FOCUS ON PRAMA

VOL.2

Guidelines for the positioning and rehabilitation of PRAMA implants

WITH PROSTHETICALLY GUIDED SURGICAL PLANNING

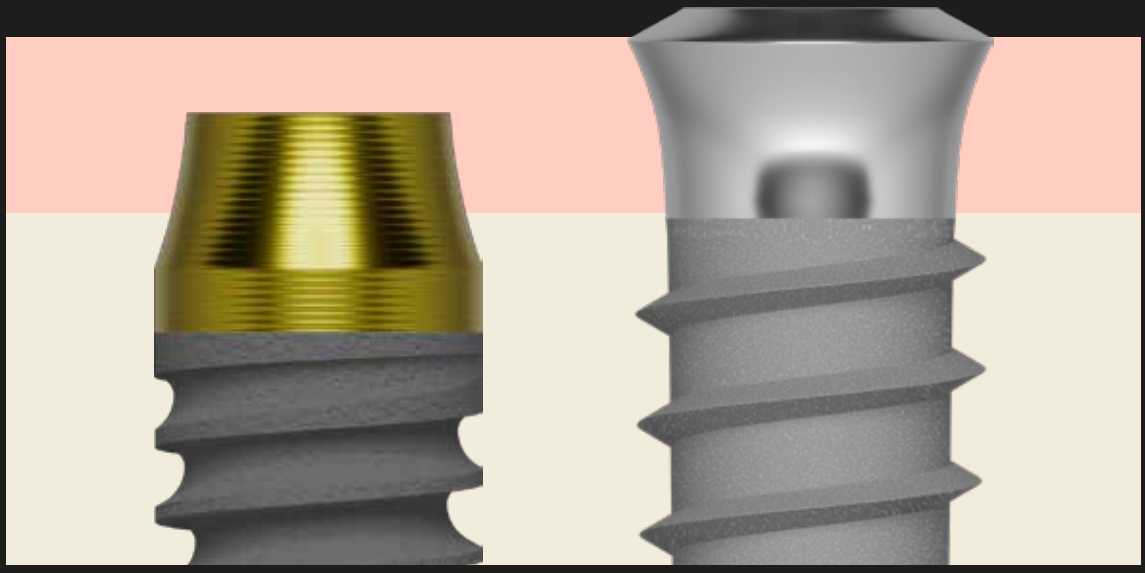
sweden & martina

INTRODUCTION

By Dr. Andrea Di Lallo and DT. Matteo Mazza, Bologna

Welcome to the second volume of the Focus on Prama collection, dedicated to guided surgery. Let us begin by summarizing the key features that make Prama a unique and revolutionary implant. These characteristics were already discussed in Volume 1, but it is important to revisit them for a proper understanding of the rationale behind guided placement and the selection of prosthetic components.

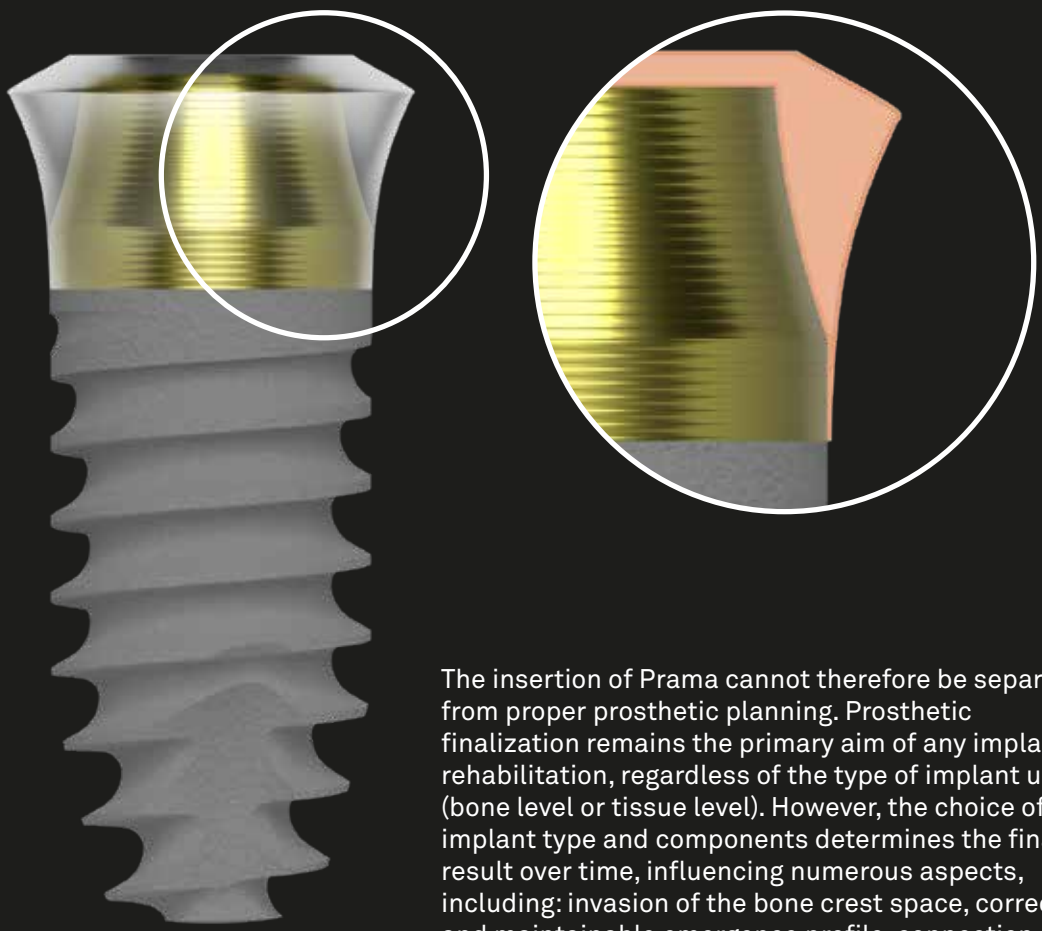
The first great advantage of intramucosal Prama implant, compared to traditional transmucosal implants, lies in its placement versatility relative to the bone margin. This is made possible by the convergent shape of the neck, which does not have an intrinsic depth limit for placement. This feature is applicable across a wide range of clinical cases from the simple to complex.



**Focus on Prama Vol.1: Guidelines for the positioning and rehabilitation of Prama implants – Single Crowns*

The convergence of the neck, combined with the unique UTM treatment, enables the second major advantage of Prama, allowing ample space for soft tissue growth, particularly the papillae, while forming a clinically non-probing seal. This ensures an abundance of soft tissue, which, alongside the seal, delivers aesthetic and stable results over time.

The ideal positioning of the Prama implant is intramucosal, meaning the neck is fully inserted into the gingival tissue. By doing so, the biological advantages of the seal and the prosthetic interface being positioned away from the bone crest are maximized. Therefore, the insertion of Prama implants must always include careful prosthetic planning.



The insertion of Prama cannot therefore be separated from proper prosthetic planning. Prosthetic finalization remains the primary aim of any implant rehabilitation, regardless of the type of implant used (bone level or tissue level). However, the choice of implant type and components determines the final result over time, influencing numerous aspects, including: invasion of the bone crest space, correct and maintainable emergence profile, connection precision, and distance from the bone crest.

Dr. Andrea Di Lallo
DT. Matteo Mazza

The one and only **INTRAMUCOSAL IMPLANT**

Prama is an intramucosal implant, composed by an endosseous body with ZirTi treatment and a neck with UTM surface.

Neck

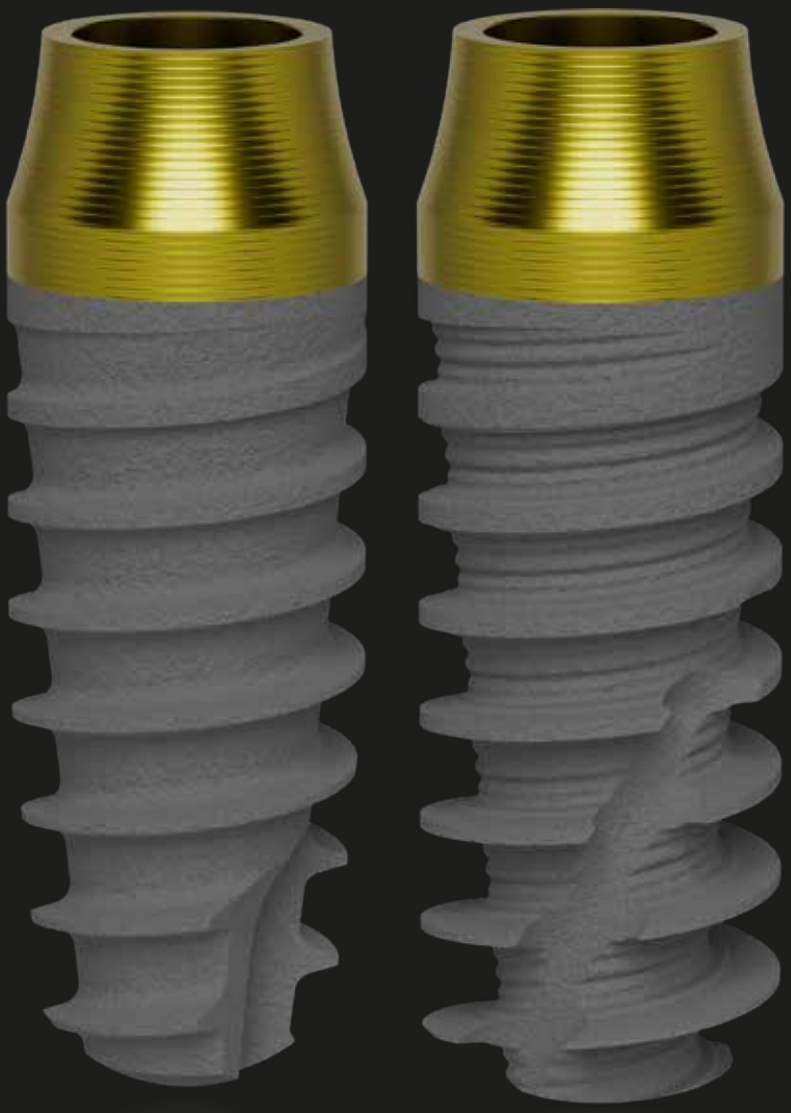
Convergent portion with UTM surface

Cylindrical portion with UTM surface

Body

with ZirTi surface

The implant is characterized by 3 different areas:



Neck

Convergent portion with UTM surface

Cylindrical portion with UTM surface

Body

with ZirTi surface

Advantages of GUIDED SURGERY PROTOCOLS

Prosthetically guided surgical planning offers a series of significant advantages over traditional protocols. This approach places the correct positioning of implants in relation to prosthetic needs at the center of the planning, using advanced digital tools such as 3D software and customized surgical guides.

Here are the main benefits of prosthetically guided surgical planning:

1. Greater precision and predictability
- Digital planning ensures the optimal placement of implants tailored to the future prosthesis and patient anatomy.
- Reduces the surgical error margin, optimizing both functionally and aesthetics.

2. Minimally invasive approach
- Enables flapless technique (without lifting flaps) or minimally invasive flap elevation using surgical guides.
- This type of protocol results in less invasiveness for the tissues, with reduced swelling and post-operative pain.

3. Reduced operating time
- Preoperative planning and surgical guides streamline procedures, saving time.
- Immediate provisional prostheses can be created using CAD-CAM technologies, minimizing sessions.

4. Better aesthetics and functionality
- Ensures correct implant positioning for aesthetically pleasing and functionally balanced prostheses.
- Optimizes prosthetic emergence profiles and load distribution.

5. Greater safety
- 3D planning minimizes the risk of damage to delicate anatomical structures, such as nerves and maxillary sinuses.
- Enhances preparation based on radiographic bone density, improving stability and osseointegration.

6. Patient satisfaction
- Patients benefit from less discomfort, fewer visits, and superior aesthetic outcomes.

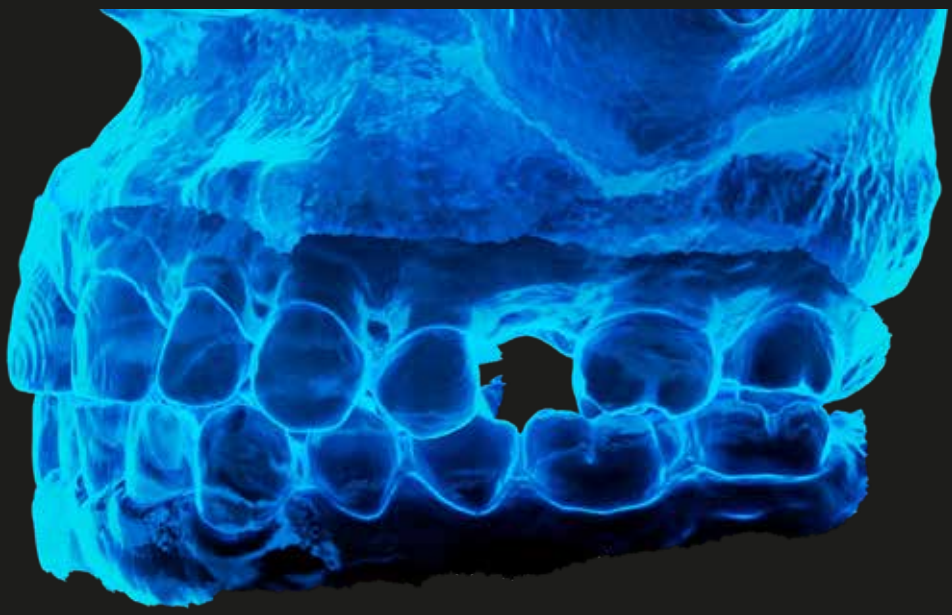
7. Suitable for complex cases of single, multiple, and full-arch implants
- Digital simulation allows for addressing challenging anatomical conditions, ensuring predictable results.

