

CLINICAL CASE



N1™ Universal Abutment Posterior case

Dr. Francesco Mintrone





CARMELA
CORRAO

Patient

28-year-old female, poor oral hygiene and several caries.

Clinical situation

Hopeless teeth 15, 36.

Surgical solution

Crown on upper-arch post-extractive implant on 14, 15 and overlay on 16.

Restorative solution

Monolithic zirconia restoration 14, 15.
Monolithic lithium disilicate overlay on 16.

Surgical treatment

November 14 2020

Final prosthesis delivery

February 26 2021

The request of the patient was to restore the mouth's health. After a precise evaluation of the patient condition, the diagnosis revealed the need to proceed with two extractions, several fillings and several crowns.

Before starting the surgical procedure of tooth extraction and implant placement, it was decided to first improve the oral hygiene, carry out the endodontic re-treatment of 14, 15 and 16, and place new fillings on 16 and 26.

These procedures enabled us to work in a healthy environment at the time of extraction and implant placement.

Immediate loading was performed on the post-extraction site (15). After the osseointegration of the implant, it was decided to proceed with the digital workflow to obtain the final monolithic restoration on natural teeth and on the implant.



CARRAO CARMELA: 28-year-old female

ESTHETIC ANALYSIS



**Initial clinical
situation**

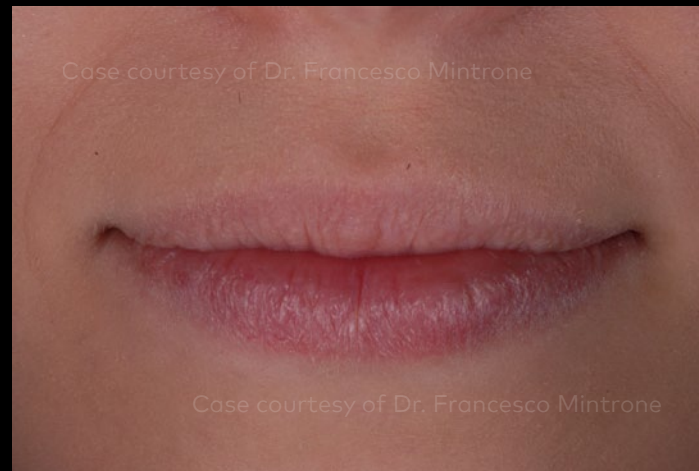
**Treatment
planning**

**Surgical
procedure**

**Restorative
procedure**

Outcome

Frontal view of smile progression, where the esthetic problems of 14, 15 and 16 are visible



**Initial clinical
situation**

**Treatment
planning**

**Surgical
procedure**

**Restorative
procedure**

Outcome

Incongruous filling on 14, 16 and 26, tooth residue of 15



Initial clinical
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procedure

Outcome

Incongruous filling on 14, 16 and 26, tooth residue of 15



Initial clinical
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procedure

Outcome

Orthopantomogram and peri-apical x-ray showing the need for endodontic retreatment of 16 and 14, hopeless tooth 36 and incongruous filling on 37



Initial clinical
situation

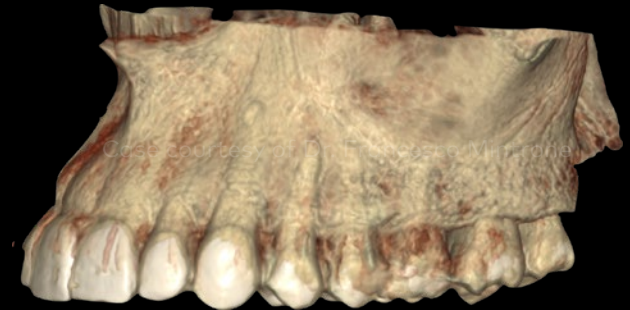
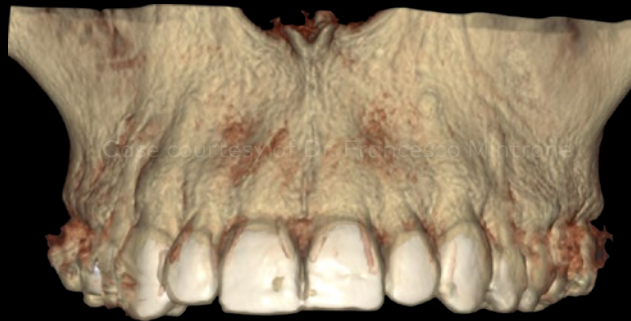
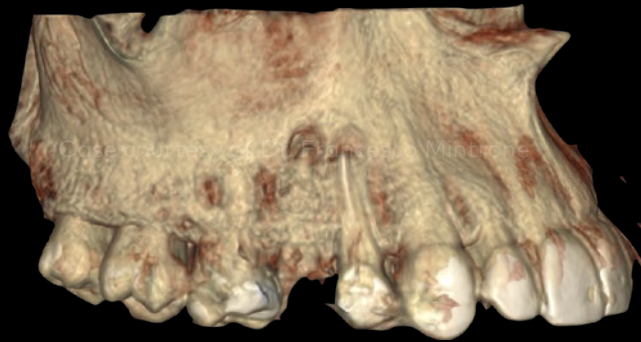
Treatment
planning

