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DENTAL IMPLANTS AS THE MOST APPROPRIATE METHOD OF ANCHORING FIXED PROSTHESES.

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Annotation. Dental implants are currently the most appropriate solution to tooth loss. This article discusses the positive aspects of using dental implants to improve the quality of life of patients in the treatment of partial and complete tooth loss. The advantages, disadvantages and complications of different treatment methods are also shown. The main factors directly affecting the restoration of tooth structure are emphasized. The prosthetic and surgical phases of treatment are defined, as well as the optimal choice of materials, techniques and conditions for dental implantation. The importance of each method and the involvement of each stage in the patient's dental treatment is shown. Based on the material presented, implant-supported removable dentures are the only method that is highly effective and, in some cases, produces good results.

Keywords: dental implantation, implants, removable prosthetics, missing teeth, orthopedic dentistry, surgical dentistry.

Introduction. The absence of teeth in the dentition is one of the main factors that deteriorate the aesthetic appearance of a person. The etiology of tooth loss can be caused by congenital and acquired pathologic conditions of the body. Restoration of missing teeth in the dental row is a relevant solution not only to improve the general aesthetic appearance of the patient, but also to optimize chewing function and speech, as well as to prevent the development of pathologies of oral tissues, such as atrophy of the alveolar ridge in the area of the tooth defect and alveolar advancement of the antagonist tooth in the direction of the existing defect [1, 3, 9].

The best solution to the problem of missing teeth is prosthetics. Currently, removable prostheses are one of the most important types of prosthetics, and dental implant technology is increasingly used for optimal fixation of removable prostheses in the patient's mouth [2, 4, 6, 8,

10].

The importance of removable implant-supported dentures lies in the optimal fixation of the denture, the ease of hygienic care of the mouth and the denture, as well as the preservation of the denture base tissue and the prevention of progressive atrophy.

Purpose: Examine the basic characteristics of implants as the most appropriate method of anchoring removable dentures.

Materials and research methods. Implantation is the use of various structures of a certain shape made of non-biological materials. This type of dental treatment includes two different procedures - implant placement and prosthetics, and, as a rule, such work is performed by two specialists. Implantation of teeth is a method of restoring defects in the dentition, bite and chewing function with the help of various prosthetic structures, including removable prostheses, based on both abutment teeth and implants.

The results of the study and their discussion.

The most important element in the treatment of edentulous patients with removable dentures fixed on dental implants is the study of indications and contraindications for their use.

Indications for the use of dental implants are single, all-encompassing or marginal defects of tooth structure, as well as increased sensitivity of oral tissues to the materials used in the fabrication of removable prostheses. Complete dentures are used when implants are used for fixed prostheses or when removable complete dentures are more secure [5, 13, 15].

Contraindications to dental implants are exacerbation of chronic diseases, osteopathy, diseases leading to impaired bone metabolism, disorders of blood coagulation and hemostasis, HIV and mental disorders of the patient.

Temporary contraindications include the presence of acute inflammatory or viral diseases, pregnancy and breastfeeding, suffered a heart attack or stroke, as well as treatment with drugs that inhibit tissue regeneration.

When planning further treatment, it is important to determine the type and number of implants required, as well as to select the optimal design of the subsequent dental prosthesis. One of the key factors for such prostheses fixed with dental implants is the strength of the intraoral structure, which requires careful consideration of the individual parameters of the patient's body to be restored [7, 11, 12, 14, 17].

There are many requirements for successful implant treatment with removable dentures. When planning treatment, all missing teeth on both jaws must be restored, and in some cases, an

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implant-supported denture on one jaw may be combined with a traditional denture on the other jaw. Dentures may include both removable and fixed dentures or a combination of both. Ideally, the number of implants placed should match the number of missing teeth. Implant-supported dentures have certain characteristics that must be observed in order to correct the occlusal relationship.

Before starting dental treatment, it is important to prepare the oral mucosa for implant placement. For this purpose, a method of creating a mucosal-periosteal palatal flap is used. The invention relates to medicine, namely to surgical dentistry, and can be used for perforator plasty of the maxillary bone by repositioning the palatine flap.

