A revision of an unaesthetic reconstruction

Author_Dental Campus

_Introduction

Has it happened to you? You've heard an excellent talk at a continuing education course, but when you want to apply the new knowledge, you realize that you lack the necessary practical details. Dental Campus closes this gap. The new e-learning platform created especially for implant dentistry is practice-oriented and offers important theoretical, technological and product-related details in one single resource. It has a structured and innovative design and allows for interactive communication. The quality of the content on Dental Campus is constantly assured by the Implant Campus Board whose members include internationally recognized experts.

Learning modules can be individually combined to meet the user's specific needs. Online lectures of world-renowned experts provide you with up-to-date expertise and help you to plan cases of varying difficulty levels. Each of the lectures is linked to corresponding implant specific product information to enable rapid transformation of your new knowledge into practical treatment know-how.

Besides these lectures, the many clinical cases offered by Dental Campus are key features. Each case presentation realistically simulates the clinician's situation when planning a case on his office desk. The cases range from simple to advanced and are all structured in the same way: from initial findings to diagnosis, prognosis and planning through the treatment sequences and the final check-up. You have the opportunity to follow all the relevant treatment steps in detail and discuss the case in Dental Campus forums with your colleagues.

Users are given a wealth of information, as shown in the following sample case study. This case study is the first in a series of articles designed to introduce you to Dental Campus. The complete case is available as a demo on Dental Campus free of charge. We hope you enjoy your planning and treatment of this case.

_Initial examination

A 70-year-old female patient was referred for a prosthetic revision. She was unsatisfied with the aesthetics of her old maxillary bridge (Fig. 1). She was particularly displeased with the yellowish color and bulky size of the crowns. In addition, a tooth in the mandible was extracted due to a root fracture. Besides chronic periodontitis, this patient also presented with wear facettes on the lower front teeth. The patient was healthy and a non-smoker. Clinical charts and periapical radiographs as well as other relevant patient information were collected in the initial consultation (Fig. 2).

_Interactive diagnosis

Detailed information on this case and different treatment options can be found online on Dental Campus. With a few clicks you make your own diagnosis, define a prognosis for each tooth and plan the case with the help of an electronic dental scheme (Fig. 3). Give this feature a try! Compare your assessment with that of the responsible dentist and start to discuss it in the forum.

_Treatment

a) Pre-treatment

After removal of the maxillary bridge, sufficient remaining dental structure was revealed. The abutment teeth would allow to be restored with a new fixed one-piece bridge (Fig. 4). The use of implants could allow for a segmented restoration design in the


