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Mutlangen/Germany



**RATIOPLANT®-IMPLANTS**  
CASE STUDY



# RATIOPLANT®-IMPLANTS

## CASE STUDY

### Curriculum vitae



**Dr. med. Dr. med. dent. Martin Keweloh**

**University:**

06/1993 Registration as a dental surgeon  
(University of Ulm/Baden-Wuerttemberg/Germany)  
08/1999 Registration as a medical doctor  
(University of Erlangen-Nuernberg/Bavaria/Germany)

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**Certified specialist for Implantology and Periodontology**  
(DGMKG, DGI, DGZI, BDO, BDIZ)

**Member of the board of the German Association for Maxillo-Facial Surgery** (Section Implantology)

Editor of the german journal "Implantologie-Zeitung"

**Member of DGMKG** (German Association for Maxillo-Facial Surgery-SPEAKER), DGI (German

Association for Implantology (Speaker), GAECD (Association for Aesthetic-Plastic Surgery Germany),  
DGPW (German Association of Plastic and Reconstructive Surgery)

**Speaker on national and international conferences:**

(EACMFS: Edinburgh/Scotland 2000, PAAOMS: Dubai/VAE 2001, Int. Camlog-Congress: Montreux/  
Switzerland 2006, EACMFS: Bologna/Italy 2008, ANZAOMS Christchurch/New Zealand 10/2008,  
Melbourne 7/2009, ANZAOMS Goldcoast/Austr. 10/09)

### Patient Data

Female, 51 years, her first presentation was on 07.02.2011. She comes to implant consultation with destroyed tooth 34.

### Diagnosis

Destroyed tooth 35, region 36 with an alveolar ridge atrophy. Removal of tooth 44 for orthodontic reasons in childhood.

### Treatment Plan

Implant insertions in the regions 35 and 36 with an onlay bone graft and soft-tissue graft.



## Procedure / Method

12.11:

Event planning with upper and lower jaw impressions for study models.

01.12:

DVT radiograph (digital volume tomography) with planning template.

01.12:

Soft tissue: thin biotype

Hard tissue: D1

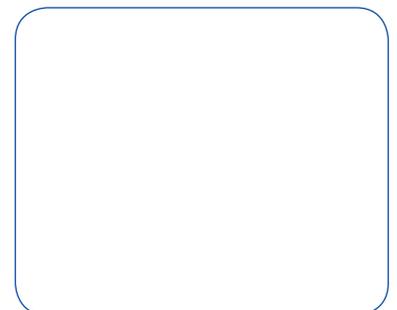
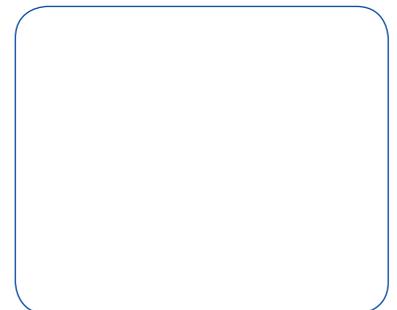
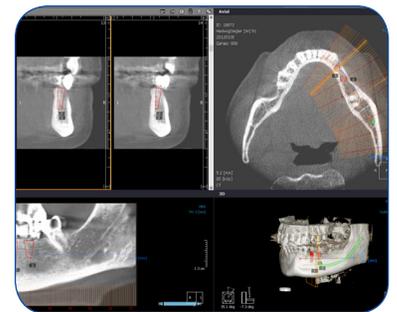
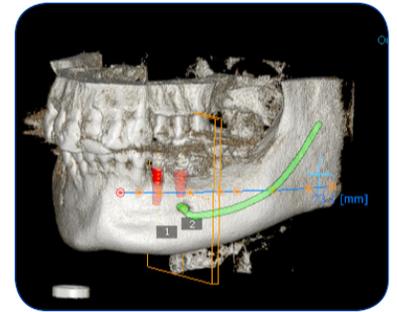
Surgery under local anesthesia:

An infiltration anesthesia in the region 33-37 and 23-27 was carried out palatal with Ubistesin, subsequently injected.

