

# Case study of implant-supported restorations after a generalized, severe chronic periodontitis

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Severe chronic periodontitis often leads to an extensive loss of teeth. If a patient does not feel comfortable with having a removable restoration, a comprehensive implantological treatment can help to provide the patient with a fixed restoration.

Initial situation: In January of 2013, the male patient presented in my practice at the age of 60. The general medical history was without pathological findings. The patient was a non-smoker. The dental anamnesis revealed a generalized chronic severe periodontitis, concretions, pocket depths of 4–5 mm and no loose teeth. The PCR was at 80% and the GBI was at 60%. The patient had twelve teeth left (tooth 28 impacted). We were going to remove tooth 26 in the course of the prosthetic treatment. At the beginning of the treatment in January of 2013, we first focussed on treating the periodontitis:

- January–July 2013: Pre-treatment of periodontitis and instructions for oral hygiene. The patient showed good compliance and cooperation.
- Re-evaluation in July 2013: PCR 15% and GBI 20%, pocket depths 3–3.5 mm
- Re-evaluation in December 2013: PCR 5% and GBI 0%, pocket depths 3 mm

After the patient had proven his care ability and motivation over a longer period of time, the implantation followed in January 2014. Ten IMPLA implants (by Schütz Dental) were implanted, nine of them were Cylindrical Hex Connection implants and one was a Micro Retention Hex Connection implant (region 22).

The following case study report documents the preparation and insertion of the implant-supported restorations after the healing period.

After exposing the IMPLA implants in the upper and lower jaw (Fig. 1 and 2), we first prepared and molded the metal framework (Microlit isi, Schütz Dental) for the future bridge 23-25-attachment 26. Up to this date, the patient wore a long-term temporary restoration (Temdent Classic, Schütz Dental) 23-25 (Fig. 1).



**Fig. 1:**  
Gingiva formers upper jaw: 13, 14, 15 and 22 as well as the long-term temporary restoration 23-25



**Fig. 2:**  
Gingiva formers lower jaw: 34, 35, 36 and 44, 45, 46

The dental lab affiliated with our practice prepared the plaster die with the model of the framework 23-25-attachment 26 (Fig. 3) and then produced the framework (Fig. 4). Afterwards, the framework 23-25-attachment 26 was fitted intraorally (Fig. 5).



**Fig. 3:**  
Plaster die with model of the framework 23-25-attachment 26



**Fig. 4:**  
Plaster die with framework 23-25-attachment 26



**Fig. 5:**  
Intraoral view with gingiva formers 13, 14, 15, 22 and framework 23-25-attachment 26

After inserting the impression posts 13, 14, 15 and 22, the framework 23-25-attachment 26 was set in and the individual upper jaw tray was tried in (Fig. 7). With the individual tray for the upper jaw and the impression material Impregum F, an impression of both the IMPLA impression posts and the framework was taken at the same time (Fig. 8).



**Fig. 6:**  
IMPLA impression posts 13, 14, 15, 22 and framework 23-25-attachment 26



**Fig. 7:**  
Trying in the individual upper jaw tray

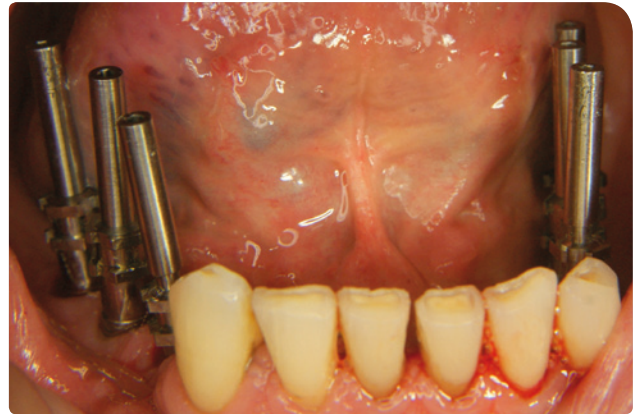


**Fig. 8:**  
Individual upper jaw tray, impression material Impregum F, with impression posts and framework

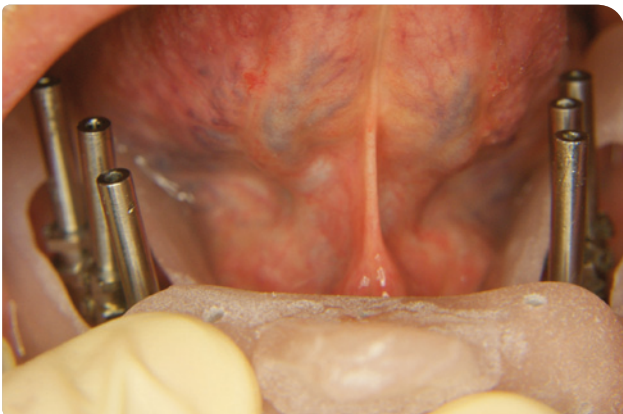
Subsequently, the impression posts in the lower jaw (Fig. 9 and 10) were inserted and next, the individual lower jaw tray was tried in (Fig. 11). An impression of the impression posts in the lower jaw was taken with the individual lower jaw tray and the impression material Impregum F (Fig. 12). The inner screws of the inserted IMPLA upper jaw implant were covered with Cavit (Fig. 13). Finally, the finished upper jaw restoration was inserted: 13-14-15-attachment 16, individual crown 22, bridge 23-25-attachment 26 (Fig. 14).