In summary, prosthetically guided surgical planning simplifies the procedure, combining technology and precision to provide more predictable, faster, and less invasive results, improving patient well-being and clinical effectiveness.
All of this contributes to a significant optimization of the clinician's work, who, once the diagnostic phase is completed, can decide how to proceed without limitations.

The adoption of prosthetically guided surgical planning protocols allows for the optimization of intramucosal implant placement, fully leveraging the biological benefits of the Prama neck.

The importance of the **DIAGNOSTIC PHASE**

Accurate data acquisition during the diagnostic phase is crucial for successful guided surgery. Advanced tools like intraoral scanners capture soft tissue morphology and tooth volume, while CBCT imaging provides a precise 3D representation of the patient's anatomy. Combining these technologies with implant planning software (often enhanced with AI) allows for a comprehensive diagnostic approach that respects anatomical structures and supports prosthetic planning.

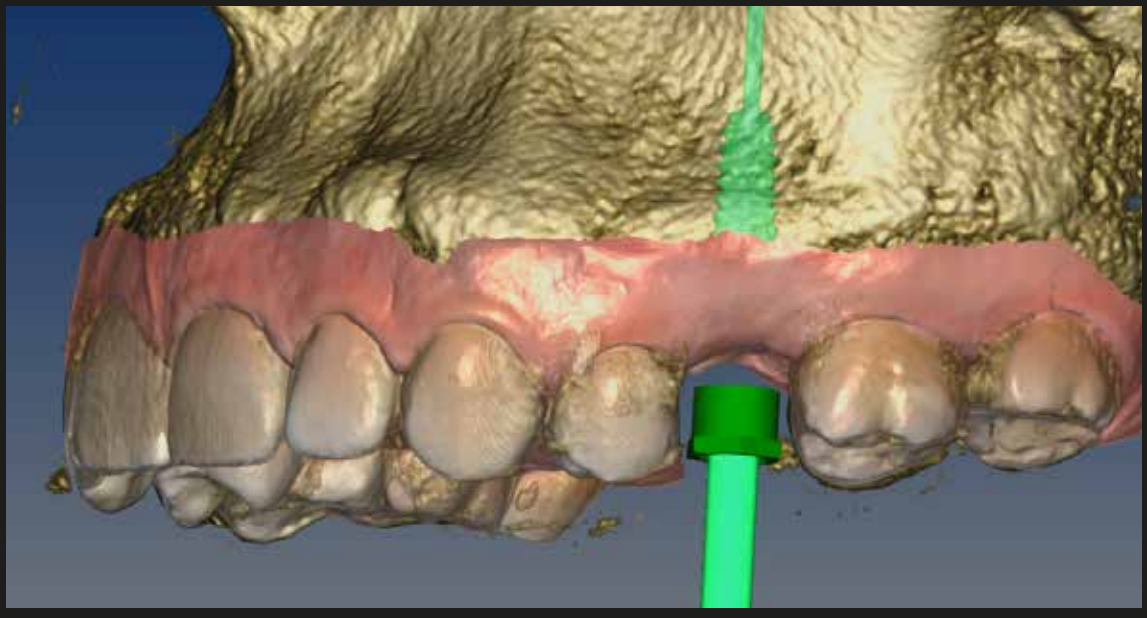


Prosthetic design and **IMPLANT PLANNING**

Following the diagnostic phase and data acquisition, an accurate digital setup provides the foundation for a treatment plan focused on achieving optimal prosthetic rehabilitation.

One of the key advantages of digital diagnostics is its capacity to integrate both implant placement and prosthetic planning within the same software. This approach enables the dentist to select the most appropriate components based on a precise diagnostic wax-up and an accurate assessment of soft tissue thickness, ensuring the best possible outcomes.

The treatment plan further facilitates the creation of a surgical guide, which can be designed within the software and produced using 3D printing. This process ensures highly predictable implant positioning and enables the option for immediate loading with a provisional prosthesis, often within 24 hours of the procedure.
This streamlined approach enhances accuracy, efficiency, and clinical results, benefiting both clinicians and patients.



In the case of placing Prama implants with the intramucosal protocol, this approach maximizes the biological space available to the connective tissue to allow for optimal tissue regeneration.
In this regard, and in light of the above, it is important to emphasize that with Prama, implant insertion should be planned starting from the prosthetic design.

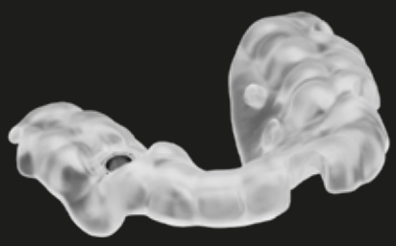
Focus on Prama Vol 1

The choice of the **SURGICAL GUIDE**

Surgical guides are essential tools designed using advanced modeling software that integrates CBCT images and intraoral scans. These guides ensure precise milling and implant placement while adhering closely to the clinical plan, enhancing both accuracy and predictability.

There are two main types of surgical guides, tailored to suit different clinical scenarios:

- **TRADITIONAL SURGICAL GUIDES (DENTAL/MUCOSAL/HYBRID SUPPORT):** used in cases of partial or complete edentulism, respectively with dental or mucosal support. The technologies used for the production of these surgical guides allow for the creation of highly stable structures, ensuring great precision in the surgical phase and, consequently, predictability of the result.



- **STACKABLE SURGICAL GUIDES:** these modular guides can be divided into multiple parts or components. This feature makes them particularly useful in situations where access to the surgical area is limited or when specific control is needed during different phases of the procedure. They are combined with fixed supports and removable parts to offer maximum stability and flexibility. This aspect allows the surgeon to manually intervene in certain phases without losing the reference from the planning. They are especially useful for predicting the case while maintaining perfect prosthetic functionality, even when anatomical references are modified during the surgical phase.

Surgical phases
THE DRILLING PROTOCOL

The drilling protocol, integral to guided implant placement, is automatically generated by the design software based on the planned implant. This tailored protocol provides precise guidance, assisting the clinician in selecting the appropriate drills for each case.
The default sequence is optimized for D1 bone type, ensuring ideal preparation and stability. However, in cases of poorer bone quality, the clinician has the flexibility to underprepare the site, allowing for customized adjustments that improve primary stability and enhance overall outcomes.

S&M EchoPLAN - DRILLING PROTOCOL

PATIENT NAME: Prama Regular
PROJECT DATE: 12/16/2024 08:09:48

Please, always refer to the manufacturer's surgical kit manual and follow the official manufacturer instructions. The present report is automatically generated from RealGUIDE™ (according to the correspondent project) and therefore it must not be considered official material.

IMPLANT DATA				
Implant name	12	16	22	26
Implant Family	Prama	Prama	Prama	Prama
Implant Catalog Diameter (mm)	3.80	3.80	3.80	3.80
Implant Catalog length (mm)	10	10	10	10

ESSENTIAL STEPS				
Sleeve Code	GS-SI415-EX 5.00 mm	GS-SI415-PRAMA-EX 4.20 mm	GS-SI415-EX 5.00 mm	GS-SI415-PRAMA-EX 4.20 mm
Mucotome ONLY FOR FLAPLESS SURGERY	GS-MUC-415	GS-MUC-415	GS-MUC-415	GS-MUC-415
Initial Countersink	GS-LC-415	GS-LC-415	GS-LC-415	GS-LC-415
Initial drill	GS-F200-415	GS-F200-415	GS-F200-415	GS-F200-415

SITE PREPARATION				
Intermediate Drills	GS-F200-085-415 GS-F200-130-415	GS-F200-085-415 GS-F200-100-415	GS-F200-085-415 GS-F200-130-415	GS-F200-085-415 GS-F200-100-415
Progressive Drills	-	-	-	-
Intermediate Drills	GS-F250-085-415	GS-F250-085-415	GS-F250-085-415	GS-F250-085-415
Final Drills	GS-F280-085-415	GS-F280-085-415	GS-F280-085-415	GS-F280-085-415
Final Drills	GS-F300-085-415 GS-F300-130-415	GS-F300-085-415 GS-F300-100-415	GS-F300-085-415 GS-F300-130-415	GS-F300-085-415 GS-F300-100-415
Countersink	GS-FCS-A380	GS-FCS-A380	GS-FCS-A380	GS-FCS-A380

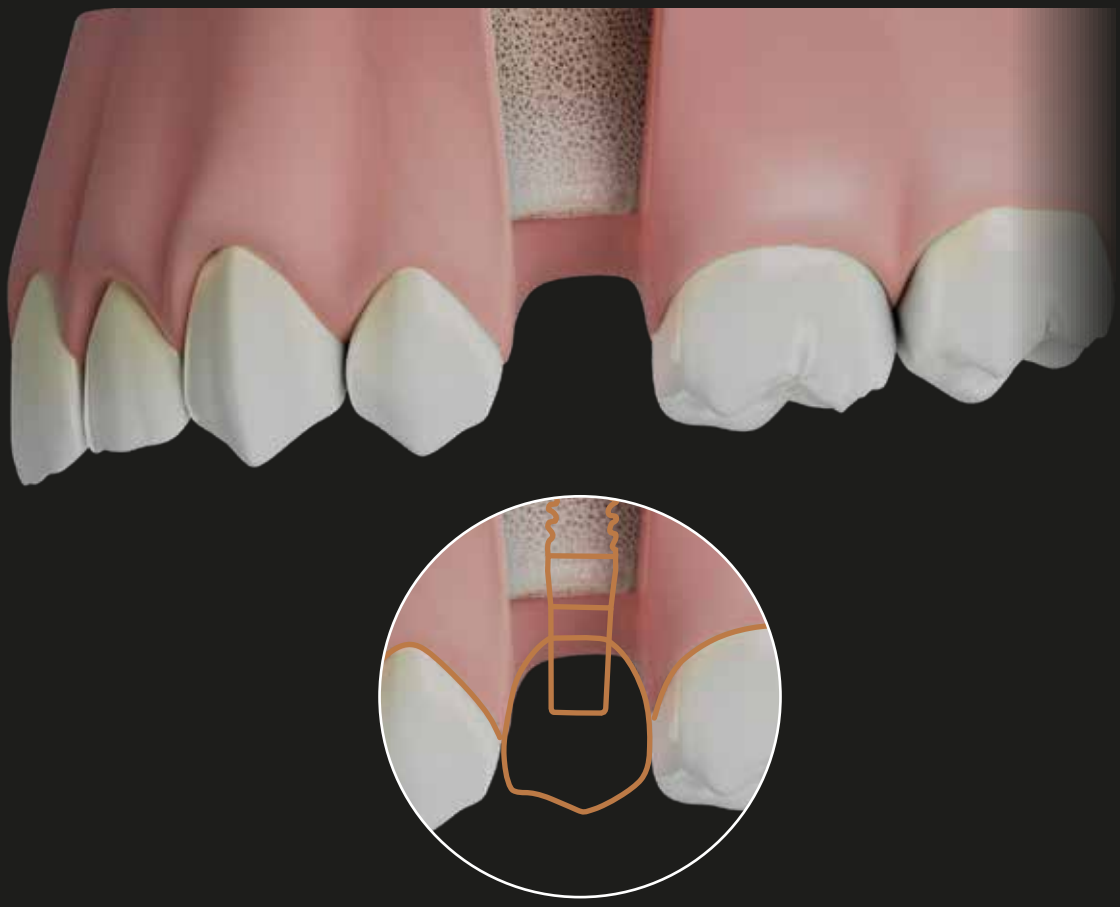
IMPLANT PLACEMENT				
Bone Tap	GS-MS-A380	GS-MS-A380	GS-MS-A380	GS-MS-A380
Mounter	GS-MOU-A330 CYAN	GS-MOU-L415 YELLOW	GS-MOU-A330 CYAN	GS-MOU-L415 YELLOW
"SHORTY" SCREW	NO	NO	NO	NO

Example of a drilling protocol generated by the software for the rehabilitation with 4 Prama implants in positions 12, 16, 22, and 26.

INTRAMUCOSAL PROTOCOL
with guided surgery

INITIAL SITUATION

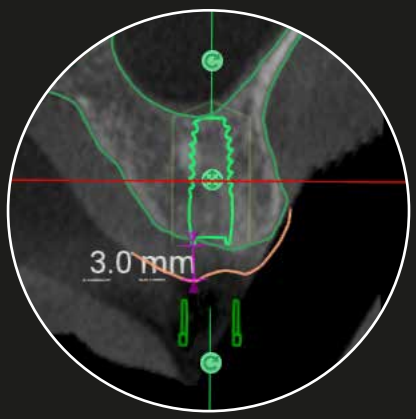
As detailed in Focus on Prama Vol. 1, the placement of Prama implants should always be planned with the prosthetic outcome as the starting point. The desired parabola profile serves as a reference, ensuring harmony with the scalloping of adjacent teeth or the contralateral element. In light of this, when approaching Prama in guided surgery, using a precise prosthetic wax-up, the software allows for predictable study of the final implant positioning while adhering to the guidelines of the intramucosal protocol.



Prosthetic wax-up

FINAL SITUATION

Digital three-dimensional diagnostics provide a detailed and accurate visualization of all anatomical elements in each case. This allows clinicians to measure volumes and distances with precision, ensuring optimal planning and execution.
With the use of a surgical guide, the final position of the Prama implant is guaranteed to align with the clinical plan, adhering fully to the intramucosal protocol. This ensures predictable, accurate results that support both functional and aesthetic success.

