DENTURE - "BRIDGE OF BRUKLIN"

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Abstract

This article deals with an analysis of a new method of making prosthesis in dental orthopedic clinics. It serves as an alternative method to solve a problem induced by posterior unilateral free-end saddle of a teeth row. And also in the article there is given general analysis of clinical laboratory stages of the so called "Bridge of Bruklin" prosthesis, which allows a dental practitioner to get acquainted with the method how to implement the given appliance in practice. And in the article there is given an 8-year-observation data as well.

Keyords: Bridge of Bruklin, CAD/CAM (computer-aided design and computer-aided manufacturing) dentistry, CEREC (chairside economical restoration of esthetic ceramics)system, dental implant attachments, Kennedy classification

Introduction

One of the main goals of an orthopedic dental practitioner is the selection of a suitable and esthetically attractive appliance for a patient individually. It should be selected according to the patient's needs and life-style, which will have a positive impact on the patient's personality. Certainly, it cannot always be achieved. However, nowadays there are a great number of varieties of dental appliances available which enables dental practitioners to meet patient requirements.

There are a lot of methods of **prosthodontics** all over the world. In today's dentistry dental implantation and prosthesis on an implant has a leading position, as well as, CEREC – a method of CAD/CAM (computer-aided design and computer-aided manufacturing) dentistry, and so on (1).

Figure1

Figure 2

Figure 3

In orthopedic dentistry when dealing with a secondary edentia dental practitioners usually use the so called Kennedy Classification, which includes 4 classes (2).

- Class I – posterior, bilateral free-end saddles
- Class II – posterior, unilateral free-end saddle
- Class III – posterior, unilateral bounded saddle
- Class IV – anterior bounded saddle
- Class I, II and III can have modification

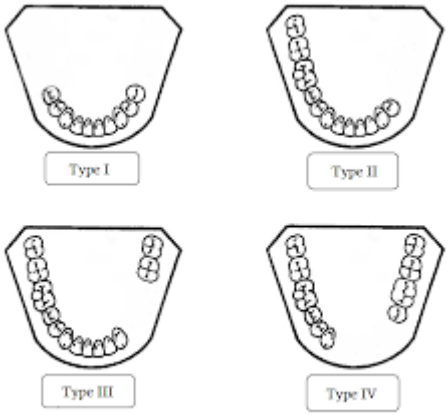


Figure 5

In **Prosthodontics** the most problematic thing is Kennedy II class i.e. posterior, unilateral free-end saddle defect treatment. In this case we can offer a patient partial removable dentures, (2) **biugel** prosthesis (arch type dentures with attachments), (2) which requires supportive teeth preparation and covering them with artificial crowns. However this method appears to be less preserving and a specific number of patients are against getting healthy teeth prepared for such manipulations. Besides, this type of appliance is not a fixed denture. It is removable. And it is not acceptable and is not satisfactory for a number of patients. We can offer a simple dental plate or a simple partial removable (arch-type) denture. However there may be some problems with fixation of such dentures. It is highly recommended in such cases to use alternative, the most convenient way and you may offer such prosthesis that can be fixed on an implant, though in such cases a number of problems may arise. While making an implant on maxillary jaw very often the base of the maxillary sinus reaches alveolar ridge apex because of atrophy of the alveolus, consequently in such case there is no other way left, other than to lift the base of maxillary sinus, or to select the shortest implant for implantation without sinus lifting. (4) Most of the patients refrain from surgical operations, thus refrain from implantation and prefer a removable denture.

Implantation practice is developing in Georgia with great success. However, the number of patients who are against it is very high. First of all this fact is dependent on fear of surgical manipulations and secondly on financial problems. Some people suffer from a kind of nausea reflex. And for them a removable denture is practically impossible. The age of patients using removable dentures has become quite young. But still young patients are not willing to use a removable denture, as it is a denture to be kept “in a glass”. It causes stress and an inferiority complex in them. What alternatives are

there to offer to such patients? Solving this problem is quite possible. We can offer the so called denture, “Bridge of Bruklin”.

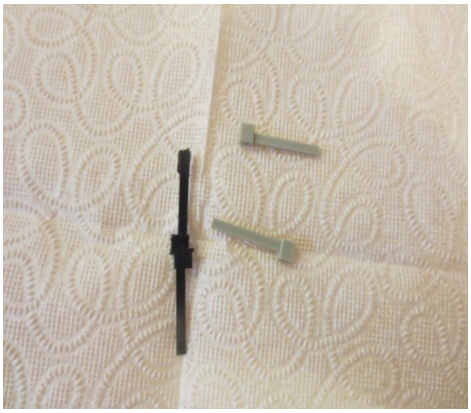
Clinic “Medi-Dent+” has been using this appliance since 2007 and still it is a success in this sphere. It is a great relief for the patients who have been suffering from using partial removable dentures for years. It is a great opportunity for them to start a new life. The inventor of this appliance is Oleg Surov, a great implantologist, prosthodontist, a prominent figure. “Bridge of Bruklin” consists of both the bridge and the removable part, which are connected by locking type attachments. A patient is not able to remove the denture, but in case of necessity a dentist practitioner can accomplish an inspection and dental care.c

Figure 6

Figure 7

The appliance looks quite like a bridge which is supported by a metal paw where lies on the alveolar process ridge in the region of tuber. The negative factor of the “Bridge of Bruklin” is that it cannot be used on the mandibular jaw, because the jaw is movable and it has to overcome too much pressure (3).

One of the characteristics of the denture is that there is a necessity that the supportive teeth of the fixed part of the denture to have high clinical crowns. Now we have an 8-year-observation data. This appliance has been made for 32 patients. And from the 8-year-observation, only one case had some type of complication. The place on the frame where an attachment is fixed was broken. According to complete case history, the patient was under alcohol effect and the denture was broken by a mechanical force. In other cases no disorders have been observed and there have not appeared even a washout of the cement.

Figures: 8,9

Conclusion

After analyzing the 8-year-observation data, we can state that the denture, “Bridge of Bruklin”, is a durable and the best alternative method for teeth row posterior unilateral free-end saddle defects.

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