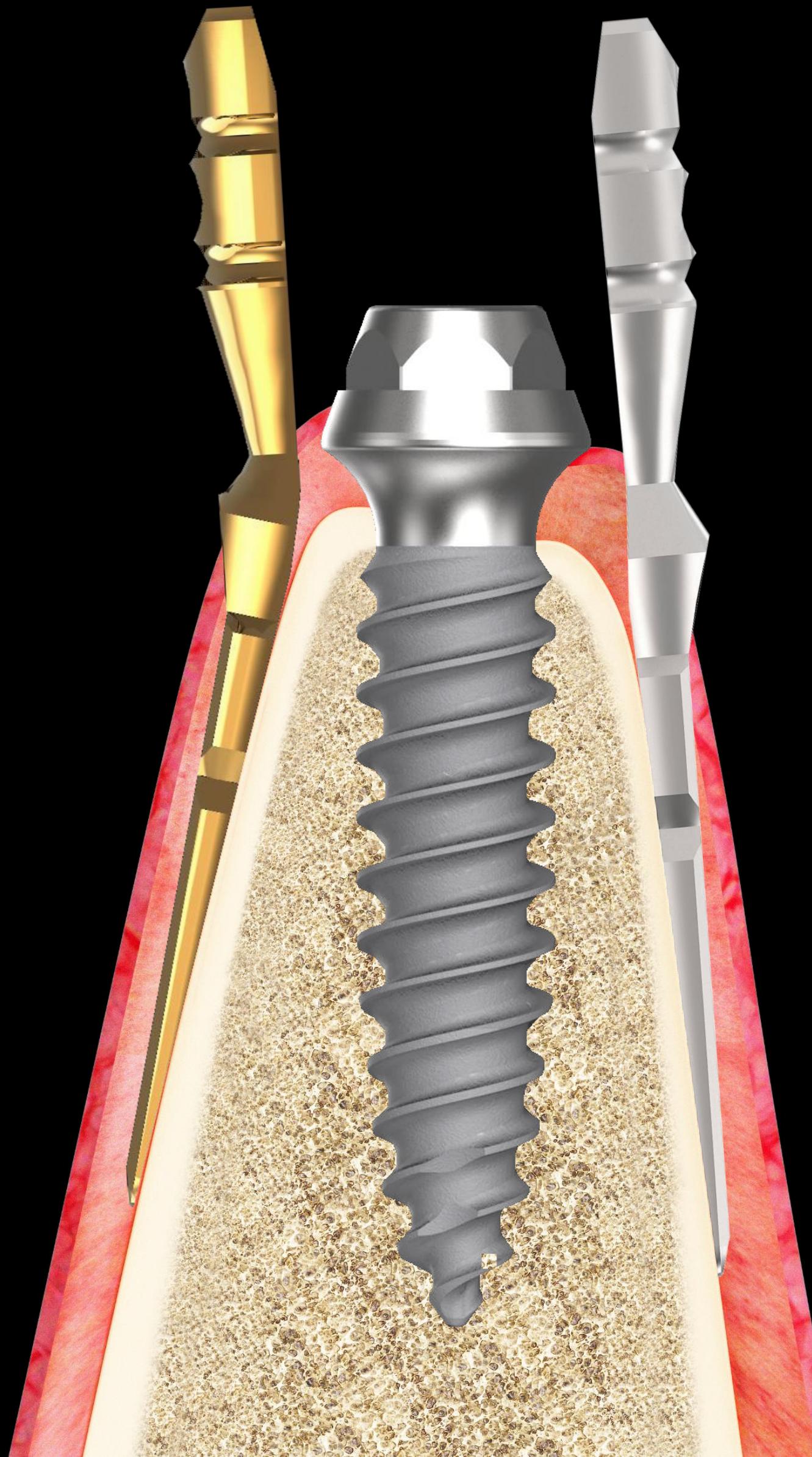


# Implant in a next? - minimalism



Optimal results with the least amount of

Surgical intervention - simplicity

Material use - efficiency

Patient comfort

Dr Sungmin Chung periodontist Ph.D

Founder of Genesis and Dentium

Post-op (2025-07-16)



Virtual panorama from CT

Final prosthesis (2025-09-17)



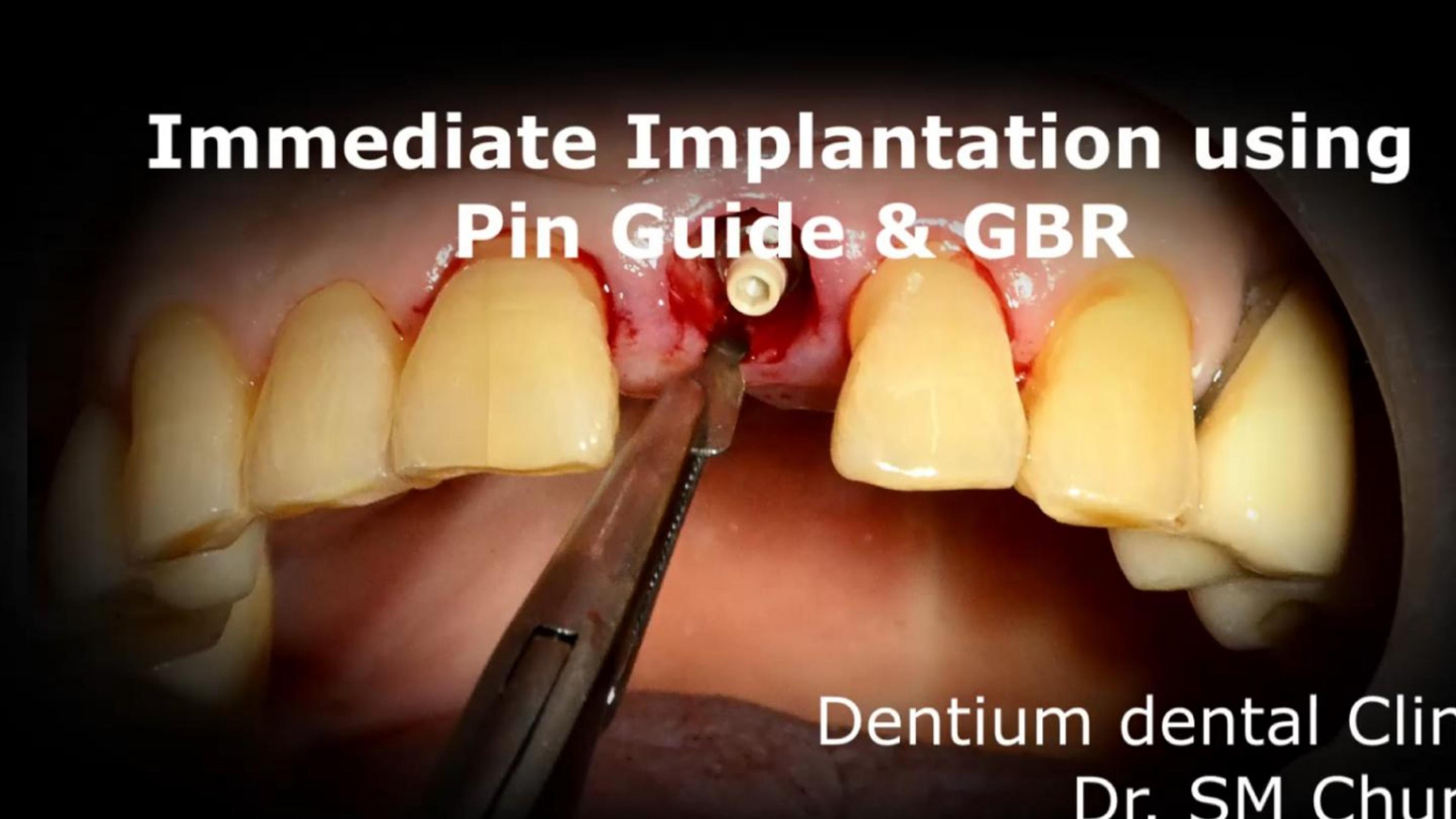
Pre-op (2025-07-16)



Final prosthesis (2025-09-17)



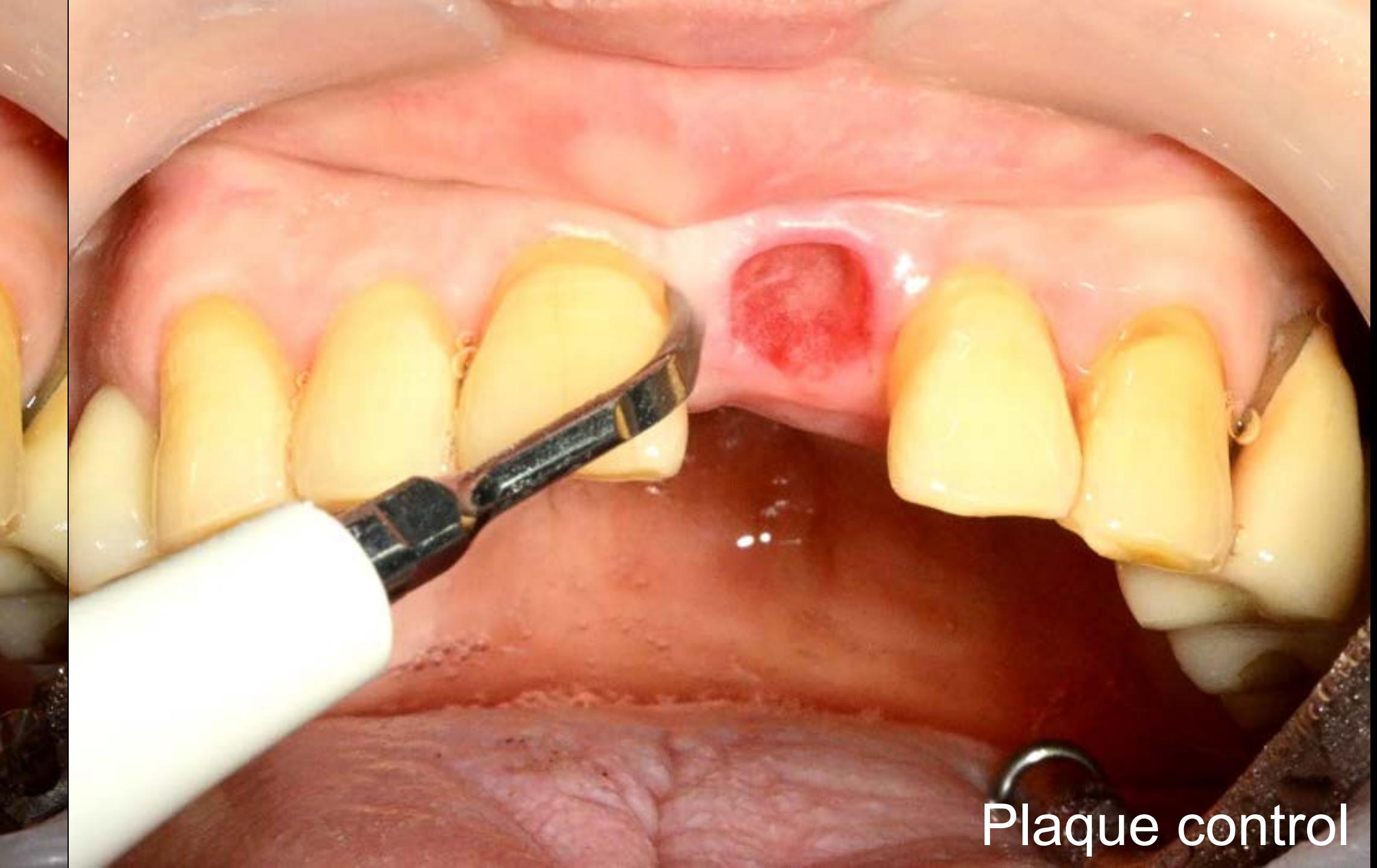
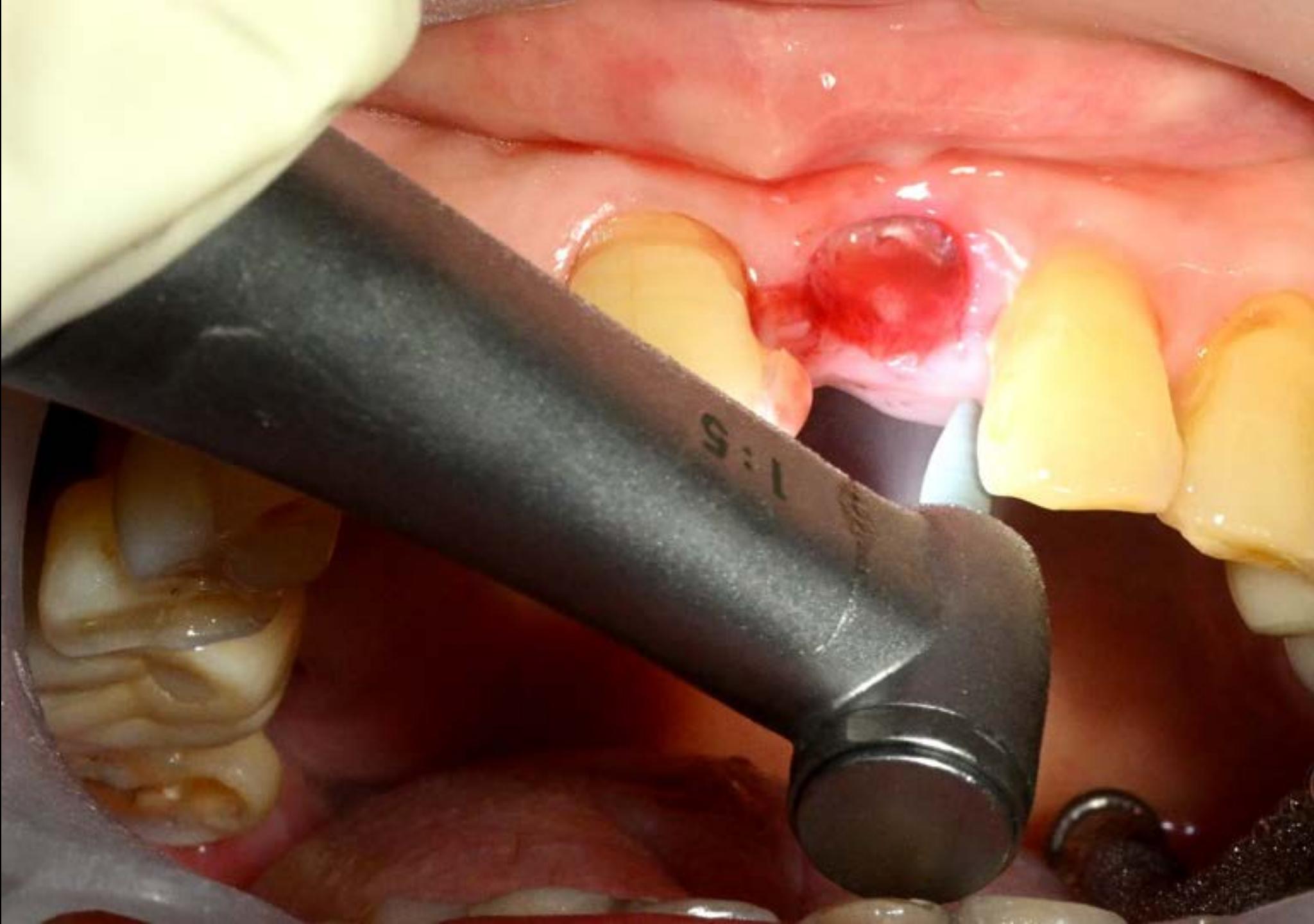
# Immediate Implantation using Pin Guide & GBR



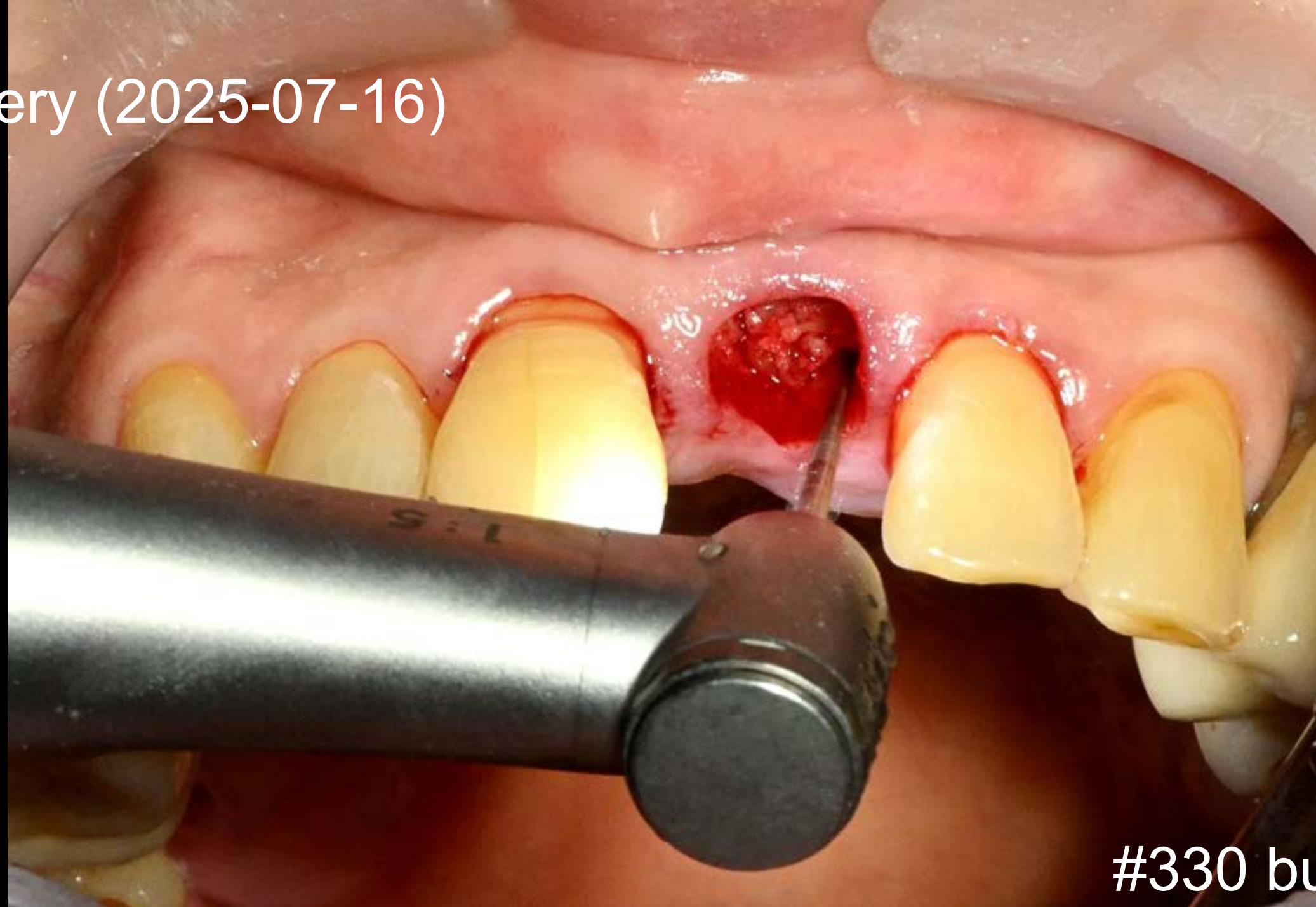
Dentium dental Clinic  
Dr. SM Chung

\*\* 4p Surgery VOD 1

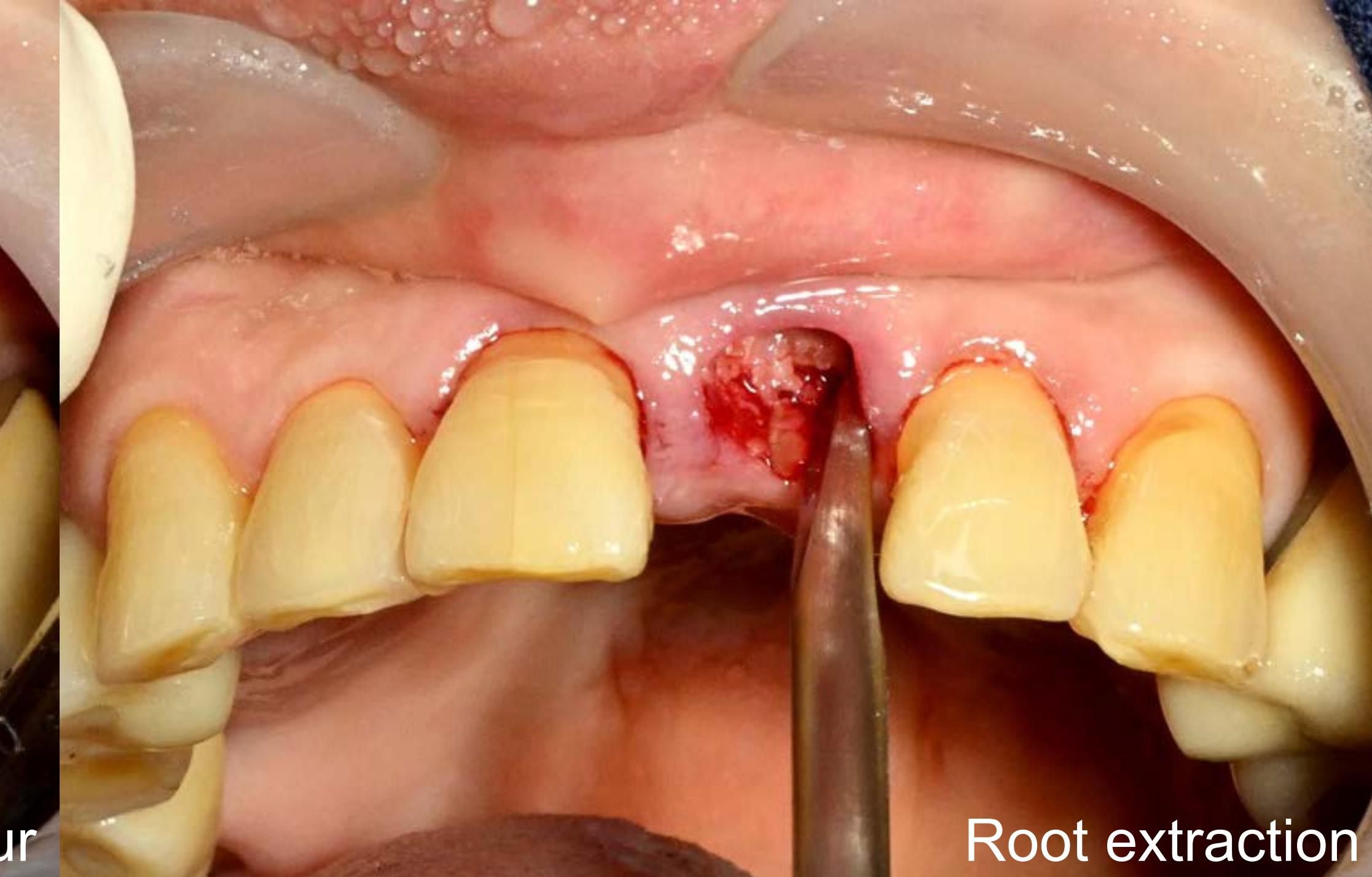
Surgery (2025-07-16)



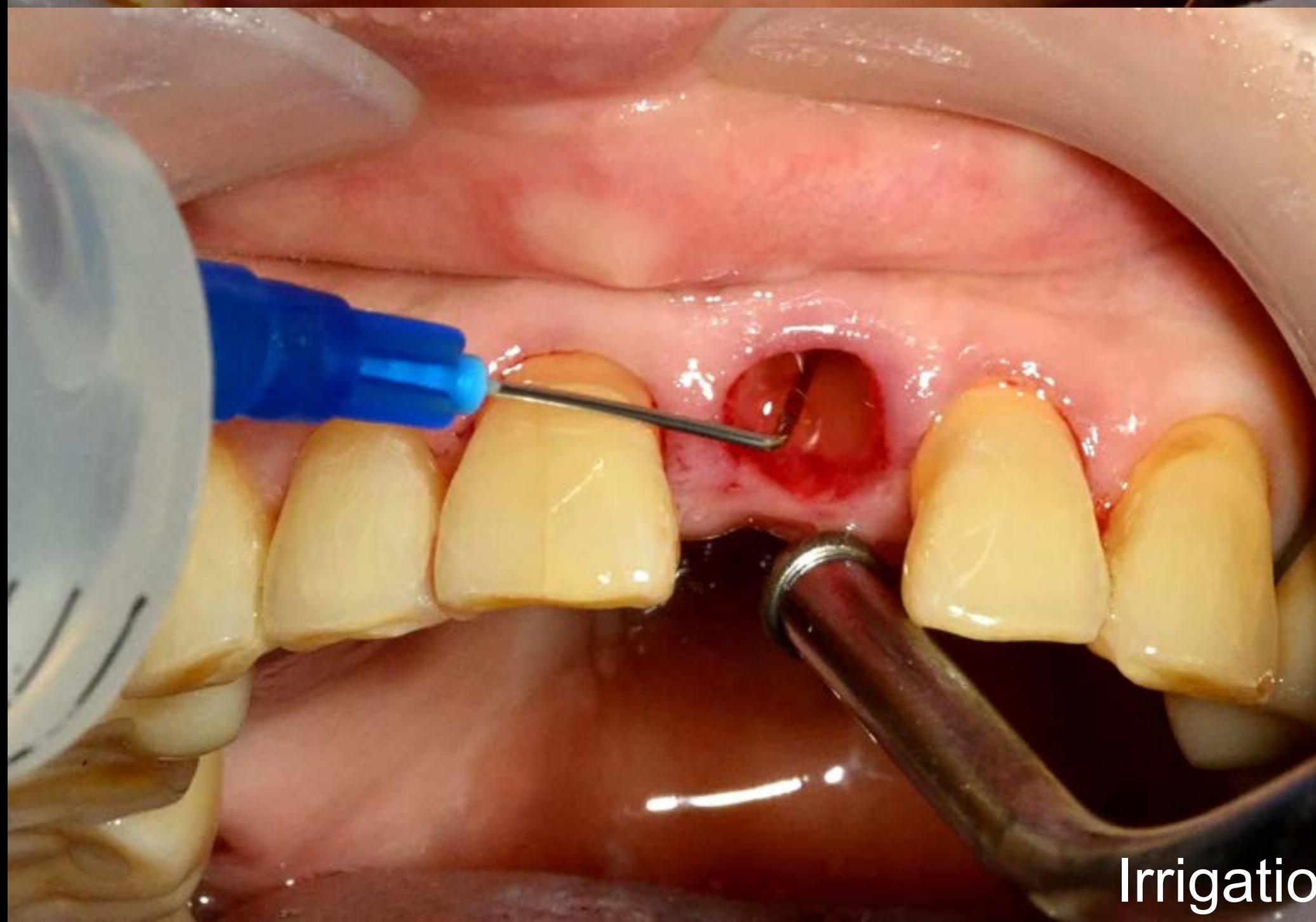
Surgery (2025-07-16)



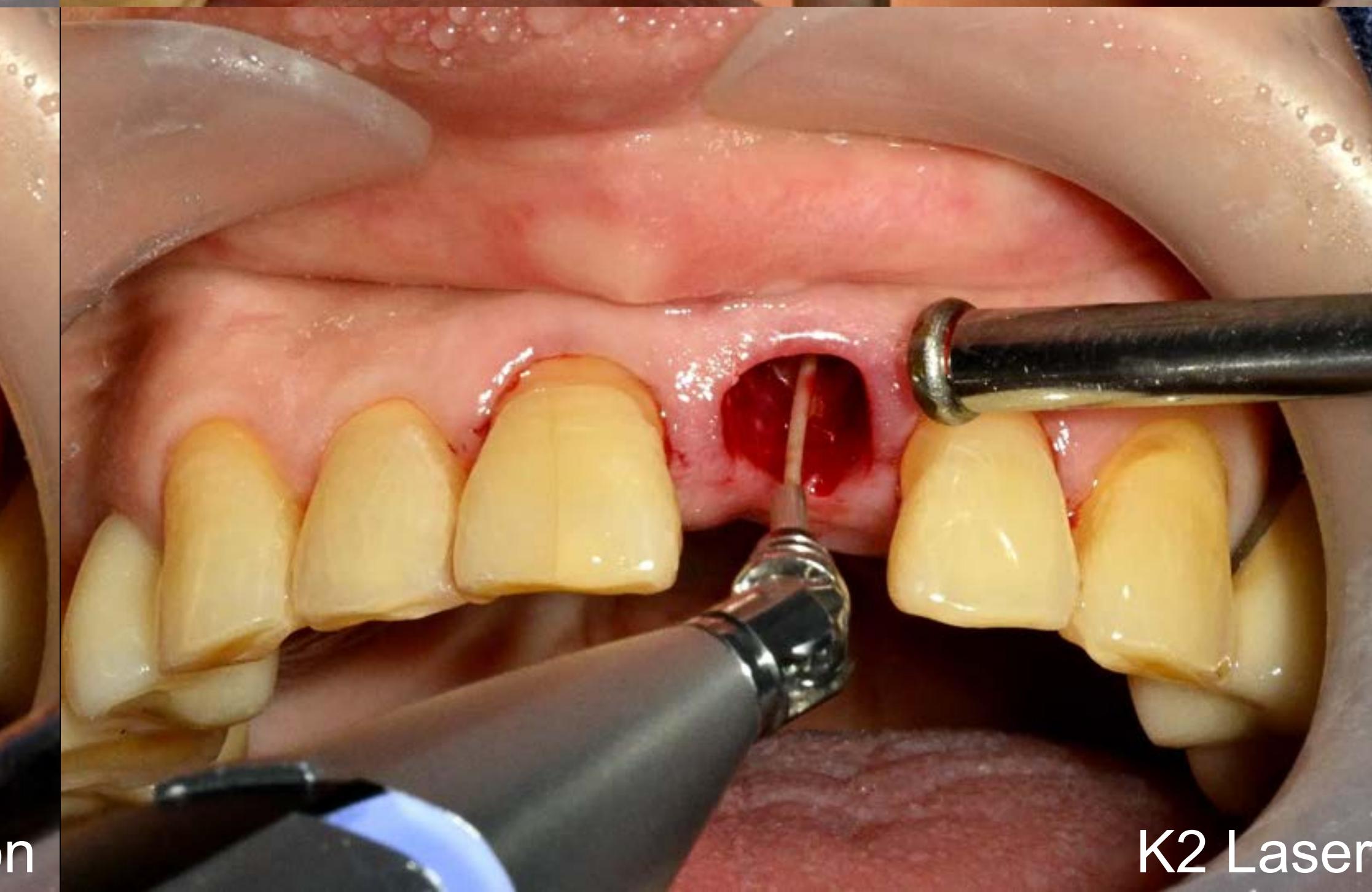
#330 bur



Root extraction

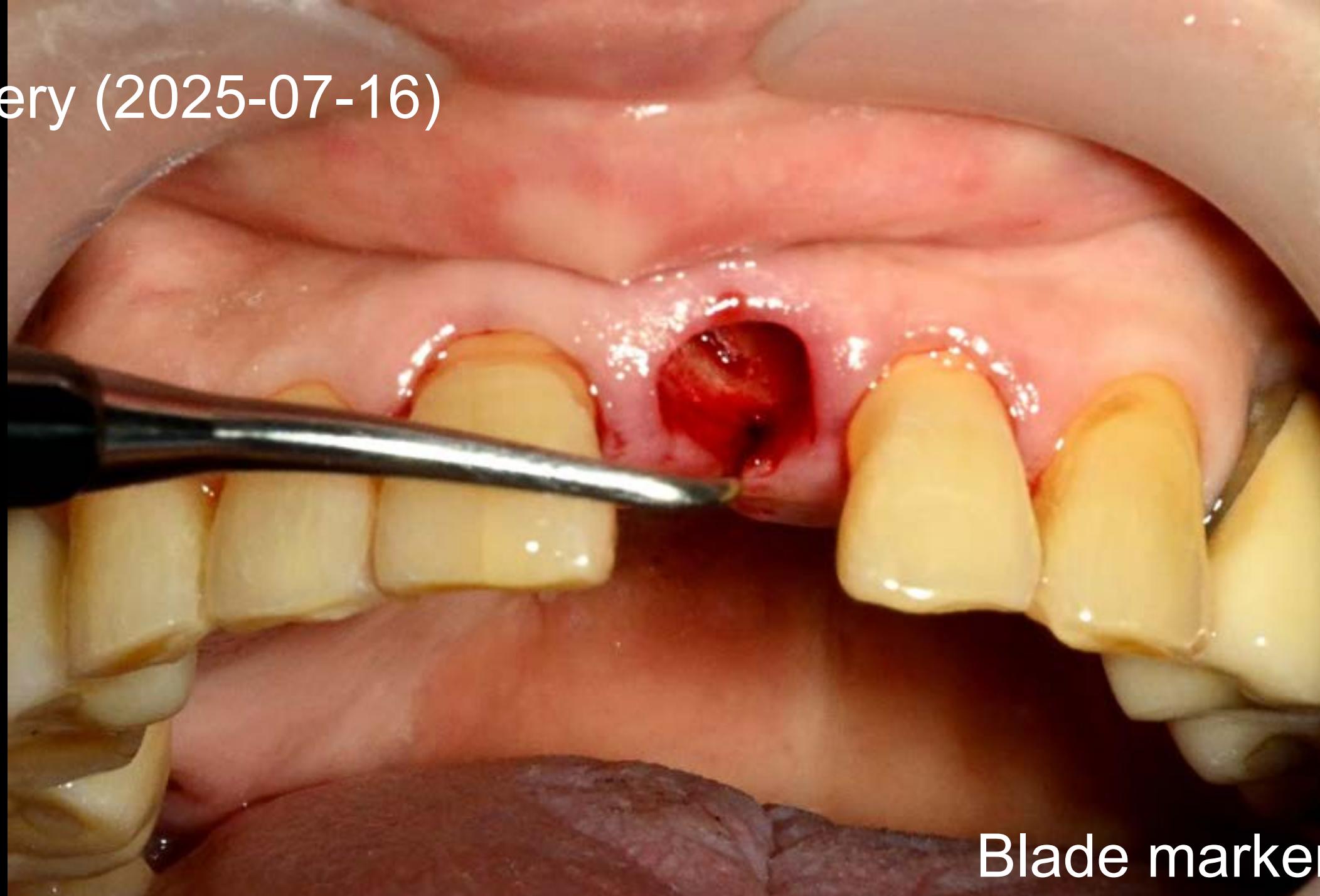


Irrigation



K2 Laser

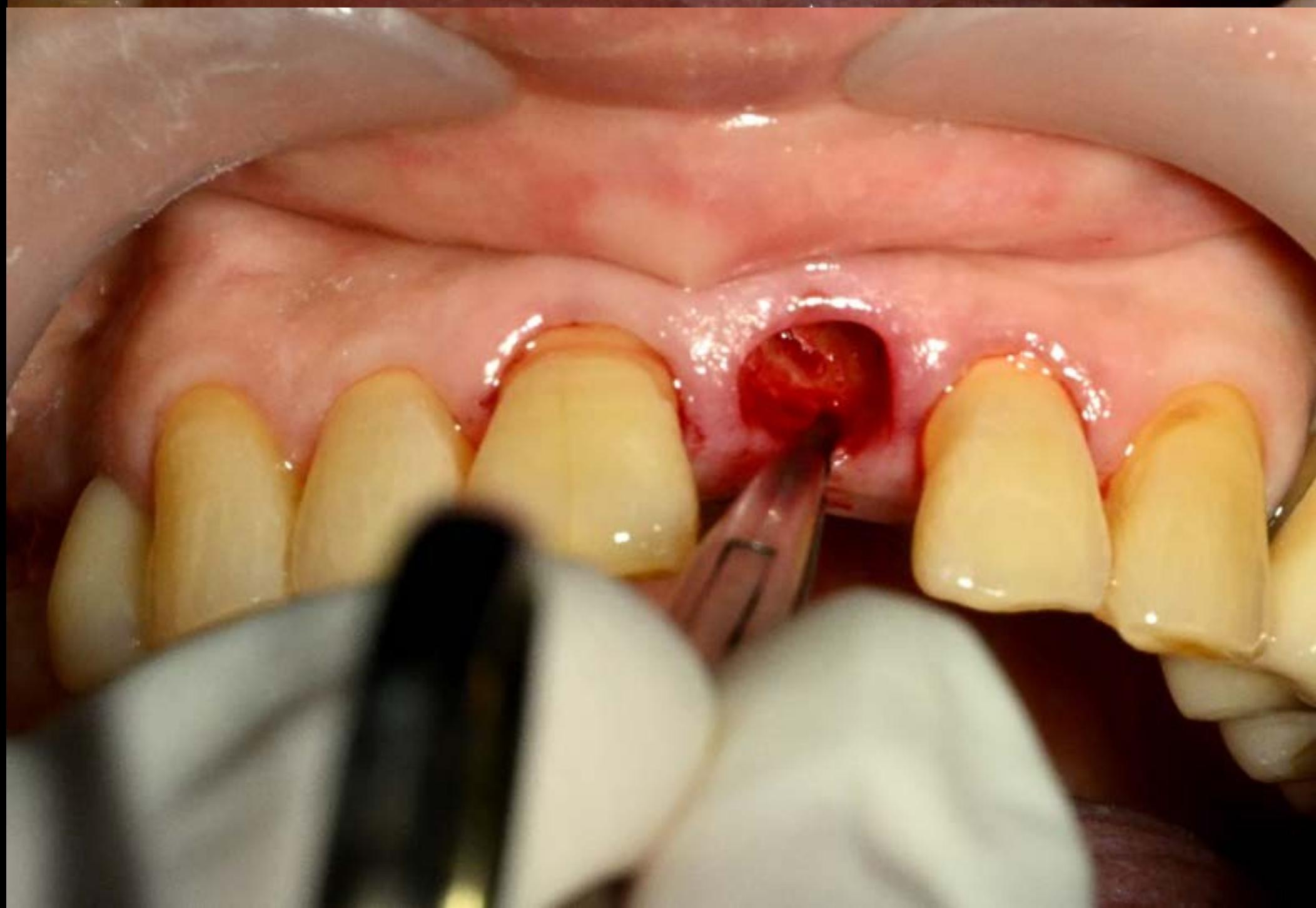
Surgery (2025-07-16)



Blade marker

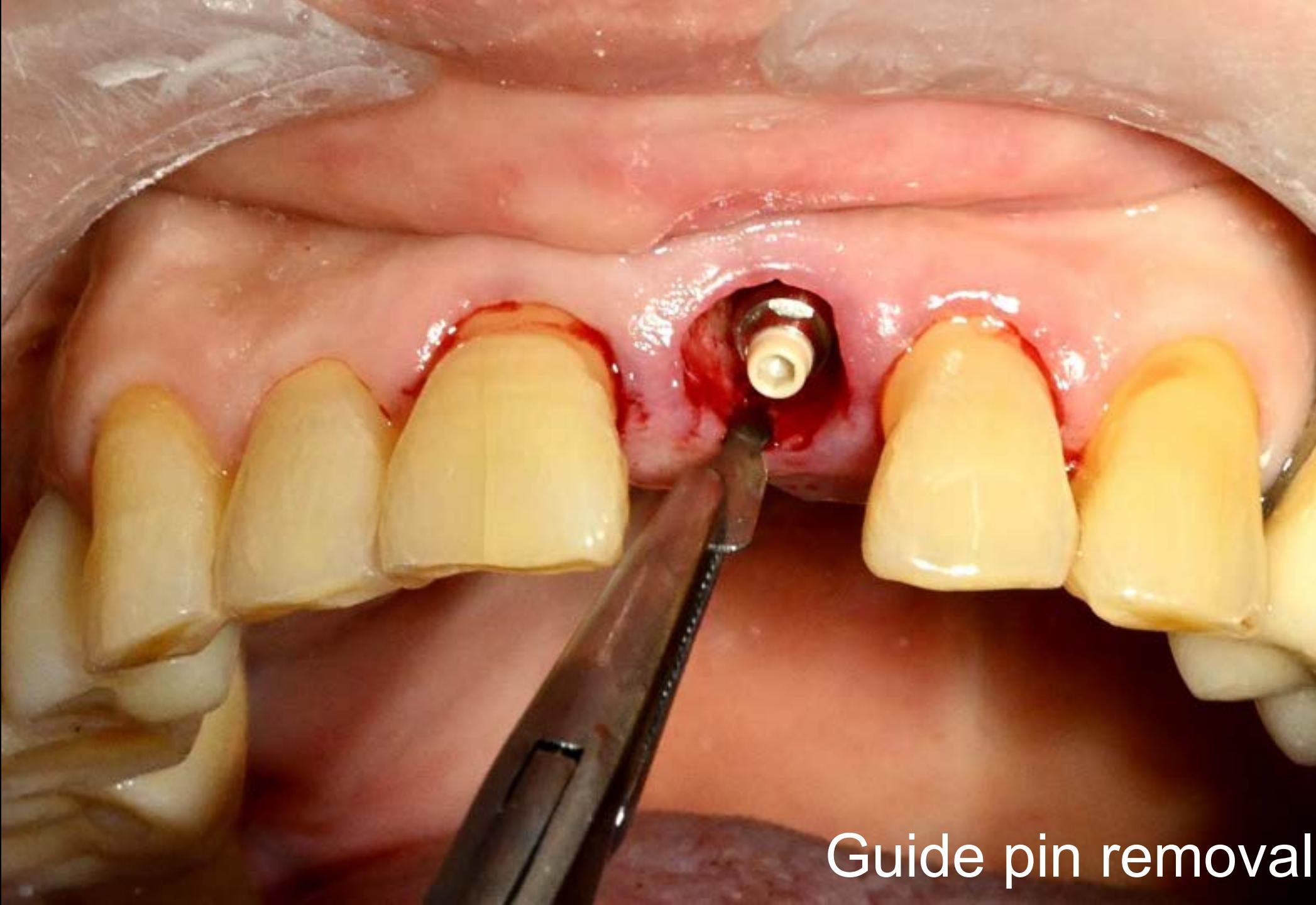


Guide Pin (Simple) with needle holder

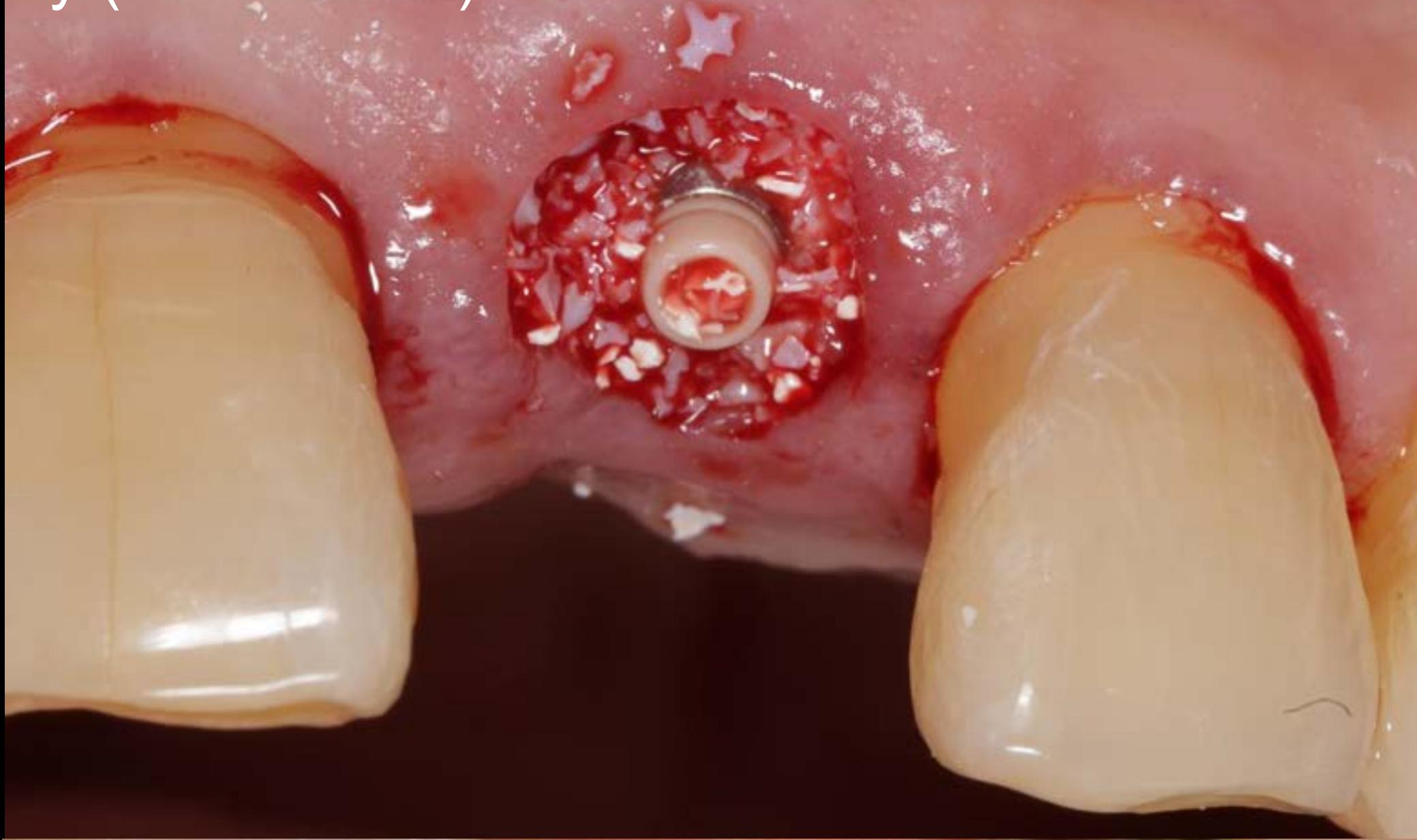


Guide pin (Simple)

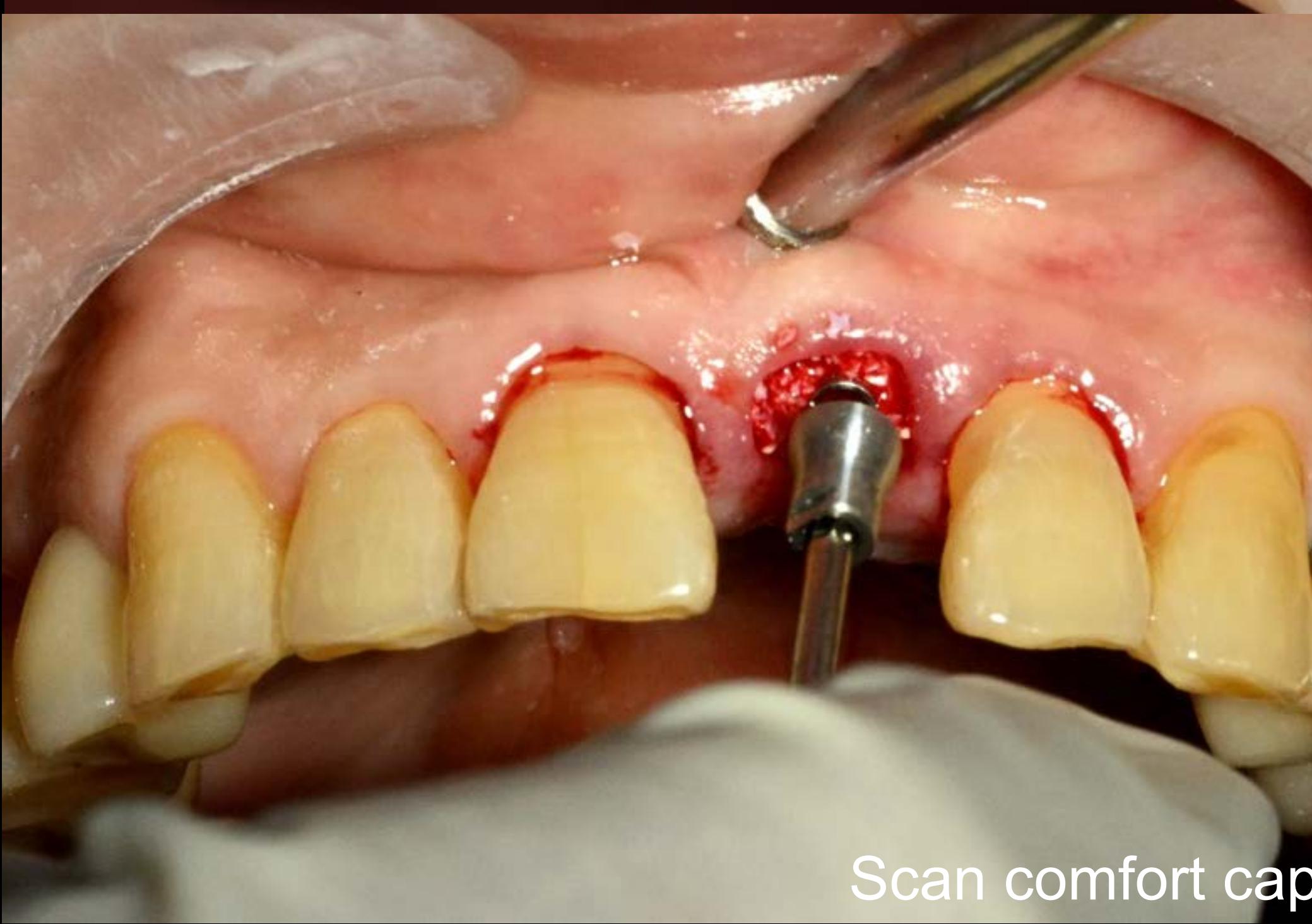
Surgery (2025-07-16)



Surgery (2025-07-16)



Mount screw removal

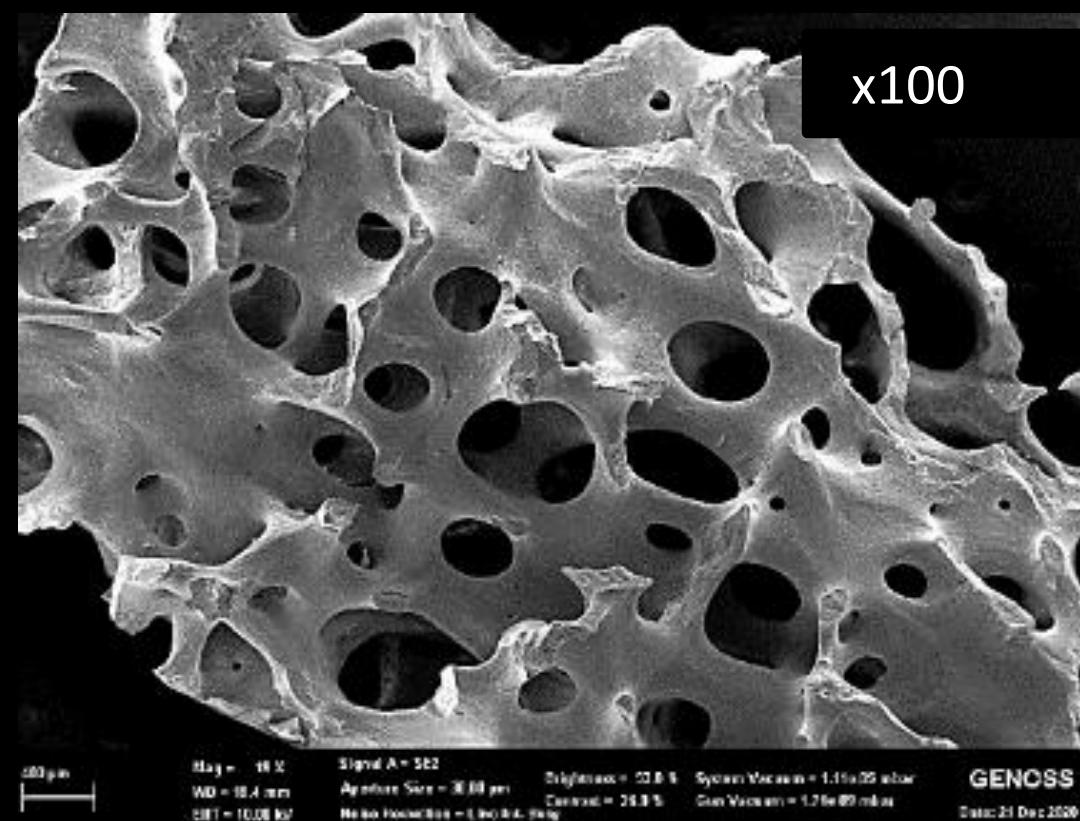


Scan comfort cap

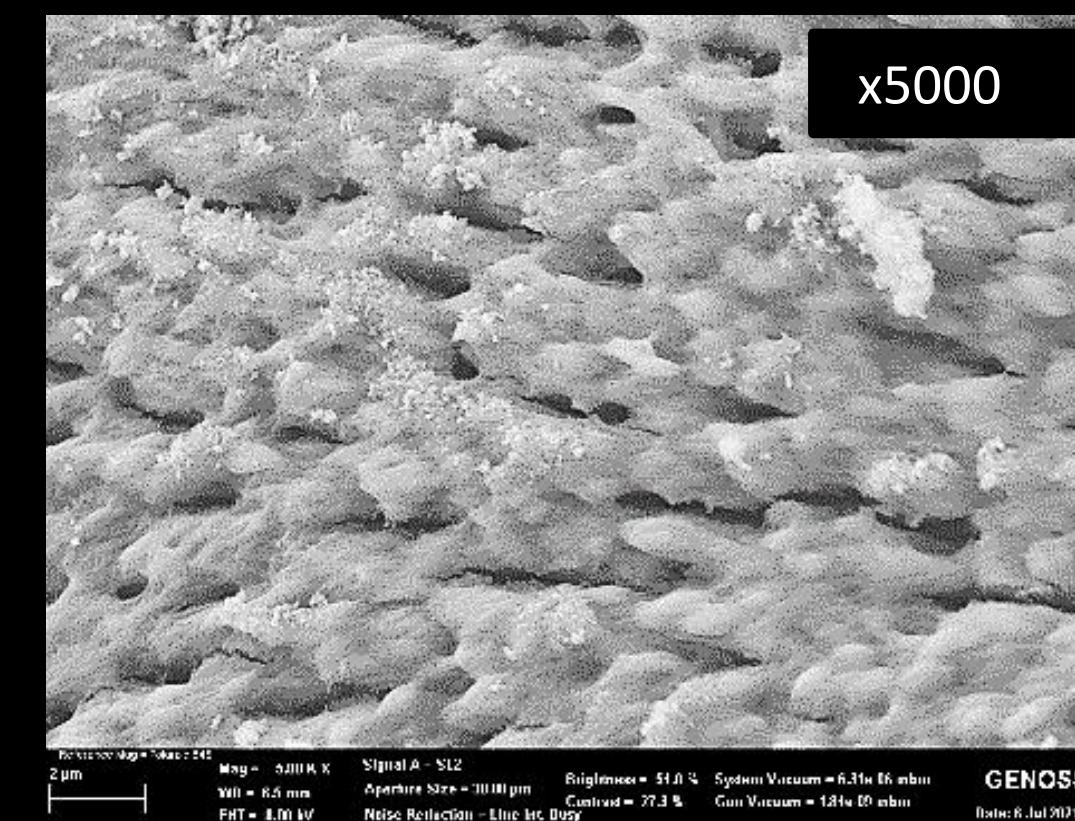


# OSTEON™ Xeno

- Osteoconductive **natural bovine bone** substitute (similar to human bone)
- Highly interconnected macro/micro-pores
- Excellent Osteoconductivity
- **Easy handling and excellent wettability**
- Complete removal of organic substances
- Type: vial, block



Macropores

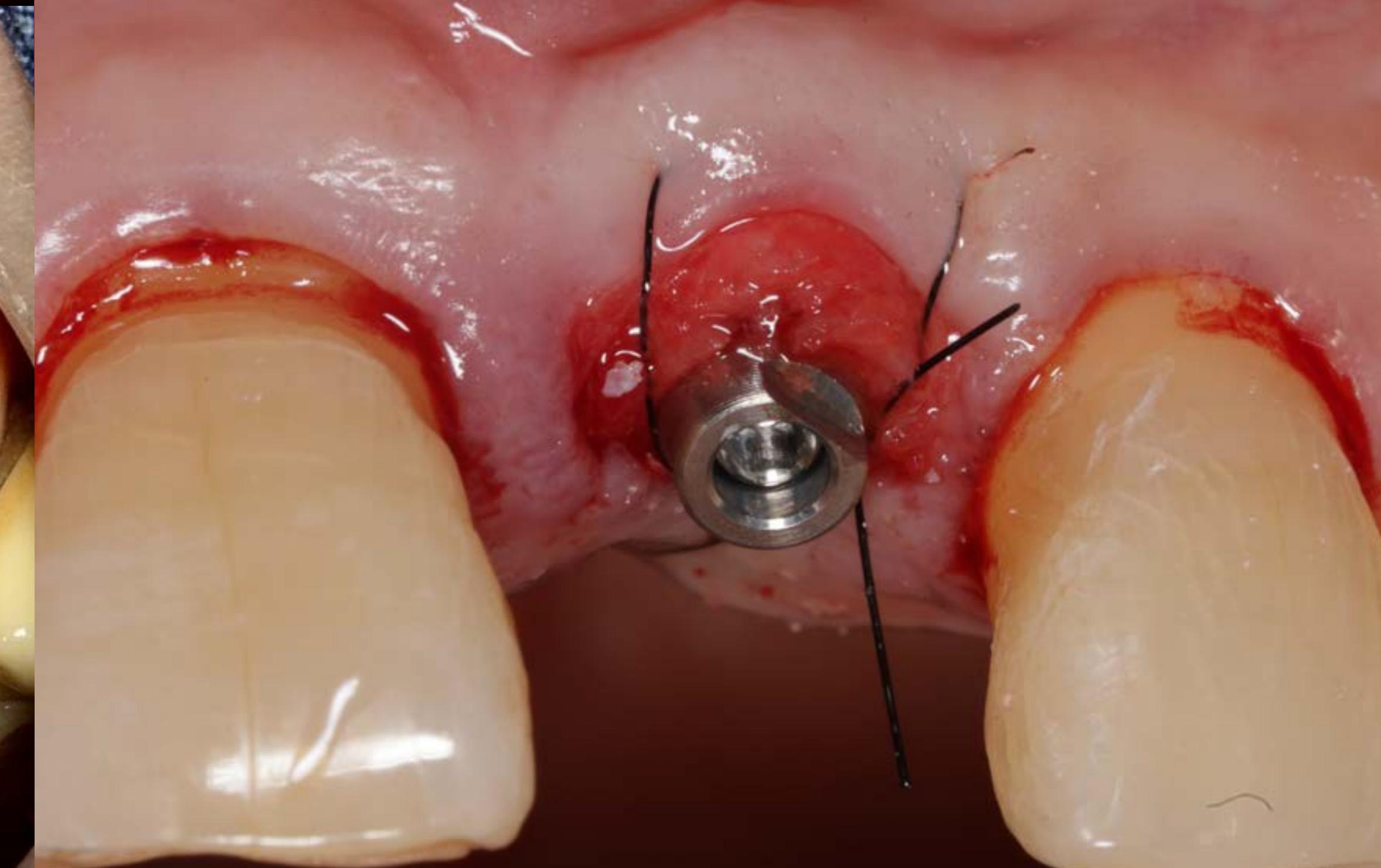
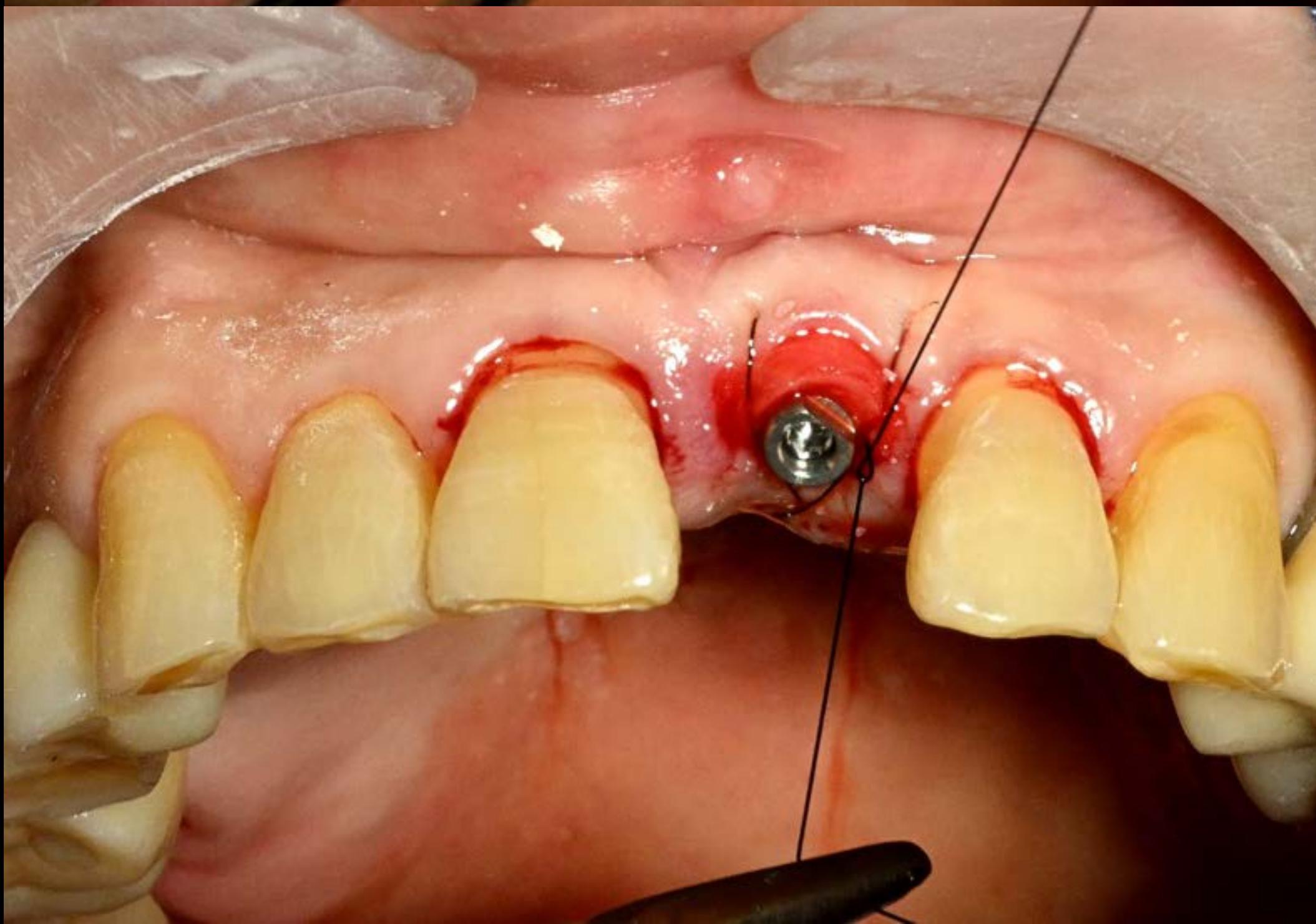
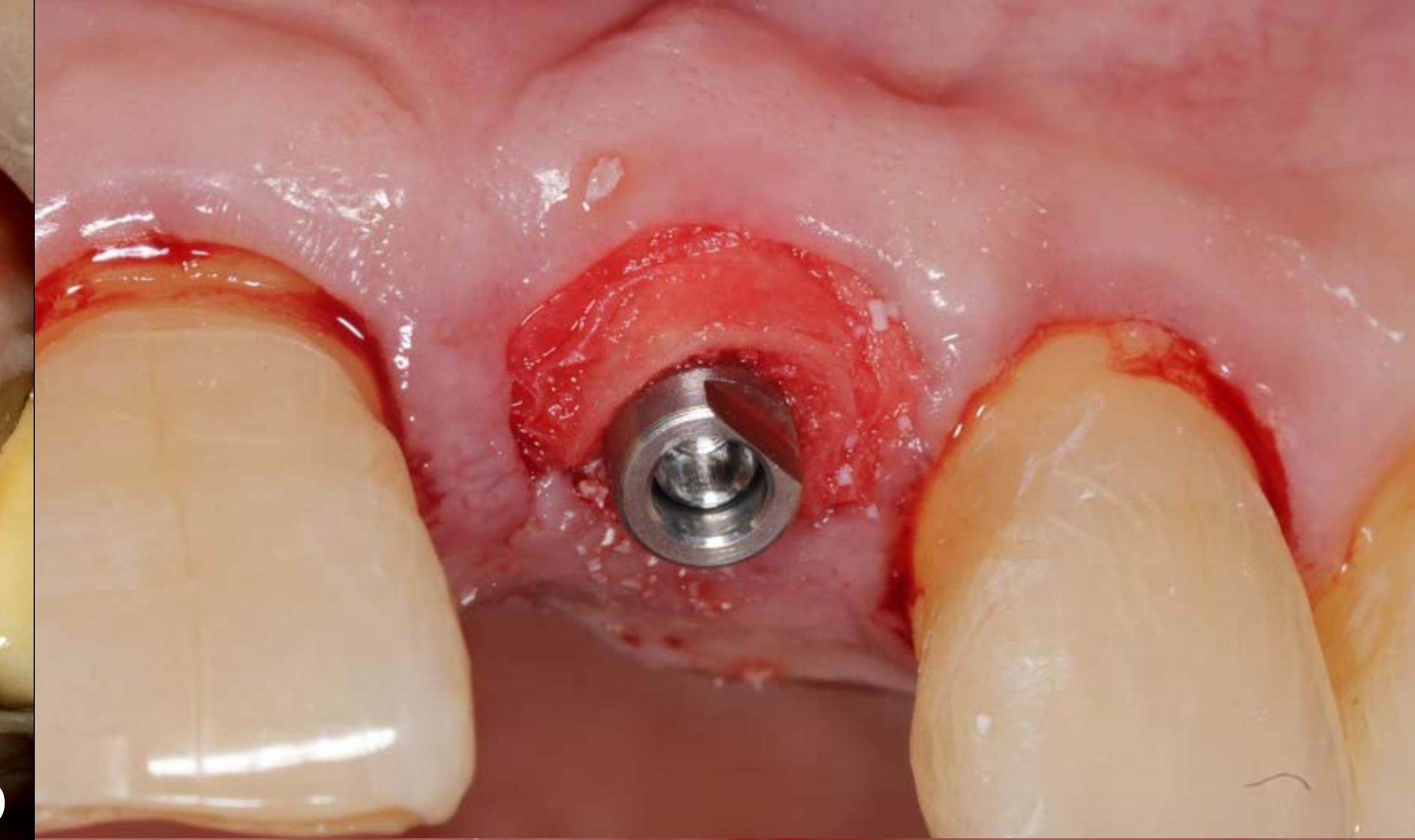
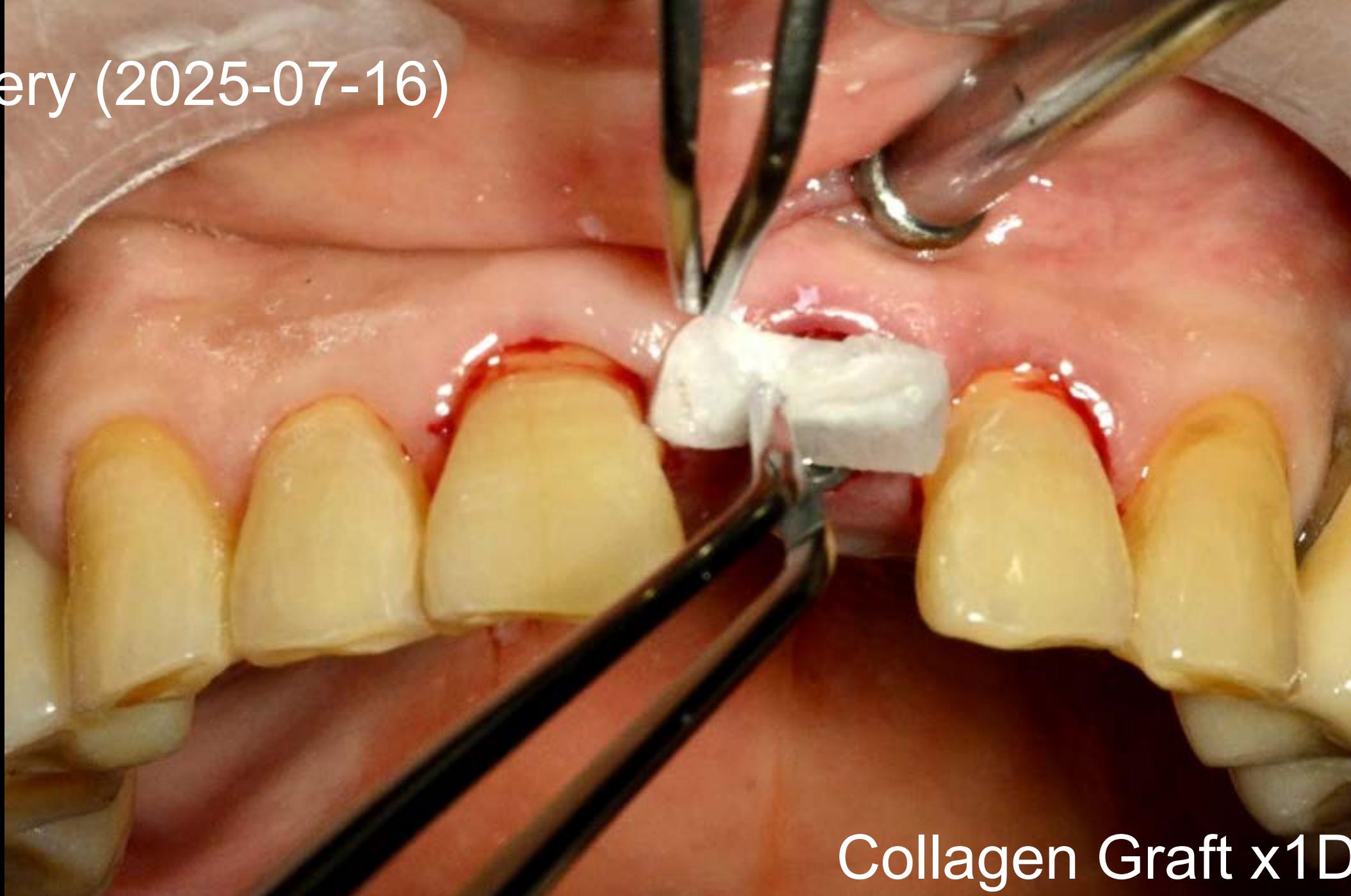