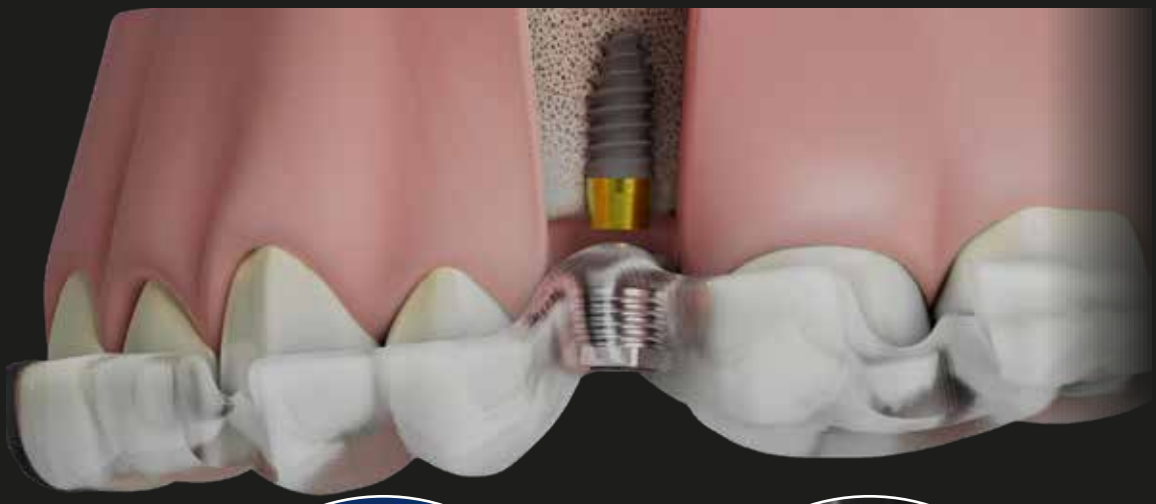


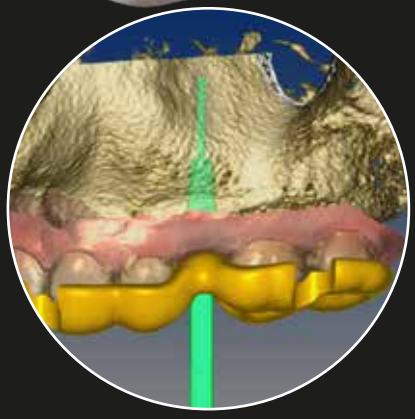
Software planning

Final result

Management of the intraoperative phase

One of the key benefits of prosthetically guided surgical planning is the ability to immediately design a comprehensive treatment plan within the software. This plan allows for the creation and 3D printing of a surgical guide, ensuring precise site preparation and accurate implant positioning.
By leveraging this guided approach, the intraoperative phase becomes highly streamlined, reducing the time required for procedures, optimizing the use of components, and lightening the dentist's workload.





Courtesy of Massimiliano Visca

Do you know why the synergy between UTM micromorphology and convergent macromorphology of the Prama neck has a significant impact on the quality of peri-implant soft tissues?

Read the complete article published on the Clinical Oral Implants Research

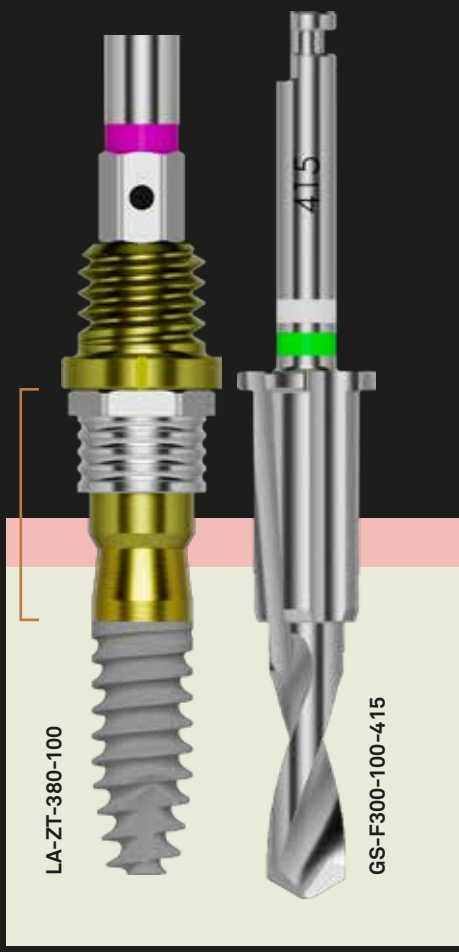
By inserting the Prama implant with the intramucosal protocol, part of its UTM neck will be placed inside the bone, and part will be in contact with the soft tissues, in order to fully leverage the benefits of the surface micromorphology and the convergent macromorphology.

FINAL REMARK

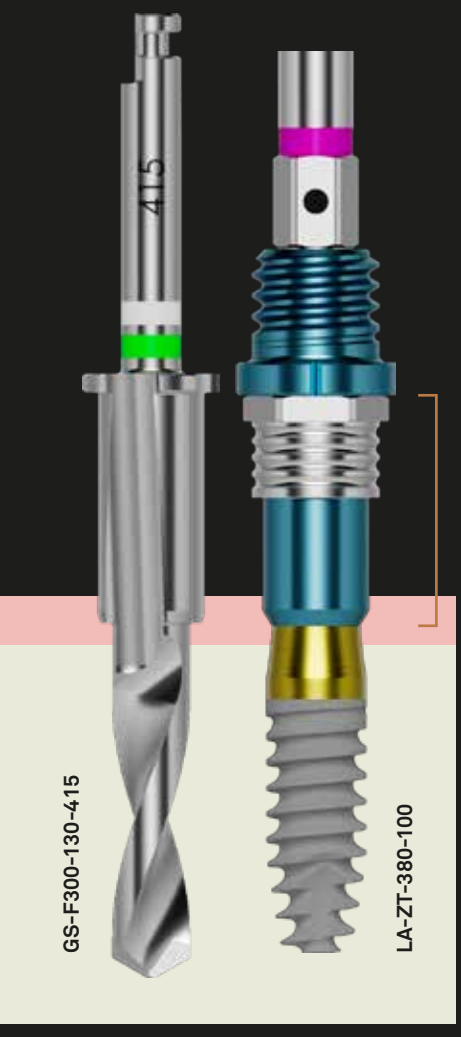
In guided surgery, a fixed ratio between the surgical instruments ensures that implant placement aligns precisely with the planned design.
For the Echoplan system by Sweden & Martina, this ratio is set at 9.00 mm, measured either from the instruments' contact point on the sleeve to the prosthetic platform or from the contact point on the sleeve to the start of the ZirTi treatment.
To preserve this fixed 9.00 mm ratio, the Prama implant offers two surgical options, which are determined by the positioning height of the sleeve. This standardized approach enhances the accuracy and predictability of implant placement, ensuring consistent clinical results.

Option 1

If the dedicated mount for Prama GS-MOU-L415 (gold) is used, the software will recommend a drill with a length that matches the implant. The automatically generated surgical report will provide precise instructions, specifying the exact drill to use for the procedure.



The two different protocol options described below are generated automatically by the planning software, making this type of surgical approach even simpler and faster for the clinician.



Option 2

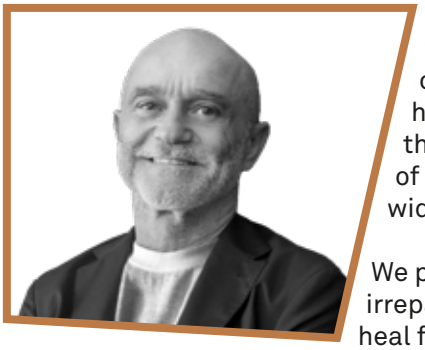
In situations where the sleeve may interfere with anatomical structures, such as soft tissues or bone, it is possible to adjust its position by raising it relative to the coronal part of the implant. For such cases, the surgical sequence provided in the software-generated report will specify the use of a longer drill (drill length = implant length + Prama neck length) and a 9.00 mm mounter (Premium Power system) will be indicated.
As with Option 1, the automatically generated report ensures precision by specifying the exact drill to use, maintaining alignment with the surgical plan and enhancing predictability.

Prosthetic platform - Sleeve distance: 9.00 mm

Drill length = Nominal implant length + neck

REHABILITATION OF *severely compromised* **UPPER FULL ARCH**

Zucchelli Giovanni, Zucchelli Alessandro, Bellone Pietro



The patient, 47 years old, presents with a severely compromised situation on multiple fronts. Periodontal disease has caused significant recessions throughout the upper arch and the loss of teeth 13 to 15, further exacerbated by widespread destructive carious lesions.

We perform the debridement of the irreparable teeth, allowing the tissues to heal for 6 months during which a reinforced temporary prosthesis is applied to the entire arch, anchored on the remaining teeth 17, 11, 21, and extending the bridge to teeth 23, 24, and 25 with Maryland wings for adequate stability while preserving these teeth.

The definitive implant-prosthetic rehabilitation is planned (Prama Short Neck implants) with guided surgery. In positions 12 and 22, 3.80 mm diameter and 11.5 mm height implants are placed, while in position 15, a 10 mm tilted implant is planned to avoid the maxillary sinus.

During the intervention, a full-thickness flap is raised, extending apically to a partial thickness: this procedure will prevent interference with the soft tissue thickness and the surgical guide and is preparatory for the connective tissue graft from the patient's palate, which will restore the missing volumes of hard and soft tissue.

During the osseointegration phase, the two dental stumps in positions 11 and 21 are maintained to support the bridge, which is recemented into place. After 6 months, the two dental stumps are extracted, and the sockets are filled with bone grafting using bone particulate and a resorbable membrane to maintain the vestibular volume.
A screw-retained provisional on P.A.D. abutments is also delivered, to compensate for any disparallelism, to shape the soft tissues during the maturation phase and to move the platform to a more coronal position.

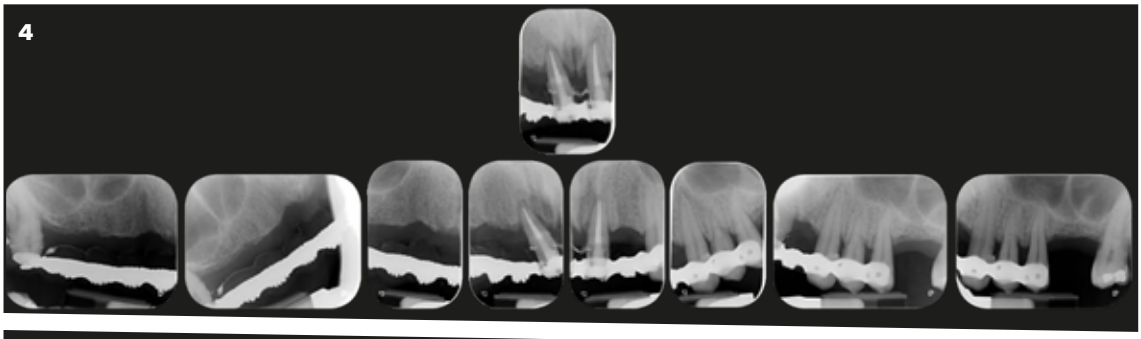
After 3 months, it is already evident how the shape of the ovoid pontic of the central incisor has induced the mesial papilla to fill its space.

After 9 months, the definitive metal-ceramic prosthesis is delivered, which aligns with the profiles that have already been correctly shaped and matured. The comparison between the initial and final situation highlights how the restoration of the supra-osseous component alone was sufficient to compensate for a significant volumetric deficit, without the need for complex bone reconstructions, whose outcome is typically unpredictable.

