

**All-on-4®
treatment concept
high skilled with
NobelParallel™ CC
TiUltra™ implant
and Multi-unit
Abutment Xeal™**

Dr. Ana Ferro
Portugal





Ana Ferro

Patient

53-year-old female

Clinical situation

Failing dentition in the maxilla with partial denture

Surgical solution

All-on-4® treatment concept,
NobelParallel™ CC TiUltra™ implant,
Multi-unit Abutment Xeal™

Restorative solution

Provisional: MALO CLINIC Bridge All-Acrylic
Final: MALO CLINIC Acrylic Bridge on
NobelProcera® Implant Bar

Surgical treatment

28 February 2019

Total treatment time

3 months

Tooth position

All

"In this case, the patient had an extremely atrophic maxilla, with very thin bone in the second quadrant."

"I decided to choose NobelParallel CC TiUltra implant and Multi-unit Abutment Xeal because of the dehiscence I would have in the posterior tilted implant and the required capacities for an excellent osseointegration and Mucointegration™ process."

"During implant placement, the hydrophilic capacities of the TiUltra surface and the immediate interaction with the blood were clearly visible."

"After 10 days, the tissues presented extremely good healing and at 1-year follow-up they look very healthy."



**Initial clinical
situation**

**Treatment
planning**

**Surgical
procedure**

**Restorative
procedure**

Outcome



Front, side and profile images of the patient before treatment

Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Maxilla



Mandible

Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Smile picture - very important to determine if there is a need for bone reduction.
In this particular case, the patient shows 1 mm of gum when smiling, which will indicate a need of bone reduction of 3 mm.

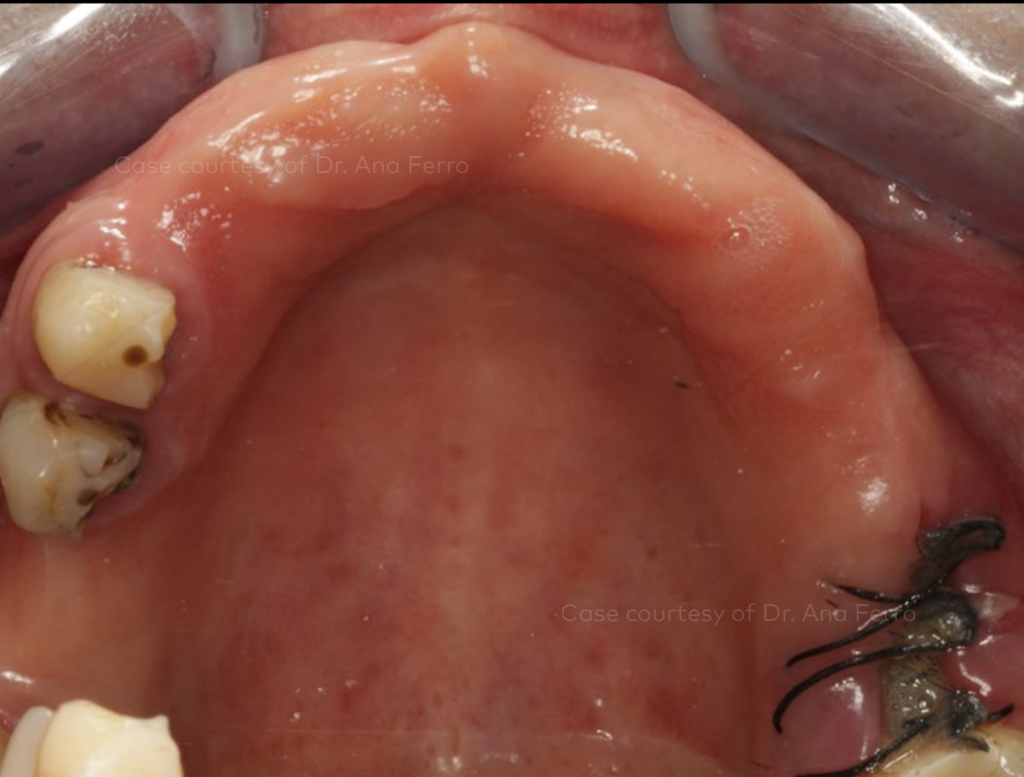
Initial clinical situation

Treatment planning

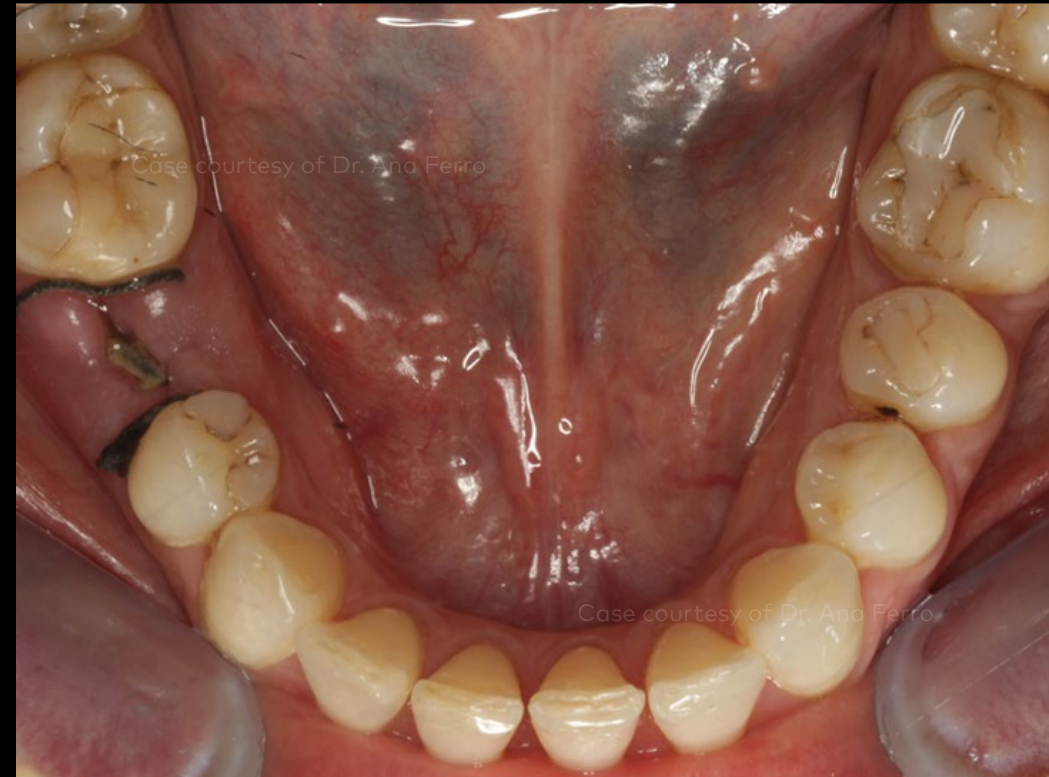
Surgical procedure

Restorative procedure

Outcome



Maxilla



Mandible

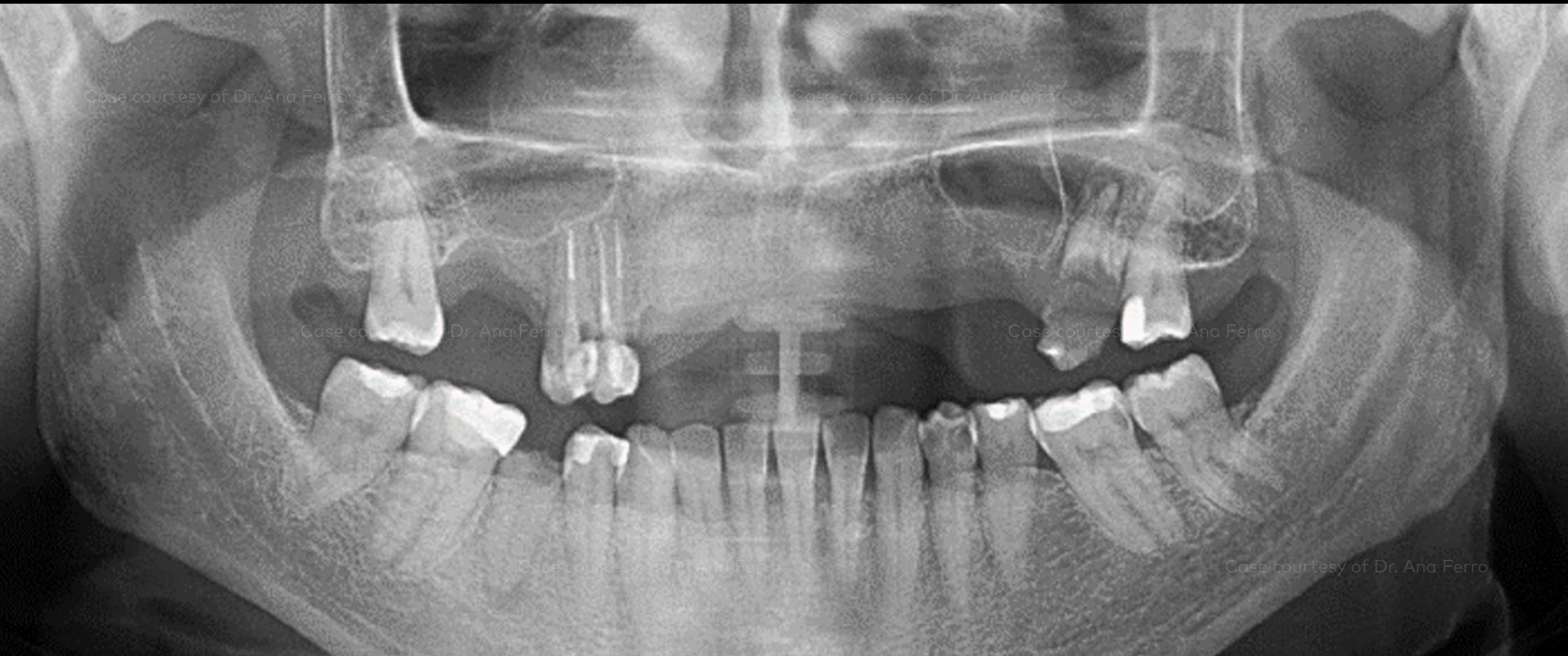
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Pre-operative OPG