Surgical
procedure

Restorative
procedure

Outcome

3D reconstruction with DTX Studio™ Implant software where it became evident there were apical lesions on the 16, 15, and 14



Initial clinical
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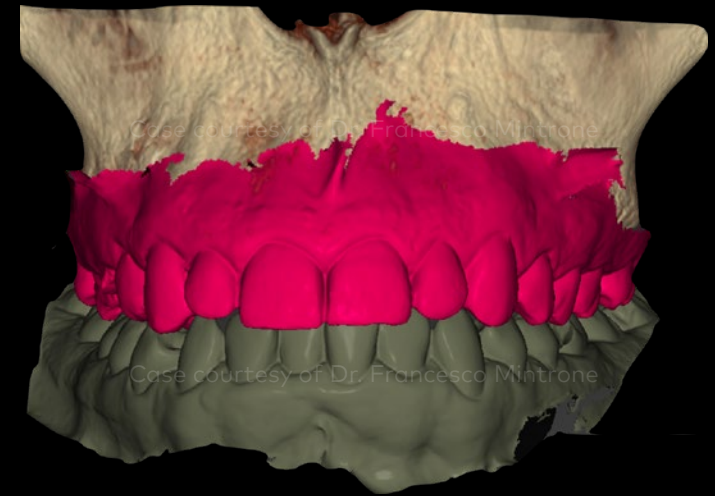
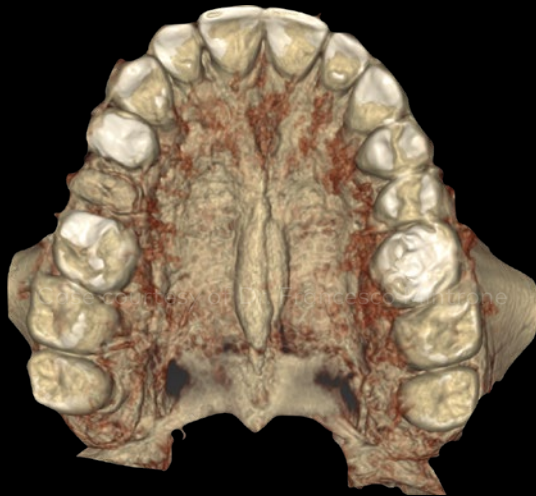
Treatment
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Surgical
procedure

Restorative
procedure

Outcome

Matching of the intraoral scans with the cone-beam in the DTX Studio™ Implant software before starting the treatment planning phase