Micropores



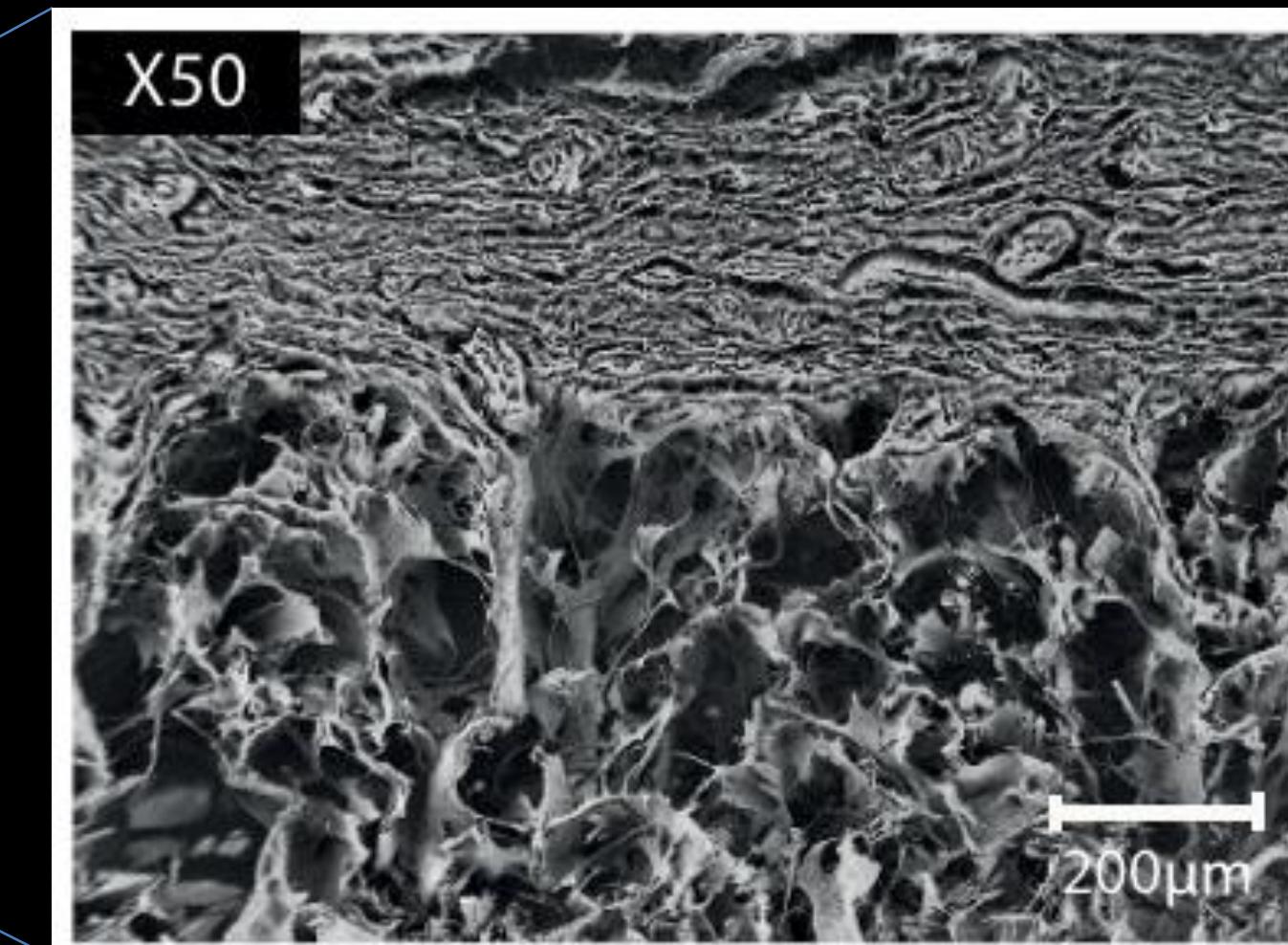
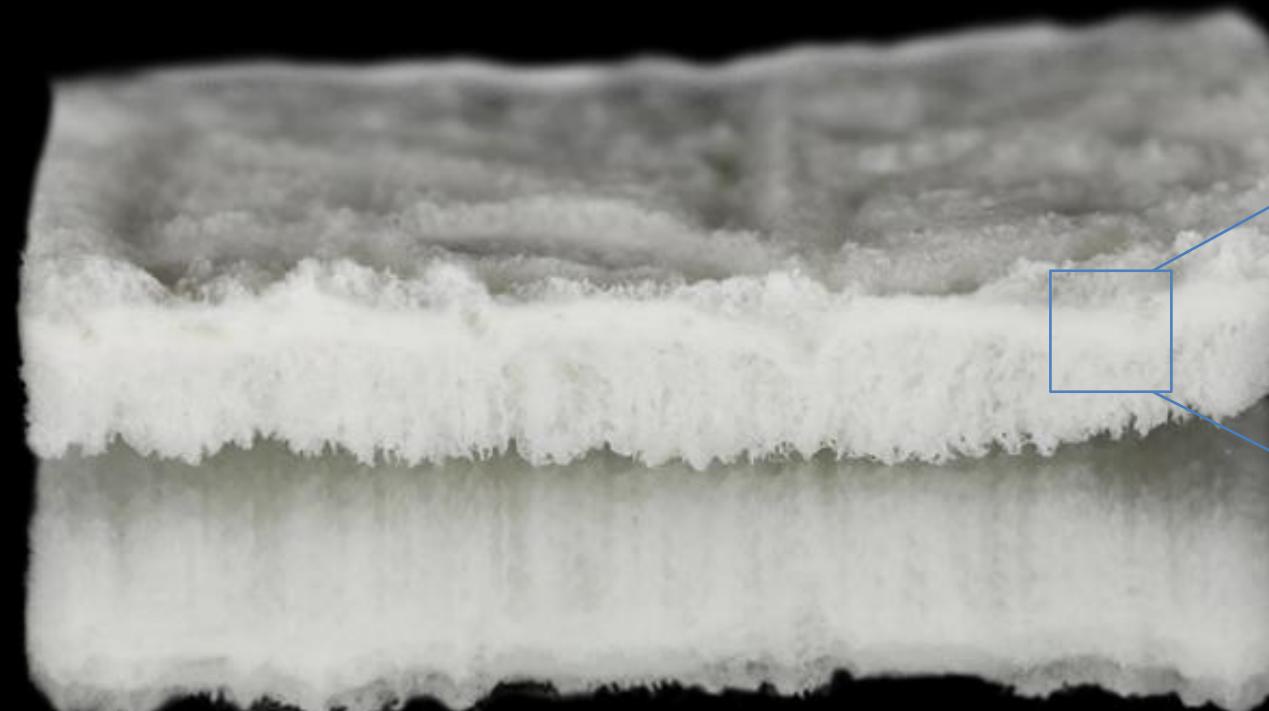
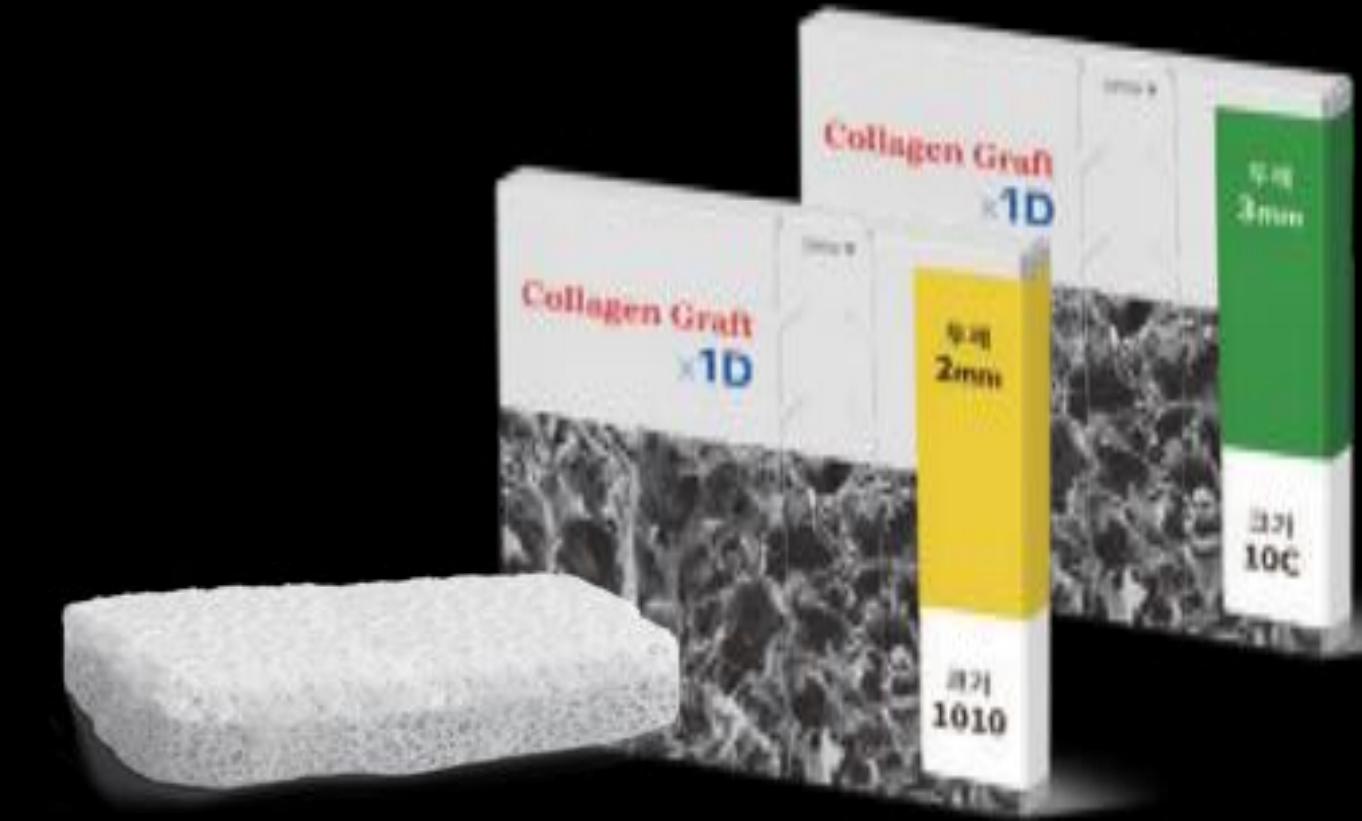
Particle size: 0.2-1.0mm

Surgery (2025-07-16)



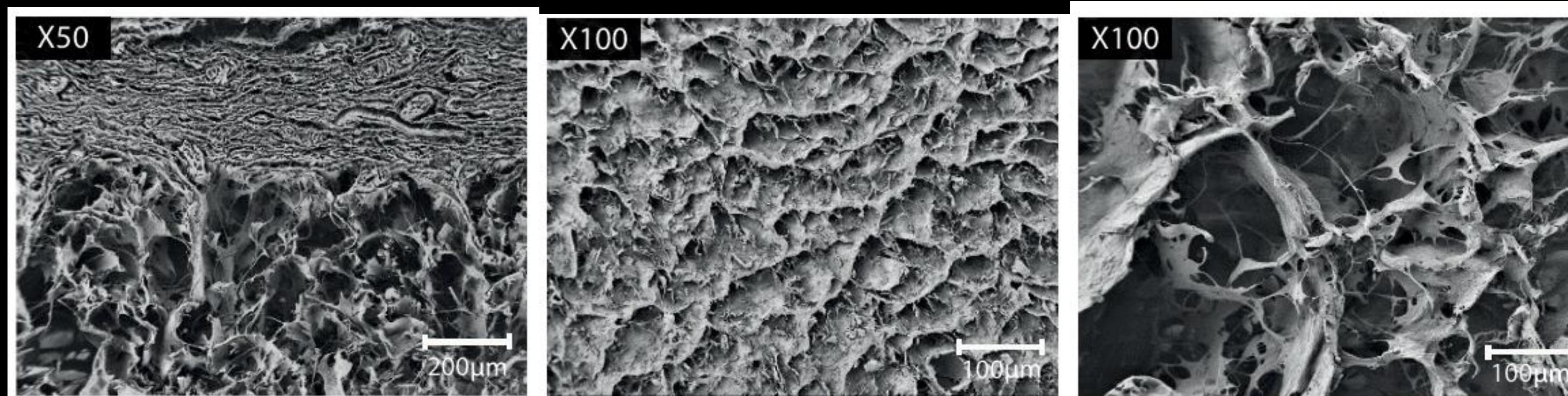
# Collagen Graft x1D

- **Absorbable Matrix**
- Highly pure Type I Collagen (from porcine tendon)
- **Bilayer structure: Dense & porous layers**
- **Fast soft tissue healing** by epithelialization  
(absorbed within 1 months)
- Applications: Ridge Preservation, Keratinized tissue augmentation, Root coverage, FGG alternative, etc.

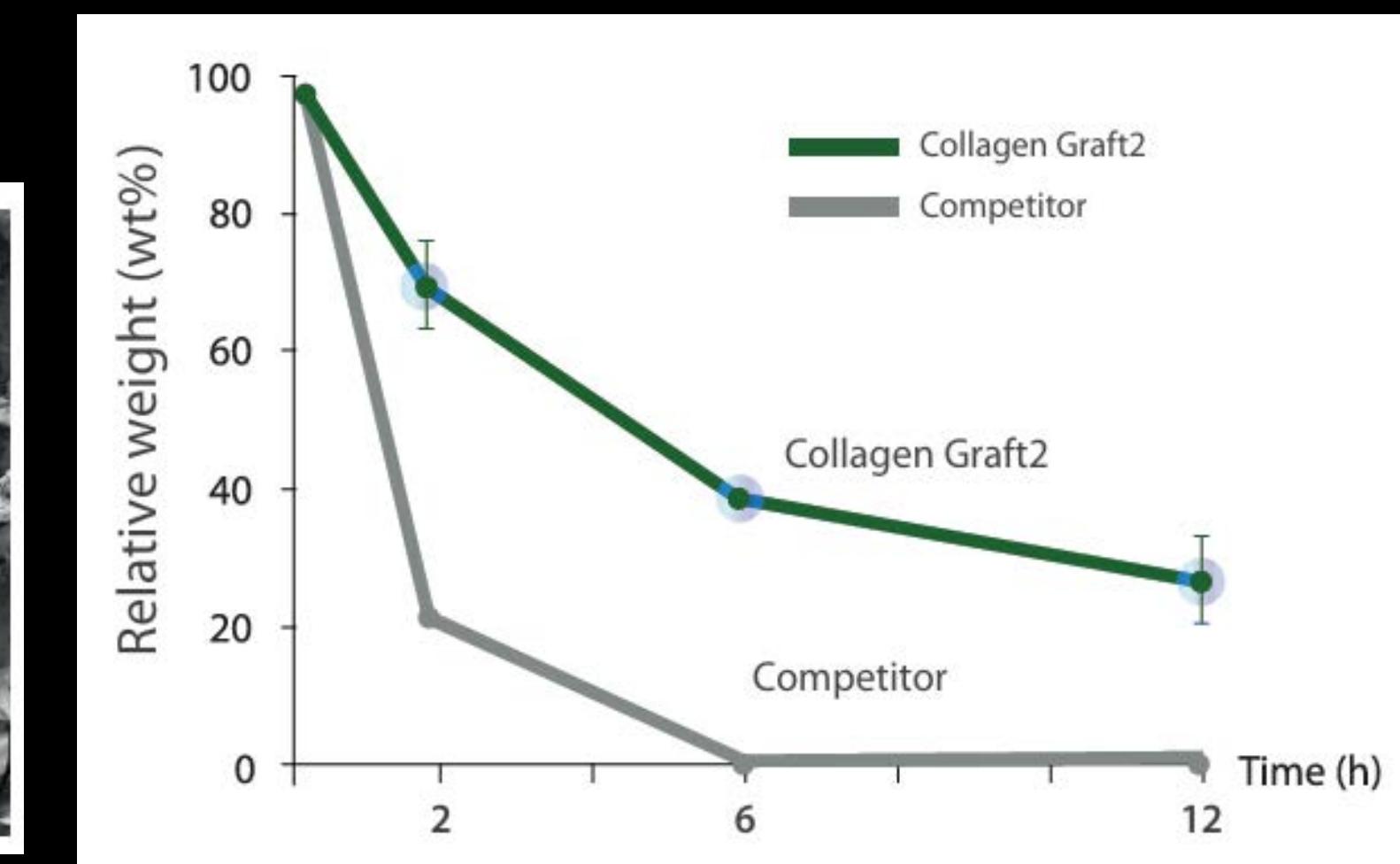


# Soft tissue substitute: Collagen graft

- ✓ Absorbable Matrix
- ✓ Highly pure Type I Collagen (from porcine tendon)
- ✓ Bilayer structure: Dense & porous layers
- ✓ Fast soft tissue healing by epithelialization (absorbed within 1 months)
- ✓ Applications: Ridge Preservation, Keratinized tissue augmentation, Root coverage, FGG alternative, etc.



Microstructure



*In vitro* Degradation

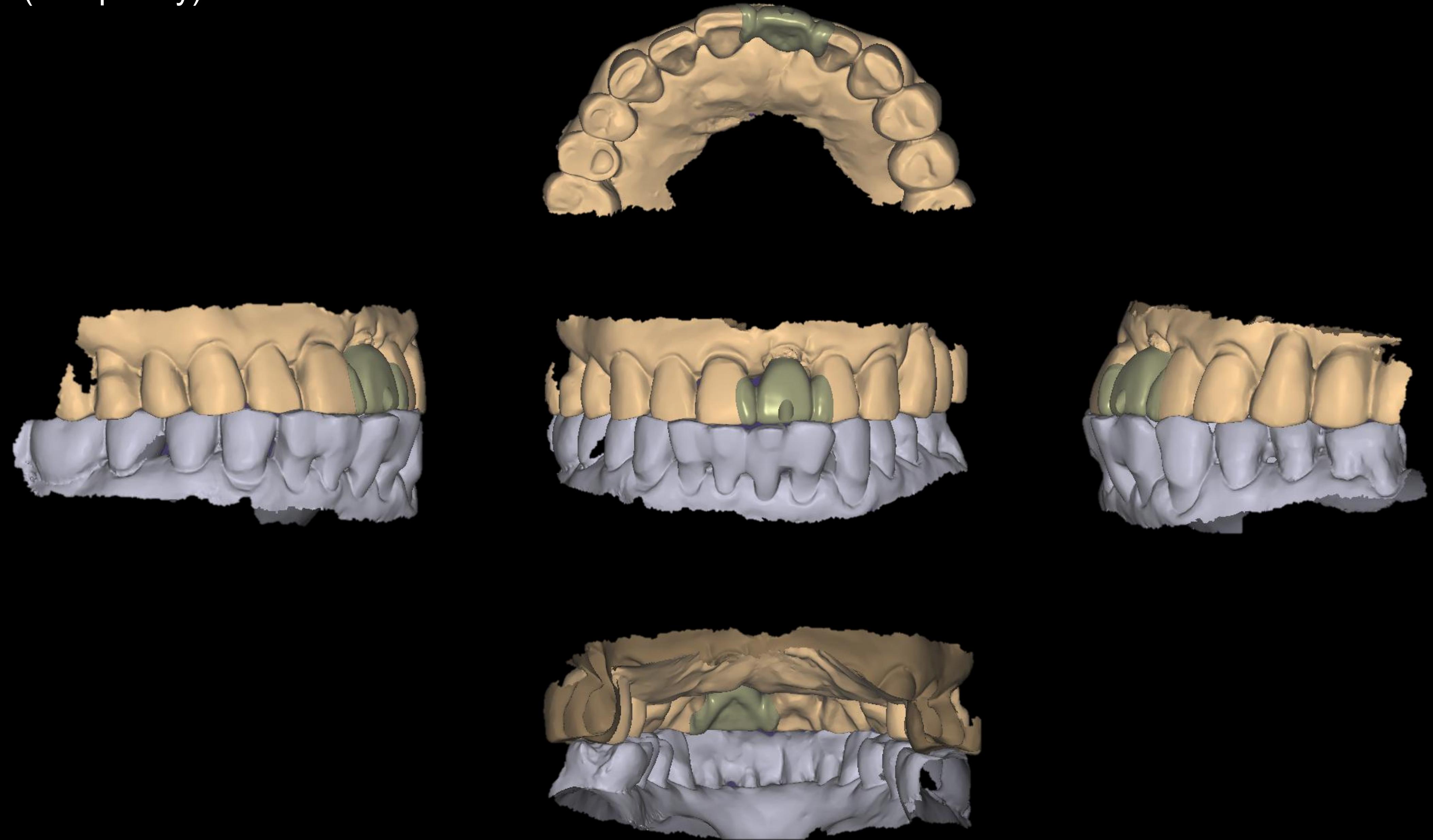
Gap filling between fixture and labial bone is with bone graft

Between healing abugitment and labial gingiva is with collagen graft

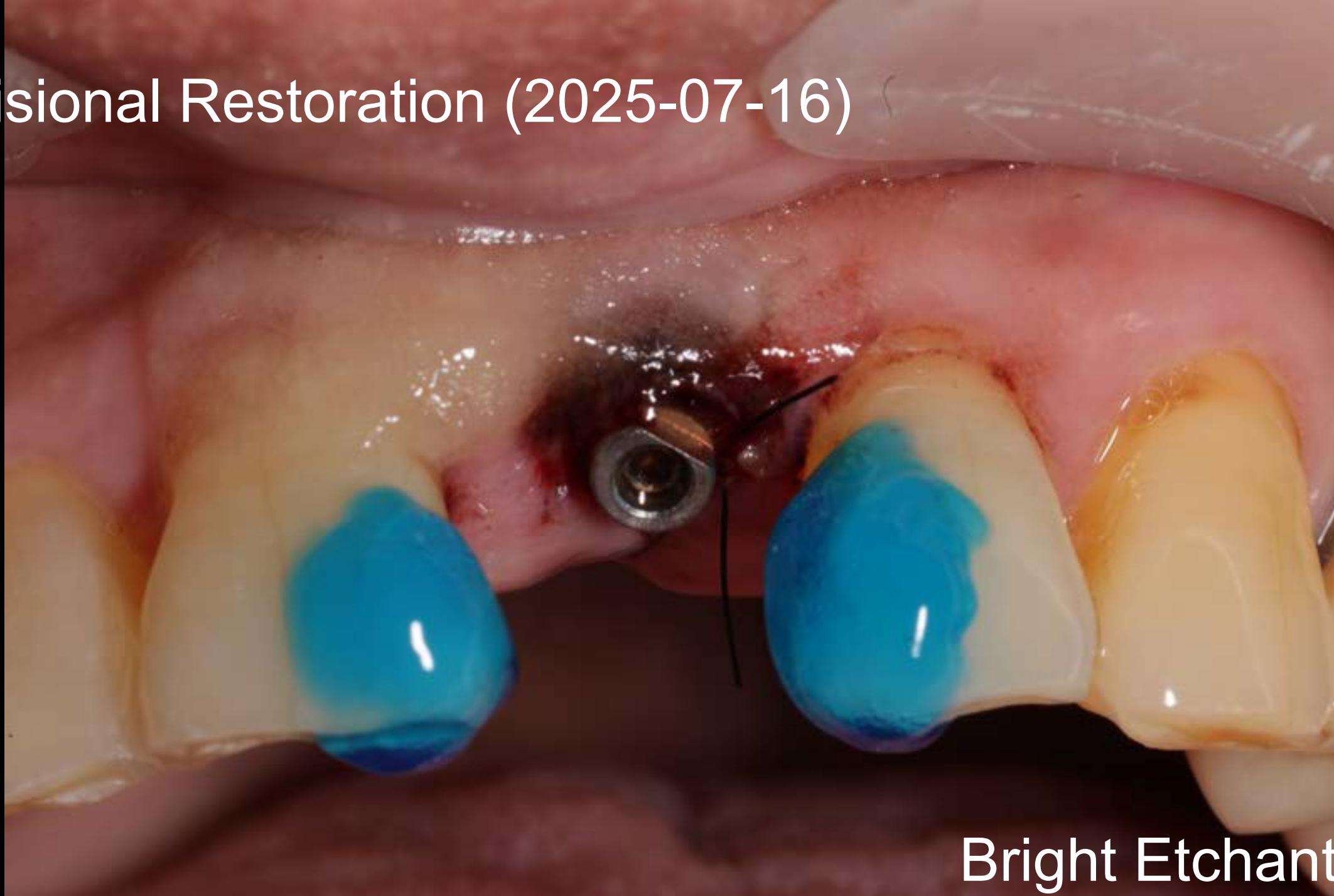
# Intra Oral Scan



CAD (Temporary)



Provisional Restoration (2025-07-16)



Bright Etchant



HRF

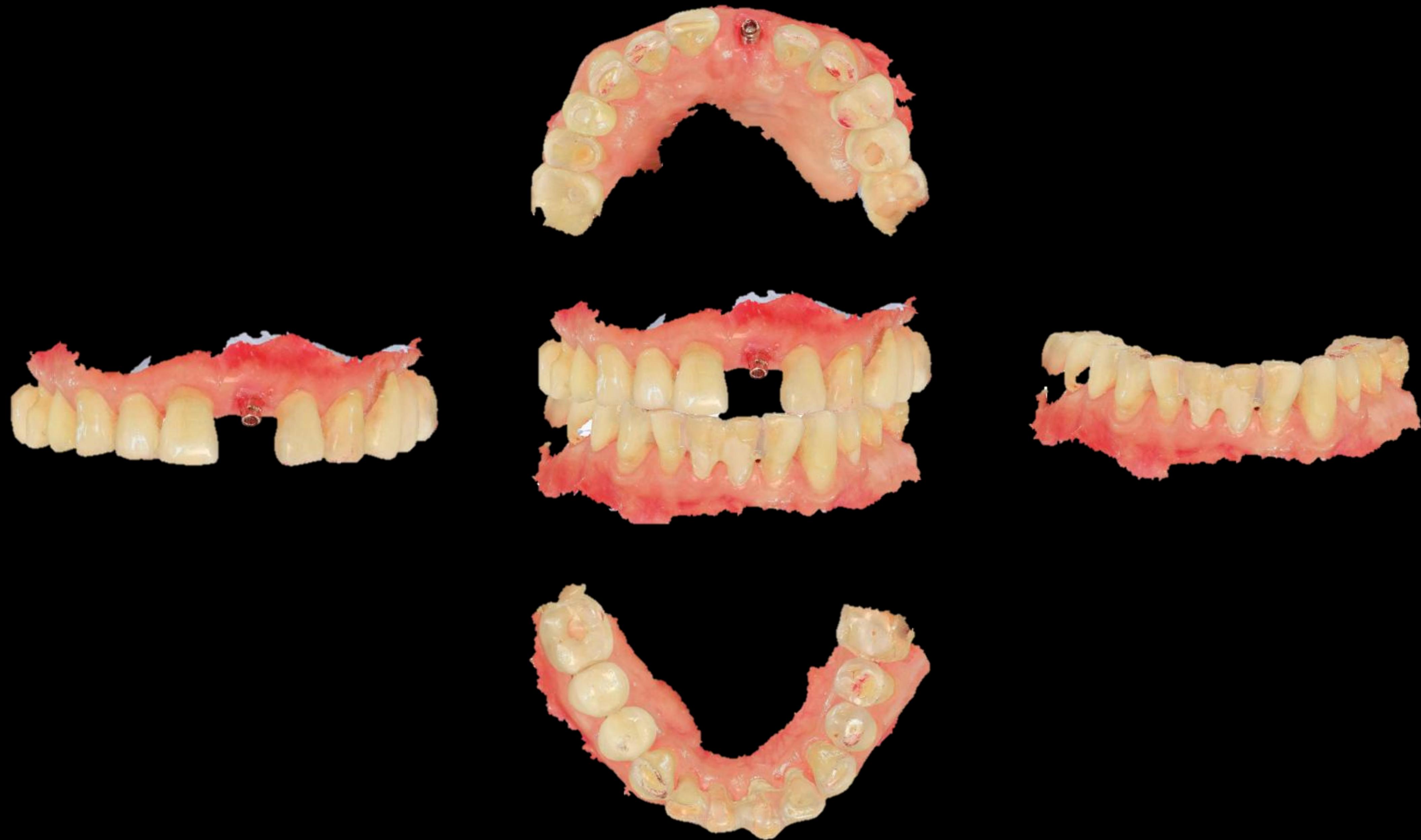
Immediate loading with temporary is required for esthetics

But occlusal force must be spreader with adjacent natural teeth

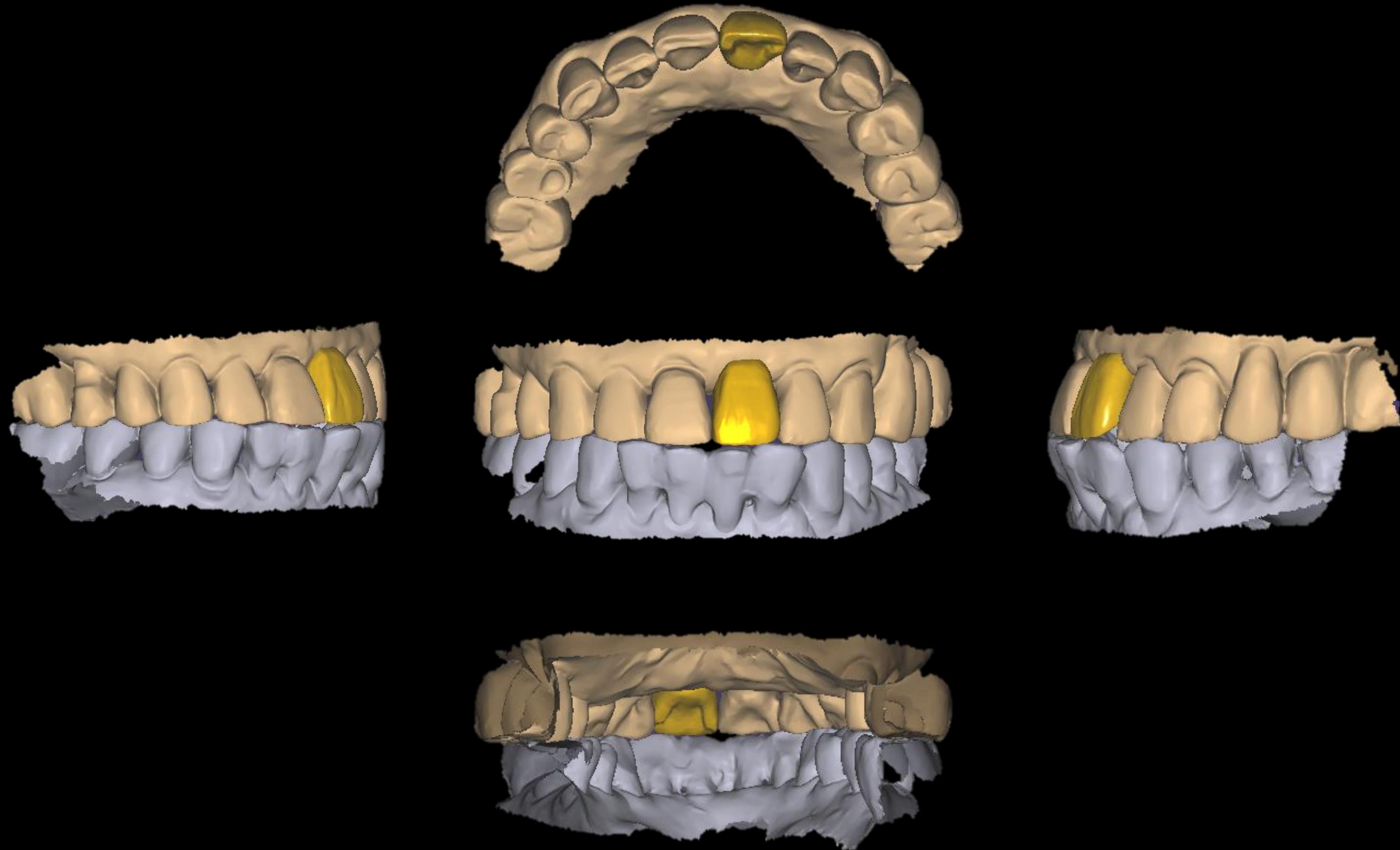
Healing : 1 month (2025-08-13)



# Intra Oral Scan



CAD (Final prosthesis)



Final prosthesis (2025-09-17)



Narrow diameter is very effective in ant thin bone

After healing, very simple contour augmentation

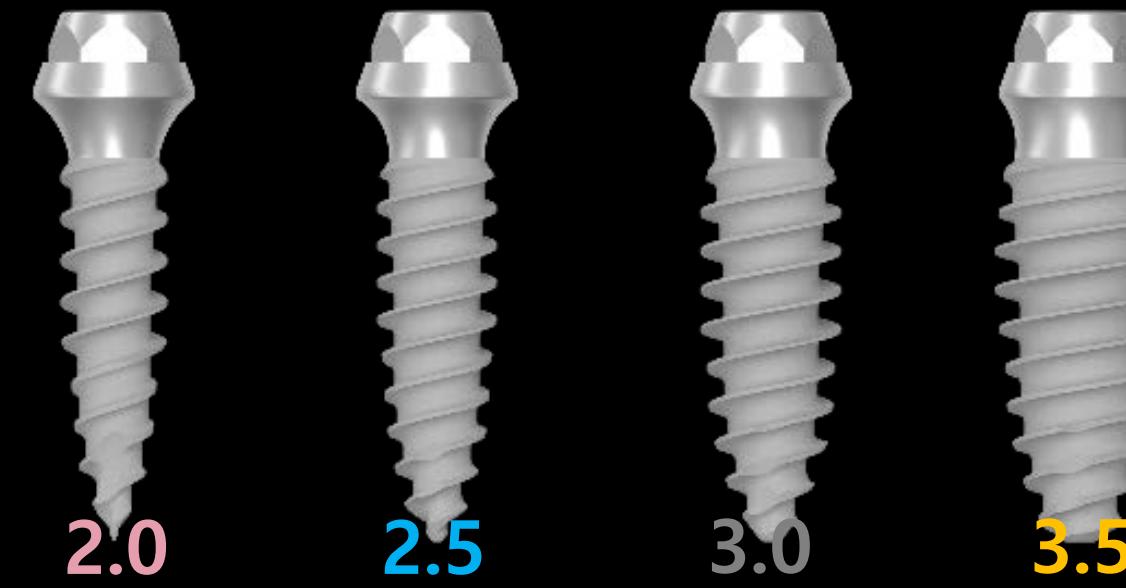
- highly sintered bone is good for labial augmentation to rудuce resorption

Thin labial bone to fixture can be maintained thin fixture

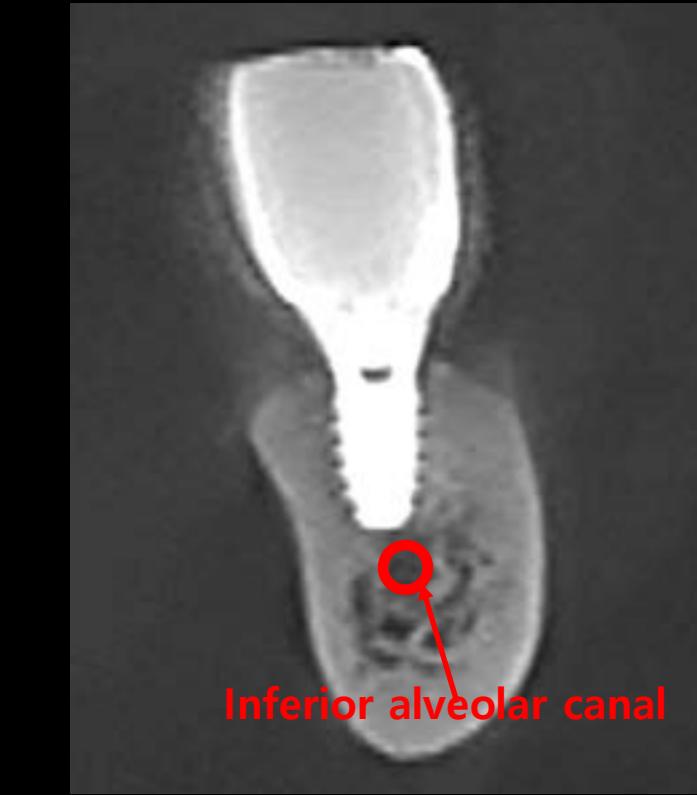
- the ideal labial bone from fixture is different with fixture diameter

ex) over 4mm - 2mm, 3.5mm - 1.5mm, less 3mm - 1mm

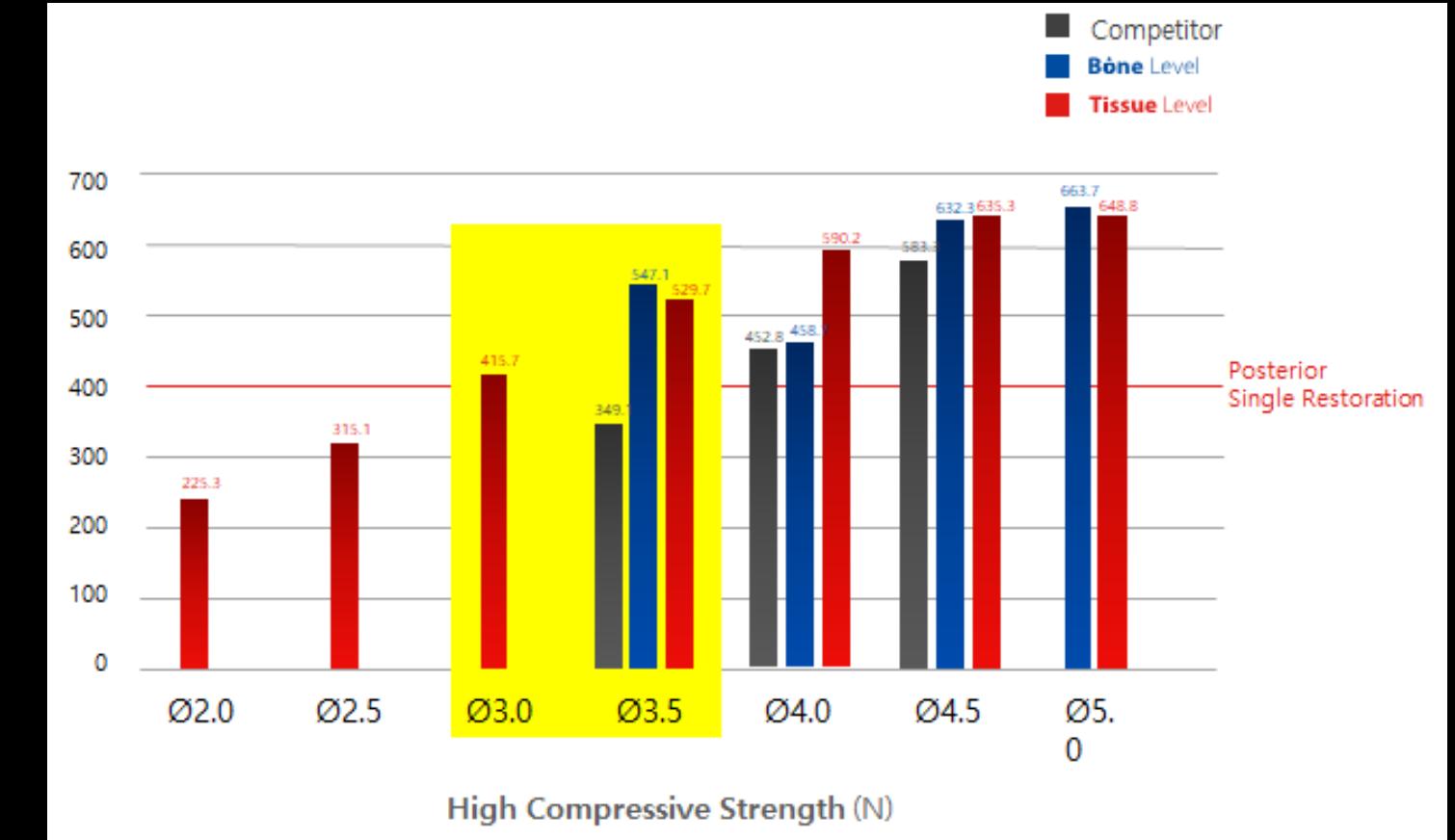
# Short and Narrow, but Strong : bright Implant



#42 (bright TL 2.5 X 11.0)



#47 (bright TL 4.0 X 7.0)



## Advantages of Short & Narrow Implants

### ✓ Applicable in limited bone conditions

Can be placed in areas with reduced bone height or width without the need for extensive grafting.

### ✓ Minimally invasive surgery

Requires less drilling in both depth and diameter, resulting in simpler procedures, less bleeding, reduced discomfort, and faster healing.

### ✓ Avoidance of anatomical structures

Allows safe placement near critical areas such as the maxillary sinus or the mandibular nerve.

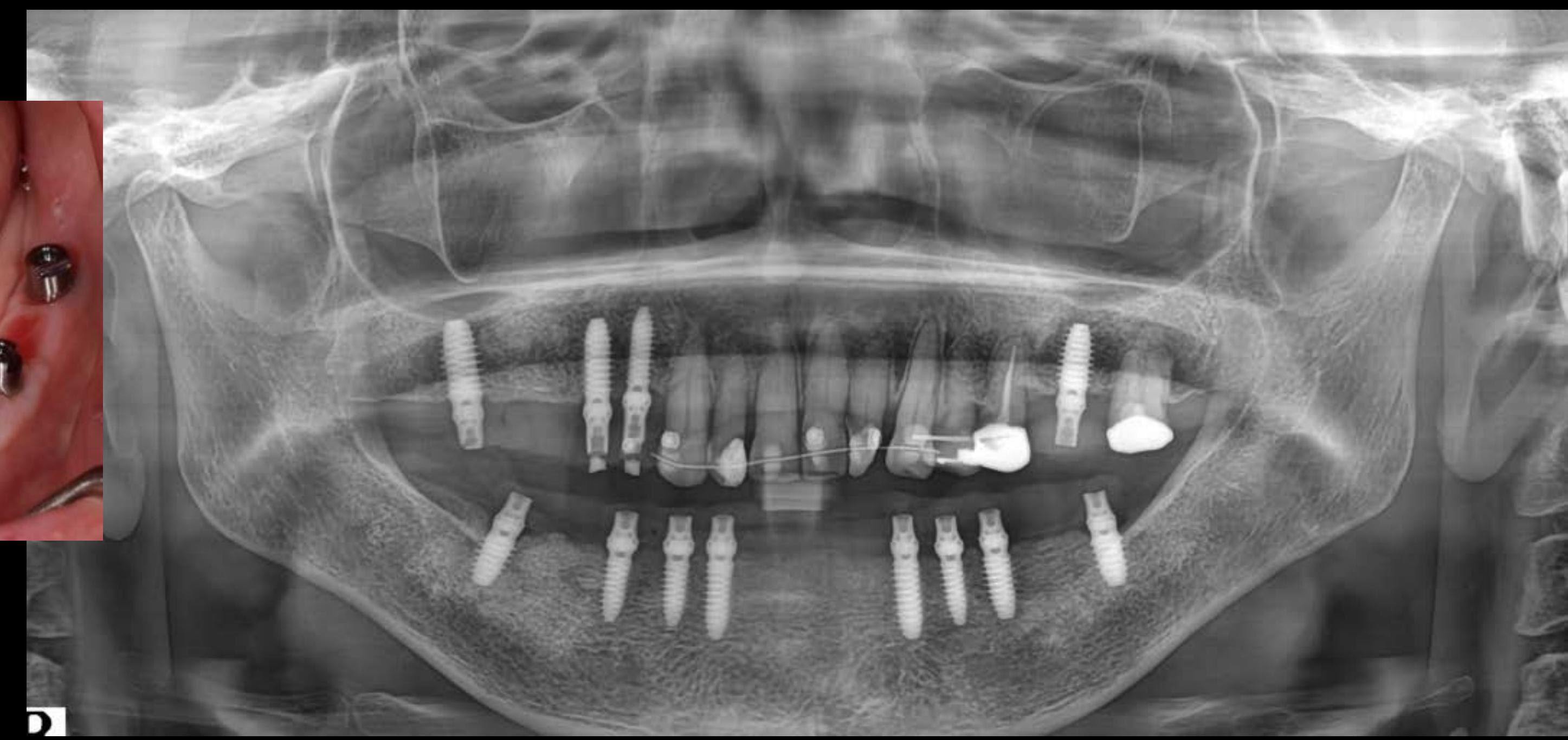
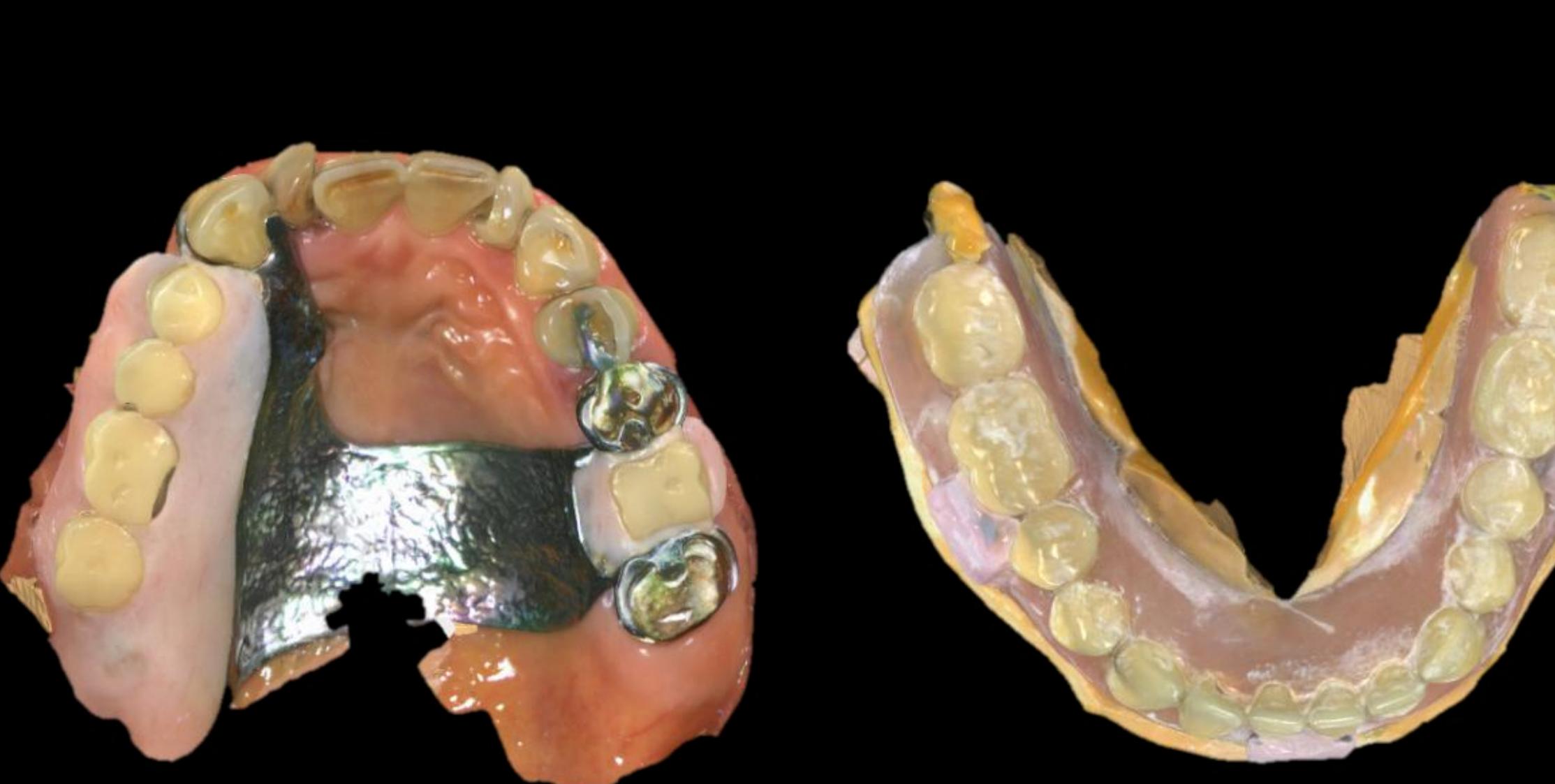
### ✓ Preservation of surrounding bone and soft tissue

Maintains more of the natural bone and tissue, which supports long-term stability and esthetics.

### ✓ Enhanced stability through optimized fixture design

bright TL Implant feature an external connection that provides reliable stability, while bright BL Implant utilize a deep connection for a secure fit.

Both types share double and aggressive threads, long cutting edges, and a dome-shaped body, ensuring strong primary stability and predictable long-term outcomes.

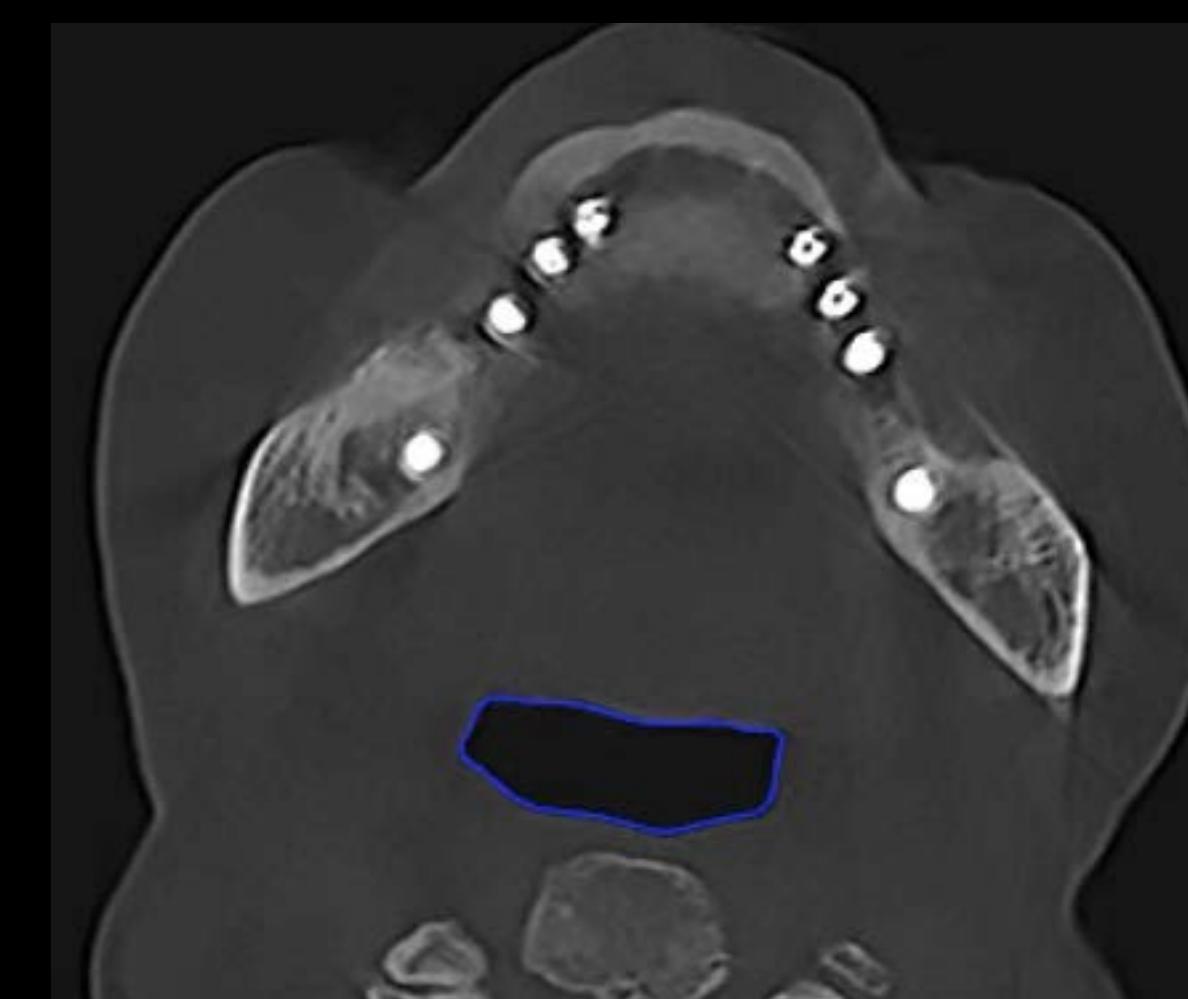
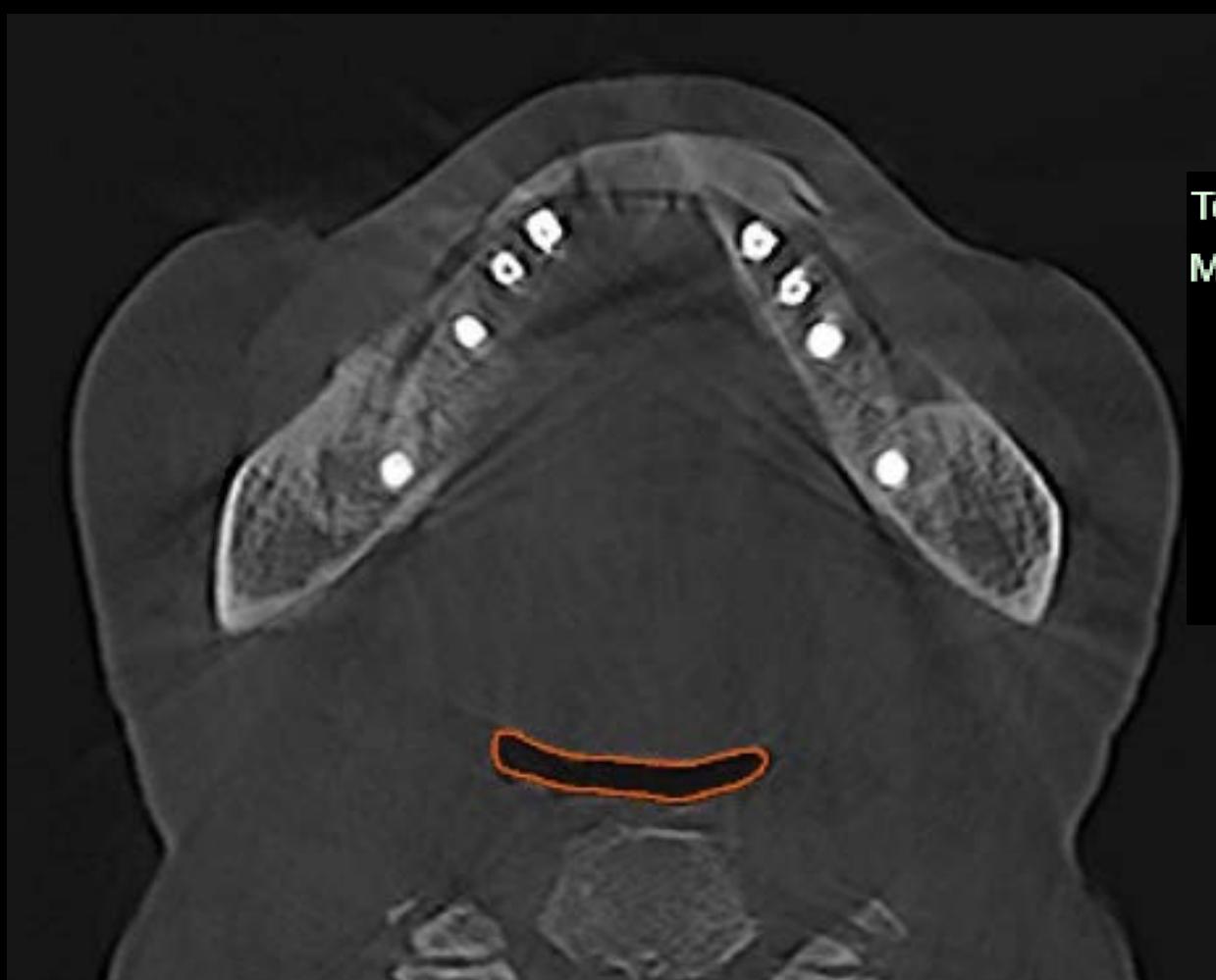




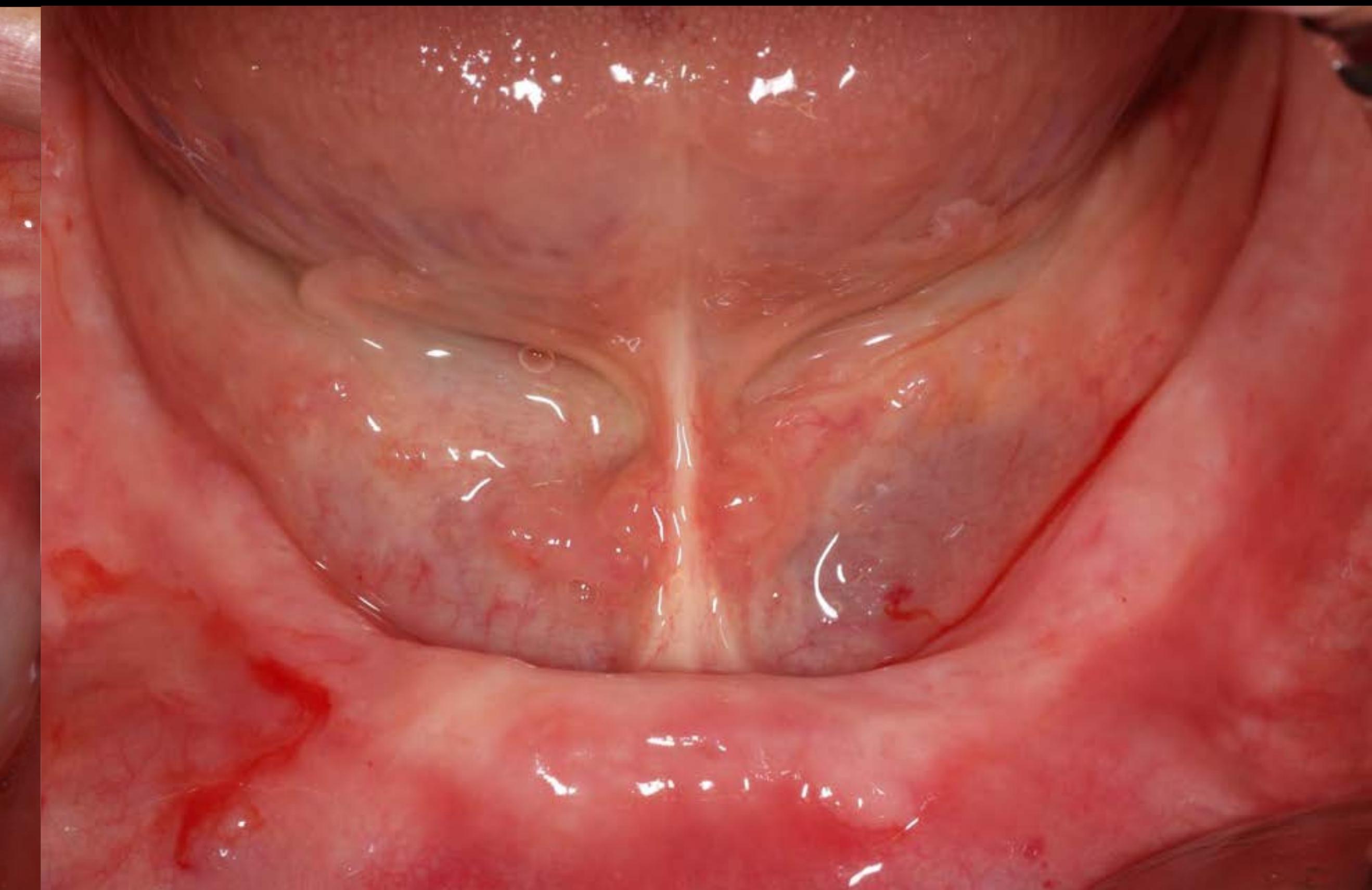
Before  
2024.03



After  
2025.07  
(VD 3mm)



Pre-op (2022-02-06)

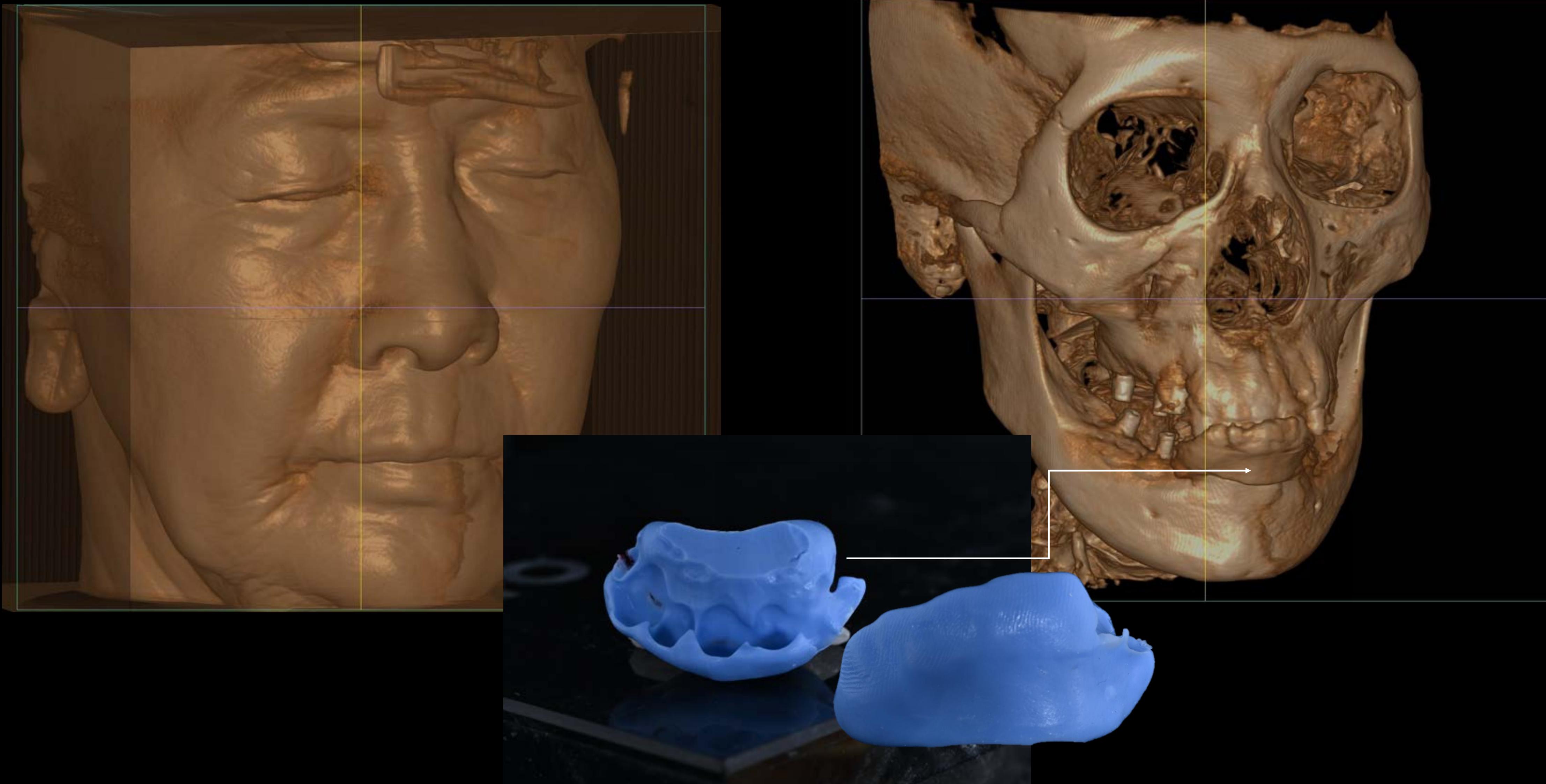


# bright Implant

---

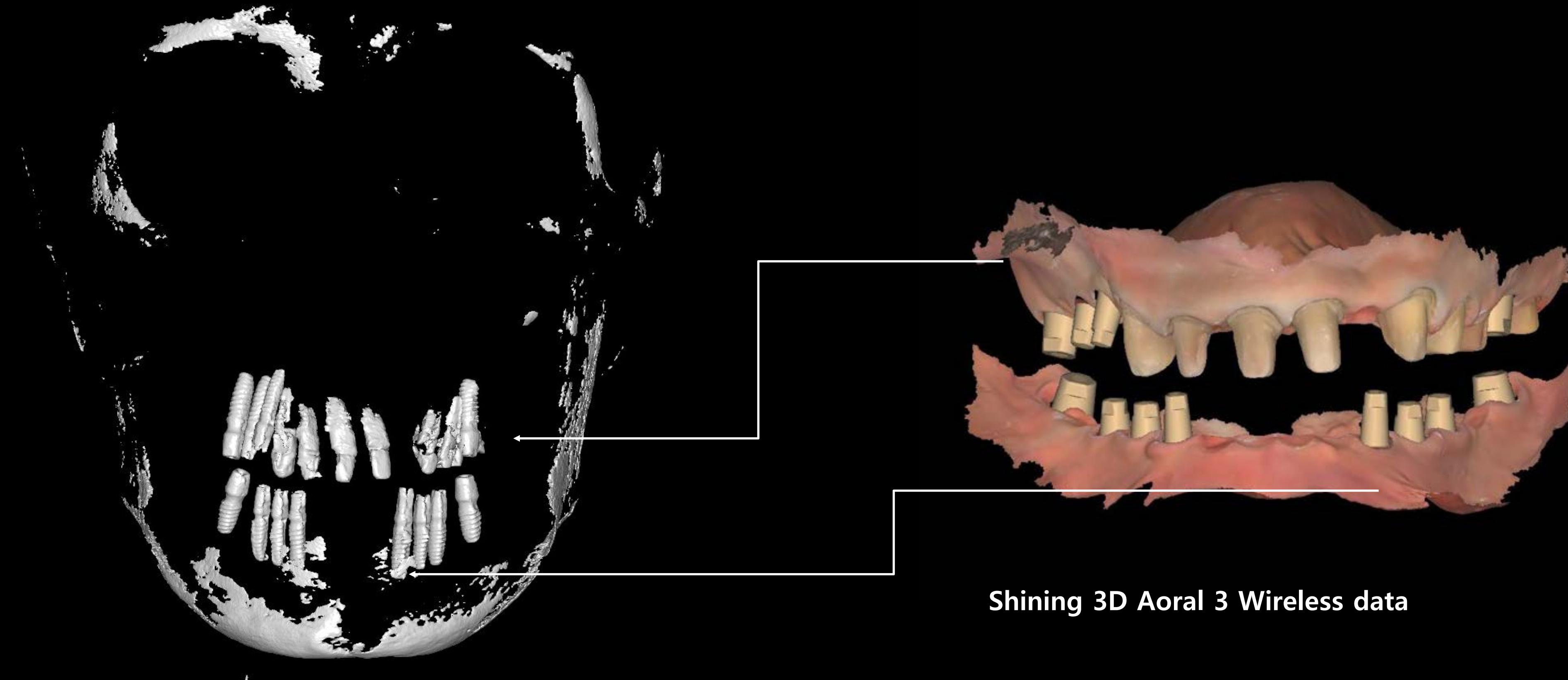


# Putty index



Final CT was taken using a putty index to capture the occlusal relationship of the provisional teeth while the patient was adapting to the increased vertical dimension (VD) for the fabrication of the final prosthesis

