THE INFLUENCE OF A QUALITATIVE ANATOMICAL IMPRESSION ON THE FUNCTIONAL EVALUATION OF A NON-REMOVABLE DENTURE

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At our time, high-precision reflection of all the elements of the "prosthetic bed" becomes particularly important in connection with the introduction of complex prosthetics technologies in the broad practice of orthopedic dentistry, such as: microprosthetics, implant prosthetics, manufacturing of nonmetallic structures requiring high-precision precision prints [7].

With a widespread use in modern dental practice of more modern types of prosthetics, the approach to the preparation of supporting teeth has changed substantially. To achieve the optimal cosmetic and functional effect in the manufacture of modern highly aesthetic restorations, the preparation of the tooth is carried out with the creation of different forms of ledges located in the cranial region, mainly at the podium level, which impedes the penetration of impression material into the dentogingival groove and obtaining a satisfactory impression [5, 8]

High accuracy of reflection of all parts of the working surface avoids a medical error in the early stages of work and gets a gypsum model with minimal dimensional errors, which, in turn, makes it possible to make a quality dentures. According to many authors, dimensional accuracy is one of the most important indicators of the quality of precision [8, 9]. According to Volozhin A.I (2000) [2],

dentists-orthopedists are forced to remove prematurely from 40 to 68% dental bridge. Steinhart M.Z. (2012) states that up to 20% of solid-state structures of dentures are removed already in the first 2-3 years after prosthetics in connection with technological disorders at different stages of the manufacture of prostheses, which leads to a decrease in the accuracy of the boundary fit. According to O.E Kuznetsova (2013), ensuring the high accuracy of the boundary adherence of artificial crowns is achieved only if the correct use of modern imprint materials and new types of prints in accordance with the recommendations of manufacturers [7].

Many authors emphasize the high incidence of secondary caries of supporting teeth (according to various data from 25 to 70%), scissors of crowns - from 3.2 to 20% of the number of all complications with permanent prosthesis. One of the possible complications of inaccurate edge adherence to metal-ceramic crowns is the corrosion of the framework, which, in turn, can lead to a change in the color of the tissues of the periodontal disease and chronic gingivitis.

According to many authors, the unjustified selection of imprint materials, the failure to comply with the recommendations of manufacturers in the technique of their preparation and operation, not an individual approach to the methods of obtaining prints and timing casting of plaster models prevents the provision of proper quality of all orthopedic treatment at the initial stages of its conduct [4]. When the quality precision impression is received, the time that the doctor spends on fitting the prosthesis in the oral cavity is significantly reduced.

In the technology of manufacturing new, more modern designs of prosthetics, an increasingly important place is given to the clinical stage of obtaining a high-quality imprint, which accurately reflects the microrelief of the prosthetic field. Trezubov V.N. (2012) asserts that without exact imprint, even experienced technicians can not produce high-quality dentures.

The quality of the imprint depends on the correct choice of the type and mode of application of modern reflective material. Well thought-out selection of imprint materials, depending on the indicators of its basic properties and clinical conditions, helps to obtain gypsum models that more accurately reflect all the details of the

prosthetic field and the manufacture of quality dentures that meet the highest aesthetic requirements. At present, the medical industry produces imprinted materials that are diverse in terms of chemical composition and properties. However, none of them meets in full all modern requirements. For each particular case, certain material is used. Many authors come to the conclusion that the accuracy of the transmission of the basic parameters of all the features of the microrelief of the prosthetic bed decisive influence makes the form of the selected reflective material. In order to choose the right material for the receipt of prints in the manufacture of prosthetics, it is necessary to know the composition, properties of the reflective material, and be able to use it properly. At the same time, a substantially new level of requirements is imposed on modern imprint materials, as the quality of the received imprint is one of the determining factors of the quality of future prosthetics. The main indicators of high-quality reflective material are high dimensional accuracy and its long-term dimensional stability. According to Muradova M.A. (2014), a set of different medical and technical properties inherent in imprint materials of a certain type, is caused by the dependence of quality and accuracy of the prints from the used imprint.

Wagner V.D. and Chekunkov O.V. (2013) note that the rapid restoration of the range of imprint materials and their large selection on the market for dental materials, requires a thorough and detailed study of their properties, indications and contraindications to the application, especially the work of each of them, because these knowledge and possession of new technologies of obtaining precision prints are the key to quality prosthesis [5]: Over the last decade, a large number of imported imprints have appeared on the domestic market. Despite the obvious, the importance of the clinical stage of obtaining a high-quality imprint, the approach of dentists to the choice of reflective material and methods for obtaining a negative reflection of the tissues of the prosthetic field - the imprint is unsystematized, spontaneous. Not enough known to practitioners, they require their systematization and characteristics of properties [4].

First of all, imprint materials should be harmless to the patient, do not commit irritating toxic and allergic effects on the mucous membrane of the mouth

and the body as a whole. Among the main requirements for modern imprint materials should pay special attention to the accuracy of the reproduction of the relief of the prosthetic bed. Reflective materials should have the necessary plasticity at the time of introduction into the oral cavity, have sufficient working time, have the ability to structurally in the oral cavity for 2-5 minutes, have high dimensional stability and resistance to deformation after hardening, but with sufficient elasticity and mechanical strength after structuring, ensuring the output of the finished print from the oral cavity without significant residual deformation, with the preservation of accurate reflection of the microrelief of the prosthetic bed, not adjacent To enter the tissues of the oral cavity after structuring, it is easy to enter and withdraw from the oral cavity, have a small shrinkage during hardening and storage until the casting of the plaster model, have a neutral smell and taste, it is desirable to be able to cast a few plaster patterns, a good adhesion to a reflective spoon, ease dosage and the ability to choose the degree of viscosity of the reflective composition.

One of the main criteria for evaluating the quality of the imprint is the accuracy of the microrelief of the prosthetic bed [7, 8, 9]. So, Ryakhovsky A.N. in his studies, he pays special attention to the depth of penetration of the reflective material in the groove of the tooth-abscess, which is very important in the presence of a subgingival margin, when receiving the prints using various materials and techniques; dimensional accuracy of different prints, development of new techniques for receiving prints.

Works Laufer B.Z. with collaborators (2006) confirm the importance of accurately displaying the ascetic groove upon obtaining a precision imprint. In the course of our research, it was discovered that the thickness of the reflective material in the area of reflection of the ascetic groove should be sufficient to withstand the distortion and possible rupture when the imprint is removed from the oral cavity [8].

Lin ss with collaborators, conducted a comparative analysis of the basic parameters of gypsum models, obtained by imprints of 6 different imprint materials. The conducted studies have shown that the greatest dimensional accuracy of the models, cast on polyester and vinylpolysiloxane imprints, differed, and the models

obtained from imprints of irreversible hydrocolloids had a lower dimensional accuracy.

The analysis of the studied literature showed that, despite the active search that is taking place in the world dental industry and in-depth research on the improvement of existing ones, and the development of new types of reflective compositions, domestic research in this group of dental materials, it is clearly not enough. As a result, there are small assortment of domestic imprint silicone materials, their limited use in clinical practice due to insufficient high qualitative indicators. This fact prompts research aimed at improving the quality of orthopedic treatment by improving and thoroughly exploring the properties of a new domestic composition of imprint materials based on cold-silicon silicon approvals, based on the type of poly-compound reaction to obtain dual-layer imprints.

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