



Figs. 1a & b: Initial clinical situation overview. **Figs. 2a & b:** Initial clinical situation of (a) tooth #12 and (b) tooth #22. **Fig. 3:** Lip-smile-line. **Fig. 4:** Former Maryland bridges. **Fig. 5:** Provisional aesthetic restoration with internal suspension clip. **Fig. 6:** Provisional restoration *in situ*. **Fig. 7:** One-piece ceramic implants prior to prosthetic placement. **Fig. 8:** Occlusal view.

Aesthetic restoration in the incisal region

Michael Gahlert, Germany

Dr Michael Gahlert is a fellow of the International Team for Implantology (ITI) and has been specialising on the development and placement of ceramic implants. In this case report the aesthetic restoration of two maxillary incisors with ceramic implants is presented in detail. Dr Gahlert was supported by Otto Prandtner, dental technician at Dental Plattform and Dr Reza Saeidi Pour, prosthodontic specialist of the Dr Seehofer dental clinic, both from Munich, Germany.

Case presentation

A 28-year-old female patient attended the practice with the desire to have her incisors, which by nature did not exist, replaced with implants. The patient had until then been wearing Maryland bridges. However, in the past years they had repeatedly been falling out of posi-

tion and thus regularly had to be reglued. Consequently, the patient was not satisfied with this solution anymore (Figs. 1–4).

In a thorough consultation, the patient was extensively informed about available restoration options and she decided for one-piece ceramic implants (PURE Ceramic, Straumann Group). In a first step a provisional aesthetic restoration with an internal clip was produced and could be integrated immediately after the former bridges had been removed (Figs. 5 & 6).

In the following implantological procedure autologous bone material was simultaneously buccally accumulated. The teeth of the provisional restoration were hollowed in order to prevent them from touching the freshly inserted one-piece ceramic implants (Figs. 7 & 8).



Fig. 9: Gingival displacement. **Fig. 10:** Fitted plastic temporary copings. **Fig. 11:** Shortened temporary copings. **Fig. 12:** Final chairside provisional restorations on laboratory implant analogues. **Fig. 13:** Chairside provisional restoration *in situ*. **Figs. 14a & b:** Definitive restorations. **Figs. 15a & b:** Final state of (a) tooth #12 and (b) tooth #22. **Fig. 16:** Lip-smile-line with final restoration. **Fig. 17:** Patient portrait with lip-smile-line.

After a healing period of three months the implants were prepared for the provisional crowns. In order to do so the peri-implant gingiva had to be displaced with retraction threads. Excess gingiva was removed with an electrotom on the palatal side (Fig. 9).

Industrially produced temporary copings (Straumann Group) were then put on the implant fixture and shortened accordingly (Figs. 10 & 11). This so-called snap-on method facilitates the prosthetic handling and is also used for taking impressions with appropriately prefabricated impression caps.

The prosthetic teeth that had been removed from the provisional restoration were in a further step glued onto

the caps and transferred to the chairside provisional restoration. After forming the pink aesthetics, the definitive impressions were taken and the full-ceramic crowns were produced. Finally, the restorations were placed using glass ionomer cement (Ketac™ Cem, 3M ESPE) as definitive mounting material (Figs. 12–14).

Conclusion

Ceramic has become a material of choice when dental implants are concerned. Especially as the teeth to be restored were located in the aesthetic zone the patient's decision for ceramic implants proved to be the correct choice producing a satisfying outcome for practitioner and patient (Figs. 15–17).

contact

PD Dr habil. Dr med. dent. Michael Gahlert
 Hightech Research Center of Cranio-Maxillofacial Surgery
 Department of Biomedical Engineering
 University of Basel, Switzerland

Private Dental Clinic
 Theatinerstraße 1
 80333 Munich, Germany
www.drgahlert.com



Fig. 17