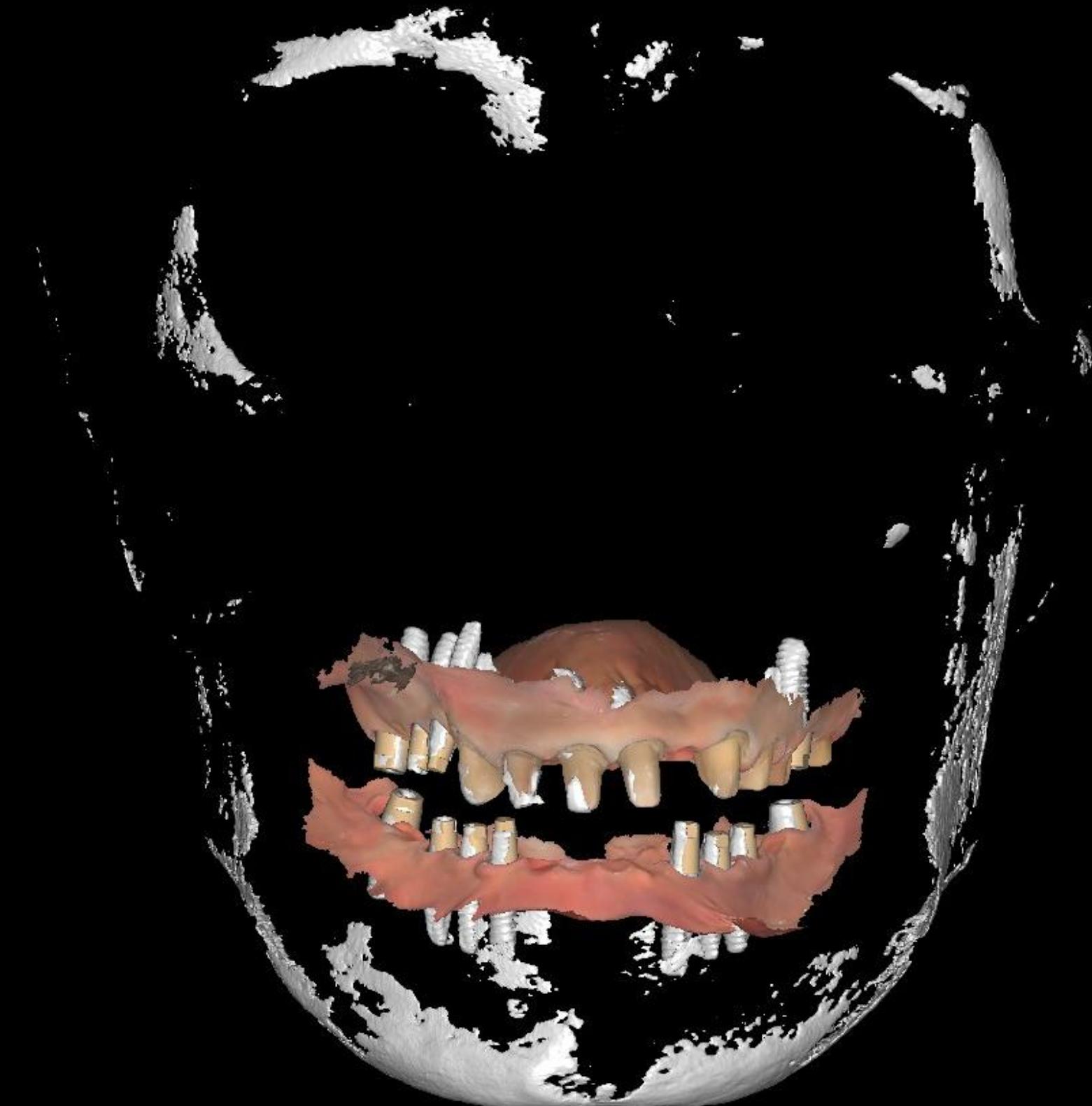
# CT Check Bite



CT Check bite

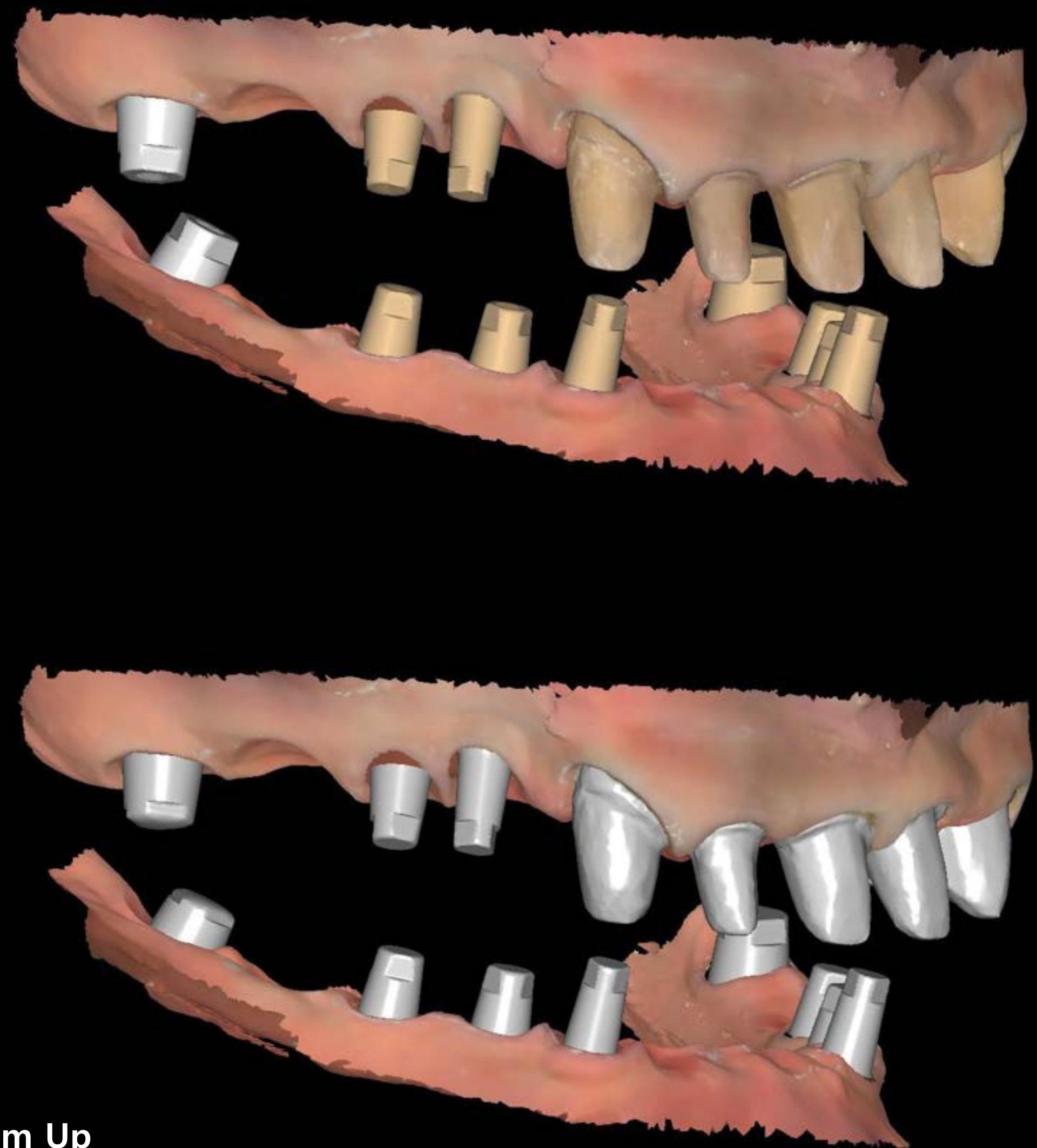
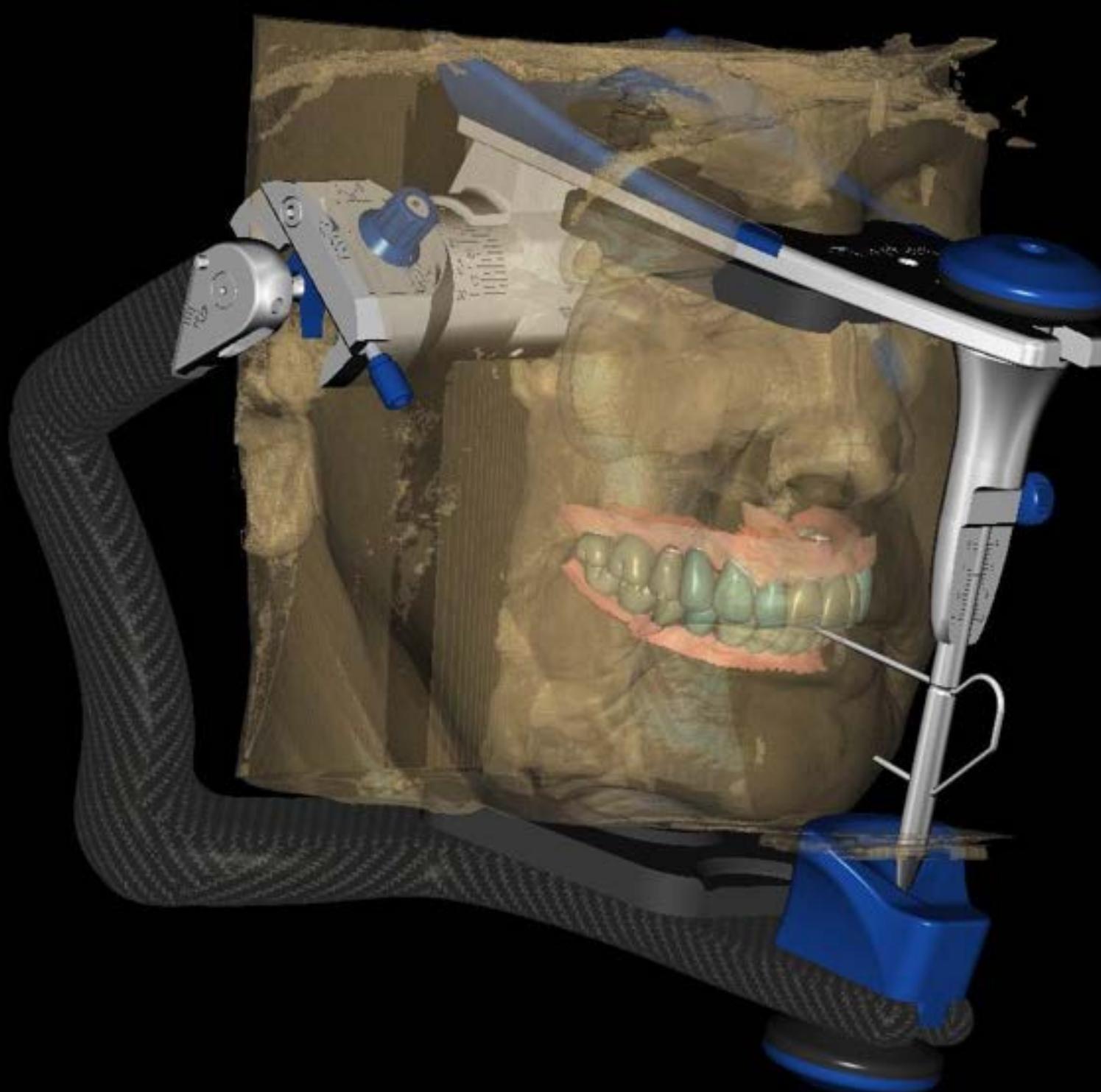
Shining 3D Aoral 3 Wireless data

# CT Check Bite



CT Check bite + los scan data

# Cad Design



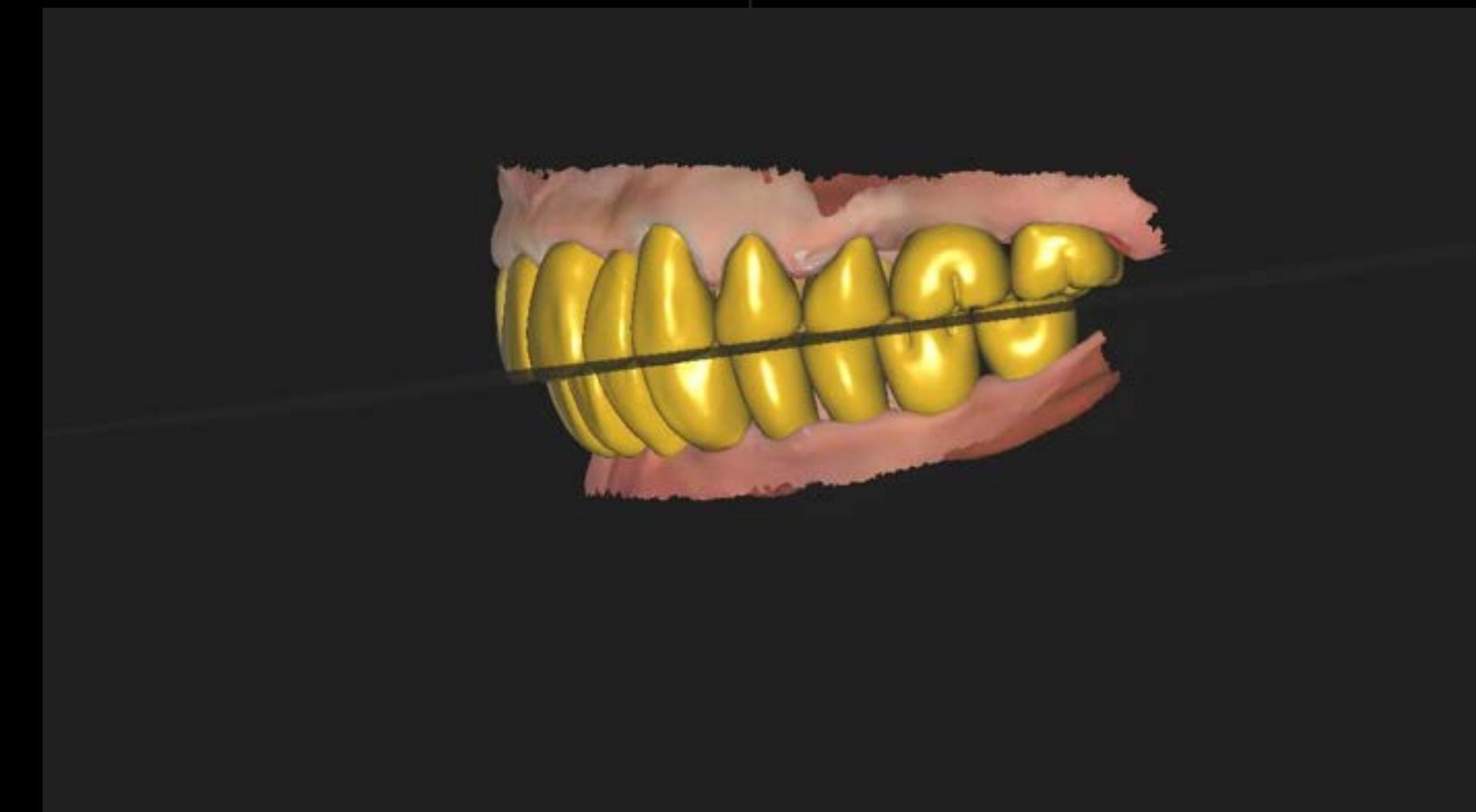
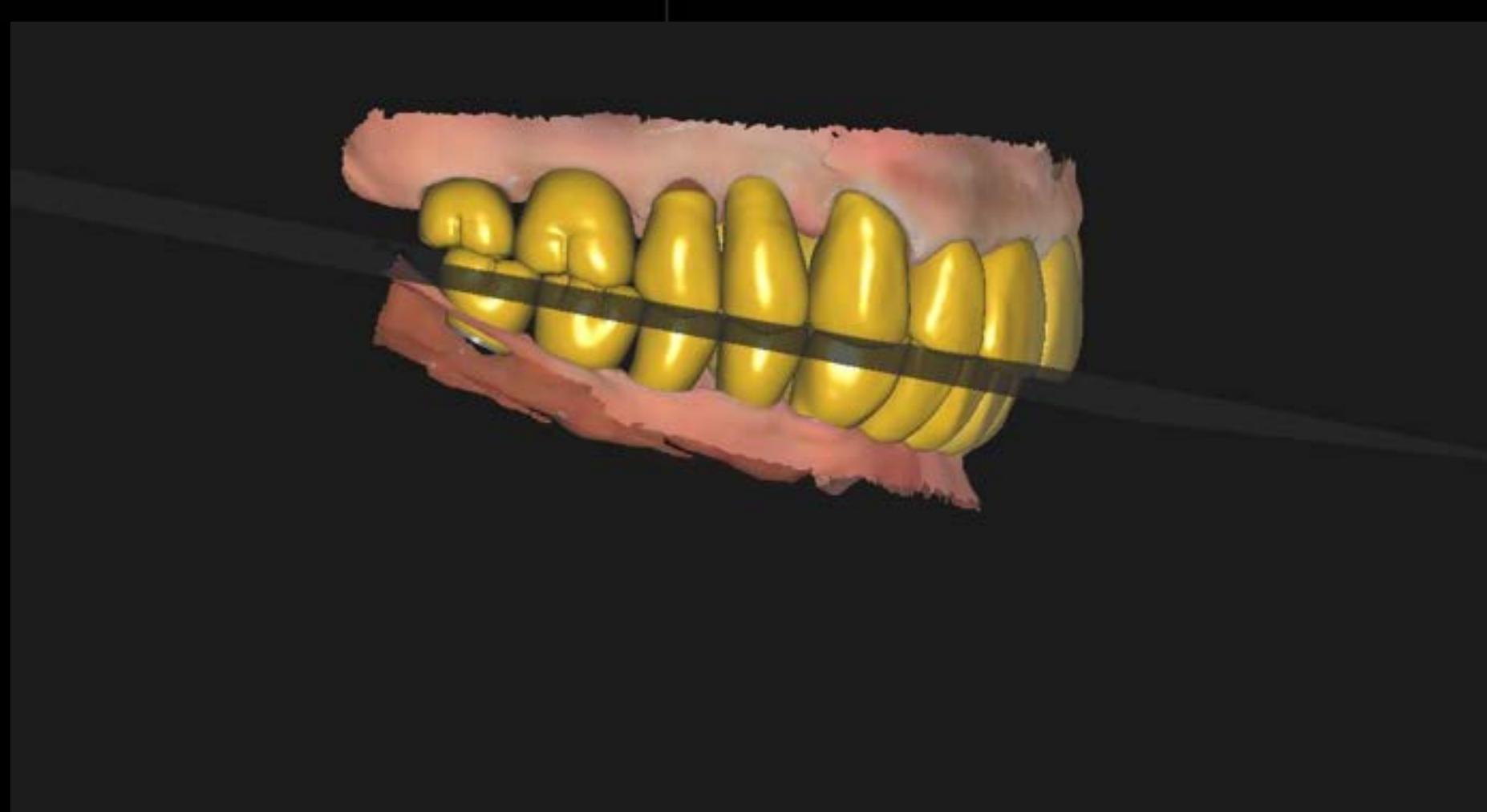
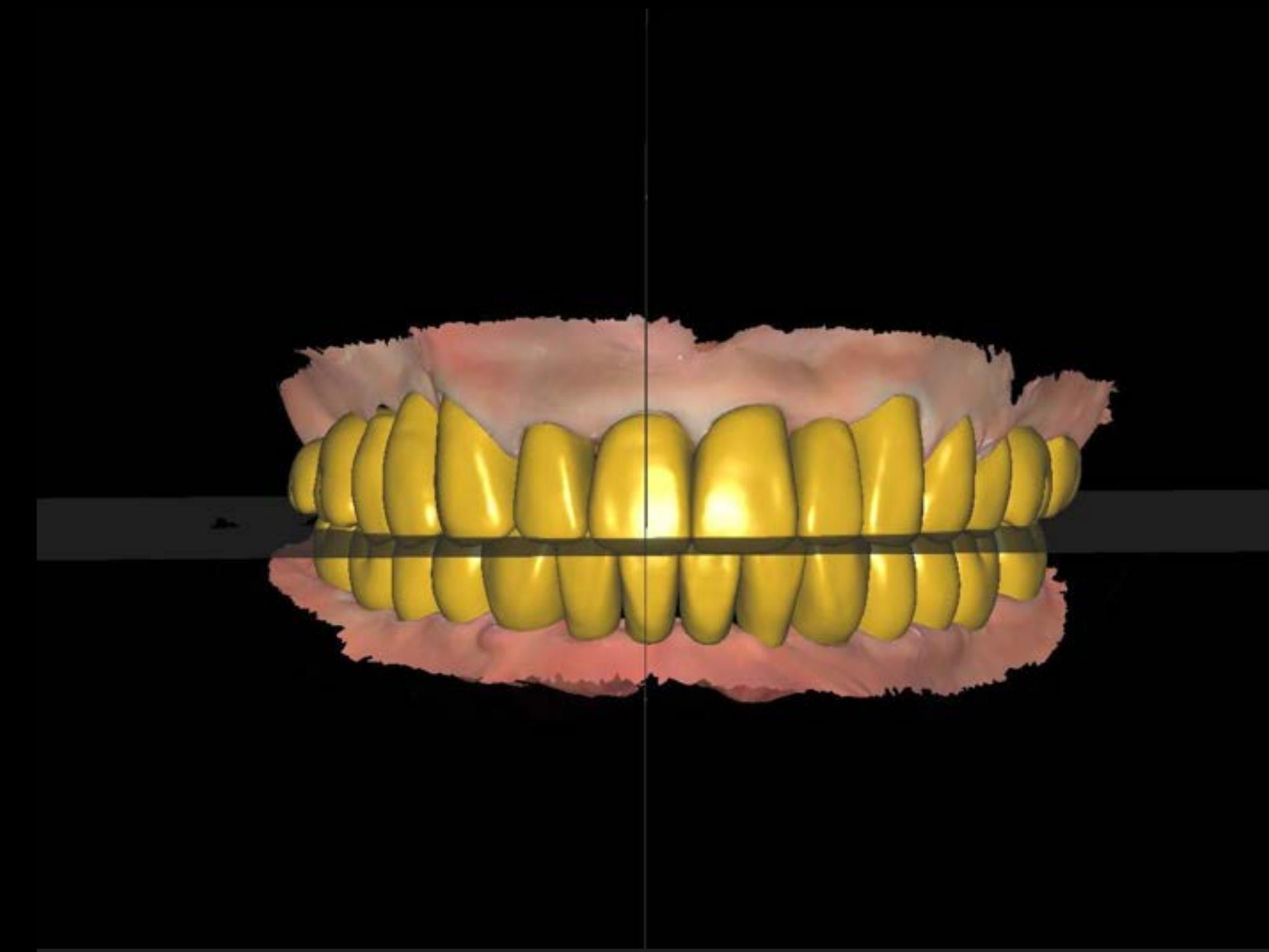
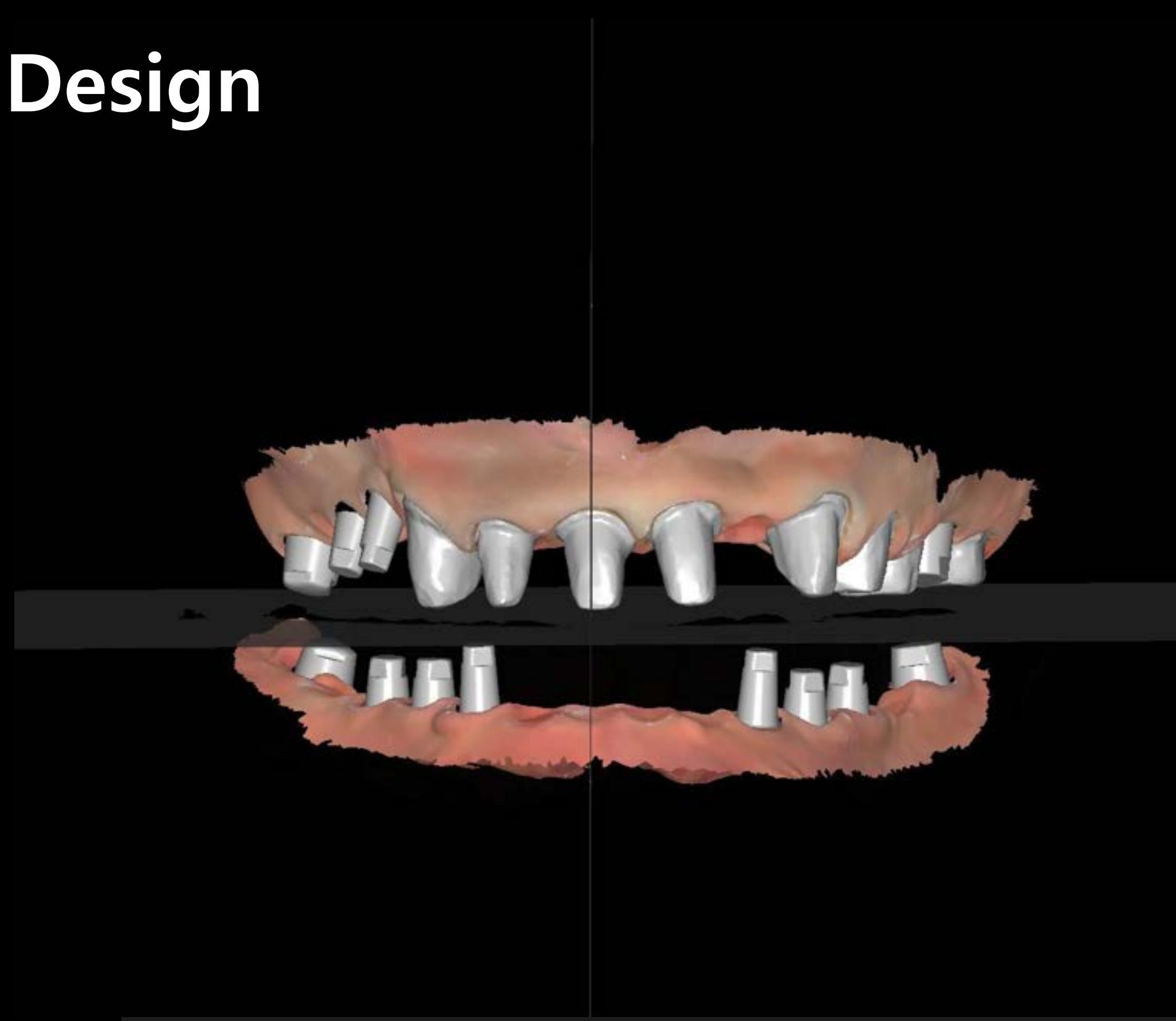
Final Design VD 1mm Up

# bright Implant



All bright Digital abutment & Ti base abutment

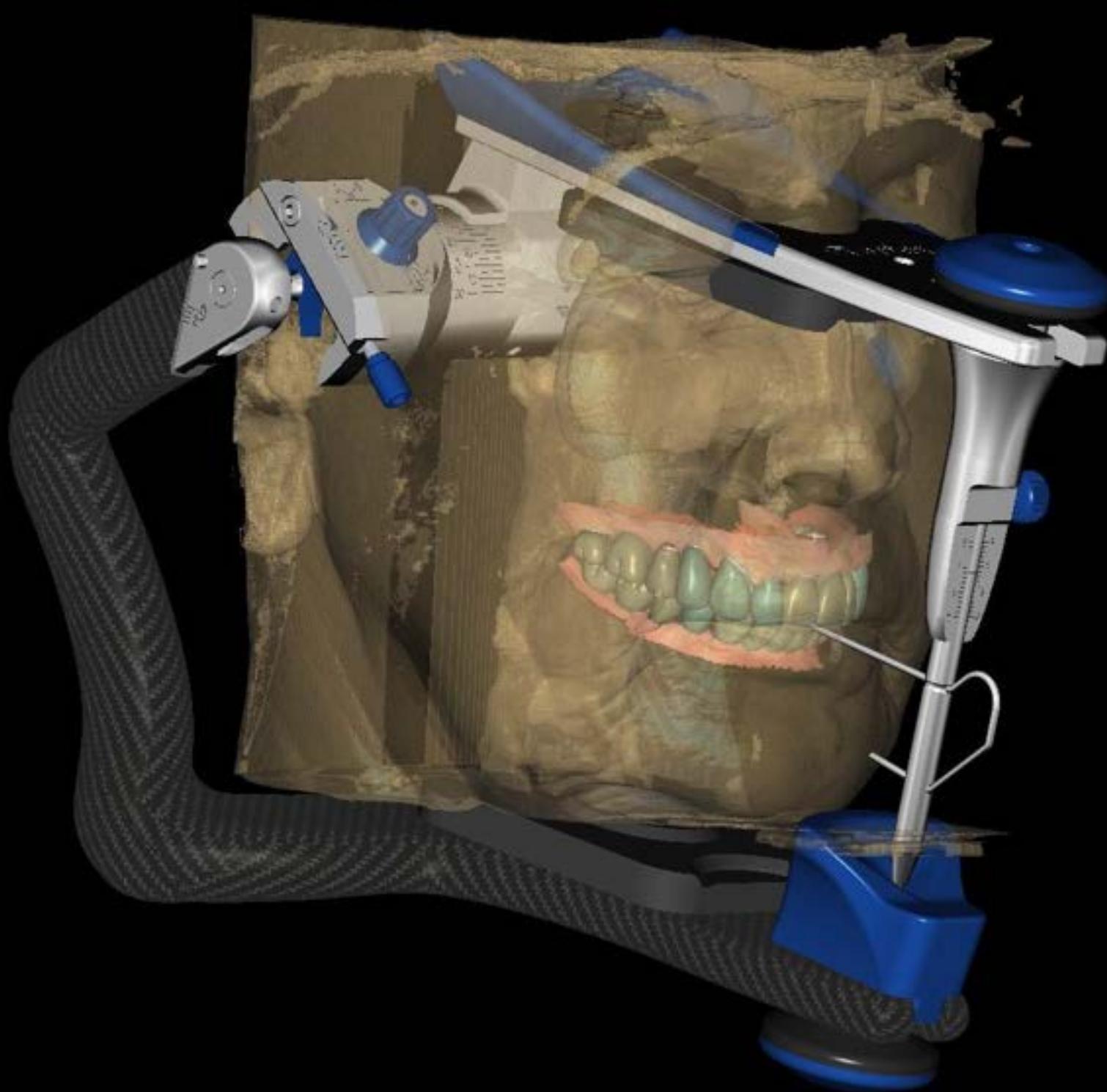
# Cad Design



# Cad Design



# Virtual Articulator



# Zirconia Block



## rainbow<sup>™</sup> Shine-T

- Maximum Strength
- Natural Aesthetic



bright 3-Layer  
No coloring & Stain

# Zirconia Block



rainbow™  
**Shine-T**

Maximum Strength  
Natural Aesthetic



bright 3-Layer  
No coloring & Stain

# Final Prosthesis



# Final Prosthesis



Before



After

# Final Prosthesis



Hyaluronic Acid Dermal Filler with Lidocaine

# MONALISA

**Longterm! volume up!**

Dentium dental Clinic  
SM Chung



**\*\* 42p Filler VOD 1**

# Before & After



# Before & After



# Clinical case : Nasolabial folds & Marionette Line & Lip



# Contents

Bright implant

Narrow and short implants

Bone regeneration materials

Simple and exact digital concepts

Filler and toxin in dental field

# bright Implant

2002



2007



2009



2013



2014



2019



# bright Implant

“The Next in Implant?”



**Böne** Level

*Minimal Surgery*

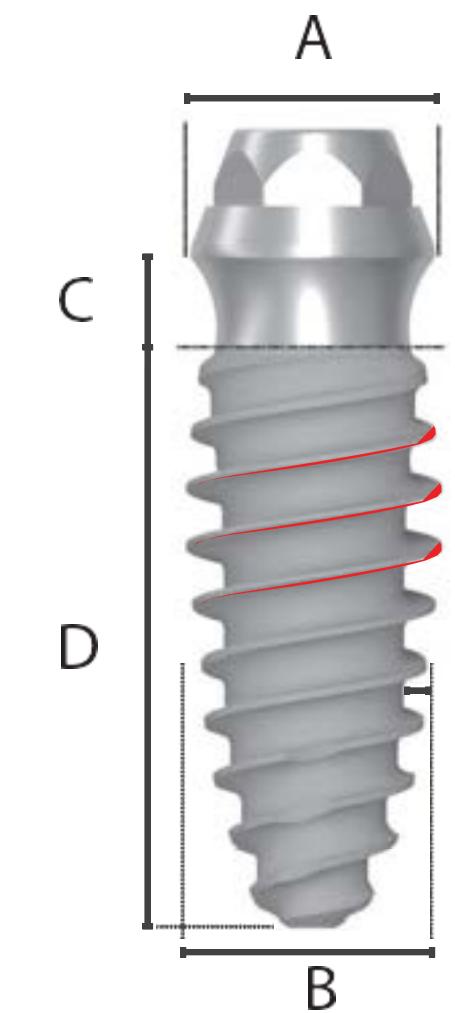
*Simple Digital*



**Tissue** Level

# Tissue Level

Unit: mm

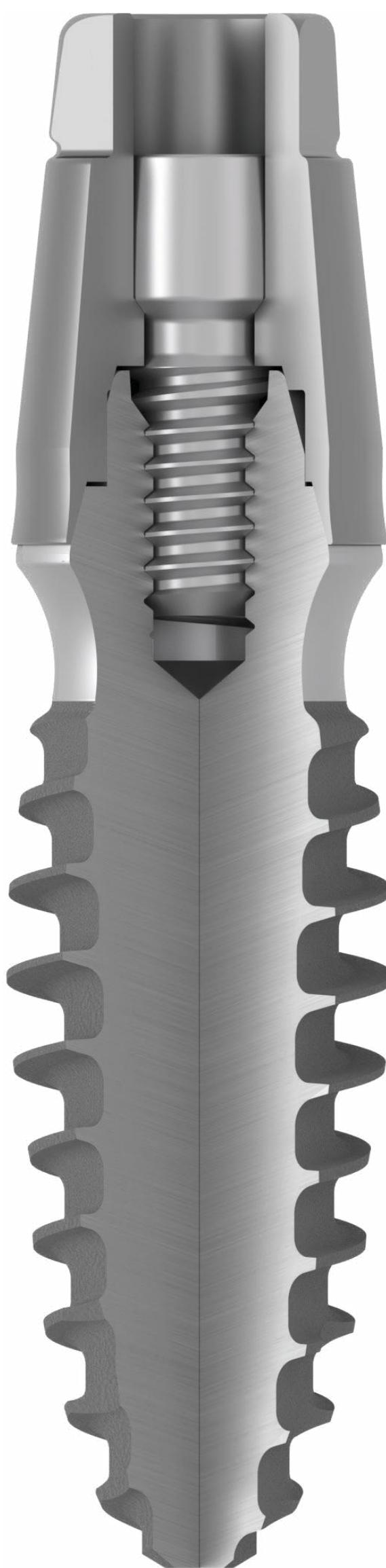


## Unified Feature

- **Platform Diameter : Ø3.8mm**
- **Gingival Height : 1.5mm**

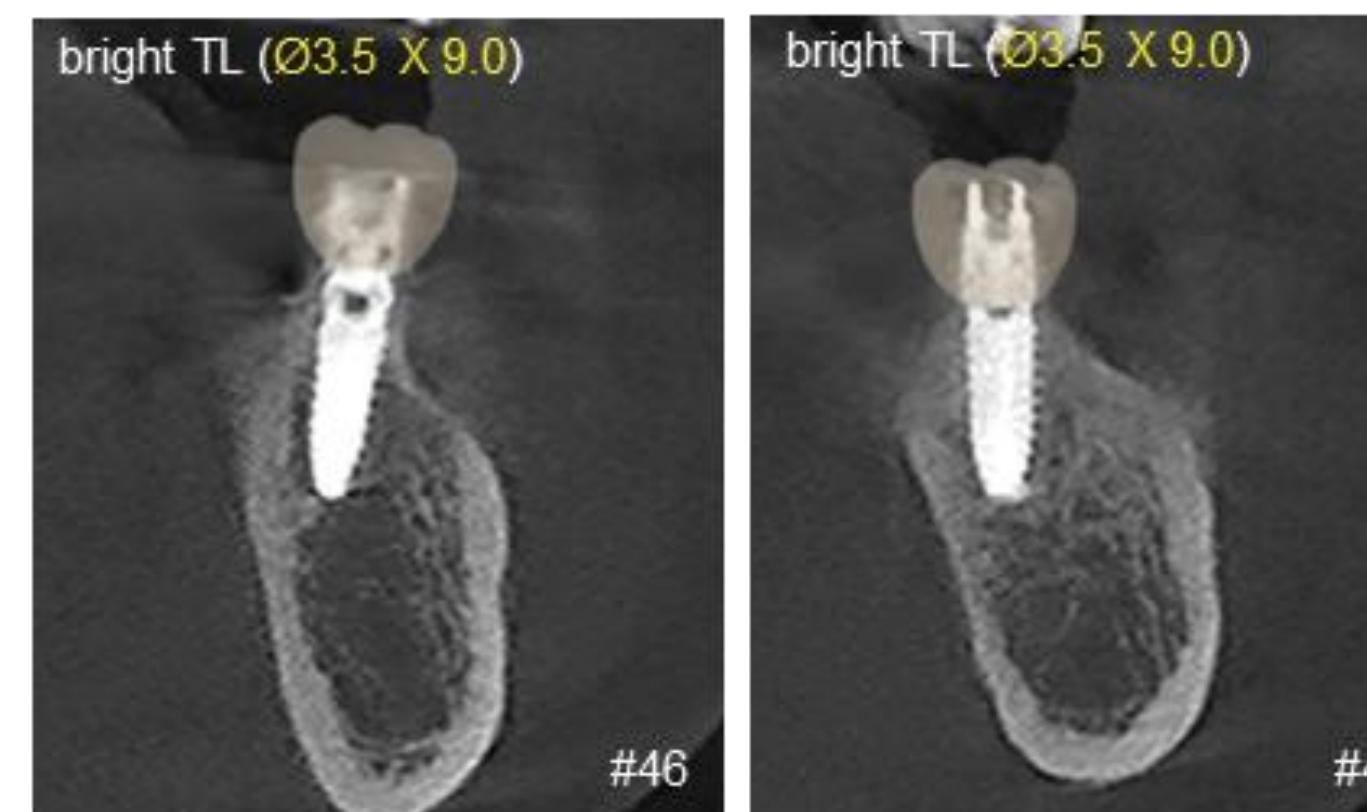
Cap Color		Pink	Sky blue	Gray	Yellow	Green	Blue	Red
A	Platform Diameter						3.8	
B	Body Diameter	2.0	2.5	3.0	3.5	4.0	4.5	5.0
C	Gingival Height					1.5		
D	Thread Length				7.0 / 9.0 / 11.0 / 13.0 / 15.0			
E	Thread Depth	0.15	0.30	0.45	0.50	0.55	0.60	0.60

# Tissue Level

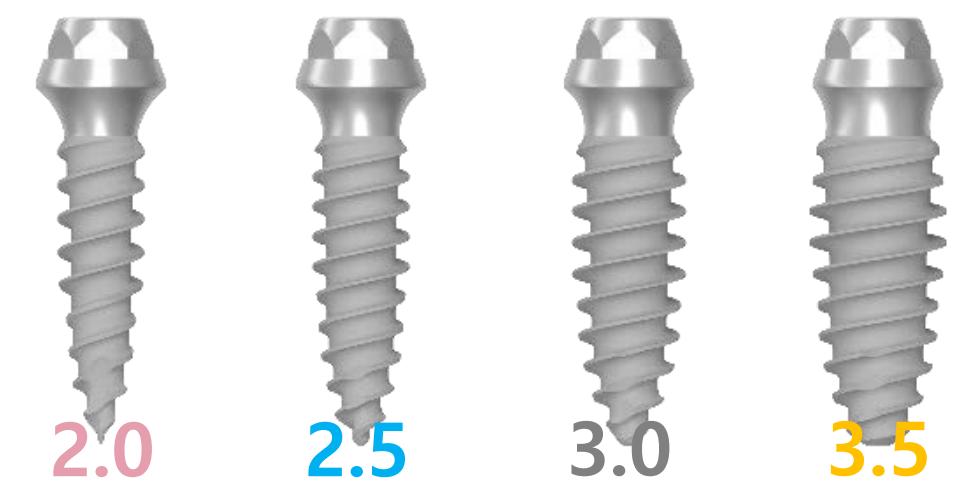


✓ **Narrow, Yet Strong**

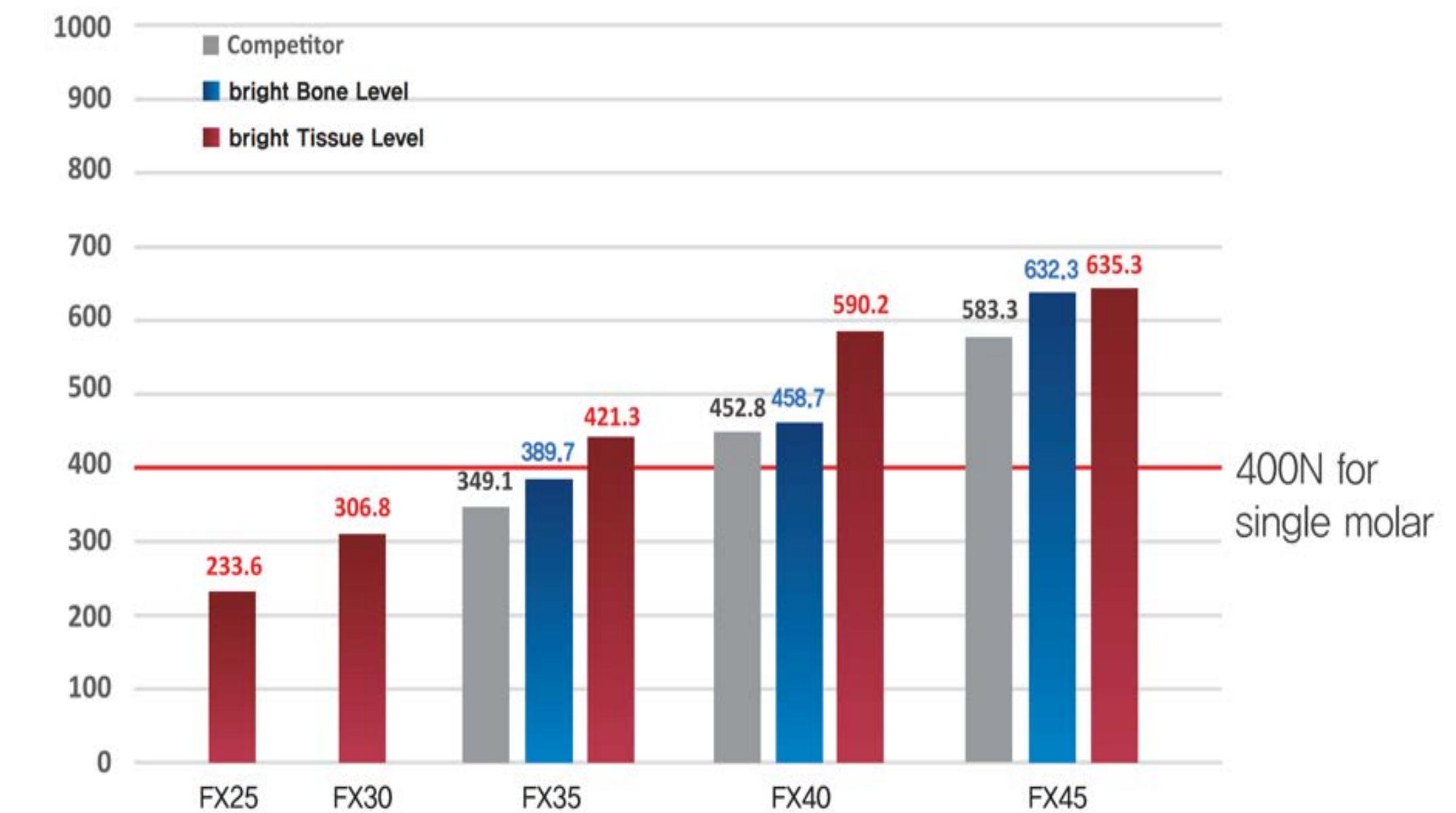
- Excellent Joint Stability



Ø3.5 Implant can be used in Molar Area



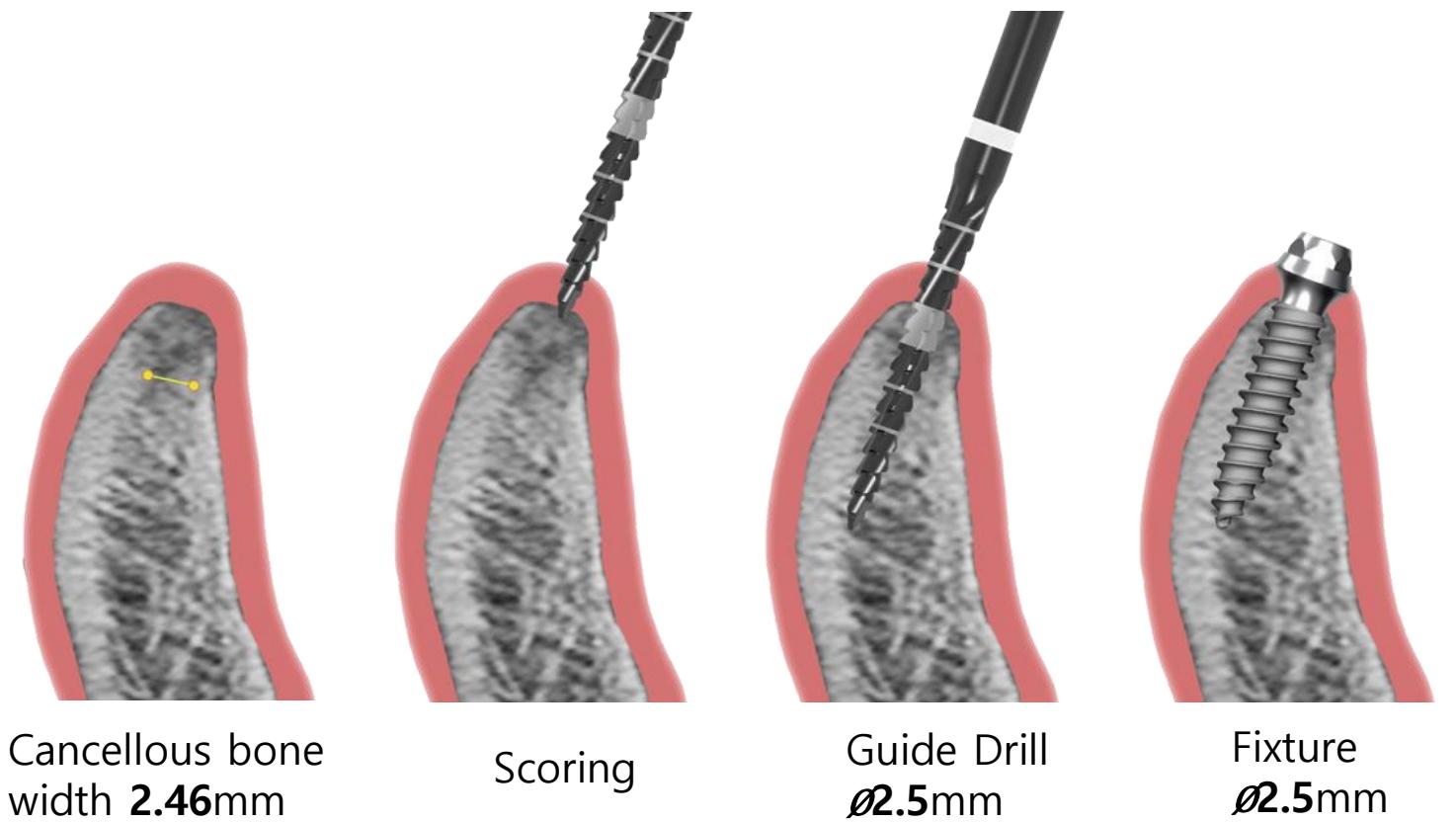
**High Compressive Strength**



※ Caution : heavy bruxer or hard food bite

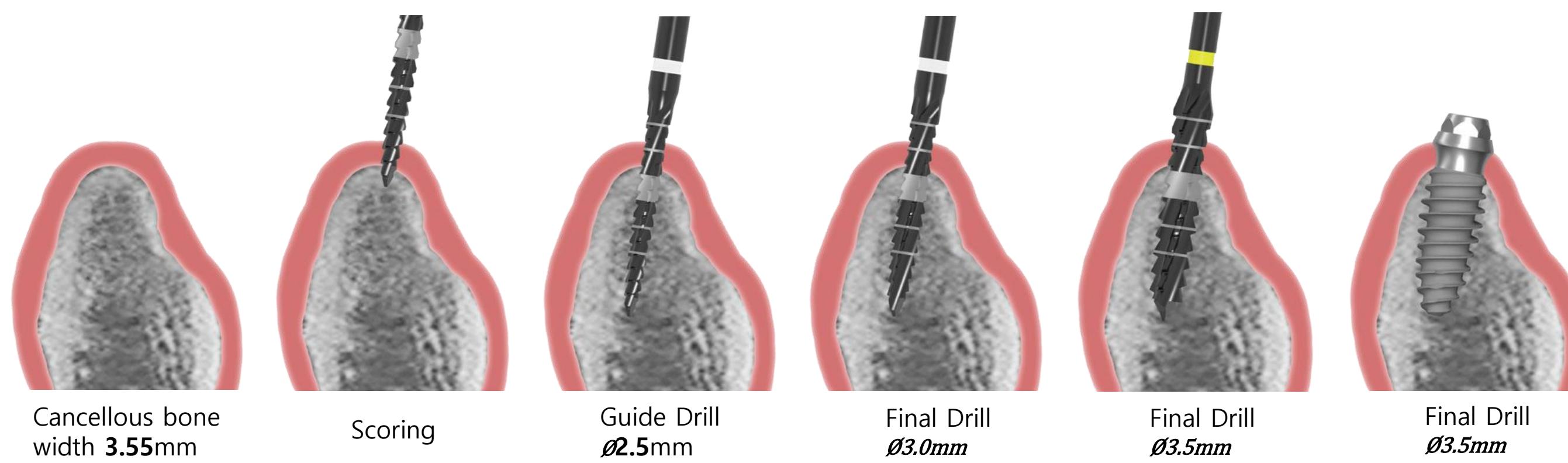
# Minimal Surgery

1



**Drilling and Fixture Insertion  
in the Cancellous Bone Only**

2



# Simple Digital Prosthetics

Digital Abutment



Healing  
Abutment



Scan Body



Impression  
Coping

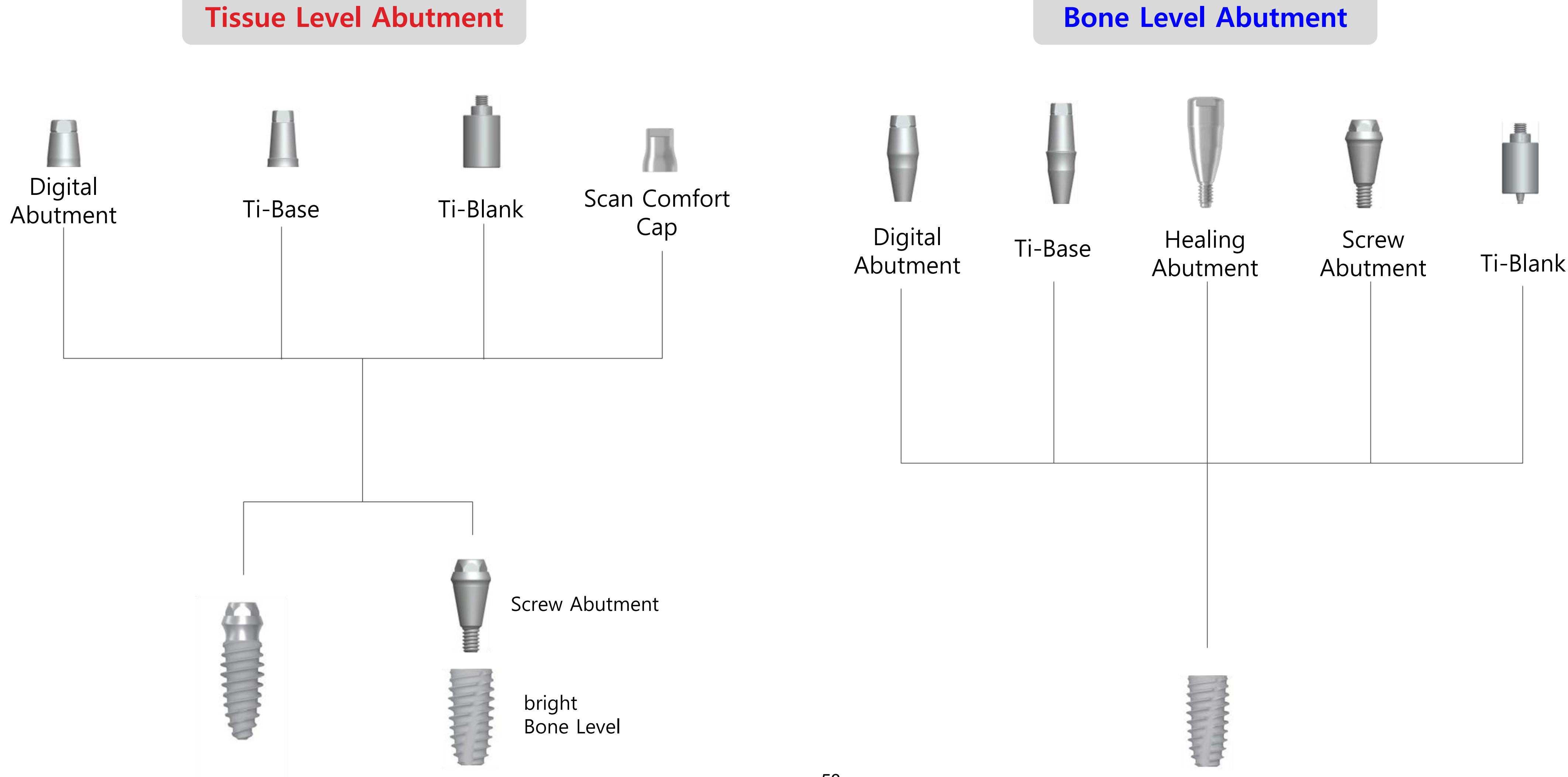


Permanent  
Abutment

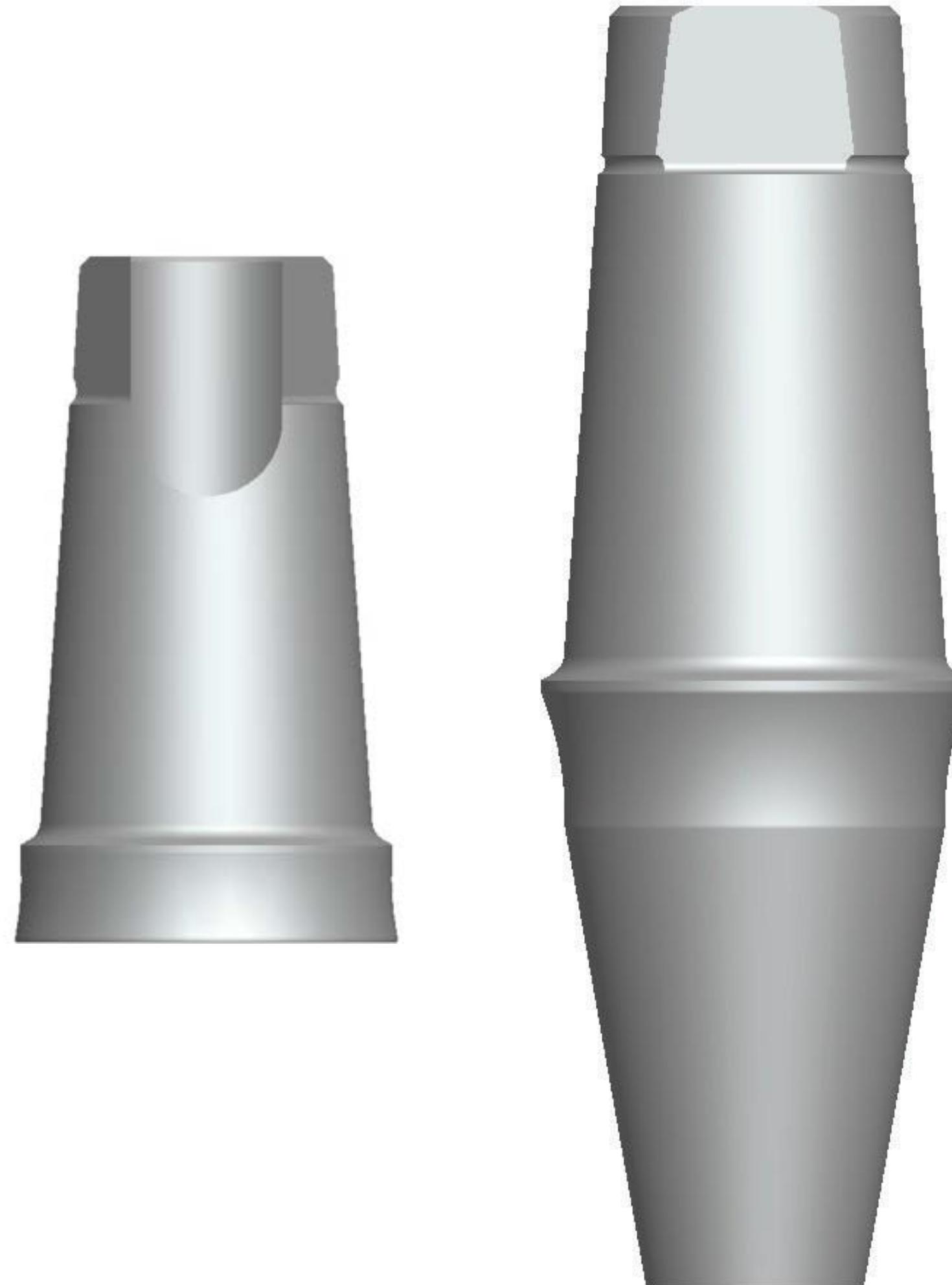
**From healing to final prosthetics,  
with Only One Abutment**

# Simple Digital Prosthetics

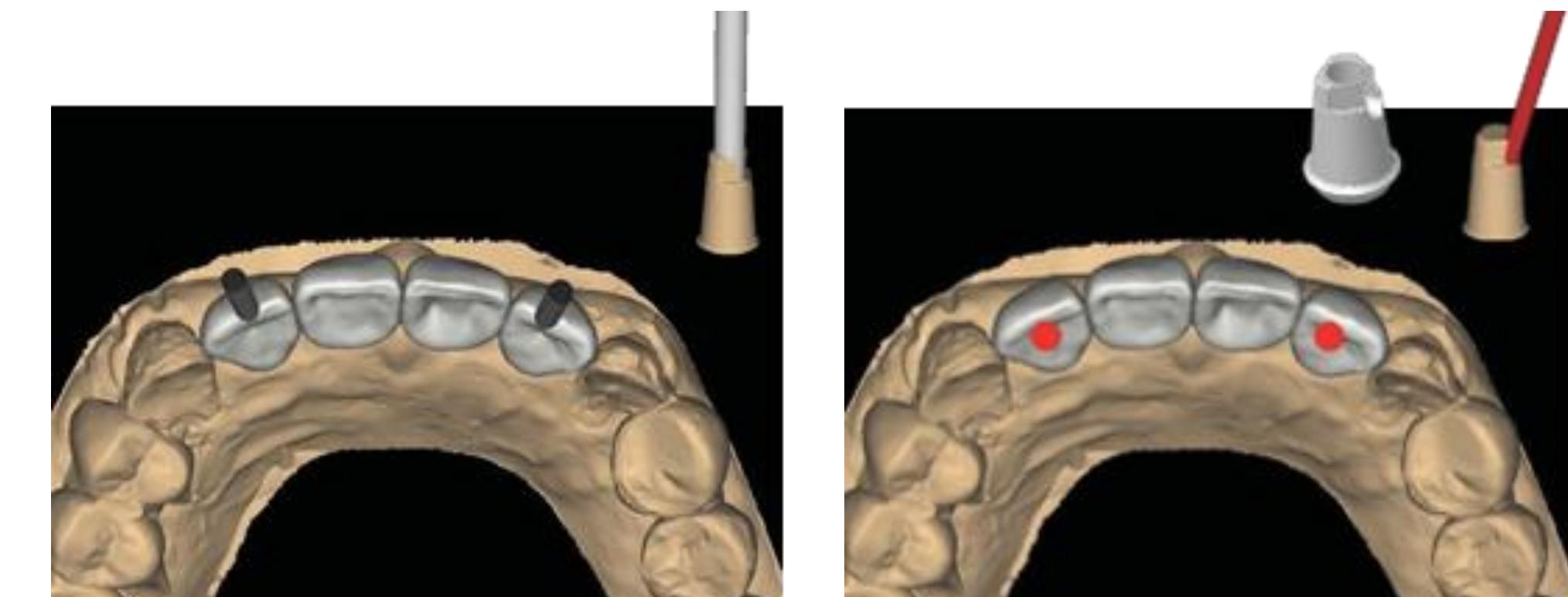
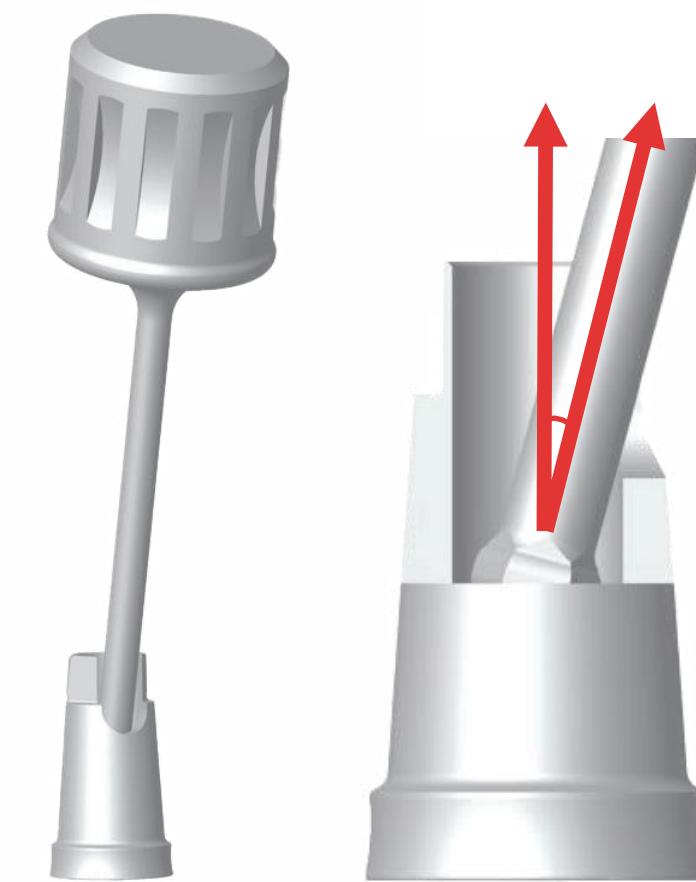
## Note. Total Abutment Procedure Line-Up



# Ti-Base

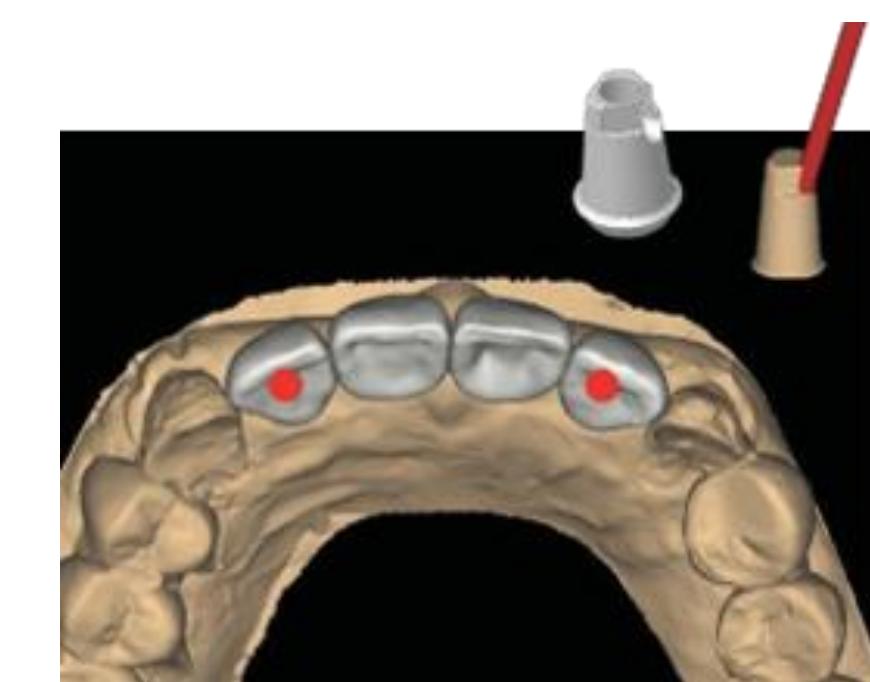
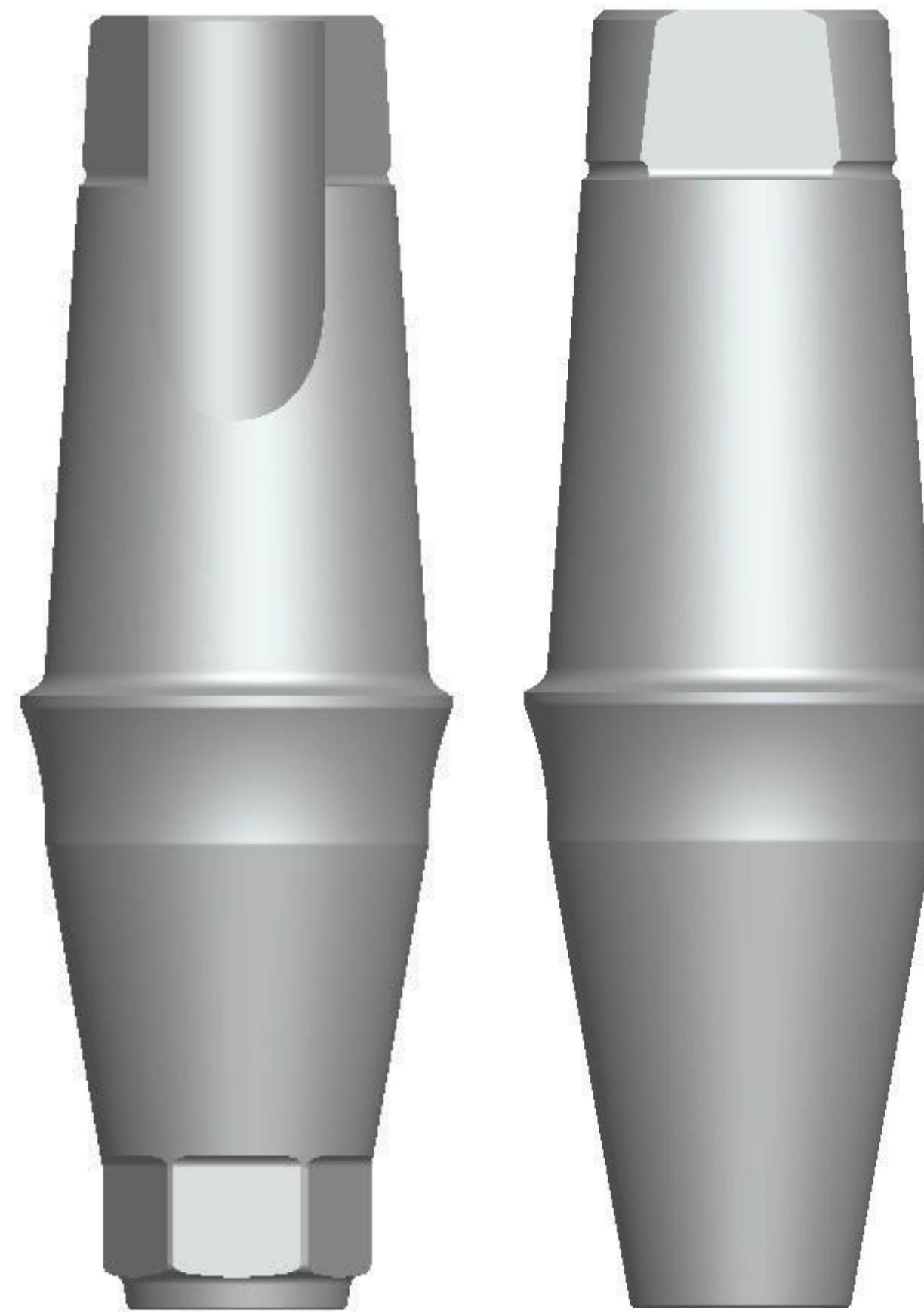


