymph connective tissue and irrigation of the surface of the mucous membrane with saliva. Under the prosthesis, the partial oxygen content is reduced and favorable conditions are created for a significant increase in microflora. Patients feel an increased burning sensation if the temperature rise is very significant. In some patients, the temperature rises to 40°C between the prosthesis base and the mucous membrane. 3.C.Vasilenko notes that acrylic plastic prostheses cause deep, rapidly developing and resulting in morphological changes both in the underlying mucous membrane and in the elements of the peripheral nervous system. Structural changes in the elements of the peripheral nervous system of the mucous membrane of the prosthetic bed, called the irritating effect of laminar dentures, affect the functional state of tactile receptors, reach their greatest development after 12 months. It is known that acrylic dentures absorb water during use. Water, penetrating micropores, loosens the material, creating internal stresses, which after some time can lead to cracking of the polymer and the formation

of large pores. The presence of roughness on the inner surface of the bases is observed in 25-74% of plate dentures. The roughness and porosity of the denture surface can facilitate the penetration of microorganisms into the base and the formation of dental plaque on the surface. A study of the hygienic condition of dentures showed that as patients get used to wearing dentures, they begin to be careless about observing hygienic rules. As the period of use of dentures increases, the total microbial number increases. If dentures are not cleaned sufficiently, a soft coating begins to form on them, which is a good breeding ground for microorganisms. Denture plaque has a similar composition to dental plaque. Most often, pity remains are retained under the upper dentures. A.N. Graasetall., examining patients with complaints of burning and inflammation under dentures, found that *Candida albicans* is present everywhere, colonizing the superficial epithelium. This may be a consequence of antibiotic therapy, the use of steroids, immunosuppressants, cytotoxic drugs or disinfectants. There is an opinion that the metabolic products of *Candida albicans* may affect pain receptors abdomen bed, causing a burning sensation. Other authors deny the role of *Candida albicans* in the occurrence of burning under dentures. Data from clinical microbiological studies suggest that fungi of the genus *Candida albicans* are not the main cause of paresthesia; their presence in large quantities indicates the presence of inflammatory processes in the oral cavity and enhances the phenomena of paresthesia. Research by E.A. Zemskoy, K. Sidygalieva showed that with prolonged sewing of removable dentures, the titer of elephant antibodies to microbial antigens increases and the level of secretory immunoglobulin increases as a reaction to chronic antigenic irritation. For an allergic reaction to acrylic prostheses to occur, exposure to two factors is necessary: an exogenous factor (prosthesis) and a andogenic factor (hormonal and endocrine changes, metabolic diseases, diseases of the hematopoietic system, diseases of the autonomic nervous system). The mucous membrane of the oral cavity is interconnected with the digestive organs and systems of the body. With diseases of the cardiovascular system in the tissues of the oral cavity, microcirculation is disrupted, oxidant reduction reactions are reduced, hypoxia develops, and metabolic products accumulate in the tissues. Patients subjectively experience a burning sensation, paresthesia, pressure, rubbing of the mucous membrane, and swelling of the entire mucous membrane of the prosthetic bed is characteristic. A burning sensation of the tongue is often noted due to atrophy of the filiform papillae and thinning of the epithelium of the tongue. Patients complain of perversion of taste sensitivity, paresthesia, and dryness of the oral mucosa. One of the symptoms of “acrylic intolerance” is dry mucous membranes. The skin of the prosthetic skin can be observed with myxedema, insufficiency of the gonads, infectious diseases, and the use of medications that inhibit the function of the nervous system. All of the above prompted us to highlight the phenomenon of those factors that burden the quality of life of

patients with edentia. Purpose of the study. Identification of factors leading to intolerance to acrylic dentures plastics.

Materials and research. Having examined 501 patients with metal dentures, we came to the conclusion that allergies to denture materials are rare: out of 501 people diagnosed with intolerance to dentures, only 14.1% had positive allergy tests. A positive reaction was detected in 32 patients: 13 to nickel only, 9 to nickel and cobalt, 2 to nickel and chromium, and 2 to all metals. We examined 140 patients referred to the clinic with a diagnosis of intolerance to dentures. 65% of patients had mechanical irritation of the mucous membrane, 25% had internal, skin and hormonal diseases, and only 10% had an allergy to dental.