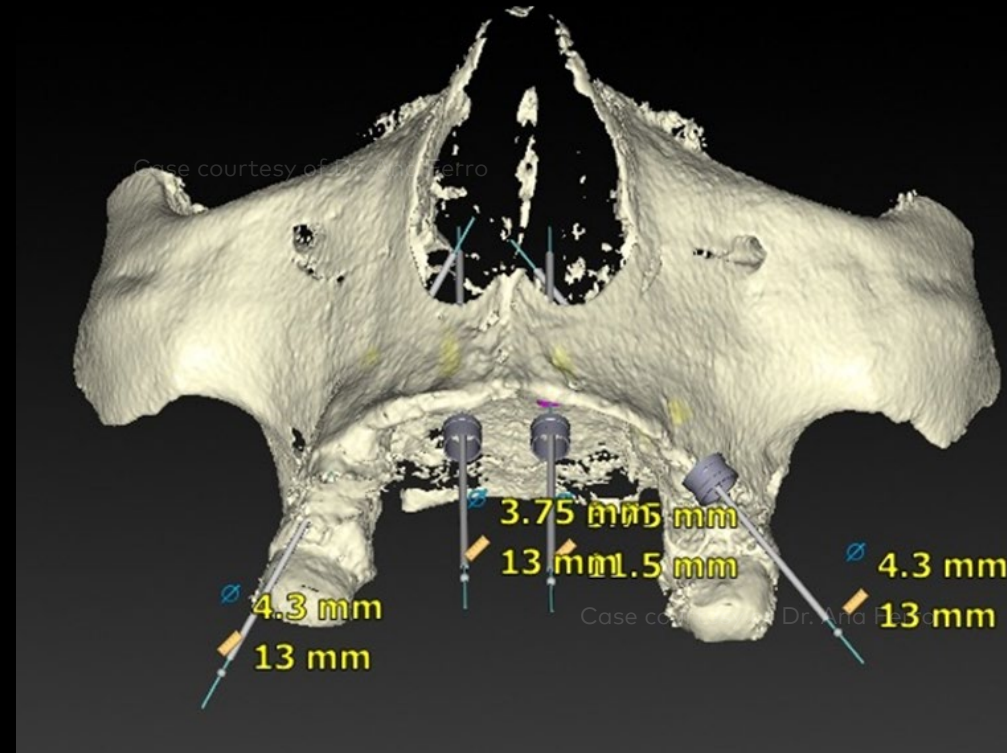
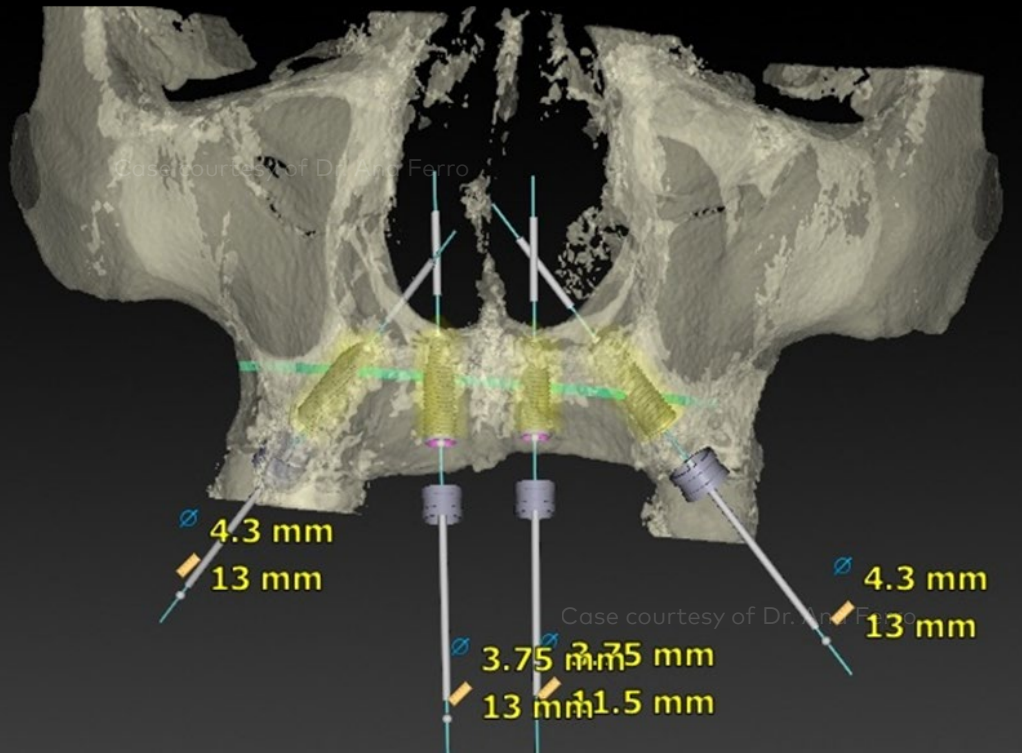
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



DTX™ Studio Implant planning of an All-on-4® High Skilled case with the NobelParallel CC TiUltra RP 4.3x13 mm in the posterior and NP 3.75x13 and NP 3.75x11.5 mm in the anterior

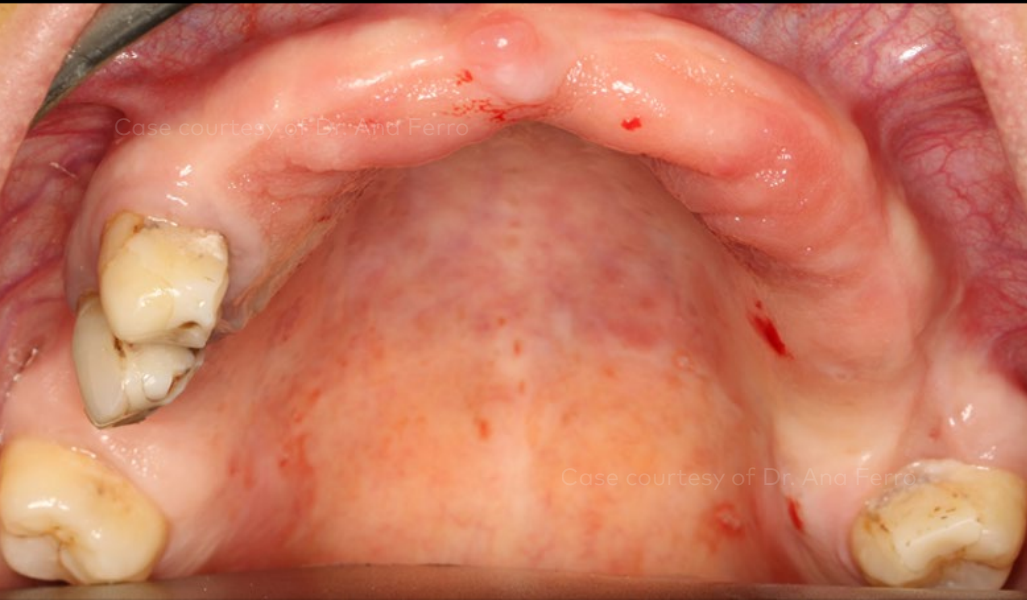
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



The surgery starts with extraction of the remnant teeth

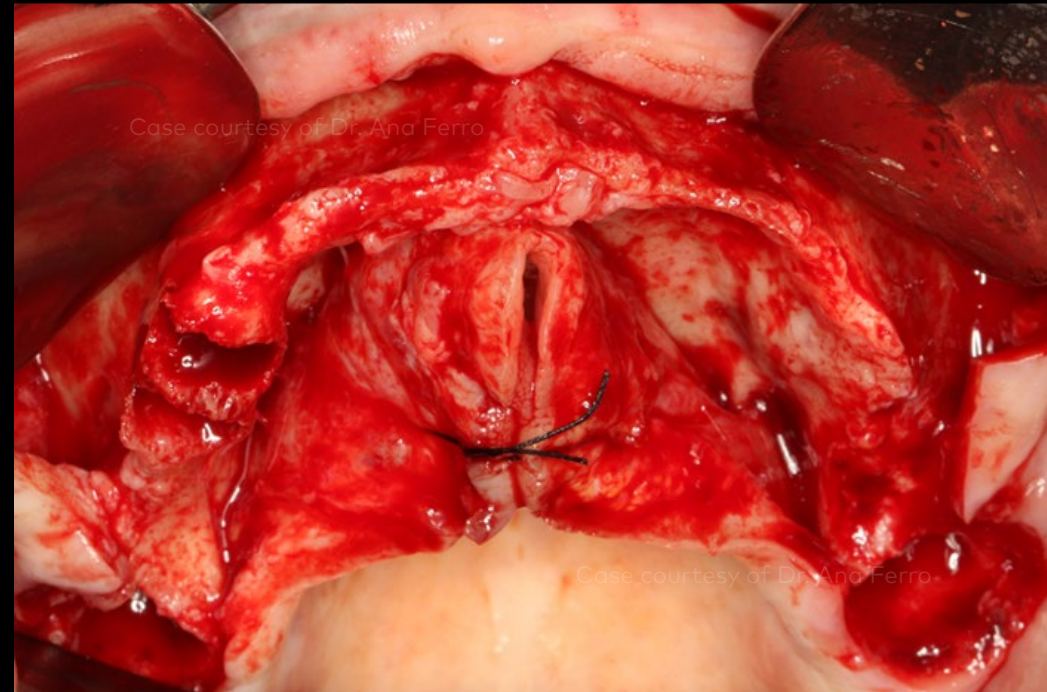
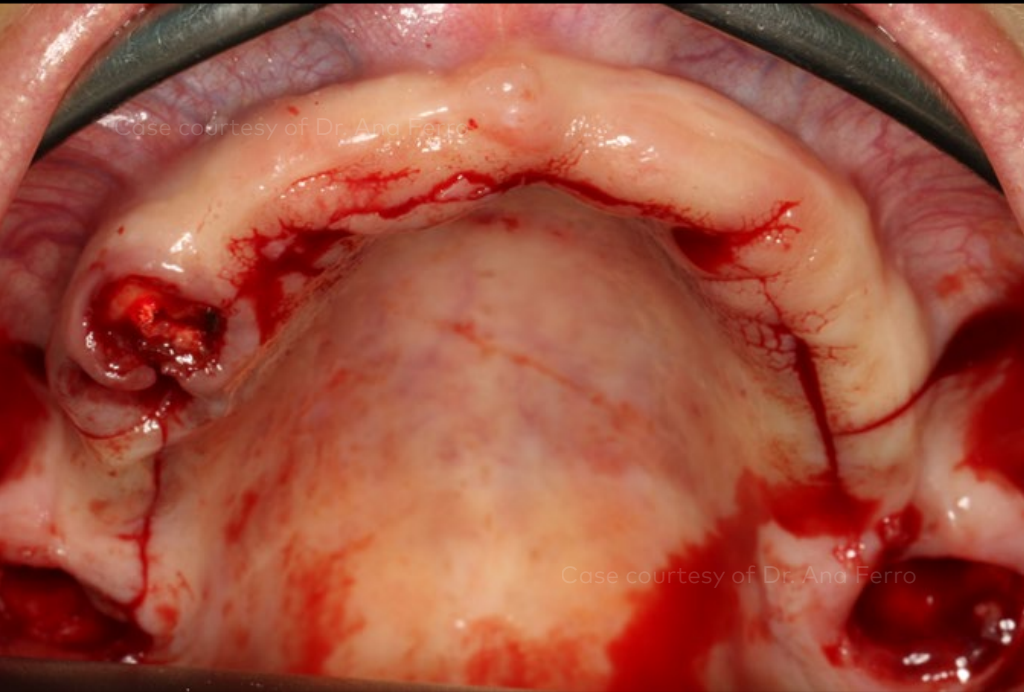
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Raising a full-thickness flap with two releasing incisions in the area of the first molars exposing the nasal fossa and the anterior walls of the sinus

