A Digest of Recent Trends, Techniques and Clinical

Concepts of Dental and Facial Esthetics



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TEETH IN A DAYTM Non-removable Implant Supported Teeth In Just One Day!

For over two decades, the staff at Prosthodontics Intermedica has been focused upon and energized by creating healthy, brilliant smiles for many patients who thought they were in hopeless dental situations. With the development and perfection of osseointegrated dental implants and esthetic, functional implant prostheses, patients regardless of age can enjoy a compliment of permanent teeth, custom designed to suit their individual appearances. Today, many patients who have a debilitating dental condition can be treated with a new process entitled TEETH IN A DAY. The following clinical example is typical of patient treatment completed within 6 hours, permitting them to conclude the 1-day dental experience with a beautiful smile.

Methodology

Following a thorough clinical and radiographic evaluation of the patient's condition, diagnostic casts are prepared and articulated to provide the technical staff with the necessary information required for the construction of a TEETH IN A DAY prostheses. Immediate clinical intervention includes the removal of periodontally and restoratively hopeless teeth (Fig 1a, 2, 3), followed by the placement of time proven and tested Branemark implants (Fig 4). The implants will become the immediate support mechanism to secure the TEETH IN A DAY prosthesis. After several hours of clinical and laboratory customization, the patient is dismissed with an intact dentition and a bright new smile.

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BEFORE



Figure 1a
Preoperative full face condition prior to TEETH IN A
DAY^{IM}.



Figure 1b Postoperative smile following TEETH IN A DAY $^{\text{TM}}$ treatment.

AFTER

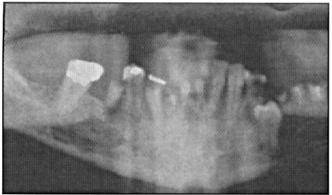


Figure 2
Preoperative panradiograph depicts advanced periodontal disease, caries, periapical abscesses and an impacted bicuspid.

The patient is a 51 year old female who avoided dentistry for many years because of her severe anxiety and phobia for dental treatment. She was chronically addicted to Ibuprofen analgesics due to her long standing dental pain. With the exception of an allergy to penicillin and frequent migraine headaches, her medical history was noncontributory. She did admit to smoking cigarettes at the rate of one pack per week. Her last dental treatment had been a decade prior and contributed to her high anxiety toward further dental care.



rigure 3a Intraoral view of the mandibular deteriorated dentition.



Figure 3b
Intraoral view showing the occlusion of the remaining hopeless teeth with failing maxillary denture.

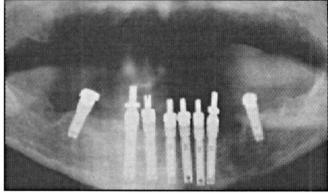


Figure 4
Post-TEETH IN A DAY™ panradiograph showing Brånemark implants supporting the fixed prosthesis.

The initial 45 minute of the first visit was used to obtain pertinent clinical and radiographic information, leading to the treatment plan recommending TEETH IN A DAY. The patient presented with a totally edentulous maxillary arch which had been previously restored with a removable denture (Fig 3b, 7a) that had completely deteriorated. The mandibular natural dentition were held in position using super glue which the patient self-administered (Fig 3a,b,c) for several years due to her fear of further dental treatment.

After a comprehensive discussion of the treatment plan and review of the informed consent information for both tooth removal and implant placement, the patient agreed to proceed immediately with the recommended treatment.



Figure 5
Intraoral view of the titanium abutments on the mandibular implants immediately following surgery.

Stage 1 laboratory procedures

Following articulation of the diagnostic casts a selection of prefabricated dentures were made to comply with the patient's facial appearance (Fig 6a). The dental laboratory technicians loosely retrofit the prefabricated dentures to the diagnostic cast while the clinical treatment began simultaneously.

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Figure 6 a Multiple prefabricated dentures can be chosen for the patient's immediate TEETH IN A DAY^M treatment.