Initial clinical
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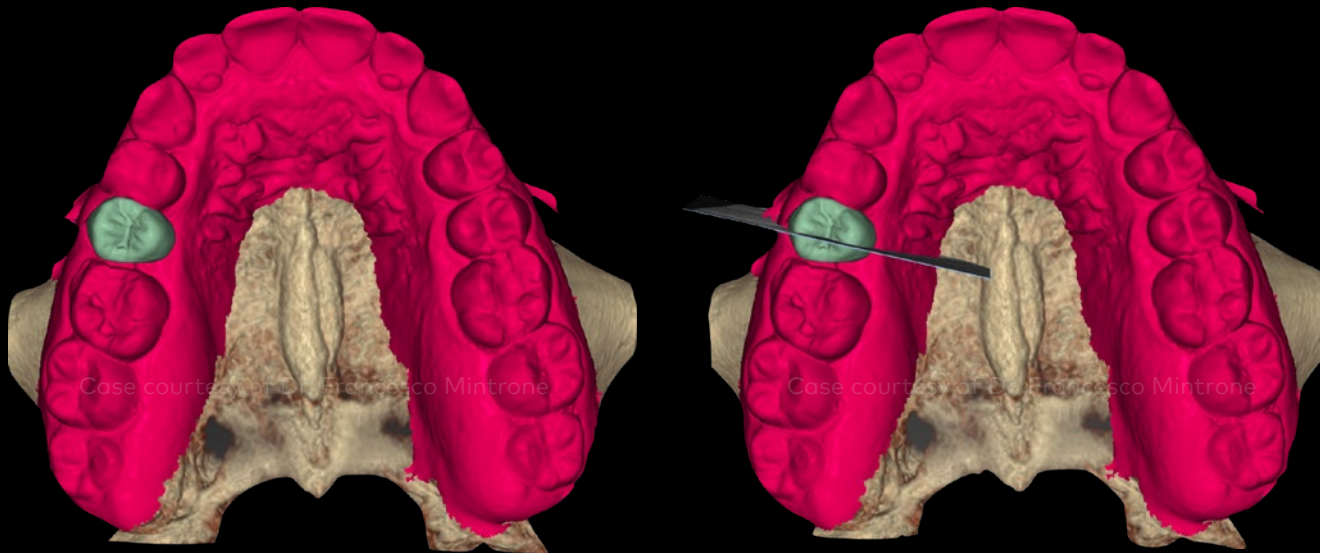
Treatment
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procedure

Outcome

SmartSetup™ to evaluate dimension and position of the future restoration on the 15



Initial clinical
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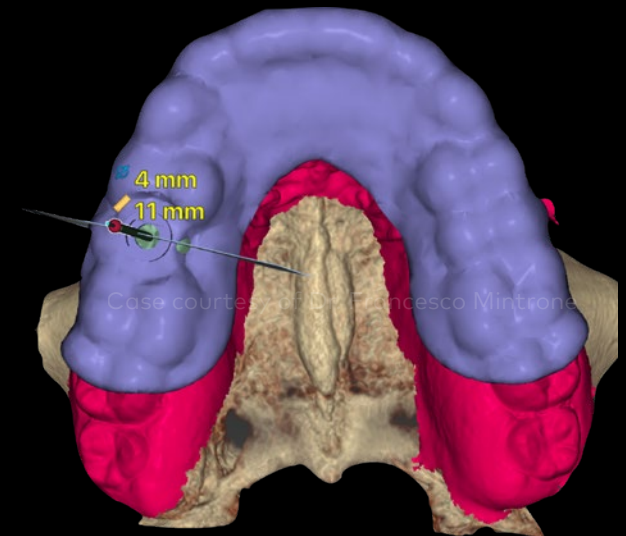
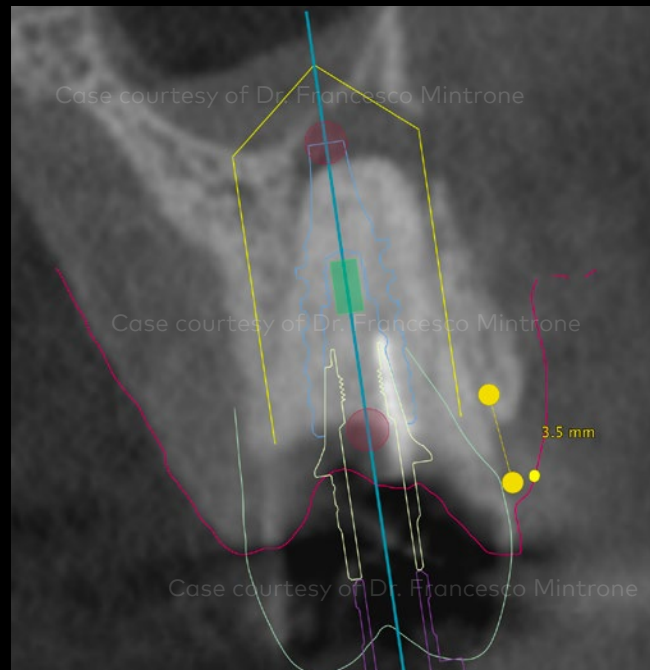
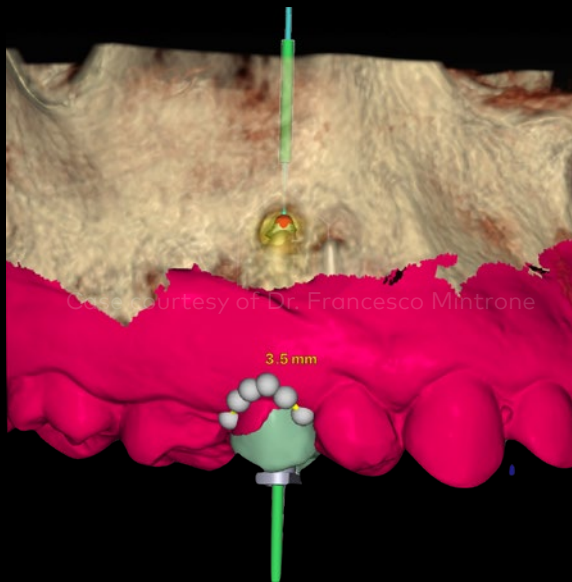
Treatment
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procedure