Angled Screw Driver allows  
engagement tilted **up to 20°**



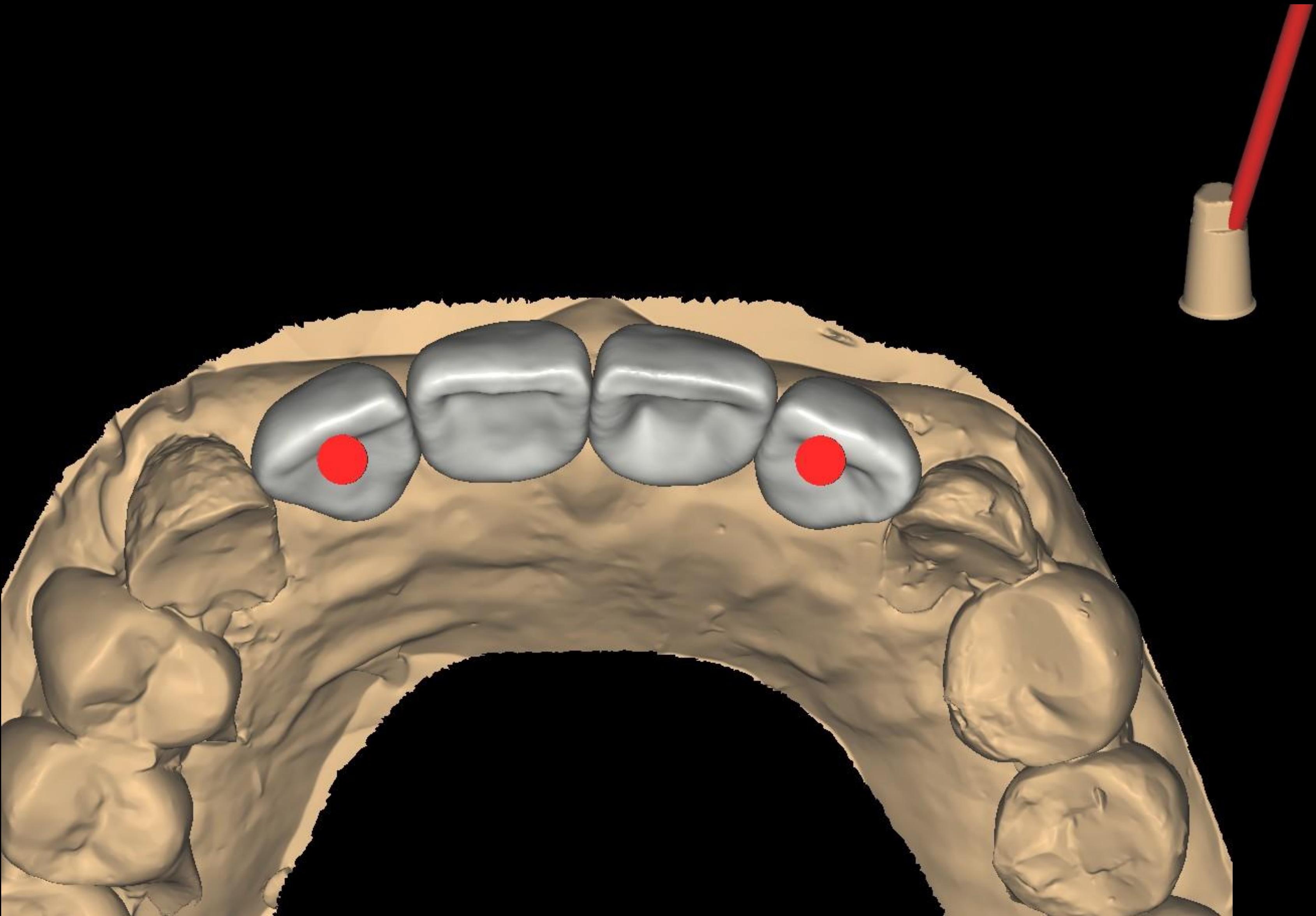
# Simple Digital Prosthetics

Ti - Base



Angled hex driver allows engagement tilted up to 20°

# bright Implant Abutment



Ti base Abutment

# bright Implant Abutment



Ti base Abutment

# bright Implant Abutment



Provisional crown straight hole



Final crown Angled hole

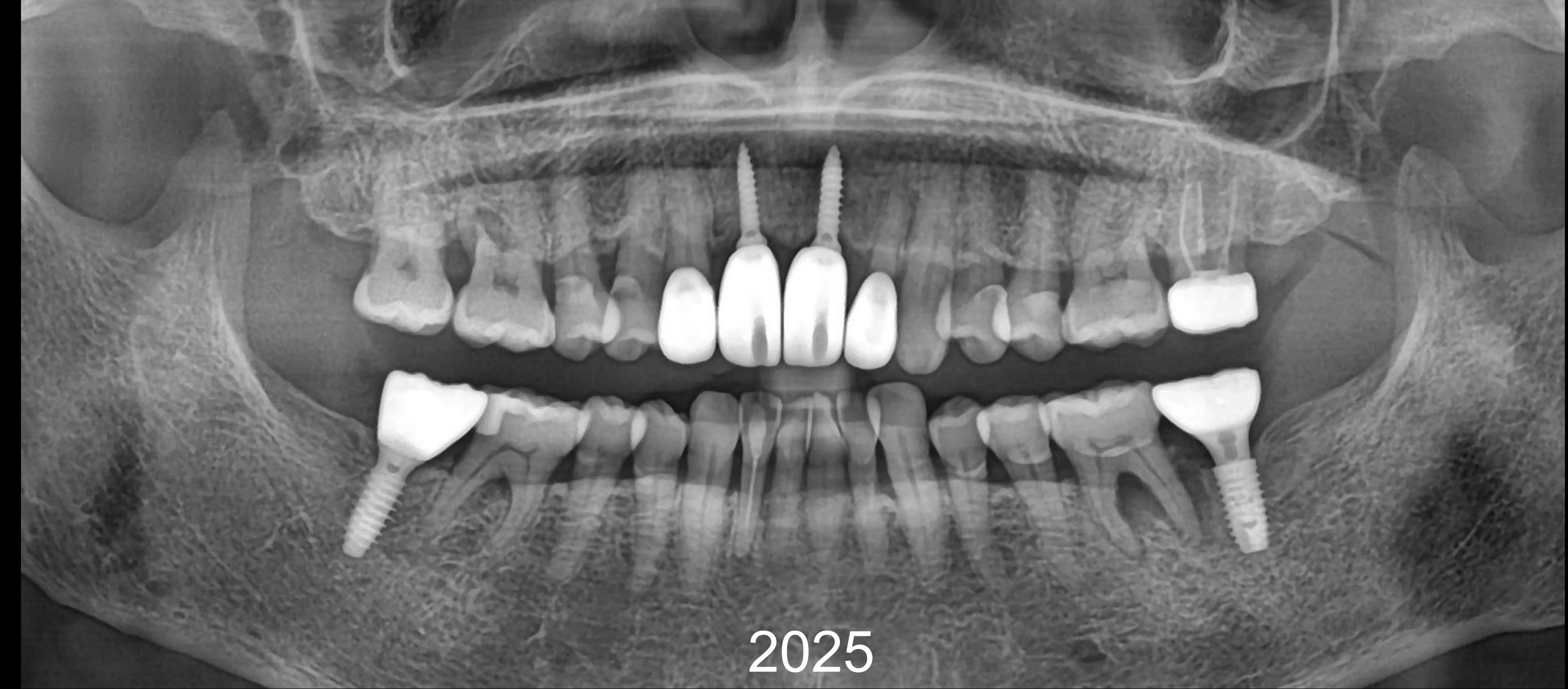
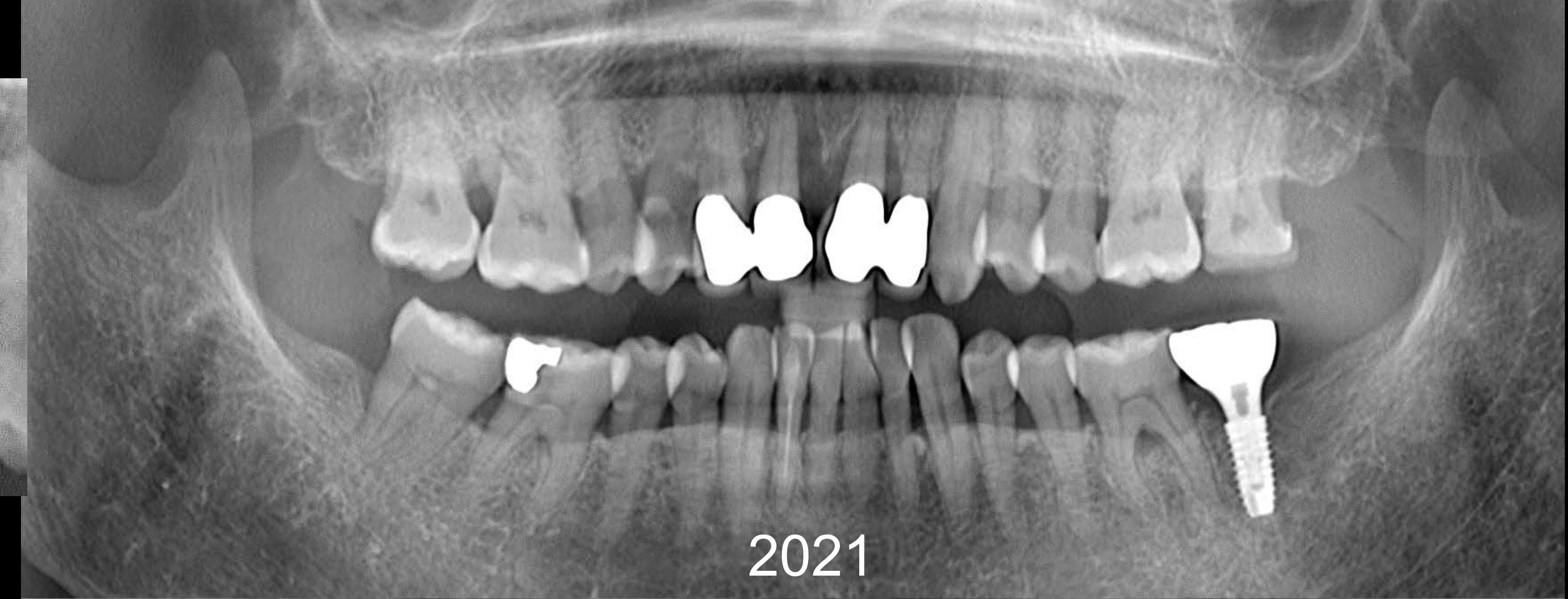


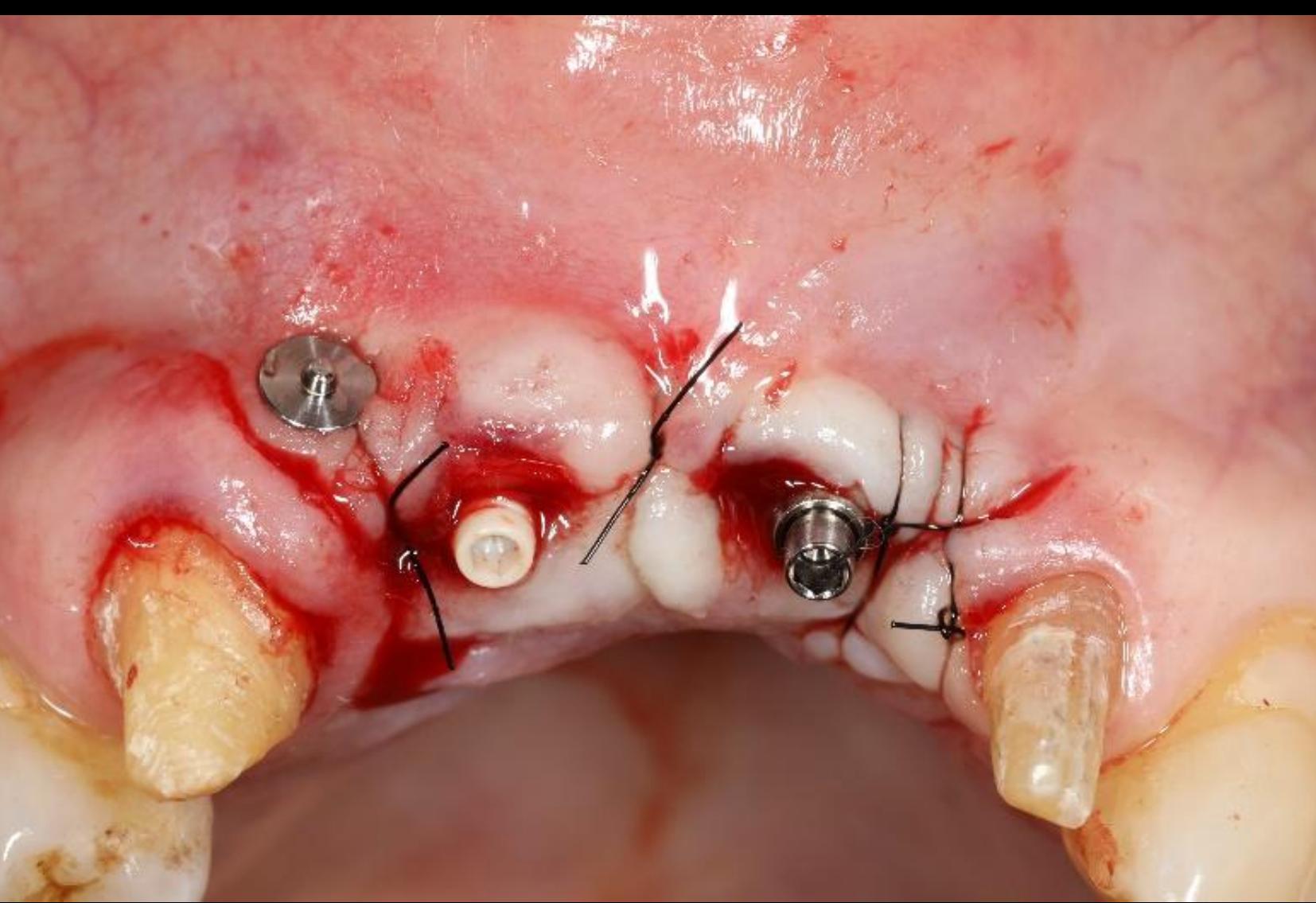
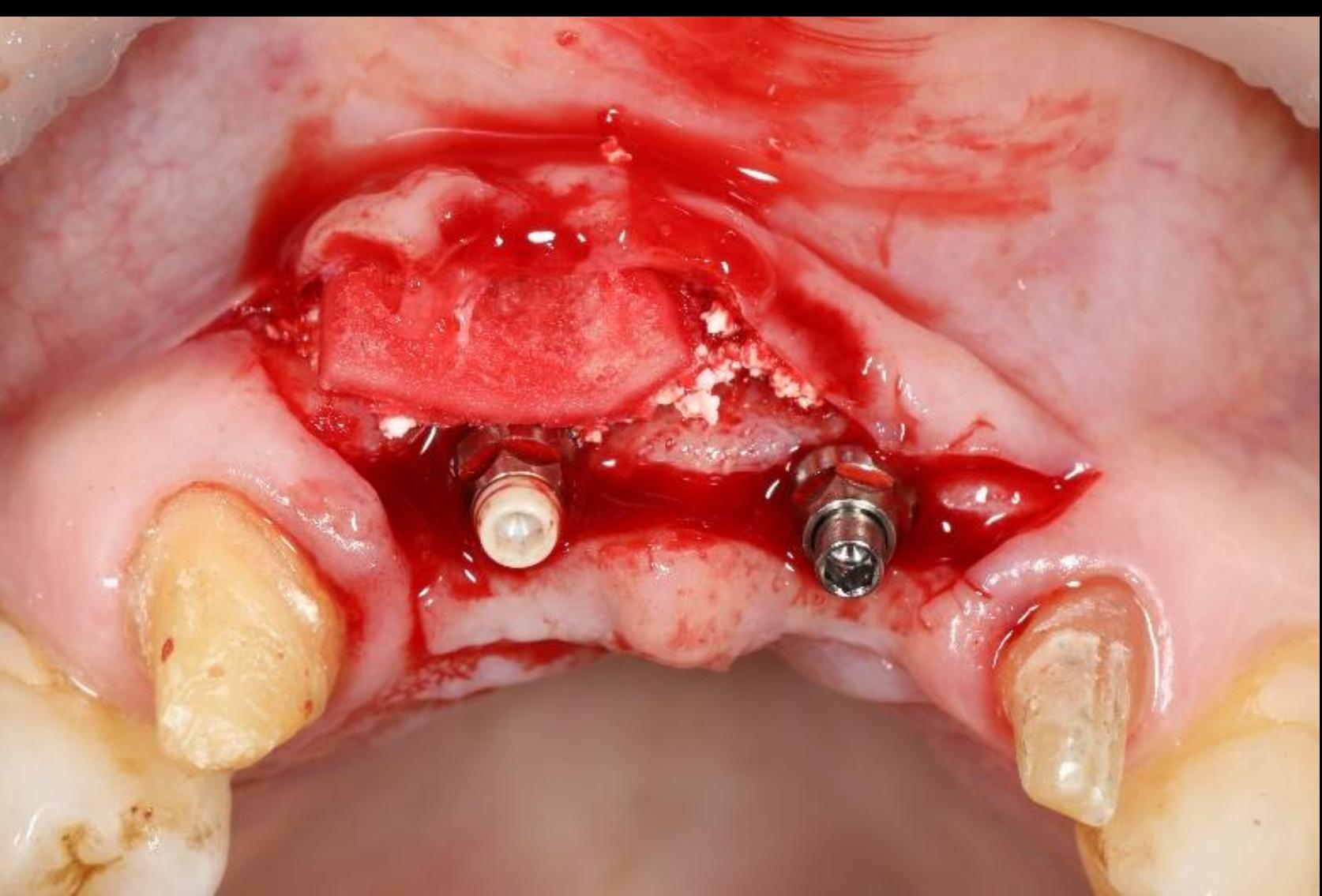
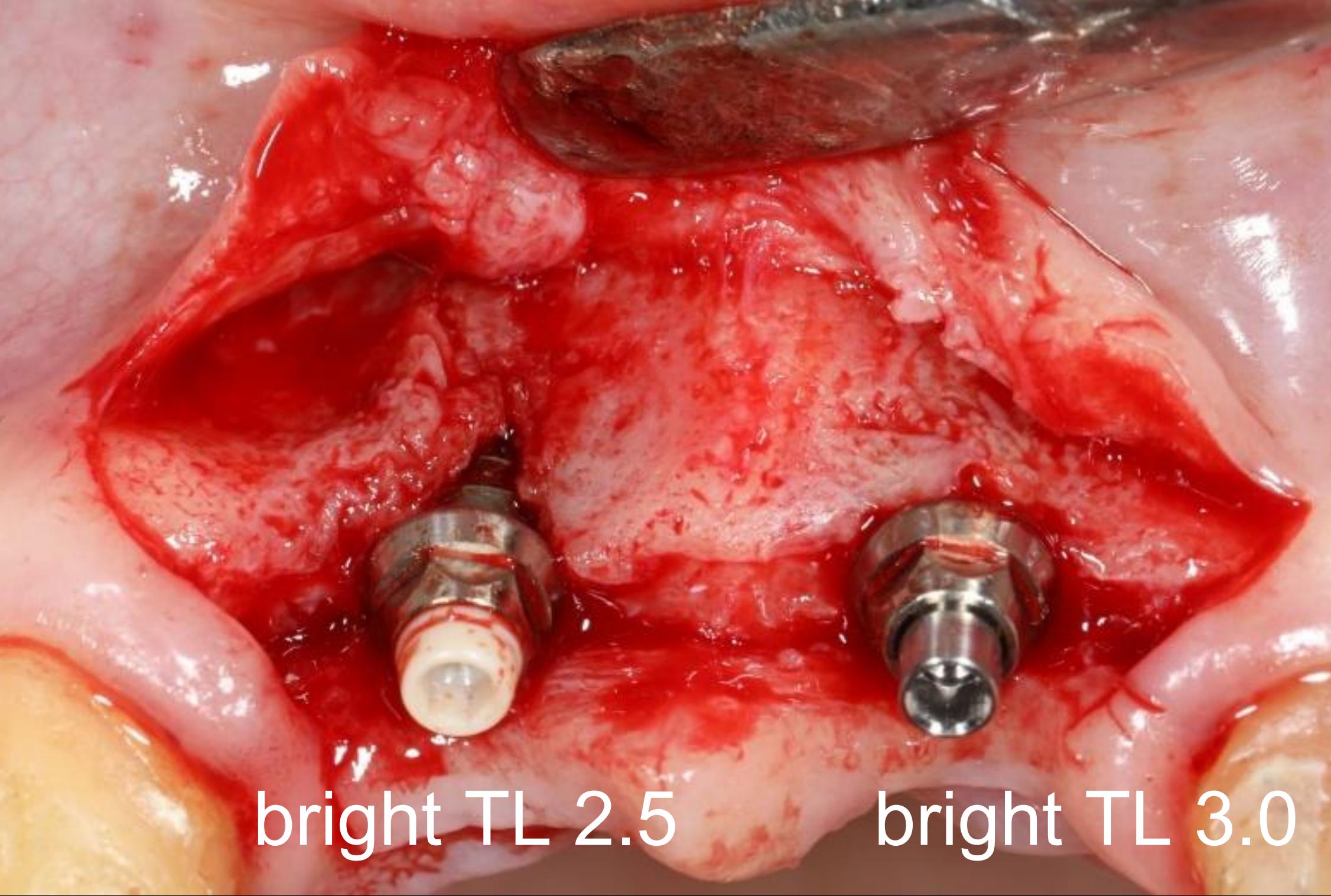
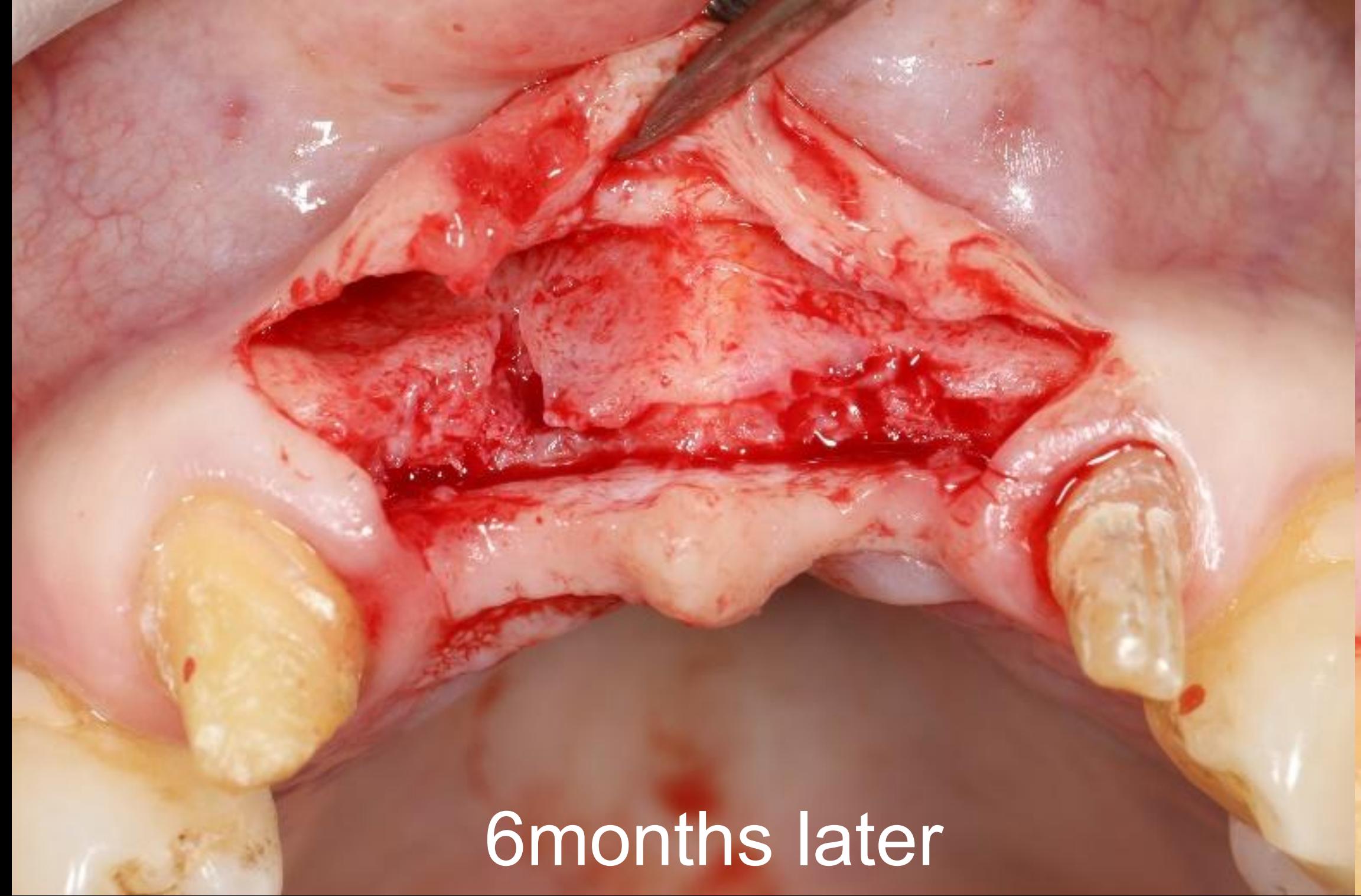
3 layer block x42ix31ix

**Screw hole**

**Straight**

**Vented - usually 15 but maximum to 25 degree**







2022

2023

2025

11

Post-OP

2023

2024

2025

21

11

Post-OP

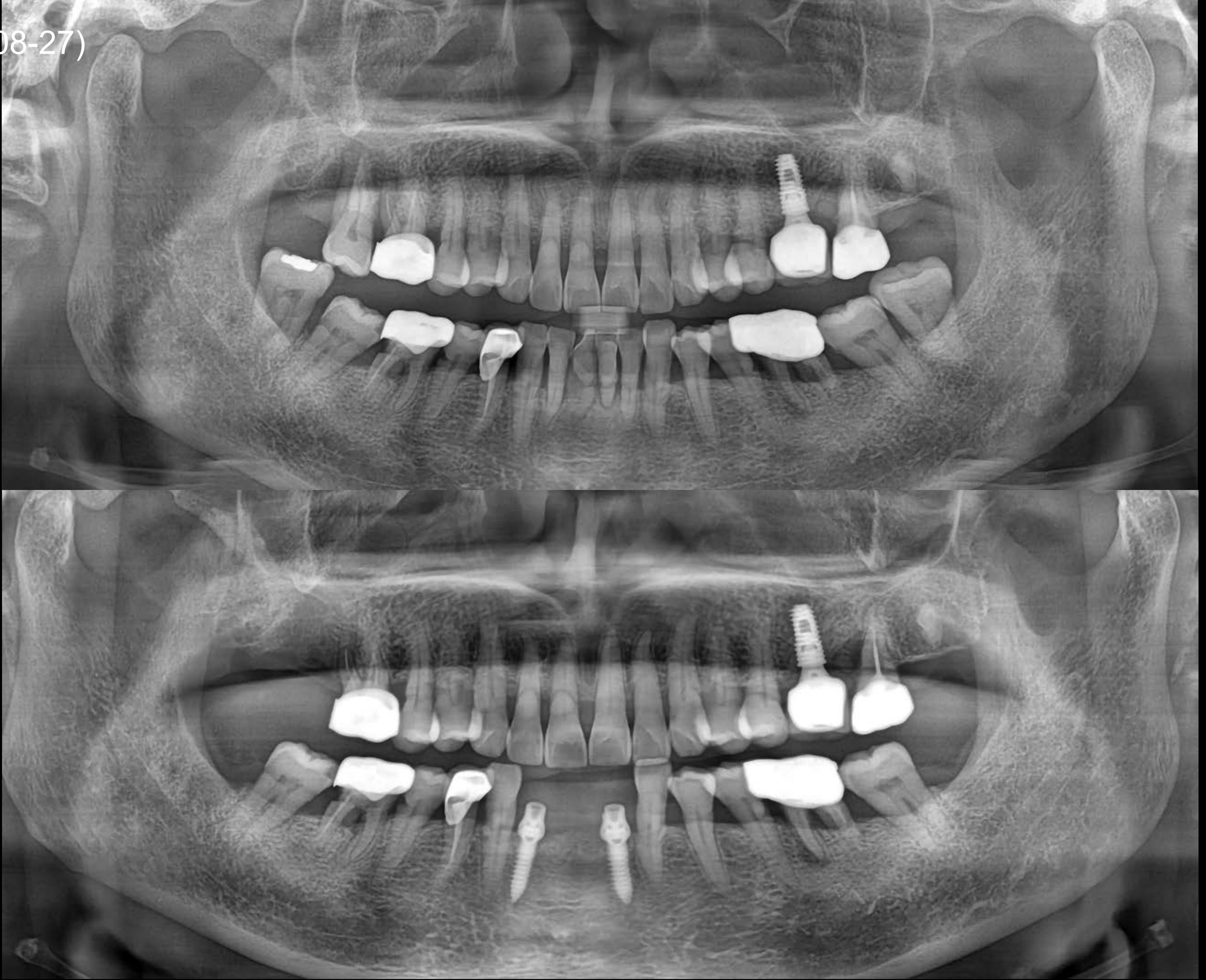
2023

2024

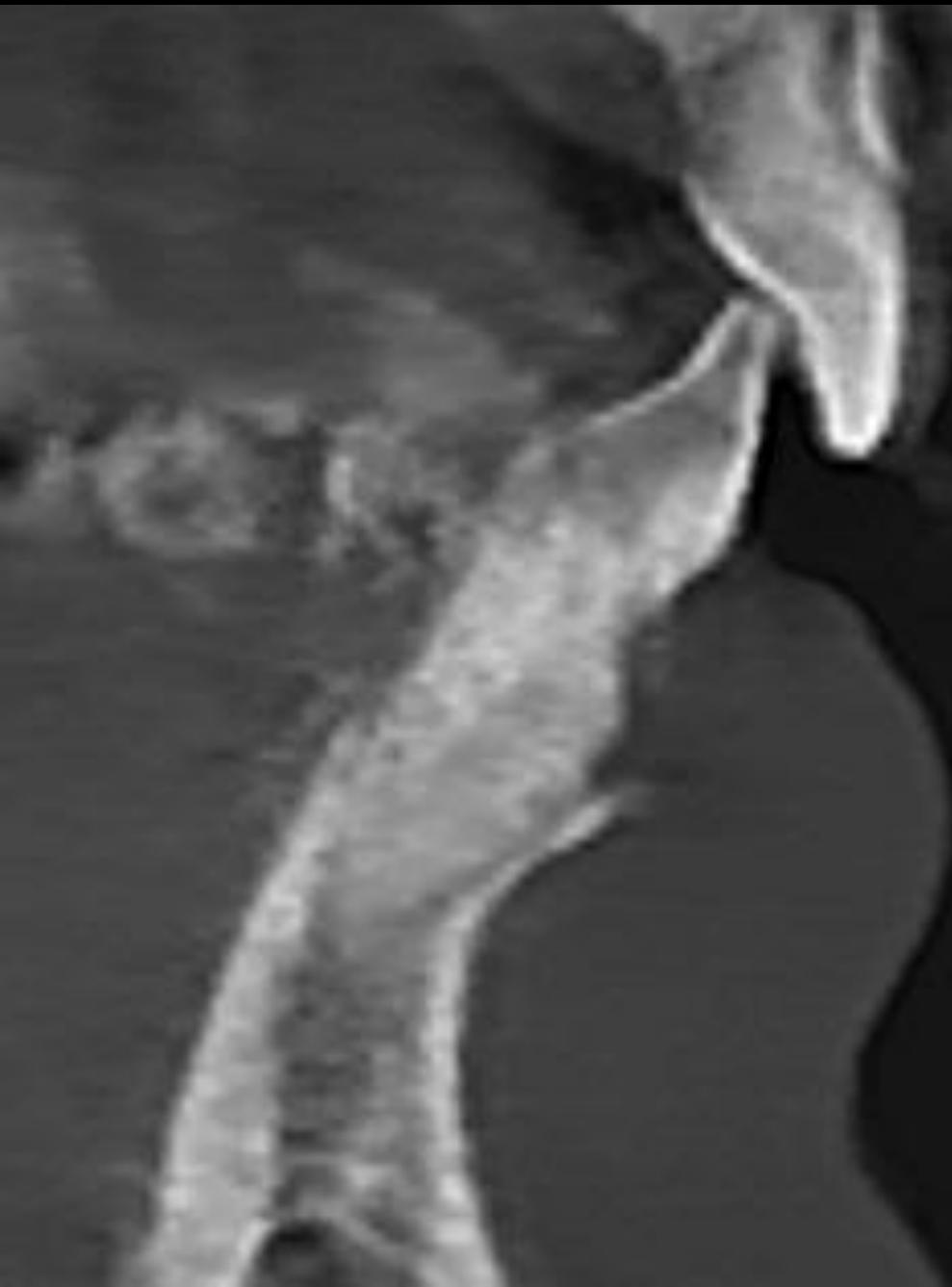
2025

21

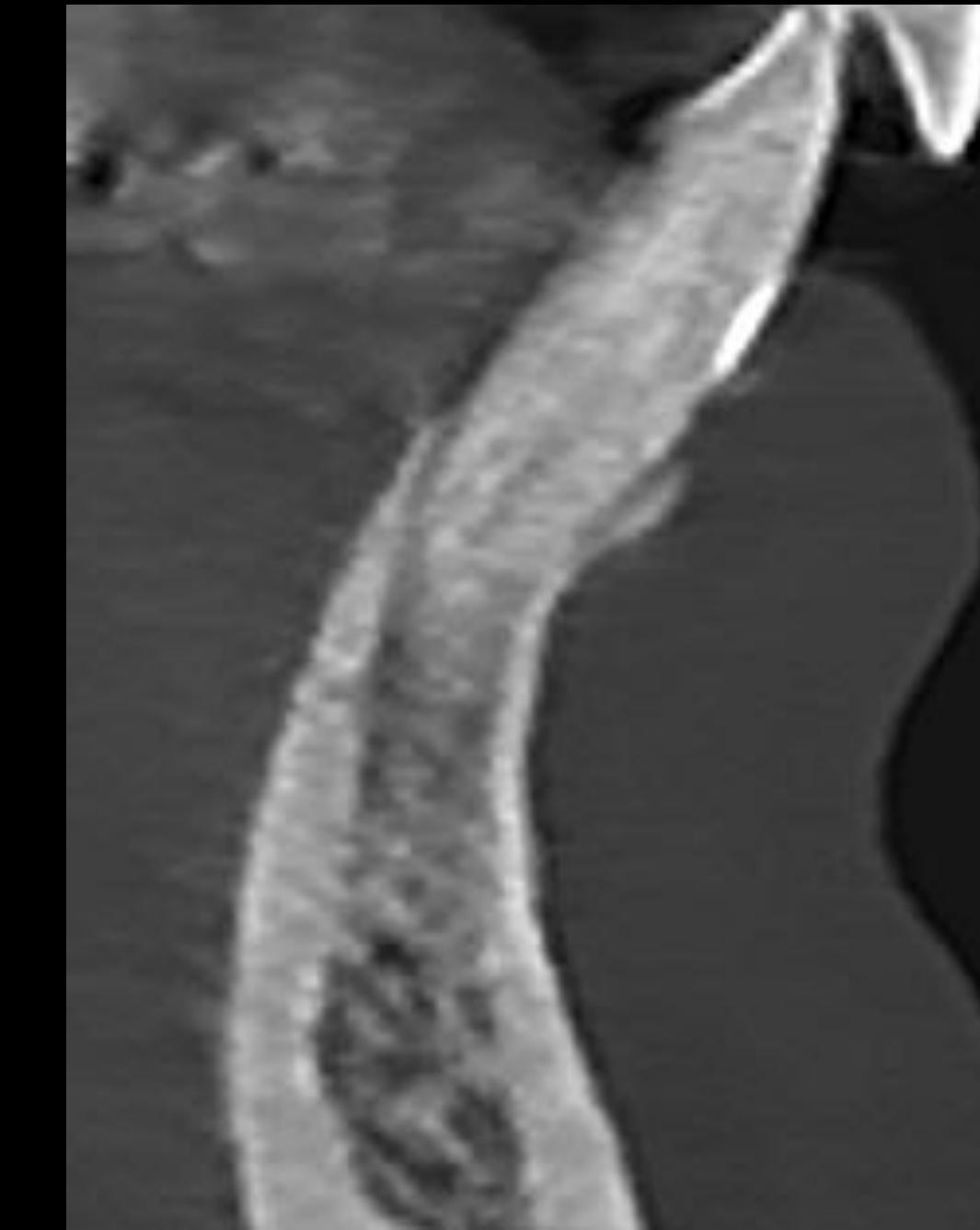
Pre-op (2024-08-27)



Pre-op CT (2024-08-27)

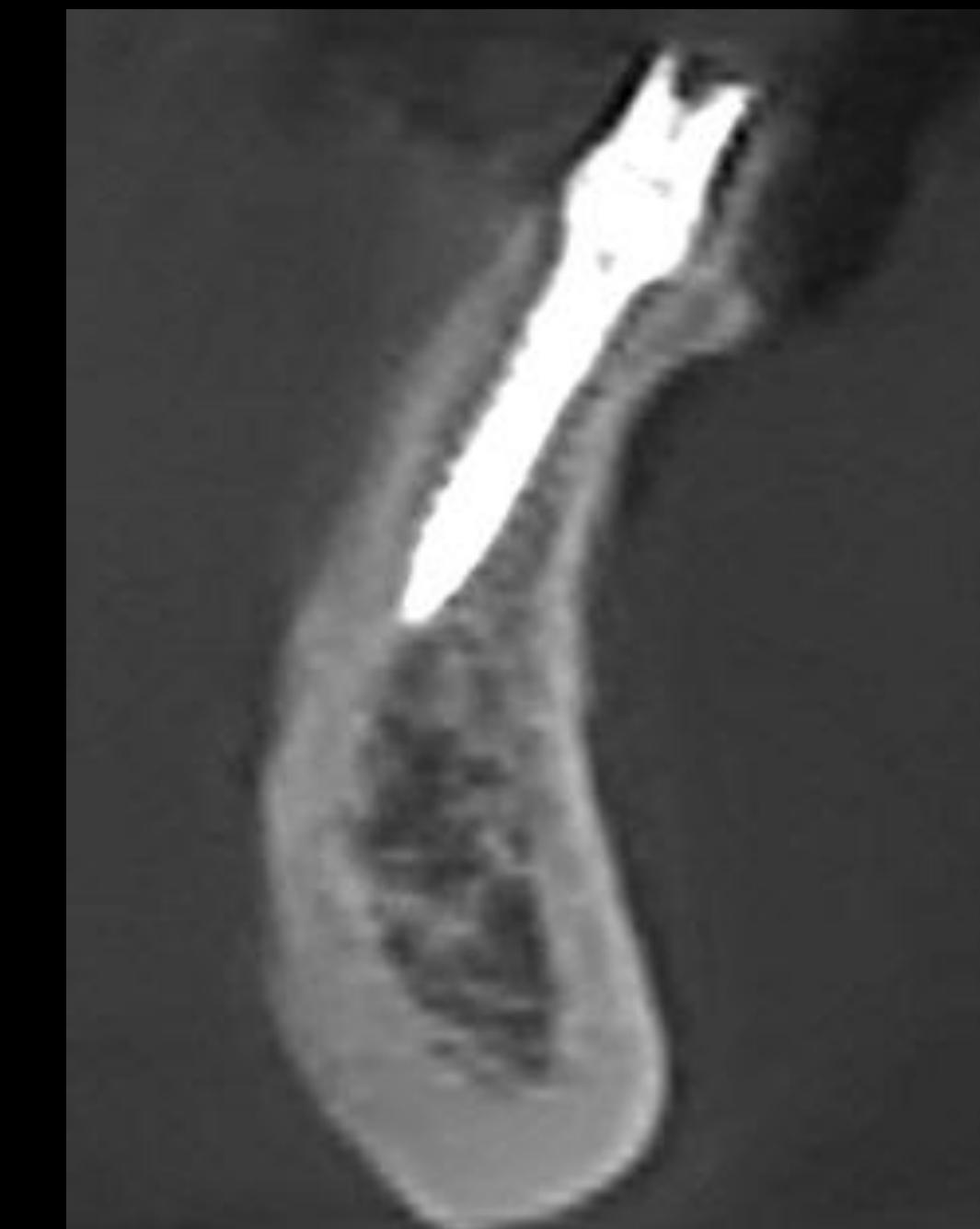


#42



#32

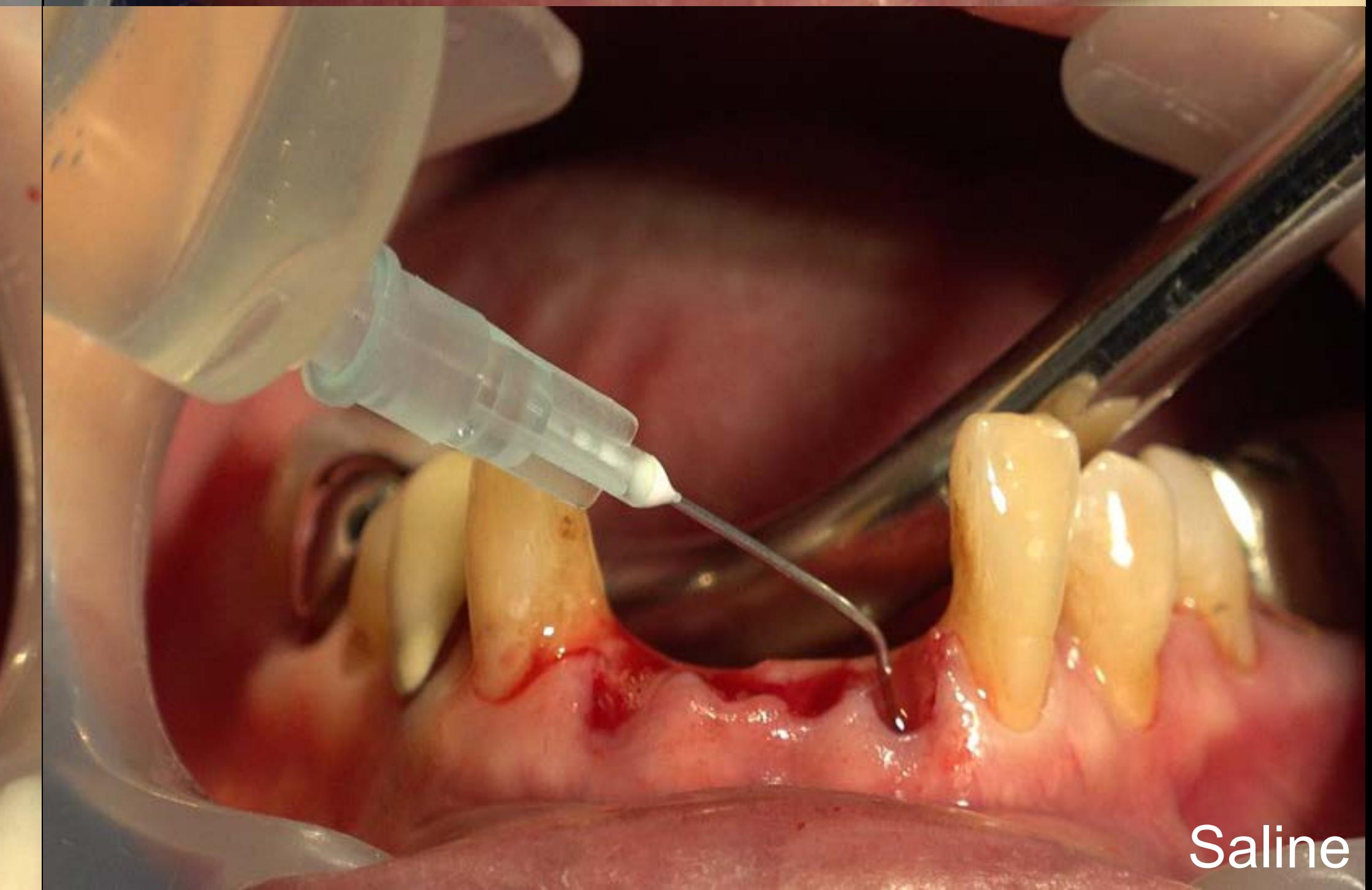
Post-op CT (2024-09-25)



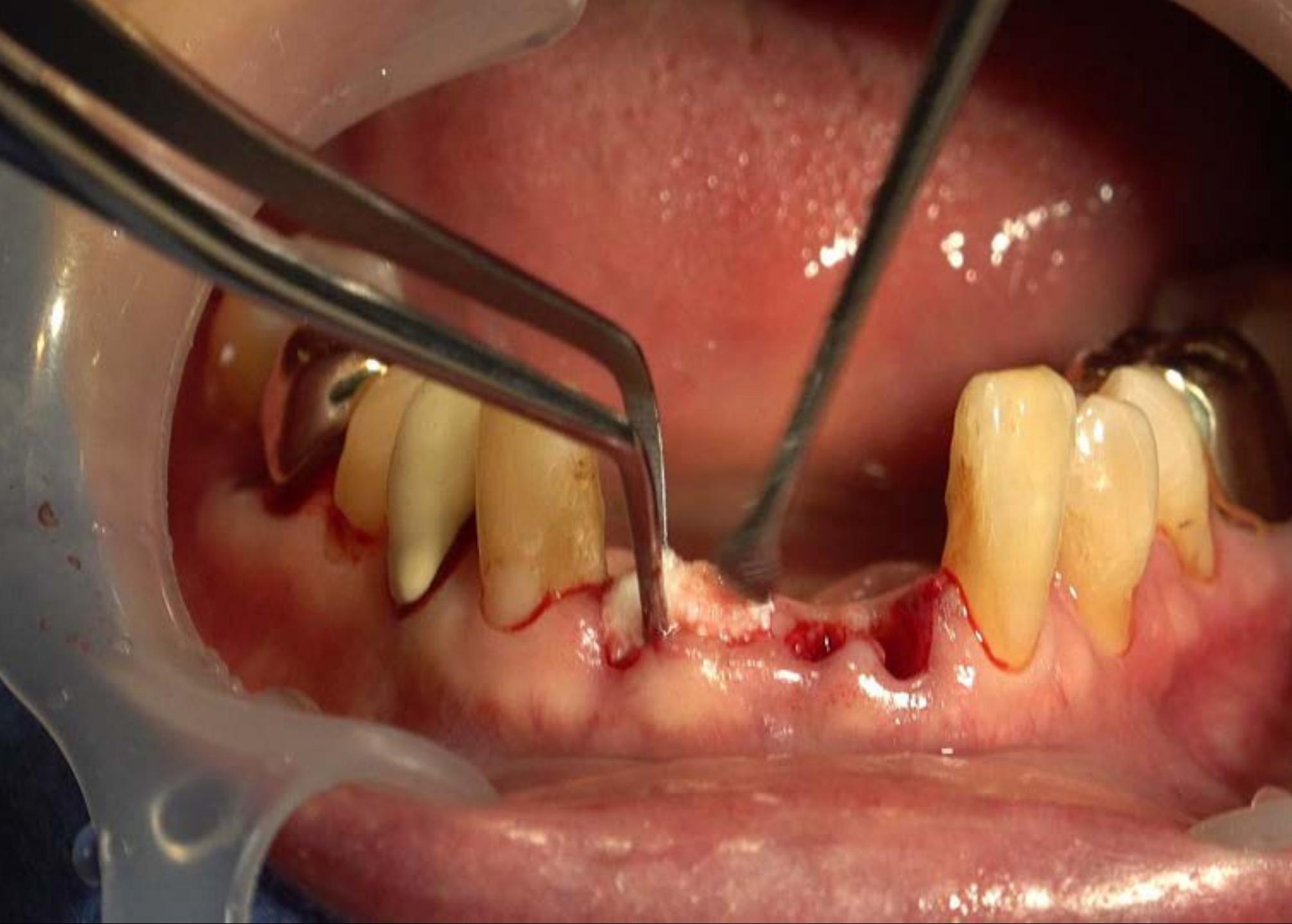
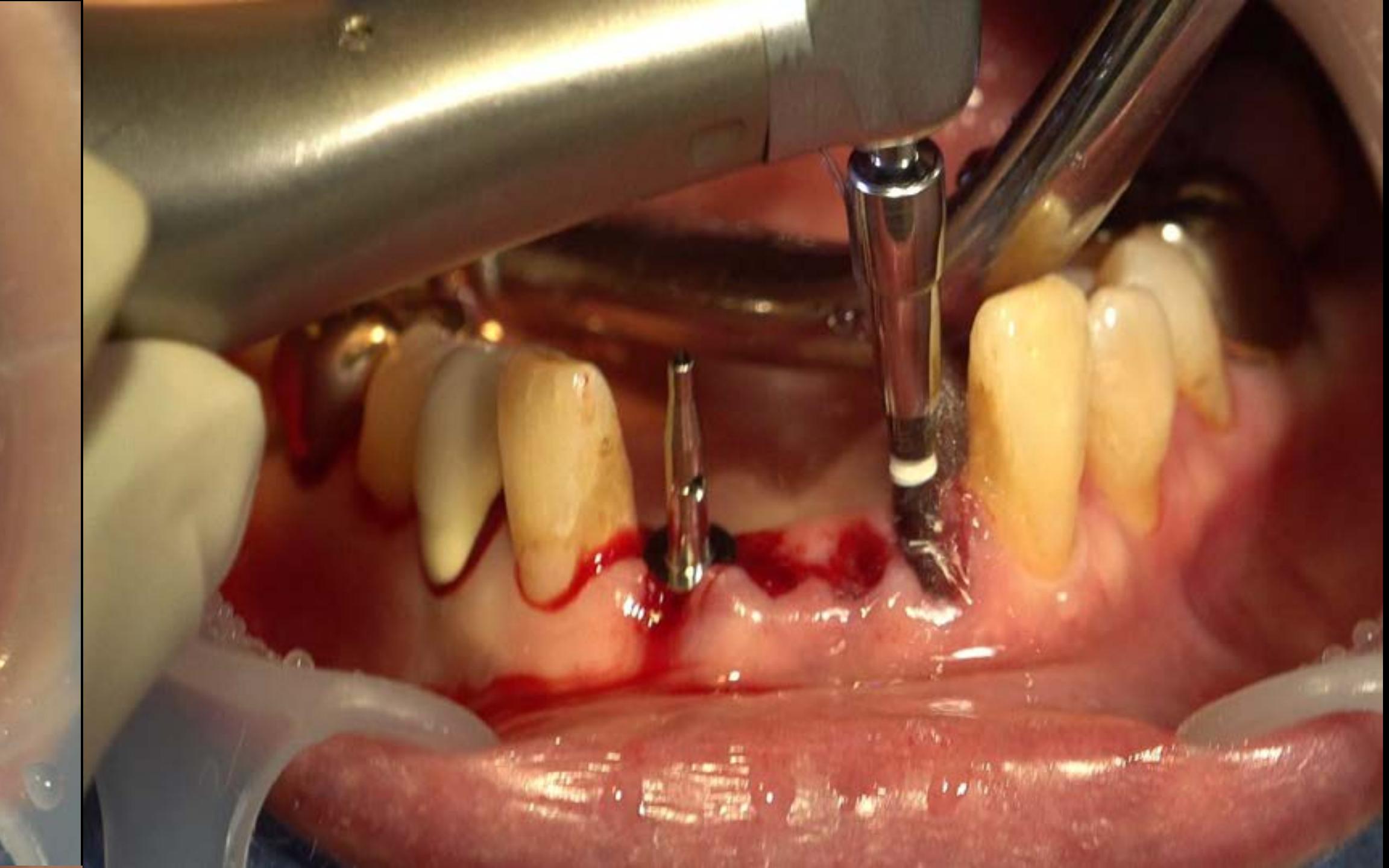
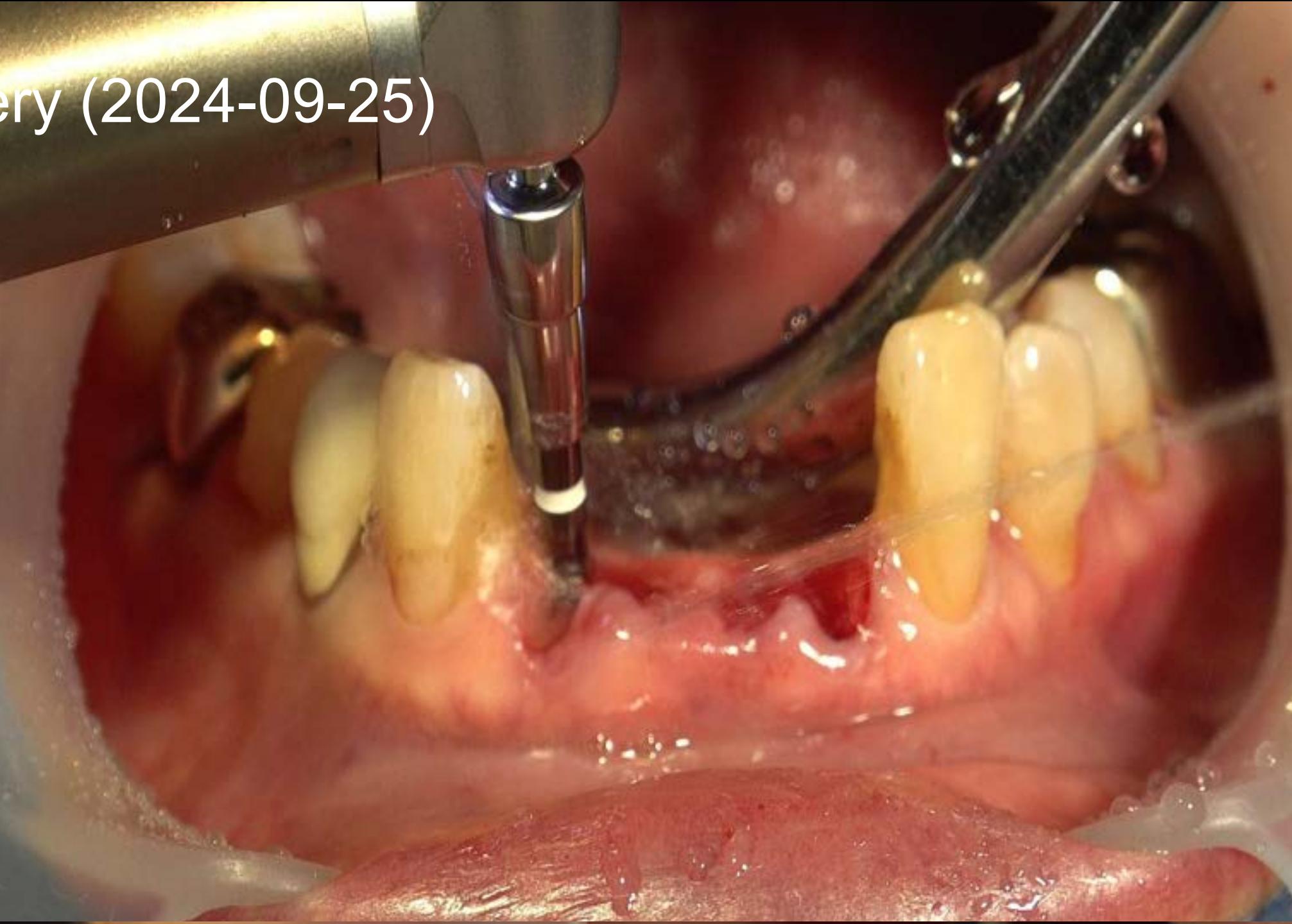
Pre-op (2024-09-25)



Surgery (2024-09-25)

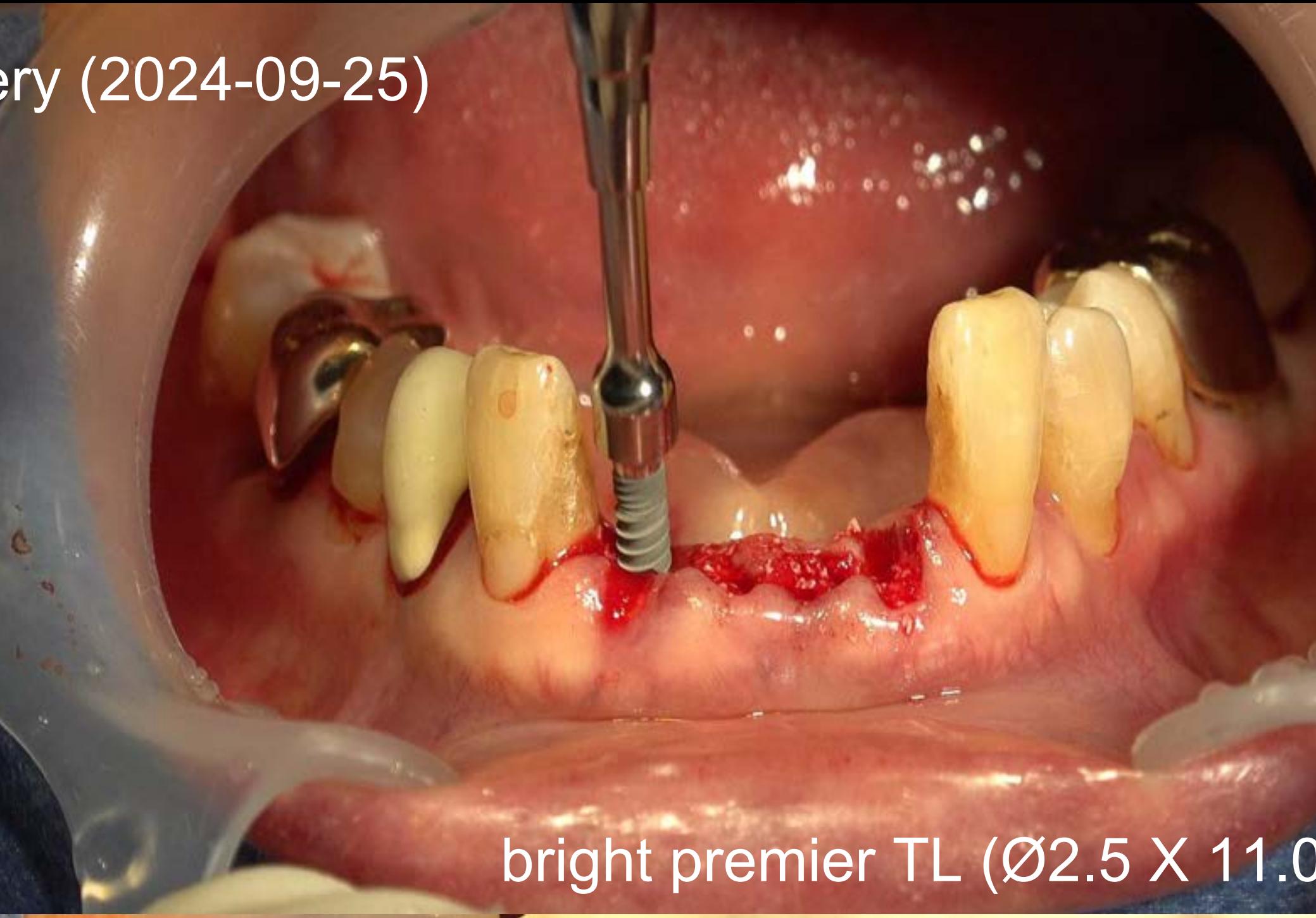


Surgery (2024-09-25)



OSTEON™ Xeno Collagen

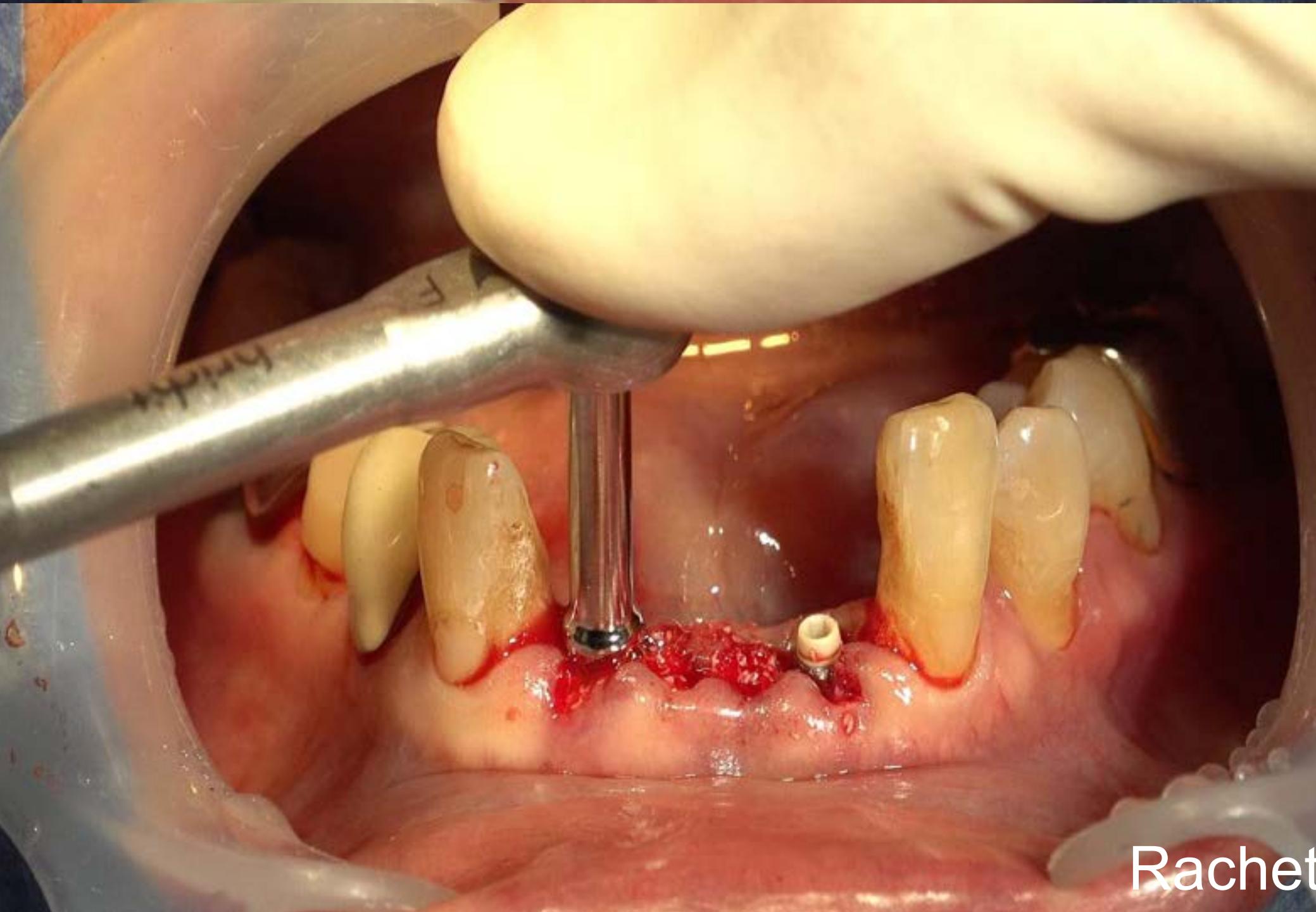
Surgery (2024-09-25)



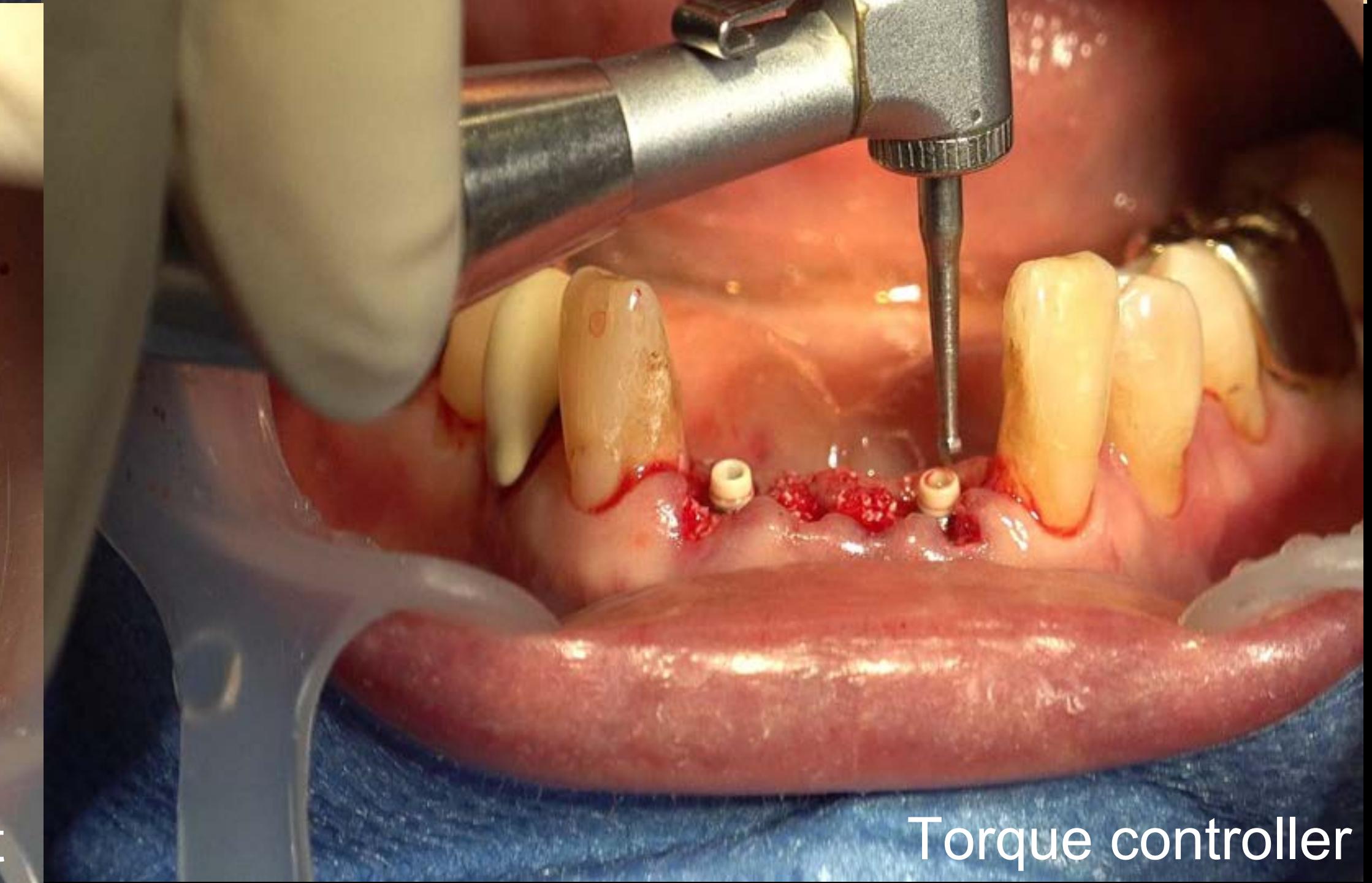
bright premier TL (Ø2.5 X 11.0)



bright premier TL (Ø2.5 X 11.0)

