

USER REPORT

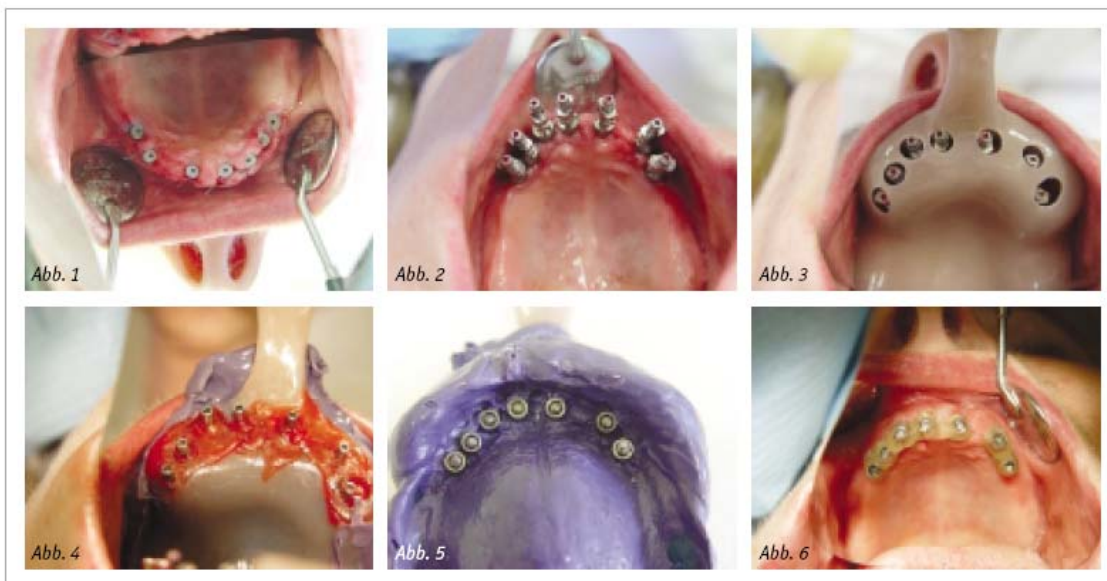
Provision of a palate-free supra-construction for a toothless upper jaw.

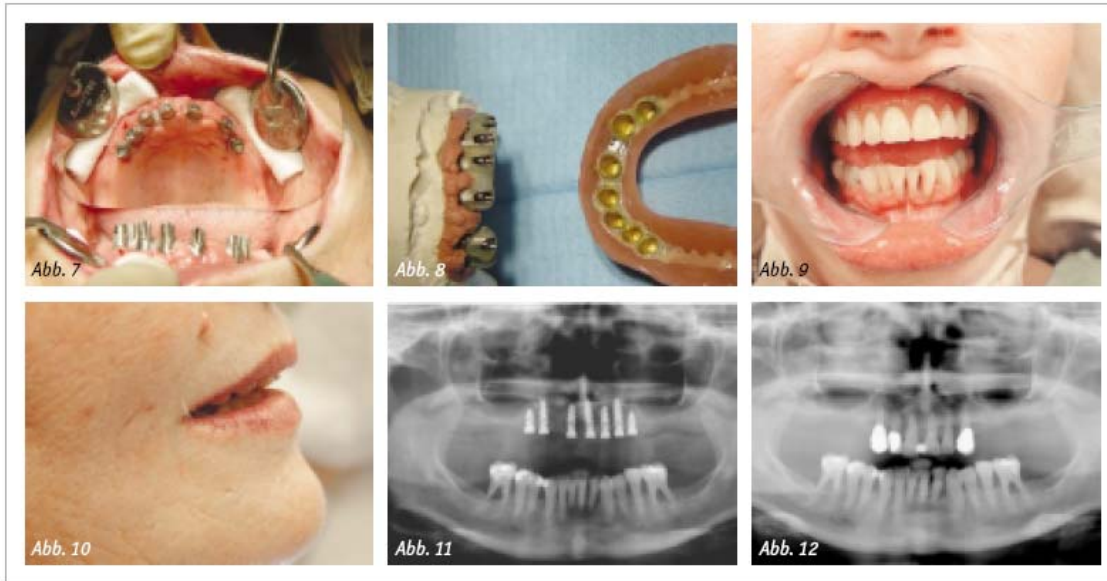
The main focus of implantology has always been oral rehabilitation, to regain chewing function and for aesthetic result. A patient who has chosen to have implants considers the aesthetic aspect as well as the restoration of function.