1. *Initial photos clearly showing the severe compromise of the upper arch due to periodontal disease*

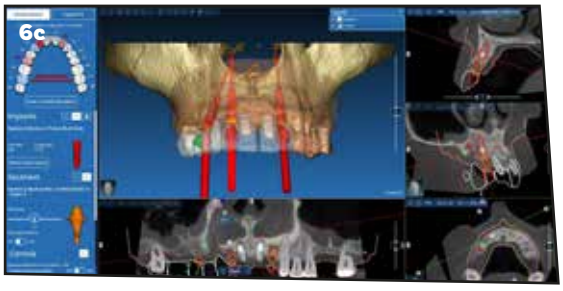
2. *Initial intraoral radiographs*

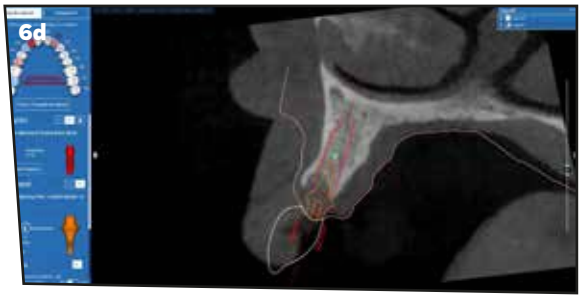
3. *Healing after the cleaning procedure with a reinforced provisional bridge anchored on the remaining teeth 17, 15, 11, 21, 23, 24, 25.*



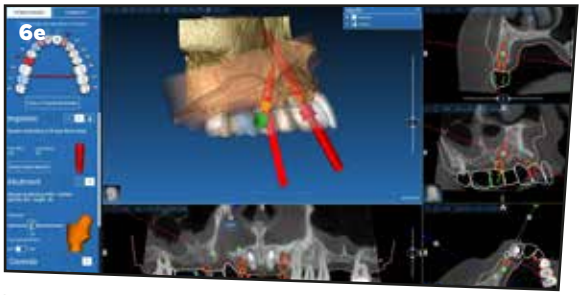
4. X-ray at 6 months of healing

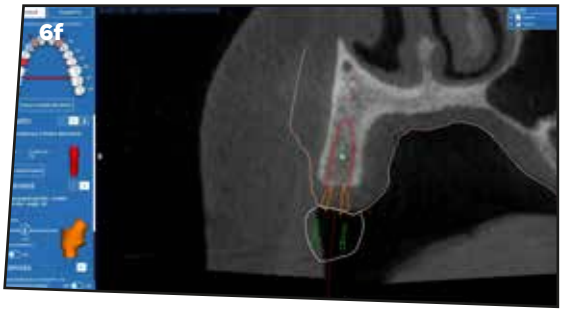
5. Tissues at 6 months of healing



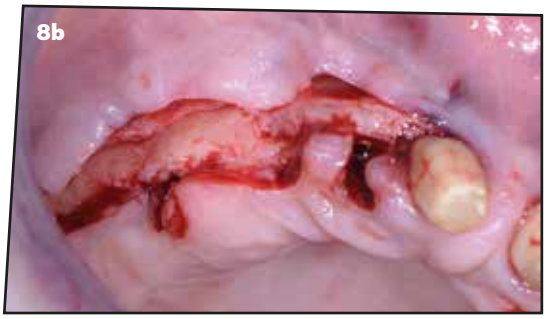


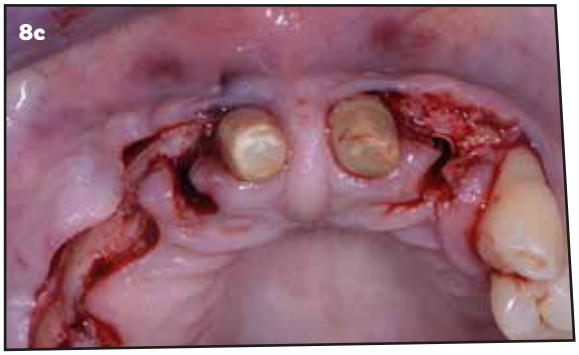
6. Planning of implant placement in prosthetically guided surgery





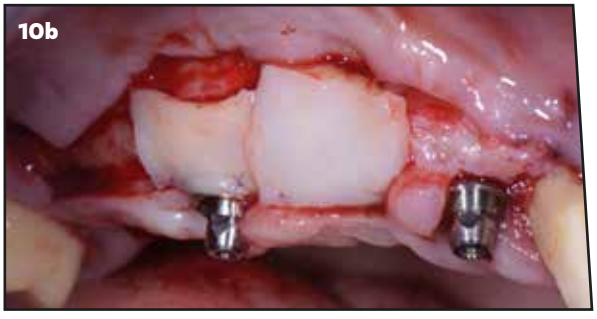
7. Surgical guide on 3D printed model





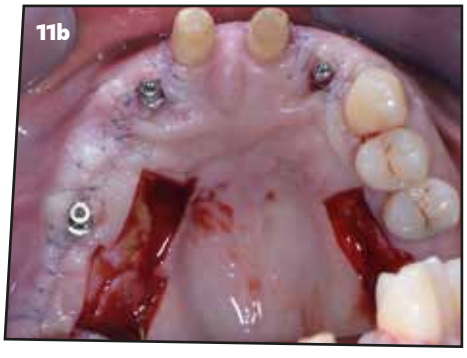
8. Surgical phase: flap incision

9. Placement of P.A.D. abutments for screw-retained prosthesis



10. Placement and anchoring of the grafts harvested from the palate

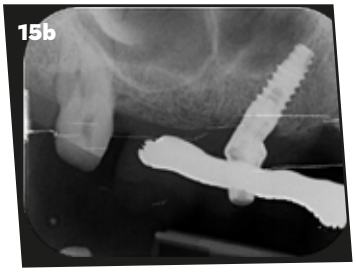
11. Closure of the surgical flap over the grafts with 6/0 PGA sutures



12. Tissues healing after 8 weeks

13. Appearance of soft tissue during the integration of connective tissue grafts

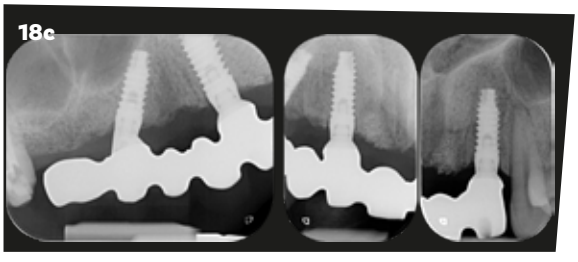
14. Extraction of the dental stumps in positions 11 and 21



15. Simultaneous delivery of the provisional prosthesis screw-retained onto the P.A.D. abutments.

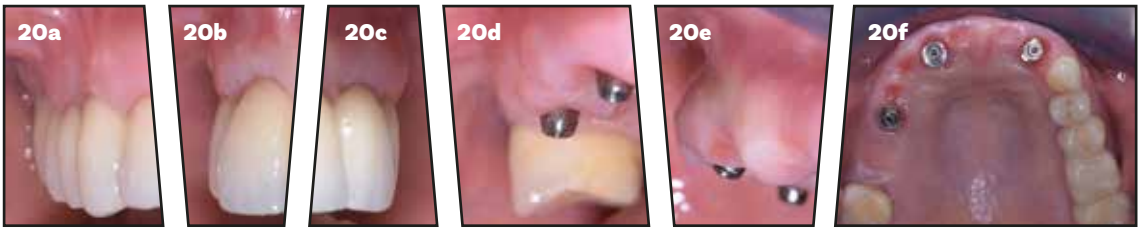
16. Maturation of the tissues in the area of the frontal incisive sockets, shaped by the ovoids of the prosthesis, 3 months after extraction

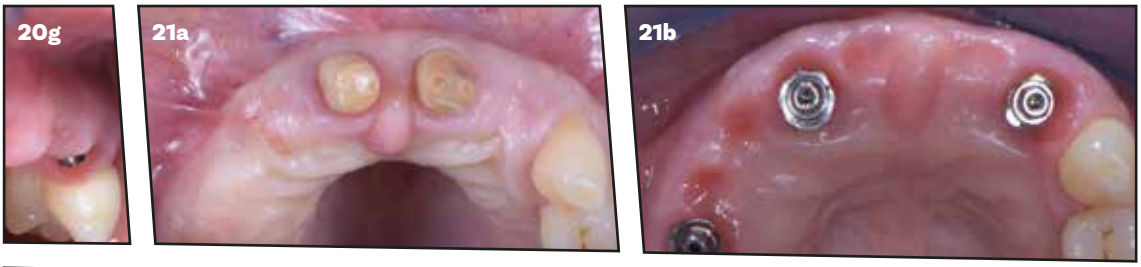
17. Healing at 6 months: the progressive adaptation of the soft tissue to the prosthetic profiles is evident



18. Fit of the definitive metal-ceramic prosthesis

19. Delivery of the definitive metal-ceramic prosthesis





20. Detail of the volumes achieved with the connective tissue graft

21. Comparison between the pre- and post-implant situation, highlighting the soft tissue modeling obtained through mucogingival surgery and prosthetic profiles

22. Comparison between the initial and final situation

23. Final radiographs

PROSTHETICALLY GUIDED SURGERY

Massimiliano Visca

48-year-old male patient, in good general health, presents two fixed rehabilitations on natural teeth in quadrants 1 and 2 (upper right and left maxillary regions), from tooth 1.4 to 1.6 and from tooth 2.4 to 2.7, performed more than five years ago.
During the first visit, the patient reports discomfort and mobility of the bridge in quadrant 2 (upper left maxillary region).

Diagnosis
The case study involves creating an initial intraoral photographic set, followed by instrumental examinations with OPT and periapical radiographs. The diagnostic phase is completed with probing depth measurements, dental mobility assessment, bleeding and plaque indices, and evaluation of furcation involvement in deciduous teeth.
The periodontal evaluation, combined with radiographic examination, reveals loss of periodontal support affecting two-thirds of the root of tooth 2.7, mobility, and destructive decay of the stump under the crown.

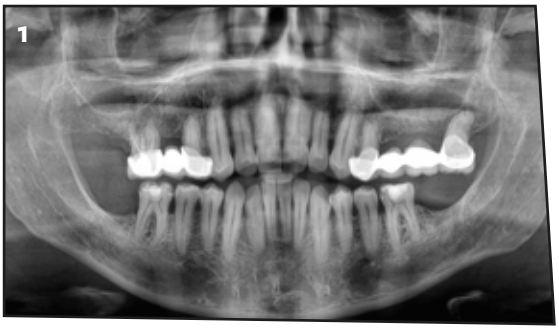
It is decided to proceed with: causal therapy, extraction of residual roots (root 1.7 and 3.7) and tooth 1.8.
In quadrant 2, crown separation between teeth 2.4 and 2.5, retreatment, and prosthetic restoration of tooth 2.4, which is in good periodontal condition.
Extraction of tooth 2.7 and implant therapy to replace the missing teeth.
As for the implant-prosthetic treatment, the objective is to preview the patient's actual anatomy through multiplanar reconstructions (DCM files) and STL files to definitively establish the treatment plan to be presented to the patient.

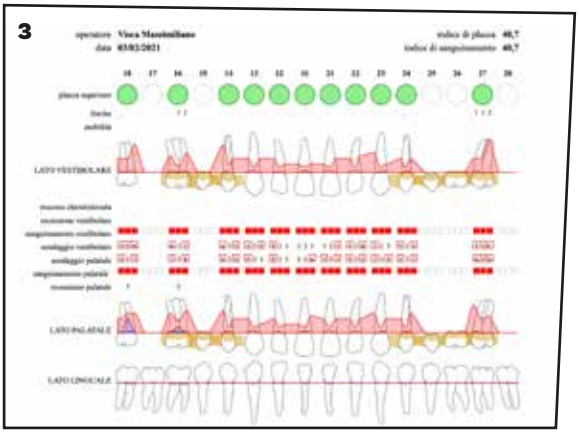
Find out dr. Visca point of view on Prama

Treatment Plan

The decision was made to proceed with causal therapy, extraction of residual roots (root 1.7 and 3.7), and tooth 1.8.
After separating the bridge and extracting tooth 2.7, an endodontic treatment was performed on tooth 2.4, followed by the placement of a temporary crown.
A complete upper CBCT scan and intraoral arch scans were conducted, and the DCM and STL files were uploaded into the Archiplan software.
A request was made to the laboratory to create a digital wax-up to preview the volumes and shapes of the final crowns for teeth 2.5 and 2.6.

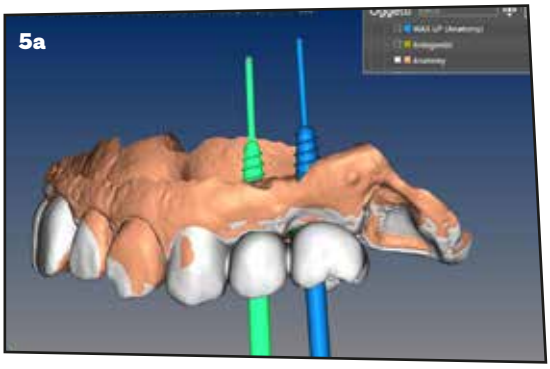
The images revealed a crest bone deficit (< 5mm) in the upper left maxillary region, necessitating a sinus lift procedure via a crestal approach, performed with guided surgery (GSL system).
Two Prama implants were placed (tooth 2.5: Prama RF Short Neck 3.8x10 mm, tooth 2.6: Prama RF Short Neck 4.25x10 mm).
The case demonstrated a different level of implant sinking due to the position of the aesthetic line and the crest bone deficit.
The prosthetic plan included a closure of the prosthetic margin on the LMD abutment for tooth 2.5, and at the neck of the Prama implant for tooth 2.6.
After 4 months, impressions were taken using two scan bodies and a traditional double-cord technique on tooth 2.4.
Following the replica trial -performed to verify prosthetic fit and volumes -the definitive zirconia crowns were delivered approximately 10 days later.