**Fig. 9:**  
Lower jaw with IMPLA impression posts  
(occlusal view)



**Fig. 10:**  
Lower jaw with IMPLA impression posts  
(front view)



**Fig. 11:**  
Try-in of the individual lower jaw impression  
tray



**Fig. 12:**  
Individual lower jaw impression tray,  
impression material with impression posts

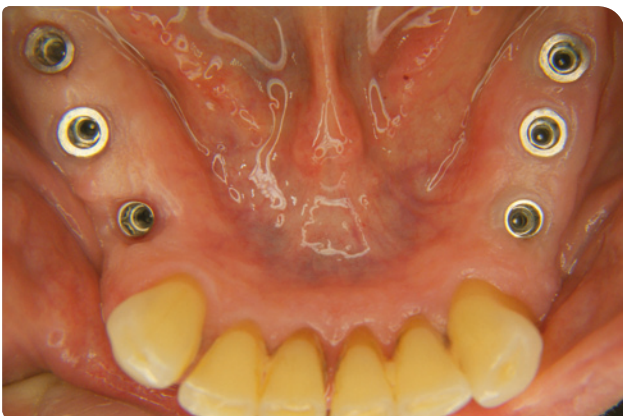


**Fig. 13:**  
Screw-fixed IMPLA upper jaw attachments,  
inner screws covered with Cavit.



**Fig. 14:**  
Inserted restoration in the upper jaw:  
13-14-15-attachment 16, individual crown 22,  
bridge 23-25-attachment 26, veneered with  
Nuance 850 ceramics (Schütz Dental).

In the lower jaw, the IMPLA lower jaw abutments were screwed in and the inner screws were covered with Cavit (Fig. 16 and Fig 17). The lower jaw restoration was inserted: crowns 34-36 and 44-46 (Fig. 18).



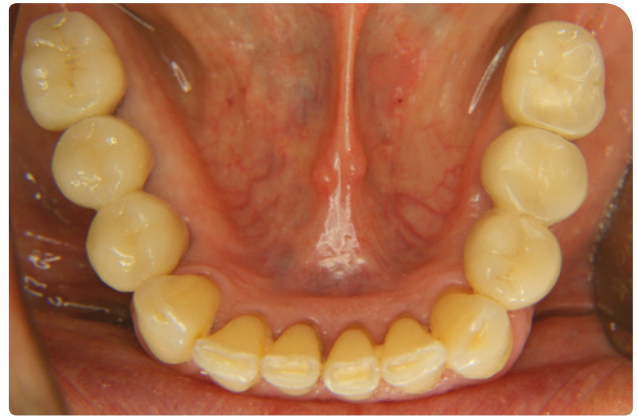
**Fig. 15:**  
Lower jaw: implants after removal of the  
covering screws (view from above)



**Fig. 16:**  
IMPLA lower jaw abutments, screwed in,  
inner screws covered with Cavit.



**Fig. 17:**  
Screwed in IMPLA lower jaw abutments,  
inner screws covered with Cavit, lower right,  
buccal view

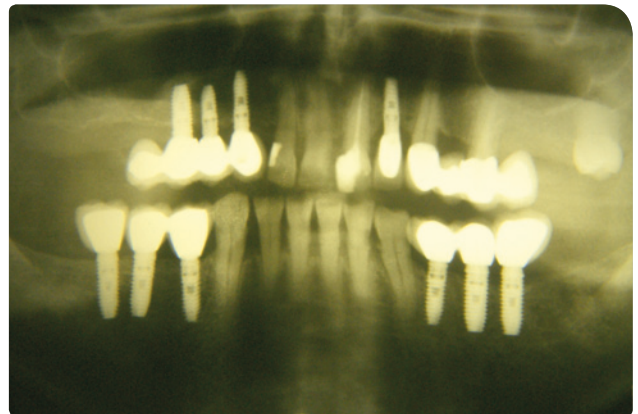


**Fig. 18:**  
Lower jaw restoration inserted: crowns 34-36  
and 44-46, veneered with Nuance 850  
(Schütz Dental)

Six months after the treatment, the patient is very satisfied with his functional and aesthetic restorations (Fig. 19). The situation was checked via OPG (Fig. 20).



**Fig. 19:**  
Front view: smile with open mouth



**Fig. 20:**  
OPG (with restoration): after the treatment