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ADVANCED COMBINED PROSTHODONTICS WITH BAR SYSTEM

***Аннотация:** авторы отмечают, что традиционный протез опирается на десну и не поддерживается с помощью имплантатов. Протез с опорой на имплантаты используются, когда человек не имеет зубов в челюсти, однако достаточно кости, в которую могут быть интегрированы имплантаты. Такой тип протеза сделан, как правило, для нижней челюсти, потому что традиционные зубные протезы для нижней челюсти менее стабильны. Тем не менее протезирование этого типа может быть создано и для верхней челюсти. Плаковая часть на акриловой основе успешно имитирует десны, фарфоровые или пластмассовые зубы прикреплены к ней. Требуется не менее два имплантата, на котором будет закреплена протеза. Для того чтобы сделать ее более функциональной, необходимо ежедневное очищение.*

***Ключевые слова:** протезирование траверсной системой, имплантаты, пациенты, стоматолог.*

***Abstract:** the authors point out that a conventional denture bases itself upon a gingival tissue and is not supported by implants. Implant-supported prostheses are used when a person does not have any tooth, but has enough bony tissue for submerging implants into it. Such type of prostheses is created for a lower jaw bone, as the conventional dental prostheses for a lower jaw bone are less steady. Nevertheless, this*

type of prostheses might well be used for an upper jaw bone. Its acryl part successfully imitates gums, porcelain or plastic teeth are fixed to it. Not less than two implants are needed, because denture should be fixed to them. Daily cleanup is necessary in order to make it operational.

Keywords: *denture treatment, implants, patients, dentist.*

Introduction

An implant-supported denture is a type of overdenture that is supported by and attached to implants. A regular denture rests on the gums, and is not supported by implants. An implant-supported denture is used when a person doesn't have any teeth in the jaw, but has enough bone in the jaw to support implants. An implant-supported denture has special attachments that snap onto attachments on the implants [2; 3].

Implant-supported dentures usually are made for the lower jaw because regular dentures tend to be less stable there. Usually, a regular denture made to fit an upper jaw is quite stable on its own and doesn't need the extra support offered by implants. However, you can receive an implant-supported denture in either the upper or lower jaw [1].

You should remove an implant-supported denture daily to clean the denture and gum area. Just as with regular dentures, you should not sleep with the implant-supported dentures at night [2].

There are two types of implant-supported dentures: bar-retained and ball-retained. In both cases, the denture will be made of an acrylic base that will look like gums. Porcelaine or acrylic teeth that look like natural teeth are attached to the base. Both types of dentures need at least two implants for support.

Bar-retained dentures – A thin metal bar that follows the curve of your jaw is attached to two to five implants that have been placed in your jawbone. Clips or other types of attachments are fitted to the bar, the denture or both. The denture fits over the bar and is securely clipped into place by the attachments [1–3].

Using Kavo Everest CAD software, one of the primary designs for attached overdenture bars is the «free-shape milled bar». This bar design is a simple, highly polished, rectangular bar that can accept attachments, and the walls can incorporate a specific

degree of taper from 0° to 10° in increments of 2°. Another excellent choice for overdenture bar design is the «Paris» bar.

Methods and results

This implant treatment involves placement of 3–4 implants and the attachment of a customised bar. This bar provides rigid support through a series of clips to the denture that fits over the top of the bar. The bar retained overdenture treatment can be used in both the upper and lower jaws. It still allows for the denture to be removed from the mouth for cleaning. Patients also have to brush the bar which remains attached to the implants in the mouth. In the upper arch the bar overdenture often allows for a «horse-shoe design» to be adopted there by eliminating the denture covering the palate.

Immediately following implant placement surgery. Four dental implants have been carefully placed in the lower jaw. Four healing caps have been placed on top of the implants and can be seen here protruding slightly through the gum. The small stitches are usually removed after a couple of weeks. If the patient is wearing an existing lower denture this is modified and relined with a soft reline material so that it can be worn while the implants are left to integrate for approximately 3 months.

After the implants have integrated and customised bar is fabricated and screw retained to the lower implants. This bar can not be removed by the patient and needs to be brushed and cleaned daily just as you would your teeth. The bar provides the retention for the denture which will fit over the top of the bar.

This shows the fitting surface of the lower denture. You can see a series of small clips which clip onto the bar in the mouth. This gives the denture a great deal of retention and also stability.

The final smile with the bar retained overdenture in place. In this example the patient also has an upper implant supported overdenture.



Fig. 1. Clinical case

Conclusion

The combination of CAD/CAM technology and industrial manufacturing processes guarantee a standardised quality and ensure an excellent passive fit of the framework.

References

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