Aesthetic restoration in the incisal region

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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, prosthetic 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 position 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).
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 electrotome on the palatinal 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).