Outcome

Evaluation of the ideal free gingival margin as reference for the implant position



Initial clinical
situation

Treatment
planning

Surgical
procedure

Restorative
procedure

Outcome

Oral hygiene, endodontic re-treatment of 16, 15 and 14 plus new filling of 16 and provisional on 14



It is fundamental to have the right conditions before proceeding with implant placement.

Initial clinical
situation

Treatment
planning

Surgical
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Restorative
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Outcome

Periotome to start the extraction without damaging the tissue



Initial clinical
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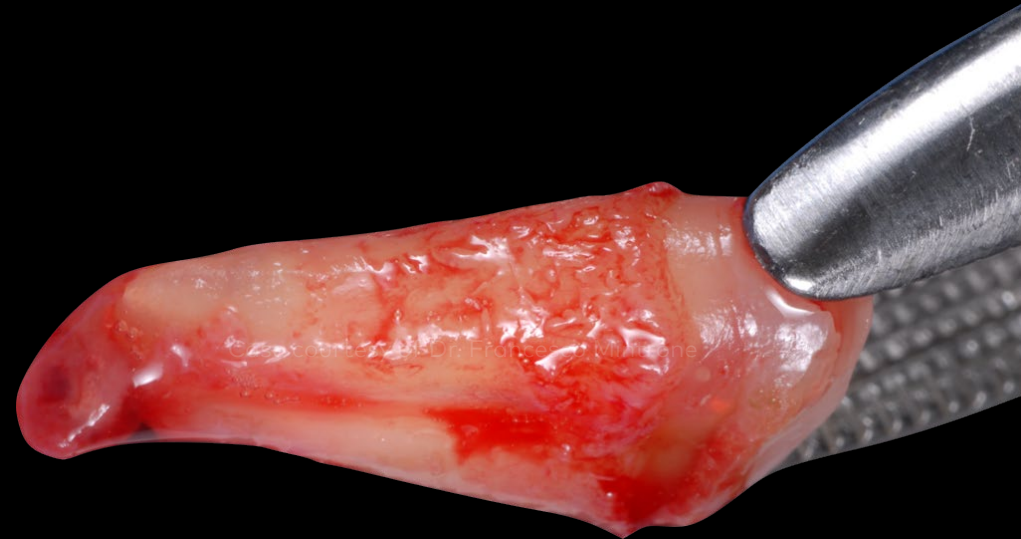
Treatment
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procedure

Outcome

Extraction of tooth 15



Initial clinical
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procedure

Restorative
procedure

Outcome

Cleaning of the extraction site



Initial clinical
situation

Treatment
planning

Surgical
procedure

Restorative
procedure

Outcome

Simplified site preparation with OsseoDirector™ and OsseoShaper™



Pilot osteotomy with OsseoDirector.



OsseoShaper rotating at 50 rpm without irrigation. It matches the shape of the implant and preserves vital bone for fast osseointegration.