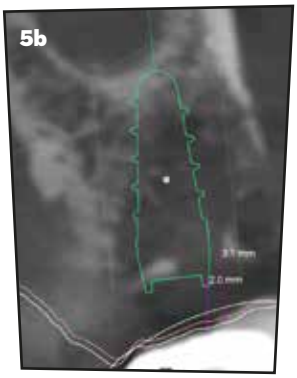


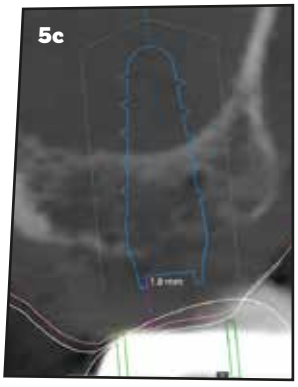


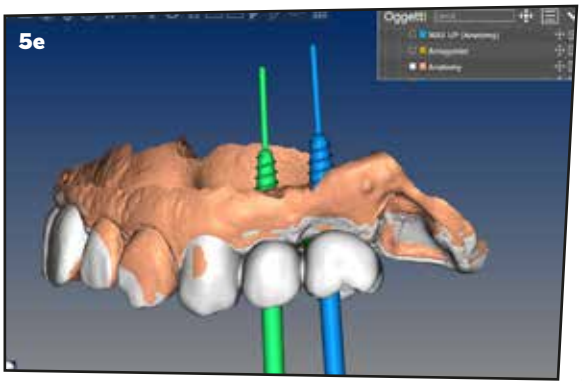
1. *Radiographic examination*
2. *Clinical examination*
3. *Periodontal chart*

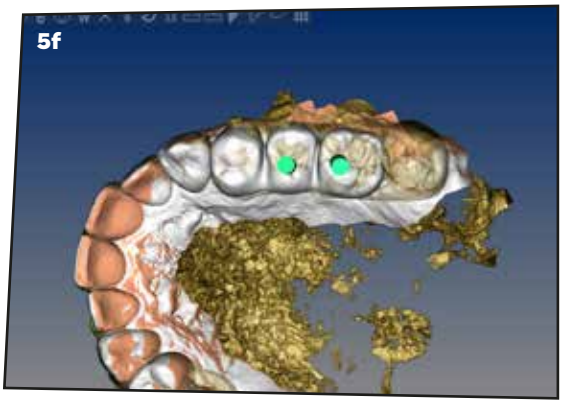
4. Clinical evaluation



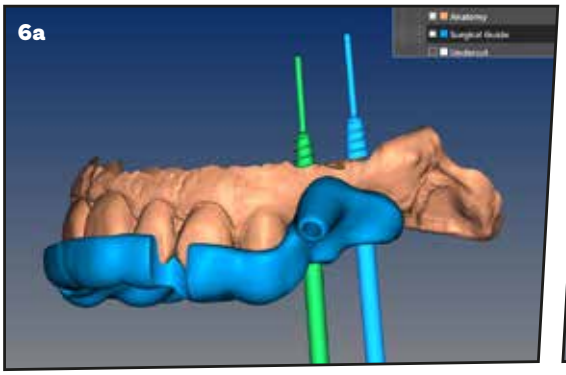


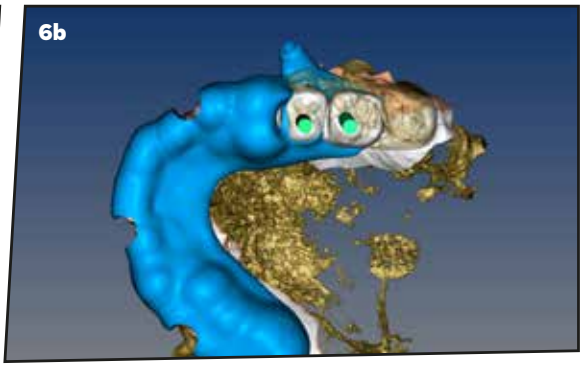


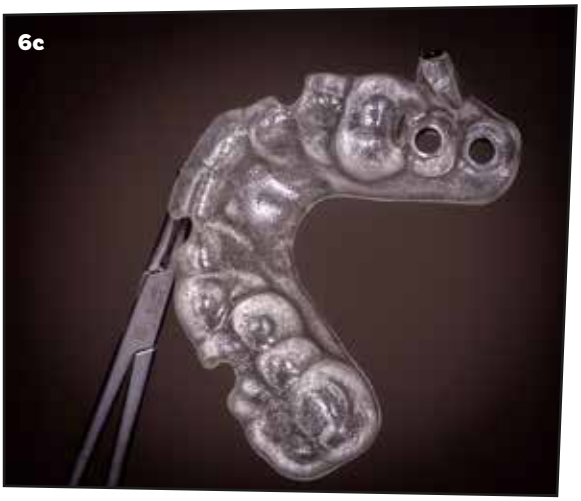




5. Prosthetic plan

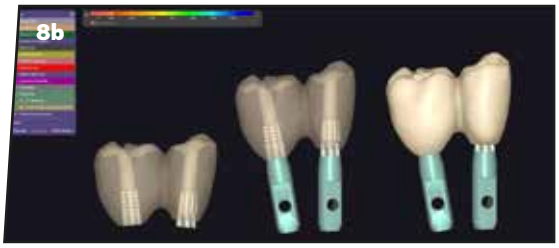


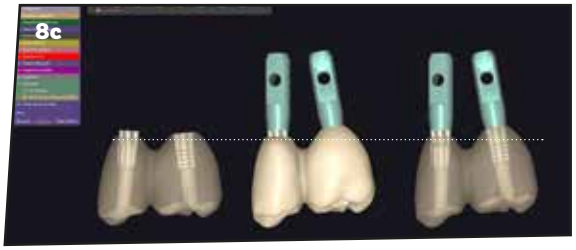




6. Design and production of the surgical guide

7. Radiographic setup





8. Replies testinge

9. Final crowns

10. Radiographic setup

GUIDED SURGERY *for immediate loading in the lower maxilla*

Santi Carreras, Juli Martínez-Benazet

A 58-year-old male patient. His general medical history is notable only for type 1 diabetes. Non-smoker. Stage IV Grade C periodontitis. He is a wearer of an upper fixed implant-supported prosthesis.

Our treatment plan consists of placing 7 Prama implants using a digitally guided technique, simultaneously with the extraction of the remaining premolars, combined with immediate provisionalization of the entire arch.

Guided surgery offers several advantages that enhance both the precision and efficiency of the procedure.

In this case, we decided to place 7 implants due to the large size of the jaws and the fact that the patient is a heavy bruxer.

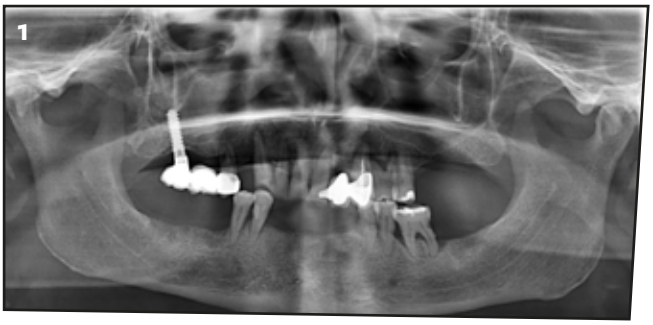
The design of the Prama implant, with its intramucosal neck and UTM surface, is optimal for patients who have lost teeth due to periodontal issues, thanks to the excellent seal achieved.

We chose to raise two small flaps on the buccal and lingual sides to preserve the limited available keratinized gingiva, which would have been greatly reduced if a punch had been used.

The P.A.D. abutments and temporary cylinders were placed prior to suturing, and the rebase of the provisional prosthesis - already fabricated based on the digital treatment design - was performed.

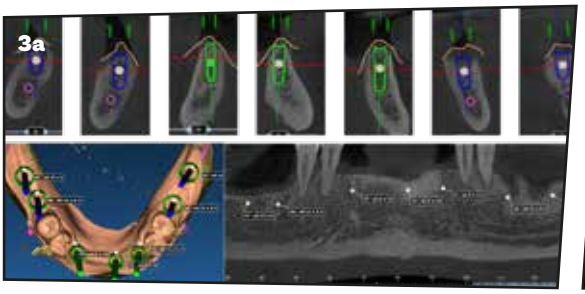
The planned implant in position 33 did not achieve the minimum primary stability, so it was decided to place it further posteriorly and leave it submerged, as the 6 implants could sufficiently support the provisional prosthesis.

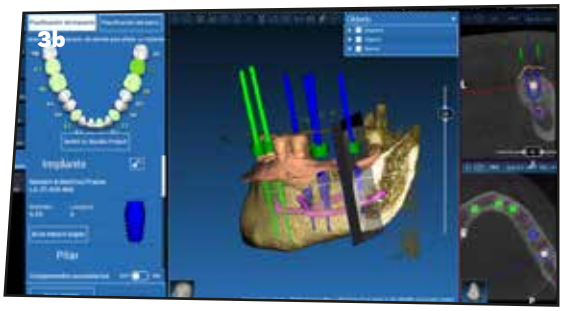
After 4 months, this implant was exposed, and the definitive prosthesis was fabricated. In this case, a metal-resin hybrid was chosen, as there is a metal-ceramic prosthesis in the opposing arch. This reduces wear risk and helps absorb excessive forces.



1. *Initial radiographic situation*

2. *Initial clinical situation*





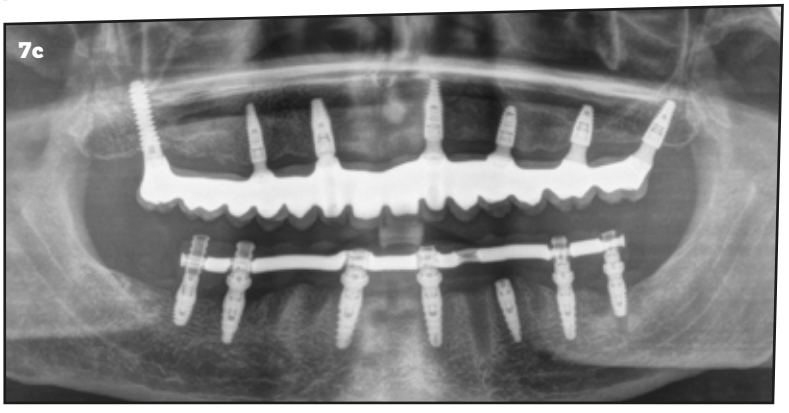
3. *Planning and design*

4. *Intraoperative phase: placement of the implants*

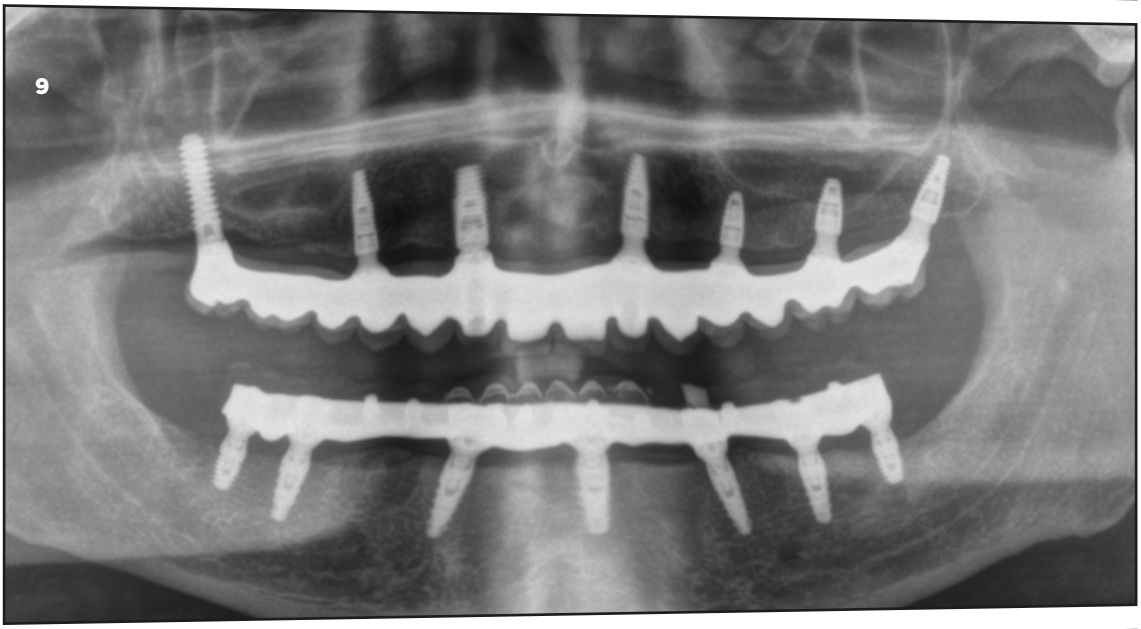
5. *Temporary posts and sutures*

6. *Placement and rebase of the provisional prosthesis*

7. *The planned implant in position 33 did not achieve the minimum primary stability, so it was decided to position it further posteriorly and leave it submerged during the provisional phase*



8. Delivery of the final prothesis



9. Final radiographic situation

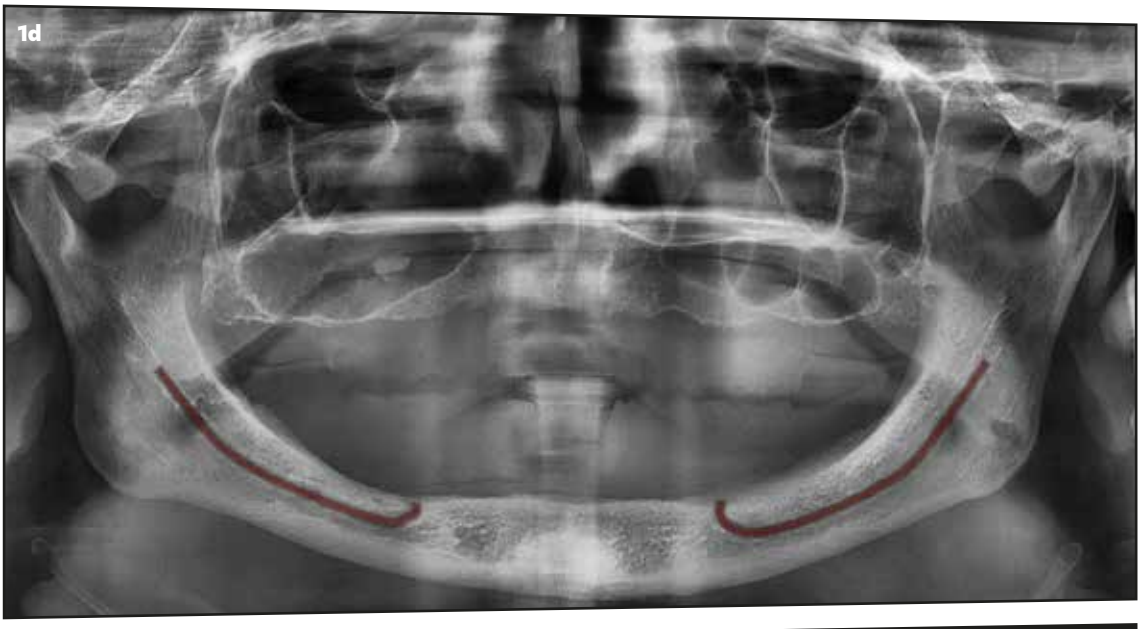
Severe atrophy of the lower jaw guided surgery and **SCREW-RETAINED PROSTHESIS**

Franco Quinti

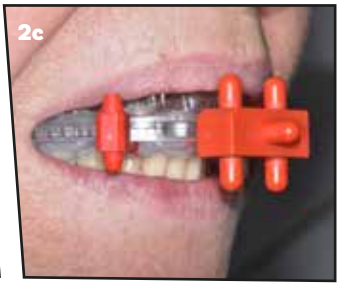
The patient, a 67-year-old completely edentulous woman, presents with severe instability of the lower prosthesis and incorrect profiles of the upper prosthesis, which cause a lack of support for the lip. The patient requests a fixed rehabilitation of the lower arch, and considering the severe atrophy with superficialization of both mental nerves, it is decided to proceed with rehabilitation using computer-guided surgery. Four Prama implants are placed, and immediate prosthetic loading is performed.