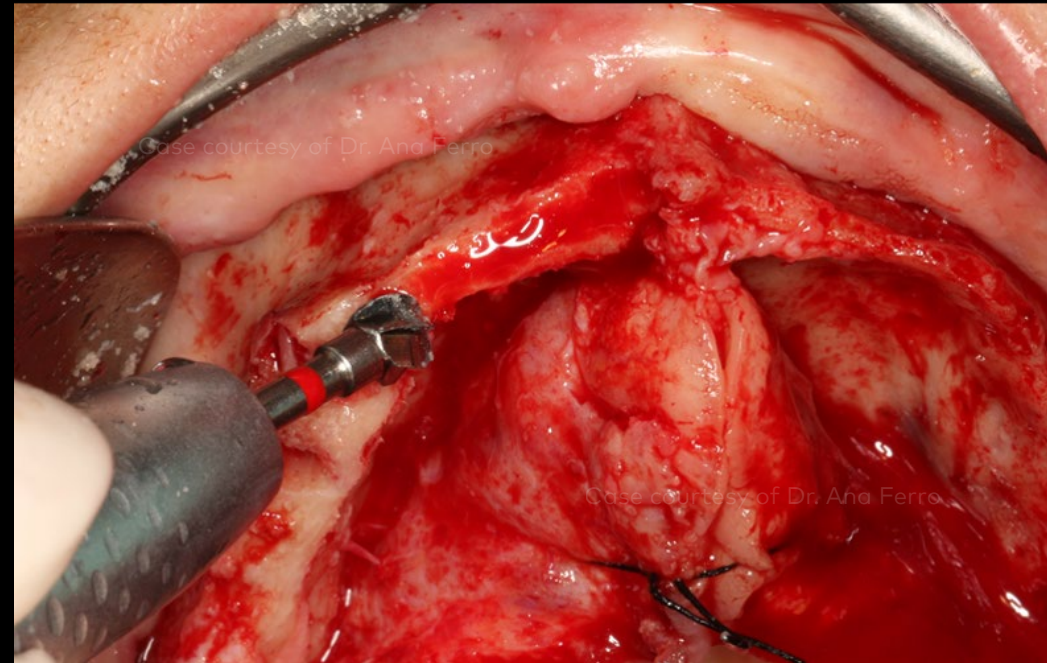
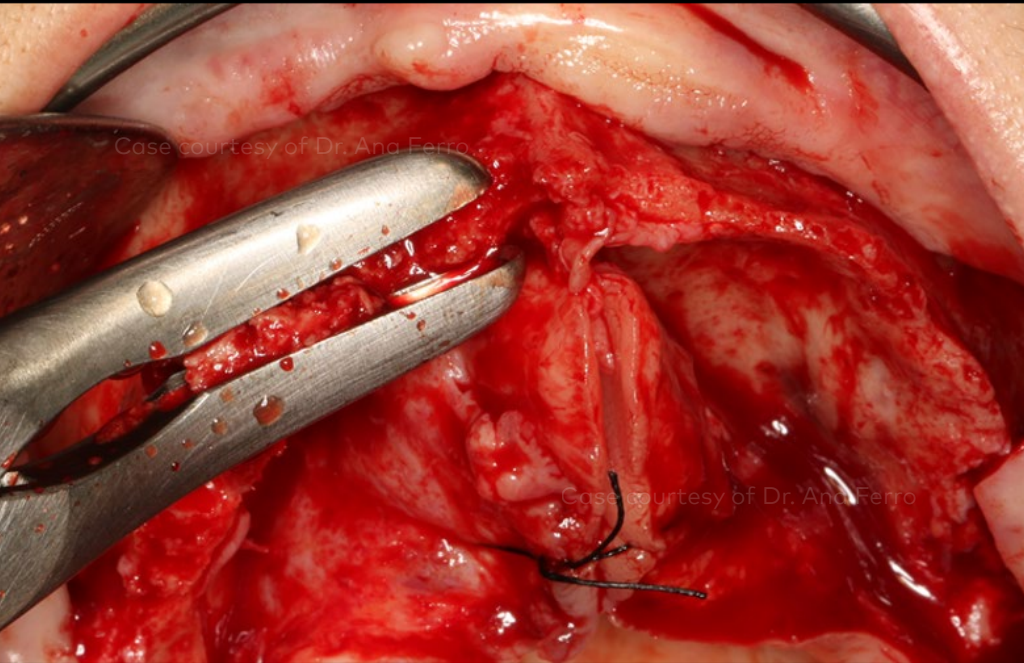
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Bone reduction: performed due to a high smile line of 1 mm and the thin crest

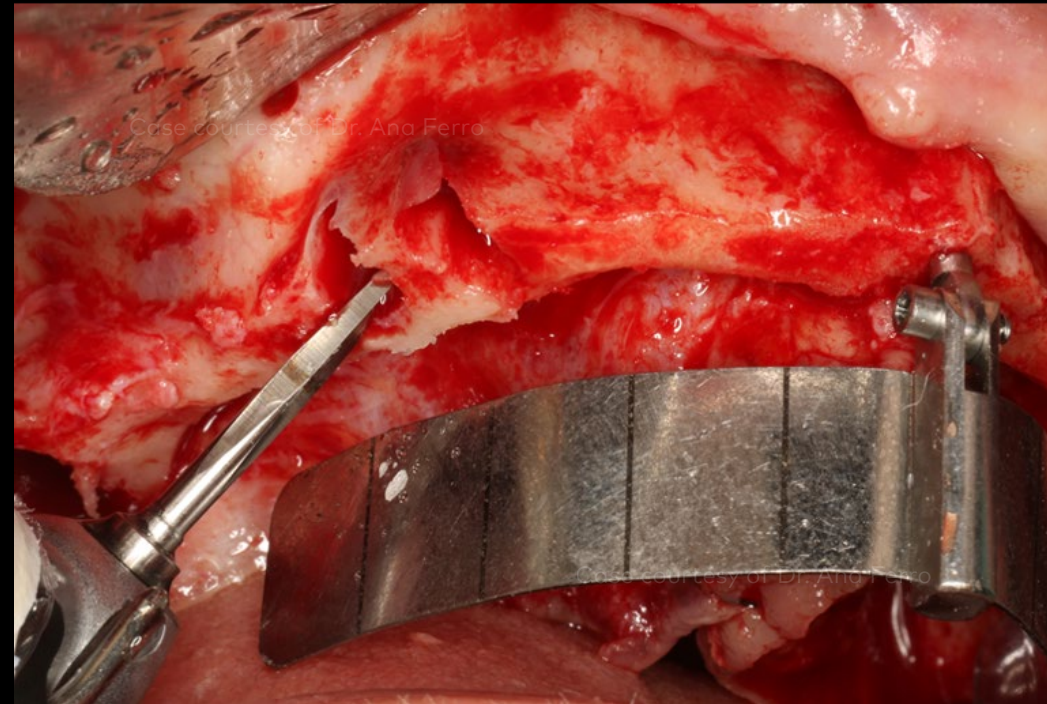
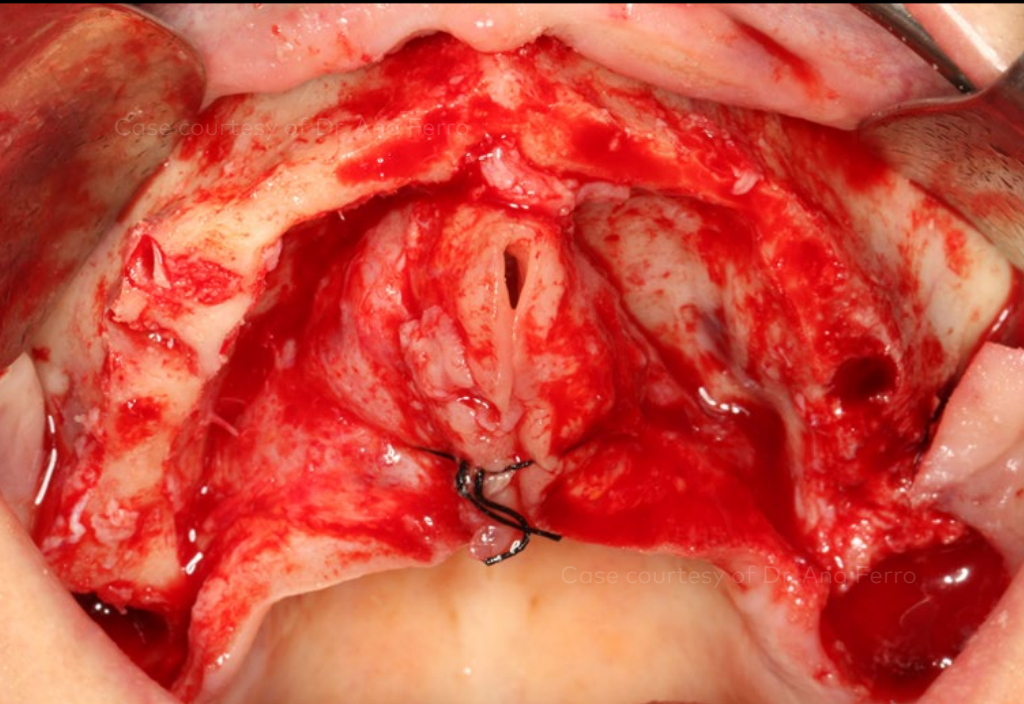
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