Initial clinical
situation

Treatment
planning

Surgical
procedure

Restorative
procedure

Outcome

Implant positioning to maintain the minima on the buccal side



Initial clinical
situation

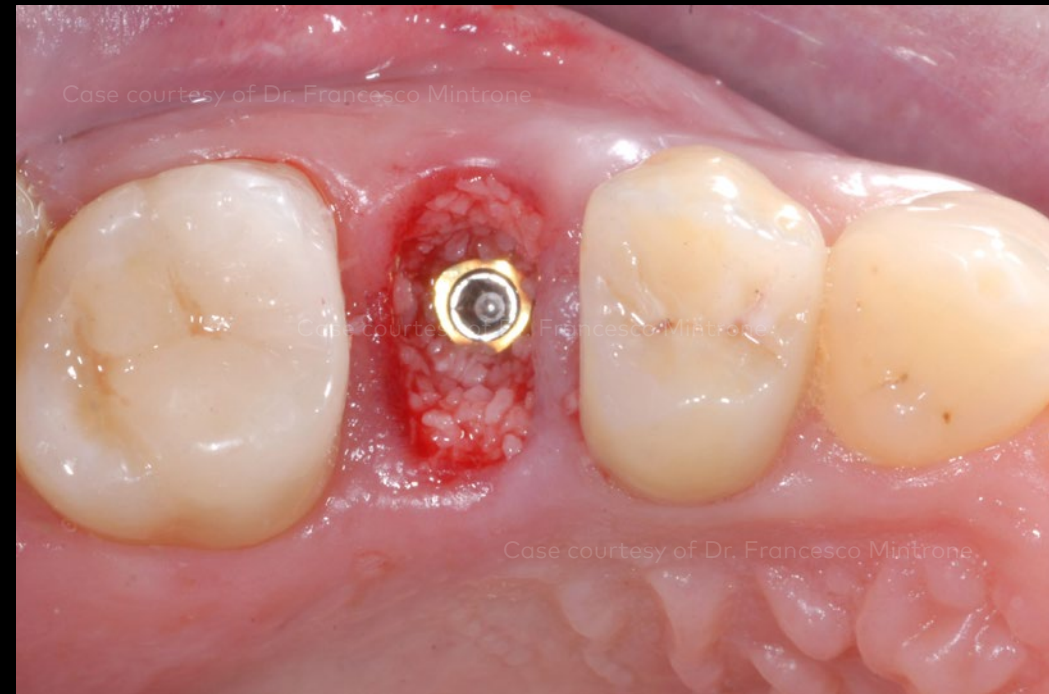
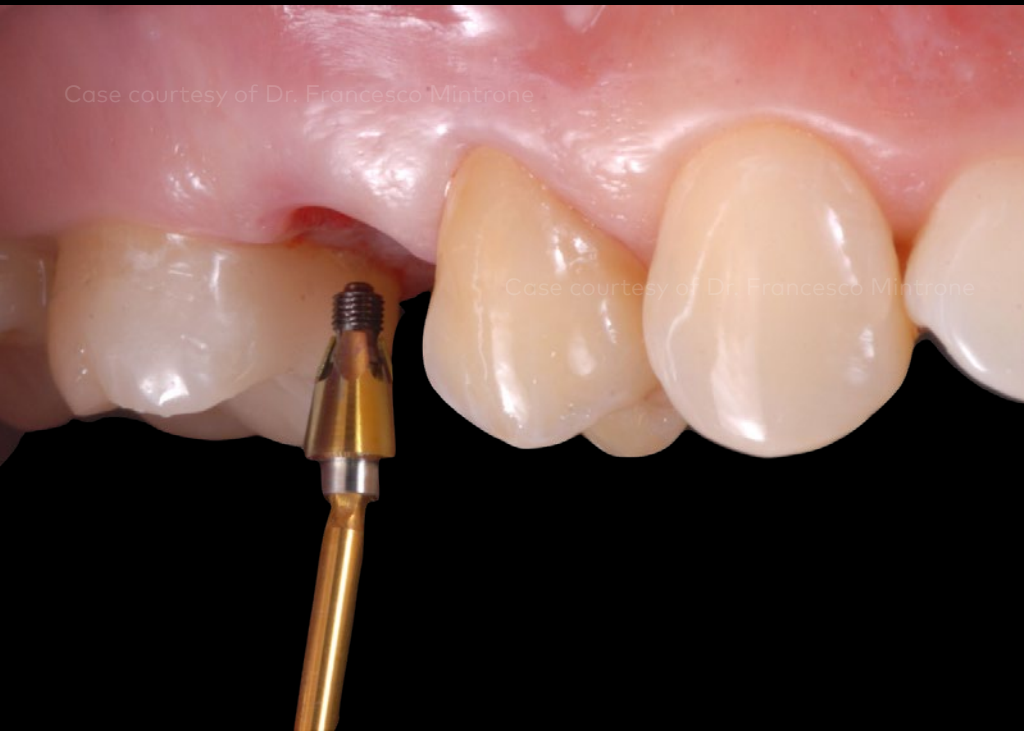
Treatment
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Outcome

