Possible applications of a new implant system

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Task

This evaluation is intended to demonstrate the use and suitability of a new endosseous implant system under clinical conditions. The implants are placed surgically in the partially edentulous or edentulous jaws of the patients for functional and aesthetic oral rehabilitation. Subsequently, the prosthetic restoration is carried out with single crowns, bridges, partial or total dentures. The procedure was documented and evaluated in three phases, preoperative - intraoperative - postoperative. In the preoperative phase, the initial situation was recorded with radiological findings and a treatment plan was prepared. When selecting the patients, different indications were considered, such as direct implantation after extraction, late implantation or in connection with direct or previous augmentation. During the intraoperative phase, the implants were placed in a first step and subsequently left concealed in the patient‘s mouth for several months for osseointegration. In the second step, the treated region was reopened and then the soft tissue was shaped by healing caps. Finally, the patients received prosthetic treatment in the postoperative phase. As a result, the prosthesis was complete and the treatment was successfully completed. All steps were to be documented in writing, radiologically and photographically. In addition, the cases included are monitored and documented over the subsequent period.

Implementation

case study


Fig. 02

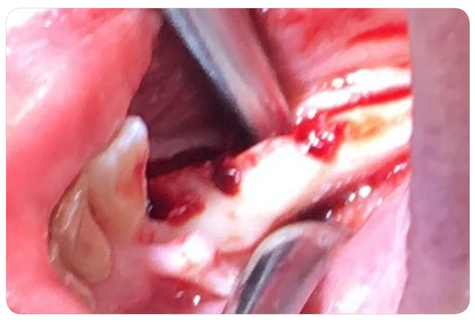
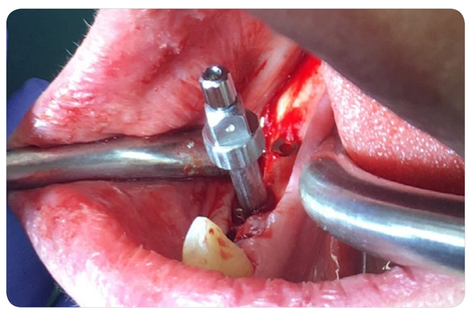


Fig. 03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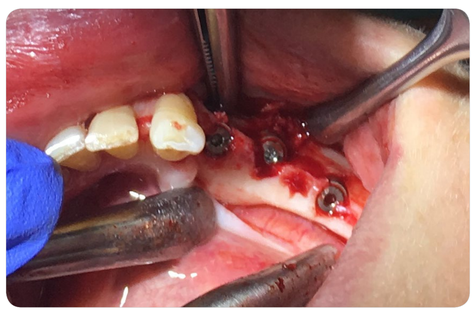
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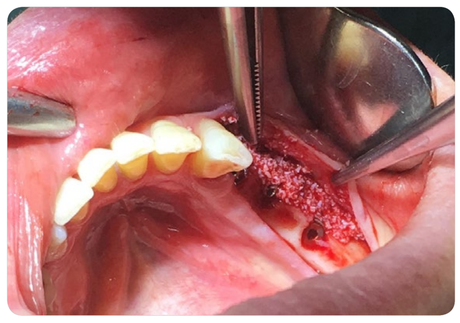
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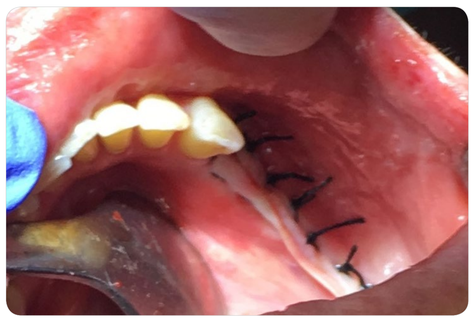
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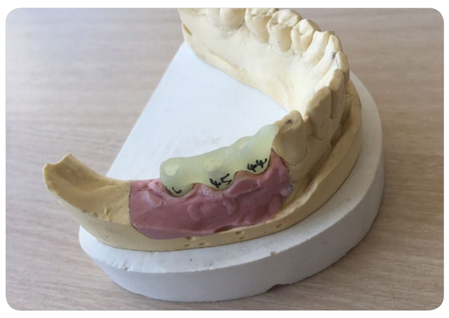
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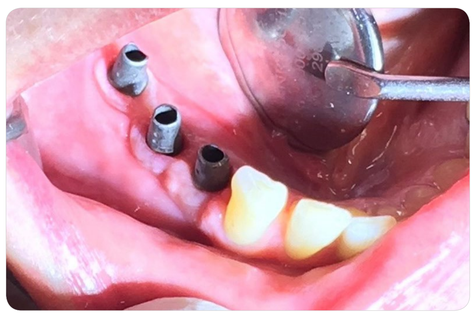
Fig. 09