The All-on-4® Guide is placed in the midline and the anterior wall of the sinus is evaluated

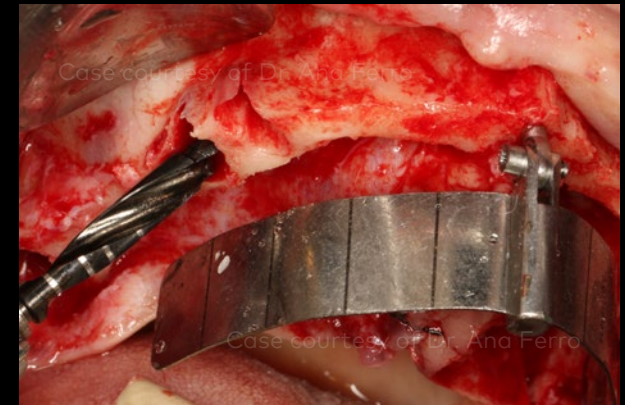
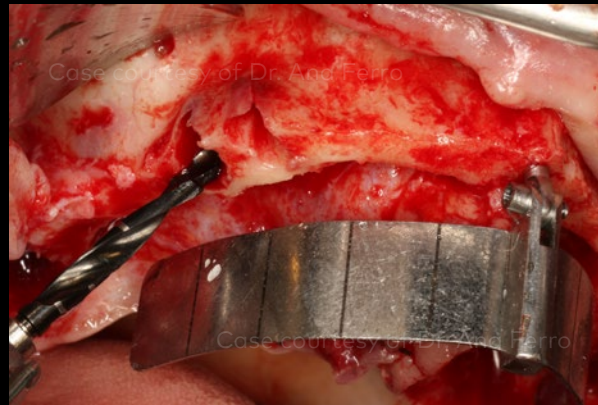
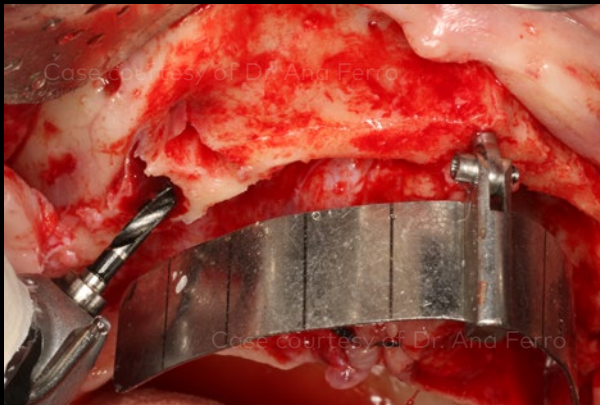
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Preparation of osteotomies following the under-preparation protocol. Drilling is performed according to bone density in order to achieve good primary stability

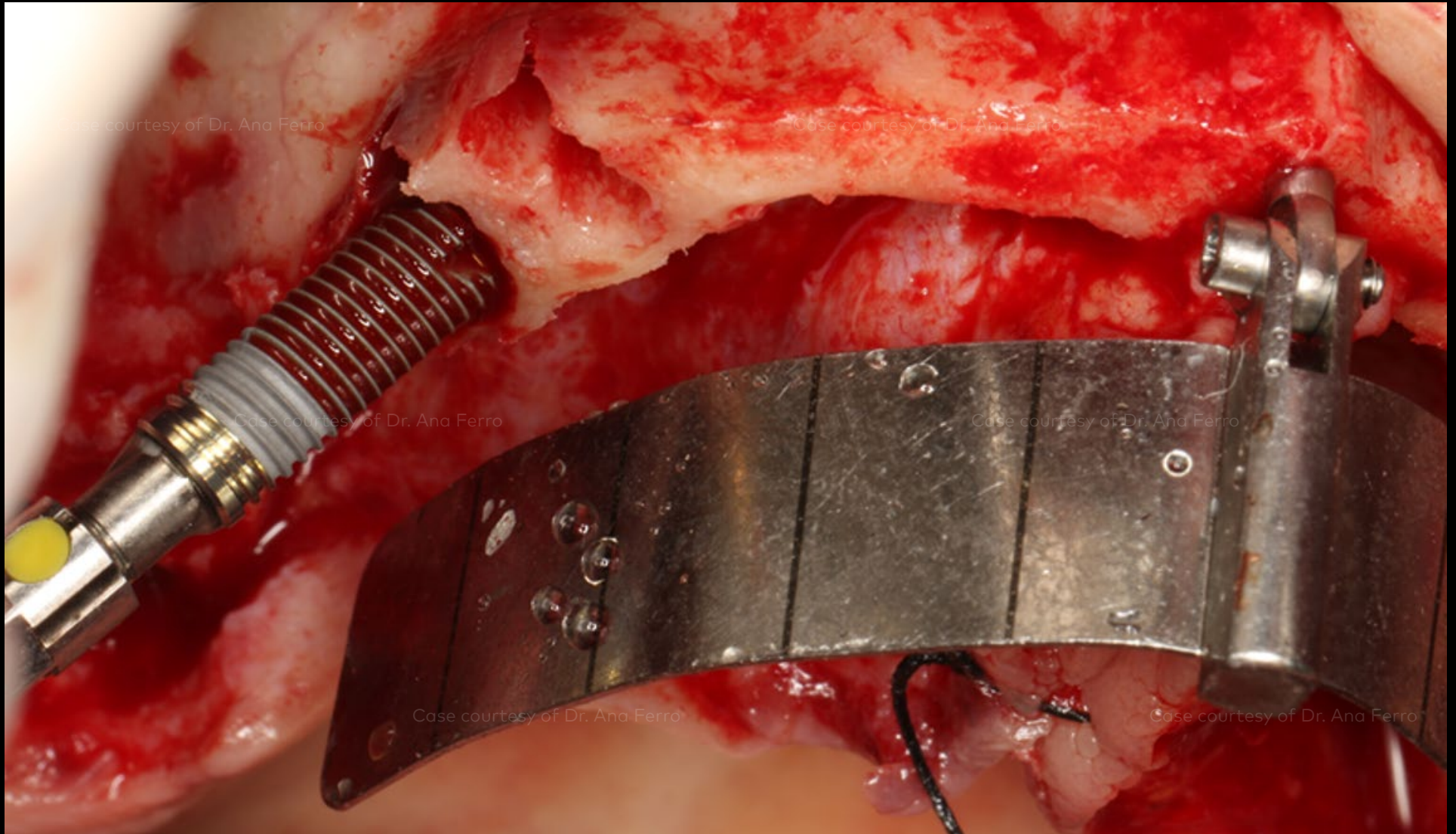
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Placement of NobelParallel CC TiUltra RP 4.3x13 mm implant in the posterior