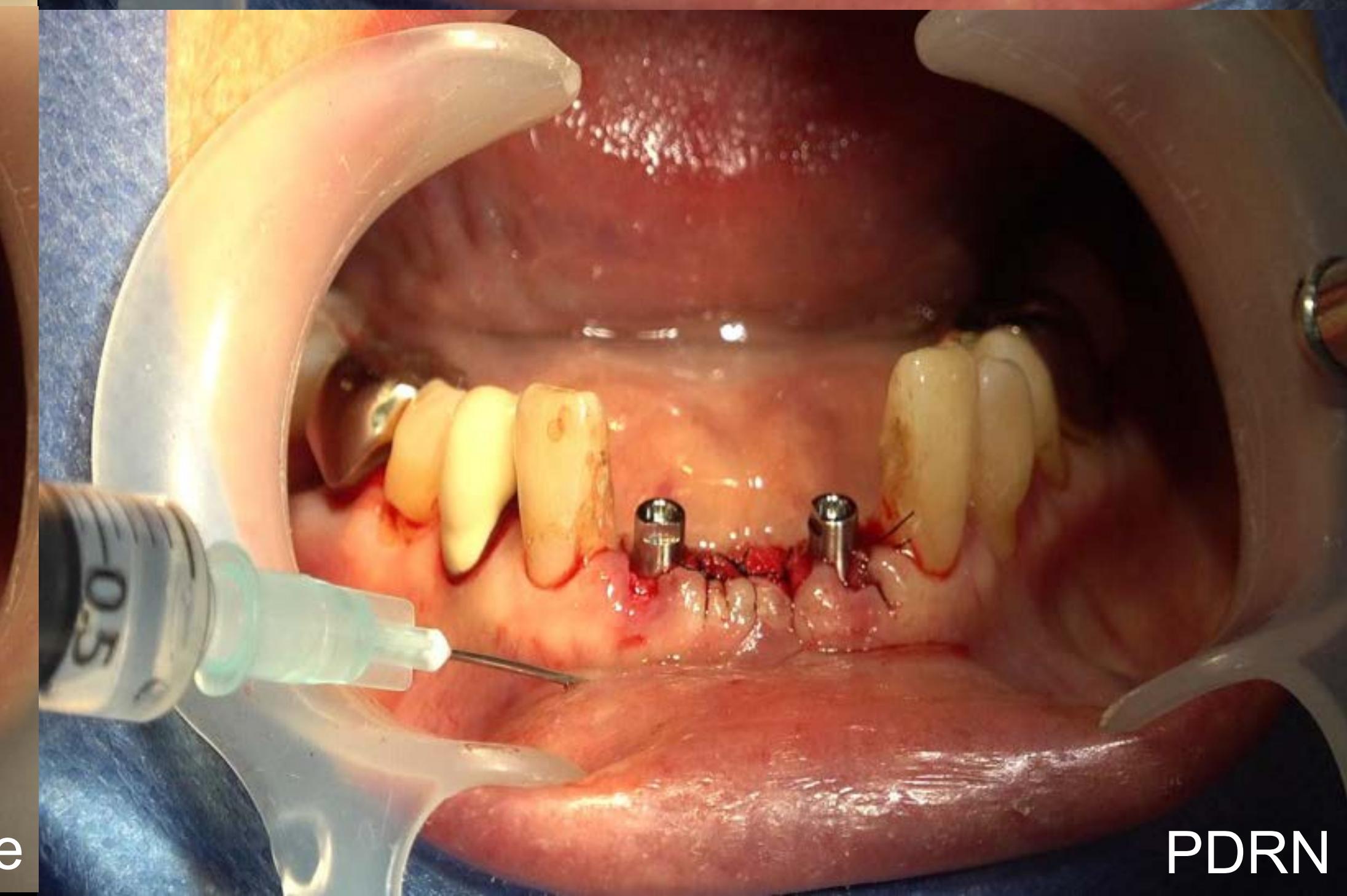
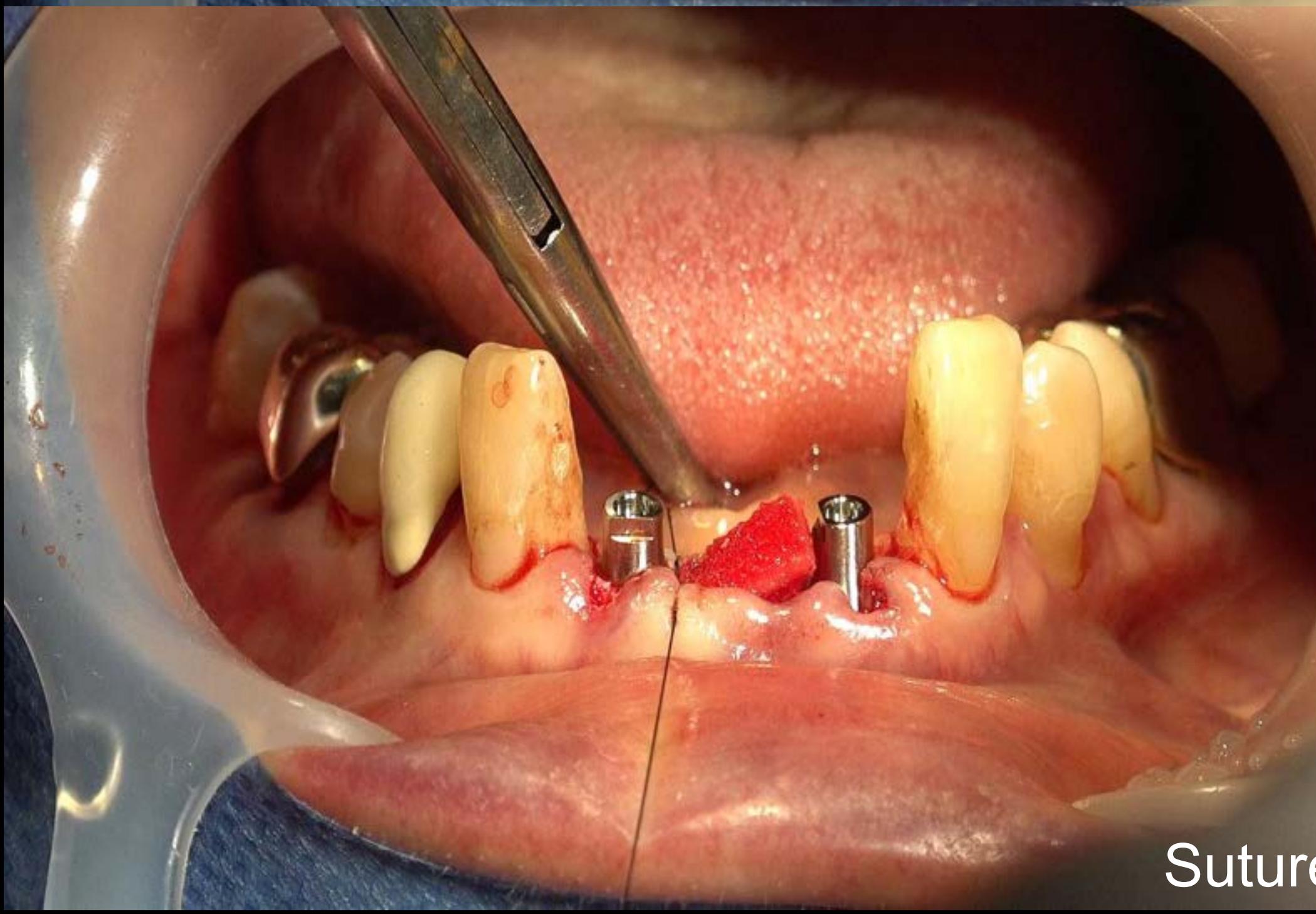
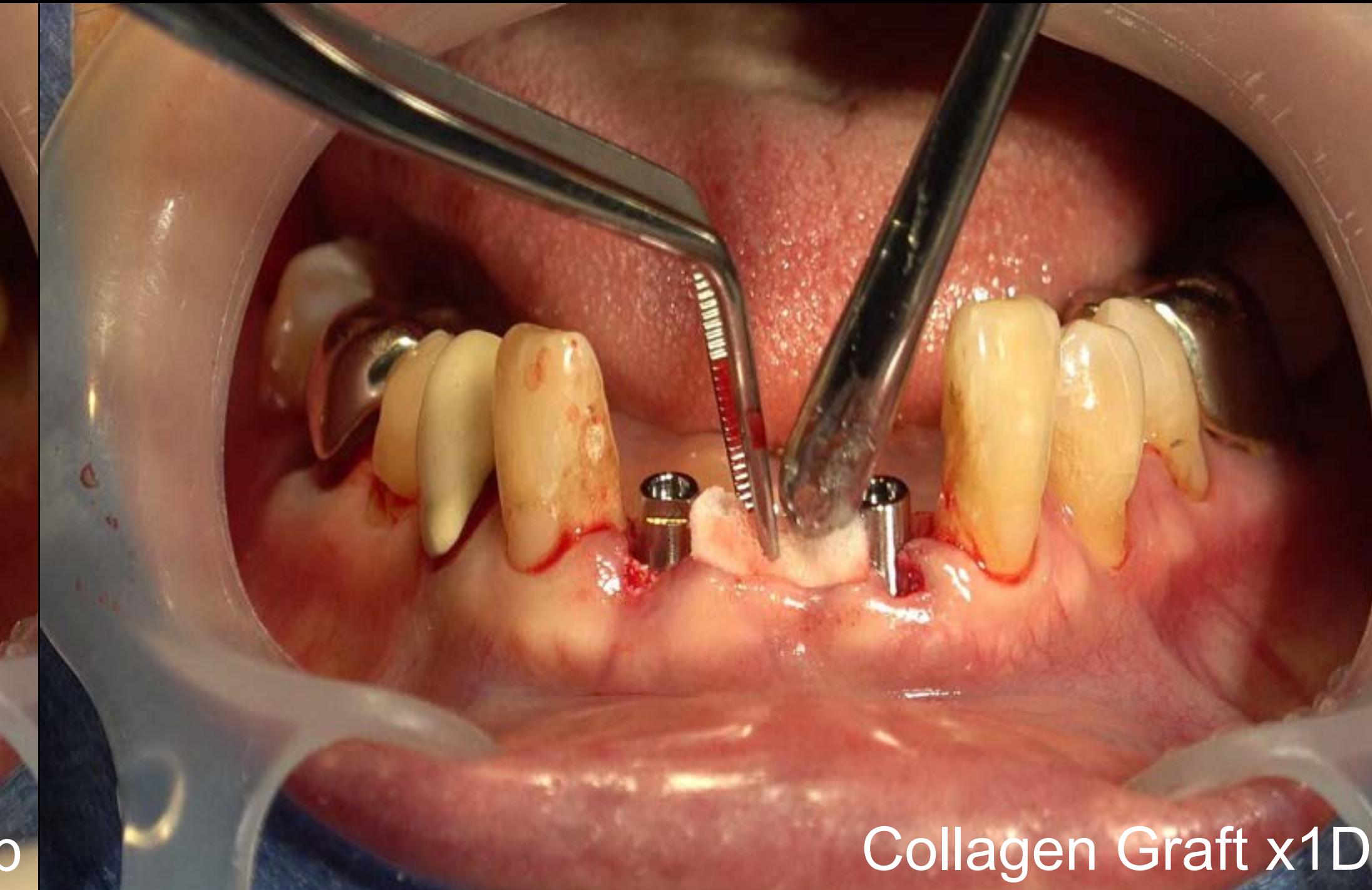
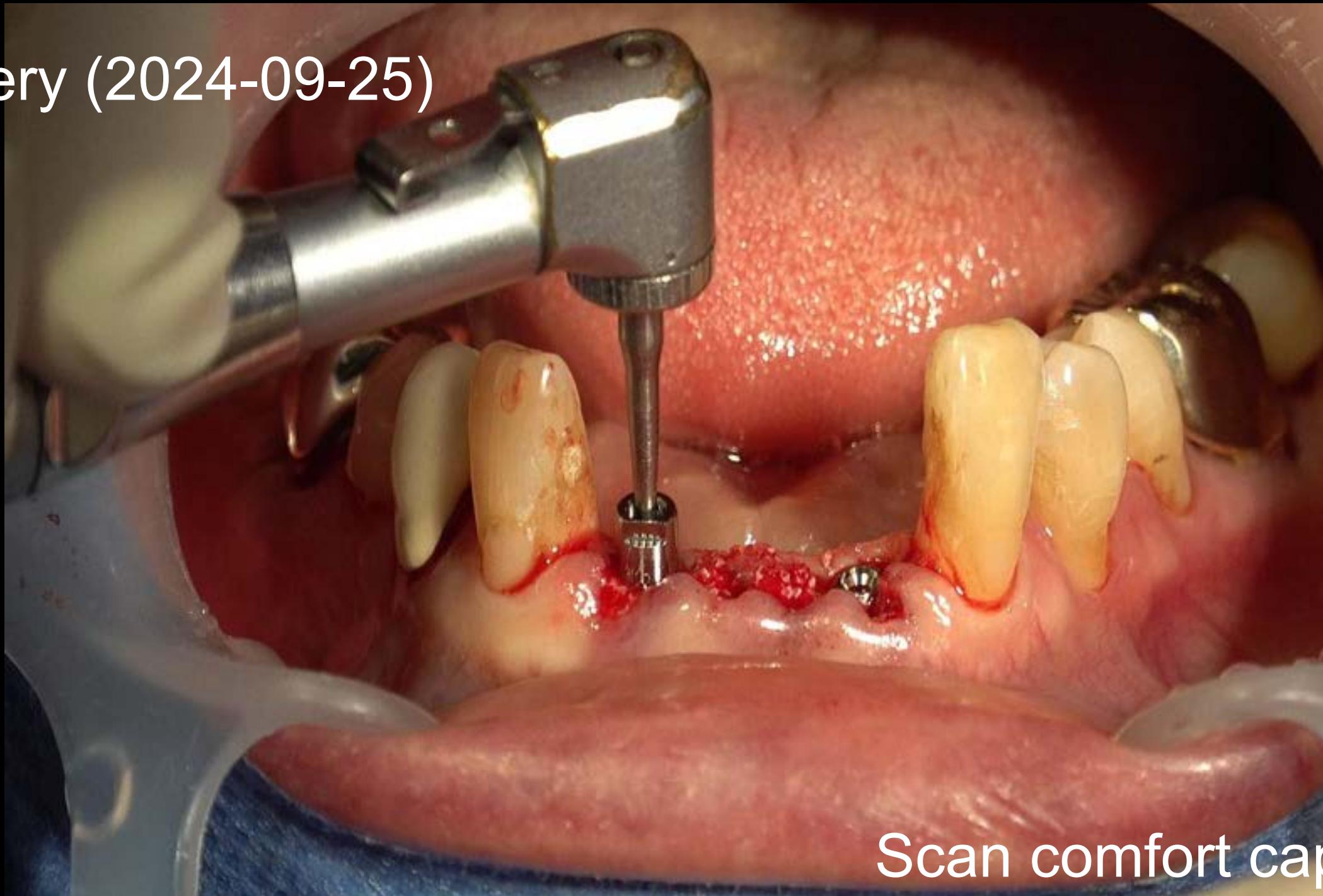


Rachet

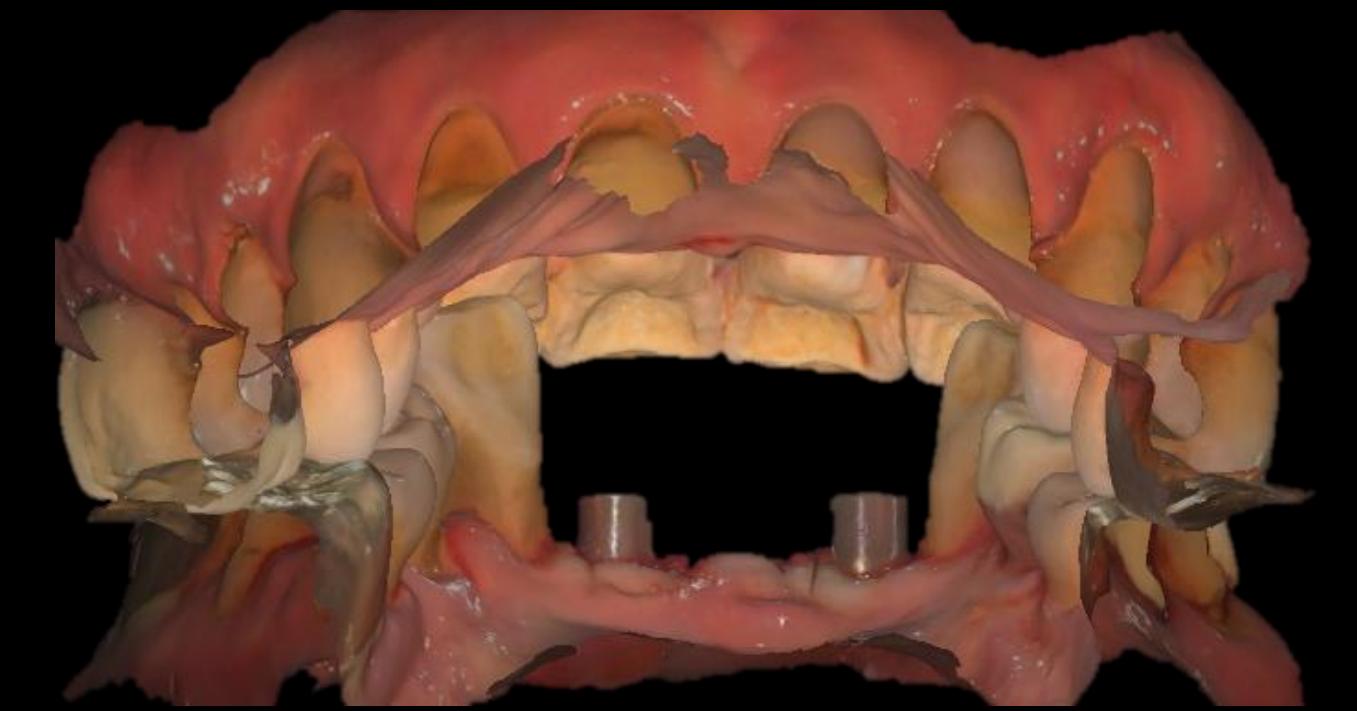
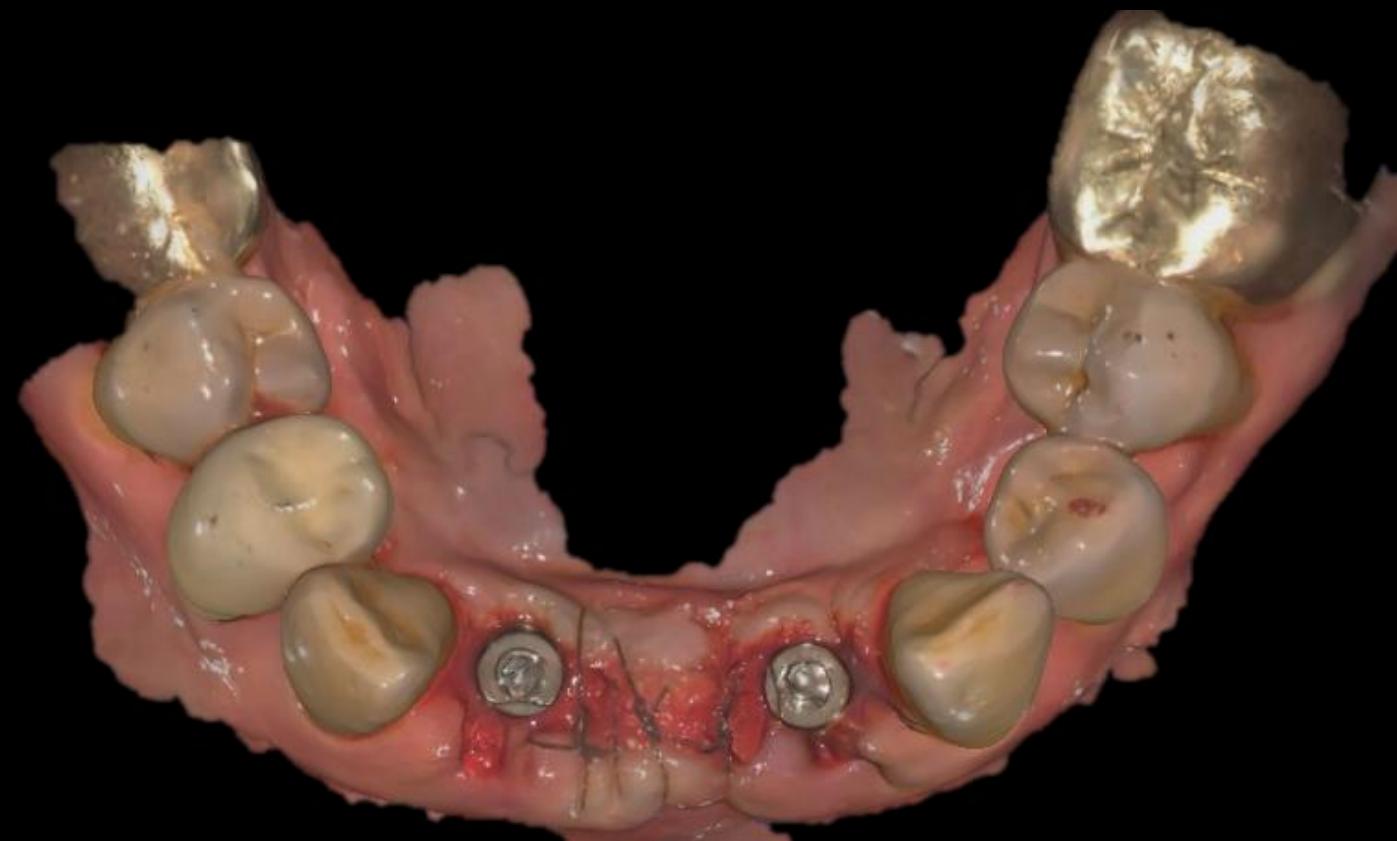
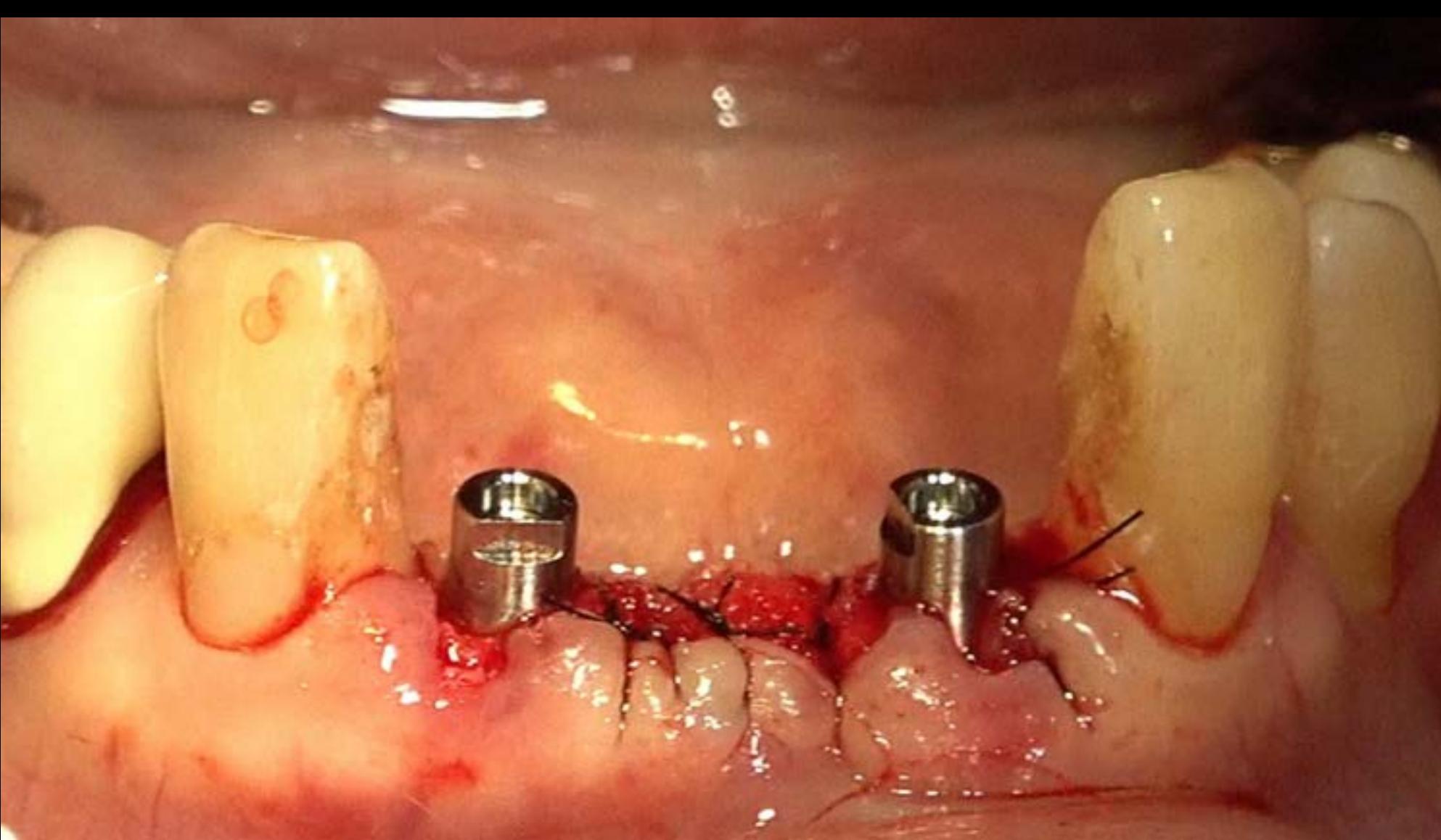


Torque controller

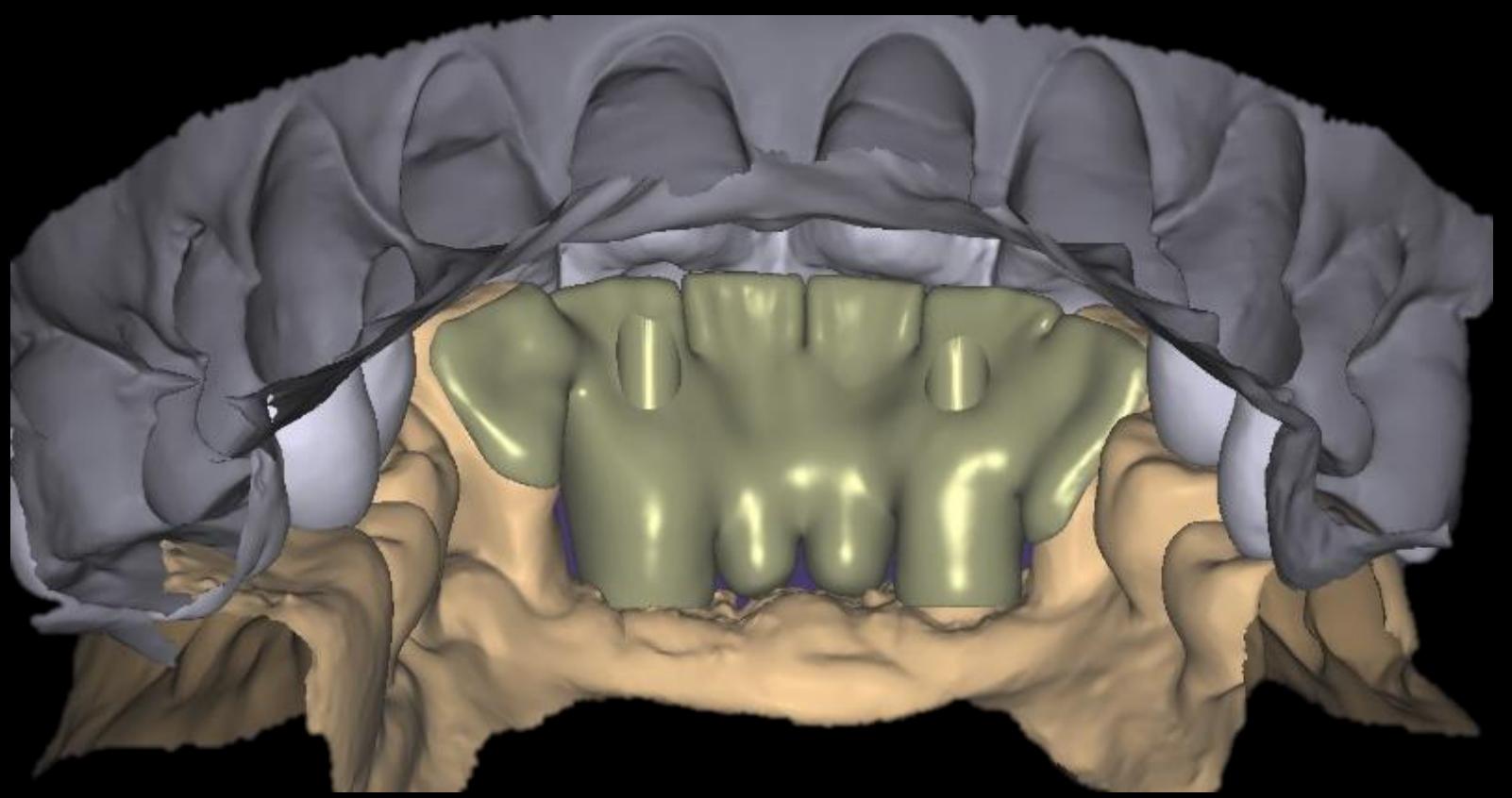
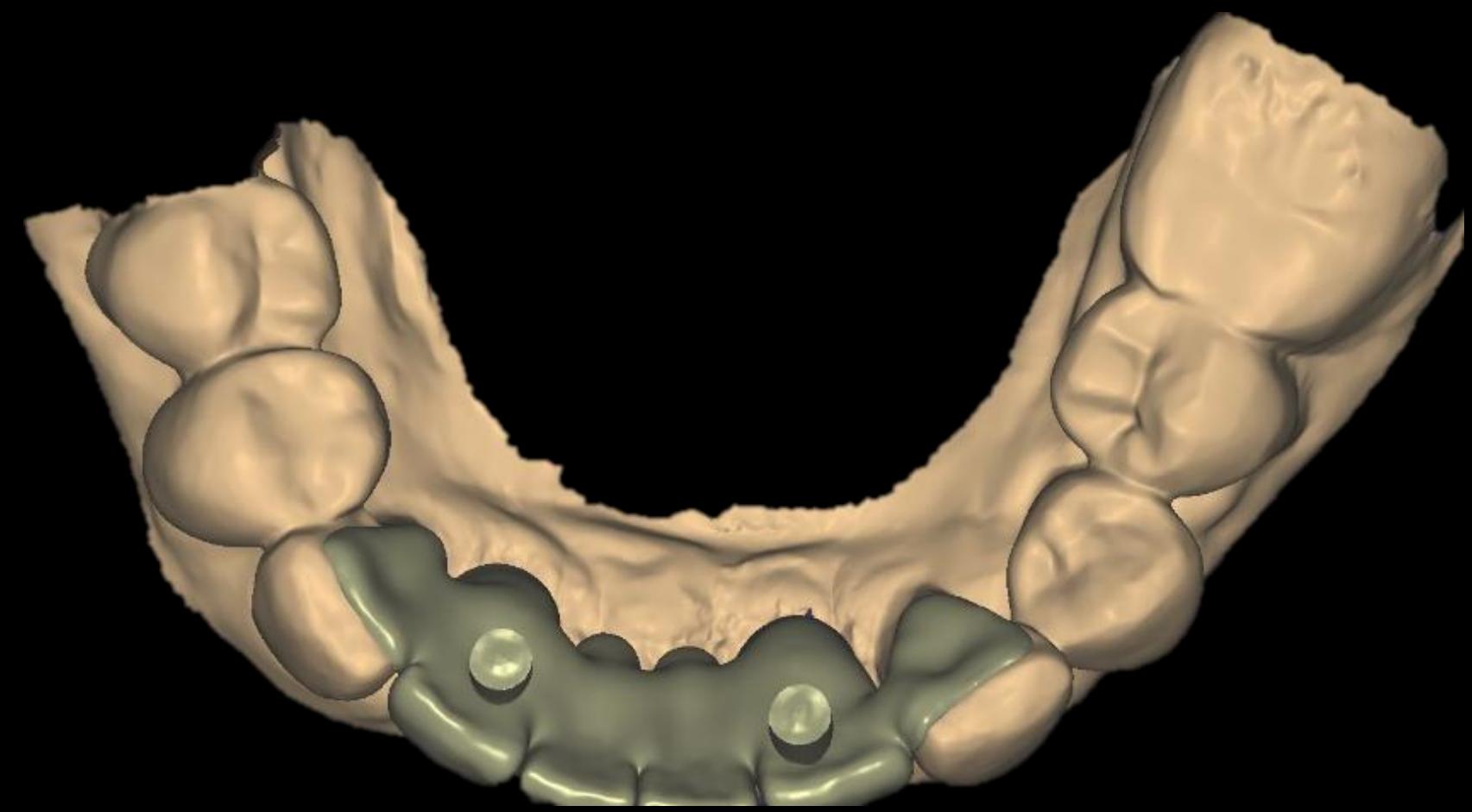
Surgery (2024-09-25)



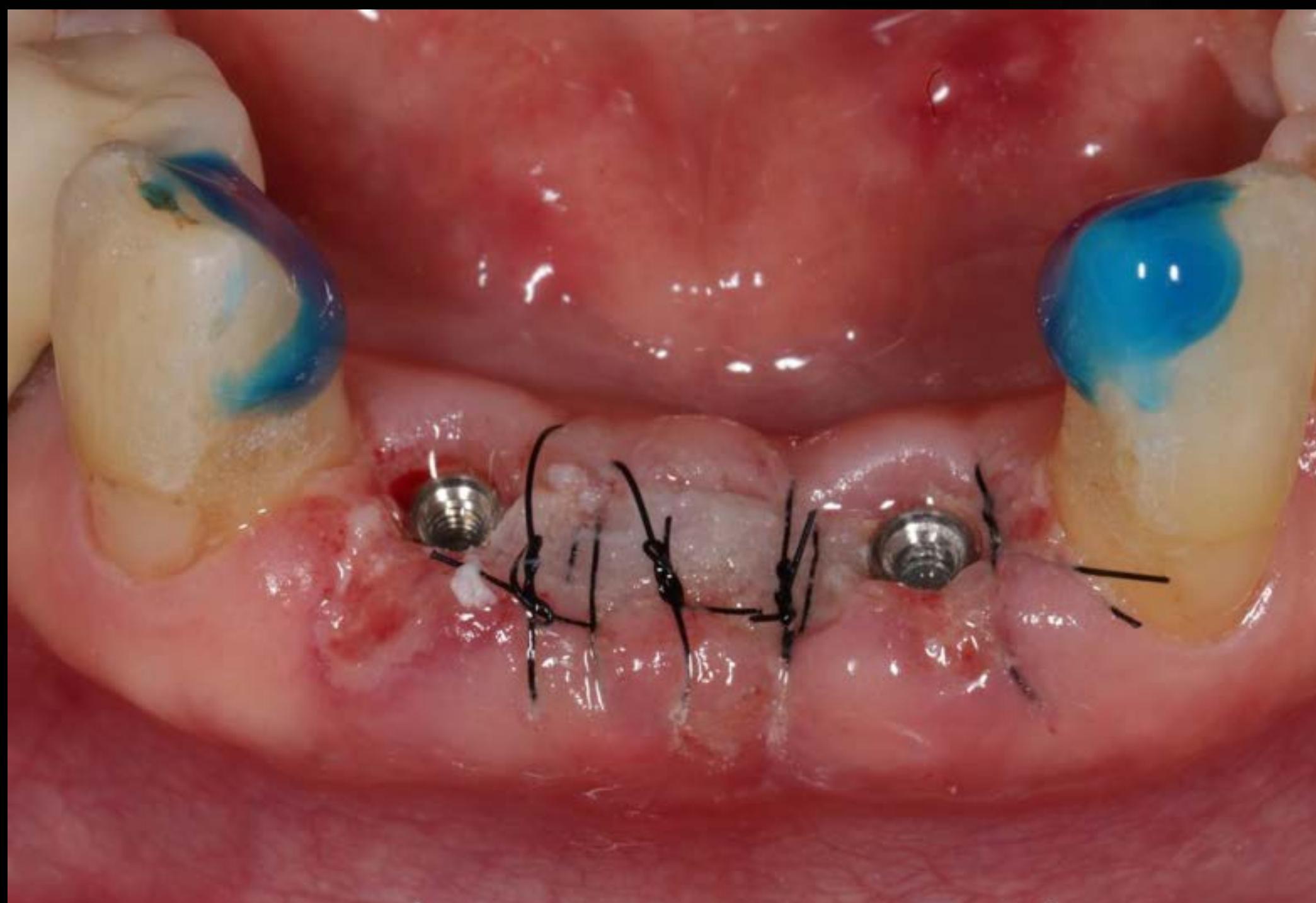
# Intra Oral Scan



CAD(Temporary)



## Temporary Crown



Provisional restoration (2024-09-26)



Healing : 1 week (2024-10-04)

Healing : 5 months (2025-03-12)



Healing : 5 months (2025-03-12)



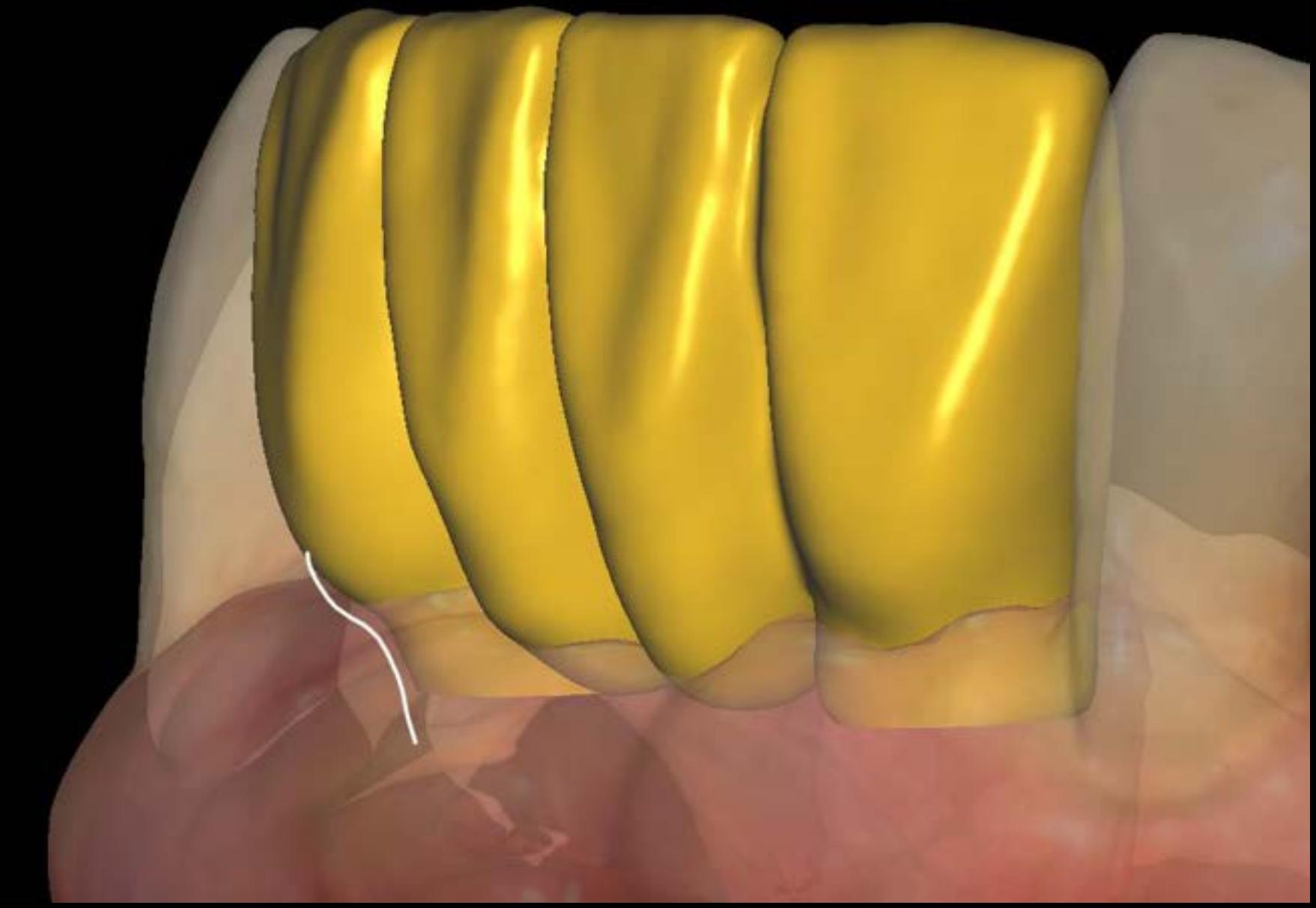
Impression (2025-03-12)



# Cad Design

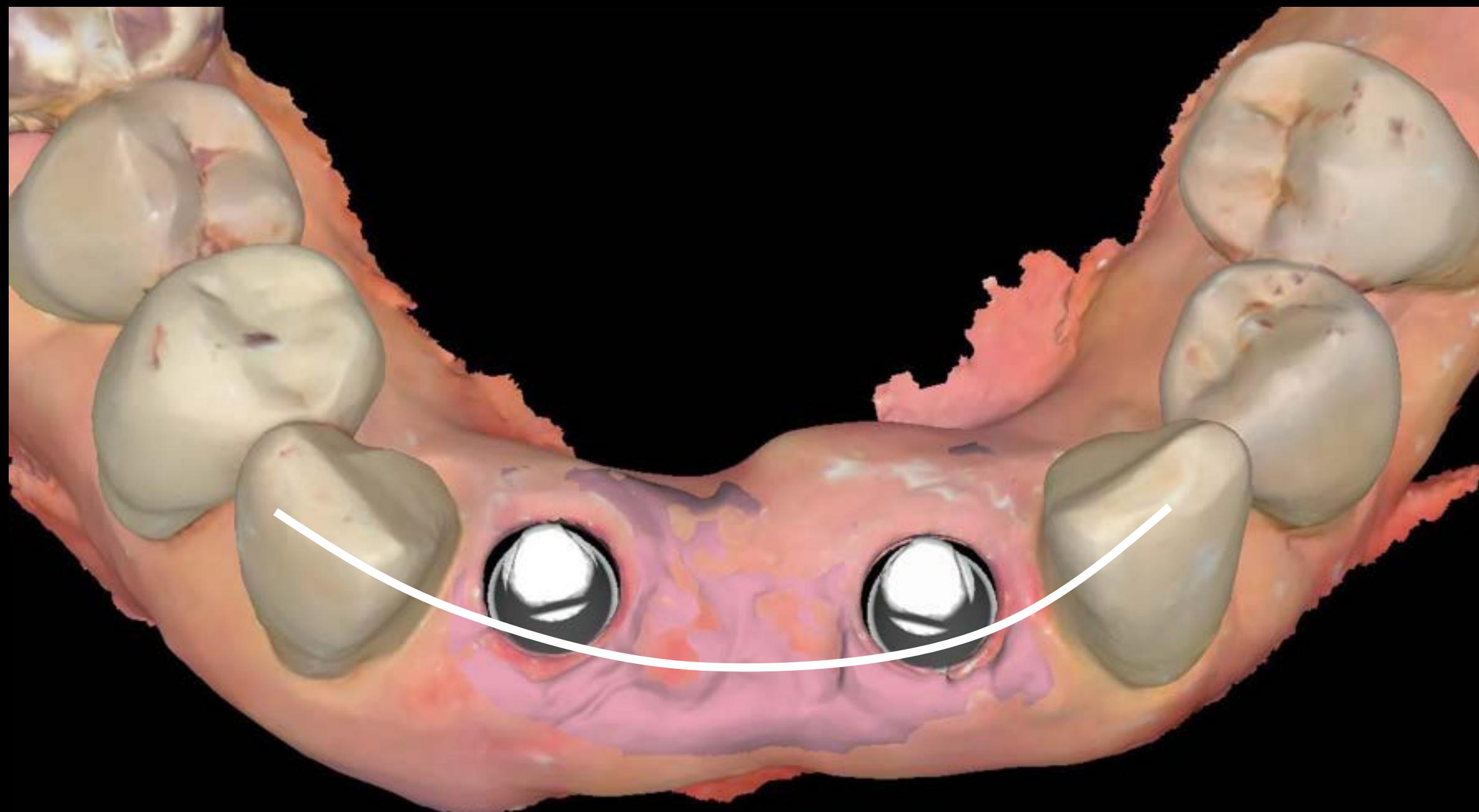


# Cad Design

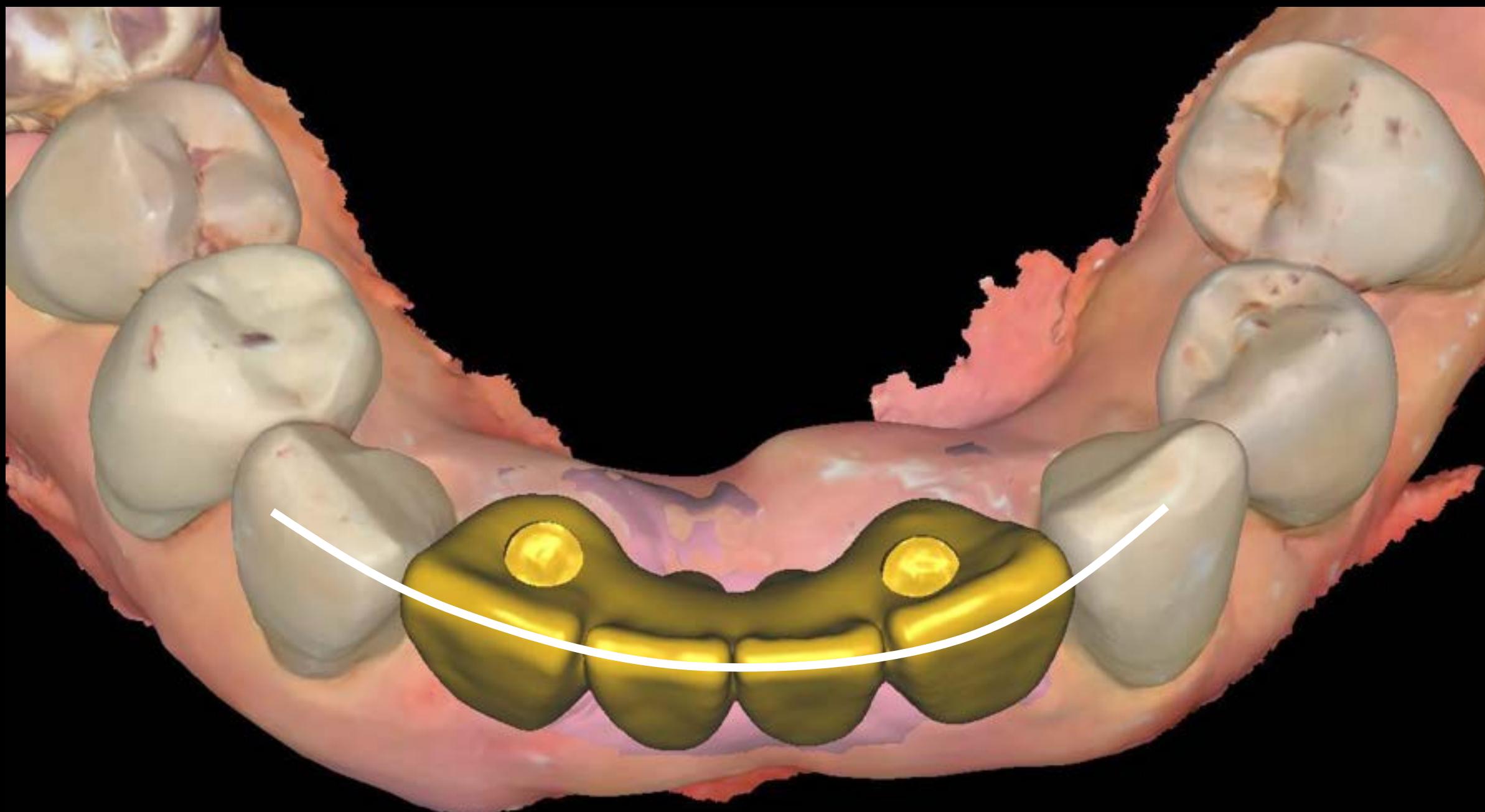


**- Stock abutment crown emergency profile design -**

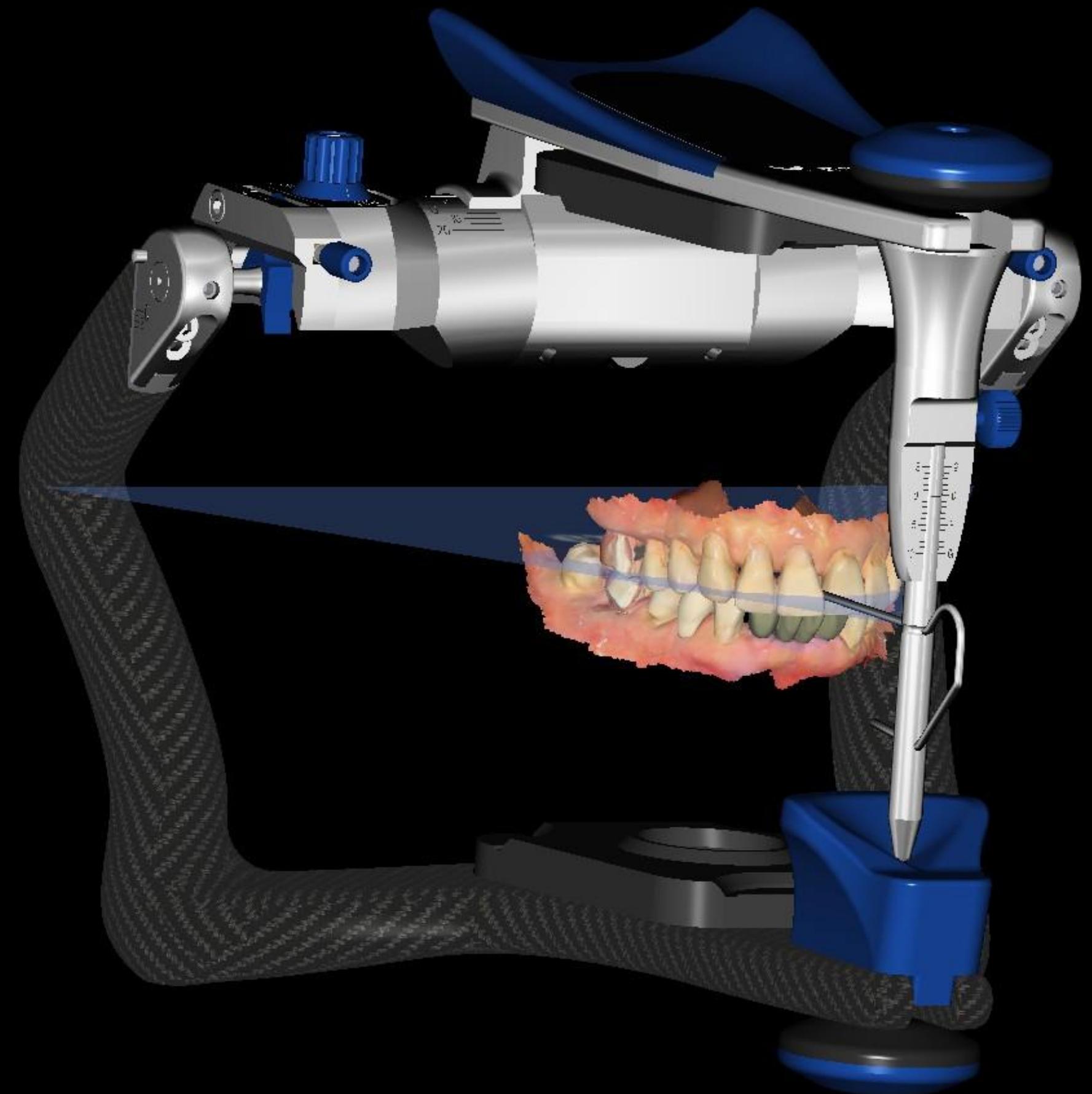
# Cad Design



# Cad Design



# Virtual Articulator

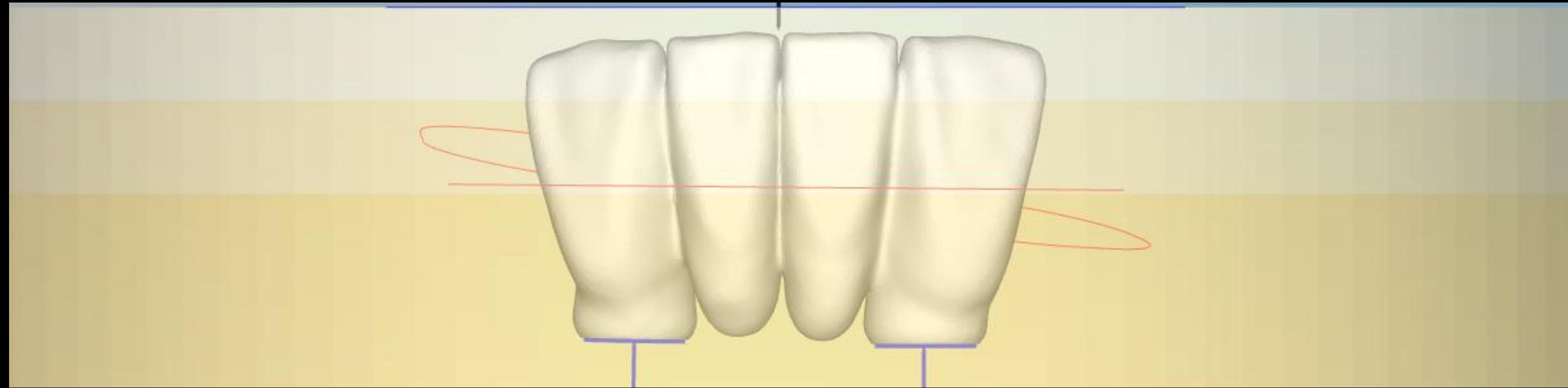


Modelless

# Shade Taking



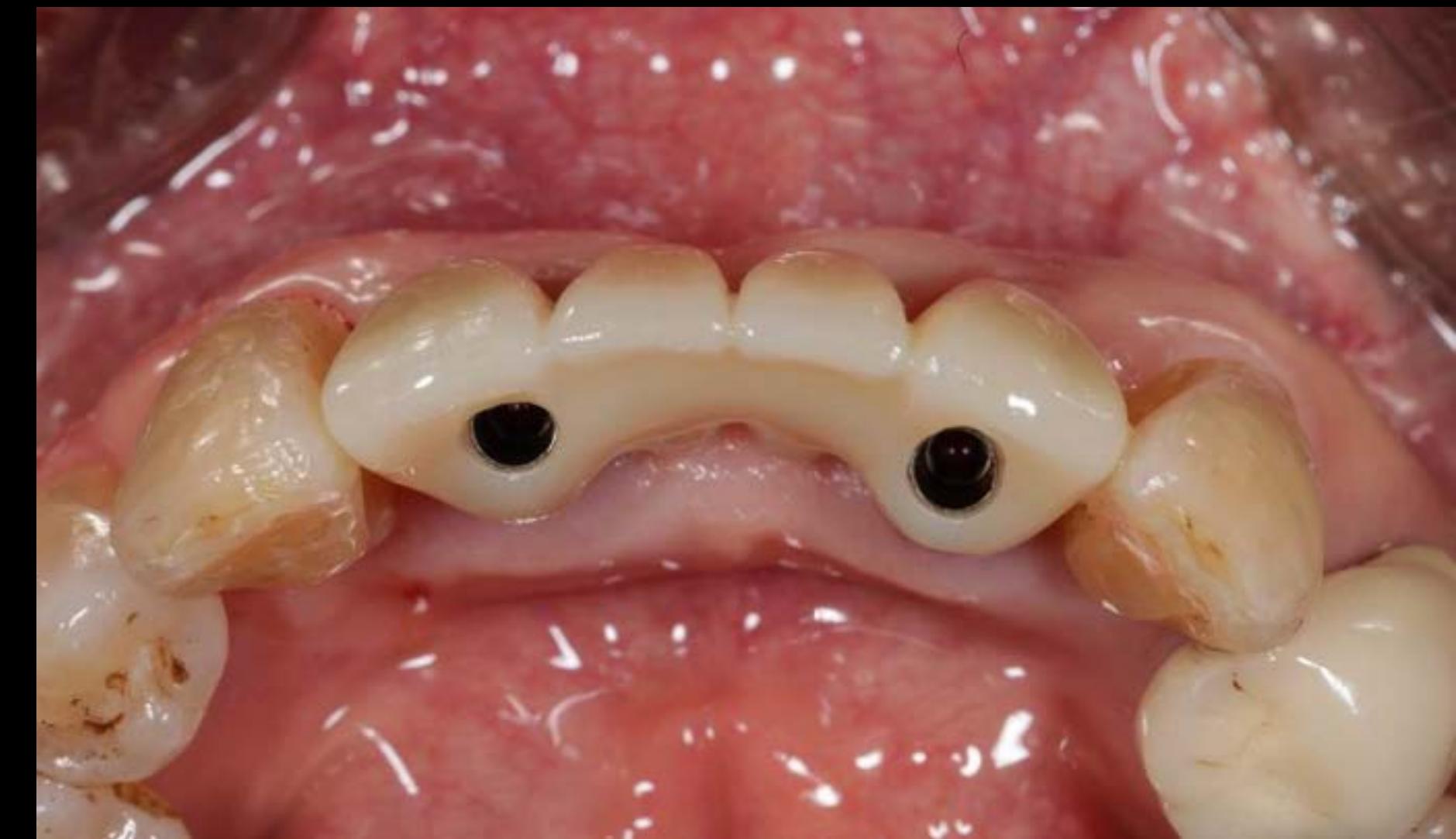
Hyper Dent



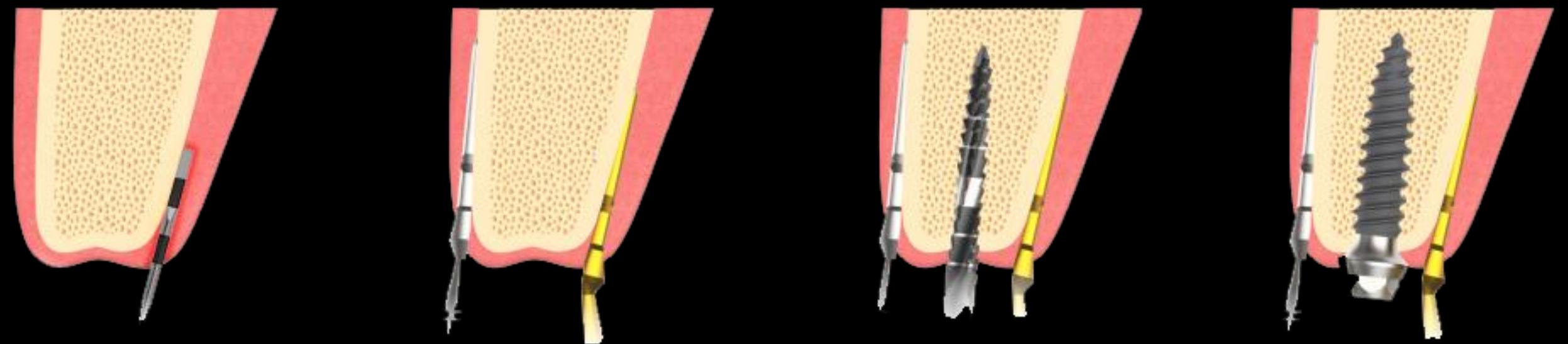
3 layer block A3.5



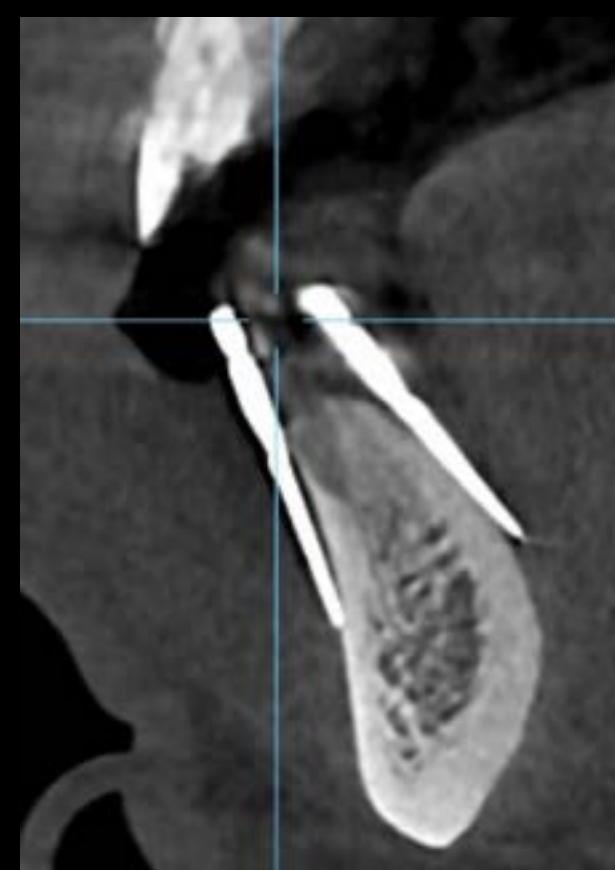
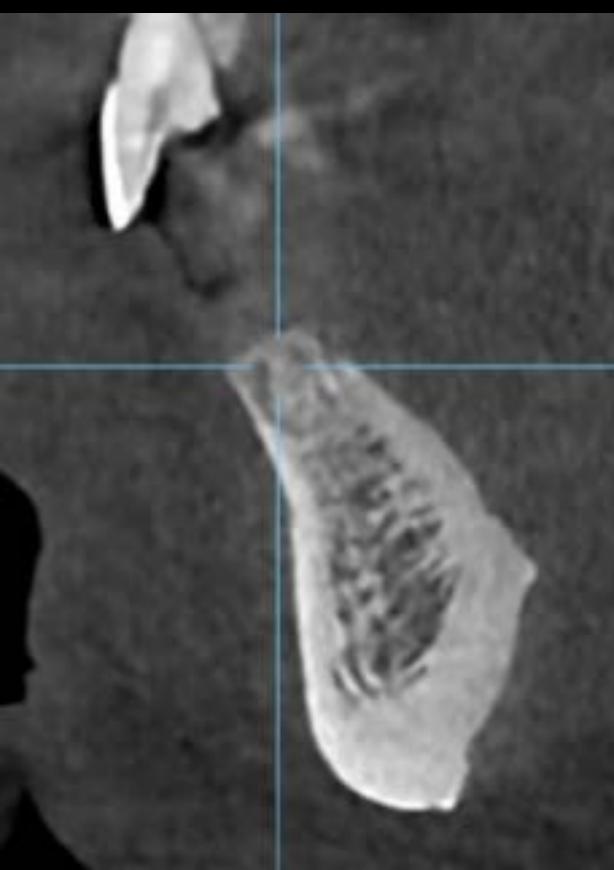
# Final Prosthesis



# PinGuide

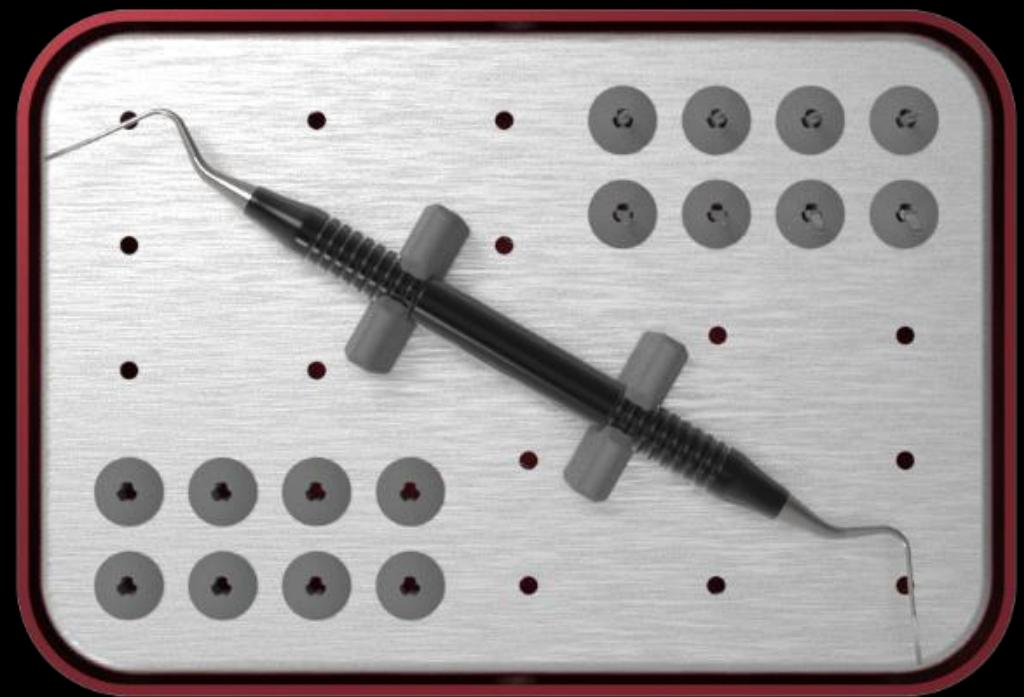
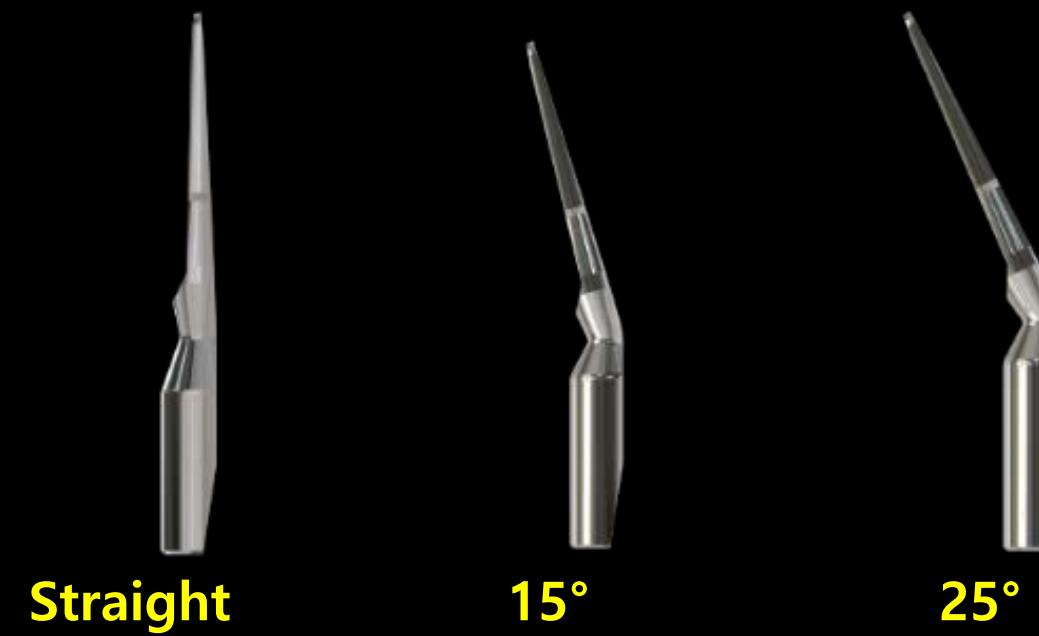


- ✓ Mapping alveolar bone
- ✓ Optimized for flapless surgery
- ✓ Excellent performance in narrow ridge case



# Pin Guide Simple

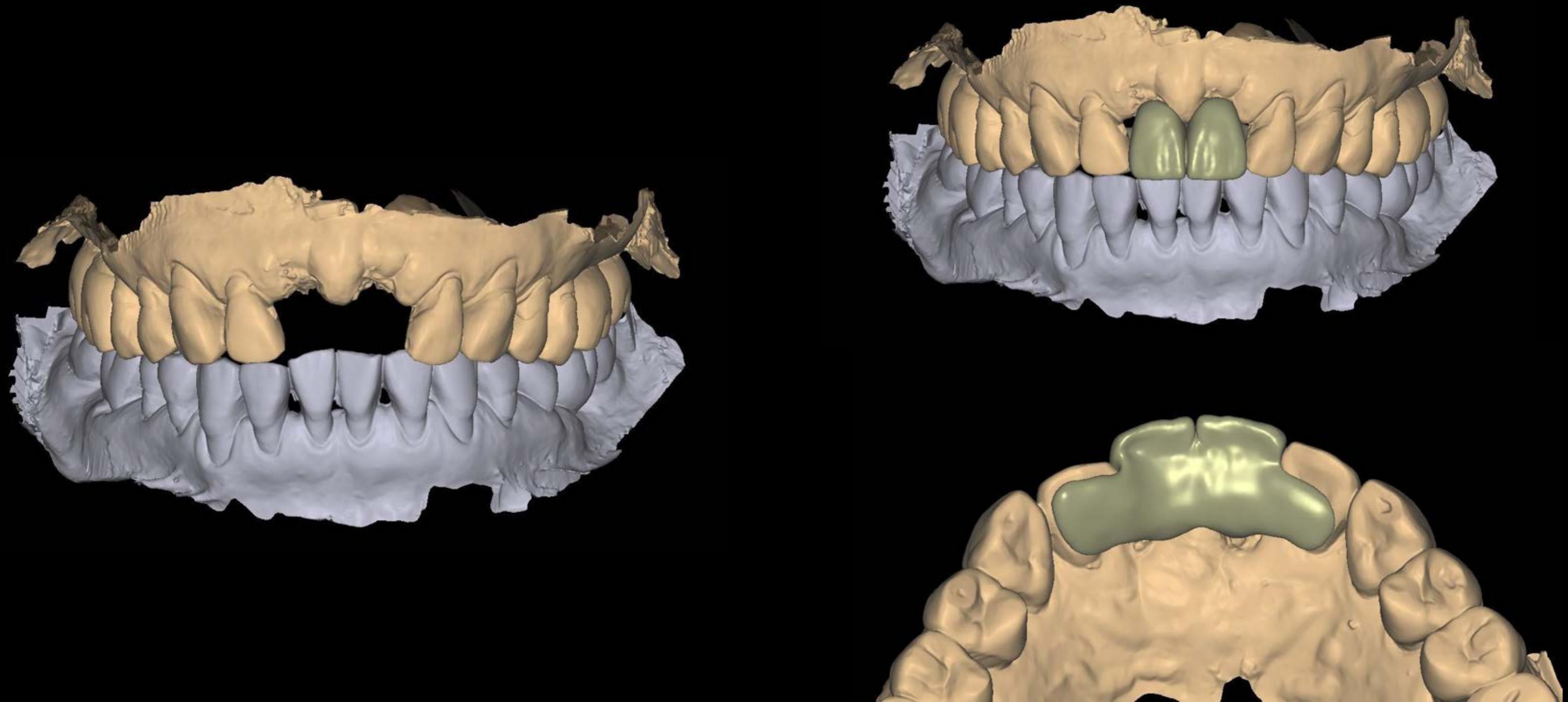
- Mapping the alveolar bone.
- Optimized for flapless surgery.
- Excellent performance in narrow ridge case.