First stage clinical treatment

A choice of local or general anesthesia is available depending on the participants specific requirements. For this patient, we used local anesthesia, consisting of bilateral blocks and infiltration The remaining periodontally hopeless teeth and impacted left bicuspid were removed and the mandibular arch was debrided of all pathology. Alveoloplasty was performed to level the sharp bony spines in the area of the anterior extraction sites.



Figure 6b Maxillary and mandibular TEETH IN A DAY™ immediate dentures.

Implant placement

Using the traditional osteotomy protocol for the placement of Branemark implants, eight titanium fixtures were placed in the mandibular arch: six long implants between the mental foramina and two shorter implants, one placed distally in each first molar area (Fig 4).

Following implant placement, appropriate abutments were selected and the mucosa was sutured around the abutments (Fig 5). Then using the conversion prosthesis method of treatment (Fig 6b,c) a fixed mandibular implant supported prosthesis was constructed. The mandibular implant supported prosthesis was reinforced, refined and polished, and delivered to the patient within an hour after implant placement. The new maxillary denture was relined and delivered to the patient's satisfaction (Fig 1b,7b, 8a,b,c).



Figure 6c
The under surface of the mandibular implant supported prosthesis
showing the prosthetic fastening components.

Postoperative patient management

The entire treatment process for TEETH IN A DAY can take between four and six hours. Postsurgical management includes a minimum of 48 hours, and preferably 72 hours, of cold therapy to minimize swelling in conjunction with the standard protocol of medications. These medications include at the very least antibiotics and analgesics.

The patient was also instructed to avoid difficult to chew foods and maintain a soft diet for 12 weeks immediately following the TEETH IN A DAY treatment. The patient returned to normal dietary and oral function after the 12 week period.

It is interesting to note that at the 24-hour follow-up the patient reported being totally pain free, comfortable, and very enthusiastic about her new smile.

Conclusion

The concept of TEETH IN A DAY is based on the research on the immediate loading of Branemark implants which has been published in the dental literature. The customized process of TEETH IN A DAY was developed to fill a very special need in dental care. This method of treatment can provide patients with enormous instant gratification and can be accomplished using either local anesthesia or general anesthesia for

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Figure 7a Right lateral view of the preoperative occlusal relationship.



Figure 7b
Right lateral postoperative view of TEETH IN A DAY^{IM}.

those patients with extreme dental anxiety. Research for the immediate loading of Branemark implants began at Prosthodontics Intermedica in 1993. The evolution to the current TEETH IN A DAYx method relies heavily on the expert prosthetic abilities of the prosthodontist, the professional staff, and the dental laboratory technicians. The treatment method itself has been eagerly embraced by both the profession and patients alike.

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Figure 8a
Patient's smiling view following TEETH IN A DAY^{IM} treatment.



Figure 8b Occlusal view of the mandibular TEETH IN A DAY™ prosthesis.



Figure 8c
Intraoral frontal view of the final TEETH IN A DAY[™] prosthesis.

References:

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- ² Balshi TJ, Wolfinger GJ. Conversion prosthesis: a transitional fixed implant-supported prosthesis for an edentulous arch a technical note. Int J Oral Maxillofac Implants. 1996; 11: 106-111.
- ³ Balshi TJ, Wolfinger GJ. Immediate loading of Brånemark implants in edentulous mandibles: a preliminary report. Implant Dent 1997;6:83-88 ⁴ Schnitman et al. Ten-year results for Brånemark implants immediately Loaded with fixed prostheses at implant placement. Int J Oral Maxillofac Implants 1997; 12:495-503.

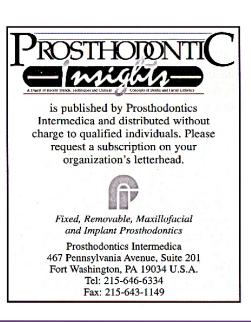
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Immediate Loading of Brånemark Implants in Edentulous Mandibles Thomas J. Balshi TJB and Glenn J. Wolfinger DMD

A study involving the immediate loading of Branemark implants in the edentulous mandibles of 10 patients is reported. The design involved the immediate loading of four widely distributed implants with a transitional fixed implant supported prosthesis at first-stage surgery, avoiding the need for a removable prosthesis. A sufficient number of additional implants are allowed to

heal in the conventional manner to provide sufficient support for a definitive fixed prosthesis even if all of the immediately loaded implants fail. Preliminary results have been favorable, with all patients functioning with a fixed implant prosthesis from the day of first-stage surgery.

