

FIXATION OF REMOVABLE DENTURES ON COMPLETELY EDENTULOUS JAWS USING IMPLANTS

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Annotation: Treatment by means of tooth implants can provide toothless patients with steadier alternative to full tooth artificial limbs. Basically at various clinical situations tooth implants varying from 3.0 mm to 7.0 mm in diameter are used. This range limits the use of implant therapy in many patients with pronounced bone atrophy. Occurrence in the market of SDI (Small Dental Implants), implants of small diameter has expanded these possibilities. These implants are made of titanium alloy which is the strongest in its class. The sparing report of installation is one of the main distinctive features of the mini-implant system which makes this system unique and allows preserving the function and stability of artificial limbs for many years.

Key words: implantation, fixation, dentures, expanded.

Prosthetics in the complete absence of teeth is one of the most difficult problems of orthopedic dentistry. The solution to this problem is possible only with a comprehensive study of the causes of dysfunction and anatomy of the masticatory apparatus, which lead to complete loss of teeth. Restoration with intraosseous dental implants can provide partially or completely edentulous patients with both function and esthetics, similar to natural dentition. The introduction of the mini-implant system into clinical practice has significantly expanded the possibilities of using dental implants, expanded the indications for their use: the possibility of using them in the elderly, in pediatric practice, and in difficult clinical situations.

Fixation of a removable prosthesis in the mouth is provided by the following methods: mechanical (Fochar springs, weighting of prosthesis bases on the lower jaw), biomechanical (gingival clasps and pads), physical (Raue suction cups), biophysical (based on the formation of a rarefied space over the entire surface of the prosthetic bed due to use of the anatomical features of the mucous membrane of the prosthetic bed and full compliance with the topography of the prosthetic bed and the basis of the prosthesis).

The method of questioning patients was used. The evaluation was carried out according to a point system: chewing efficiency, adhesion of soft materials, ease of care and use, stability of prostheses. We examined and carried out a complex treatment with the installation of mini-implants in 32 patients aged 56 to 82 years with a complete absence of teeth. Mini-implants were installed on the upper jaw in 6 patients, on the lower jaw - 22, on both jaws - 4. 6 mini-implants were installed on the upper jaw, 4 on the lower jaw, this was due to the structure of the bone tissue, the presence of anatomical formations, the presence of holes of extracted teeth.

For complete removable dentures, a single-layer or double-layer impression is first taken using a closed or open technique. The working model is made non-separable with analogues of implants. A beam is created from wax, which is a male or contains several males (push-button locks). When modeling the beam, the technique is used as in conditionally removable prosthetics, since the beam must be screwed to the heads of the implants with screws. After casting, processing and polishing of the mesostructure, it is fixed on the model and an individual spoon is made. Then the mesostructure is fixed in the oral cavity and a single-layer cast is taken. Based on the impression obtained, a second working model is developed, reflecting the relief not only of the covering alveolar processes and soft tissues forming the vestibule of the oral cavity, but also of the mesostructure fixed to the implants. A complete removable denture is made according to traditional technology, only on the inside it has a recess corresponding to the position of the mesostructure. Next, a supraconstruction

is made (the matrix part of the prosthesis). The hinged matrix or button matrices are installed on the corresponding parts of the male in the patient's oral cavity. The plastic is kneaded for the manufacture of the basis of removable dentures, and when the moment of its maturation is reached, a recess in the prosthesis is filled, corresponding to the mesostructure. The prosthesis is fixed in the oral cavity in the correct position, and when the plastic begins to harden, but is still pliable, the prosthesis is removed. After removing the prosthesis (in which the matrix is now located), it is necessary to saw out all the excess plastic that filled the recess in such a way as to ensure its mobility relative to the mesostructure and achieve fixation only by connecting the male and matrix.

Fixation of partial dentures occurs under the influence of the same factors as full dentures: adhesion, anatomical retention and valvular effect. However, partial restorations have additional mechanisms that help to fix dentures. This makes structures more stable and increases their stability. So when installing removable dentures of the clasp type, use: Clasps. There are several types of clasps, but they have one common action - to fix the restoration on the abutment teeth and redistribute the pressure on them. Partial lamellar dentures are also attached with clasps. Attachments. These are small locks that are connected by the type of matrix and male. Mounts are intradental (more complex) or extradental. They put dentures on movable and fixed attachments. Lock fastenings are more aesthetic than clasps, but they require turning of the supporting teeth. Telescopic locking system. Fastening dentures in a telescopic way began relatively recently, but the method has already proven itself positively. Its essence lies in the fact that the inner crown is put on the abutment tooth, and the outer crown is fixed on top, which is connected to the clasp.

Conditionally removable are structures that can be removed, but this requires certain manipulations. It is better to carry out such a procedure at the dentist. Dental prostheses of this type are attached to implants. There are 2 mounting methods: push-button and beam. The beam method is the same as with clasp prosthetics. The beam acts as a male and is attached to the implants. And the matrix is in the body of the prosthesis. Due to the beam, the chewing load is evenly distributed. The button method also uses a male and a matrix, but there is no beam.

List of used literature:

1. Gamborena I., Blatz M. Evolution. Contemporary Protocols for Anterior Single-Tooth Implants, Quintessence Publ., 2014, 440 p. (Russ. ed.: Gamborena I., Blatz M. Evolyuciya. Aktual'nye protokoly zameshcheniya perednih zubovspomoshch'yu implantatov. Moscow, DentalAzbuka Publ., 2015. 424 p.).
2. Cucchi A., Vignudelli E., Franco S., Ghensi P., Malchiodi L., Corinaldesi G. Evaluation of Crestal Bone Loss Around Straight and Tilted Implants in Patients Rehabilitated by Immediate-Loaded Full-Arch All-on-4 or All-on-6: A Prospective Study. J Oral Implantol., 2019, vol. 45, no. 6, pp. 434-443. DOI: 10.1563/aaid-joi-D-18-00152.
3. Malo P., de Araujo Nobre M., Lopes A., Ferro A., Botto J. The All-on-4 treatment concept for the rehabilitation of the completely edentulous mandible: A longitudinal study with 10 to 18 years of follow-up. Clin Implant Dent Relat Res., 2019, vol. 21, no. 4, pp. 565-577. DOI: 10.1111/cid.12769.