A split-flap in the region 33-37 was prepared. The implant insertions in the regions 35 and 36 (Ratioplant Classic, closed healing with cover screws) were realized with drilling templates and pre-cut threads.

Additionally a connective tissue graft was removed in the region 24-26. The region 35-36 was sewn in several layers.

The onlay bone graft was realized with the material from the bone collector, the subsequent wound closure with Serafit 5-0.



### Procedure / Method - continued

Implants: RatioPlant classic  
rg 35: 3,8/11,5mm (50011.38115),  
rg 36: 5,0/8,0mm (50011.50080)

03.12:

Surgery under local anesthesia :

An infiltration anesthesia in the region 35 and 36 was carried out with Ubistesin, subsequently injected. Afterwards the implants in the region 35 and 36 were surgically exposed.

The healing caps were inserted by using CHX-Gel.

Both of the implants were rotationally stable.

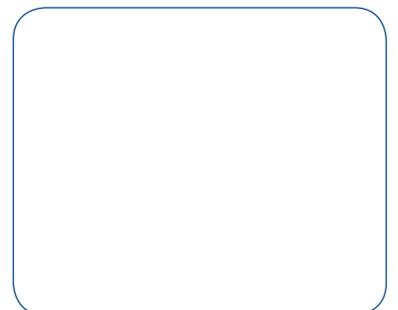
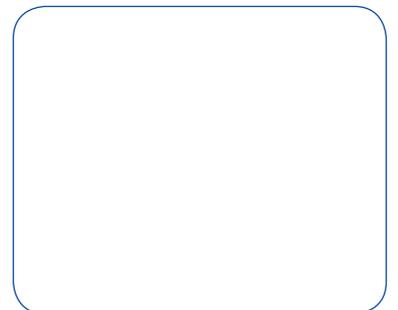
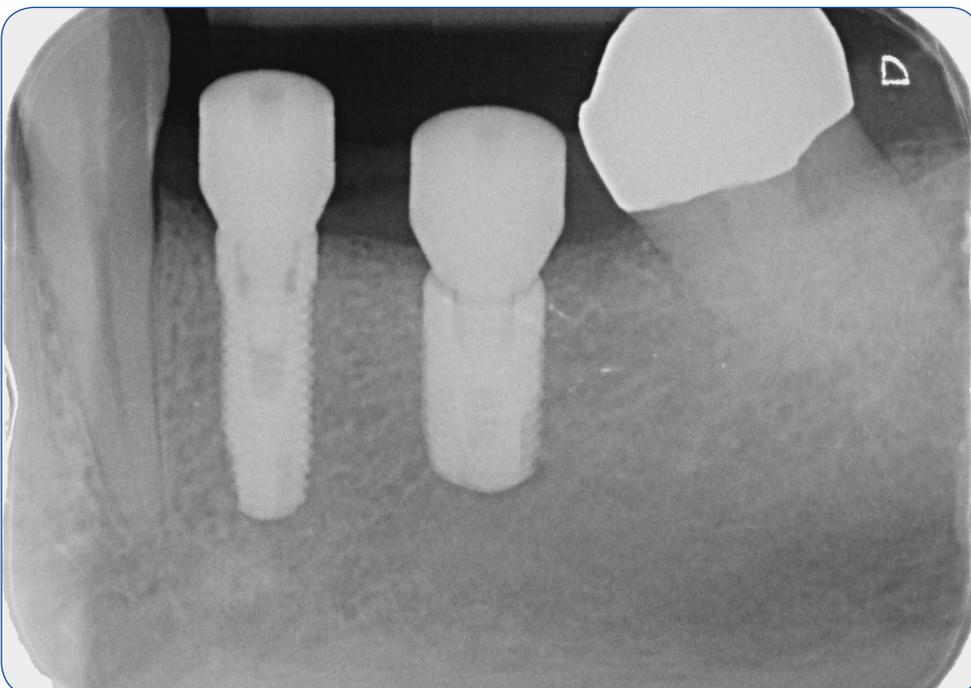
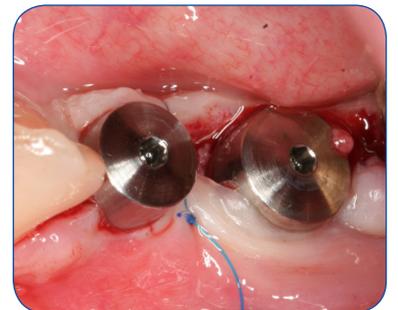
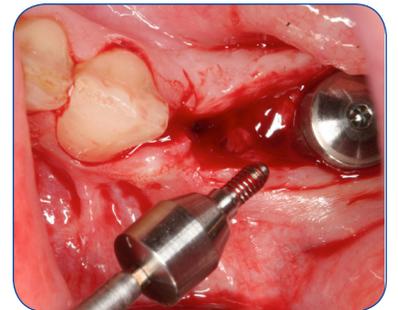
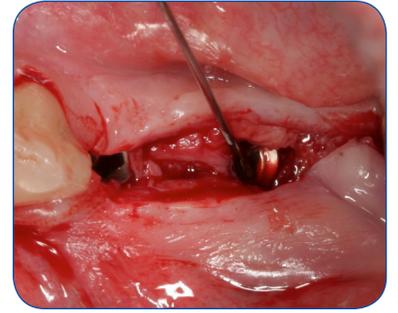
The subsequent wound closure was realized with Serafit 5-0.