Approximately three months after surgery, the definitive lower prosthesis is made, and at the same time, the upper prosthesis is redone, adjusting its profiles and optimizing lip support, much to the patient's satisfaction.

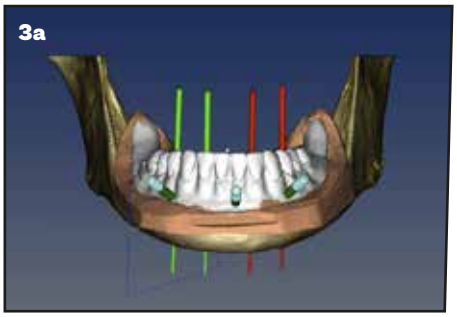
Find out dr. Quinti point of view on Prama

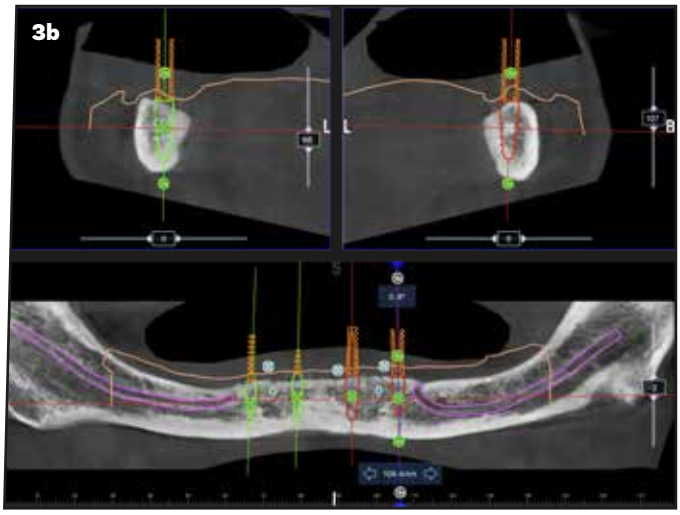


1. Initial clinical and radiographic situation



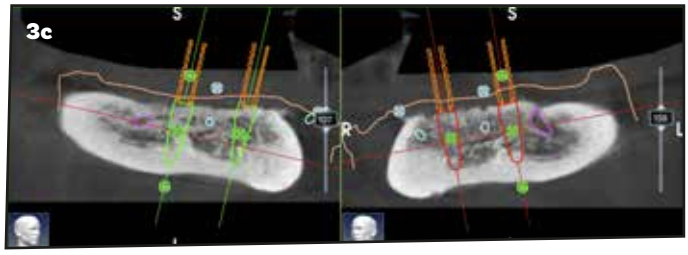
2. Radiological guide creation and data acquisition phase

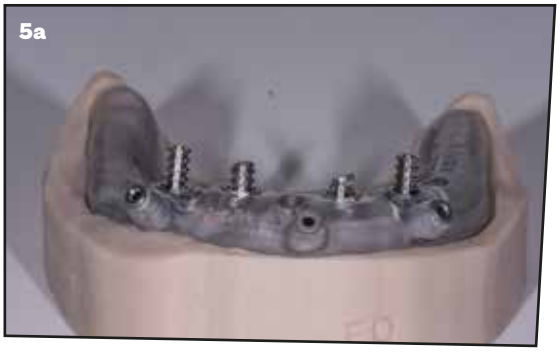




3. Design phase

4. Pre-surgical temporary

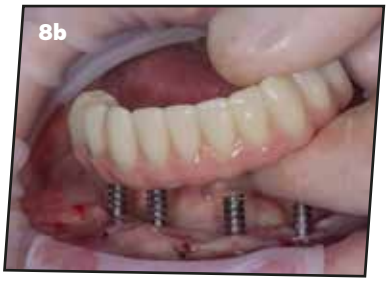




5. Creation of mucosal-supported surgical guide

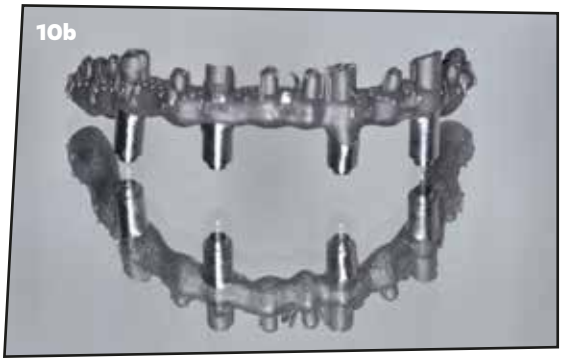
6. Implant site preparation

7. Insertion of Prama implants



8. Immediate loading with 3D printed temporary structure

9. Healing three months after the procedure



10. Creation of the final prosthetic structure

11. Delivery of the final prosthesis

12. Final situation with restoration of volumes and functional support

AESTHETIC REHABILITATION *of failing bridge UR1-UR3 using Prama implants without additional soft tissue grafting.*

Stuart Kilner

This case highlights the successful aesthetic rehabilitation of failing dentition using PRAMA implants, eliminating the need for additional soft tissue grafting.

The patient, a 64-year-old mother of a dental colleague with no relevant medical history, presented for the extraction and replacement of a failing UR1-UR3 bridge.

Following extraction, implants were placed immediately using a guided protocol. To optimize the screw channel position, an MUA (Multi-Unit Abutment) was planned for UR3. A temporary prosthesis was picked up intraoperatively and finalized chairside on the day of surgery.

Smile design principles were applied to enhance aesthetics. Adjustments included reducing the width of UR1 and using composite bonding on UL1 to close the resulting diastema, resulting in improved proportions of the central incisors.

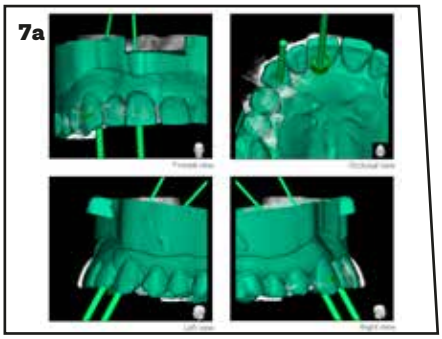
The final prosthesis was delivered 20 weeks post-surgery, achieving excellent aesthetic and functional outcomes and leaving the patient highly satisfied.

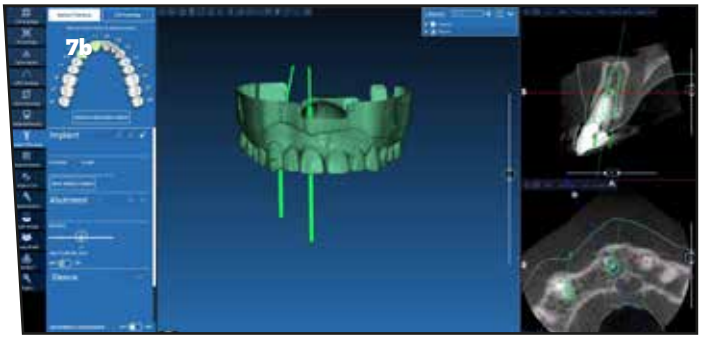
Find out dr. Kilner point of view on Prama

1. *Preop Extra Oral Presentation. Patient presents with terminal bridge UR1-UR3. Poor aesthetics also noted*
2. *Preop extra oral presentation. Bridge presents with ridgelap pontic*
3. *Preop extra oral presentation*

4. *Preop intra oral presentation*
5. *Preop intra oral scan STL*

6. *SmileDesign. Discrepancy in width of anterior teeth identified and treatment plan for management of diastema determined. New UR1-UR3 implant retained bridge & composite on UL1 for the diastema closure*





7. GuideDesign

8. Temporary Design. Designed for immediate load after immediate placement

9. Surgery guide

10. Surgery implant placement

11. Surgery temporary pros immediate load. Temporary used to train the tissues with pontic site development on the UR2 by adding flowable composite at later appointments

12. 10 weeks. Final impression. Ovate pontic used to improve the sot tissue

13. 10 weeks. Final Impression.

14. 20 weeks final. Final Fit. Using LMDT abutment on UR1 Pontic site development with UR2 – polished subgingival zirconia

15. 20 weeks. Final fit

16. Before treatment

17. After treatmet

GUIDED PLACEMENT OF PRAMA IN THE ESTHETIC ZONE:
the benefits of accuracy

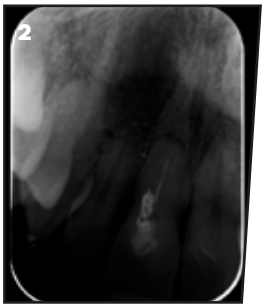
Andrea Fincato

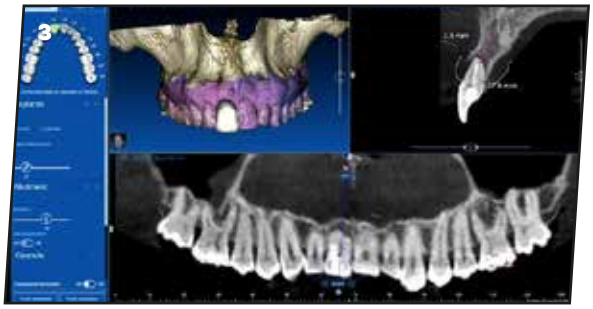
The patient, 33 years old, presents to our clinical observation with: evident discoloration, percussion pain, and grade 2 mobility of element 1.1. The bidimensional and tridimensional radiographic analysis reveals severe resorption of the vestibular wall. It is essential to emphasize the concept of accuracy in the prosthetic and anatomical principles. A digital workflow is used, integrating the aid of computer-guided surgery. It is decided to prosthetically restore element 1.1 with immediate loading. The prosthetic element has the right characteristics for excellent healing.

Watch the interview to dr Fincato

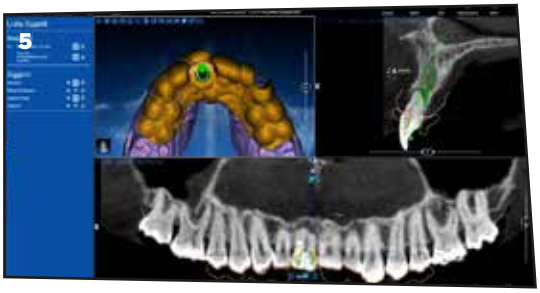
Watch the video of the surgery

Objective examination.





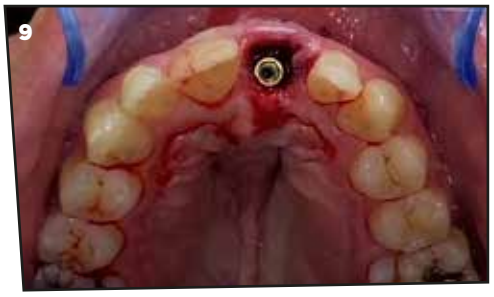
Initial X-ray and CBCT revealing severe resorption of the vestibular wall.



The planning is carried out with the help of the Archiplan 3D software, a program with a simple and intuitive graphical interface that allows diagnosis, planning, and modeling from any computer or tablet using DICOM and STL files.

Thanks to the full-digital approach, it is possible to prepare an immediate provisional with high aesthetic value and test its emergence profiles on the printed model.

Atraumatic extraction.



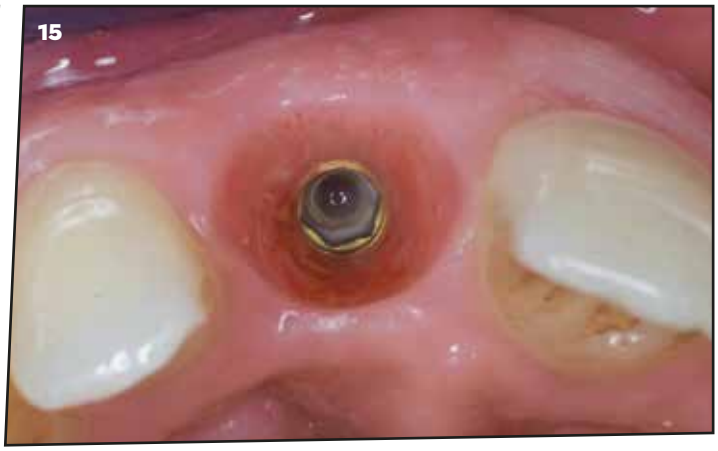
Guided implant placement, which allows emphasizing the concept of prosthetically/anatomically guided surgery.

