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## CASE REPORT

Digital assisted precise  
planning and manufacturing  
of a fixed dental restoration



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### A 66-year-old female patient presented with several decayed, fractured and supraerupted teeth in the upper jaw.

The patient required a fixed prosthetic restoration. This superstructure had to be fixed to implants as well as natural teeth and therefore was in need of a very stable and precisely fitting framework.

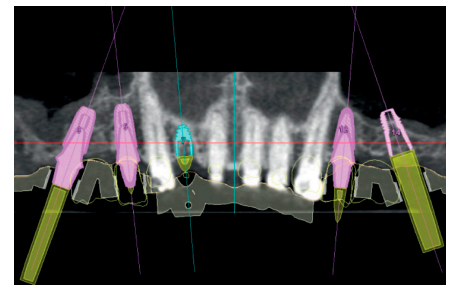
Extraction of the hopeless teeth and socket preservation grafting were performed. Five OsseoSpeed EV implants were placed; the two in the molar region were angled by 30 degrees. Afterwards a restoration with high-strength zirconia framework and a precise cutback for the veneering porcelain was digitally designed and fabricated. The patient was very satisfied with the fit and esthetic outcome of the bridge.



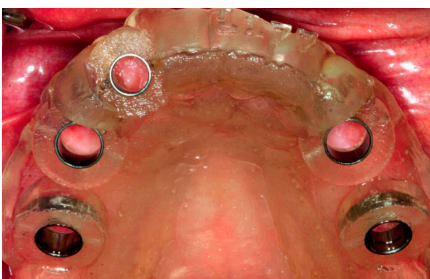
1. Pre-treatment clinical situation.



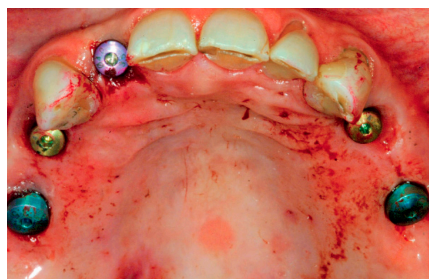
2. Intraoral condition three months after extraction and grafting.



3. Simplant software for planning the implant positions.



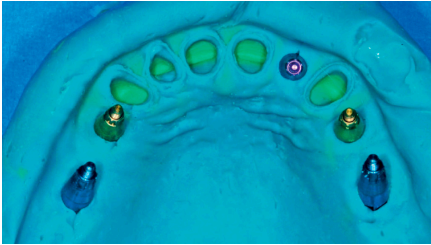
4. Simplant Guide for the first drilling steps.



5. Color-coded HealDesign EV in place.



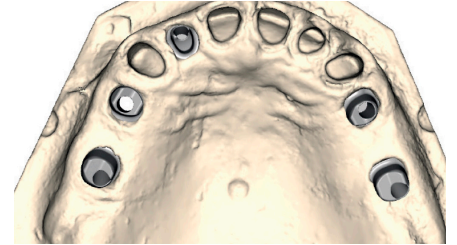
6. Implant Pick-Ups EV in position.



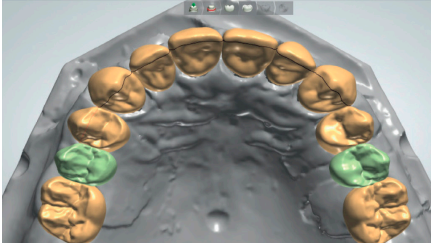
**7.** After impression taking, the interfaces of the impression posts were revealed in the impression.



**8.** Color-coded Implant Replicas EV are assembled to the Implant Pick-Ups EV in the impression.



**9.** Online Atlantis WebOrder showing the Atlantis patient-specific abutments with a digital wax-up transparent overlay.



**10.** Occlusal view of the fullcontour digital wax-up prior to digital cutback.



**11.** Atlantis patient-specific abutments with corresponding screws.



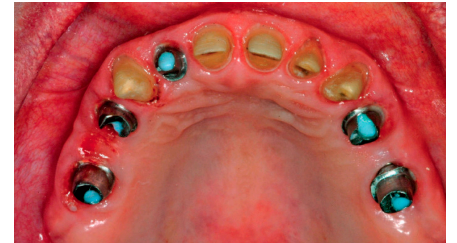
**12.** Full-contour CAD/CAM PMMA provisional restorations.



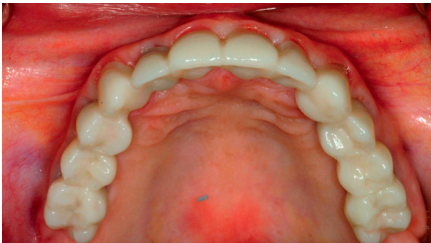
**13.** Healthy and clean implant sulcus evident at all of the sites to be restored.



**14.** Atlantis patient-specific abutments installed.



**15.** Clinical situation on the day of final restoration.



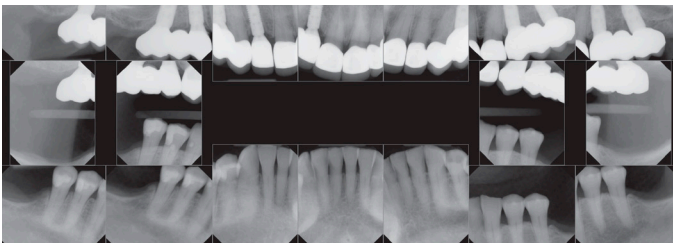
**16.** The maxillary arch restoration with occlusal and interproximal zirconia.



**17.** Facial view revealing natural looking restorations in place on both teeth and implants.



**18.** A lateral view displaying healthy peri-implant and gingival tissues.



**19.** Radiographs of implants in the molar, premolar and lateral positions, along with the remaining natural dentition.



**20.** The patient's smile following maxillary arch reconstruction of her remaining natural teeth and implants.

This case report is published as an inspiration for you as a clinician and not necessarily as a recommendation from Dentsply Sirona.