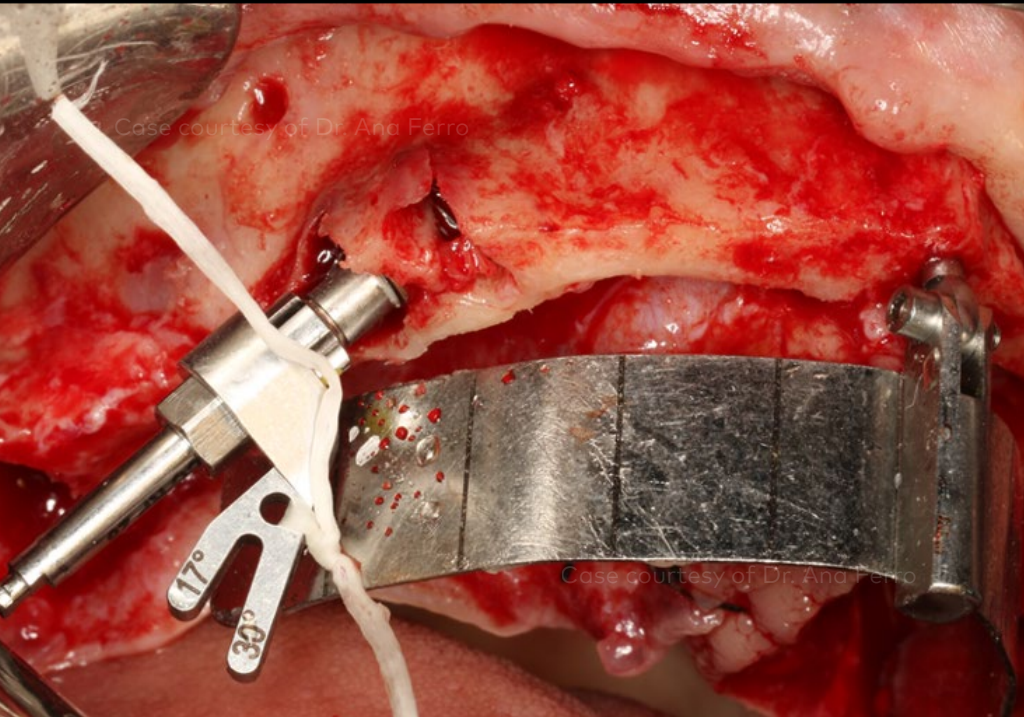
Initial clinical situation

Treatment planning

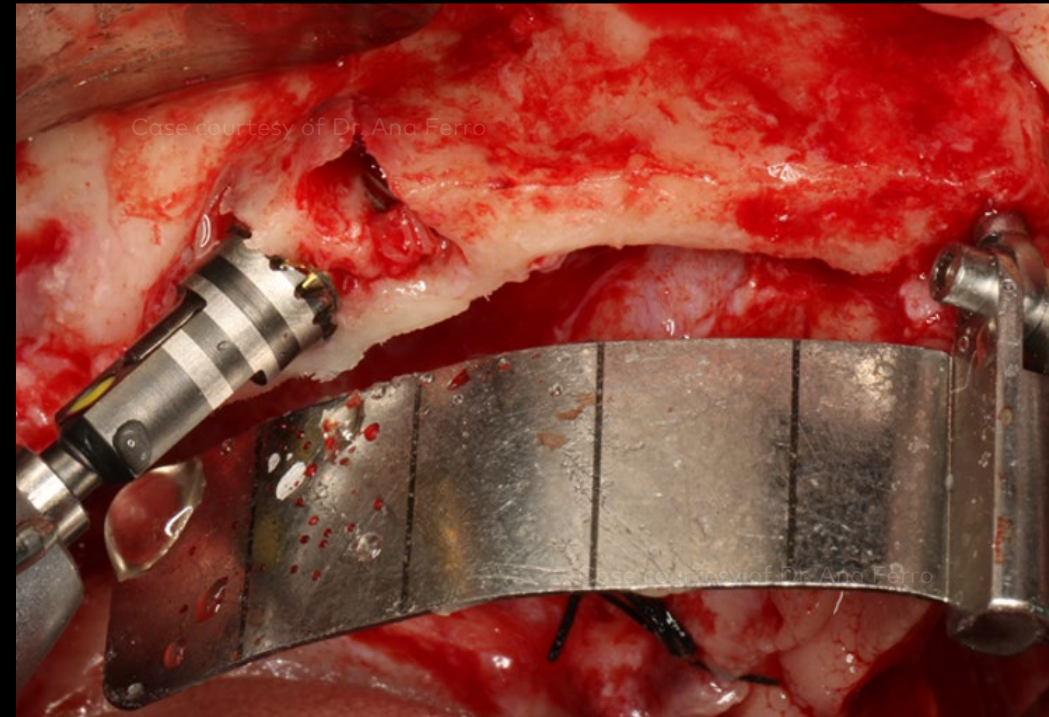
Surgical procedure

Restorative procedure

Outcome



Checking the best position for the angulated abutment



A bone mill is used to remove bone at implant's head to allow for proper seating of the Multi-unit Abutment Xeal

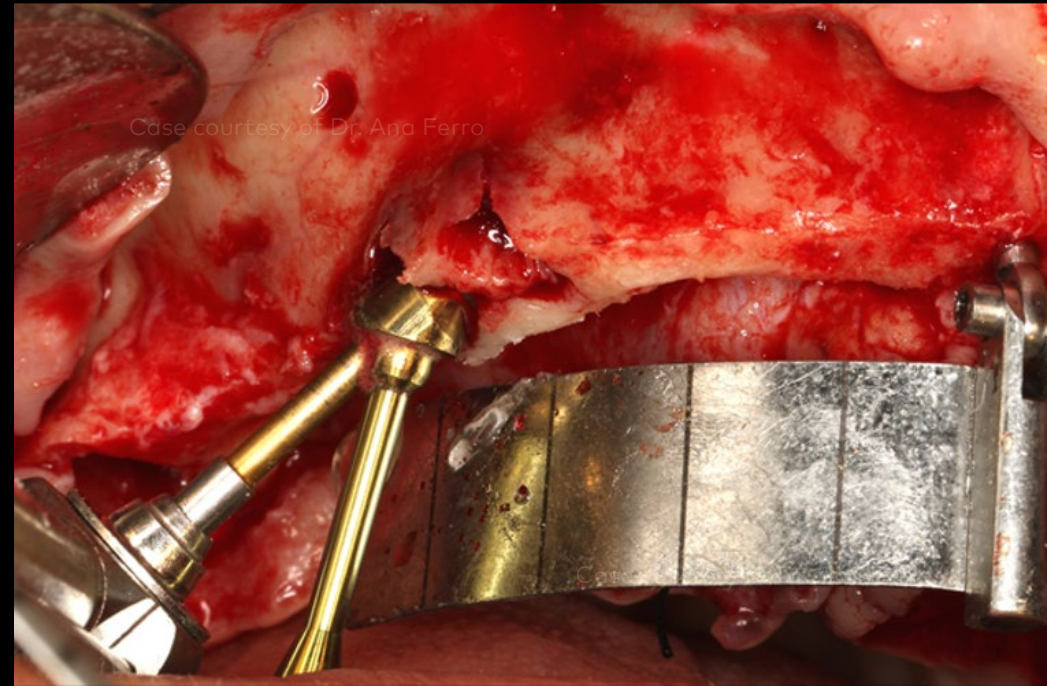
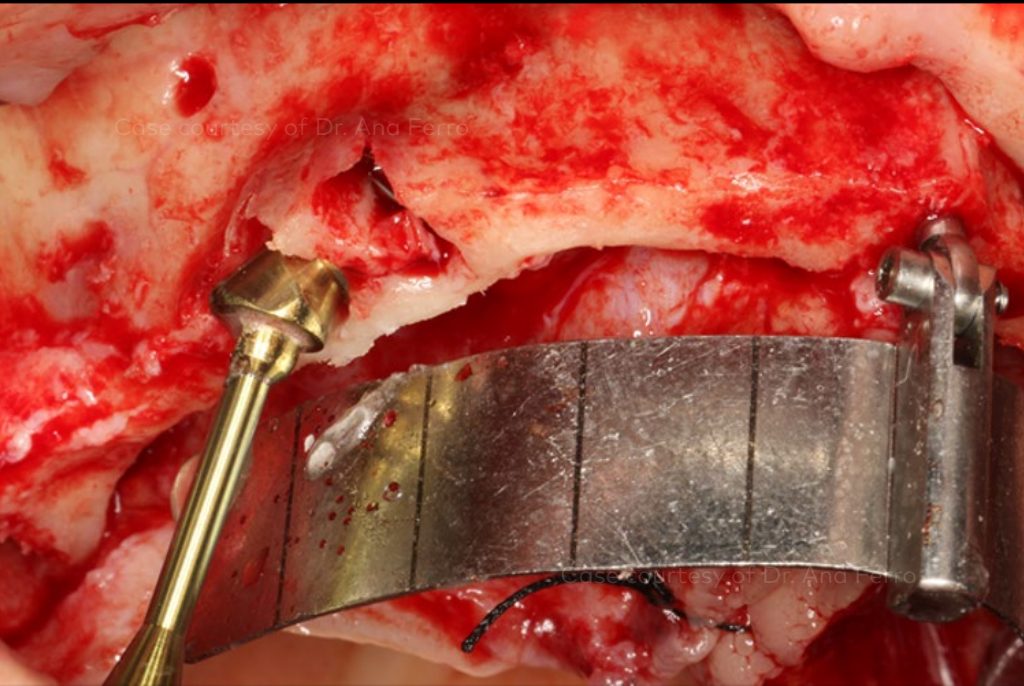
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Placement of 30° Multi-unit Abutment Xeal CC RP 4.5 mm, tightened to 15 Ncm

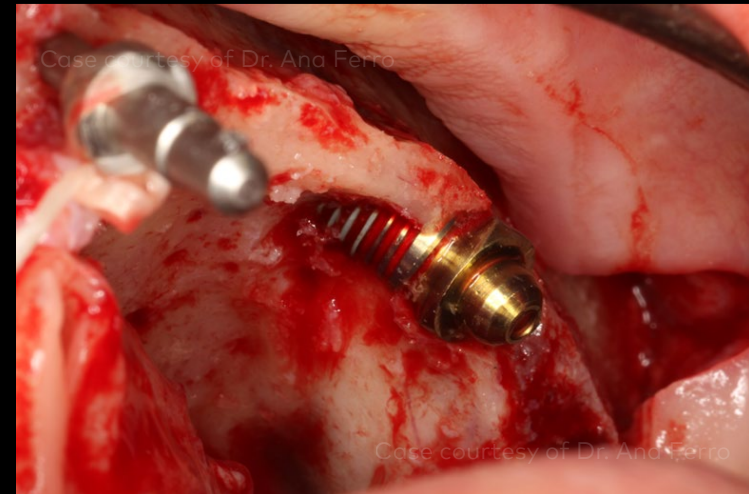
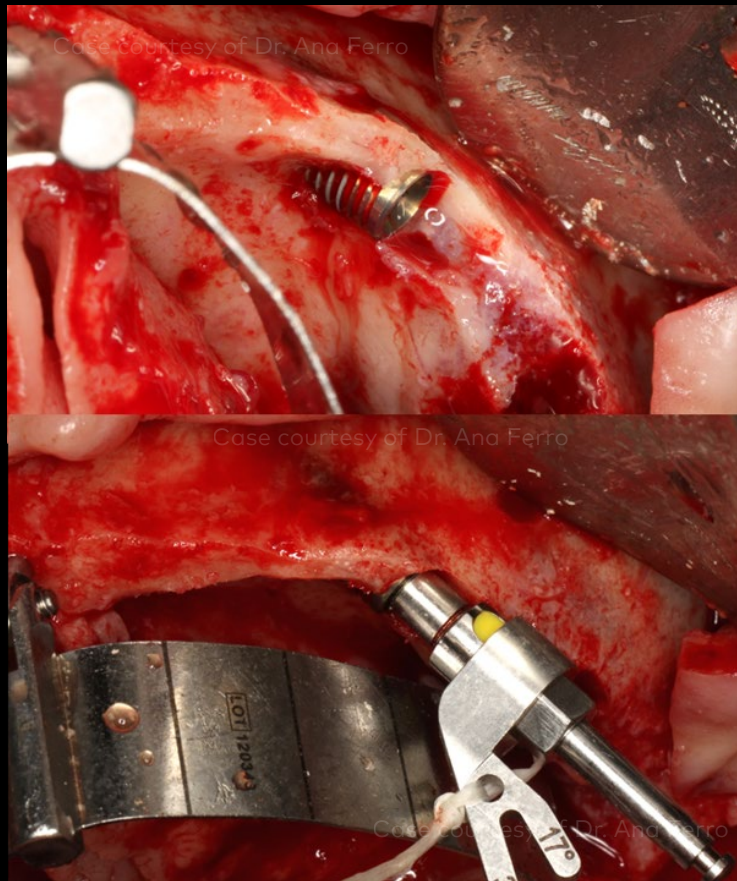
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Posterior implant placement of NobelParallel CC TiUltra RP 4.3 x 13 mm with 3 mm of dehiscence in palatal area. 30° Multi-unit Abutment Xeal CC RP 4.5 mm

