THE USE OF AN INDIVIDUAL ABUTMENT IN THE FORMATION OF GUMS DURING PROSTHETICS ON DENTAL IMPLANTS

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Abstract. *Today, implant prosthetics are becoming increasingly common . Most clinicians use the delayed loading method during implantation, which has the lowest percentage of complications and is classic. At the same time, recently there has been increasing interest in implantation with immediate loading, when the patient, immediately after installation of the implant, is given a temporary structure that not only replaces missing teeth, but also affects the underlying tissue. The article provides information on the use of the author's design of an individual abutment , used simultaneously as a prosthesis and as a gingival groove former.*

Key words: *implantation, gum former, gingival groove, individual abutment.*

When prosthetics on implants using the classical method, after the formation of the gums, an abutment is installed on the same implant. Its shape is determined by the future prosthesis. The design of a number of abutments allows it to be used in two versions: directly for its intended purpose - to secure a tooth crown on it, and as a gum former, for which a healing cap is attached to the abutment . When using abutments as a gum former, often only the interdental papillae that are missing in the free gum are formed. The free gum does not cover the tooth tightly, as a result of which access remains open for viral and bacterial infections into the internal

implanted volume of the alveolar process, which increases the possibility of inflammatory processes and worsens the conditions for rapid healing of soft tissues in the area of the gum former. For the same reason, during one-stage implantation, when the crown of the tooth being replaced is immediately fixed to the abutment , the conditions for tissue healing worsen. In addition, with a thinned mucous membrane, the edge of the metal abutment can create a gray shadow in the cervical area, which reduces the aesthetics of prosthetics, especially in the anterior region.

The advantage of individualizing the abutment is that it is made in the shape of a tooth and can serve as a temporary crown, on the side surface of which a circular groove is made in the neck area. The abutment can be individualized using plastic as well as composite materials.

Many dentists place white and smooth artificial crowns on implants. But few people think that it is not only the teeth that need restoration, but also the gums, which have lost their natural contour in the area where the tooth fell out. That is why, One of the stages of implantation is the installation of a gum former. The purpose of the former is to create a natural contour of the gums around the denture. The beauty of the dentition depends on its correct installation .

Externally, the product resembles a metal bolt, the cylindrical leg of which has a dense thread. The former is screwed directly to the implanted implant and firmly fixed so that it does not fall out. The size and shape of the product are selected individually for each patient and depend on the dimensions and location of the future denture. Shapers can be made of the following materials: titanium, zirconium, plastic, ceramics.

Experts prefer to work with titanium products because this material is durable and not susceptible to corrosion. In addition, this design does not create unnecessary load on the root implant. But titanium formers have one significant drawback: they shine through the gums, which significantly spoils the appearance of the dentition. Therefore, to restore gum tissue in the area of the front teeth, specialists use products made from alternative materials.

After installing the abutment of the original design on the implant, during the formation of the gum, a fibrous ring is formed, which tightly covers the neck of the replacement tooth - the abutment , similar to the gingival groove. Thus, it is possible to create a sealing structure during the formation of the gums that prevents the penetration of infection into the alveolar process, causing the emergence and development of pathological processes. This promotes rapid healing of soft gum tissue during its formation in the abutment area , which is especially important when using the abutment for one-stage prosthetics. It is important to note that the aesthetics of the prosthetic results improves.

Former and abutment , differences . The stages of dental implantation include the installation of not only the gum former, but also the abutment . Both designs have a similar structure, but their purpose in dentistry is different. The abutment is placed after the final formation of the gums; it is screwed into the implant instead of the former.

The function of the abutment is to provide additional strength to the denture. Abutments are temporary, angular, cast (soldered to implants), standard, individual .

Surgery is always stressful. And since each person’s body is individual, the consequences of micro-surgery are difficult to predict. Therefore, doctors always warn about the possibility of complications, including:

- Allergic reaction. Dental products used for implantation are made from hypoallergenic alloys. But it is impossible to predict the patient’s reaction to the use of medications. Therefore, a sensitivity test is performed before the procedure. If, despite precautions, an allergic reaction occurs, the doctor prescribes antihistamines.

• Bleeding sutures and gums. While the postoperative wound is healing, it is recommended to rinse the mouth with herbal decoctions or special pharmaceutical solutions.

• Swelling of the gums. A common reaction after surgery is swelling in the cheek or gum area. Usually the swelling subsides quickly. But it is possible that swelling indicates severe compression of the gums. In this case, it is necessary to change the former.

•Pain in the throat, neck, and prosthetic area. Appears when the doctor's instructions are not followed during the postoperative period. Neglect of hygiene rules is fraught with the development of gum inflammation. Therefore, in order to be on the safe side after surgery, antibiotics and antiseptic treatment of sutures are prescribed.

Conclusion. The use of individual modified gum formers around dental implants after their osseointegration showed the best effectiveness for gum formation . A comparative clinical and functional assessment of the regeneration of soft tissues around dental implants during the period of gum formation revealed that implantation using the method of individual immediate gum formation was an average of 25-30 percent positive advantages compared to two other methods (implantation using the traditional delayed and individual delayed gum formation method). The author's method of immediate gum formation "composite lake" has been developed, which promotes the immediate formation of gums in accordance with the eruption profile of a certain group of teeth. This method of gum formation ensures tight coverage of the gum around the cervical part of the implant, which creates favorable conditions for the regeneration of soft tissues and leads to the achievement of a protective barrier function at the implant-gum border and reduces healing time by 2 times.

Currently, we continue to work on further introducing into widespread practice individual abutments manufactured according to the method and form we proposed.

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