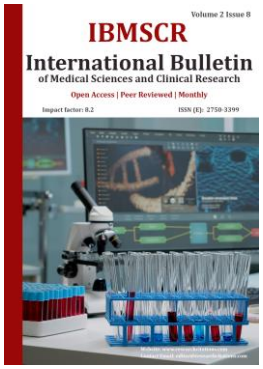

FIXATION OF REMOVABLE DENTURES ON COMPLETELY EDENTULOUS JAWS USING IMPLANTS.

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Annitation: 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: Fixation, dentures, implantation, mini-implant, total loss of teeth, prosthetics on implants, cylindrical abutment, locking attachments, ball shaped attachments,

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).

Methods for the treatment of complete loss of teeth using prostheses based on the mucous membrane have many disadvantages. Implant-supported prostheses have significant advantages over traditional ones in the treatment of complete and partial adentia. For the treatment of patients who have completely lost their teeth, various types of prostheses on implants can be used. The choice of prosthesis design depends on the degree of alveolar atrophy, the condition of the oral mucosa, the gnathological characteristics of the patient, the patient's somatic status, his needs, the cost of orthopedic components, the characteristics of the implant system, and other factors.

Removable dentures based on implants in patients with complete loss of teeth have significant advantages over traditional ones: they prevent bone loss, are stable, provide a reproducible central jaw relationship, do not injure soft tissues, improve chewing efficiency

and chewing power, have good retention and smaller sizes. In addition, removable implant-supported dentures have a number of advantages over fixed dentures. Removable dentures require fewer implants. Osteoplastic surgeries are performed in a smaller volume, the positioning of implants is not so critical, soft tissue support is provided with the help of prosthesis flanges, hygienic care procedures for the prosthesis can be easily carried out, there are fewer requirements for soft tissue aesthetics. There are opportunities to reduce the stress load on implants, high maintainability, lower laboratory cost compared to fixed prostheses. The ability to remove the prosthesis reduces undue stress on implants in patients with sleep bruxism.

With the increase in life expectancy and improvement in the quality of life of people, the interest in high-quality prosthetics is increasing. Modern older people often lead an active lifestyle, many of them continue to work, despite the retirement age. That is why high-quality dental prosthetics for patients with complete or partial absence of teeth is more relevant today than ever. Not so long ago, doctors in the complete absence of teeth offered complete removable dentures. The anatomy of the upper jaw allows the use of a complete removable denture satisfactorily. On the contrary, for similar reasons, wearing a complete removable denture in the lower jaw becomes difficult over time. Gradually, the bone atrophies, and the fixation of the prosthesis deteriorates. With such a prosthesis, it is inconvenient to chew food and lead an active life. This situation has been noticeably changed for the better by dental implantation. For prosthetics of a completely edentulous jaw, in most cases, a fixed construction based on dental implants is used. With this method of prosthetics, 6-8 implants must be installed on the lower jaw, and 8-10 on the upper jaw. However, the installation of such a number of implants is not always possible.

Limitations when installing a large number of implants on a completely edentulous jaw:

- Unsatisfactory bone density and anatomical features of the patient.
- Patient unwillingness to undergo major surgery.

The patient is accustomed to a removable prosthesis and wants to improve its fixation, not wanting to switch to fixed prosthetics or not ready for big financial expenses. In such cases, the patient is offered removable dentures based on implants. Note that in the clinic "Dial-Dent" it is possible to improve the patient's existing removable denture by attaching it to implants.

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. This is the most aesthetic and stable type of fixation. Beam fixation. The bar that splints the teeth in the mouth acts as the patrician, and the recess corresponding to it on the inside of the prosthesis acts as the matrix. The presence of a beam increases the stability of the remaining teeth and enhances fixation. Beam structures serve well and for a long time. Magnetic fixation system. The method is based on the property of

poles with opposite charges to attract, and with the same charge to repel. Magnets are installed in the basis of the prosthesis and in special implants. Or in the prosthesis of the opposite jaw.

In the patient's prosthesis with a cutter, recesses are made in the projection of the implants. The response part is taken out of the sterile package, which is a hemisphere with a silicone ring inside. By direct relining in the oral cavity, these suprastructures pass into the prosthesis. The prosthesis is ground, polished, applied in the oral cavity. This technique allows to achieve improved fixation of complete removable dentures in 40-60 minutes. Stabilization of the prosthesis "in one hour, in one step" is a profitable and optimal option for patients who cannot afford classic implants or are not psychologically ready for a conventional protocola installation. Mini-implants are loaded immediately after their installation, so patients on the same day evaluate the improvement in fixation, stabilization of prostheses, and chewing efficiency. The advantages of prosthetics on mini-implants include the following. The adaptation period is easily tolerated by patients; fixation of prostheses is reliable even after several years; there is the possibility of replacing O-shaped rubber rings and the possibility of reducing the boundaries of complete removable dentures, without loss of stability of the prosthesis and adverse effects on mini-implants; it is possible to use complete removable dentures, made earlier, that meet the requirements.

Push-button designs are usually used when the bone volume (mandible) is small. In the anterior part of the jaw, 2-3 implants are installed, on which spherical abutments are installed. On the prosthesis for these abutments, respectively, there are round recesses for snapping the prosthesis.

With complete adentia, bar supraconstructions are used, for fixation of which cylindrical or screw implants are used (lamellar implants are contraindicated). Removable dentures can be fixed with 2, 3 or 4 implants

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