After closing the trioval conical connection (TCC) with a cover screw, the socket was filled with xenograft material



Initial clinical
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Outcome

Temporary abutment and provisional in place, which will be fixed with a flowable composite



Initial clinical
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procedure

Restorative
procedure

Outcome

Finalization of the provisional



Initial clinical
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Treatment
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Restorative
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Outcome

Day 0



Day 15



**Initial clinical
situation**

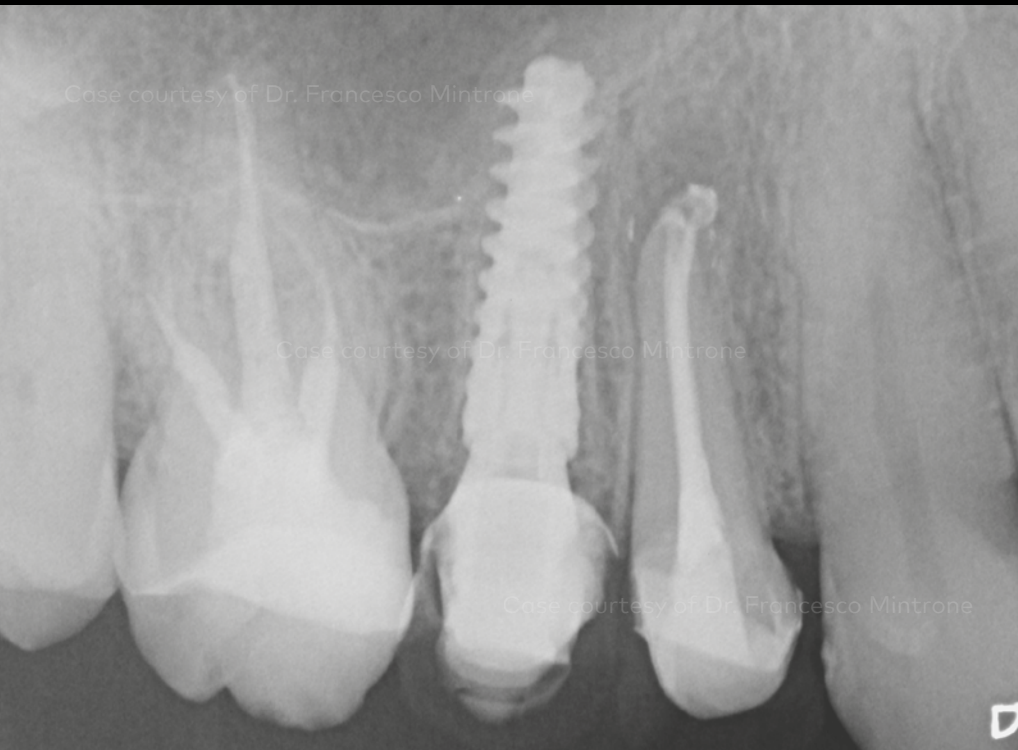
**Treatment
planning**

**Surgical
procedure**

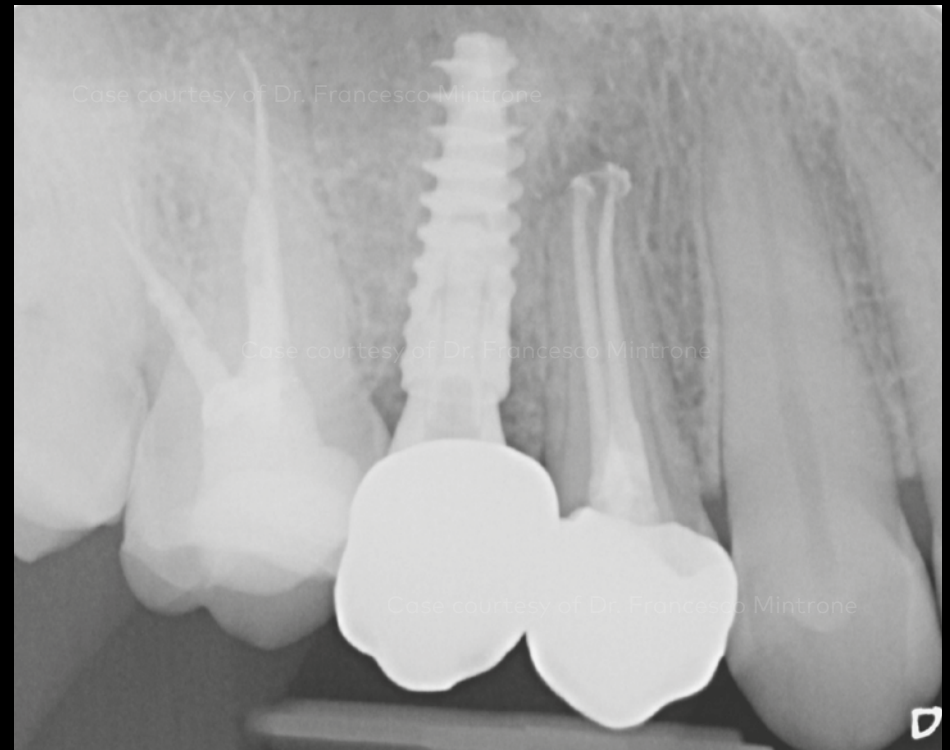
**Restorative
procedure**

Outcome

Day 0



6 months post delivery



Initial clinical
situation

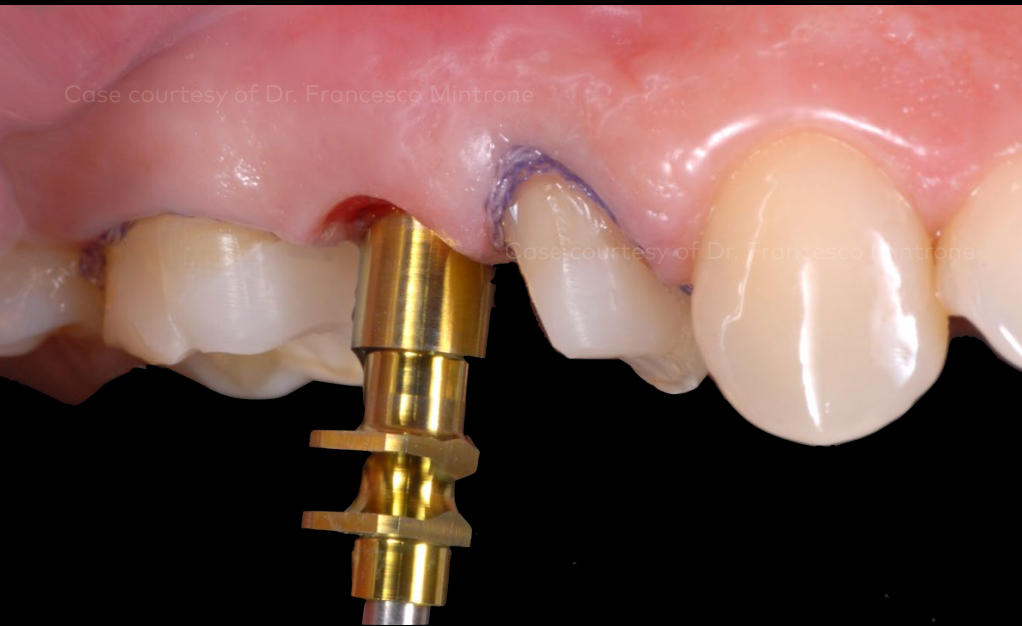
Treatment
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Restorative
procedure

