

# CLINICAL CASE

FLAPLESS GUIDED SURGERY WITH GM  
NARROW IMPLANT: THE IDEAL SOLUTION  
FOR LIMITED SPACES



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## Flapless Guided Surgery with GM Narrow Implant: The Ideal Solution for Limited Spaces

RESPONSIBLE SURGEON



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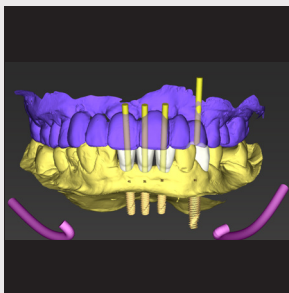
Member of SCEPD, ACImplant, and ABO SC

Team of collaborators: Dr. Tatiana Deliberador, Dr. Elisa Sartori e Dr.Ivete Sartori.



### PATIENT MEDICAL HISTORY

Controlled insulin-dependent diabetic patient, with elevated ferritin and cholesterol levels. User of a lower partial removable denture and desires a fixed prosthesis on implants. Has a certain surgical risk due to diabetes and bruxism. Was a smoker for 15 years.



### PLANNING

Panoramic X-ray, cone beam computed tomography in DICOM format, intraoral scanning, and photographs were used in the digital planning with the coDiagnostiX® software for flapless guided surgery. The EasyGuide system was used for the installation of GM Narrow implants, GM Micro Abutments, and the capture of the immediate provisional prosthesis at the same time as the surgery.

Images kindly provided by Dr. Alexandre Cesar Negretto

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### DESCRIPTION OF THE SURGICAL PROCEDURE

After the installation of the surgical guide, the kit for GM Narrow Implants and the EasyGuide narrow/regular kit were used.

First, the punch drill was used at very low rotation to remove the mucosa at the implant sites and to extract the residual root at the region of tooth 34. The ridge was planed with the leveling drill. The drill sequence was followed. Four Helix GM® Acqua implants were installed: three Helix GM® Narrow, 2.9 x 12 mm, at the sites of teeth 32, 31, and 41, and one regular, 4.0 x 16 mm, in the region of tooth 34, with torques of 45 N.cm and 60 N.cm, respectively. All were placed 2 mm below the bone crest.

Three GM Micro Abutments and one GM Exact Titanium Base were installed. The digitally planned and pre-fabricated PMMA provisional prostheses were captured with self-curing acrylic. Cerabone® Straumann® was used to fill the extraction gap in the region of tooth 34.

Three months after surgery, the patient returned for the fabrication of the definitive porcelain prosthesis. Upon removing the provisional, poor hygiene and the presence of calculus were noted, especially around the cervical area of the narrow implants. The implants at teeth 32 and 41 showed mobility, and a radiographic examination revealed a radiolucent band around them. The implants were removed, the cavities were curetted, irrigated, Blue M® gel was applied for 3 minutes, followed by another irrigation, suturing, and adjustment of the provisional.

The implants were sent to the manufacturer. The hypotheses for the failure of the implants in the regions of teeth 32 and 41 were poor hygiene, insufficient irrigation, and epithelial tissue migration. Bruxism was ruled out as the implant in the region of tooth 31 was unaffected. After 3 months, the implants were reinstalled more deeply, using a surgical guide for drilling direction, with an open flap and irrigation. Two Helix GM® Narrow, 2.9 x 14 mm, implants with Acqua surface were installed with 60 N.cm torque. After 3 months, new GM Micro Abutments were installed, and the provisional prosthesis was recaptured.

### PROSTHETIC DESCRIPTION

The scanbodies were installed, and the scanning was performed for the fabrication of the porcelain prosthesis. The following month, a porcelain trial was conducted with the necessary adjustments, and the next day, after glazing, the definitive installation was completed.