In addition, the soft and bony tissue of the alveolar process of the upper jaw is required for implant placement. To place an implant there, it must be covered with soft tissue at least 2 mm thick. The thickness of the mucosa forming the implant superstructure must be at least 3 mm. If the thickness of the mucosa is insufficient, there is a risk of perforation, infection and rejection of the implant.

To prevent complications, clinical, laboratory and radiological diagnostics are performed and the results are analyzed to determine indications for reconstructive and restorative surgical interventions.

One of the methods of creating a mucoperiosteal palatal flap is surgical intervention, in which local anesthesia is applied, an incision is made in the palatal mucosa along the edge of the palatal alveolar ridge, extended distal to the perforation and dissected to the palatal suture. Then a triangular full-layer palatal flap is extracted, which is divided into a subepithelial vascular flap and an epithelial flap with a scalpel. The perforation is then closed with an epithelial vascularized palatal flap, which is placed under the vertebral edge of the buccal gingiva using a U-shaped suture similar to a mattress suture, the epithelial flap is placed in its original position, closing the palatal defect, and secured around it with a knotted suture.

This method is performed as follows. Formation of the mucoperiosteal palatal flap is started with local anesthesia with 2% lidocaine hydrochloride solution and one-stage water preparation of tissues. At the same time, a longitudinal incision is made in the vestibule of the mouth, along the mucosa, submucosa and periosteal layers of the palate, from the canines to the maxillary teeth, along the border between the attached and unattached gingiva. The direction of the incision is then reversed, the apex of the alveolar process is crossed transversely, the incision is withdrawn 5 mm from the anterior palatal group along the palatal plane, and the incision is extended 5 mm from the incisal papilla to surround it. The incision ends at the midline of the

palate. A full-layer mucoperiosteal palatine flap is detached from the palatine surface until the greater palatine foramen is visible. Once the foramen magnum and the palatine neurovascular bundles extending from it are identified, the soft tissues are separated and the palatine neurovascular bundles are detached, taking care not to traumatize the small palatine artery and the small palatine nerve. In addition, a curved incision of no more than 1-1.5 cm to the sublabial artery and sublabial nerve is made on the inner surface of the resected full-layer mucosal-adcostal flap to preserve the palatine neurovascular bundle, further mobility and viability of the mucosal-adcostal flap.

Then the entire multilayered mucocutaneous rib palatine flap is divided into two flaps - subepithelial and epithelial; the separation and formation of the two layers is completed 6-8 mm from the medial edge of the entire multilayered mucocutaneous palatine flap. The subepithelial flap includes the periosteal layer and part of the submucosal layer. The epithelial flap faces the oral cavity and includes the mucosal periosteal layer and part of the submucosal layer, preserving the peripheral branches of the palatine neurovascular bundle (small palatine artery and small palatine nerve). The epithelial socket is moved, the perforation in the area of the extracted tooth is closed and pulled under the buccal-gingival vestibular margin with a U-shaped suture. Then the subepithelial flap of the full-layer split mucoperiosteal palatal flap is placed on the palatal surfaces of the vestibular, alveolar processes and alveolar process and successively fixed along the periphery with a knotted suture. The epithelial flap is placed in the initial position, covering the palatal defect, and fixed peripherally with knotted sutures.

The use of the claimed method is characterized by a different set of surgical manipulations, including incision and flap formation, excision, separation, repositioning, separation and fixation with knotted sutures of the epithelial and epithelial- palatine flaps of the full-layer mucosal-costal palatine flap. This allows increasing the volume of the attached and marginal gingiva in front of the alveolar process by placing a subepithelial palatine flap, separated full-layer mucosal-bone palatine flap and then a full-layer mucosal-bone flap in the direction of the oral vestibule. In the future, this will promote soft tissue growth and provide optimal anatomical and functional conditions for prosthetics with dental implants, since the material for gingival contour grafting is already available. The disadvantage of this method is the high risk of necrosis of the epithelial flap and decreased sensitivity of the hard palate mucosa in the late postoperative period. In addition, when using this surgical technique, extensive formation of the wound surface occurs, which requires a long rehabilitation period and complicates dental treatment.

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