



**Dott.ssa
Nicoletta Gnazzo**

Curriculum

Graduated in Dentistry and dental prosthesis in 1988, she is a self-employed and owner of a dental practice from 1989 to today in Roccadaspide (SA) and from 1990 to today in Felitto (SA).

She attended the theoretical-practical course of ADVANCED IMPLANT SURGERY in Fortaleza (Brazil) and annual course in:

- EXACONE IN PROGRESS implantology
- ATM AND CRANIO-CERVICAL-MANDIBULAR REGION: ASSESSMENT AND INTEGRATED MANUAL THERAPY
- DIAGNOSIS AND PERIODONTAL SURGERY
- ANNUAL THEORETICAL-PRACTICAL COURSE OF ORTHODONTICS

as well as numerous refresher courses in the various dental disciplines.

EASY GUIDE SGS ESPERIA

Key words

Guided surgery, extemporaneous prosthesis, minimal discomfort, reduced healing times, minimally invasive

Abstract

The paper aims to describe step by step the clinical-technical path for the prosthetic rehabilitation of a complex case thanks to the use of 3D digital tools and equipment, currently available to dentistry.

Due to aesthetic-social needs, the patient will be treated in a single session, without ever being left without prosthetic teeth and without any aesthetic-social damage.

INTRODUCTION

The 72-year-old patient presented himself for clinical observation in our dental practice with residual dentition and a small mobile prosthetic appliance.

The patient complains, beyond an enormous overall imperfection of his oral cavity, an important masticatory difficulty, as well as, more importantly for him, an enormous difficulty in keeping the prosthesis in his mouth continuously, even for more than a few hours.

This forces him to moments of enormous discomfort, as he is forced to remove it. Therefore, given the situation, he requests to be able to use a not bulky and not removable prosthesis. Therefore, we hypothesize a fixed-type work for implant support, but, to confirm our clinical proposal, we submit the patient to a three-dimensional radiographic examination with Cone Beam, to then carry out an accurate evaluation and planning for implant positioning. Once the examination has been carried out and the complete possibility of realize an implant surgery with the insertion of six implants to support a full arch prosthesis has been verified, we inform the patient, who considers what we have proposed to be satisfactory. However, he makes a further request of social nature: being a person involved in social life, he would not like to be left without his aesthetics, even if uncomfortable. Therefore, maintaining the same implant plan, we propose an operation with the aid of a guided mask, which will allow us to create the prosthetic device before surgery.

Then, in the same surgical session, the implants will be applied, the residual teeth extracted and the prosthetic device applied. This solution is enthusiastically accepted by the patient.