**Bone Graft after Extraction**



For esthetics, a Maryland bridge was made until I.S. placement



PMMA Maryland br

Pre-op (2025-02-21)



Pre-op CT (2025-02-21)

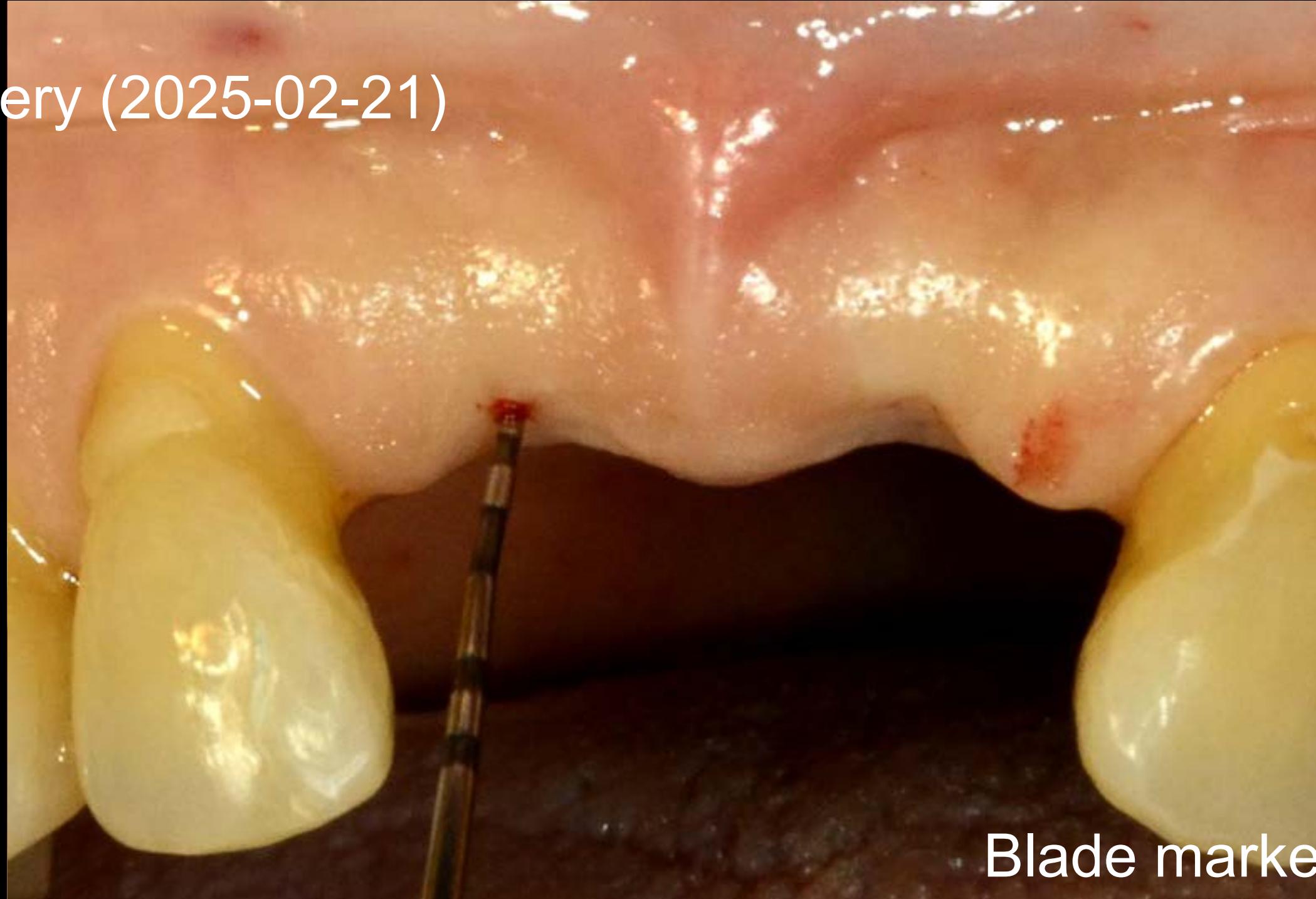


#11

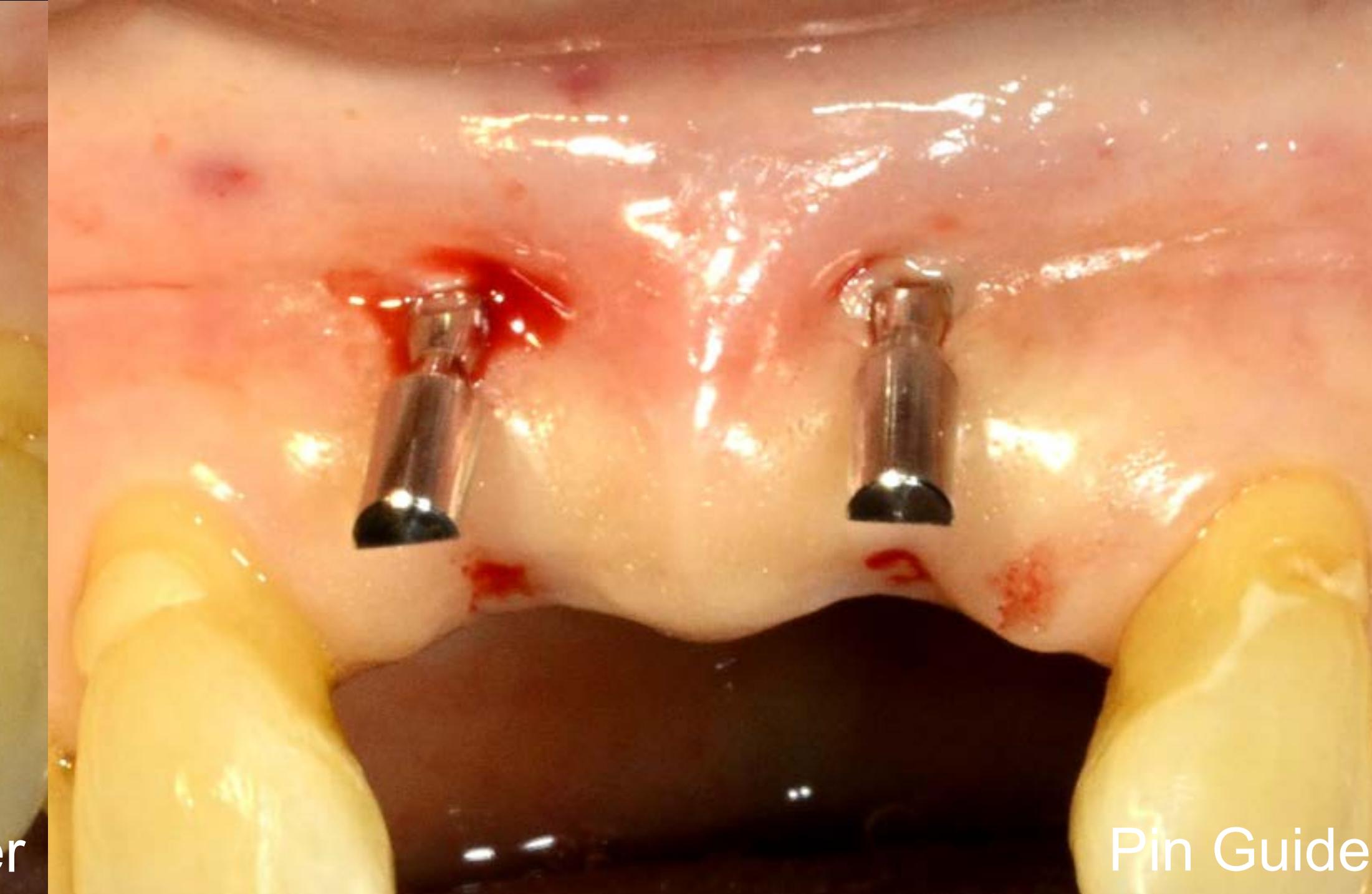


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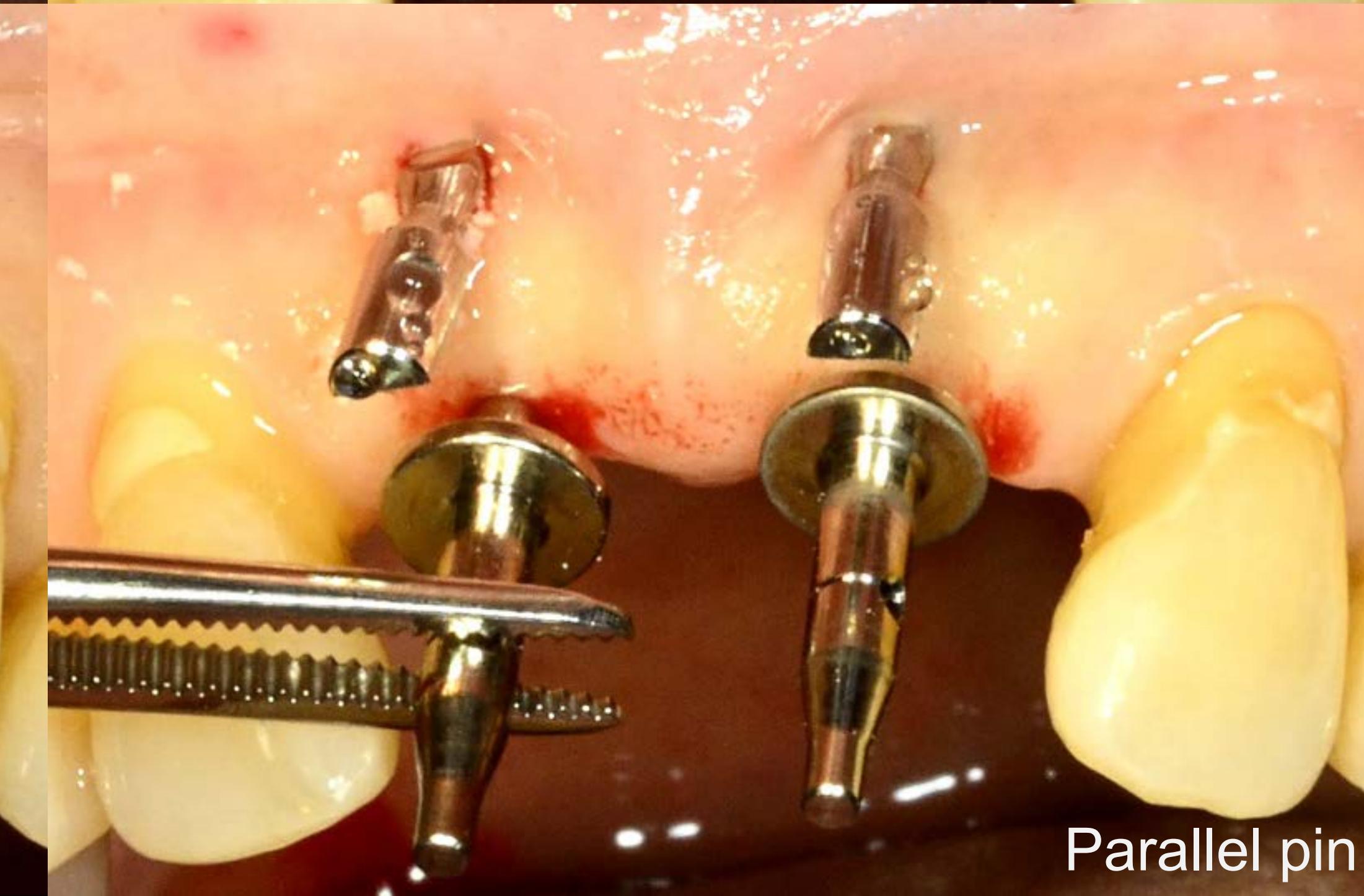
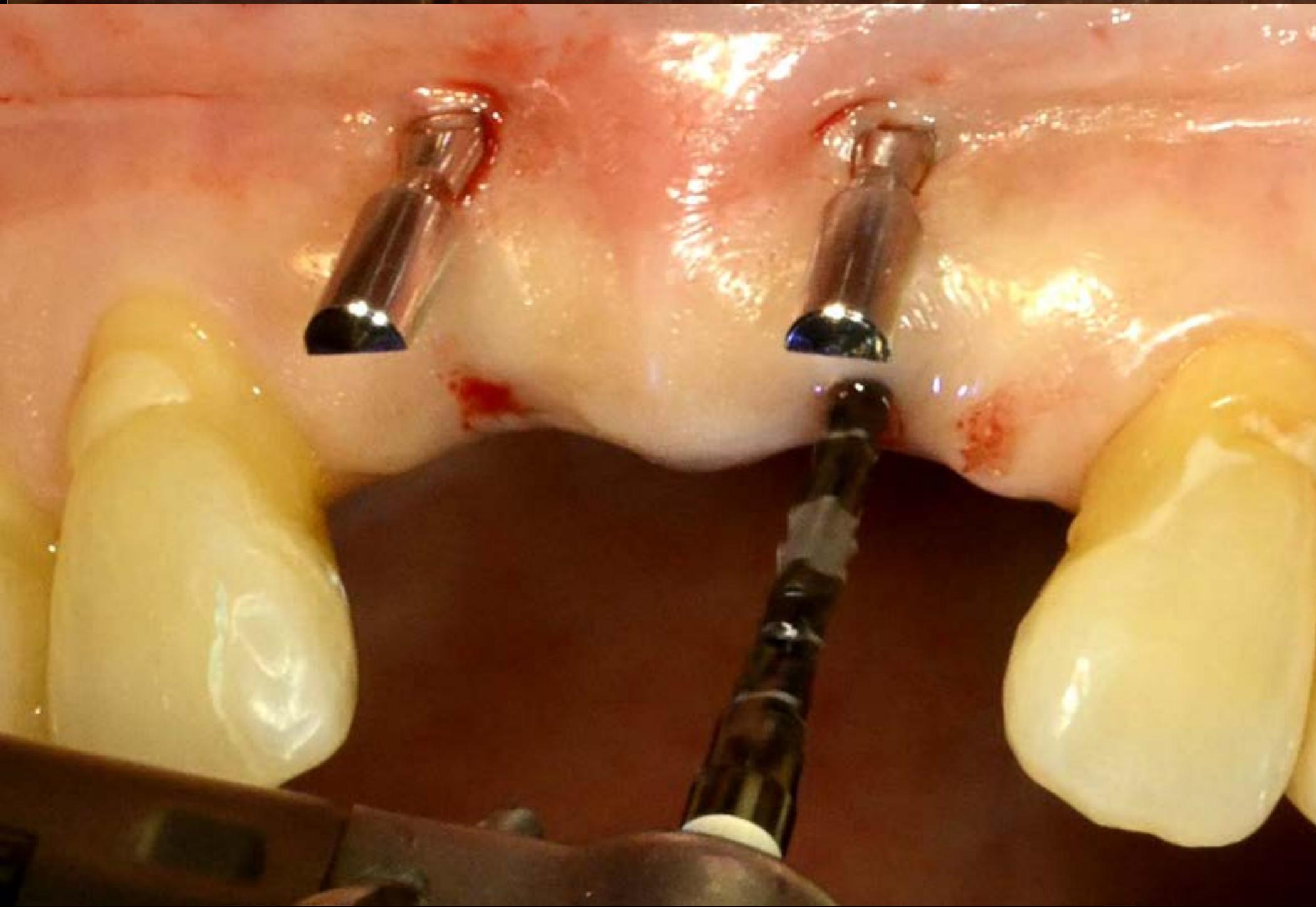
Surgery (2025-02-21)



Blade marker

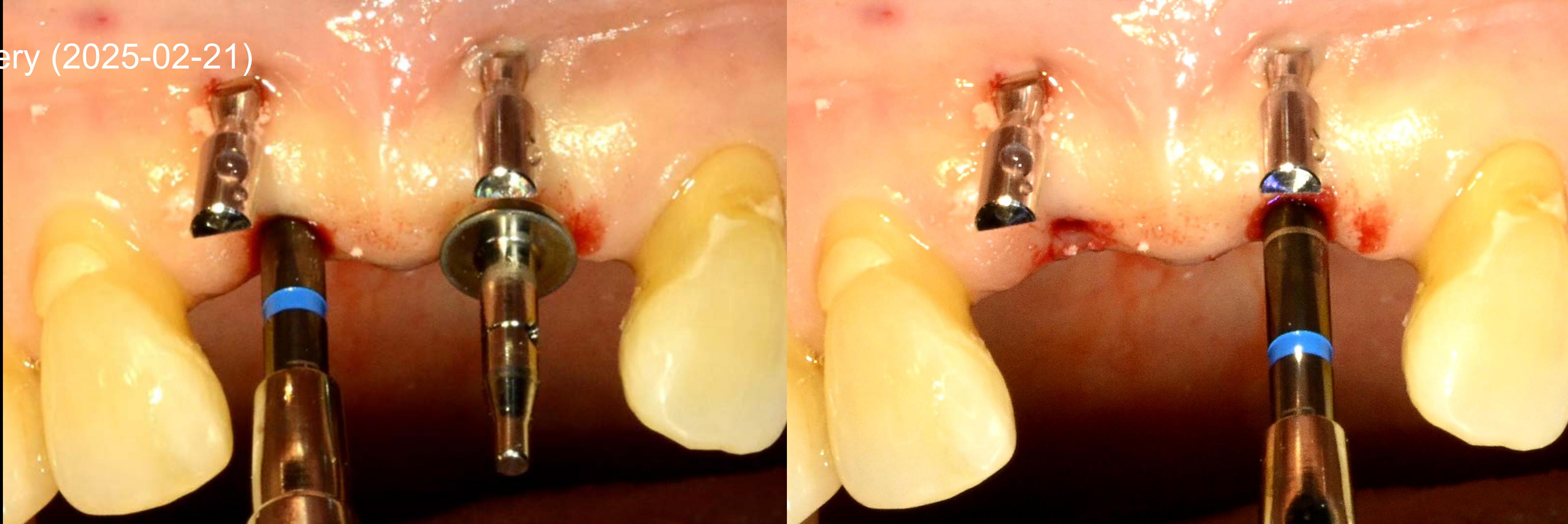


Pin Guide



Parallel pin

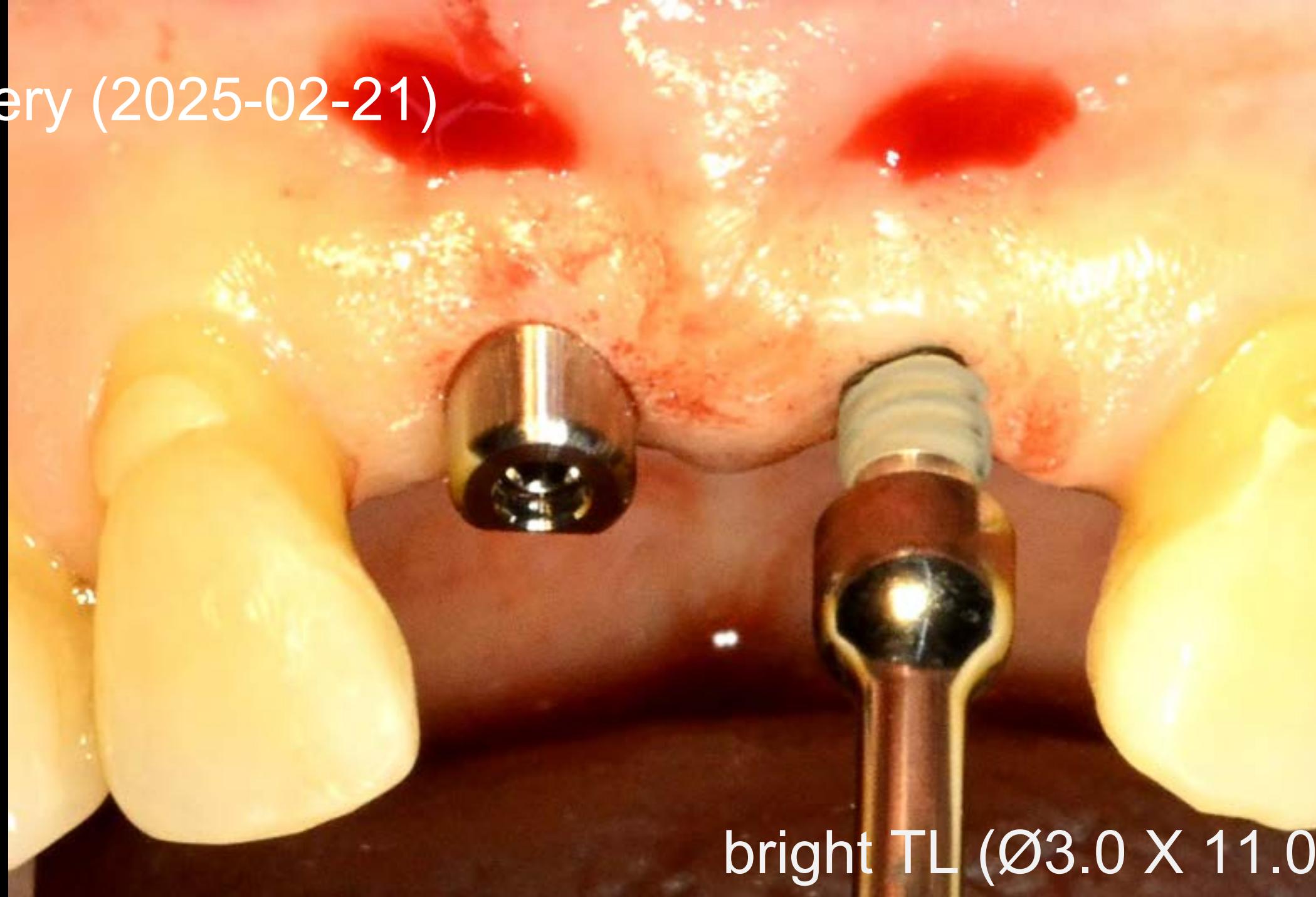
Surgery (2025-02-21)



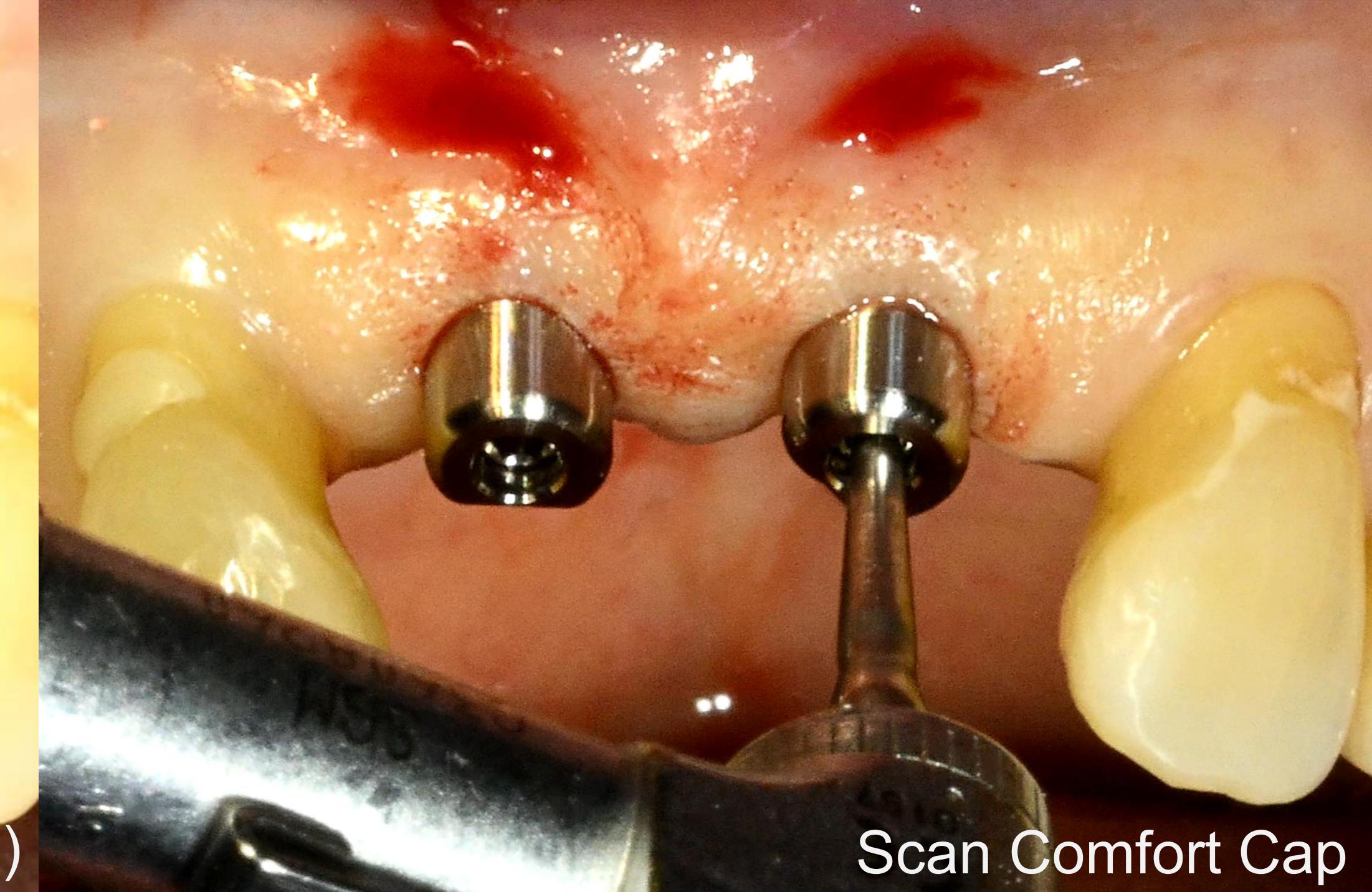
bright TL ( $\varnothing 3.0 \times 11.0$ )

Scan Comfort Cap

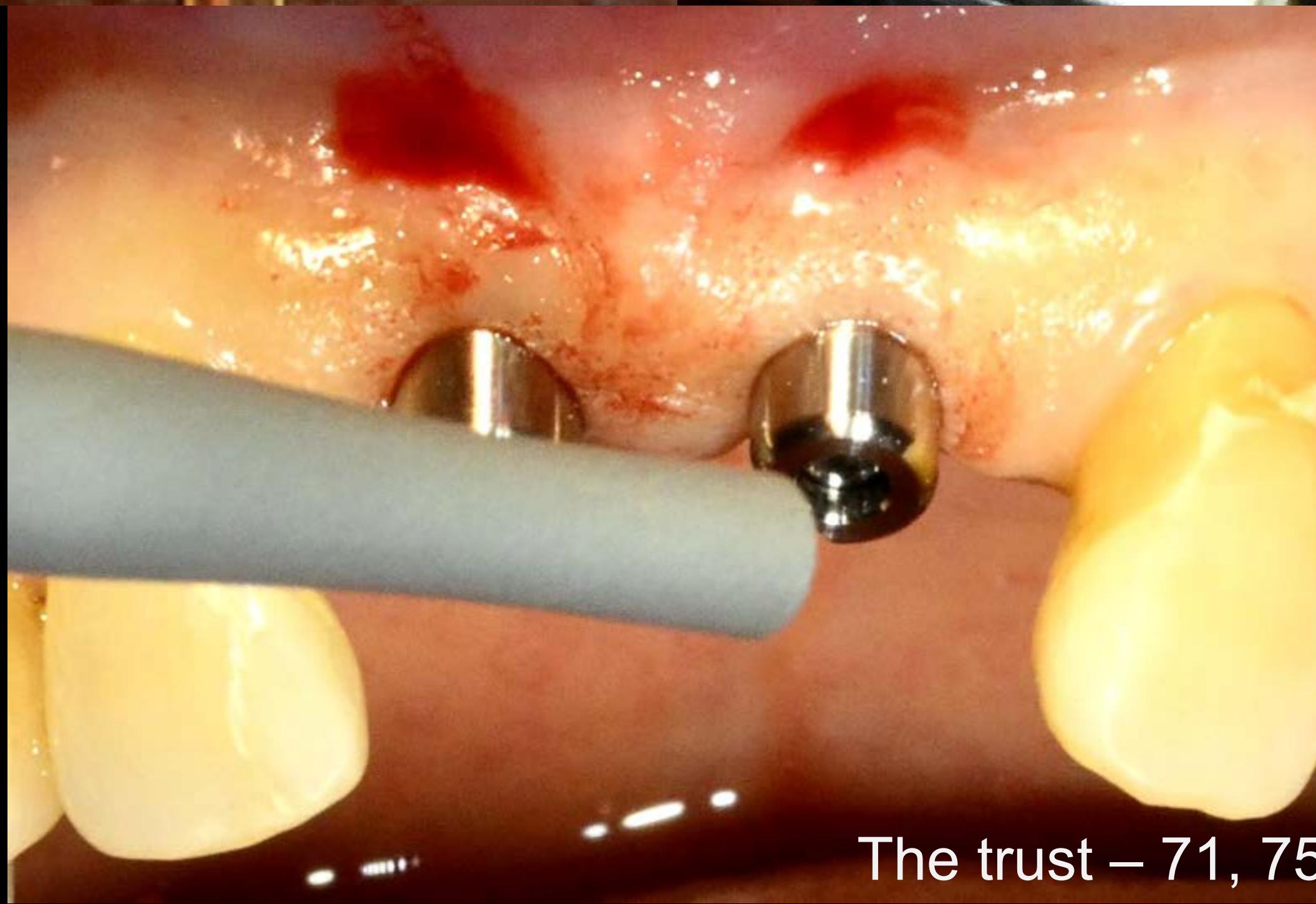
Surgery (2025-02-21)



bright TL ( $\varnothing 3.0 \times 11.0$ )

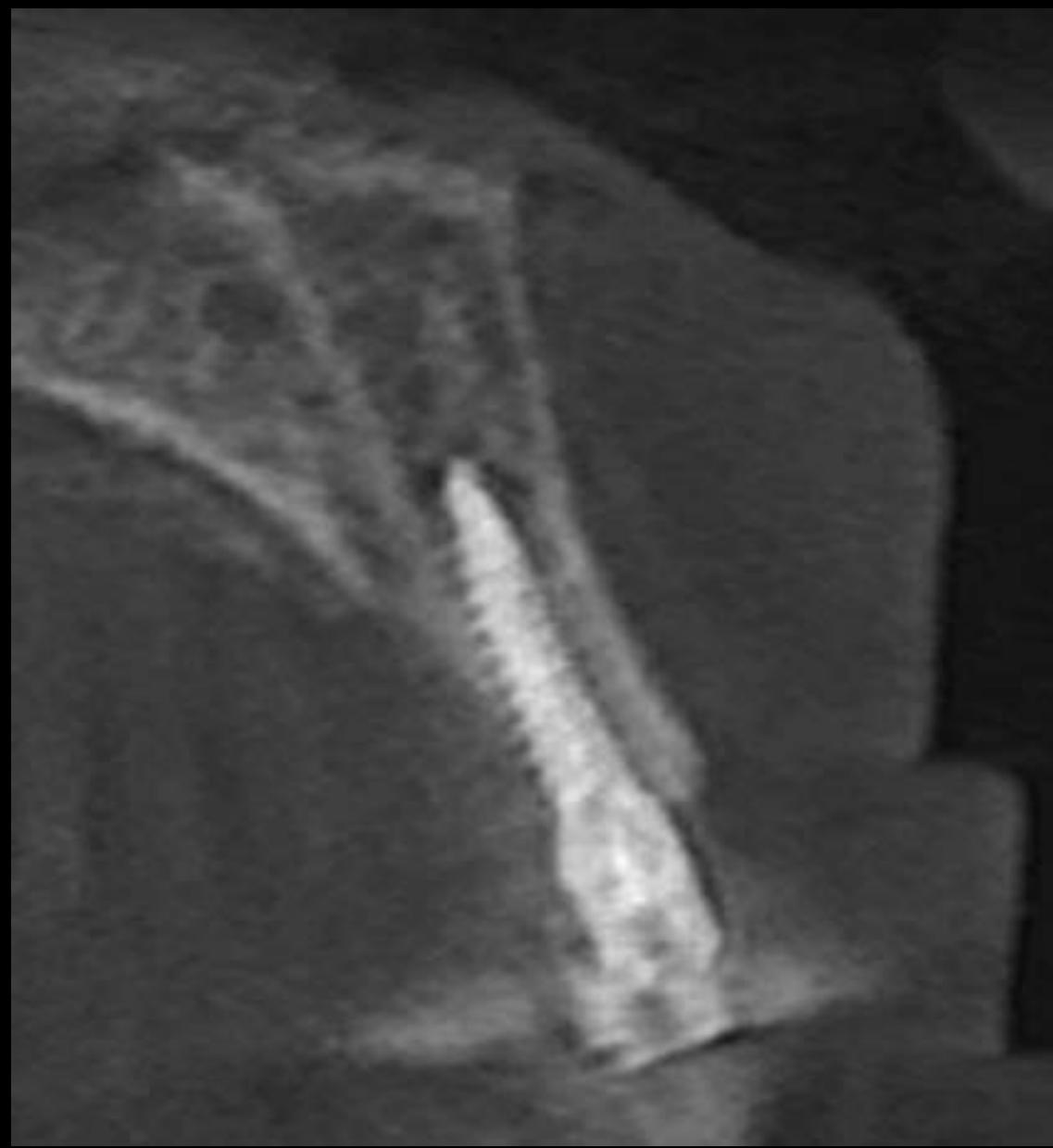


Scan Comfort Cap

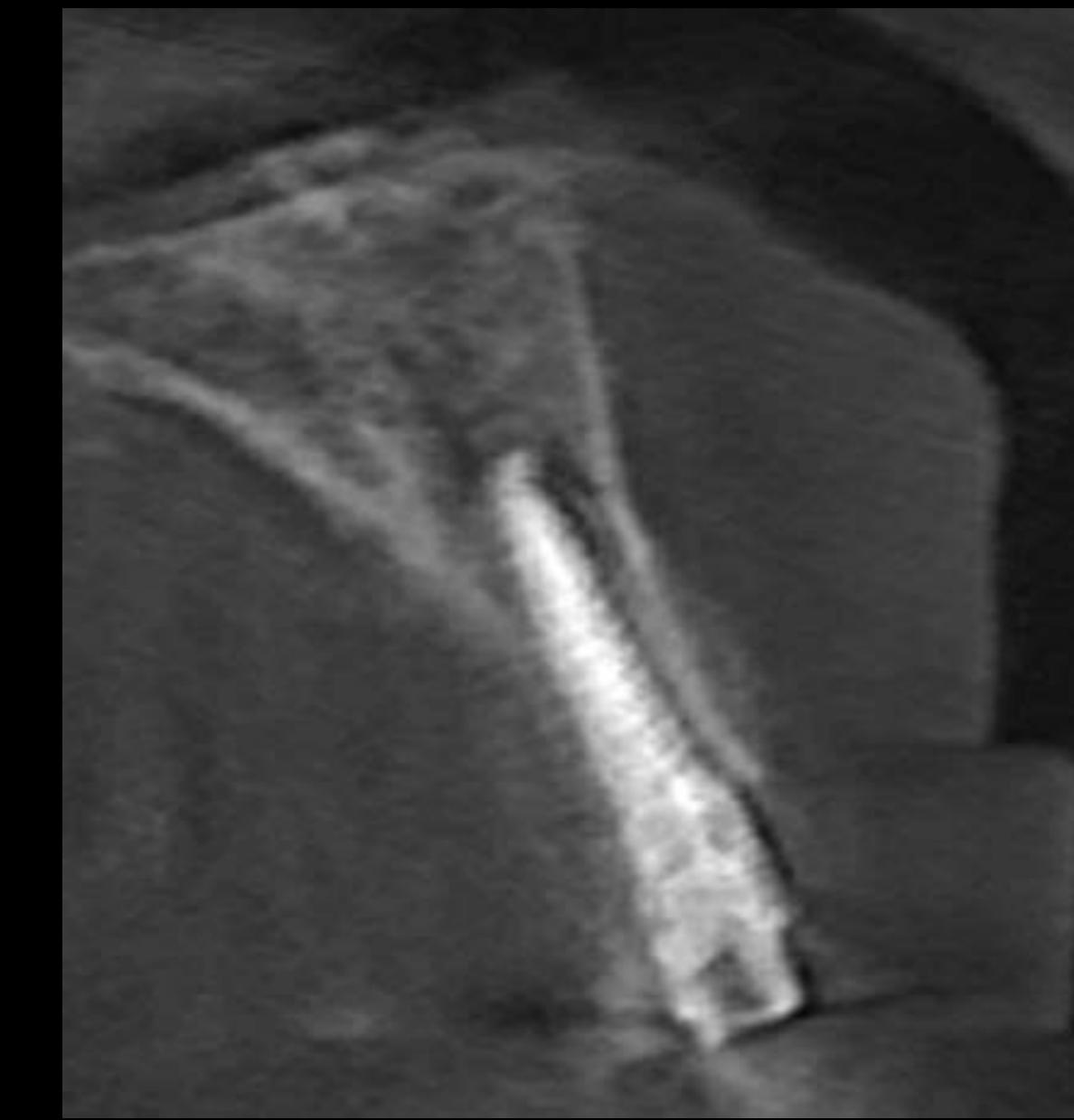


The trust – 71, 75

Post-op CT (2025-02-21)

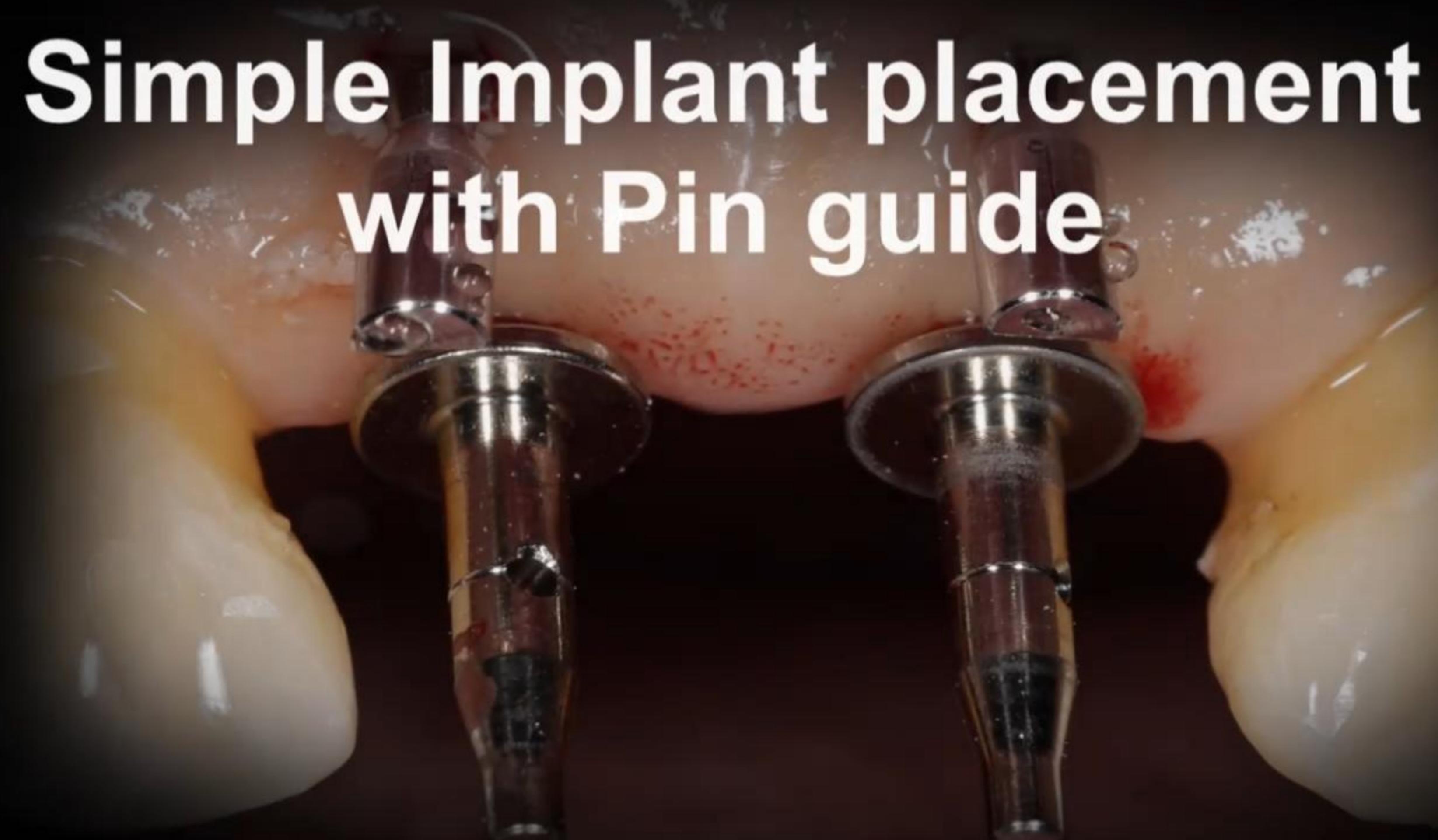


#11

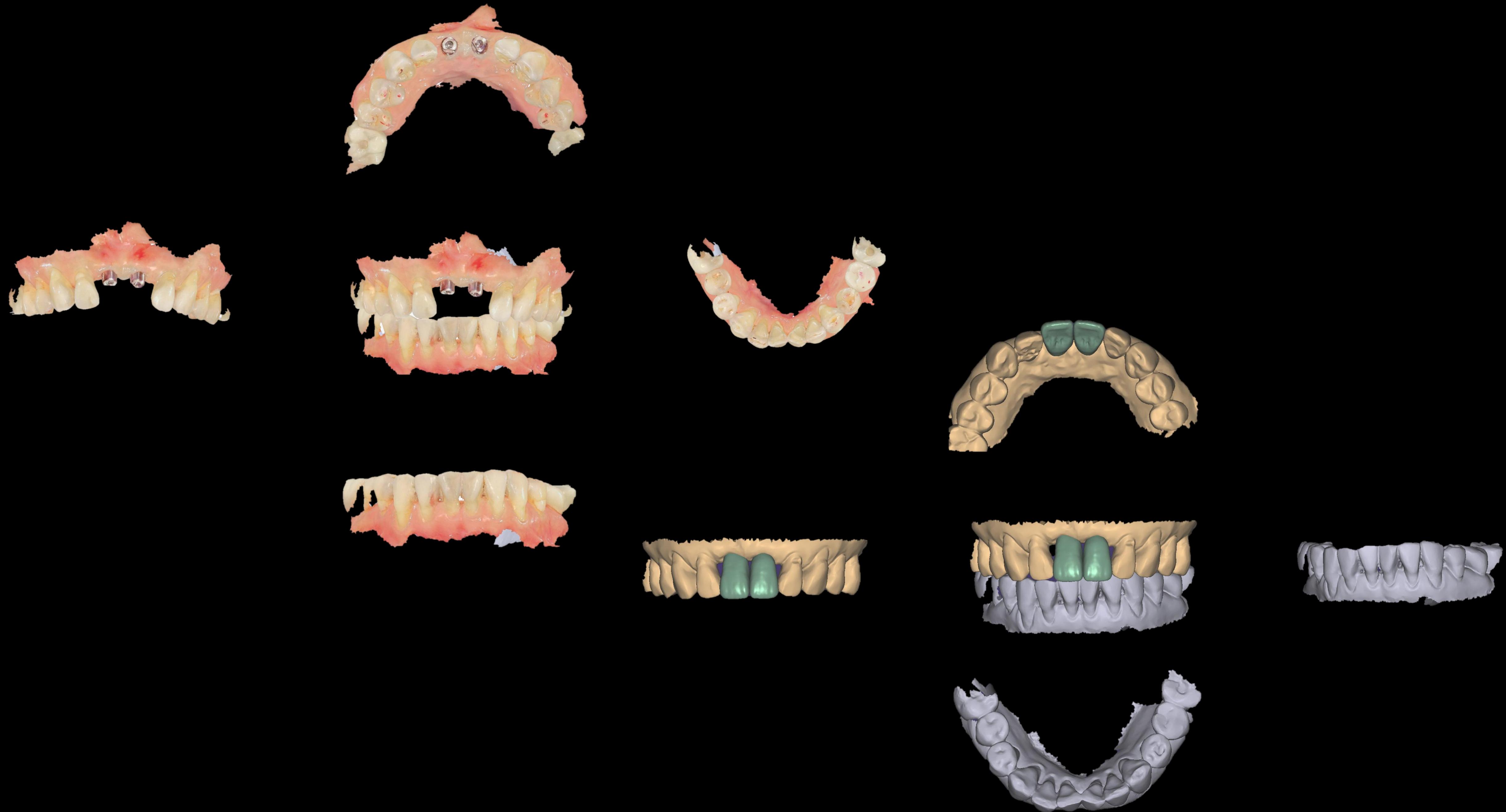


#21

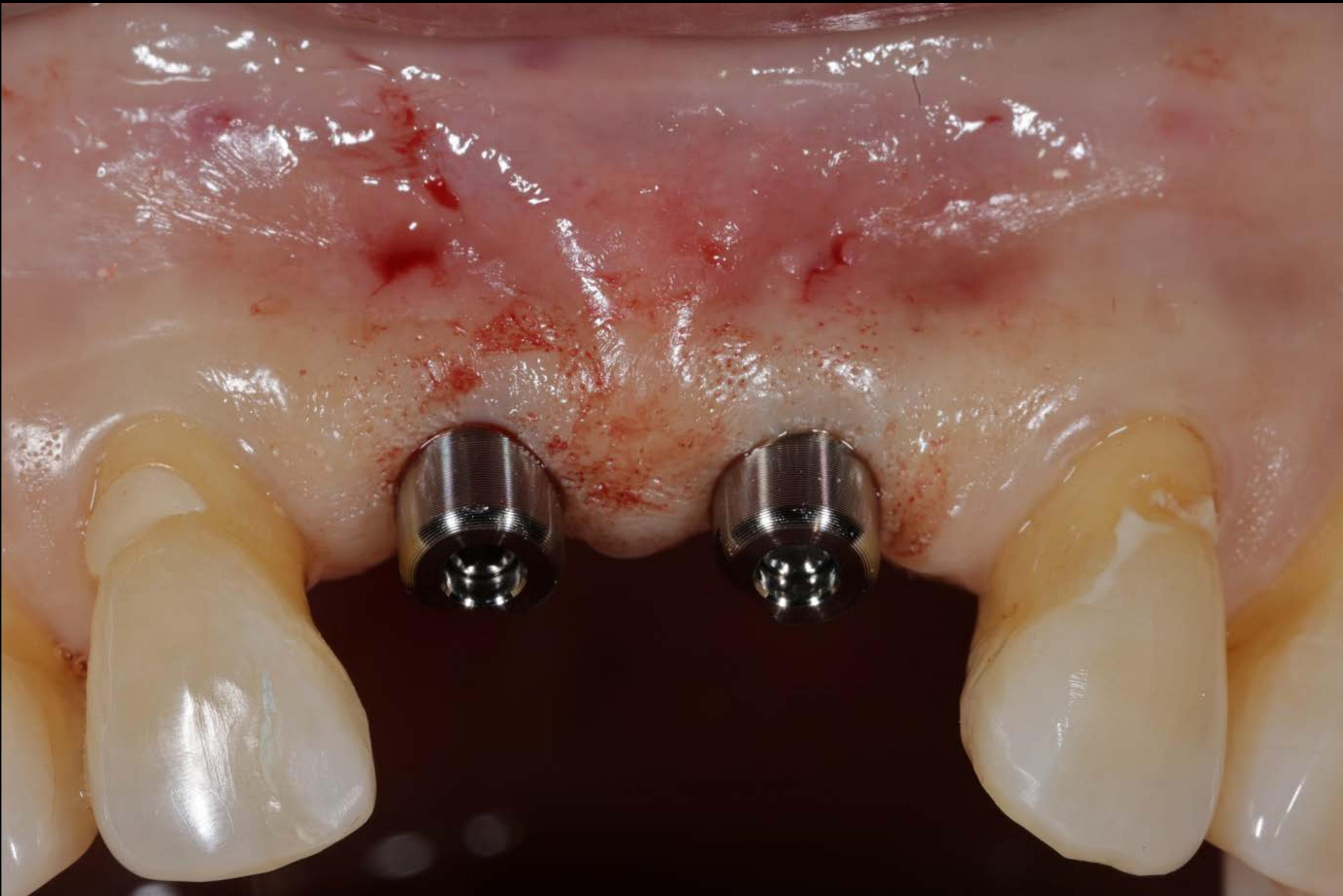
# Simple Implant placement with Pin guide



\*\* 97p Surgery VOD 2



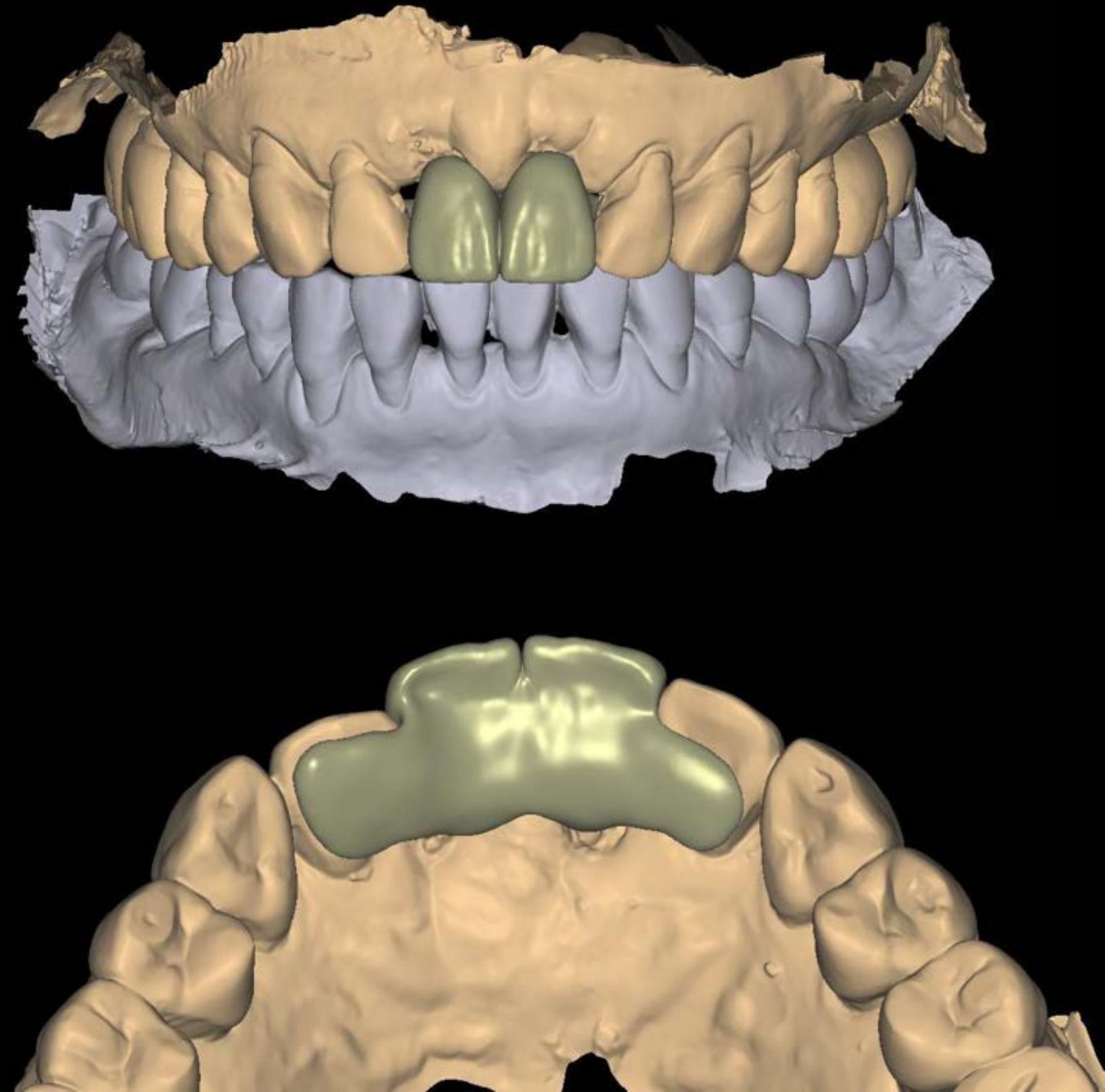
Post-op (2025-02-21)



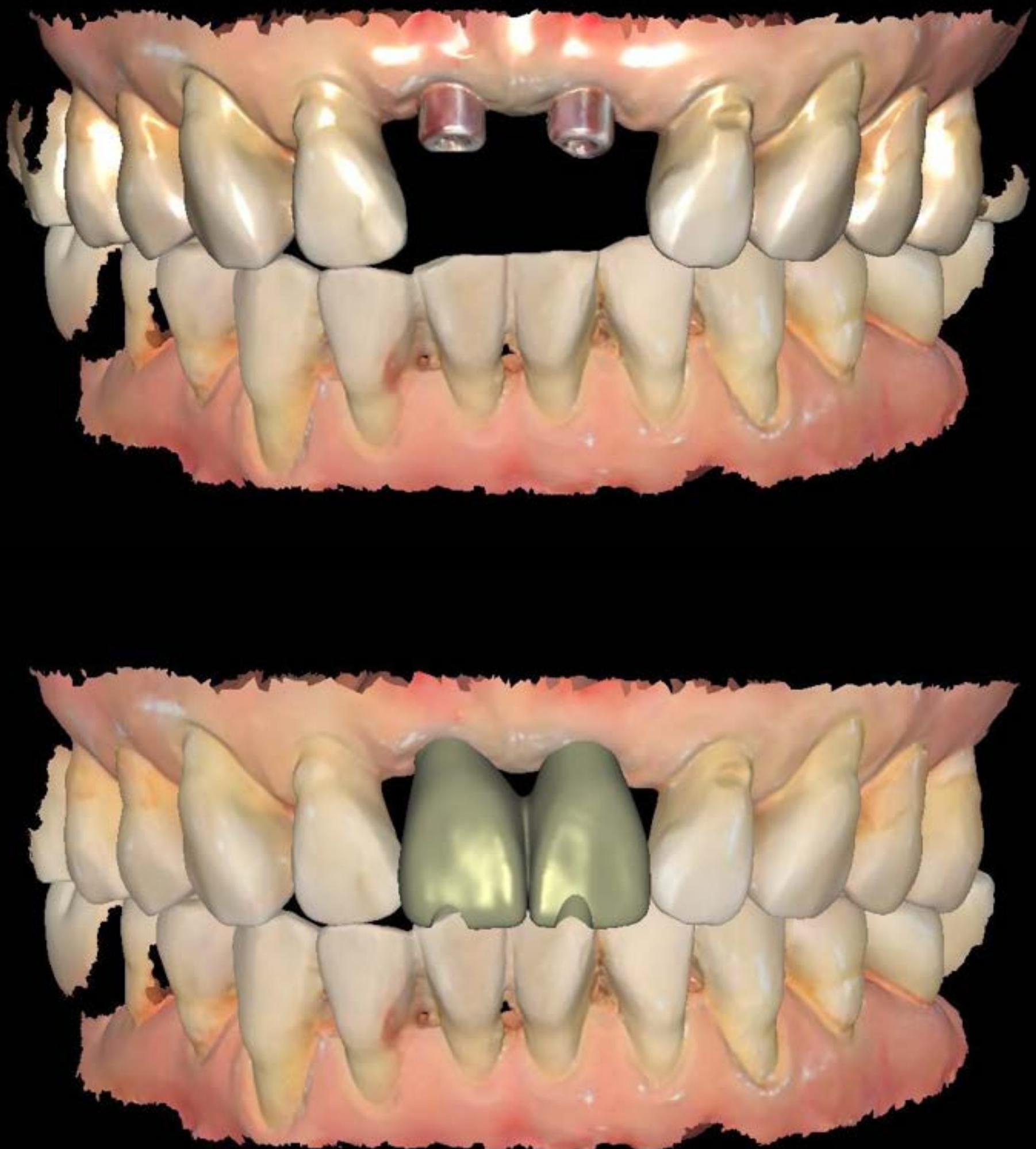
Healing : 1 week (2025-02-27)



Pre Op



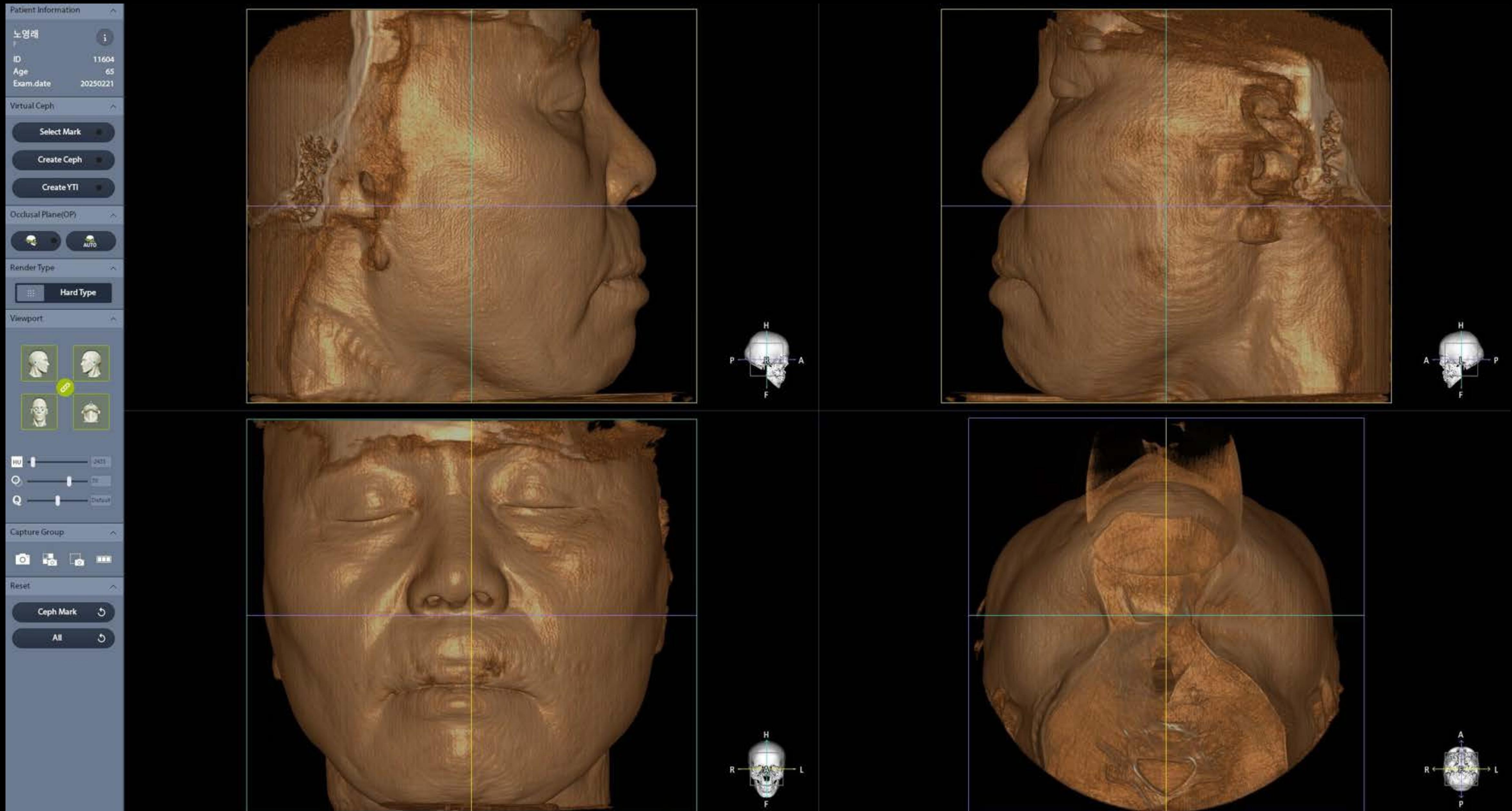
Provisional crown



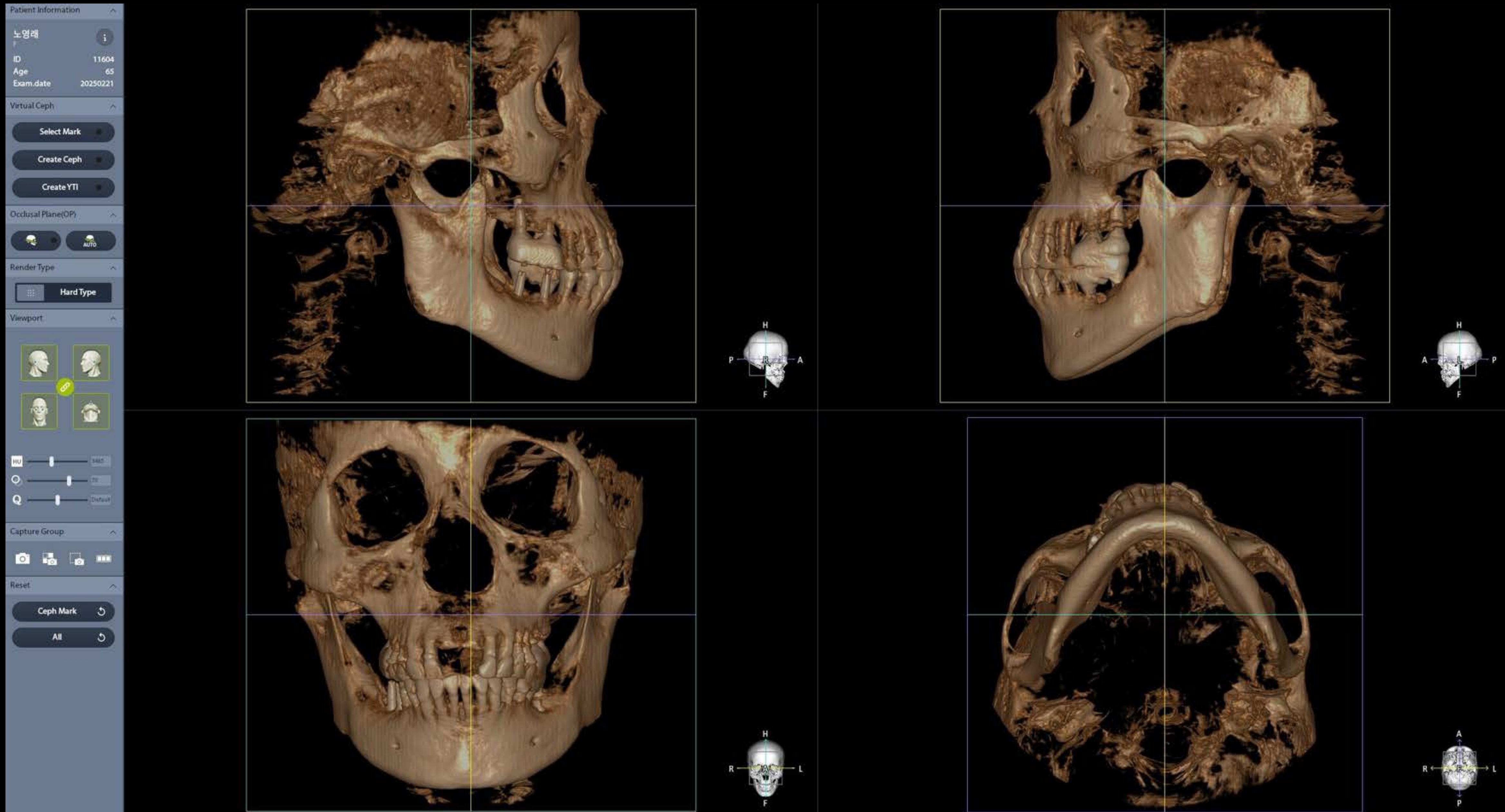
Abutment adaptation (2025-02-27)