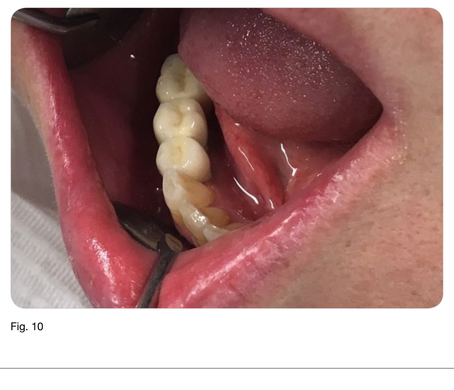
Fig. 10

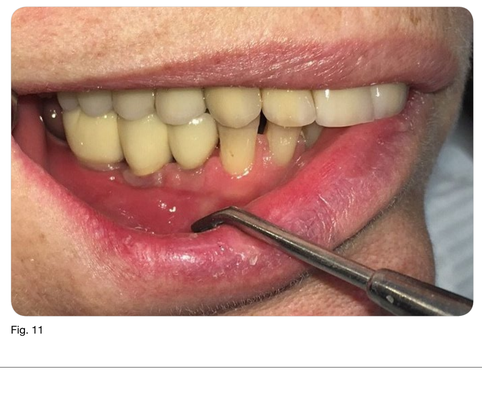
Fig. 11

In this case study (patient: female, 59 years, non-smoker) an implantation in region 44 (ConeCept 38-100), 45 and 46/47 (ConeCept 42-100) with direct augmentation could be performed after extraction and healing. The bone quality was determined with D3-D4 (after mixing).
Initially, an incision and split flap in region 44-47 were performed. The pilot drillings were made with a laboratory-fabricated drilling template. After removal of the drilling template, the implant site was expanded using the conical final drills according to the implant size. The counter sink was used for the final preparation. In region 46/47, this was not necessary due to the low bone hardness in order to achieve the highest possible primary stability.
The implants 24 (38-100), 25 and 26 (42-100) were safely placed by hand with the ConeCept Inserter and finally with the torque ratchet. The Inserter Ratchet can be easily connected to the implant with a fixing screw to ensure a complete form fit between the instrument and the implant and thus functions as an insertion post.
For closed healing, the implants were closed with the enclosed cover screws. After the closure of the implants, xenogenous augmentation was applied buccally in the area of the implants to increase the wall strength/stability. Since the bone was only thinly surrounded by soft tissue, the gingiva had to be displaced occlusally with the aid of a backstitch suture.
This allowed a 3-4 mm higher emergence profile to be created.
After a healing period of four months, the exposure of the implants and the shaping of the emergence profile could be performed using the healing caps. An impression is taken after two weeks. The final prosthetic restoration, a metal-ceramic bridge, was incorporated after two weeks.

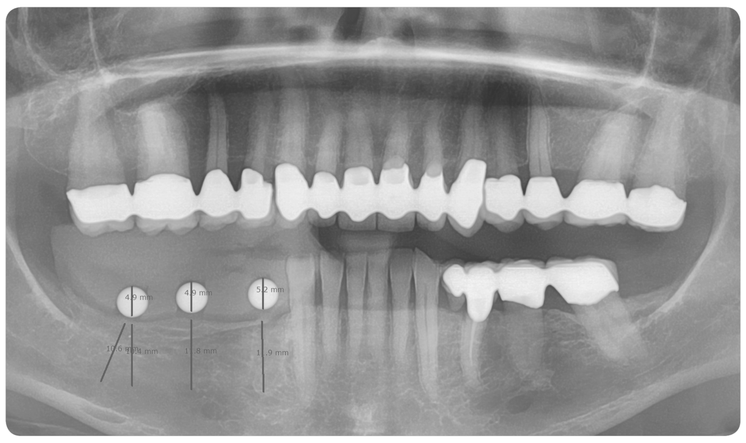

Fig. 01

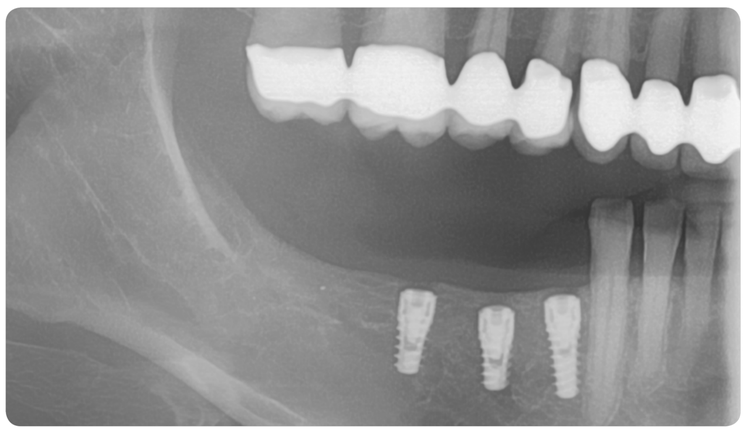
Fig. 12

bottom line

The documentation of this case once again confirms the outstanding user-friendliness and range of application of the new ConeCept implant system in various bone variants. The primary stability was convincing even in soft bone D 3-4. It should also be added that even first-time users can achieve directly satisfactory surgical and prosthetic results through the logical structure of the instrument sequence. The radiological findings presented demonstrated the preservation of crestal bone level with the Platform-Switch Design using the ConeCept Implant System. In addition, during the course of the documented case, it was shown that the number of components can be reduced to an effective minimum without having to forego maximum practicability during application.

The follow-up documentation of numerous ConeCept case studies proves the satisfactory application and underlines the success of the sophisticated implant system.

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