Check of the crown placement apical to the implant, respecting the biological principles.

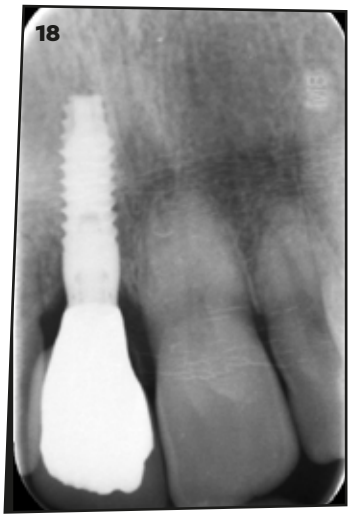
Placement of the previously prepared provisional crown: the perfect adaptation of the soft tissues is noted.

Adaptation of the soft tissues around the provisional at 30 days.

Detail of soft tissue healing at 4 months.



Delivery of the final crown.



Clinical and radiographic follow-up at 4 years.

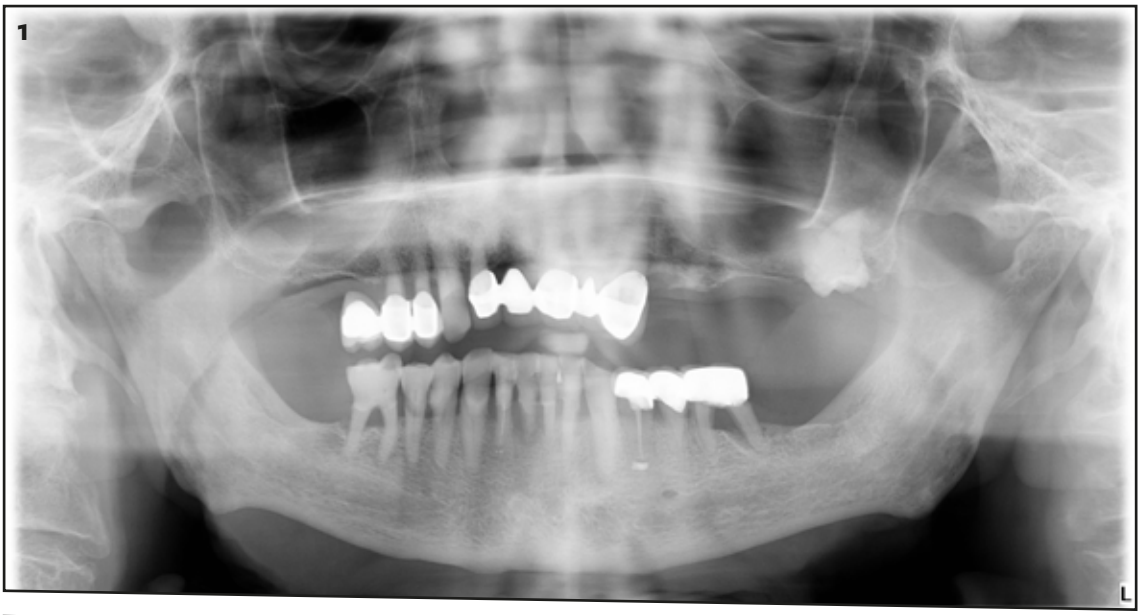
MULTIPLE REHABILITATION *of Prama implants with guided surgery*

Carlos Belarra Arenas

A 91-year-old male patient presents with edentulism in the upper left sector and bone atrophy in the maxillary sinus area. To avoid sinus lift and reduce both surgical time and trauma, we planned the placement of a Prama implants in position 24 and 26, with a 30-degree angulation, which we will rehabilitate with angled abutments. For this, we used a digitally planned surgical guide, designed through the Archiplan software, and fabricated to ensure both the surgical and prosthetic proper positioning of the implants, reducing intraoperative and postoperative times. This is crucial in elderly patients like the one in question.

We have been following the patient for 5 years.

Find out dr. Belarra Arenas point of view on Prama

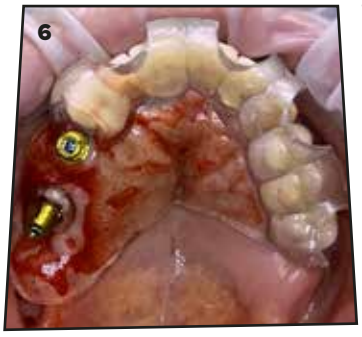


1. *Initial x-ray*

2. *Occlusal view of the upper maxilla*

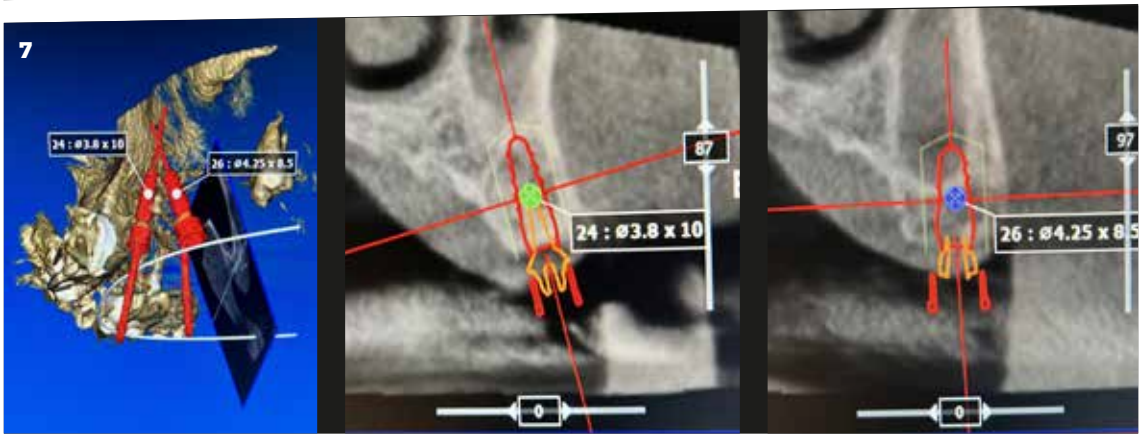
3. *Surgical guide*

4. *Placement of the surgical guide in the mouth*



5. *Drilling protocol through the surgical guide*

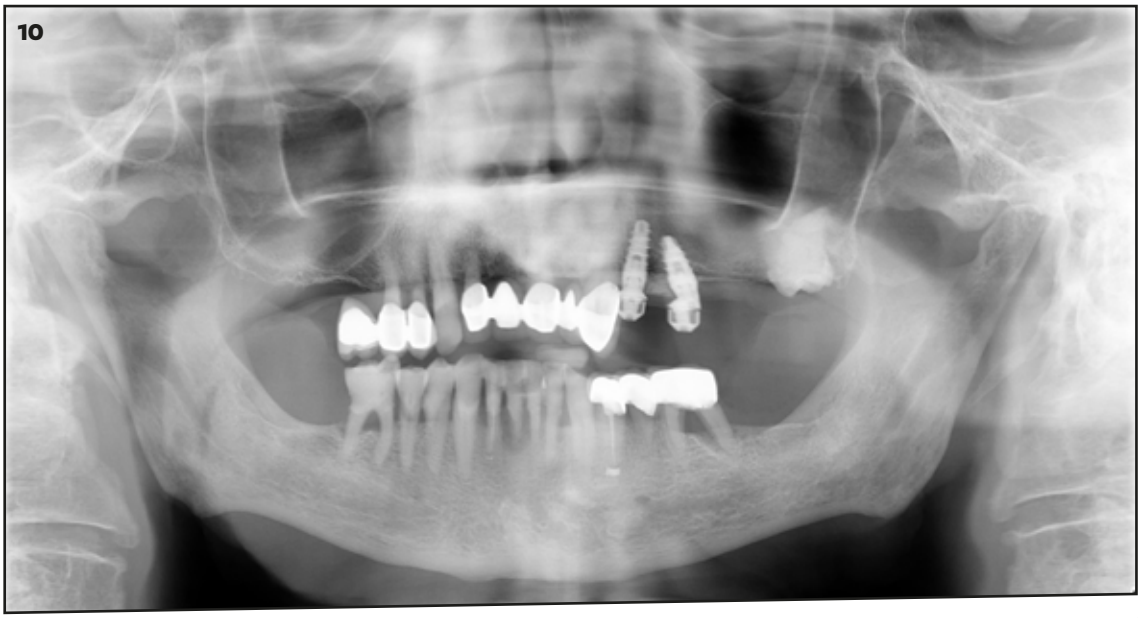
6. *Implants placed through the surgical guide*



7. *Surgical digital planning*

8. *Occlusal view with implants and angled abutments*

9. *Follow-up at 3 months*



10. Radiographic follow-up after 3 months

11. Radiographic follow-up after 5 years

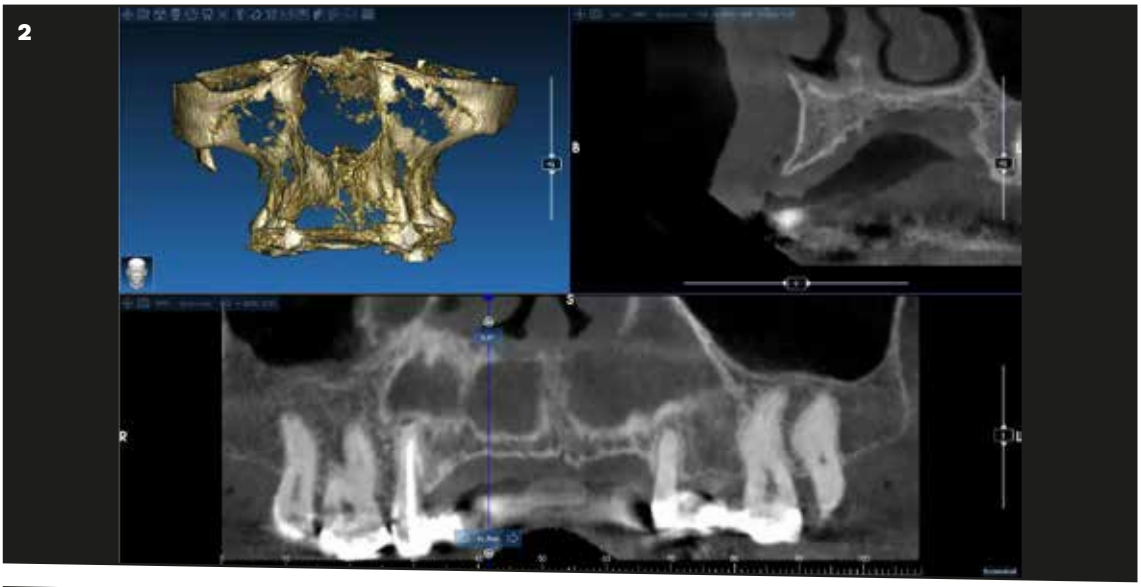
GUIDED REHABILITATION *with Prama implants in the aesthetic zone. Approach using a stackable guide.*

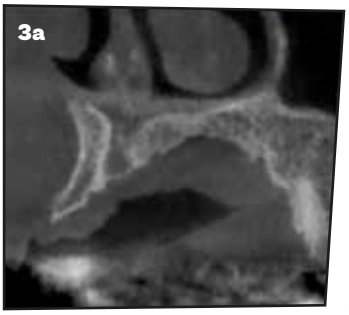
Davide Di Paola, Federica Borzì

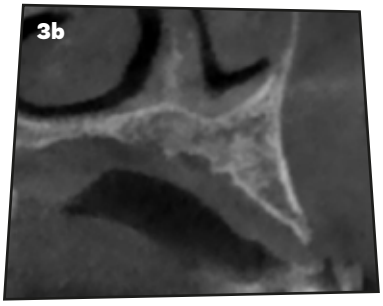
52-year-old patient, smoker, presenting with a long-standing edentulism in the upper anterior region, visits our facility for a partial rehabilitation.
The patient's request was functional, strictly avoiding removable prostheses. She is in good health but exhibits significant odontophobia. The proposed treatment plan was prosthetic rehabilitation on implants.
Cone Beam imaging revealed that the absence of dental elements caused centrifugal bone resorption, resulting in knife-edge residual bone ridges unsuitable for implant placement without regenerative surgical interventions.
Through CBCT analysis and planning with the 3D Archiplan software, it was decided to perform a resective bone surgery to level the ridge and place the implants using guided surgery.
A mixed-support (dental and bone) stackable surgical guide was designed for this purpose. The choice of a stackable guide was made because the same medical device would be used for both the bone resection and the accurate implant placement, based on a prosthetic setup previsualized within the same software.