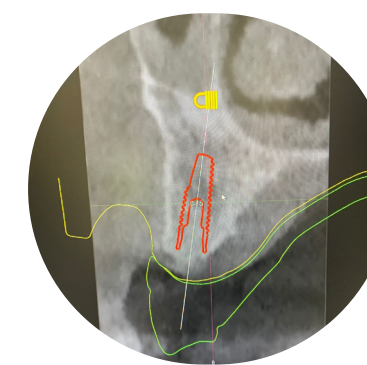
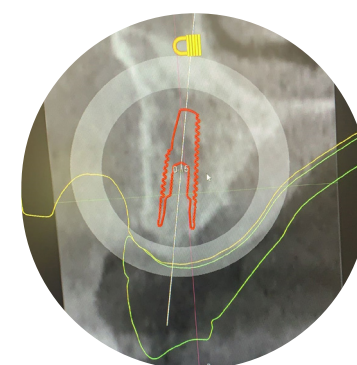
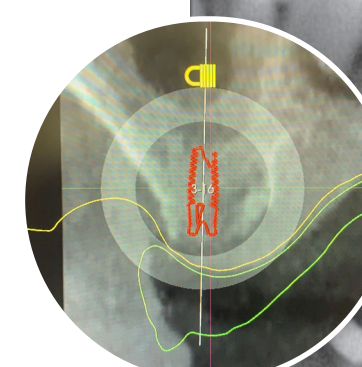
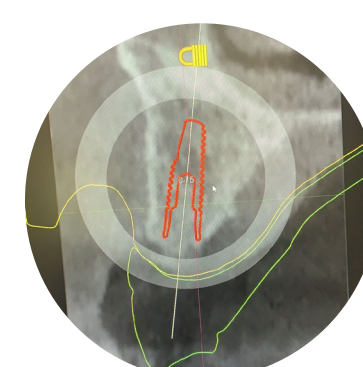
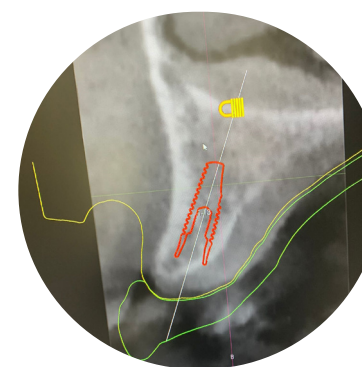
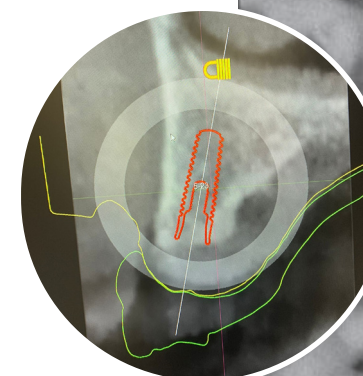
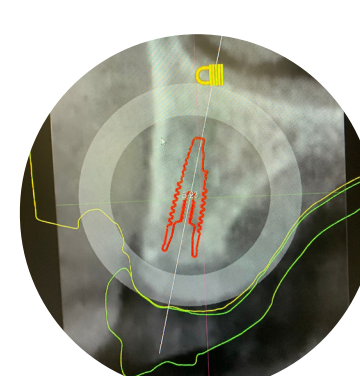
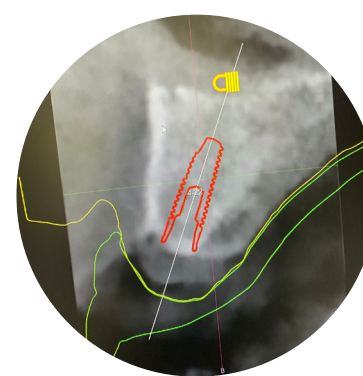
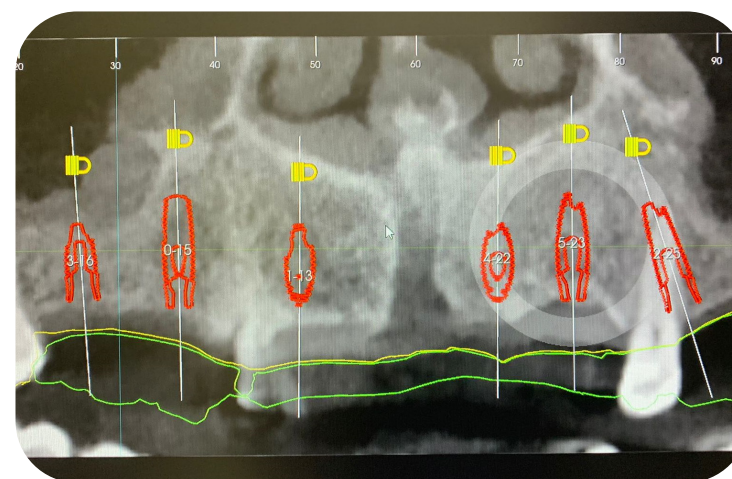
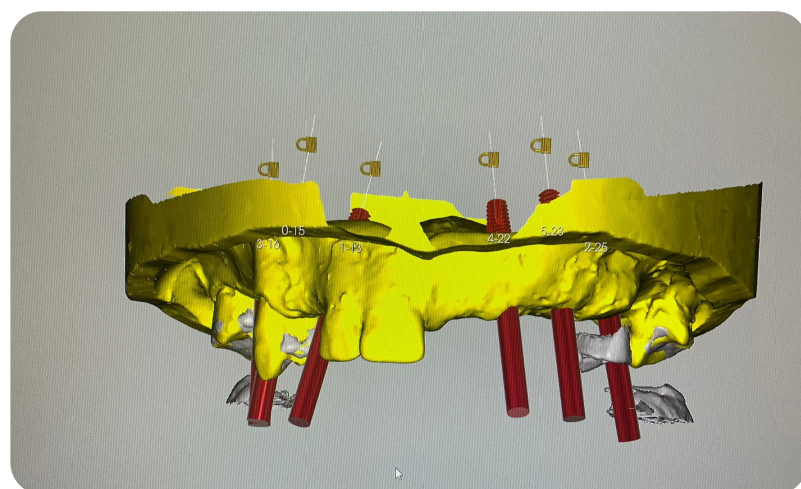
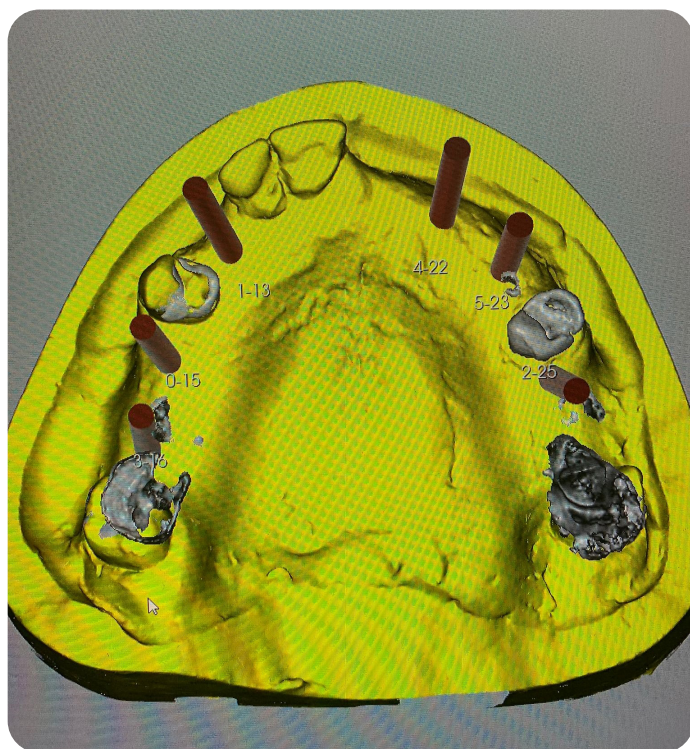
For the surgery we have considered the use of SGS DENTAL implants which, due to their macro morphology, type of connection and quality of the surfaces, are the ones that currently give us greater stability over time. Once both the upper and lower impressions have been taken, we ask our trusted laboratory to make two plaster models and proceed to scan them.