# CT Viewer



# CT Viewer



# CT Viewer

Patient Information

노영래 i  
ID 11604  
Age 65  
Exam.date 20250221

Virtual Ceph

Select Mark  
Create Ceph  
Create YTI

Occlusal Plane(OP)

Landmark Mode AUTO  
Plane Unlock

Render Type

Hard Type

Viewport

Orbitale Plane

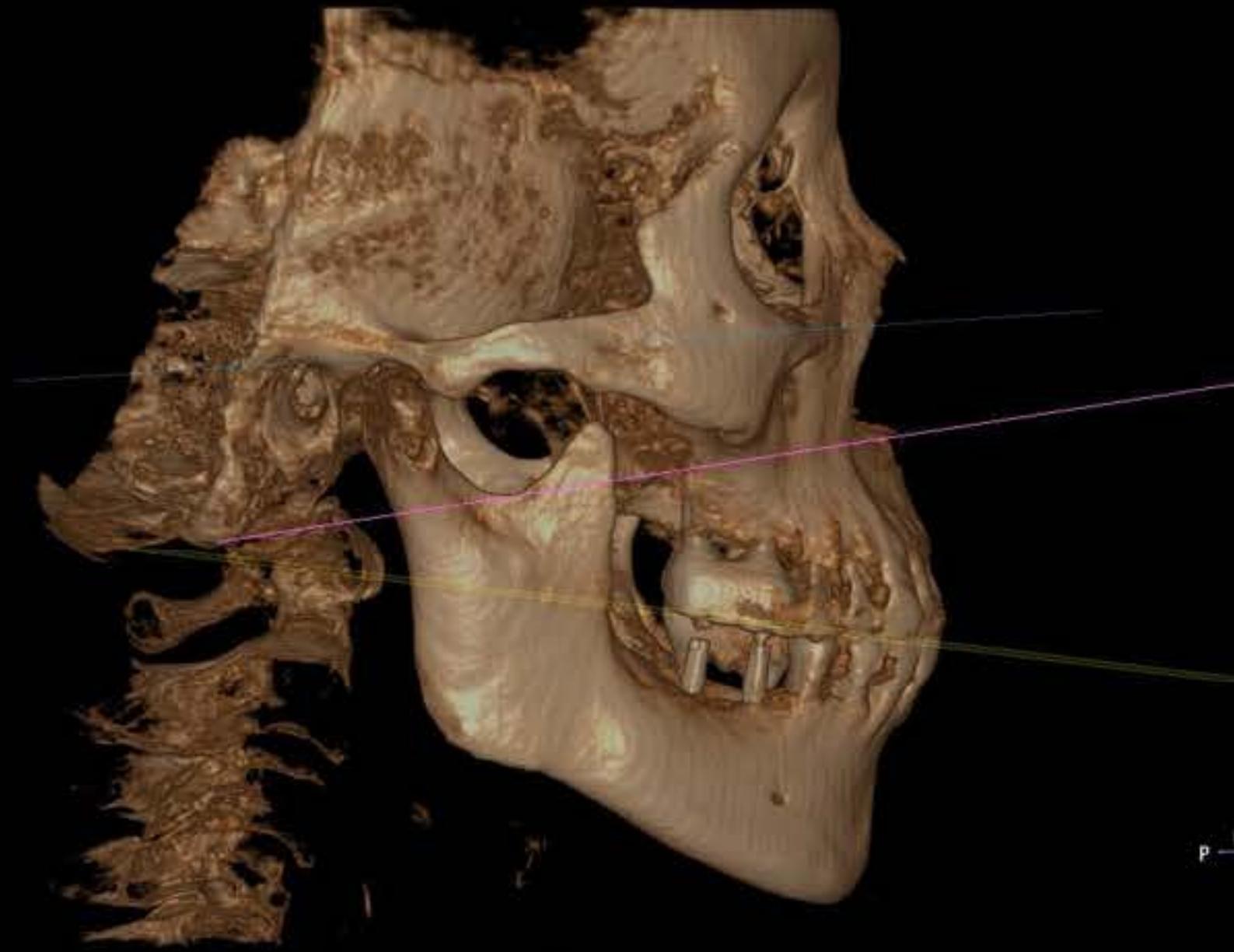
HU 1648  
O 30  
Q Default

Capture Group

Reset

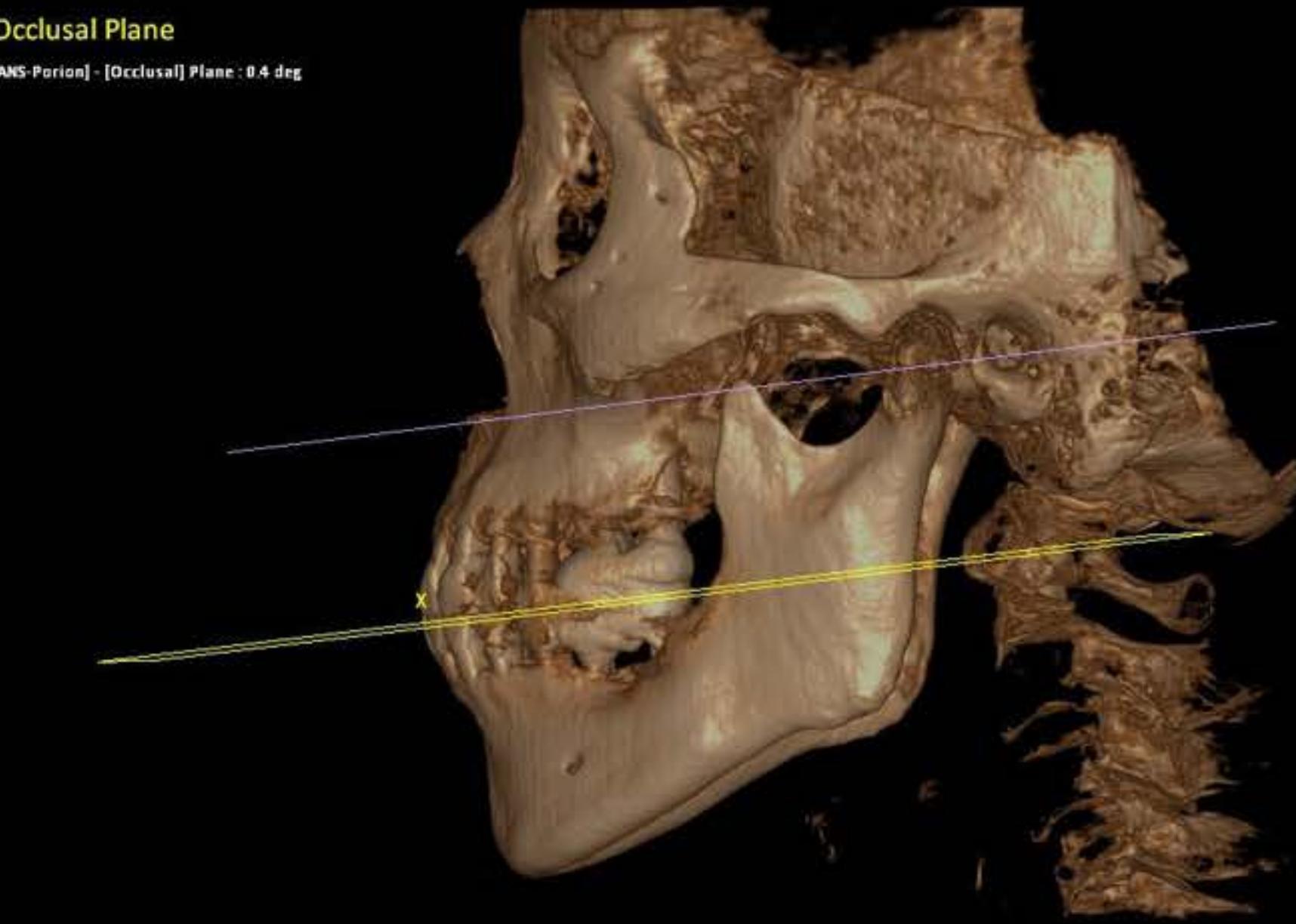
Ceph Mark  
All

## ANS-PNS Plane

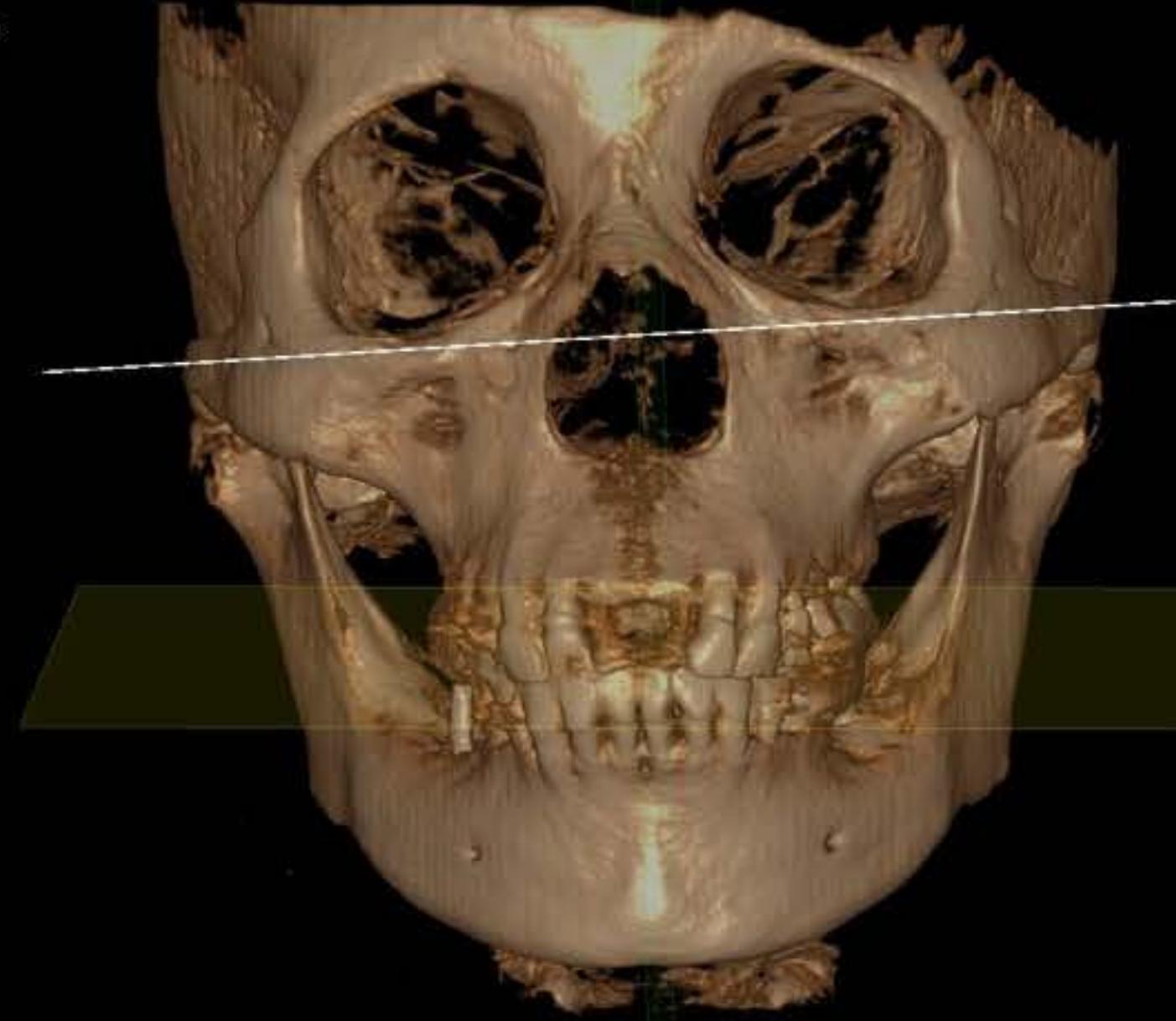


## Occlusal Plane

[ANS-Parion] - [Occlusal] Plane : 0.4 deg



## Mid Suture Plane



# CT Viewer

**Patient Information**

노영래 i  
ID 11604  
Age 65  
Exam.date 20250221

**Virtual Ceph**

Select Mark  
Create Ceph  
Create YTI  
Occlusal Plane(OP)

Landmark Mode AUTO  
Plane Unlock

Render Type Hard Type

Viewports

Orbitale Plane

HU 2027  
O 30  
Q Default

Capture Group

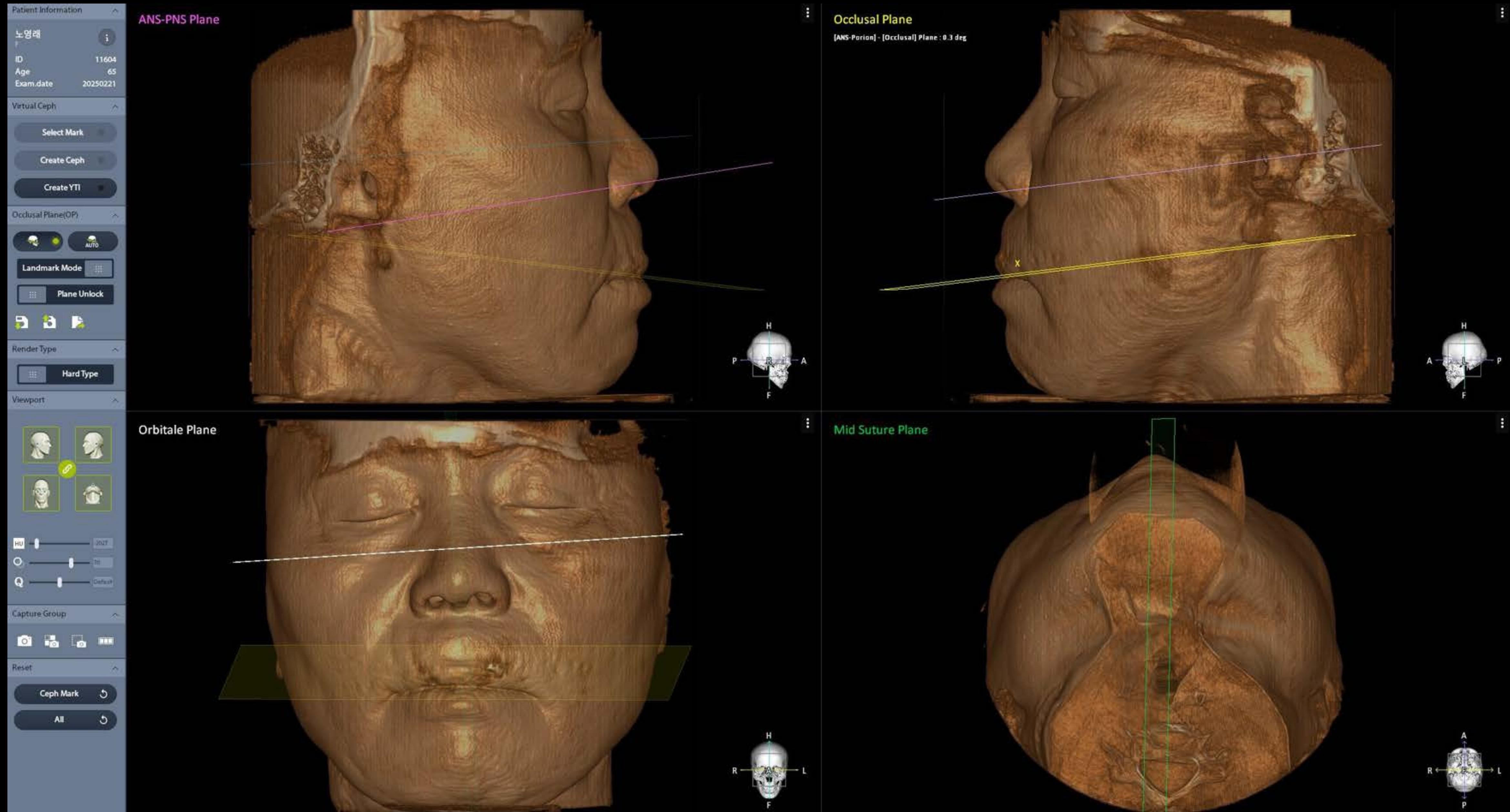
Reset

Ceph Mark  
All

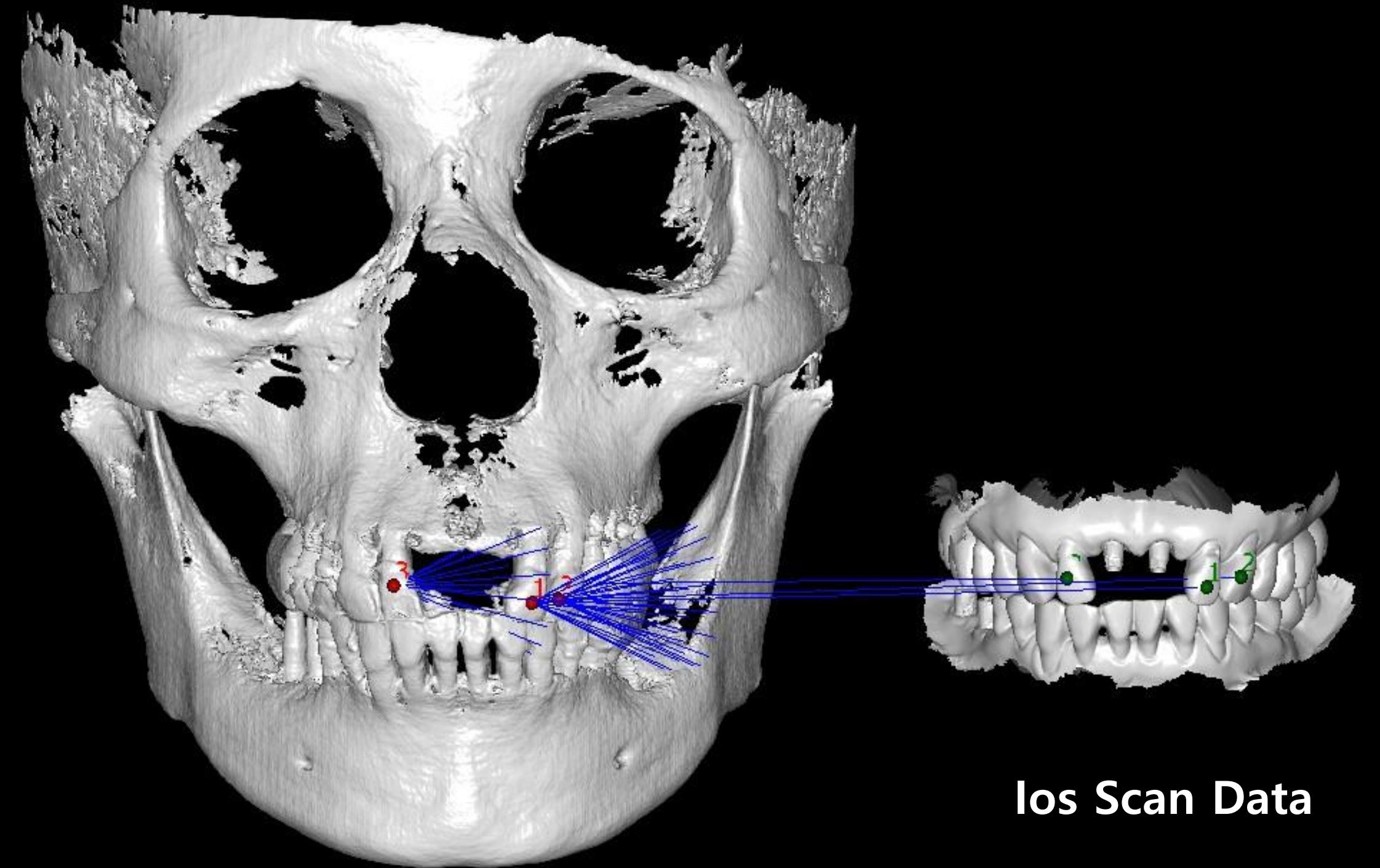
**ANS-PNS Plane**

**Occlusal Plane**  
[ANS-Point] - [Occlusal] Plane : 0.3 deg

**Mid Suture Plane**



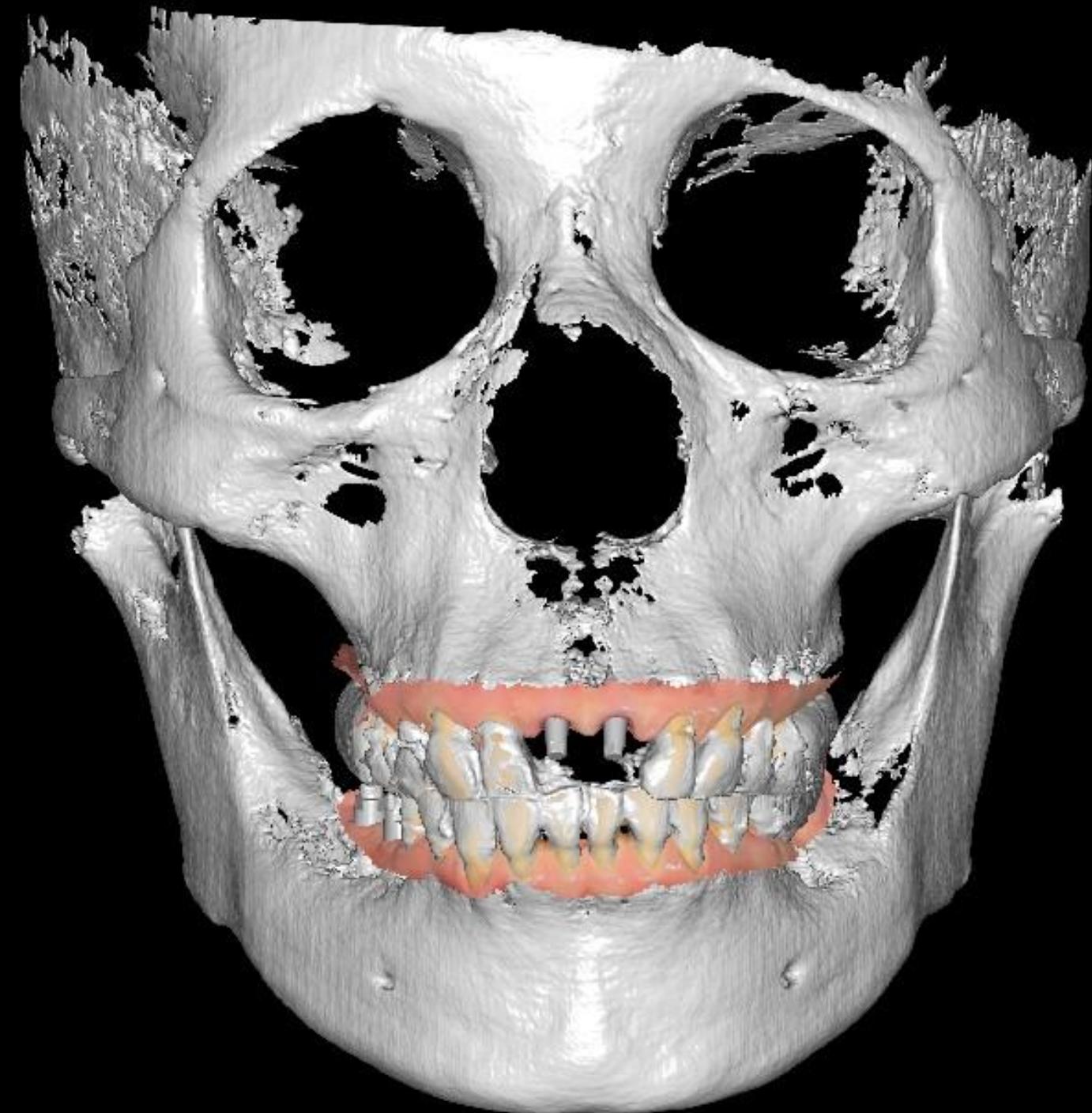
# Cad Data Stitching



CT data Hard Tissue

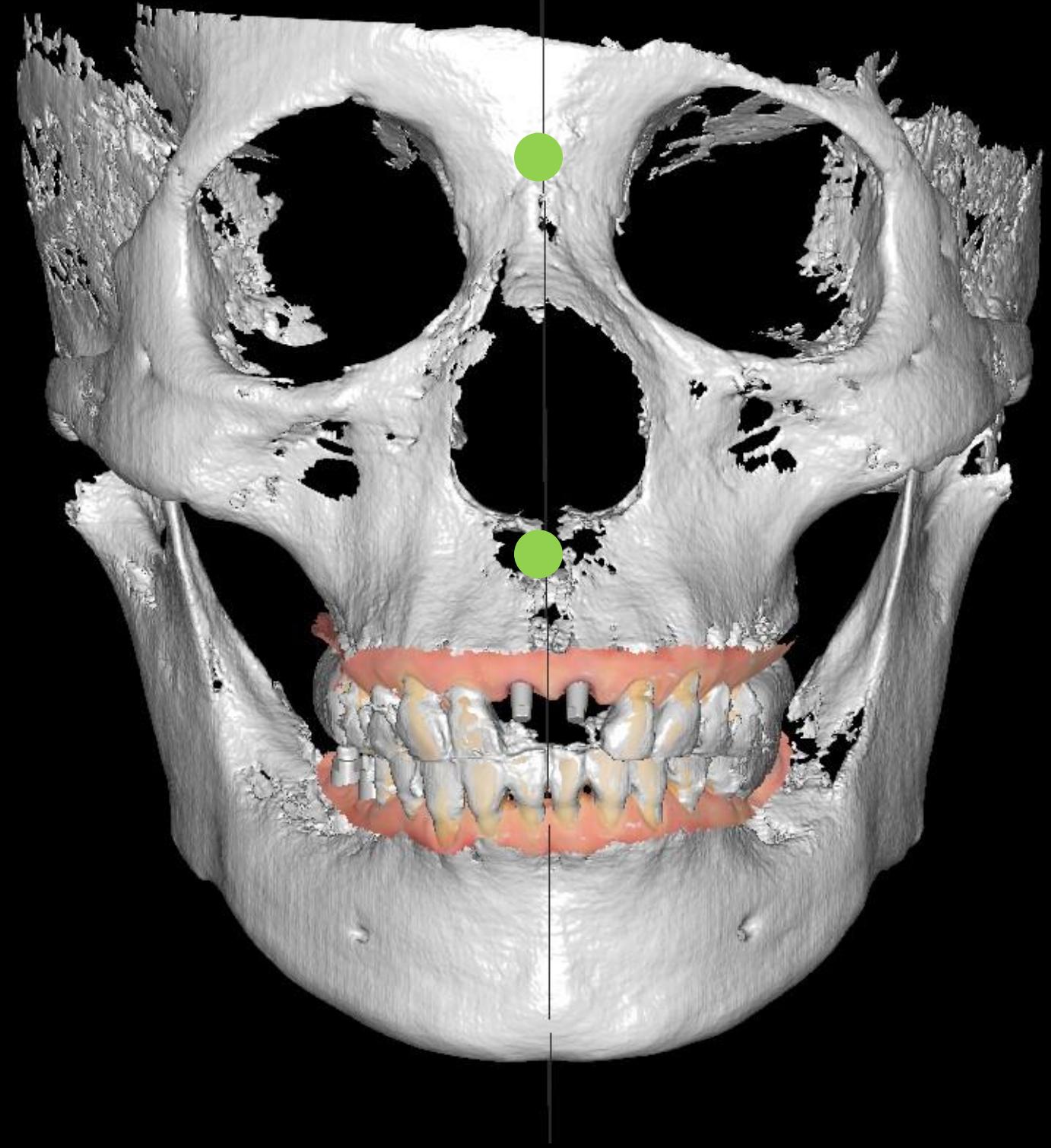
Ios Scan Data

# Cad Data Stitching

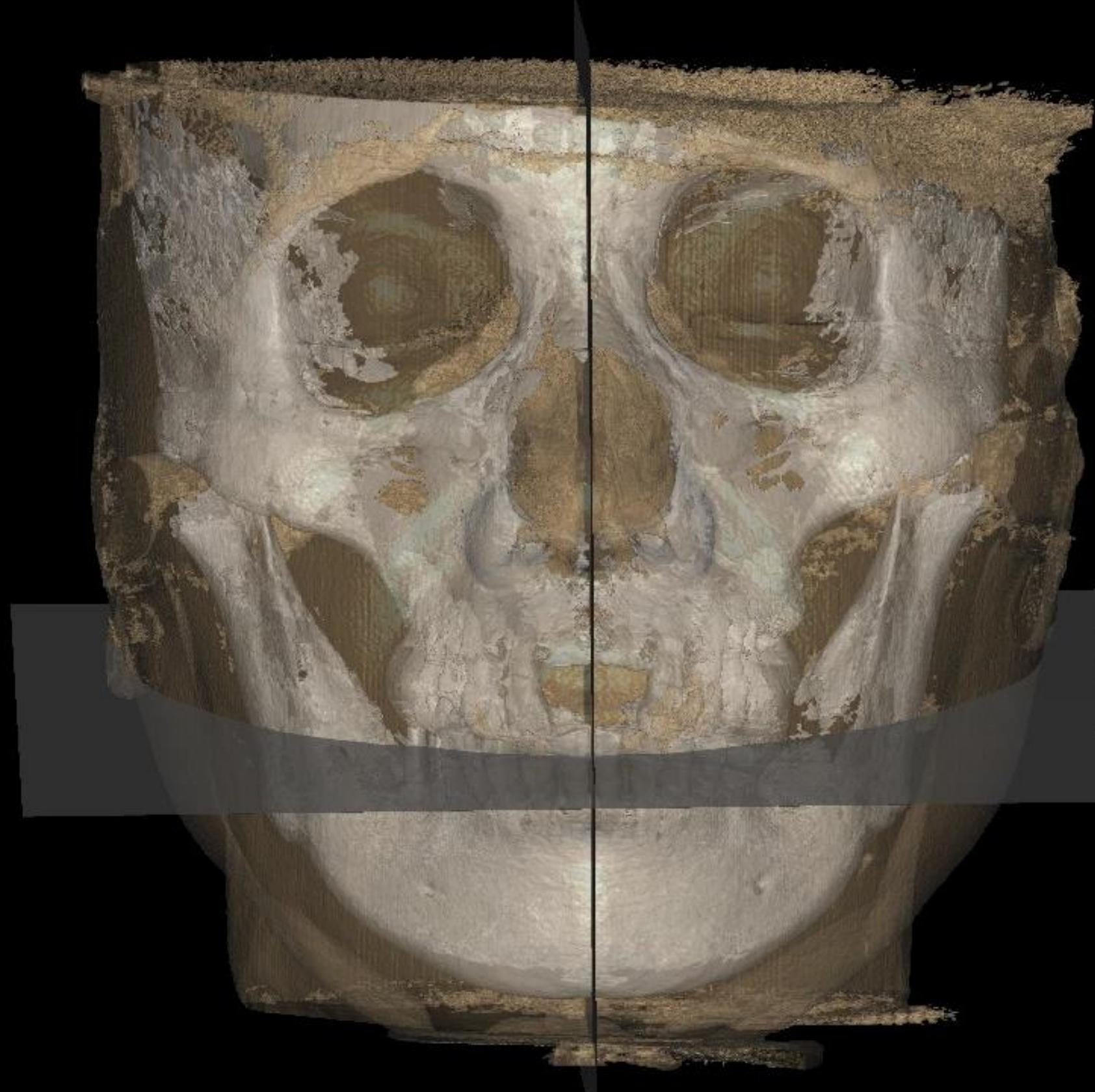


CT data Hard Tissue + 3D Scan Data

# Cad Data Stitching

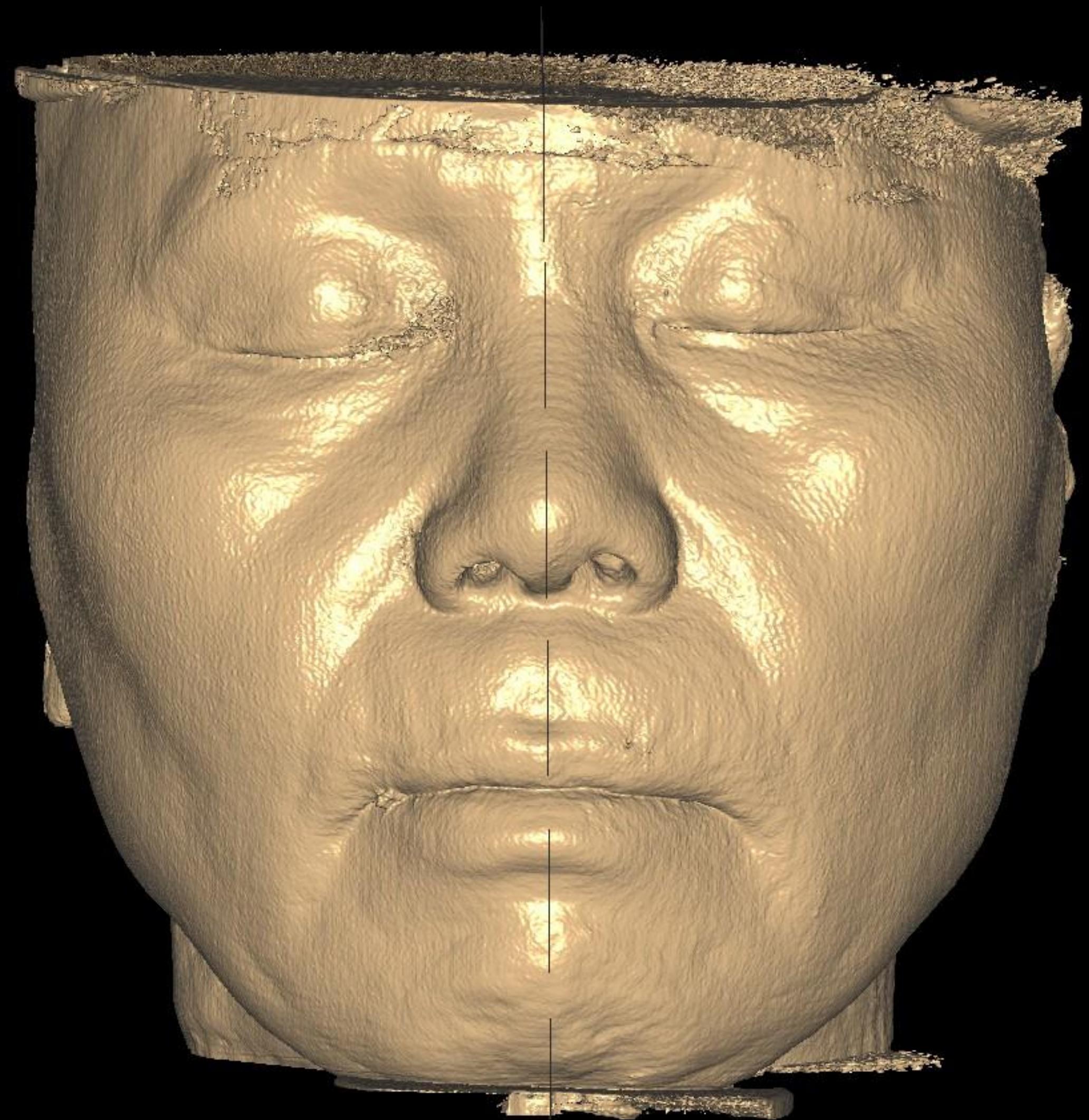


Rasion – Ans to Pns Midline

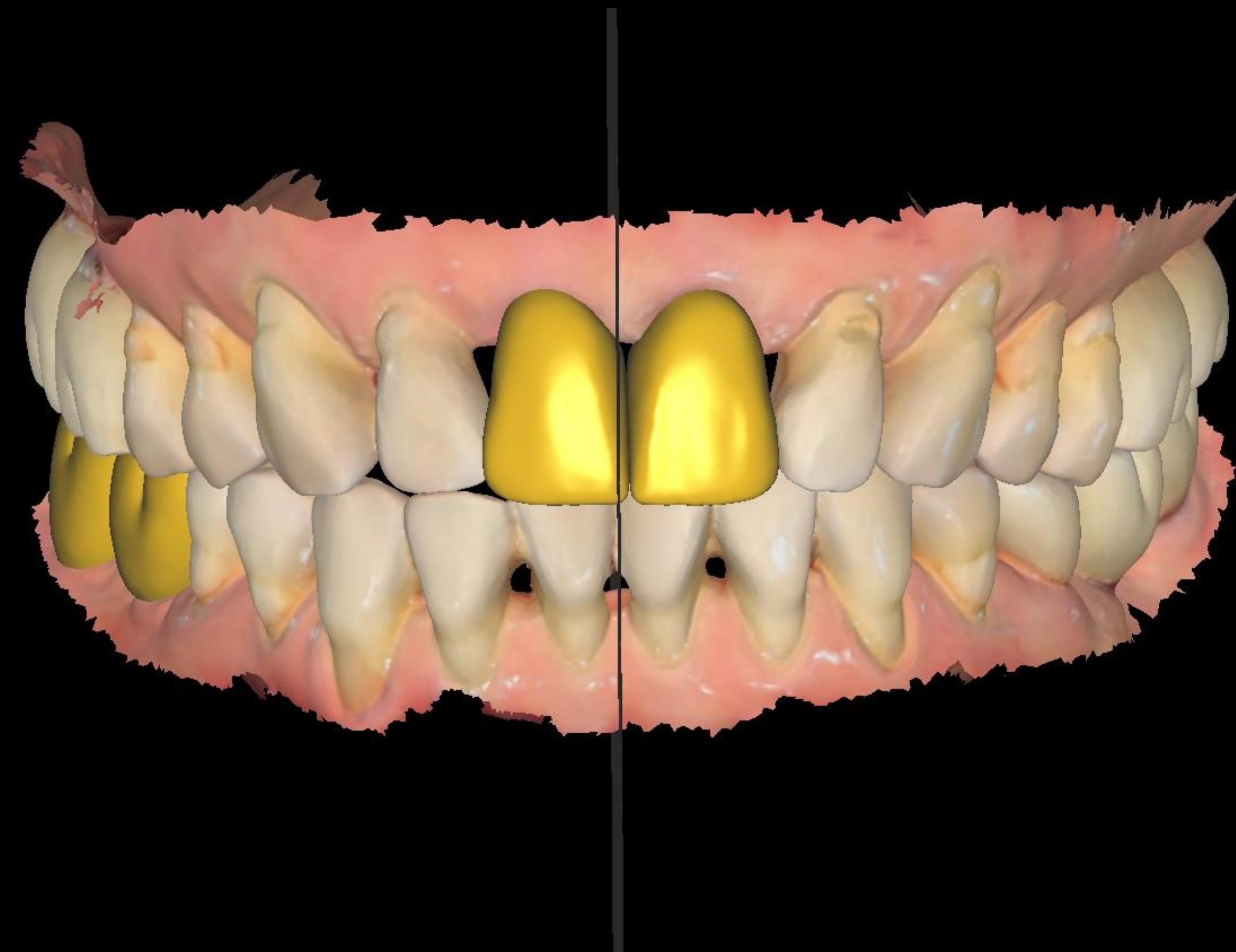


Ios data + CT data(AI Occlusal Plane)

# Cad Design



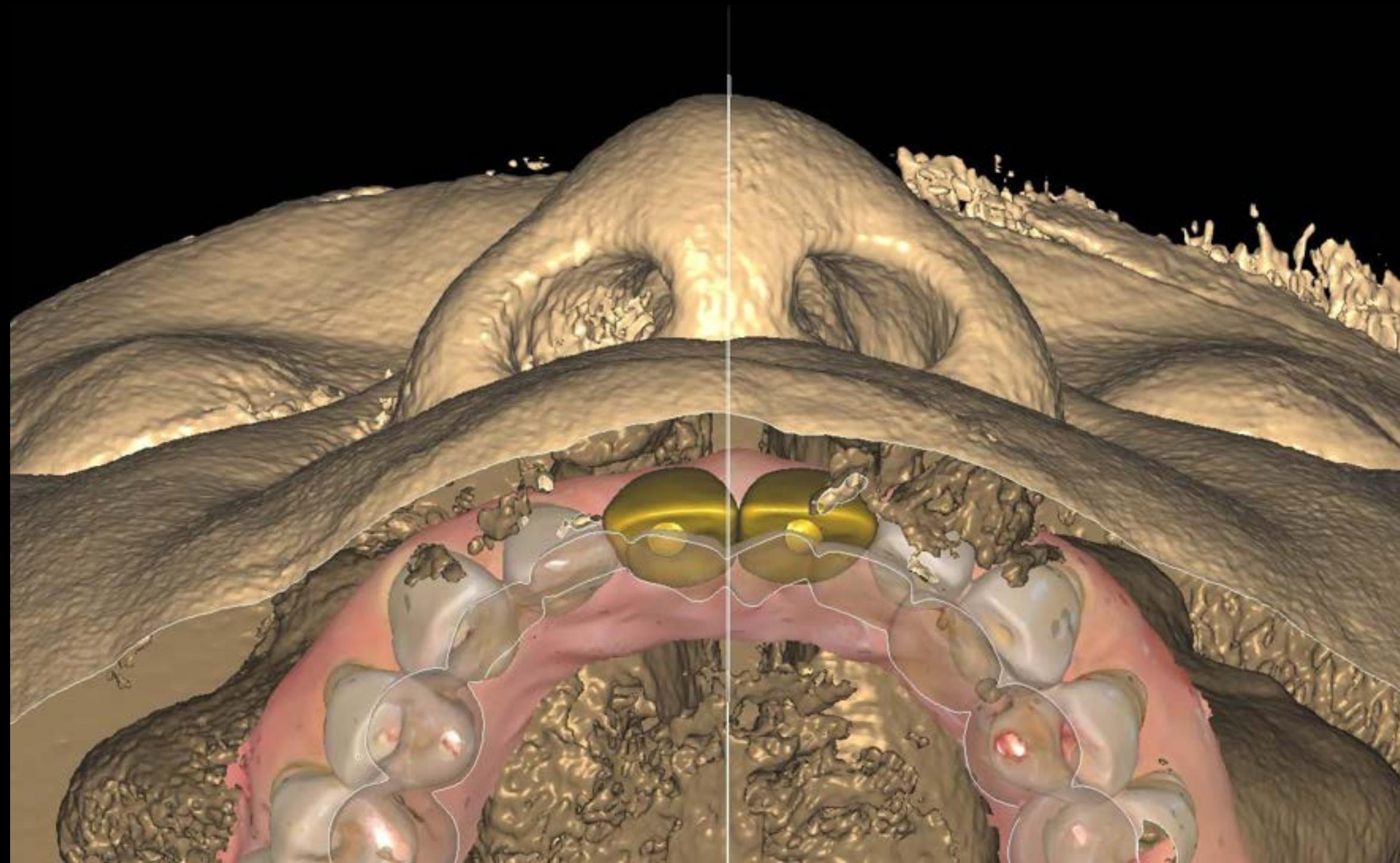
# Cad Design



# Cad Design

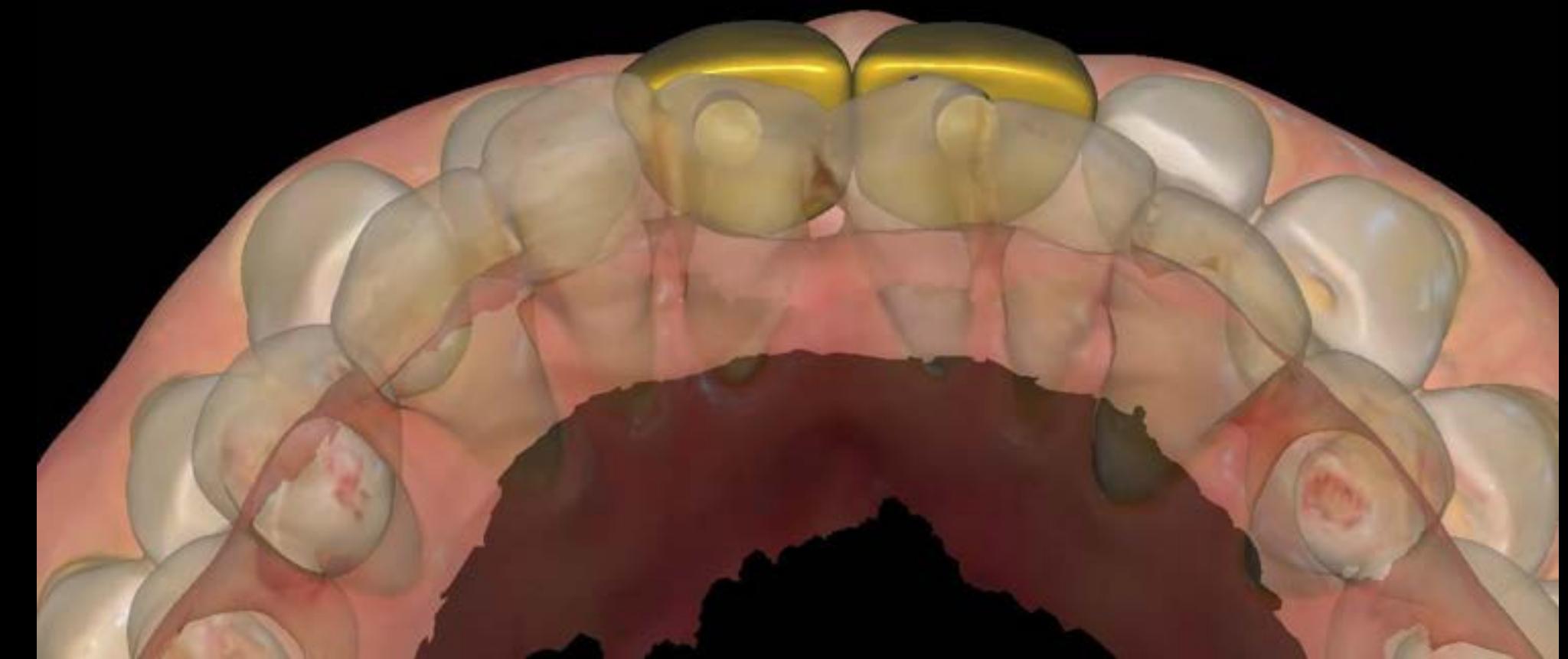
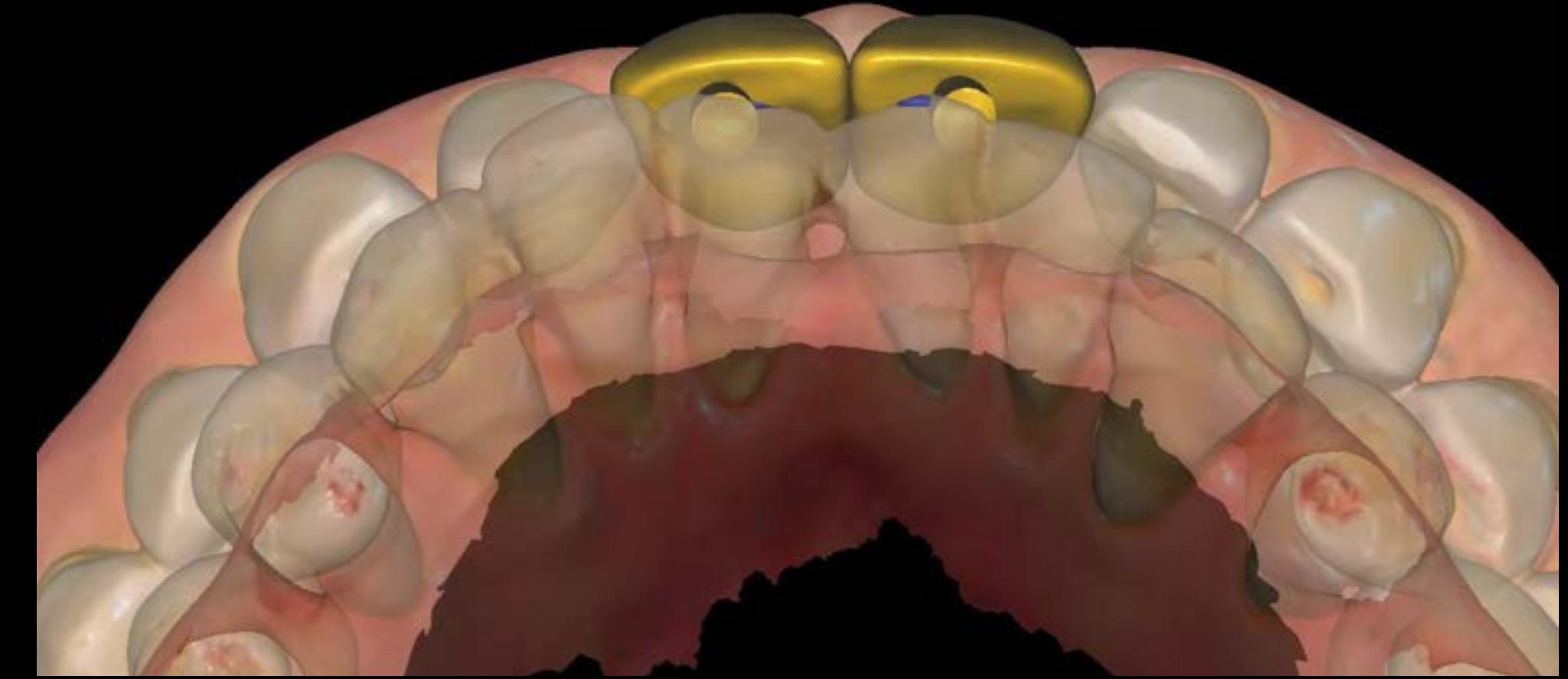
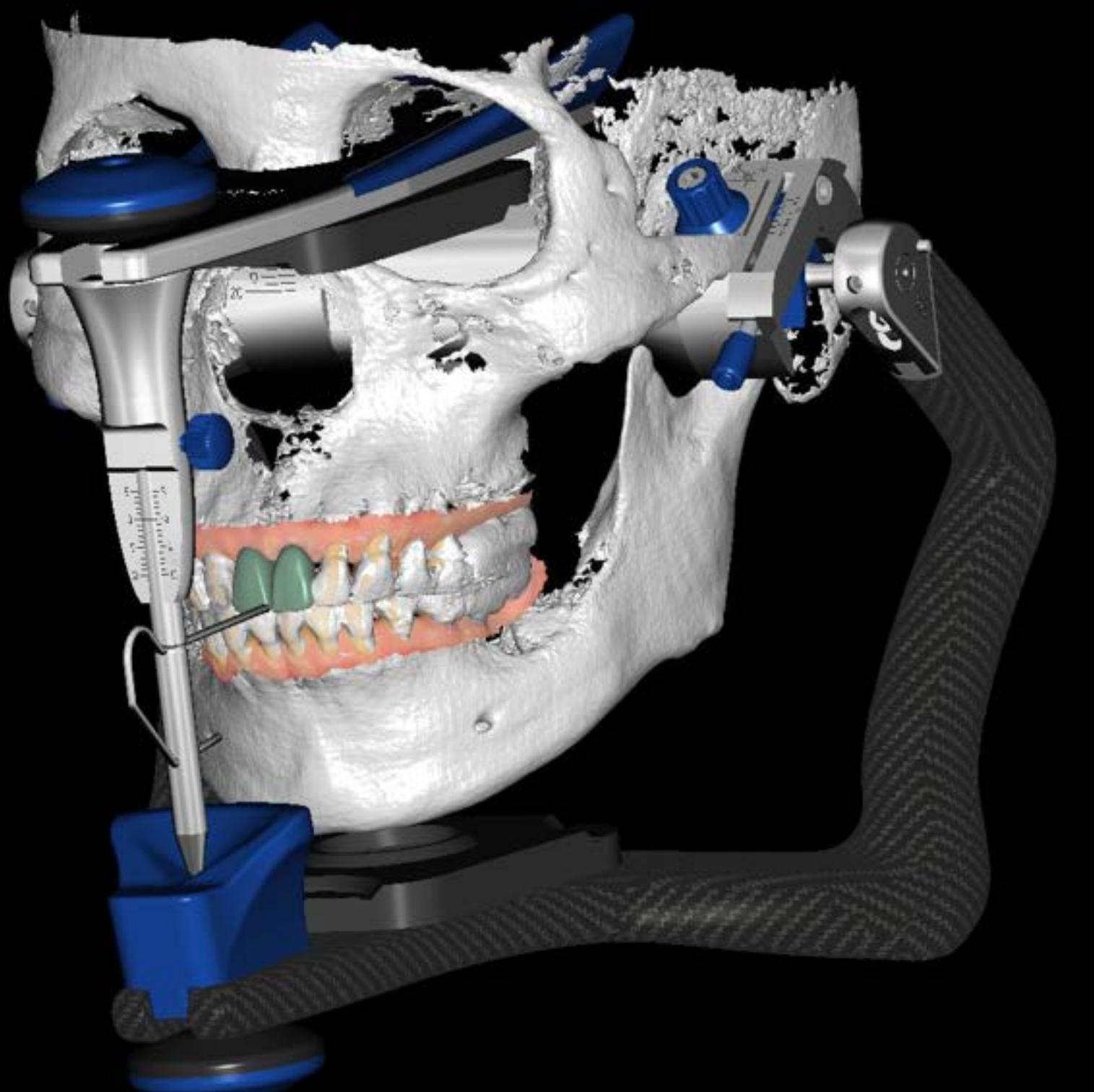


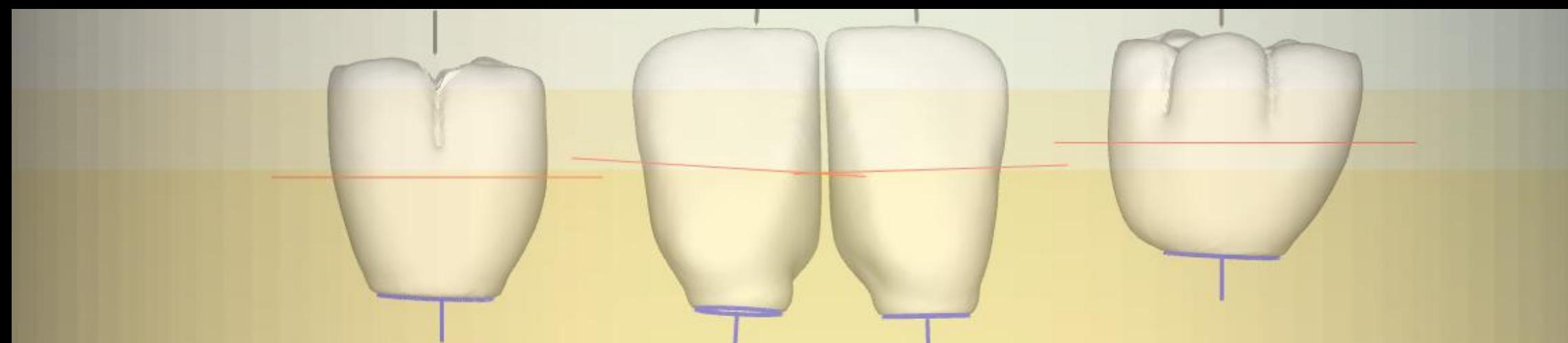
# Cad Design



Ti base Angled Abutment

# Virtual Ariticulator





3layer A3.5 blcok



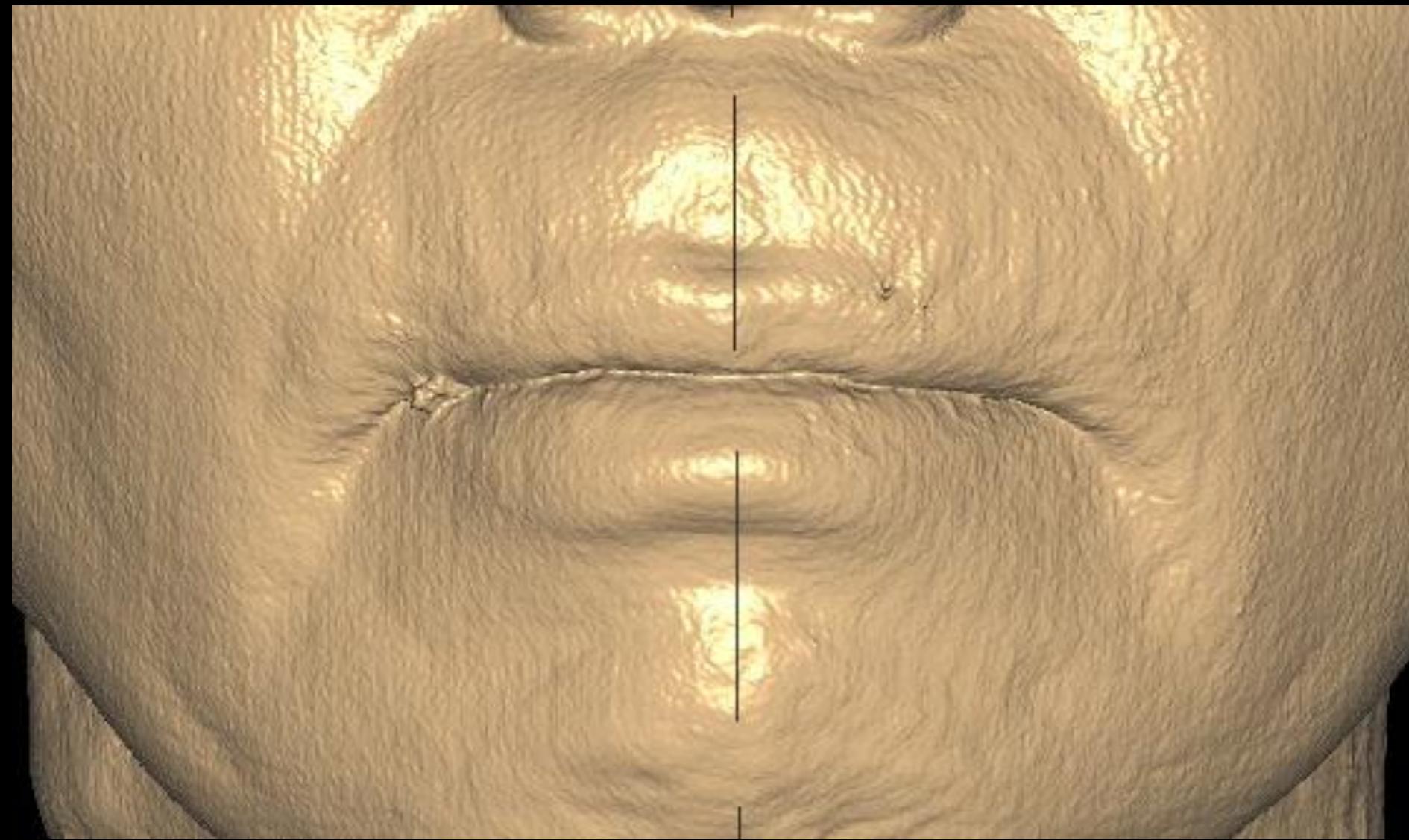
bright 3-Layer

# Final Prosthesis



Shining 3d Aoral Elite scan data use to model-less with  
CT data (Ai Occlusal Plane)

# Final Prosthesis

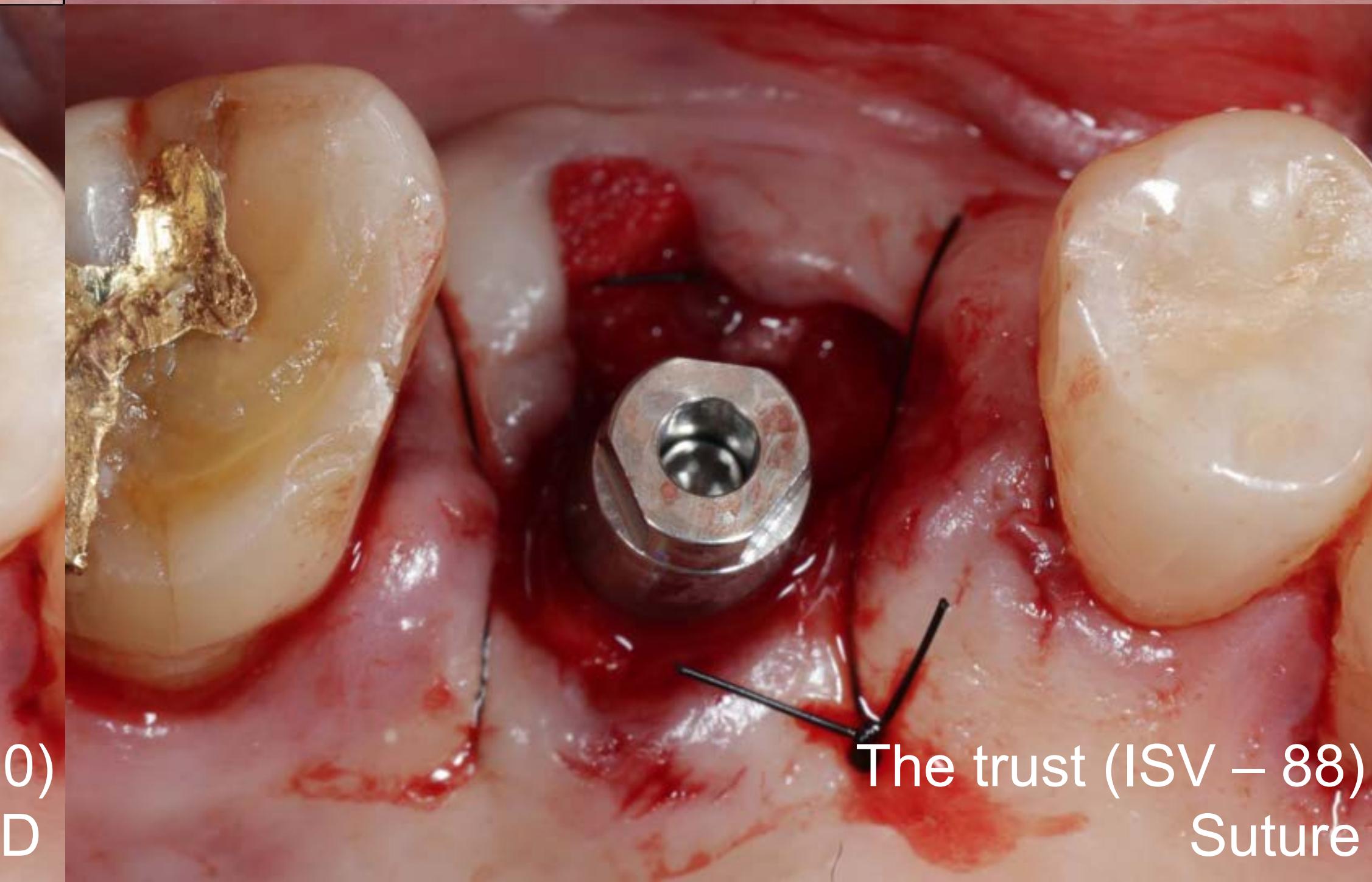
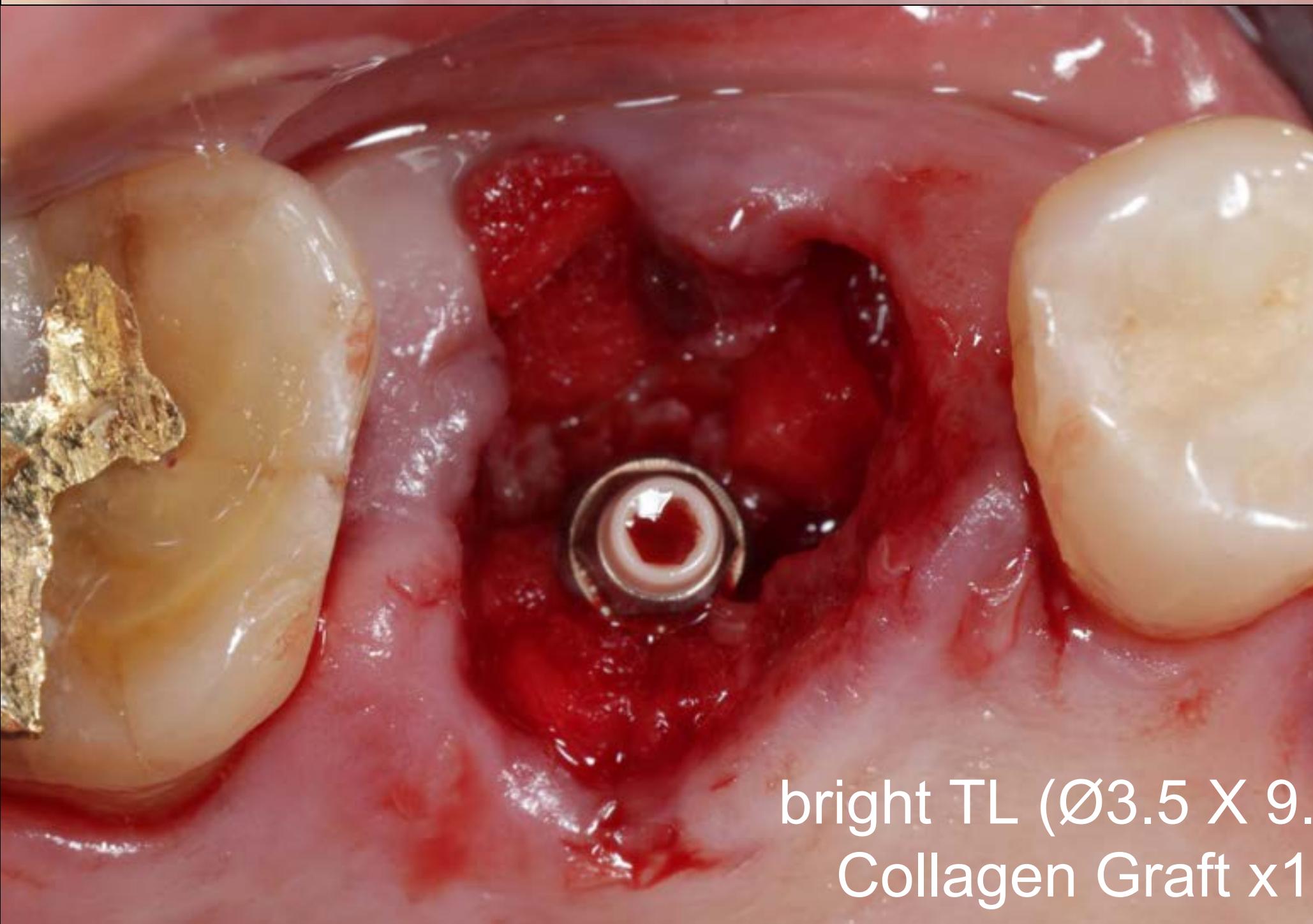
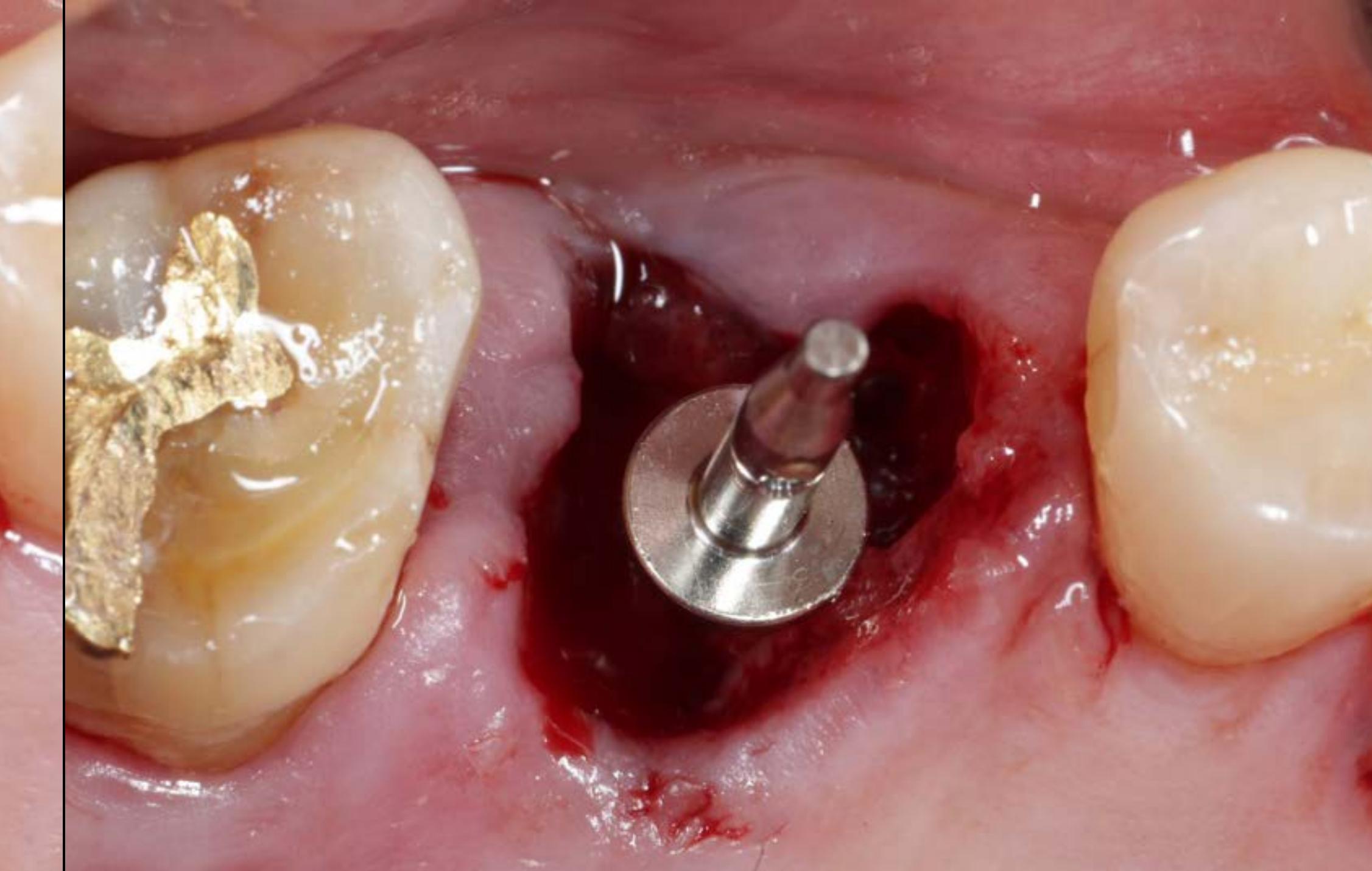
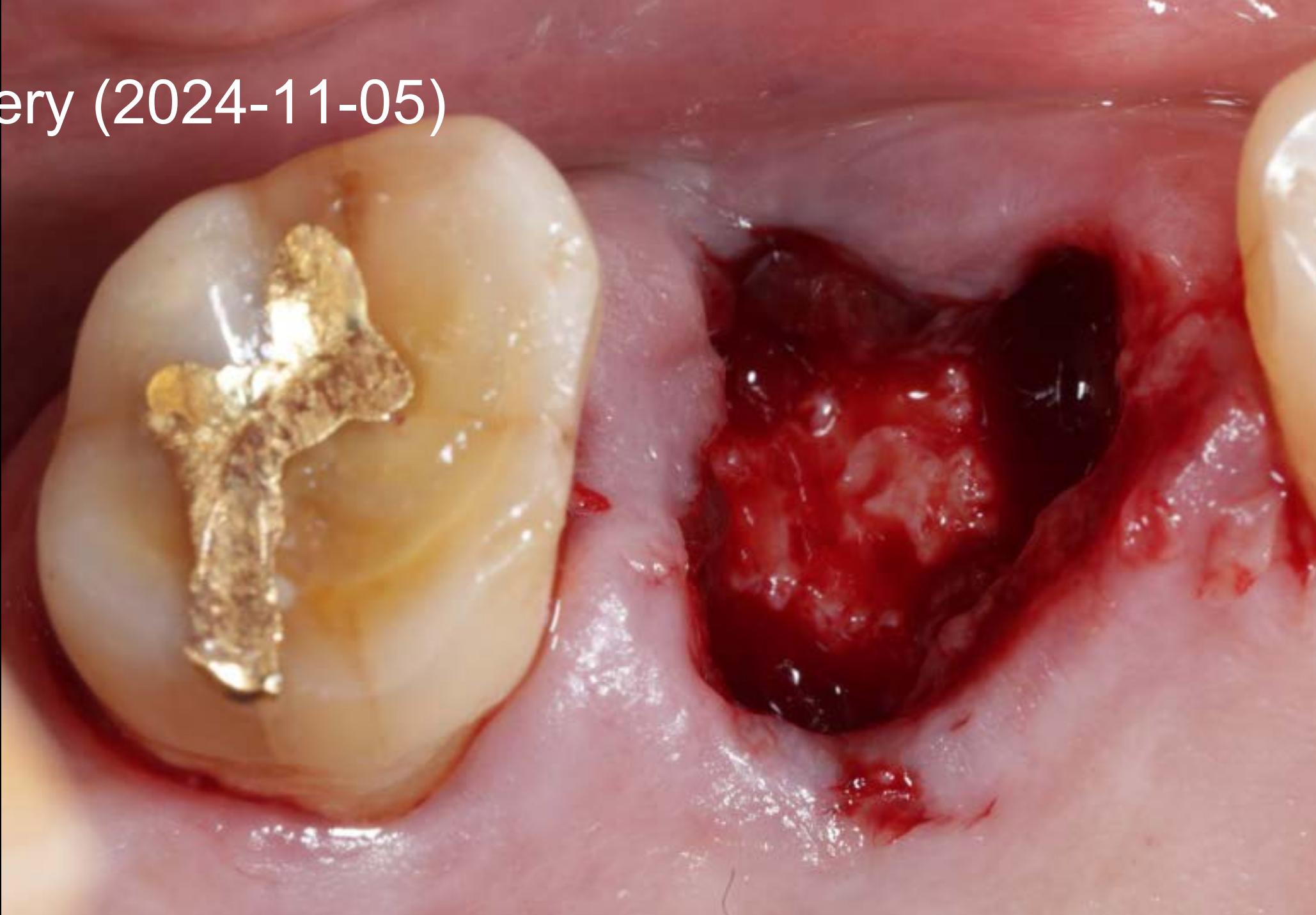


