

IMPLANT SUPPORTED OVER DENTURES (Part I)

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ABSTRACT:

The treatment of completely toothless patients using oral implants does not always allow the insertion of adequate number implants to ensure a fixed construction, the reasons ranging from anatomical, or health restrictions to financial limitations. Unfortunately, implant supported overdentures have not gained due popularity in Bulgaria. On one hand there is the psychological barrier of having to take out the construction from the mouth, which appears to be a hard-to-overcome idea for patients. On the other, the deeply rooted opinion that mobile constructions are low quality ones and imply low financial status, reason many patients to choose the long and at times unpredictable bone augmentation techniques like sinus lift, guided bone regeneration (GBR), block grafts, distraction osteogenesis, etc. Another drawback in the development of implant prosthetics is the lack of adequate clinical and laboratory experience for the manufacturing of telescopic prostheses, individually locked clasp prostheses, and other multicomponent removable prosthetic constructions.

AIMS:

To show a technically and financially easy methodology for preparing implant supported overdentures, aimed to ensure the patients a long-lasting functional and esthetic comfort.

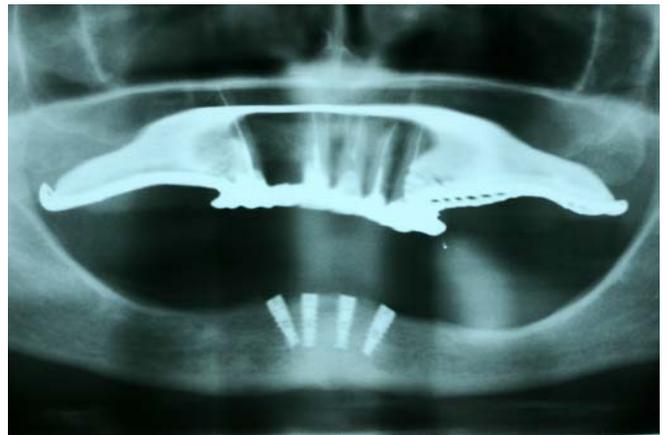
METHODS AND MATERIALS:

A patient with edentulous lower jaw and an anatomically determined (fig. 1.) (adequate height of distal part of alveolar ridge is not available) (fig. 2.) restriction for implant insertion of the adequate number implants to support a fixed construction. A set of attached elements with pre-milled bars provided by BREDENT is used, as well as a modified model-cast prosthesis. (fig. 3.)

Fig. 1. Clinical view of the edentulous lower jaw. The almost complete lack of attached gingiva can be easily seen.

Fig. 2. OPG after the implant placement. The gradient of the distal implants is necessary for distalising of the support

Fig. 3. A set with attached elements with pre-milled bars.



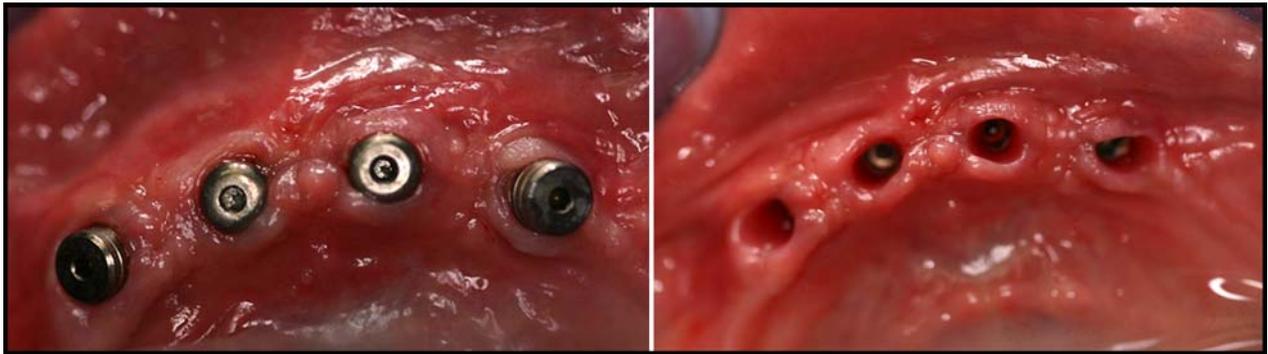


Fig. 4. The attached gingiva created in the course of the second time implant surgery.

RESULTS:

The construction shown is functionally and esthetically comparable to the permanent bridge constructions. No clinical or X-ray proven data for bone resorption has been detected 18 months after prosthetics. (fig.4.)

DISCUSSION:

It should be borne in mind that the alveolar bone does not show even symmetrical atrophy. Even if it is possible to insert an adequate number of implants ensuring a permanent construction, its teeth will have to be long

enough to compensate for the bone loss at some places. If the smile of the patient discloses the gums, this would be a serious problem. A possible solution might be to either apply a pink ceramic gum imitation, or to prepare two-piece screw-in constructions imitating alveolar ridge. The much easier alternative is a removable construction held by implants. Any decisionmaking requires a careful analysis of the pros and cons for each individual prosthetic procedure. Since the presence of bacterial plaque is fatal for any implant, the possibility for maintaining good hygiene is a serious advantage in favour of the removable construc-



Fig. 5. The arranged artificial teeth together with the silicon key required for the next stage



Fig. 6. The cast bar together with the retention elements.

tions. This criterion ranks the telescopic prostheses as being the best possible choice. Last but not least comes the financial factor, as the majority of removable implant supported overdentures are more reasonably priced. (Fig. 5. 6. 7. 8.)

CONCLUSIONS:

The possibilities for implant supported overdentures should not be underestimated. Practical experience has proven that quite a number of clinical cases unsuitable for implant insertion in the distal areas can be solved by placing 2-4 implants in the safe jaw areas. Since in most of the cases such clinical status is typical for aged patients, such a solution would considerably increase their standard of life.



Fig. 7. The model -cast grid

Fig. 8. The prosthesis



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