Our planning and the model scan files are sent to SGS ESPERIA GUIDE, our center for development and production, for the creation of the surgical guide and the digital print model for the definition of the prosthetic device before surgery.

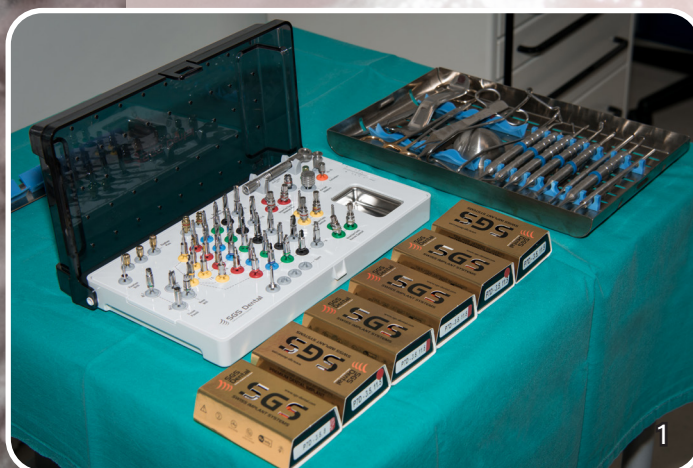
For the success of the prosthetic rehabilitation, in addition to the SGS ESPERIA GUIDE production center, we rely on our trusted dental laboratory ESTETIC DENTAL, with which we have been collaborating for years and together we are achieving customer satisfaction and, therefore, professional successes.

STUDY AND DESIGN

Thanks to the specific software for implant planning, we started with the design of the implant sites taking into account both aesthetics and function. Below are the various phases that led us to the definition of the project, on which the EASY GUIDE SGS ESPERIA center made the modeling of the guide and the digital printing



PROCEDURE



Thanks to the predictability of guided surgery, we are digitally able to be perfectly organized through the use of certain measurements and not evaluations at the moment, with a large warehouse of implants in the dental practice (fig.1)



Guides, implants and prostheses prepared to be assembled during surgery. (fig.2)

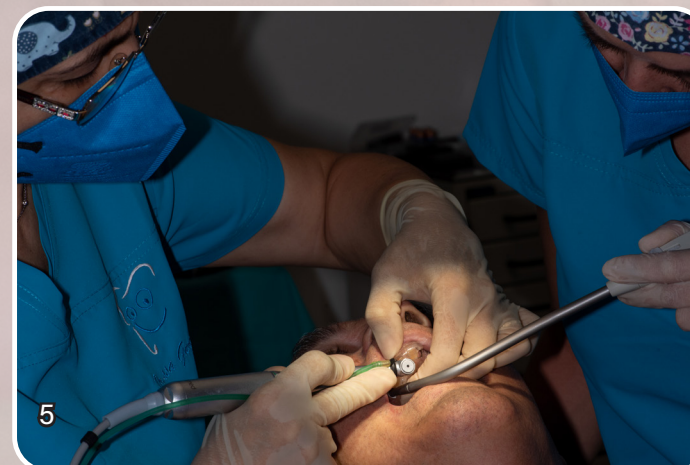


The mouth as it appears before starting the surgery, with a few partially reduced residual teeth, which will help us to position the surgical guide. (fig.3)