Discussion of the research results. The main monomer for the production of dental acrylic plastics is methyl methacrylate, the content of which in copolymers is 80-90%. Complete polymerization of the monomer cannot be achieved, because some of its molecules are always in a free state. All free monomer in the plastic mass is divided into washable and non-washable. It remains indelible even after prolonged polymerization. The amount of residual monomer in a sample of hot polymerized acrylic plastic is 0.2-0.5%, for cold polymerized plastic it is 2-7%. Violation of the polymerization regime leads to an increase in residual monomer and porosity of plastics. The monomer can have allergic and toxic effects. The widespread use of various polymers for dentofacial prosthetics has raised a number of problems, one of which is intolerance to dentures. Denture intolerance most often manifests itself in the form of subjective symptoms. Patients complain of pain, burning, tingling of the mucous membrane of the lips, cheeks, tongue and gums, and the sensation of various tastes. There is dry mouth, sore throat, redness and swelling, soft facial tissues. Headaches, dizziness, weakness, fatigue, nausea, vomiting, digestive disorders, sleep disturbances, and heart pain are often observed. Patients and doctors often mistake any unclear and difficult-to-treat diseases in the oral cavity for manifestations of allergies, while real allergic reactions to dental materials are rare, and there are no clinical manifestations in the history characteristic of an allergic reaction to dentures, says Materials and methods of research. Having examined 501 patients with metal dentures, we came to the conclusion that allergies to denture materials are rare: out of 501 people diagnosed with intolerance to dentures, only 14.1%, allergy tests were positive. A positive reaction was detected in 32 patients: 13 to nickel only, 9 to nickel and cobalt, 2 to nickel and chromium, and 2 to all metals. We examined 140 patients referred to the clinic with a diagnosis of intolerance to dentures. Mechanical irritation of the mucous membrane was detected in 65% of patients, internal, skin and hormonal diseases in 25%, and dental allergies in only 10%. material, the results of the following and their discussion. The main monomer for the production of dental acrylic plastics is methyl methacrylate, the content of which in copolymers is 80-90%. Complete

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Conclusions. Thus, in patients with intolerance factors to acrylic prostheses, there may be a decrease stability of the mucous membrane of the prosthetic bed in case of: violation of the polymerization regime, iron deficiency anemia, disruption of the endocrine system and metabolism, diabetes mellitus, diseases of the cardiovascular system (impaired vascular permeability). In order to prevent the identification of factors of intolerance to acrylic prostheses, it is necessary to collect an in-depth medical history of the patient and focus on his somatic diseases.

Literature:

1. Muratova S., Khaydarov A., Shukurova N. The peculiarities of endothelial dysfunction indicators in patients with chronic brain ischemia // *Int. J. Pharmac. Res.* – 2020. – P. 1725-1728.
2. Muratova Saodat Kadirovna, Musirmanov Abdusalim Toshtemirov Humoyun TO IMPROVE TREATMENT OF CHRONIC GENERALIZED PERIODONTITIS // *CENTRAL ASIAN JOURNAL OF EDUCATION AND INNOVATION/* 2023- P. 187-194.

3. Muratova S.K. Norqulova S.N. Teshayeva R.O. STATISTICAL ANALYSIS OF THE METHOD OF DELAYED FILLING IN CHRONIC APICAL PERIODONTITIS// CENTRAL ASIAN JOURNAL OF EDUCATION AND INNOVATION. Volume 2, Issue 11, Part 3 November 2023.- P 148-151
4. Muratova S.K. Teshayeva R.O. Teshayev Sh. O. SURUNKALI ILDIZ UCHI PERIODONTITDA KECHIKTIRIB PLOMBALASH USULINING STATISTIK TAHLILI// EURASIAN JOURNAL OF TECHNOLOGY AND INNOVATION/ 2023.-P. 186-189.
5. Muratova Saodat Kadirovna, Shukurova Nodira Tillayevna A Literary Review of Statistical Indicators in the Diagnosis of Oral Tuberculosis// Eurasian Medical Research Periodical. 2023.-P.30-33
6. Muratova Saodat Kadirovna, Shukurova Nodira Tillayevna Assessment of the Dental Condition of Patients with Impaired Cerebral Circulation// Eurasian Medical Research Periodical. 2023.- P.38-41.
7. Muratova Saodat Kadirovna, Naimov S, Toshtemirov I Endodontic Treatment of Chronic Apical Periodontitis with The Drug Hydroxy calcium by Delayed Filling// Eurasian Medical Research Periodical. 2023.- P 34-37.
8. Muratova Saodat Kadirovna Modern Ideas About the Pathogenesis of Generalized Periodontitis// Eurasian Medical Research Periodical. 2023.- P.42-45.
9. Muratova Saodat Kadirovna, Yukimurodov N, Absalamov D. Results of Complex Treatment of Chronic Disseminated Periodontitis in Patients Who Have Undergone Covid-19// Eurasian Medical Research Periodical. 2023.- P.27-29.