Healing Caps: RatioPlant

Rg 35: con 6,0mm S

Rg 36: con 6,0mm L

Postoperatively creation of an X-ray, the release for the prothetic care was given.



### **Follow-Up**

The implant types are determined by virtual planning with volume tomography. The planning template - which is also used during the implantation - helps to determine the implant positions. Taking into account the bone anatomy and the position of the nerves, the implant length and width were determined.

Postoperatively, the patient is confused by the harmless swelling of the mouth. There is no need for analgesics, as rare peculiarity, however, a chlorhexidine allergy (rash) is recognized. The surgical cut-down is straightforward. Despite an initially thin type of connective tissues a high emergence can be formed.

### **Results**

Prosthetic treatment with single crowns by Dr. Kemmer (Mutlangen). Uncomplicated impression, laboratory work (ZT Schierle / Leinzell) and integration. Aesthetically and functionally a very good result.

### **Conclusion**

RatioPlant® implants meet the requirements of a modern implant system. The surgical operation is simple with a well-stocked surgery-tray. For the punch-marking there are spherical drills with four different diameters at your disposal. The twist drills for implant site preparation cut very well and provide many drill chips, that can be collected by the bone-collector. The implants of the Classic system are introduced after thread cutting. This provides security for screwing the implant into the bone-D2 (according to MISCH). Otherwise, in some cases the implants (as well as implants from other manufacturers) can't be completely submerged. There is a broad selection of different diameters of 3.2 mm, 3.8 mm, 4.2 mm, 5.0 mm and 6.0 mm and lengths of treatment of 8.0 mm to 16.0 mm. This allows a specific selection for implant insertions in all quadrants - as well as here in the lower posterior. The microroughness extends to the upper implant shoulder, thus this type of implant is completely sunk. The timing of osseointegration is comparable with market-leading systems, hence we give the implants in the lower jaw free for the prosthetic fitting after 8 weeks. The formation of the peri-implant mucosa is facilitated by offering up to 6.0 mm high cylindrical and conical healing caps.

The prosthetic concept is, due to the limitation to two platform sizes, greatly simplified. The 3.8 mm and 4.2 mm implants and the 5.0 mm and 6.0 mm implants each having a platform. The handling of the impression posts was straightforward, the open impression succeeded very well. Also laboratory work is uncomplicated with the components of the system Ratio-Plant.

**Notes:**



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