Positioning of the guide on the remaining teeth and checking the adherence of it on the tissues of the palate. For the success of the surgery it is essential that the guide is positioned perfectly and that it adheres correctly to the tissues. (fig.4)



Once the guide has been positioned and its stability checked, we proceed with the cut of the gingival mucosa using the "Tissue Punch" cylindrical drill supplied with the specific surgical kit for the guide. (fig.5-6)



The guide is removed and the obtained operculum is manually removed. (fig. 7-8)

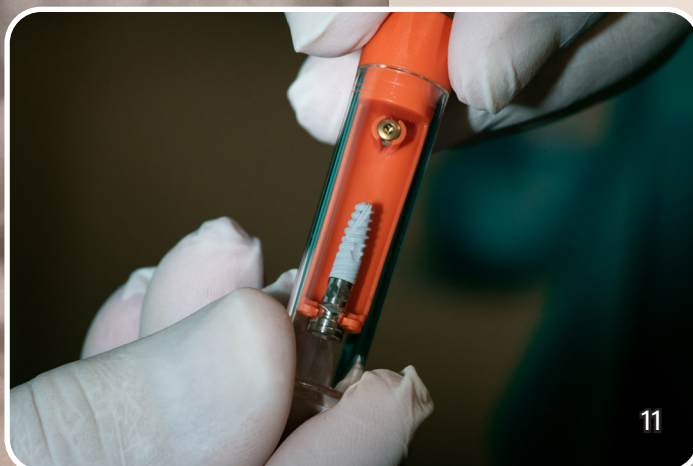




We reposition the guide and start preparing the implant site by flattening the bone with the special "Bone Mill" also supplied with the kit. (fig.9)

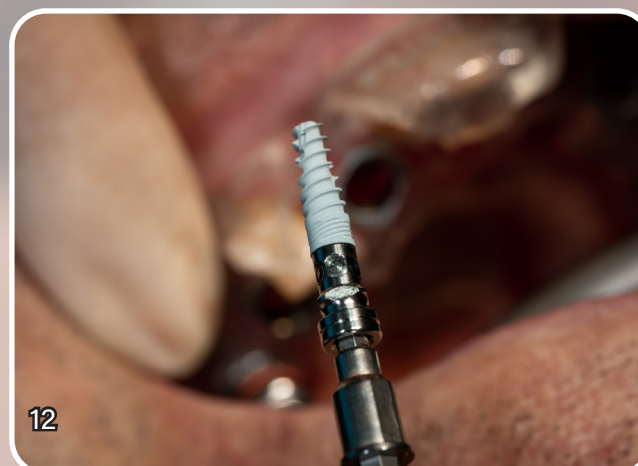


After having flattened the bone, the sites for the implants are opened through the passage of consequential drills, maintaining an adequate measure with the under-preparation of the sites in order to obtain good primary retention. (fig.10)



We take the implant out of its sterile blister, paying attention not to touch it directly. (fig.11)

Thanks to its special mount and calibrated drives, we proceed with the insertion into the previously created bone site. (fig.12)



To give greater stability to the guide, we proceed to block it by screwing the Insert Tools onto the inserted implant, which we will then also need to carry out the last check with the torque wrench. (fig.13)

The insertion of the further implants is carried out with the same technique. (fig.14-15-16)





As previously done, the insertion pressure is checked with the torque wrench and the guide is given further stability. (fig.17-18)



Once insertion is completed and checked that all the implants have been positioned perfectly as the guide envisaged, it is removed, to have an overview of the operating field and to proceed with the extractions of the remaining teeth. (fig.19-20)



Once suture is completed, the Multi Unit Abutments MUA are applied, again with dynamometric pressure. (fig.21-22)



The temporary abutments, previously sandblasted and covered with PMMA, are placed on the MUAs to allow good adhesion between the parts. (fig.23)



The device prepared prior to the intervention in PMMA material and reinforced with a metal structure and temporary application of a palatal stabilizer bar to avoid distortions during gluing and subsequent finishing. (fig.24)

