Immediate loading in the maxilla with PrimeTaper EV Implants and SmartFix® concept

A patient with a previous history of implant treatment requested an implant-supported restoration. PrimeTaper EV implants were inserted according to digital planning with the two distal implants angled to use the full length of the bone crest. The MultiBase EV Abutments were inserted and an immediate impression was taken. After four hours a temporary screw-retained implant-supported restoration was delivered to the patient.

1. Pre-operative view of the edentulous maxilla. Note the healing area on the right side where the original implants had been removed.

2. Digital implant treatment planning was performed in Simplant software, with diagnostic mask for four implants in the maxilla.

3. A surgical guide was used for the first drill to ensure precise implant position.

4. After making the surgical incision, the diagnostic mask is placed to determine the amount of bone reduction needed.

5. The MicroSaw was used to remove bone to create a flat and homogenous bone plate. Guide pins are in place to check the implant positions.

6. The recommended drilling protocol for PrimeTaper EV was followed for implant placement in position 7 (FDI 12). The drilling procedure ended with drill #4. Drill #5 was used for 2mm cortical preparation.
7. A PrimeTaper EV Ø4.2 11mm implant was installed in position 7 (FDI 12).

8. Resonance frequency used to measure the implant stability.

9. The excess bone was removed using the bone reamer at a low speed (100 rpm) under irrigation.

10. An index free one-piece Multibase Abutment EV (1.5mm height) was installed and tightened to the recommended torque (25 Ncm).

11. A PrimeTaper EV Ø4.2 13mm implant was installed at a 30° angle in position 4 (FDI 15).

12. Occlusal view of the two-part Multibase Abutment EV 30° in position 4 (FDI 15). The abutment body and abutment head are tightened to the recommended torque (25Ncm).

13. Installation of a PrimeTaper EV Ø4.2 9mm implant in position 10 (FDI 22); and a PrimeTaper EV Ø4.2 13mm implant at a 30° angle in position 13 (FDI 25).

14. Occlusal view of the four Multibase Abutments EV in place.

15. Multibase EV Pick-ups are attached and tightened (5–10 Ncm) for the impression. Autopolymerizing flowable resin is used to secure the pick-ups, and Aquasil Ultra+ low viscosity impression material.

16. Multibase EV Temporary Cylinders and autopolymerizing resin are used to attach the denture.

17. Occlusal view of the temporary screw-retained restoration.

18. Temporary screw-retained restoration with radiographic evaluation.