Fig. 1a


Fig. 1b


Fig. 1c


Fig. 1d


Fig. 1e


Fig. 1f

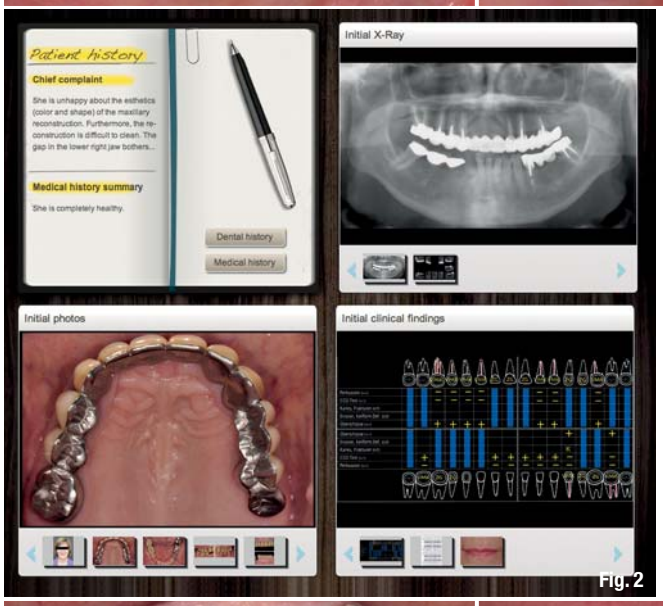

Fig. 2

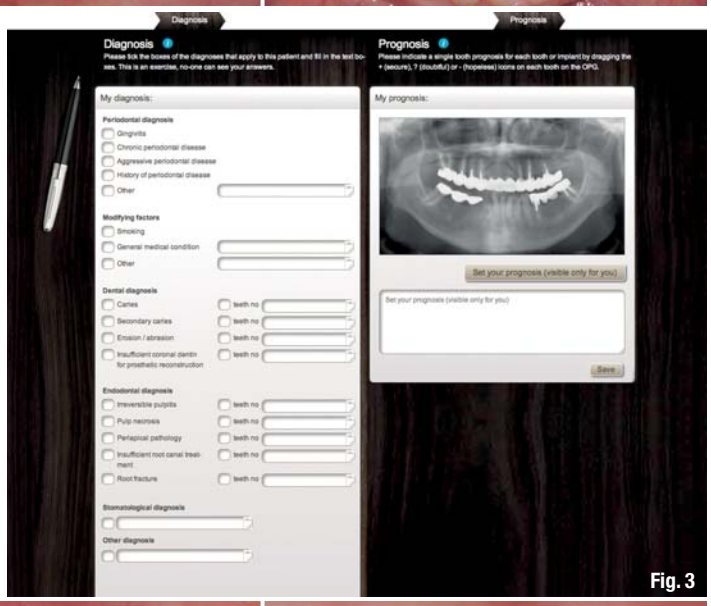

Fig. 3


Fig. 4a


Fig. 4b


Fig. 4c


Fig. 5

Fig. 1_Clinical images of initial examination.
Fig. 2_Dental Campus screenshot of initial findings. In addition to clinical images, the user has simultaneous access to X-ray and clinical findings as well as other relevant patient information. The presentation simulates the practitioner's "desktop view".
Fig. 3_Users can create their own diagnosis and tooth prognosis on screen, then compare with those of the treating dentist.
Fig. 4_Clinical situation after bridge removal.
Fig. 5_Clinical situation following extraction of left mandibular abutment tooth.