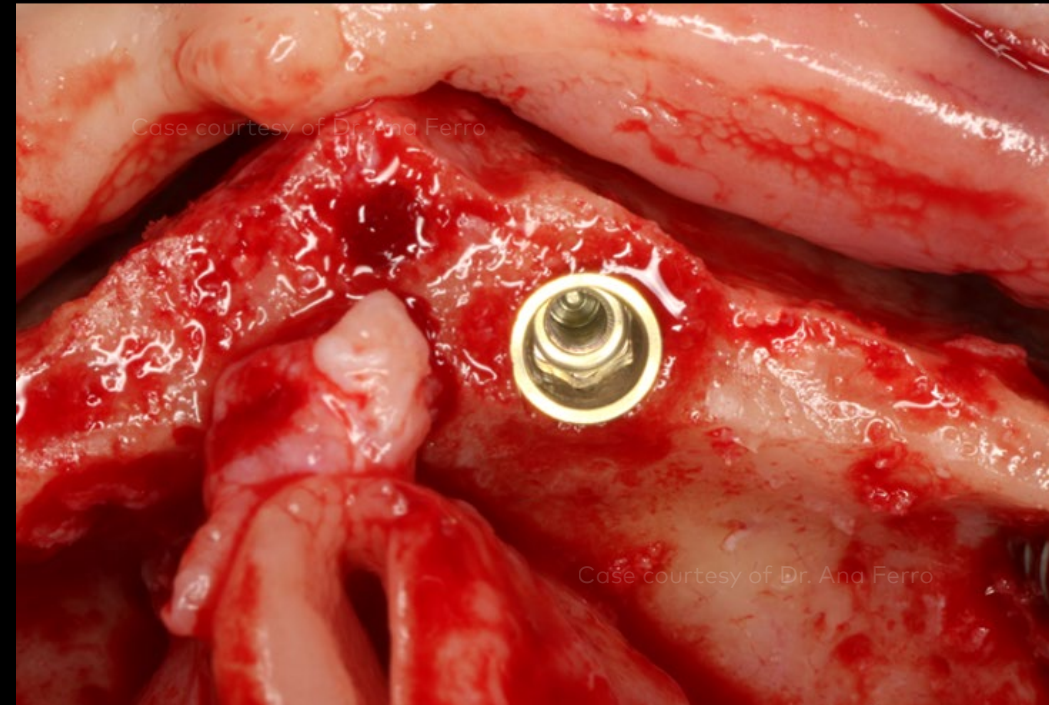
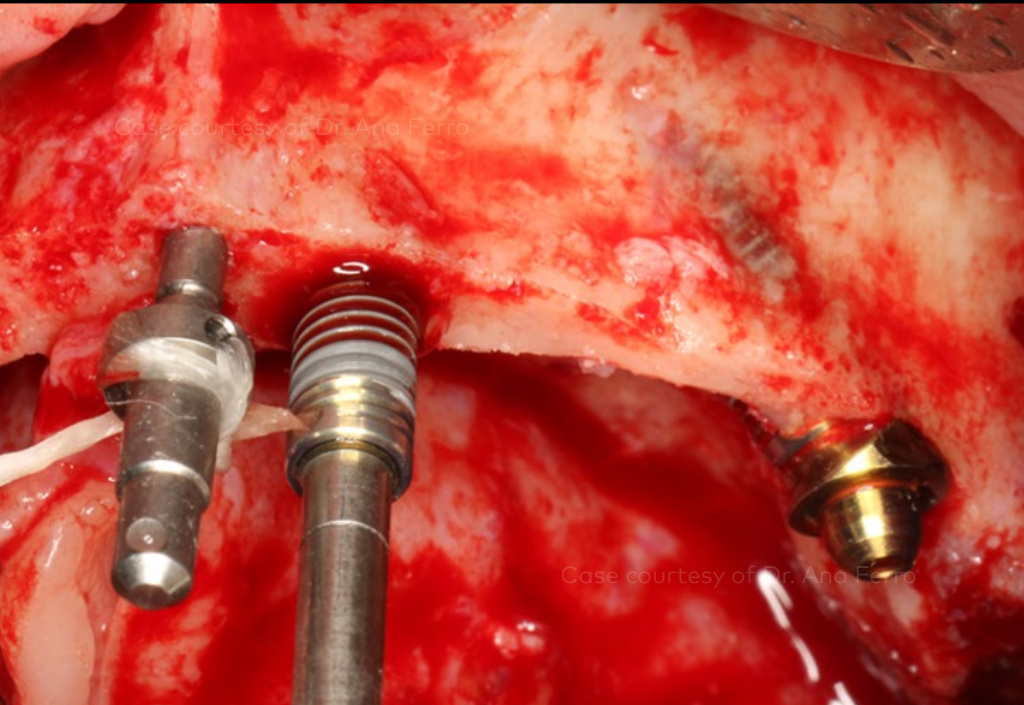
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Anterior implant placement: NobelParallel CC TiUltra NP 3.75 x 11.5 mm

Multi-unit Abutment Xeal CC NP 2.5 mm

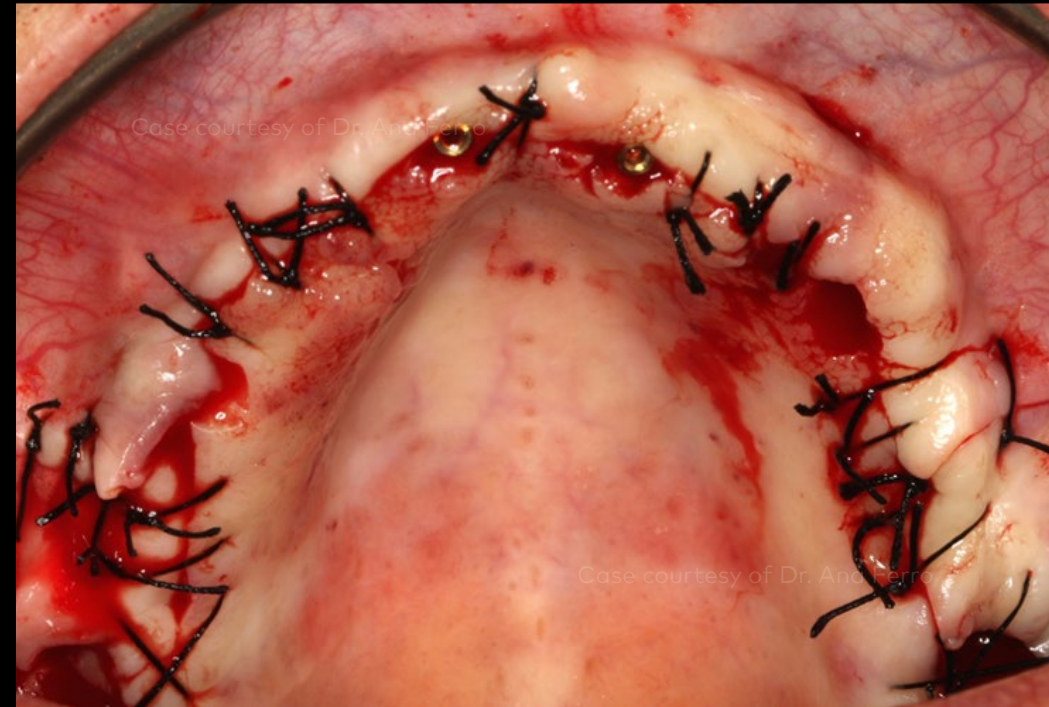
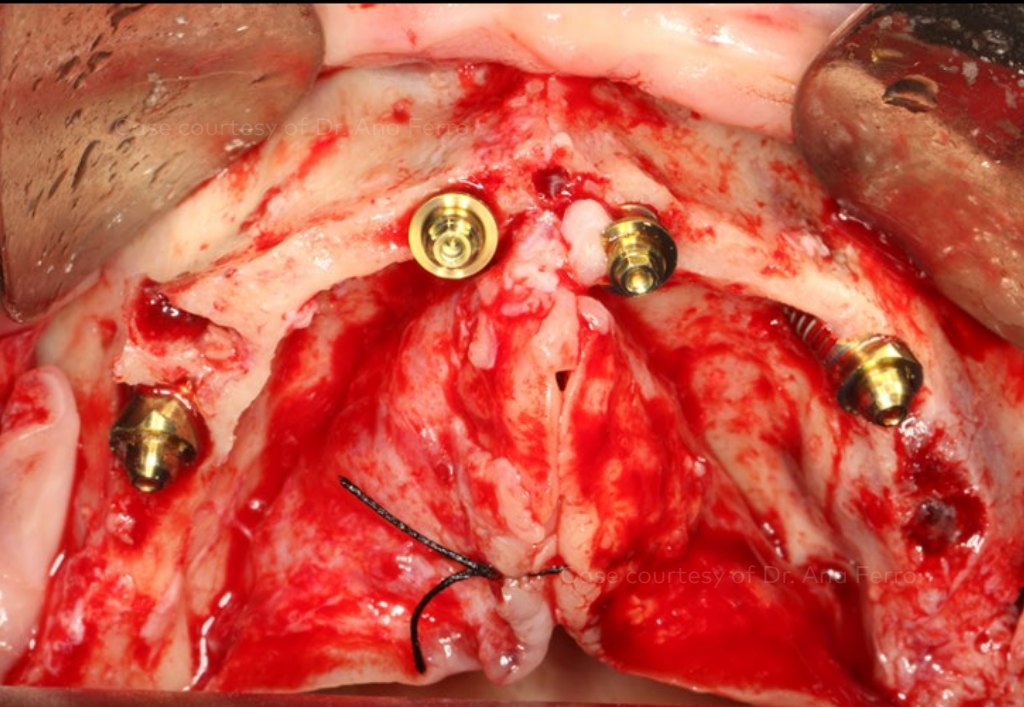
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Final occlusal view