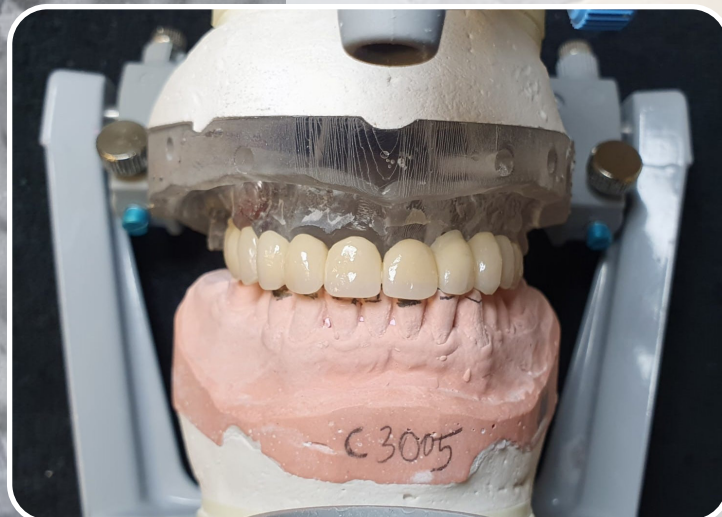
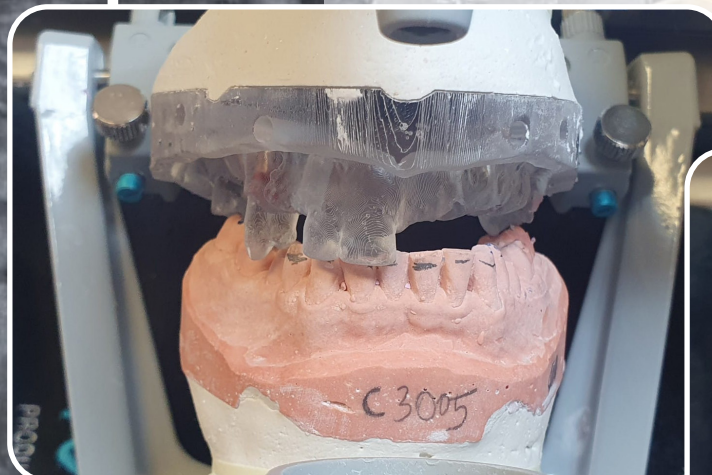




From the implant planning a virtual model is obtained with the site of the digital analogs. Thanks to the digital printer we reproduce the virtual model and create a working model.

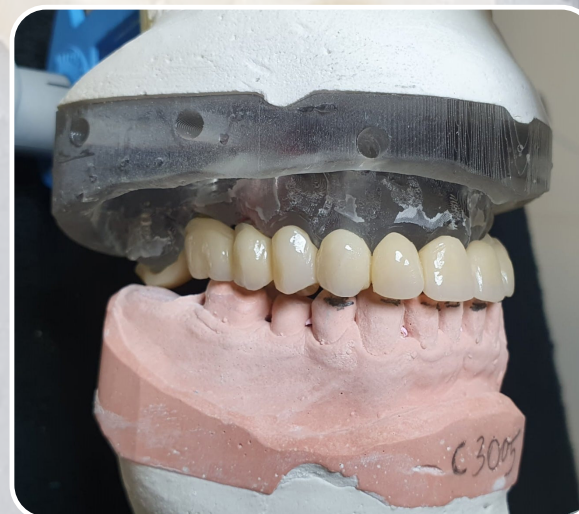
The working model is placed in the articulator using the residual dentition and the patient's old partial denture.

All the aesthetic and functional adjustments that will allow us to optimize the prosthetic device are performed.



We proceed with the analog modeling of the device and we reproduce it in PMMA with the mask system.

We verify the absolute functionality of the device in all its possible masticatory movements.



The device is complete.

To further reinforce it, a specially shaped metal wire was inserted and the spaces inside the prosthetic posts were left free, even if covered with PMMA, to make the material we use for gluing in the mouth adhere homogeneously.





Positioning of the prosthetic device in the mouth and gluing it on the temporary abutments.



Positioning of the prosthetic device after finishing and polishing.



PATIENT'S FIRST SMILE, even if shy because he is not used to smiling, a rediscovered aesthetic and socialization shines through.



The full satisfaction of the patient who in just over 90 minutes went from a non-smile to a jovial smile.

CONCLUSIONS

Digital in dentistry is certainly a great opportunity to carry out aesthetic and functional operations avoiding trauma for patients and waiting gaps without teething. The predictability and simplicity of EASY GUIDE SGS ESPERIA is surely an advantage for patients but also for those who operate. Special thanks go to the owner of the Estetic Dental Laboratory, Master Dental Technician Rocco Regina, and to his team, for their professional and human skills in approaching new techniques with enthusiasm.



The full satisfaction of all the actors who participated in the surgery with a big smile from the patient.