### NEODENT® MATERIALS

- Helix GM® Narrow
- Helix GM®
- GM Micro Abutment
- GM Exact Titanium Base (Ø3.5)
- EasyGuide Kit narrow/regular

### STRAUMANN® MATERIALS

- Cerabone®



1. Initial clinical aspect.

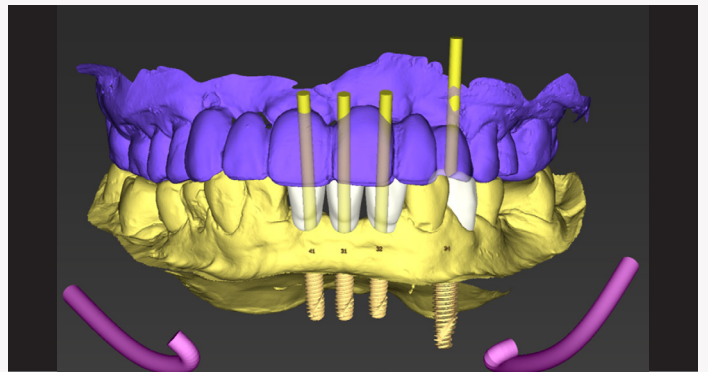


2. Initial clinical aspect - occlusal view.

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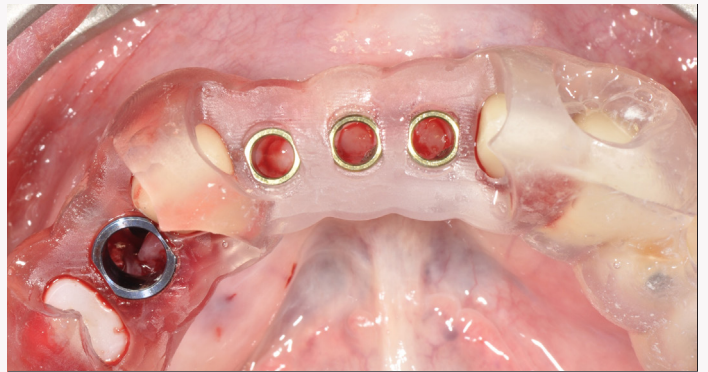
3. Initial radiographic aspect.



4. Virtual implant planning.



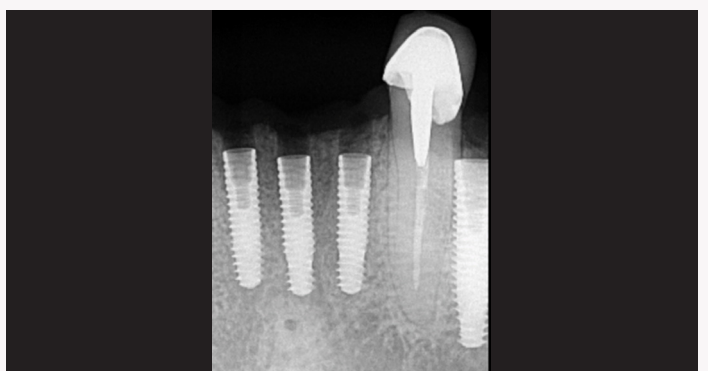
5. Guide try-in.



6. Aspect after using the punch drill.



7. Implant installation through the guide. Observe the hydrophilicity of the Acqua implant surface.

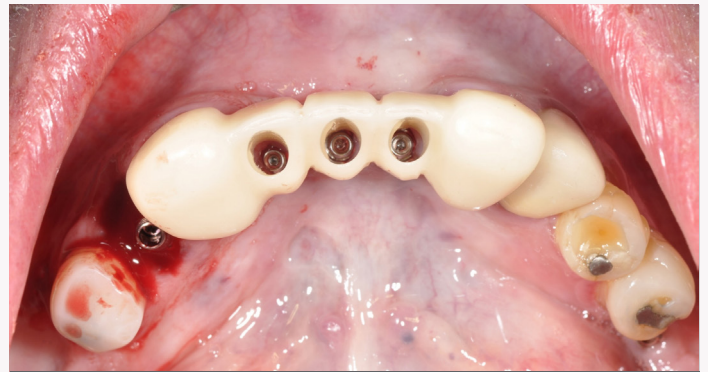


8. Post-operative periapical radiograph.

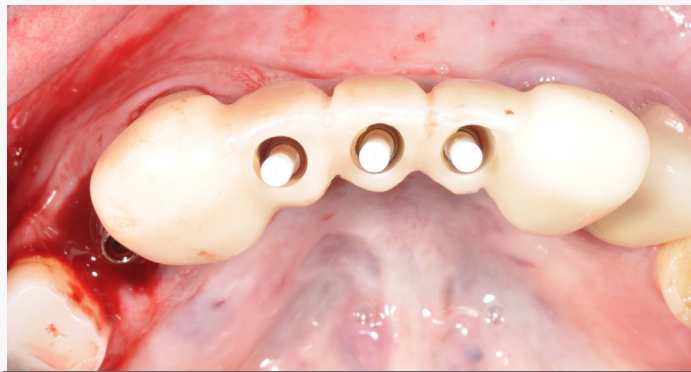
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9. Intraoral height gauge.