Outcome

Traditional



Digital



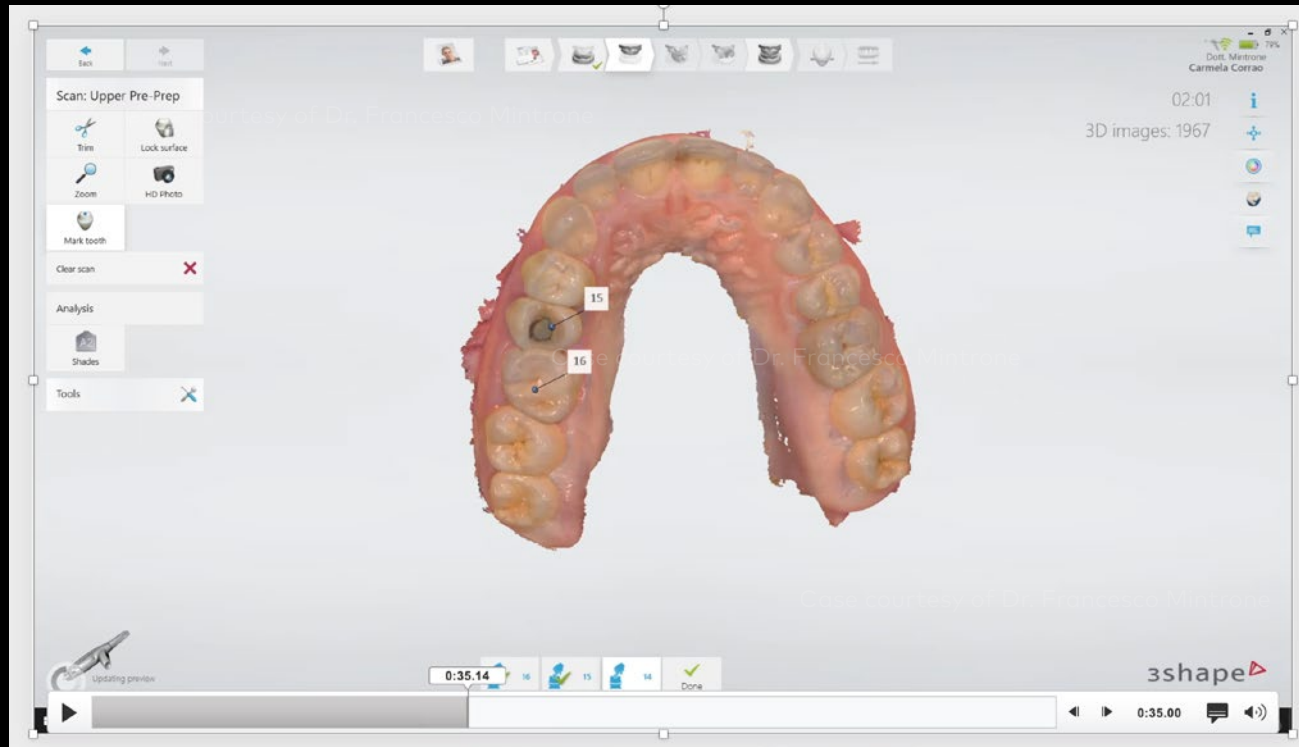
Initial clinical
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Initial clinical
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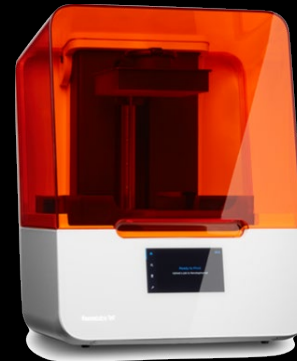
Outcome

Digital



Master model

Formlabs 3



Removable gingiva



Provisional duplicate



Odt. Mr. Franco Pozzi & Mr. Ateicos Quintavalla
Laboratorio Pozzi Franco & C. s.n.c.
Parma, Italy

**Initial clinical
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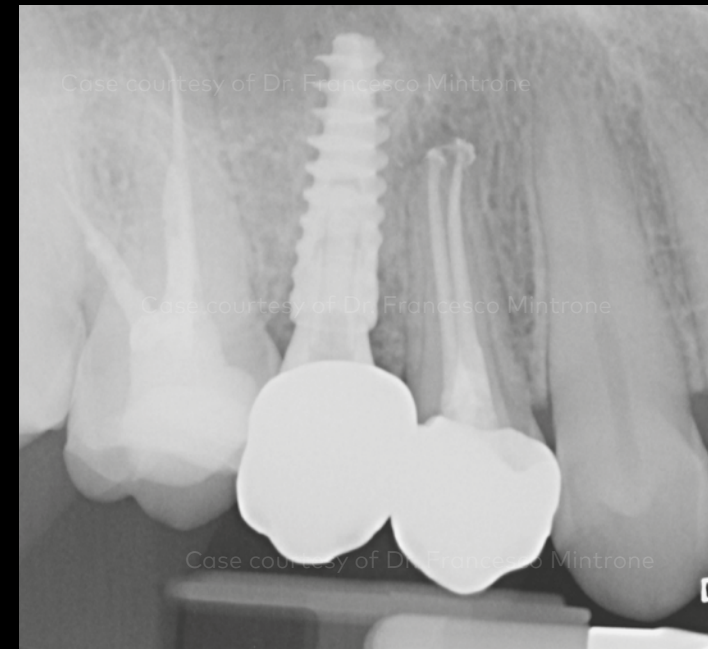
**Treatment
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**Surgical
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procedure**

Outcome

Final restoration in position



Case courtesy of Dr. Francesco Mintrone