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This is wholly dependent on implant positioning – ideally the implant should be the extension of the supra-construction to be anchored on it (GARBER). Therefore the positioning is not based on the existing defect but towards the results obtained from the analysis of the wax-up; it is then decided which drill templates to use in intraoperative surgery. Guidelines for the harmonisation of soft tissue and laughter lines, gingival lines and the aesthetic view should be considered. Hard and soft tissue defects are to be considered through the application of appropriate operative techniques (augmentation procedures; soft tissue management).

Due to ever increasing aesthetic demands, practical knowledge gained in the past has to be put into practice. Excluding any contraindications and after extensive diagnosis (planning with wax-ups, taking implant measurements, drill templates etc.) the implant is inserted. After osseous integration the appropriate supra-construction is placed on the implant. After the introduction of the single-phase Q Implant System® (titanium monobody), TRINON (Karlsruhe) developed the dual phase Q2 Implant®, so flexible solutions are available for the oral rehabilitation of complicated initial situations as well. We are using these for rehabilitation in the following patient case.





Case description

A female patient, who was 55-years-old at the time, came to our practice with very pronounced periodontal damage; it was inevitable that there would be total loss of the teeth in the upper jaw area, due to the high degree of loosening. Taking that into account, immediate replacements were fitted as planned after the registration of the initial situation and the removal of the teeth, which were not worth retaining. The patient – who works for the civil service – wanted a fixed replacement tooth. Due to the initial conditions and in order to optimise oral hygiene, provision of telescopic bridge prosthesis was suggested. Since the patient has declined a bilateral sinus lift pre-prosthesis for personal reasons, the distribution of the implants of the 015-024 area was planned in advanced. After a successful post-extraction wound-healing, 7 Q2 Implants (TRINON, Karlsruhe), 12 and 14 mm long and 4mm in diameter, were inserted under local infiltration anaesthetic six weeks later (Abb 11: pre-op and Abb 12: post-op). In order to convert the static load for bending in the area of the side teeth into an axial load, the insertion was carried out using tripodisation.

During the six month healing period the patient wore the immediate replacement. Following the exposure of the implants, an impression was taken for the creation of individual casting moulds, the implants were covered for five days with gingival moulds (TRINON, Karlsruhe) (Abb 1). Moulding implants in the 015-024 region followed with individual impressions in an open technique using polyether IMPREGUM (ESPE Seefeld, Germany) (Abb. 2-5).

Then in the laboratory the implant supraconstruction was prepared with a screw-in primary telescope and checked in situ using key transfer to check suitability; at the same time the prosthetic base was tested with a wax try-in (Abb 6 and 7).

The front teeth were positioned out of contact in accordance with prosthetic guidelines. There were no problems with the subsequent bonding of the AGC galvanized caps on the

tertiary structure in the laboratory; this was done outside of the patient's mouth using an articulated duplicate model. The advantage of this is the optimal fit of the pre-fabricated milled titanium abutments and the galvanised caps (Abb. 8). After the replacement teeth were fitted (Abb. 9) the patient was accepted onto a practice specific prophylaxis programme. Thereby existing care deficiencies could be dealt with and the risk of peri-implant inflammation prevented. We considered this to be necessary in particular in view of the causes of this patient's tooth loss.

The replacement teeth did not just give the patient a higher degree of comfort with a more secure fit; they also guaranteed the patient's professional and social integration (Abb. 10).

Discussion

If fixed bridge prosthesis is ruled out in the toothless upper jaw area due to the anatomical divergence of the implants, there is a choice of implant-stabilised cover prosthesis. Furthermore, even in unfavourable initial conditions the sagittal and vertical relations of the jaw can be compensated for and balanced. In particular the basic structuring as well can contribute an improvement in lip support and phonetics. With regard to care techniques, the implant-supported cover prosthesis has advantages for the patient in comparison to fixed bridge. The disadvantage of the implant-augmentable-supported cover prosthesis is the necessity of regular re-lining due to the progressive atrophy of the jaw ridge.

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