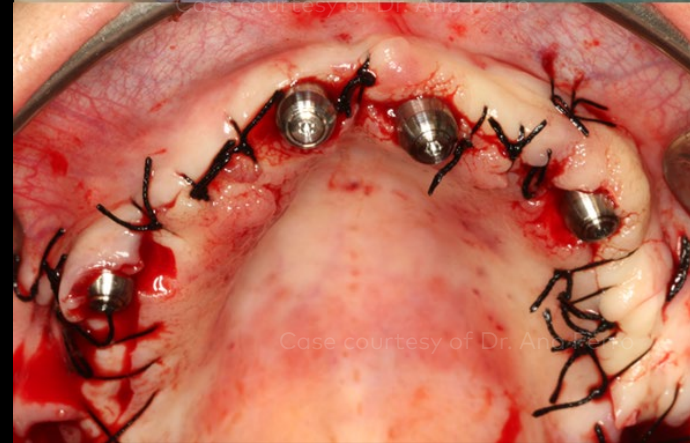
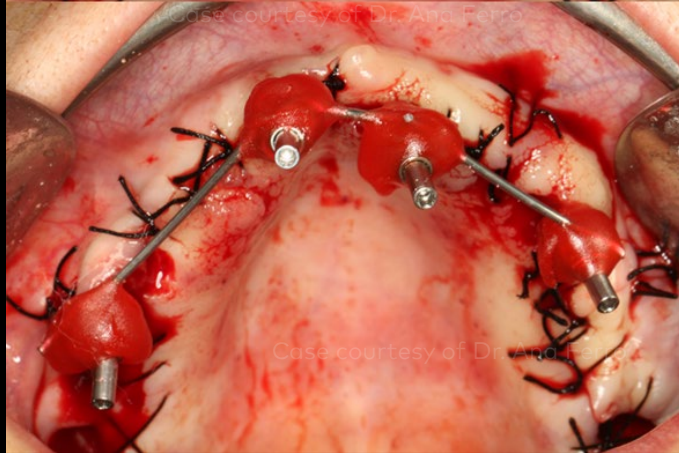
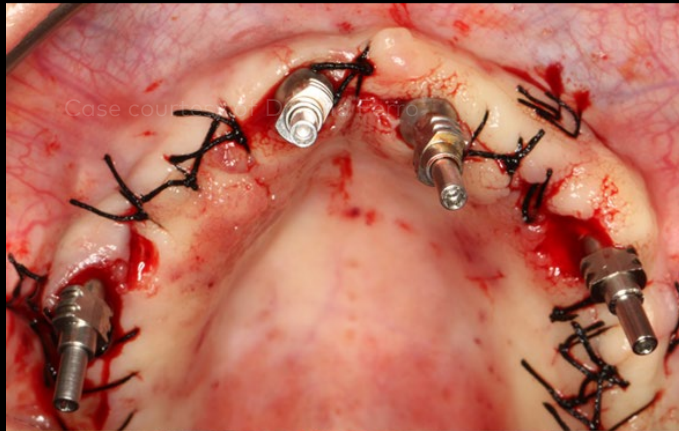
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Impression taking using silicone putty and placement of healing caps

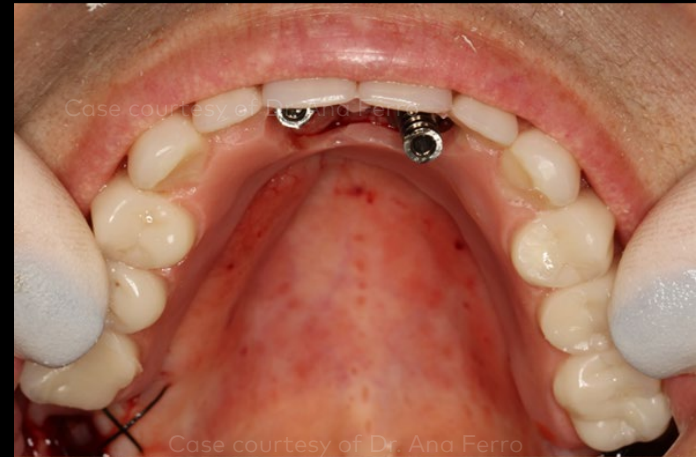
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Cylinder capture on immediate bridge

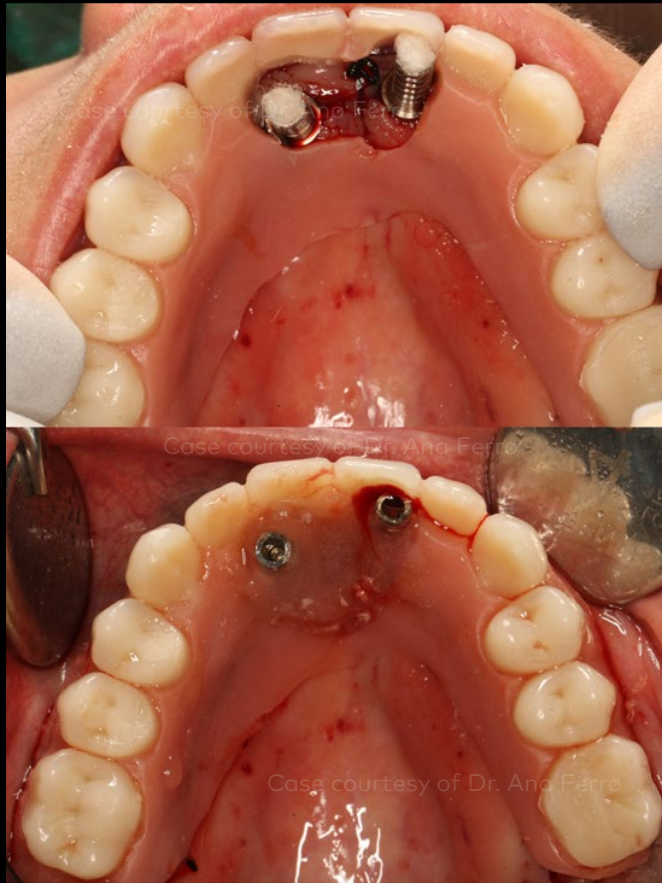
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Cylinder capture on immediate bridge with acrylic

Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Provisional all-acrylic bridge in place

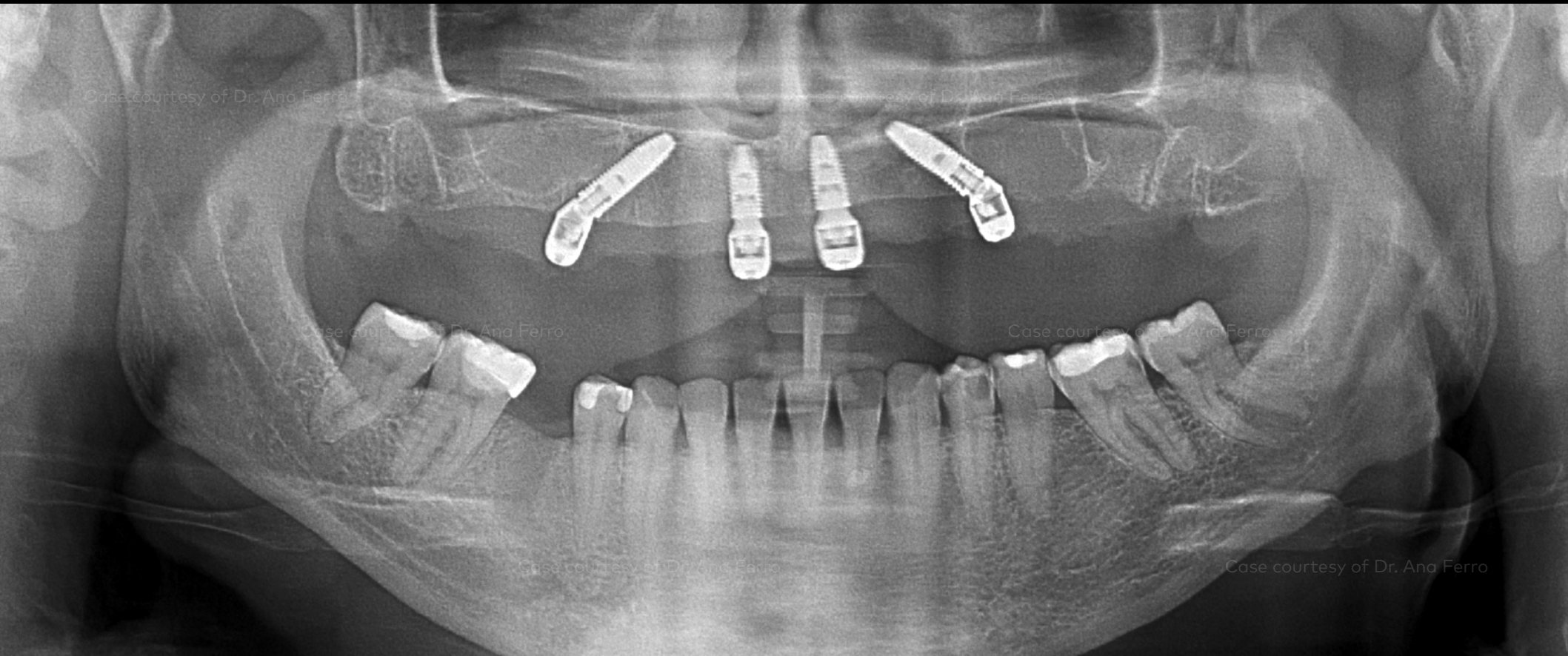
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Post-surgical OPG