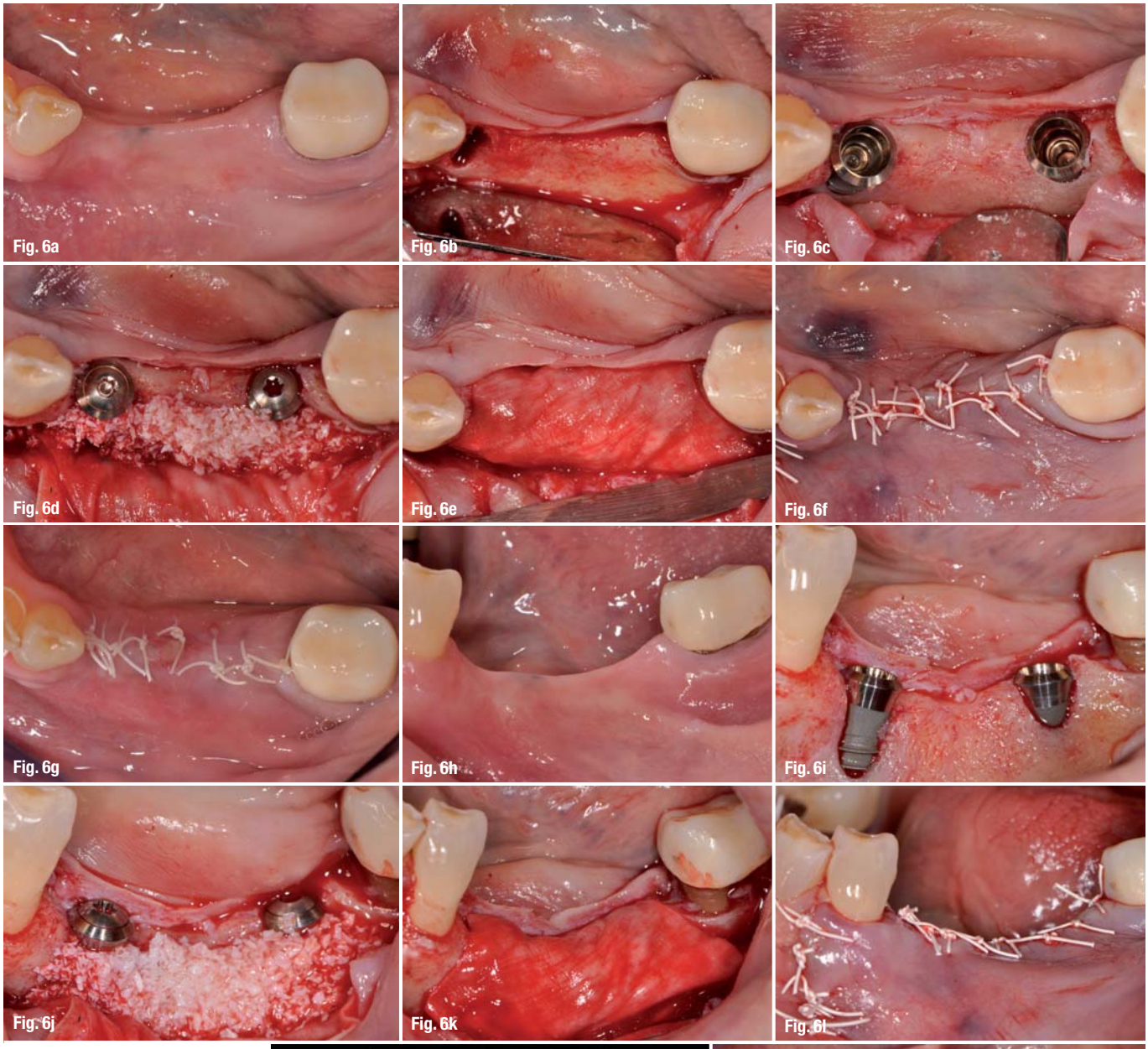

Fig. 6_Clinical situation during implant insertion and bone augmentation, including X-ray.
Fig. 7_Maxilla: fitting of four roots caps.
Fig. 8_Denture try-in with bite verification.


Fig. 9


Fig. 10a


Fig. 10b


Fig. 10c


Fig. 10d


Fig. 10e


Fig. 10f

Fig. 9_Preparation of veneers for raising the bite.
Fig. 10_Final examination.

maxilla assuring short span bridges. Since the patient was unable to bear the additional costs of a fixed reconstruction in both jaws, a removable reconstruction was planned in the maxilla. In the lower left jaw, an abutment tooth needed to be extracted (Fig. 5). Implant-supported fixed partial dentures were planned to restore the extended edentulous spaces in the lower jaw.

b) Surgical phase

In both sides of the mandible two implants were placed (Fig. 6). Peri-implant bone dehiscences were simultaneously augmented with a bone substitute material and a collagen membrane. During abutment connection, the soft-tissue quality was improved with a free gingival graft from the palate. The soft-tissue volume gained could be conditioned with temporary dentures to optimally shape the pontic area.

c) Prosthetic treatment

After a short time, the mandibular implants were restored with provisional screw-retained bridges. In the upper jaw, endodontic revisions were performed on two teeth and all teeth were shortened. Subsequently, the definitive set-up could be established (Fig. 7). In the maxilla, four abutment teeth were prepared for root caps. The mandibular framework try-in took place simultaneously with the maxillary framework try-in, onto which the definitive set-up was transferred (Fig. 8). This enabled a verification of the correct bite before the final veneering of the bridgeworks was performed. Subsequently, the dental technician completed both dentures in the upper and lower jaws. At the end the lower front teeth needed to be elongated due to the rise of the bite. The teeth were prepared traditionally to receive veneers (Fig. 9). The final outcome revealed a highly appealing full restoration, both functionally and aesthetically. The patient was extremely satisfied (Fig. 10).

_Join in the discussion

The presented case is a typical example of Dental Campus' case studies and is available as a free demo case (www.dental-campus.com/DTEcase1). Comprehensive background information and the detailed presentation of the treatment steps enable you to closely follow the planning and the treatment. This maximizes the practical benefit for your own patients.

Do you agree with the case assessment and the selected treatment as presented here? Register as a user and create your own treatment plan. Then, compare and discuss this plan with those provided by your fellow dental colleagues._

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