Implant Dent 1997;6:83-88



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Conversion Prosthesis: A Transitional Fixed Implant-Supported Prosthesis for an Edentulous Arch - A Technical Note Thomas J. Balshi TJB and Glenn J. Wolfinger DMD

This article describes a technique for fabricating a provisional fixed prosthesis, the conversion prosthesis, and is constructed immediately following the abutment connection. The conversion prosthesis provides a fixed prosthesis immediately following stage 2 surgery with improved function, stability, and distribution of load; it protects the sutured mucosa; serves as a prototype for the final prosthesis; can be used as a verification jig; preserves the original vertical dimension of occlusion; aids in obtaining and transferring the interocclusal record; assists long-term patient maintenance; and reduces treatment visits. The advantages of this technique are numerous for the patient, the restorative dentist, and the

laboratory technician. Most important, however, the conversion prosthesis provides superior patient comfort and satisfaction and improves the quality of caraids in obtaining and transferring the interocclusal record; assists long-term patient maintenance; and reduces treatment visits. The advantages of this technique are numerous for the patient, the restorative dentist, and the laboratory technician. Most important, however, the conversion prosthesis provides superior patient comfort and satisfaction and improves the quality of care provided. Provided.

Int J Oral Maxillofac Implants 1996;11:106-111

The Biotes Conversion Prosthesis; A Provisional Fixed Prosthesis Supported by Osseointegrated Titanium Fixtures for Restoration of The Edentulous Jaw Thomas J. Balshi T.IB

The conversion of the patients transitional denture occurs at the time of the second surgery, the abutment connection visit. This conversion prosthesis is obtained by transforming the patient's transitional removable interim denture into a fixed prosthesis and is used by the patient until complete healing has occurred and the sutures are removed. It is accomplished by connecting the gold alloy cylinders, supported by the osseointegrated fixtures to the denture, followed by radical modification of the tissue-bearing areas of the removable denture.

If the patient is comfortable with the occlusion and aesthetics of

the conversion prosthesis, the same format can be duplicated in the final restoration. At the casting try-in, or placement of the final restoration, the conversion prosthesis is removed and retained for future reference. Should additional treatment be required, this prosthesis can be easily modified, allowing change with the final prosthesis to occur without requiring the patient to rely on the use of a removable appliance. Patient comfort, aesthetics, phonetics, and function are all very distinct advantages for using a conversion prosthesis.

Quintessence International 10/1985

Ten-Year Results for Brånemark Implants Immediately Loaded With Fixed Prostheses at Implant Placement Paul A. Schnitman et al

This investigation was initiated to develop a method to provide patients with a fixed provisional prosthesis placed at the time of implant placement. Sixty-three standard 3.75 mm Nobel Biocare implants of varying lengths were placed into mandibular sites in 10 patients and followed for up to 10 years. Twenty-eight implants were immediately loaded at implant placement, providing support for fixed provisional prostheses, while 35 adjacent implants were allowed to heal submerged and stress-free. Following a 3-month healing period, the submerged implants were exposed and definitive reconstruction was accomplished.

All 10 prostheses supported by 28 implants placed into

immediate function at the time of implant placement were successful during the 3-month healing period. Of these 28 implants placed into immediate function, 4 ultimately failed. Of the 35 submerged implants, all are osseointegrated and in function to date. Life-table analysis demonstrates an overall 10-year survival rate of 93.4% for all implants. Statistical analysis of the submerged versus immediately loaded implants demonstrates failure rates for immediately loaded implants to be significantly higher (P = .022 by the log rank test). These data term to support fixed provisional prostheses, long-term prognosis is guarded for those implants placed into immediate function distal to the incisor region.

Int J Oral Maxillofac Implants 1997;12:495-503