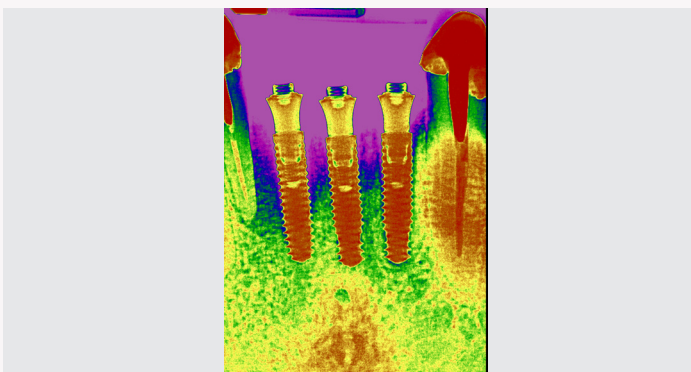
10. Try-in of the provisional prostheses with the GM Micro Abutments.



11. Occlusal view of the provisional prostheses with the cylinders and protectors.



12. Final aspect of the provisional prosthesis, after capture, with anatomy favorable to patient hygiene.



13. Radiographic aspect 3 months after installation.



14. Aspect after the removal of the lost implants.

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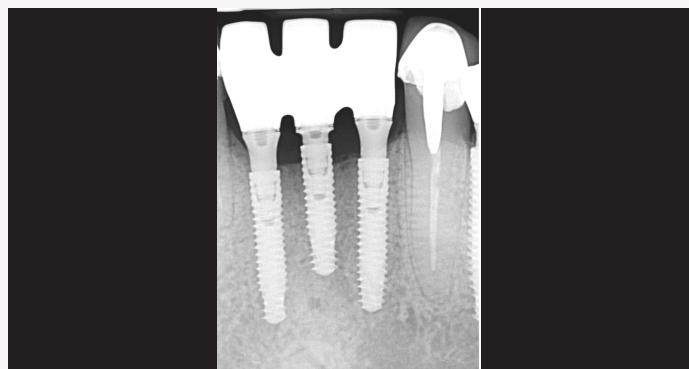
15. Radiographic aspect three months after explantation and installation of the new implants.



16. Clinical aspect of the final prosthesis installed.



17. Clinical aspect of the final prosthesis installed.



18. Radiographic aspect of the definitive prosthesis installed.

### TIPS AND INSIGHTS

The GM Narrow Acqua implant is an excellent option for narrow ridges and tight interdental spaces, with good installation torque, excellent prosthetic solution, and easy, extremely precise, and safe surgery. Additionally, it enabled a fantastic postoperative period with the use of its guided surgery kit. Two regular diameter implants supporting a fixed prosthesis could have been used; however, the implants would have to be infraosseous and would require very long abutments. The GM Narrow implant is an excellent alternative for reduced spaces. However, like any implant, it must respect biological principles to achieve success. Patient collaboration in maintaining good hygiene and the professional's dedication to teaching this hygiene to the patient are also necessary.

Experienced clinicians performed the procedures presented. The clinicians are fully responsible for the reliability of the information and for the procedures and results reported. Any review, dissemination, distribution, copying or other use of this information by persons or entities, without previous written permission, is prohibited. The presented material can be subject of reviews without previous notice. No liability is accepted for any errors or omissions in the contents.

It is the clinician's exclusive responsibility to evaluate the patient's health conditions and viability of the procedure. The reproduction of this clinical case does not imply the success of similar procedures, as it will depend on the clinician's technique and ability, on patient's conditions on the previous and post procedure.

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*NUOVI SORRISI OGNI GIORNO*

*CHAQUE JOUR DE NOUVEAUX SOURIRES*

*новые улыбки каждый день*

*JEDEN TAG EIN NEUES LÄCHELN*

*NUEVAS SONRISAS TODOS LOS DÍAS*

*NYA LEENDEN VARJE DAG*

*NEW SMILES EVERY DAY*

*NOVOS SORRISOS TODOS OS DIAS*

*CHAQUE JOUR DE NOUVEAUX SOURIRES*

*NOVOS SORRISOS TODOS OS DIAS*