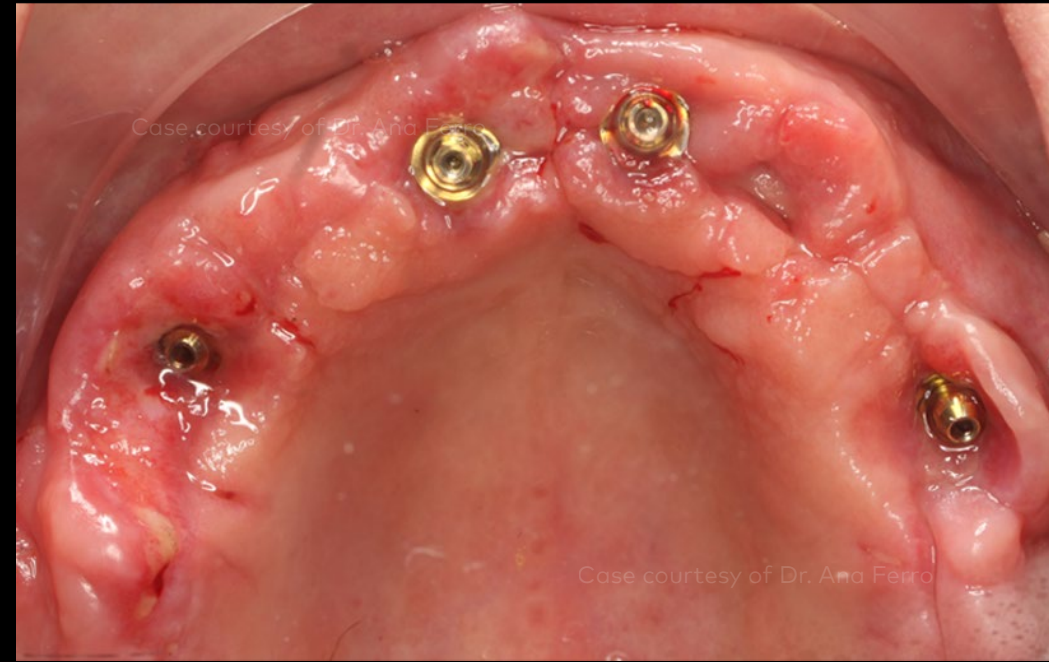
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Suture removal 10 days after surgery

Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



10 days after surgery

Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Before surgery



10 days after surgery

Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Patient smile 10 days after surgery



6-month follow-up

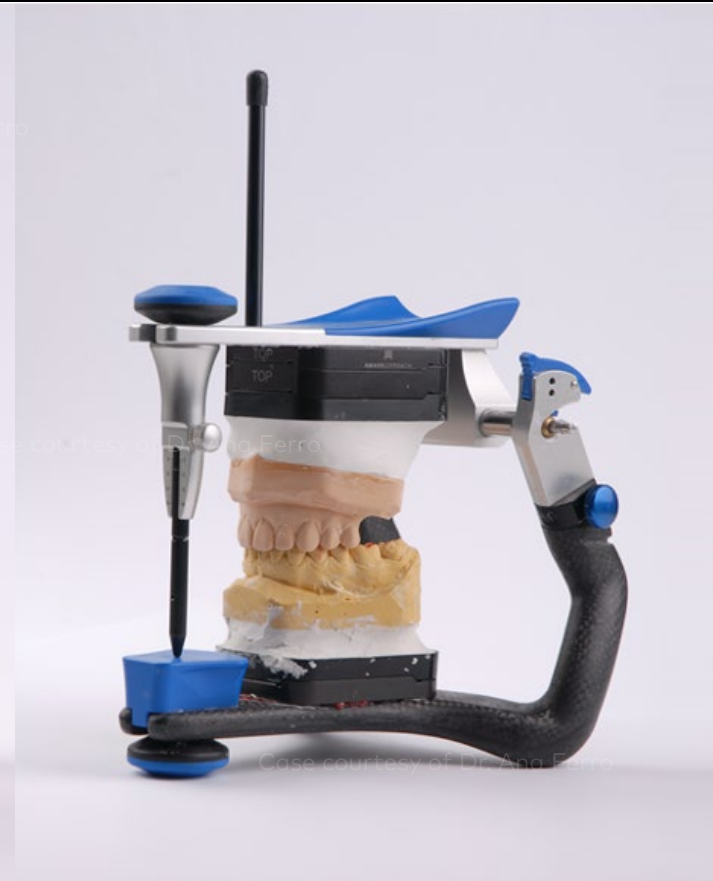
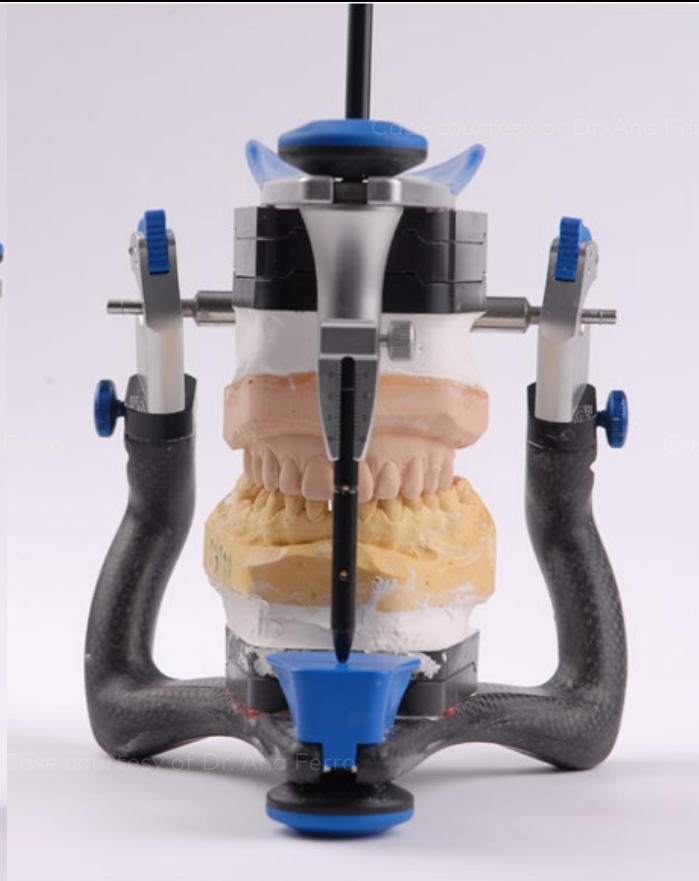
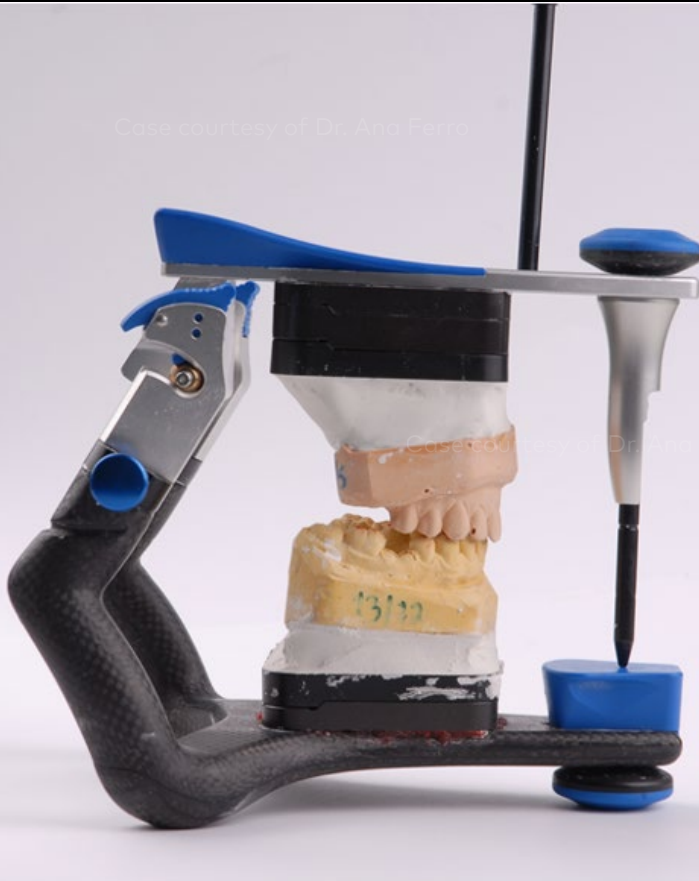
Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Final prosthesis in articulator

Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Final prosthesis on cast

Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Final prosthesis

Initial clinical situation

Treatment planning

Surgical procedure

Restorative procedure

Outcome



1-year follow-up

Case courtesy of Dr. Ana Ferro



GMT77888 GB 1906 © Nobel Biocare Services AG, 2022. All rights reserved. Nobel Biocare, the Nobel Biocare logotype and all other trademarks are, if nothing else is stated or is evident from the context in a certain case, trademarks of Nobel Biocare. Please refer to nobelbiocare.com/trademarks for more information. Product images are not necessarily to scale. Disclaimer: Some products may not be regulatory cleared/released for sale in all markets. Please contact the local Nobel Biocare sales office for current product assortment and availability. For prescription use only. Caution: Federal (United States) law restricts this device to sale by or on the order of a licensed clinician, medical professional or physician. See Instructions For Use for full prescribing information, including indications, contraindications, warnings and precautions. Nobel Biocare does not take any liability for any injury or damage to any person or property arising from the use of this clinical case. This clinical case is not intended to recommend any measures, techniques, procedures or products, or give advice, and is not a substitute for medical training or your own clinical judgement as a healthcare professional. Viewers should never disregard professional medical advice or delay seeking medical treatment because of something they have seen in this clinical case. Full procedure is not shown. Certain sequences have been cut.