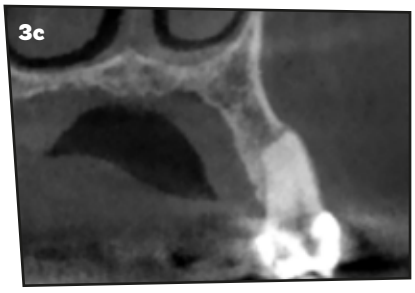
Find out dr. Di Paola point of view on Prama

1. *Initial condition of the patient's mouth*



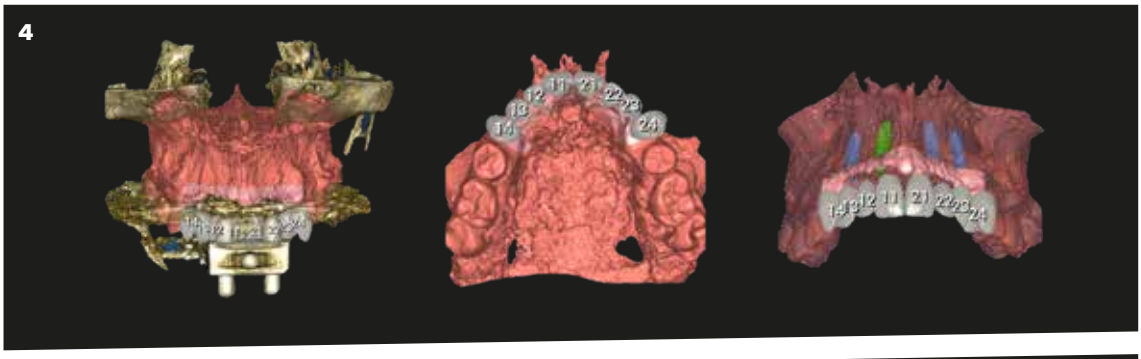


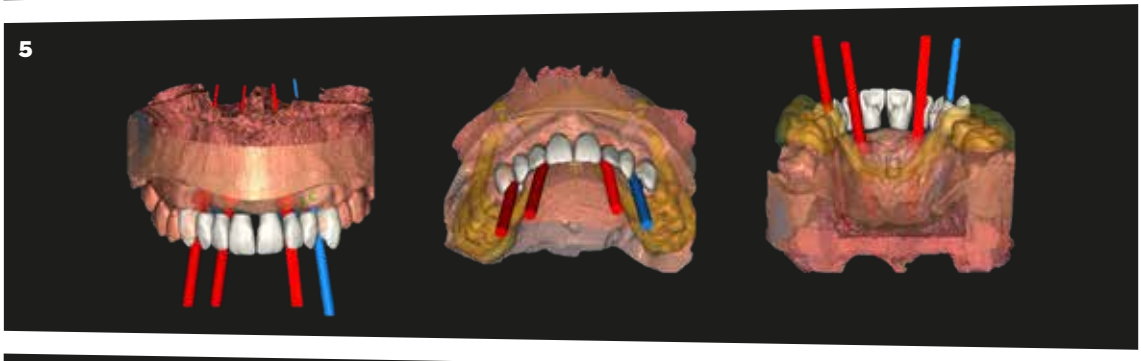




2. *CBCT scan with 3D rendering*

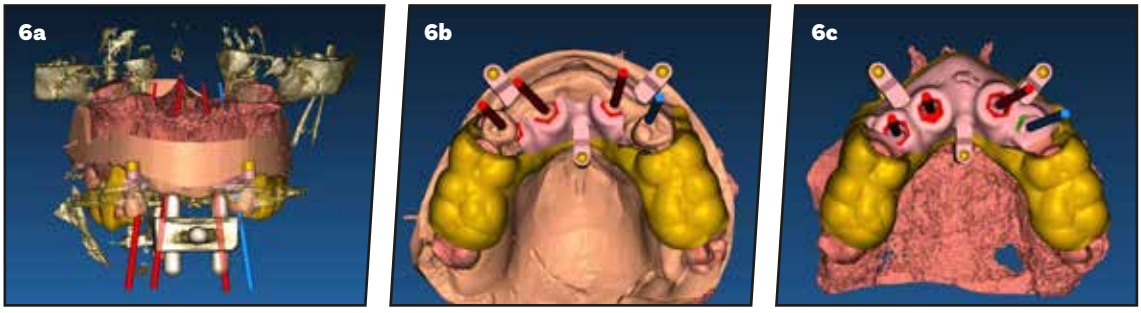
3. *Cross-section of the edentulous area*



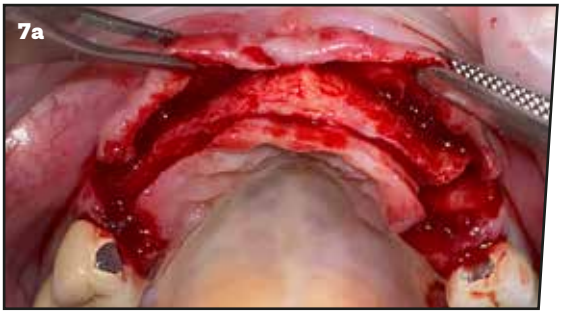


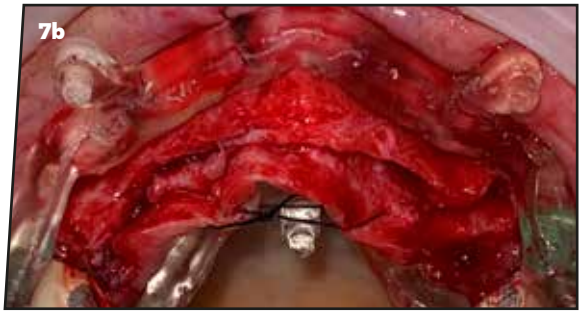
4. Bone segmentation, with implant placement combined with the tooth setup

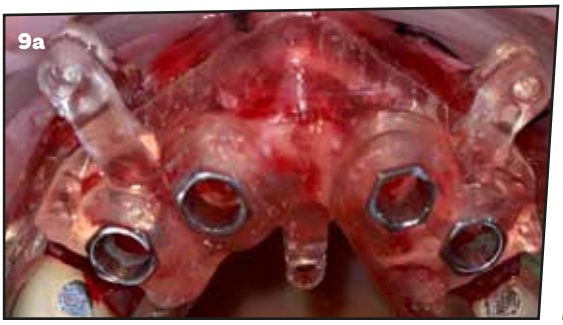
5. Design of the surgical guide base ring

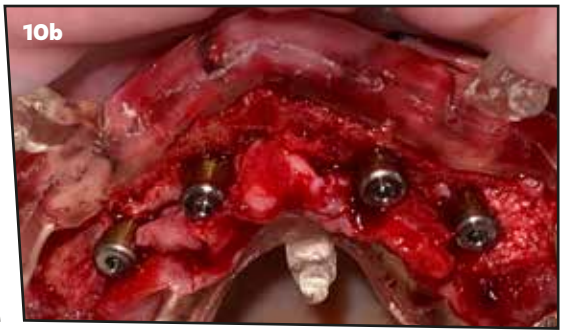


6. Design of the stackablel guide, guide for implant placement







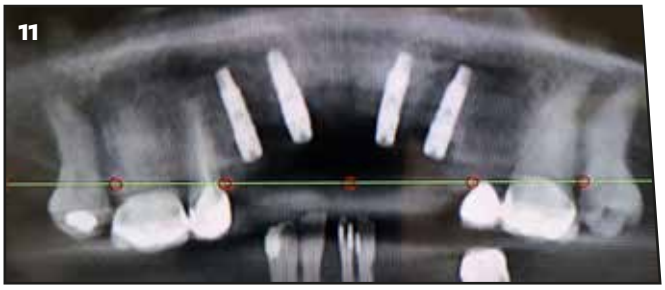


7. Full-thickness flap incision, exposure of the knife-edge ridge, and placement of the base ring

8. Bone resection through the full thickness at the base ring level, which serves as a guide for the cut

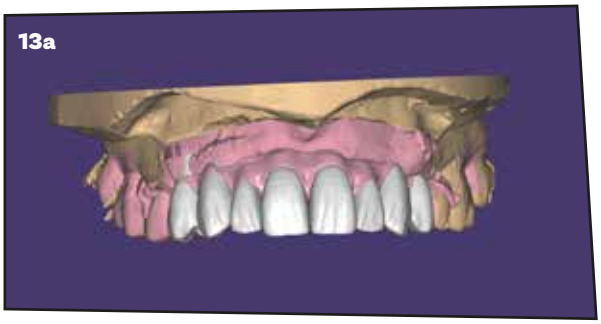
9. Placement of the second guide for implant placement

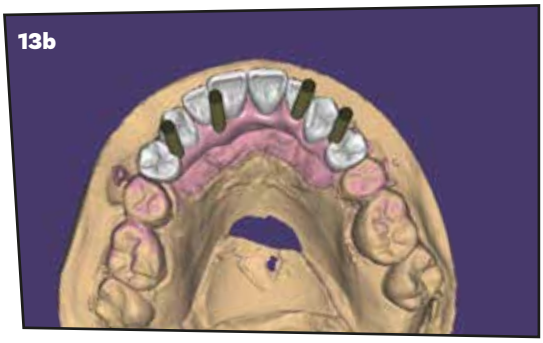
10. Placement of implants and healing abutments

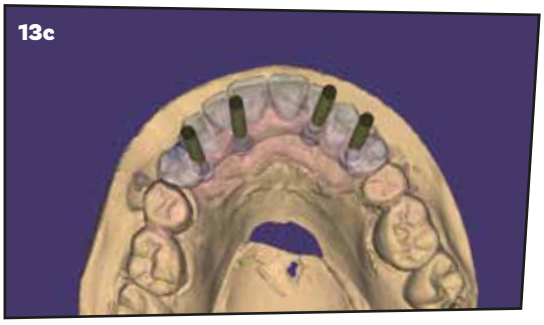


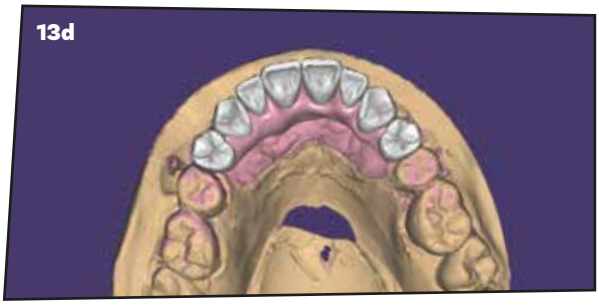
11. Control X-rays at time 0

12. Suturing of the flaps at time 0. Control X-ray at 3 months









13. Setup for the final design

14. Delivery of the prosthesis

15. Comparison between initial and final condition

16. Final smile

TEETH IN A DAY,
from 4500miles away.

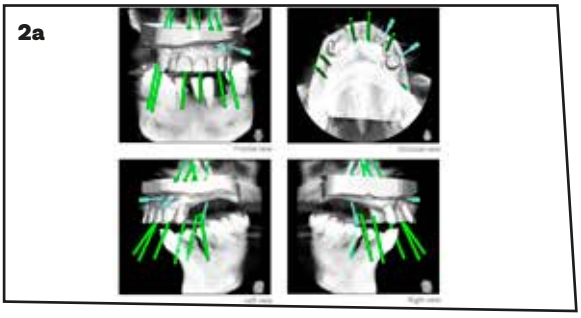
Amit Kotecha

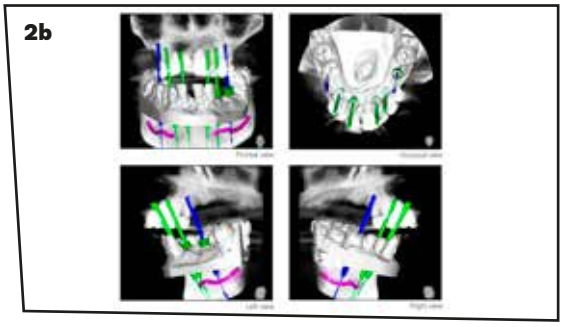
The patient messaged the practice from Dubai. Our first assessment of him was over a Zoom meeting. He gave us a timetable of 8 weeks during which he would fly into UK from Dubai. In effect we needed to complete the case in 3 months.
The patient came with severe periodontal disease as can be seen by the OPT. He also had a large cyst above the upper right central, this can be seen on the CBCT scan. A full clearance was conducted and full CBCT guided All On Prama (on 6 implants) upper and lower was conducted in 4 hours.

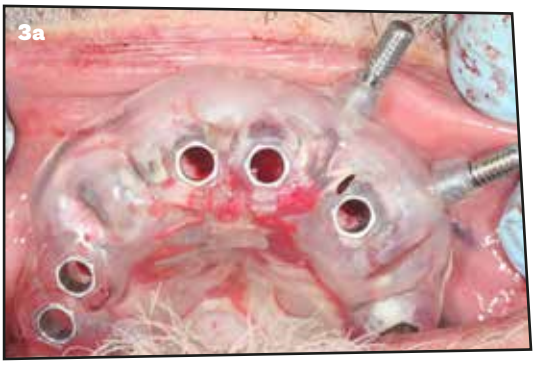
Immediate FP1 PMMA restorations were fitted and the patient made an optimal recovery. He flew away the next day and came back at 10 weeks post op to have the final impressions for zirconia on titanium full arch FP1 restorations. We made him aware that should the gingival tissue re-contour or change shape he would need to attend again at 6 months to see if any final finishing was due. None was required. We used ovate pontics to marry the extraction sockets and healing was uneventful.
The case was completed in 2022, the patient is stable post op by 2 years.

1. *Pre-Operative presentation*

2. *CBCT fully guided flapless treatment planning to include enucleation of Cyst UR1. Teeth in a day case, with immediate loading with PMMA prostheses*







3. *Surgical guides in situ, post clearance of all periodontally compromised teeth.*

4. Graft material to repair any bony defects

5. PMMA teeth “in a box” designed and made pre-op, to be customised chair side

6. Zirconia final all on 6 restorations after a few prototypes in PMMA

7. Final Zirconia all on 6 bridges with ovate pontics, in situ. Night guard worn every night

8. To plan and execute this bilateral immediate load fully guided case from such a distance was no easy task. Using Prama was the only choice. A life changing clinical result for the patient. The smile says it all!

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