Shining 3d Aoral Elite scan data use to model-less with  
CT data (Ai Occlusal Plane)

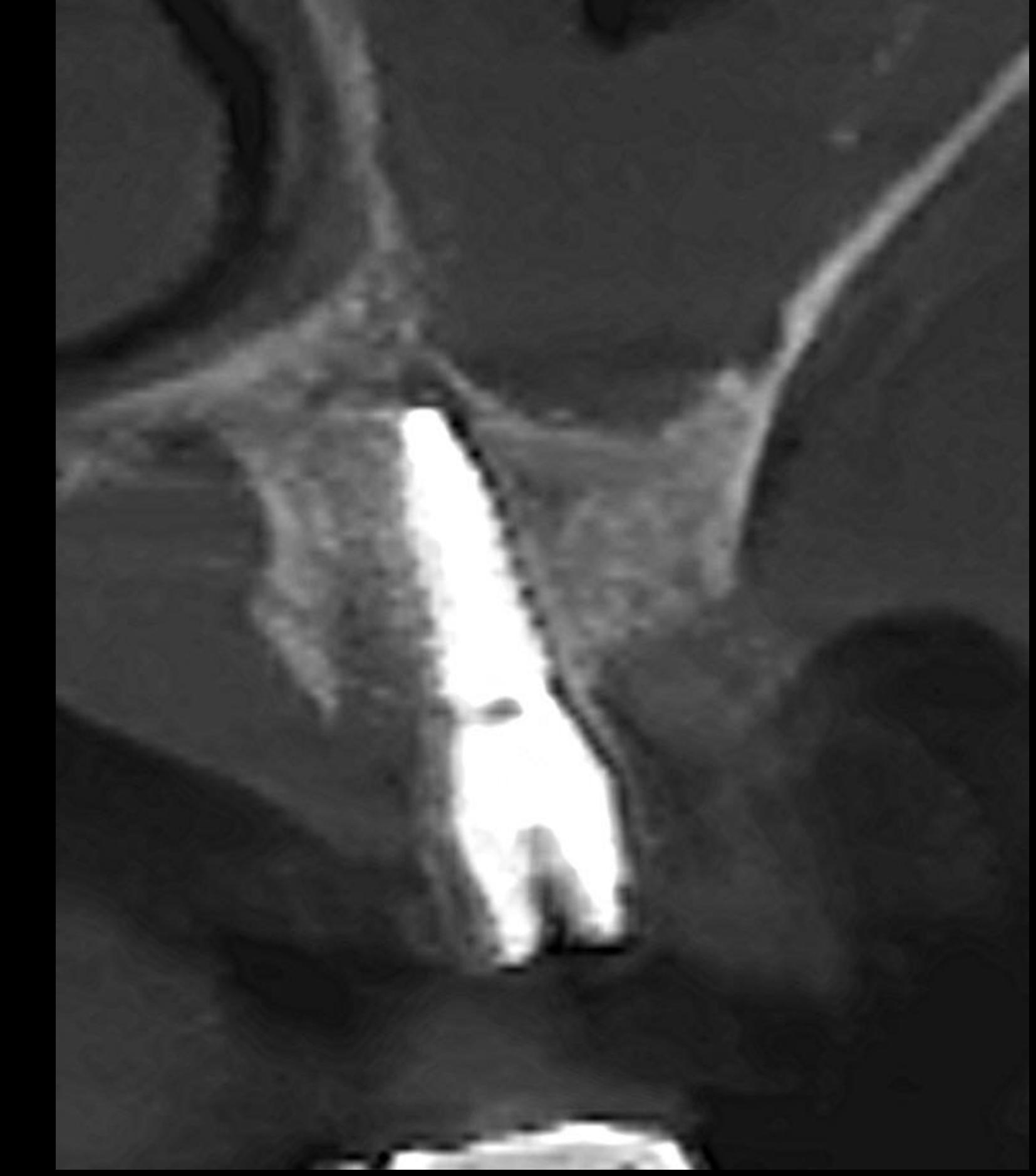
Pre-op (2024-11-05)



Surgery (2024-11-05)



Post-op (2024-11-13)



#16

Healing : 1 week (2024-11-13)



Final prosthesis (2024-11-13)



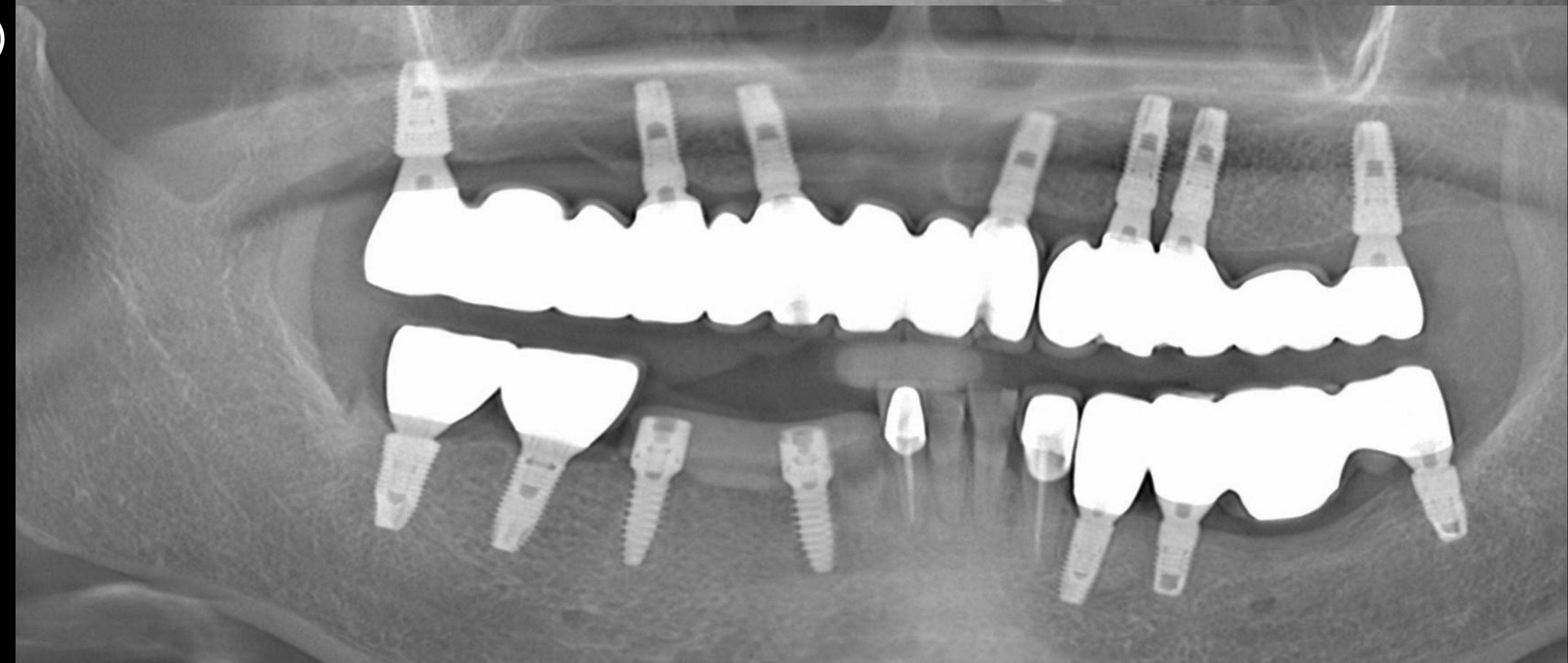
Follow up : 2 months (2025-01-10)



Pre-op (2020-07-15)



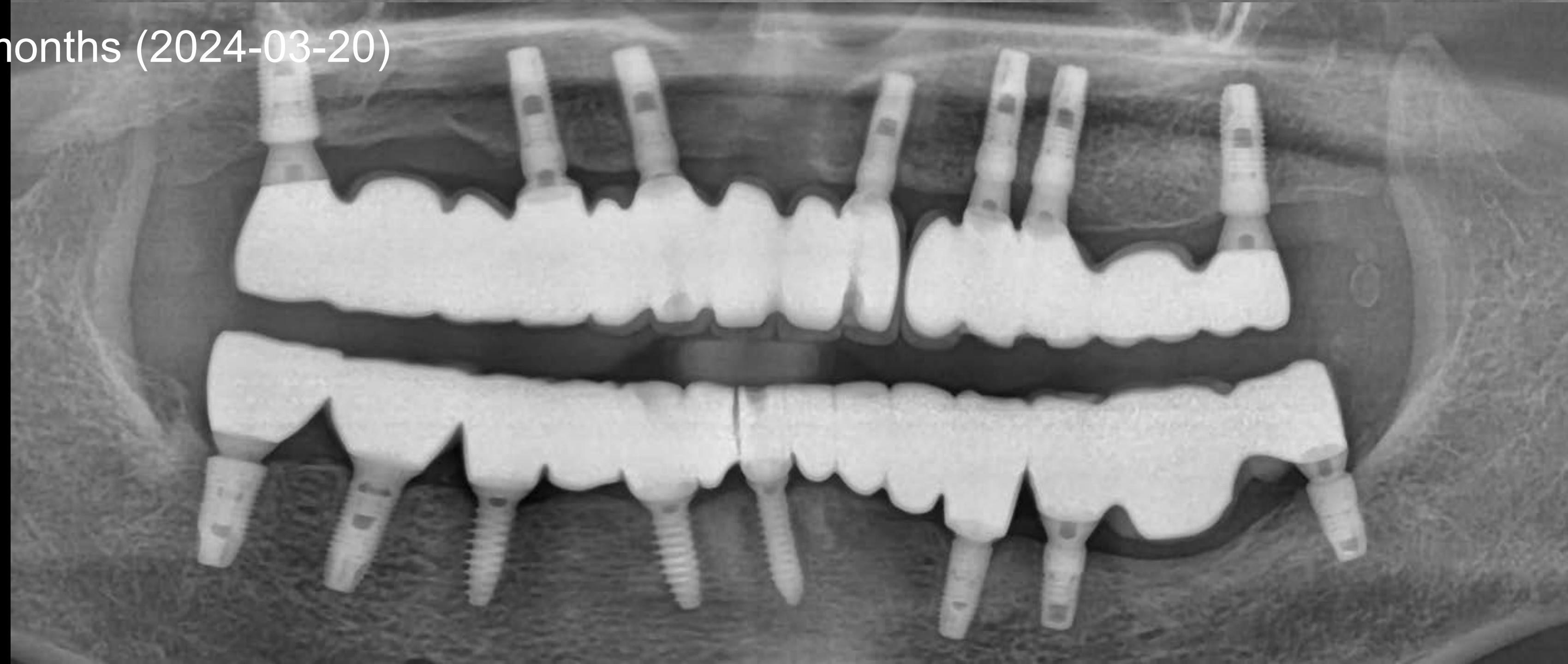
Post-op (2020-07-15)



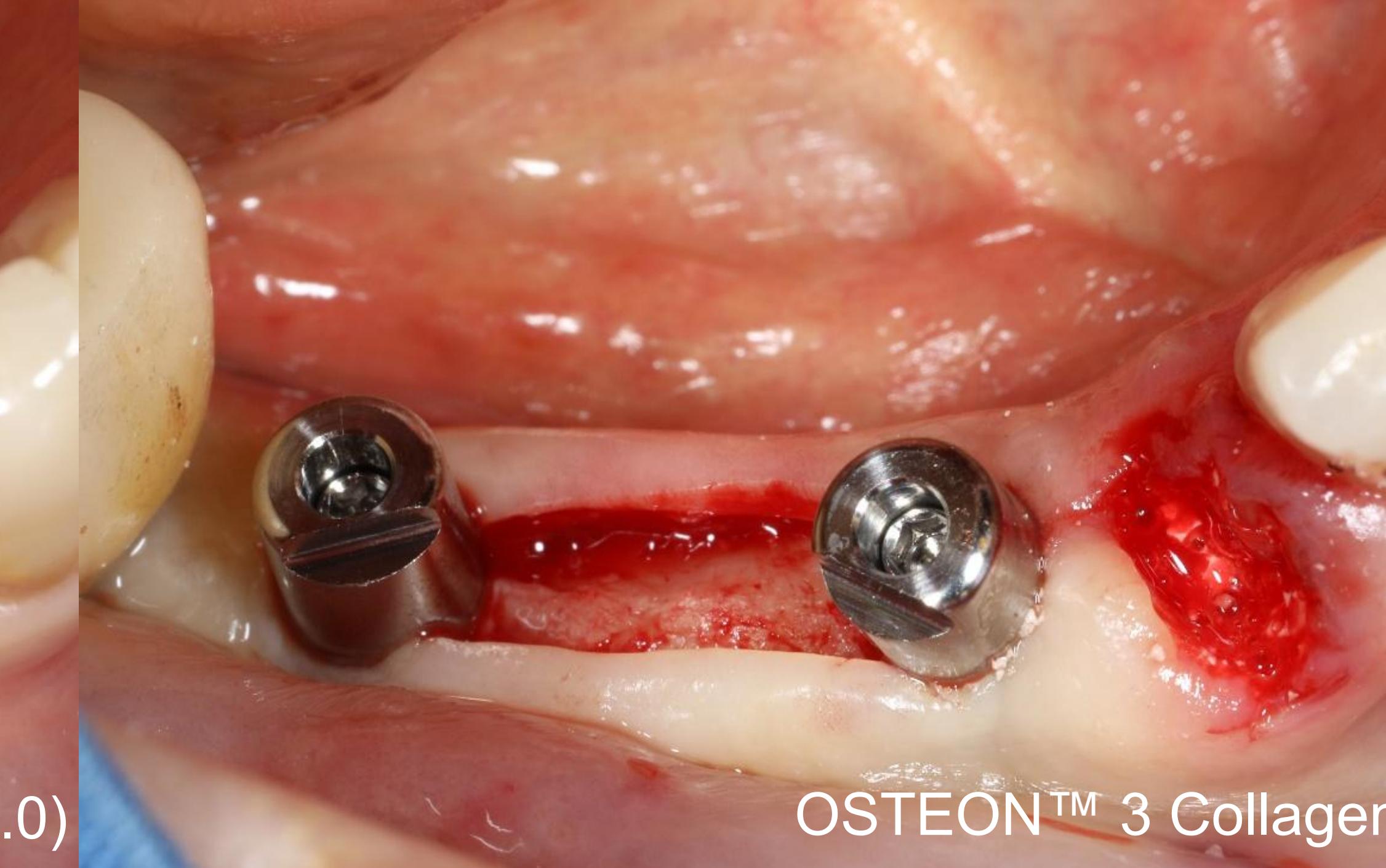
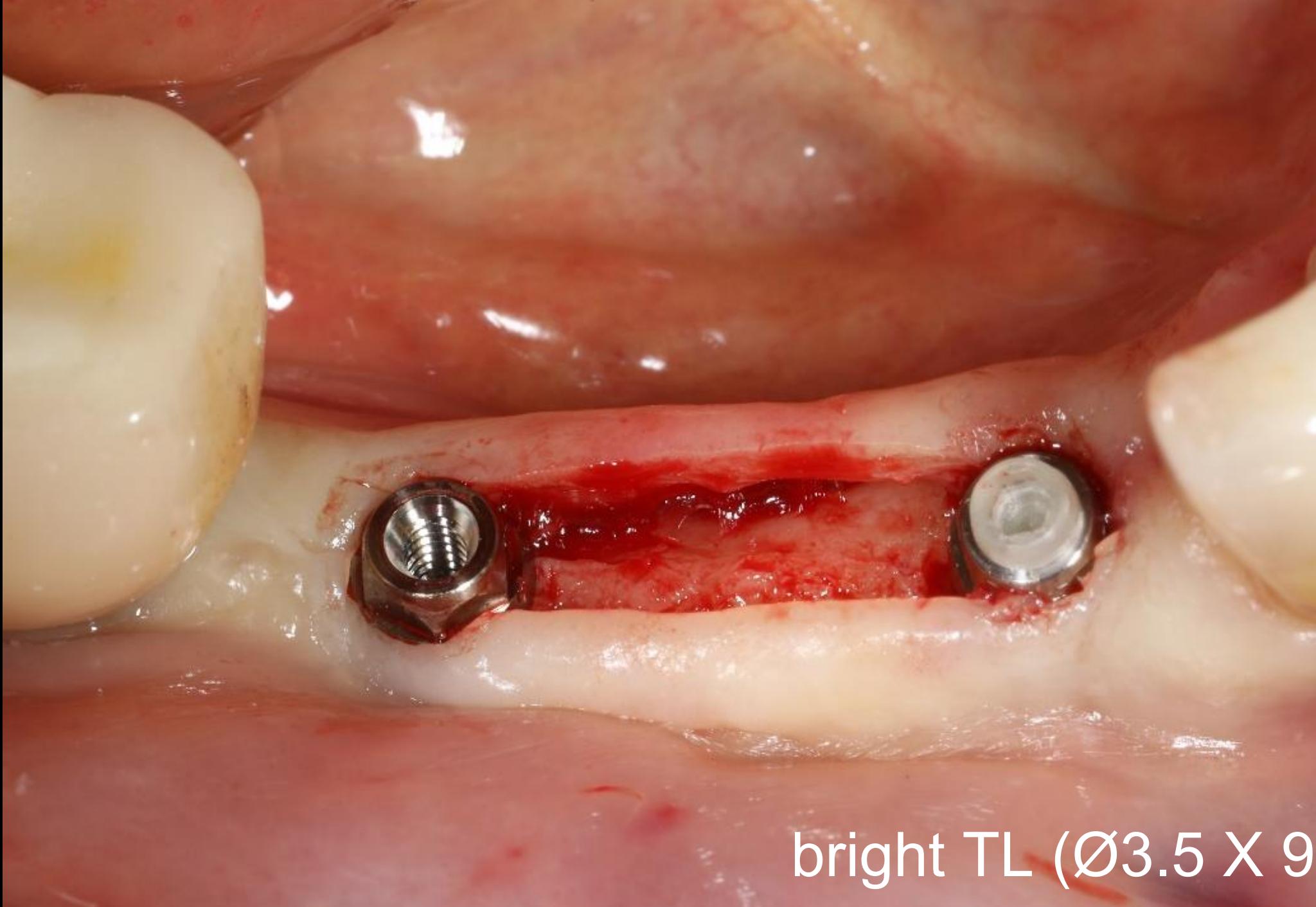
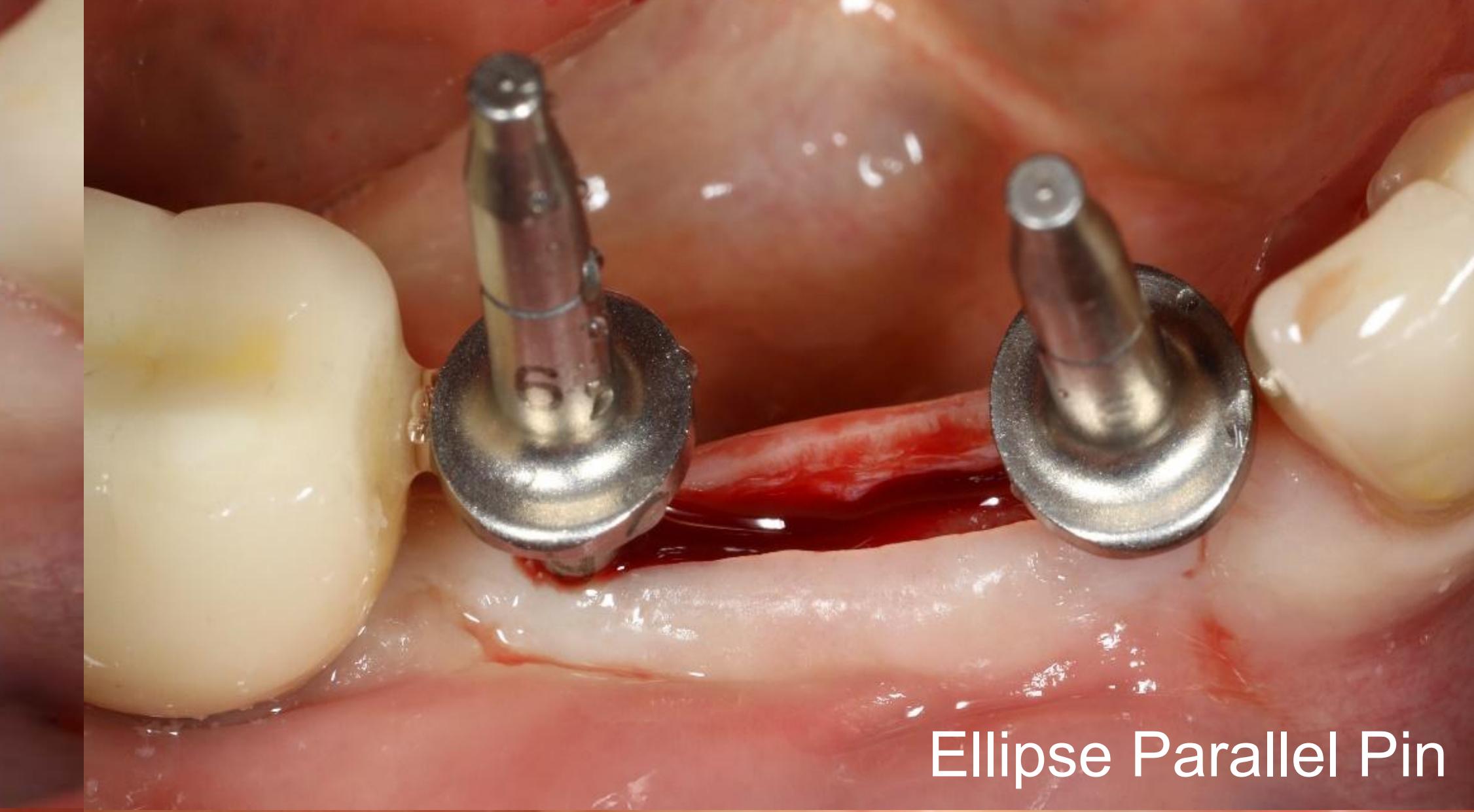
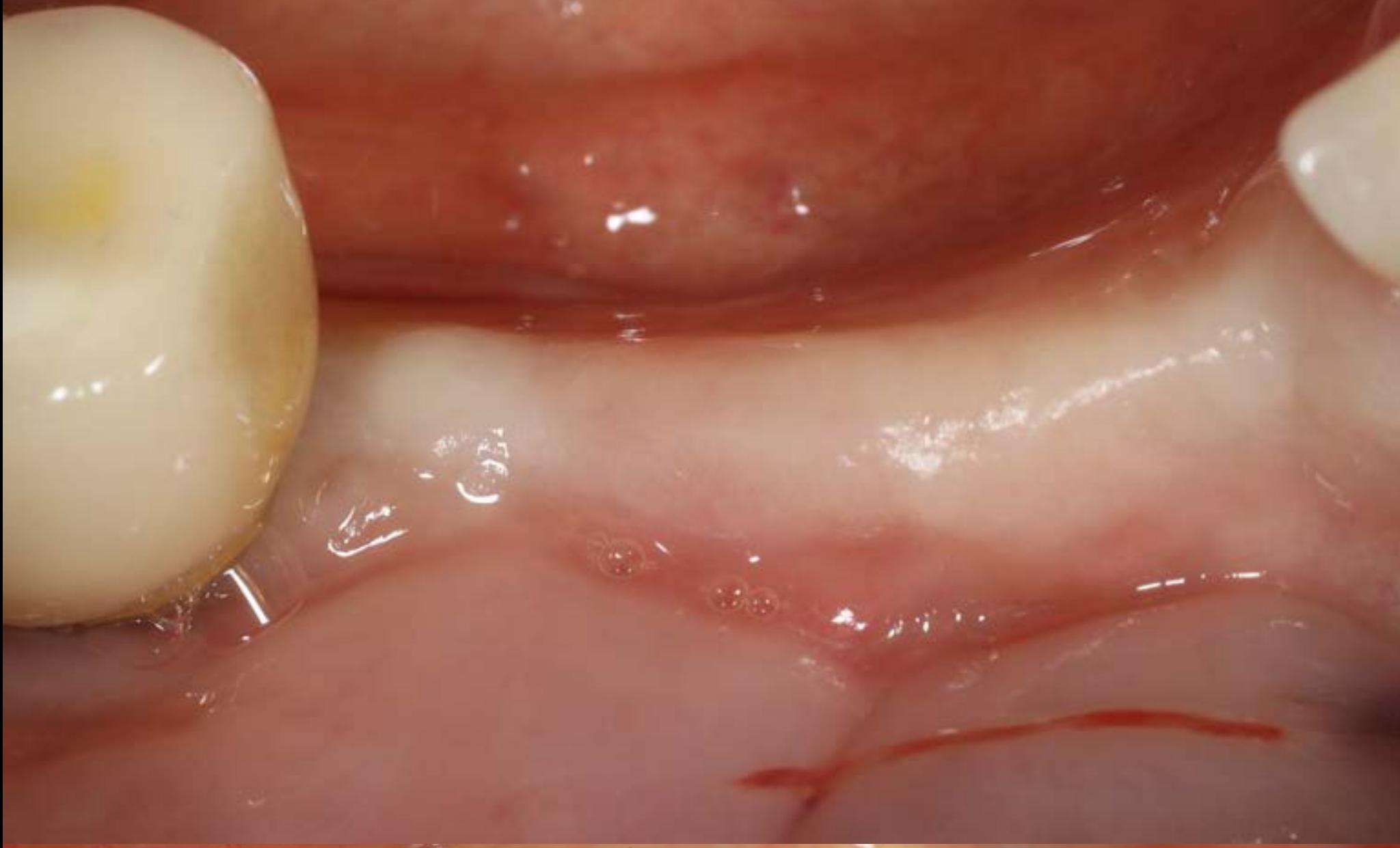
Final prosthesis (2020-11-09)



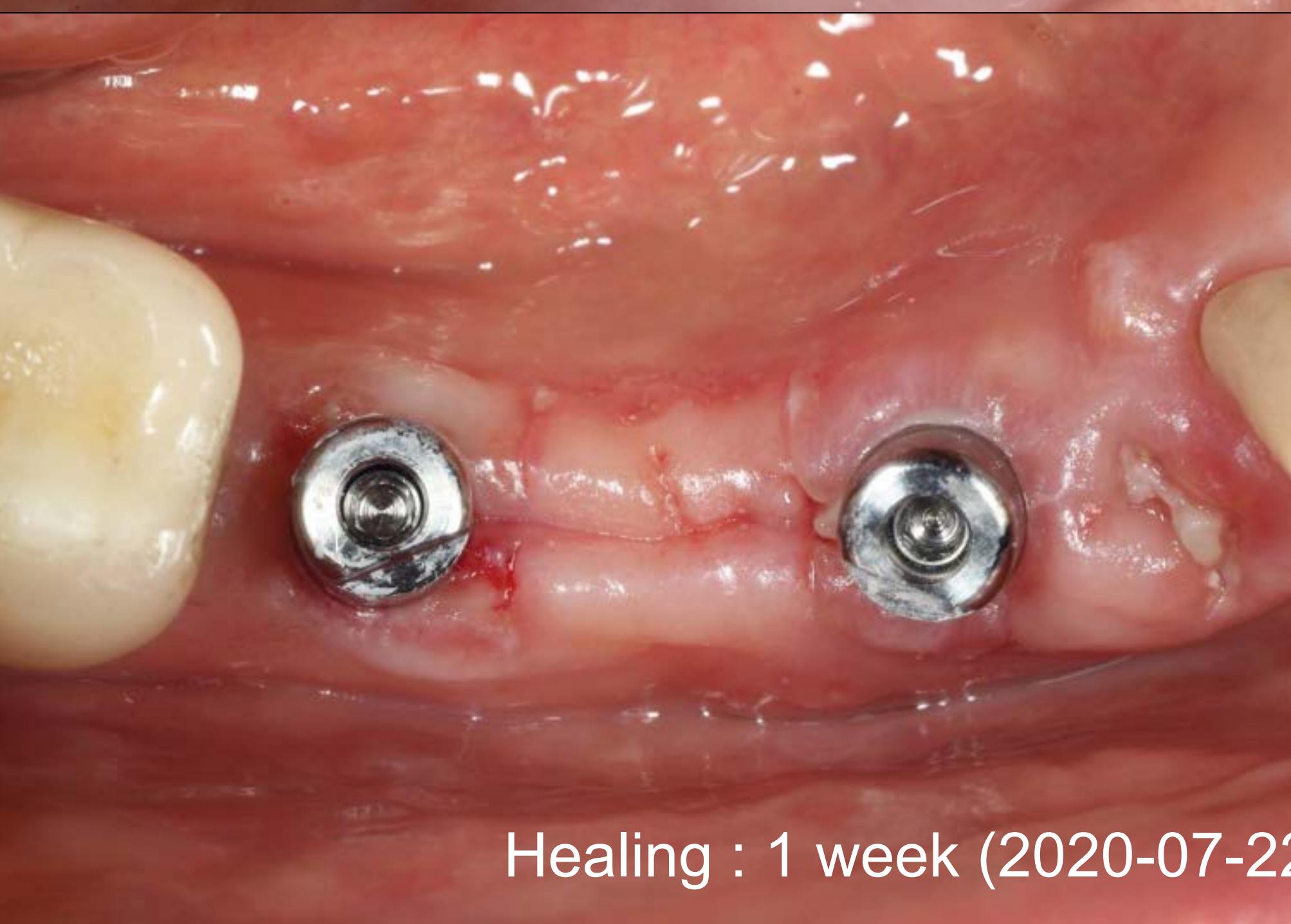
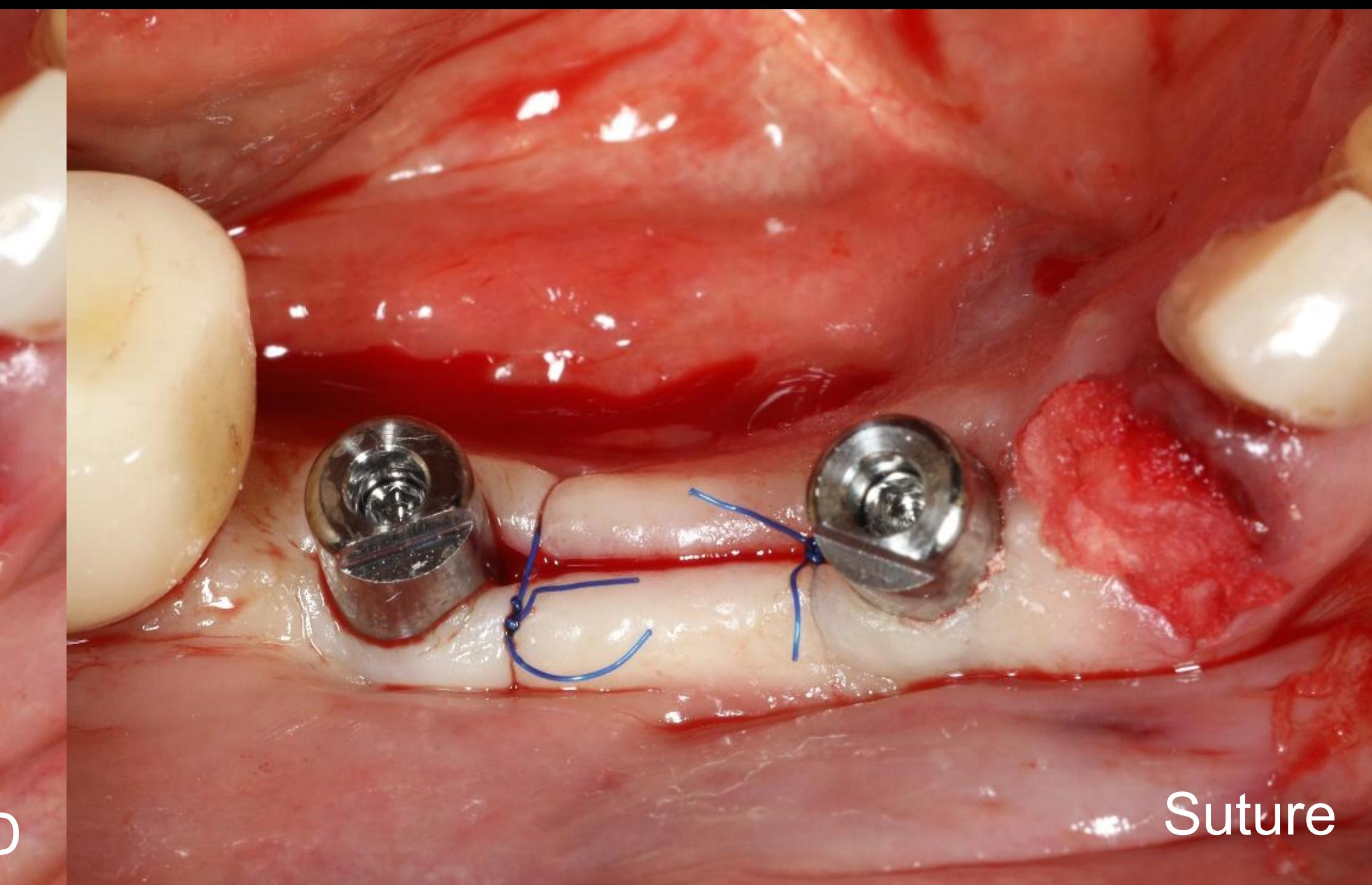
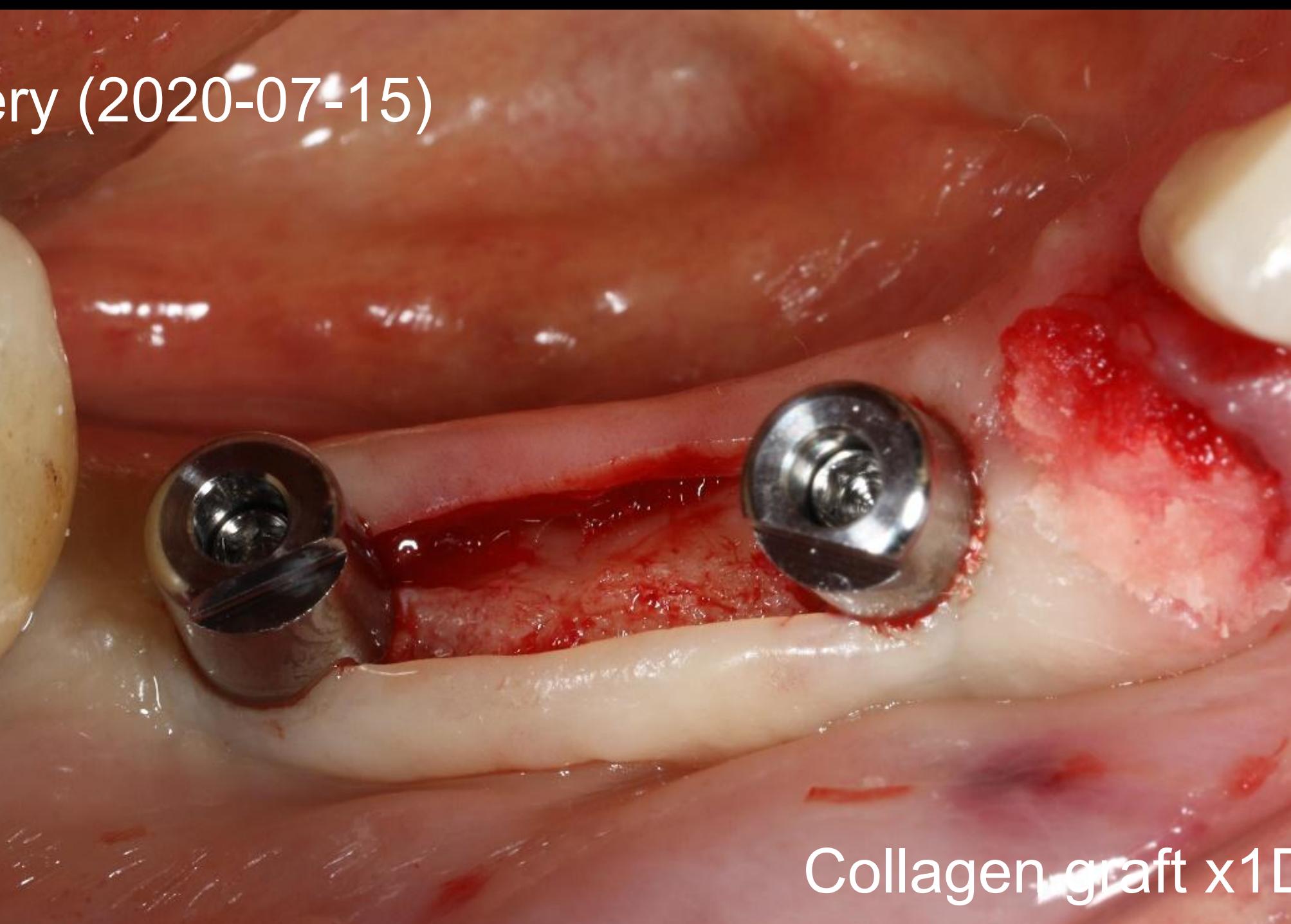
Follow up : 3 years 4 months (2024-03-20)



Surgery (2020-07-15)



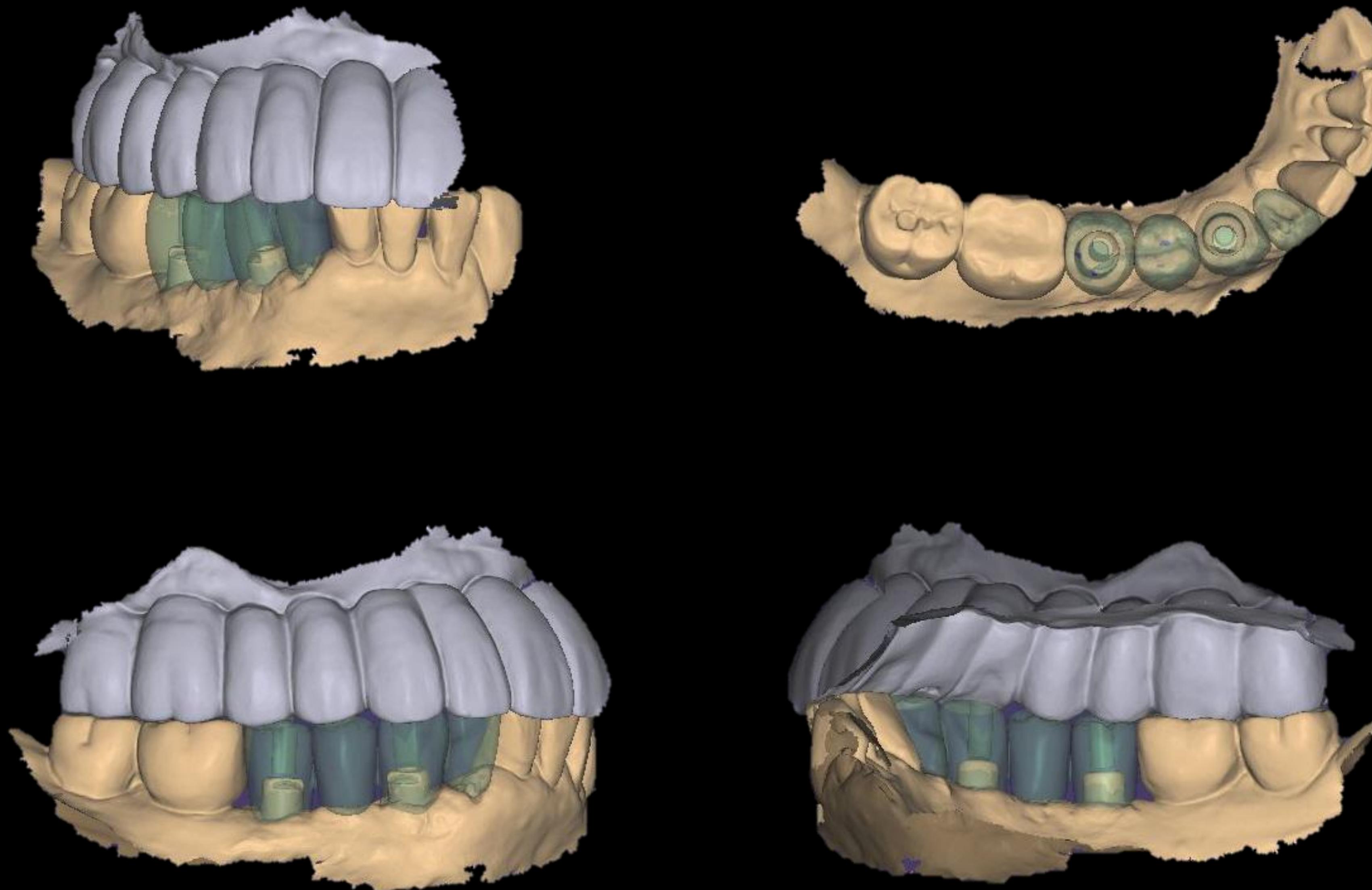
Surgery (2020-07-15)



# Intra Oral Scan



CAD (Temporary)



Metal Link / Temporary crown



Provisional restoration (2020-08-06)



# Normal bone

ø2.5

ø3.0

bright TL  
ø3.5 X 9.0mm

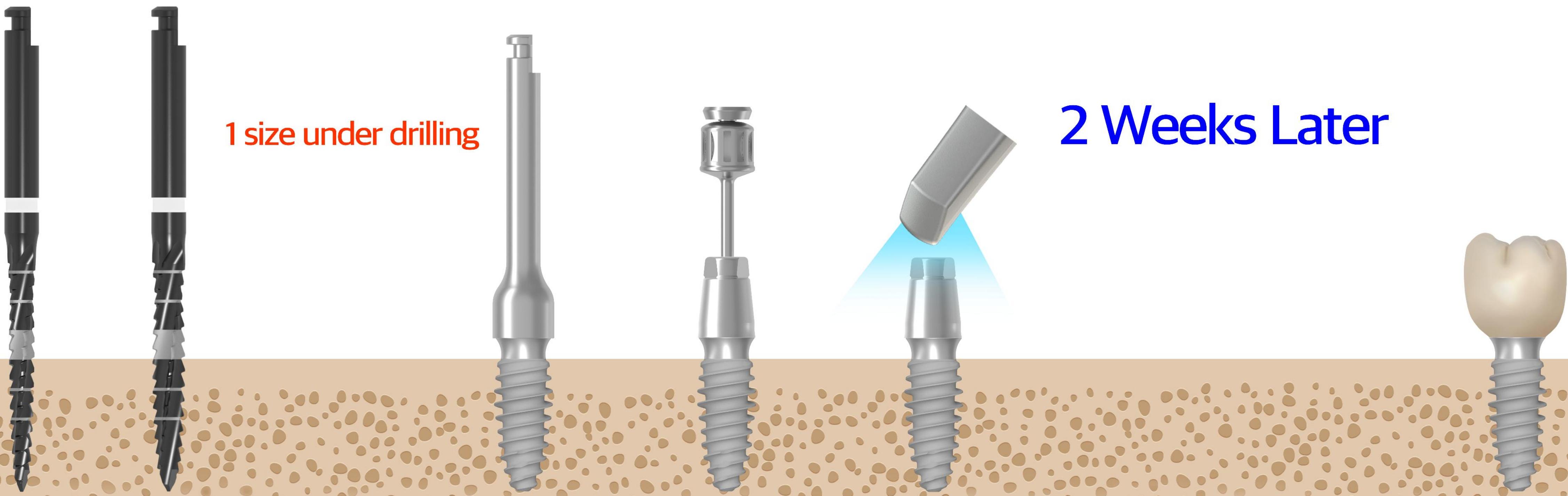
Intra Oral Scan

Crown loading

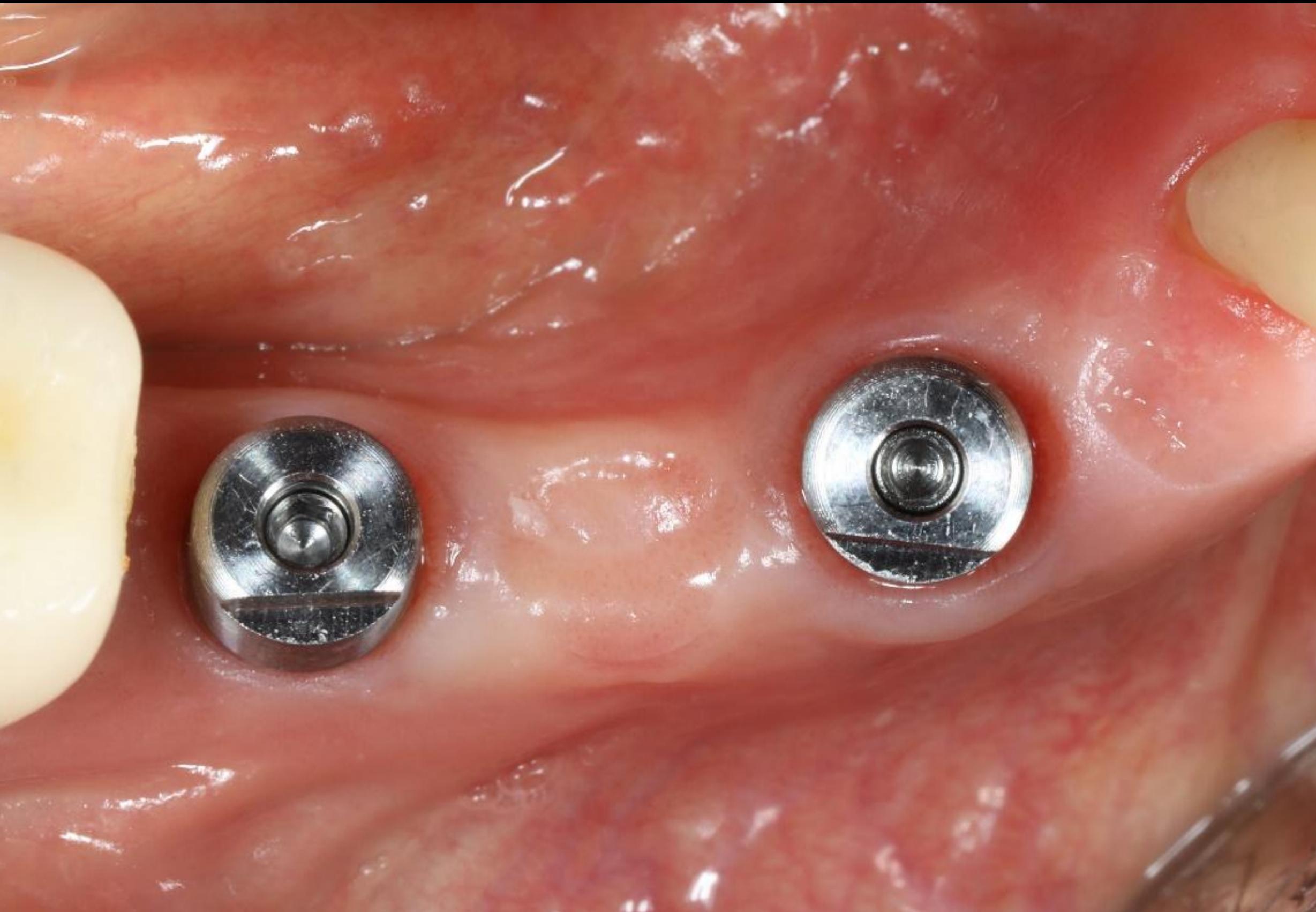
Digital Abutment

1 size under drilling

2 Weeks Later



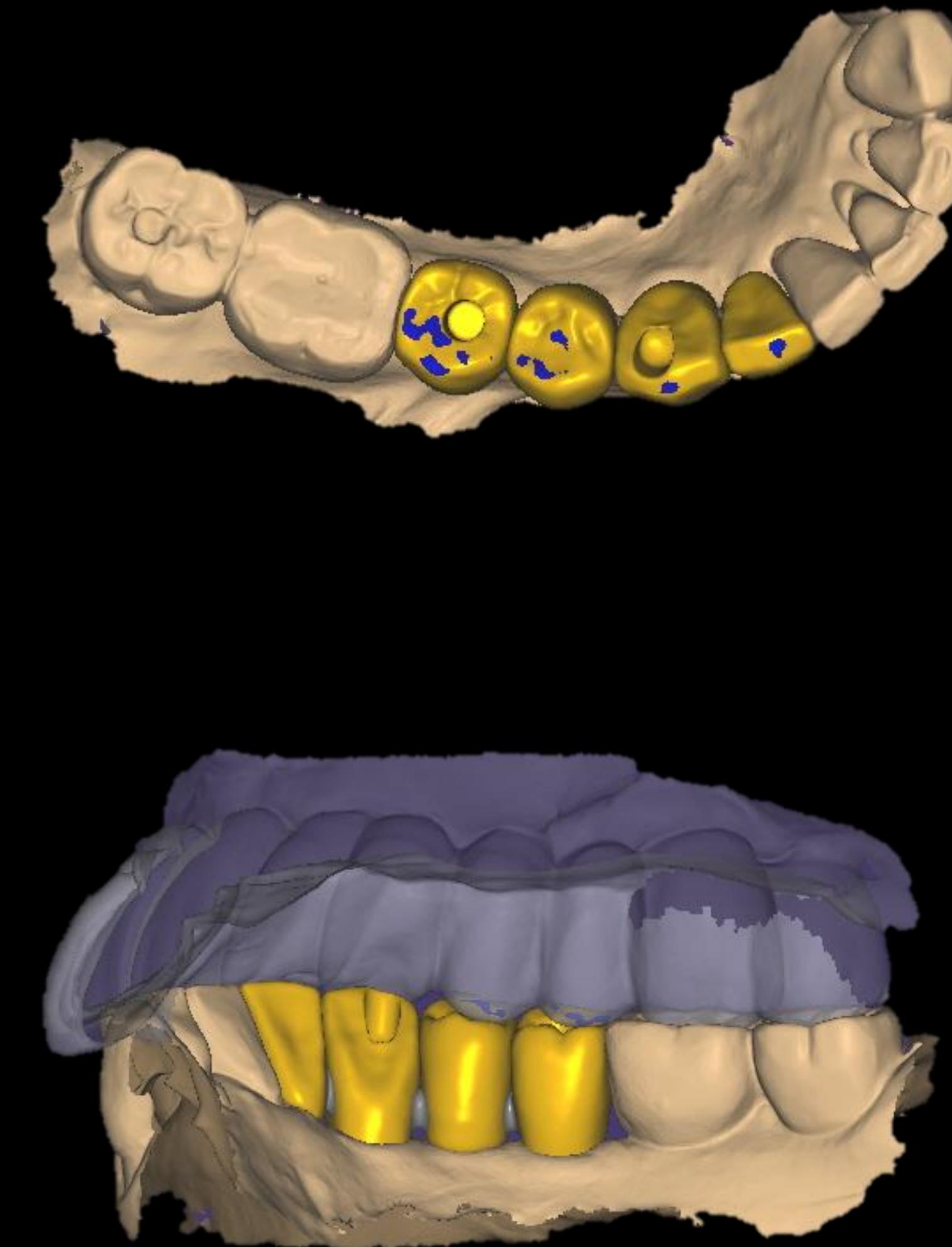
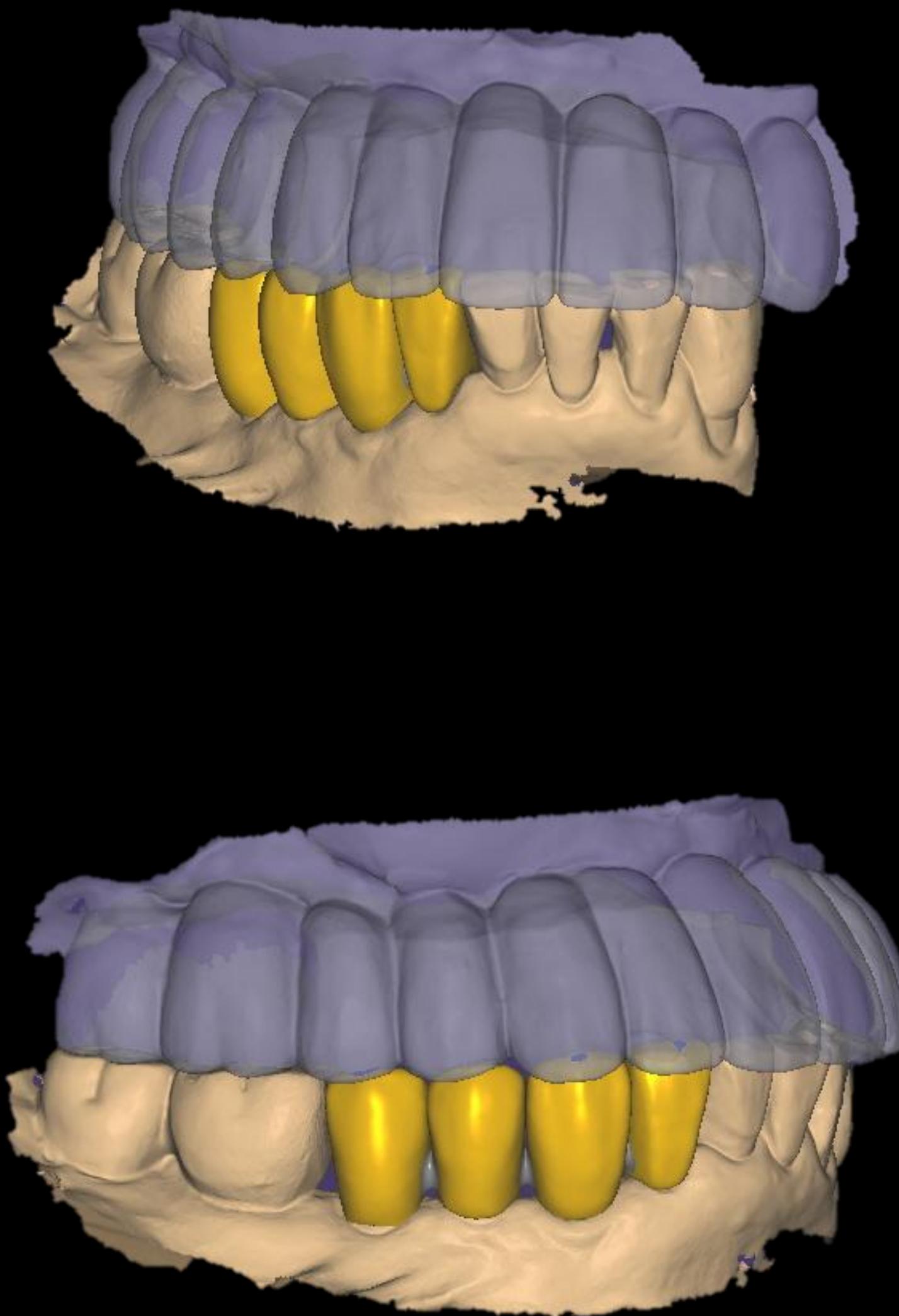
Final Impression (2020-10-15)



# Intra Oral Scan



CAD (Final prosthesis)



# Milling / Coloring / Sintering / Glazing



Final prosthesis (2020-11-09)



HRF (2020-11-30)



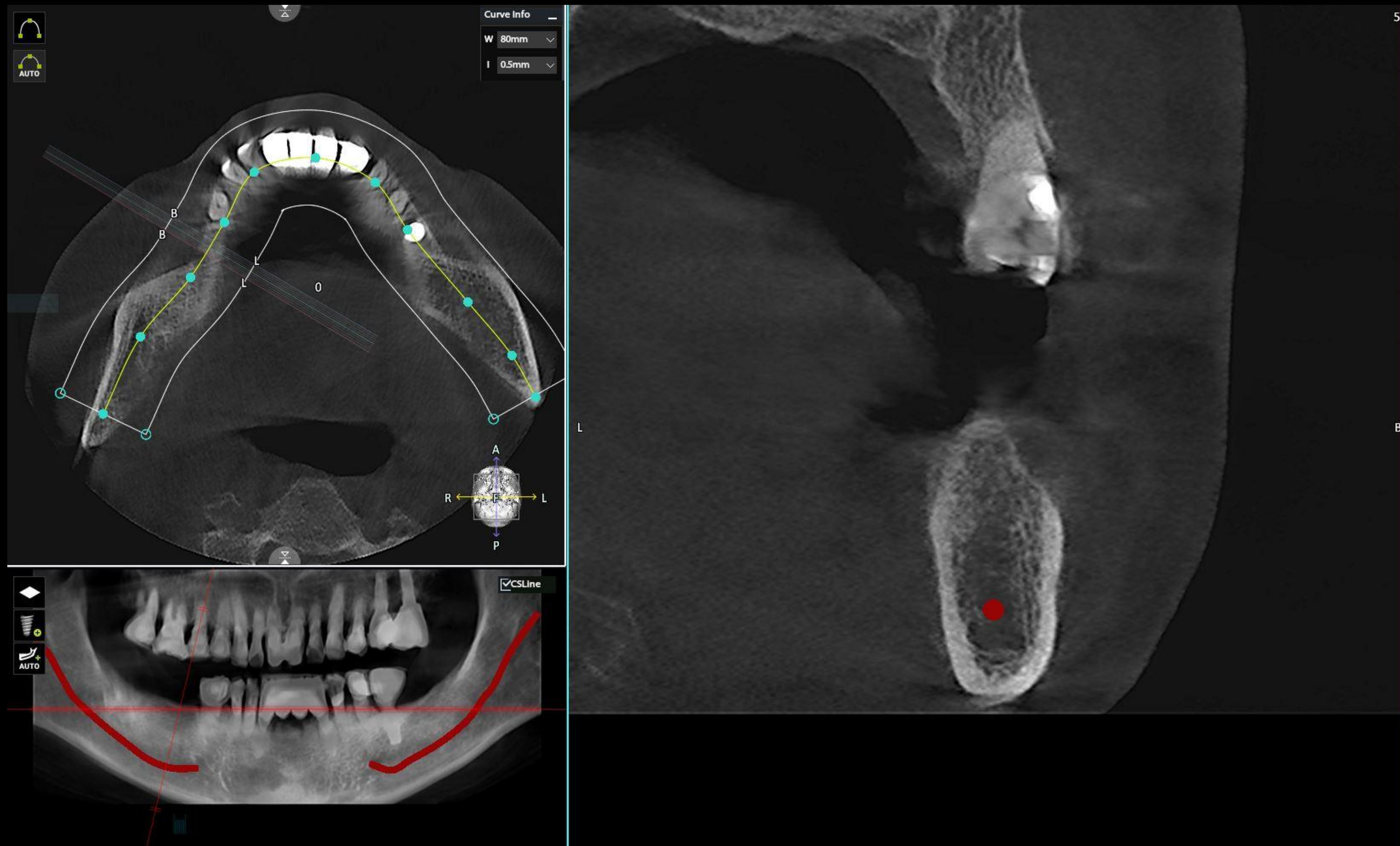
Pre-op (2023-04-19)



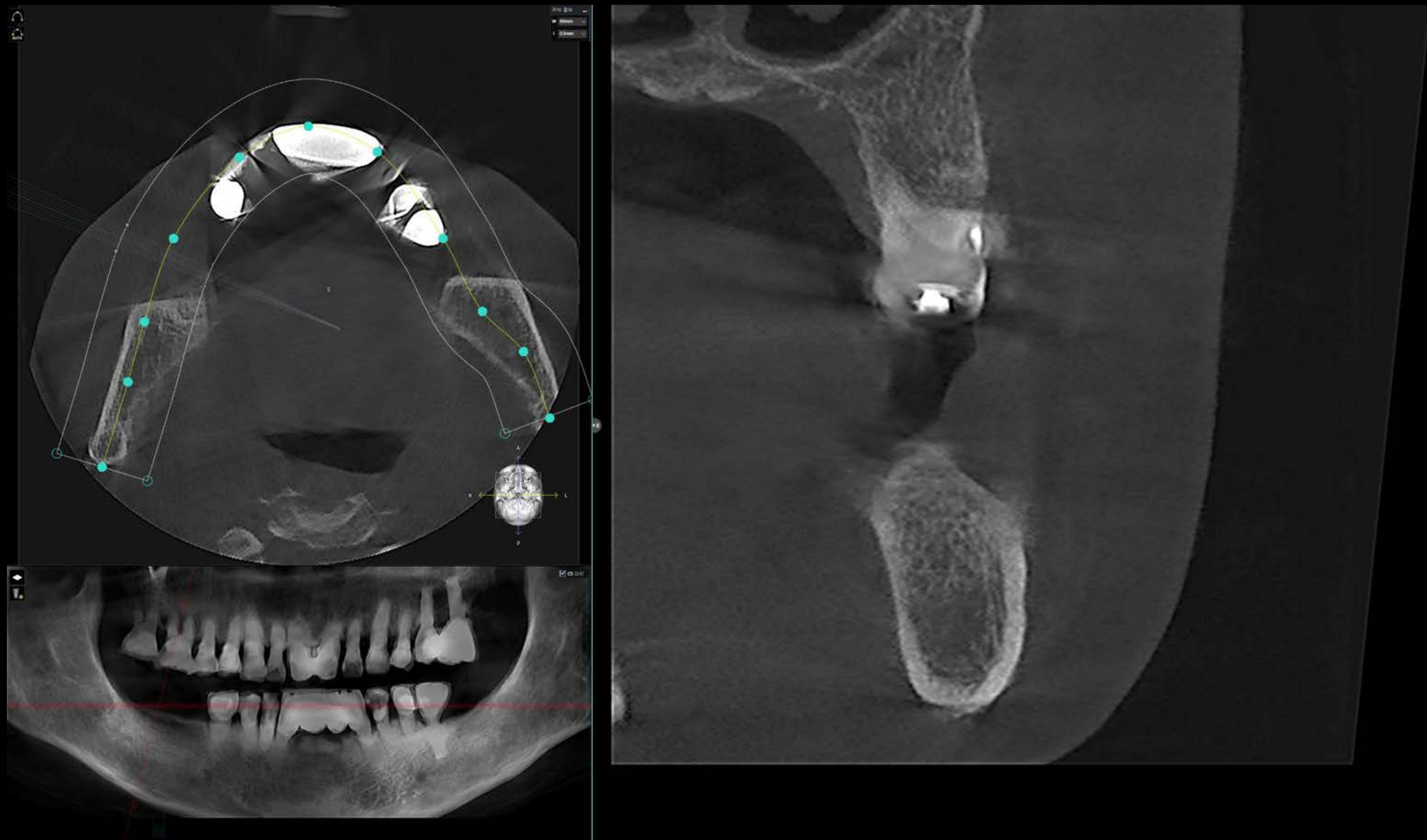
Pre-op (2022-12-08)



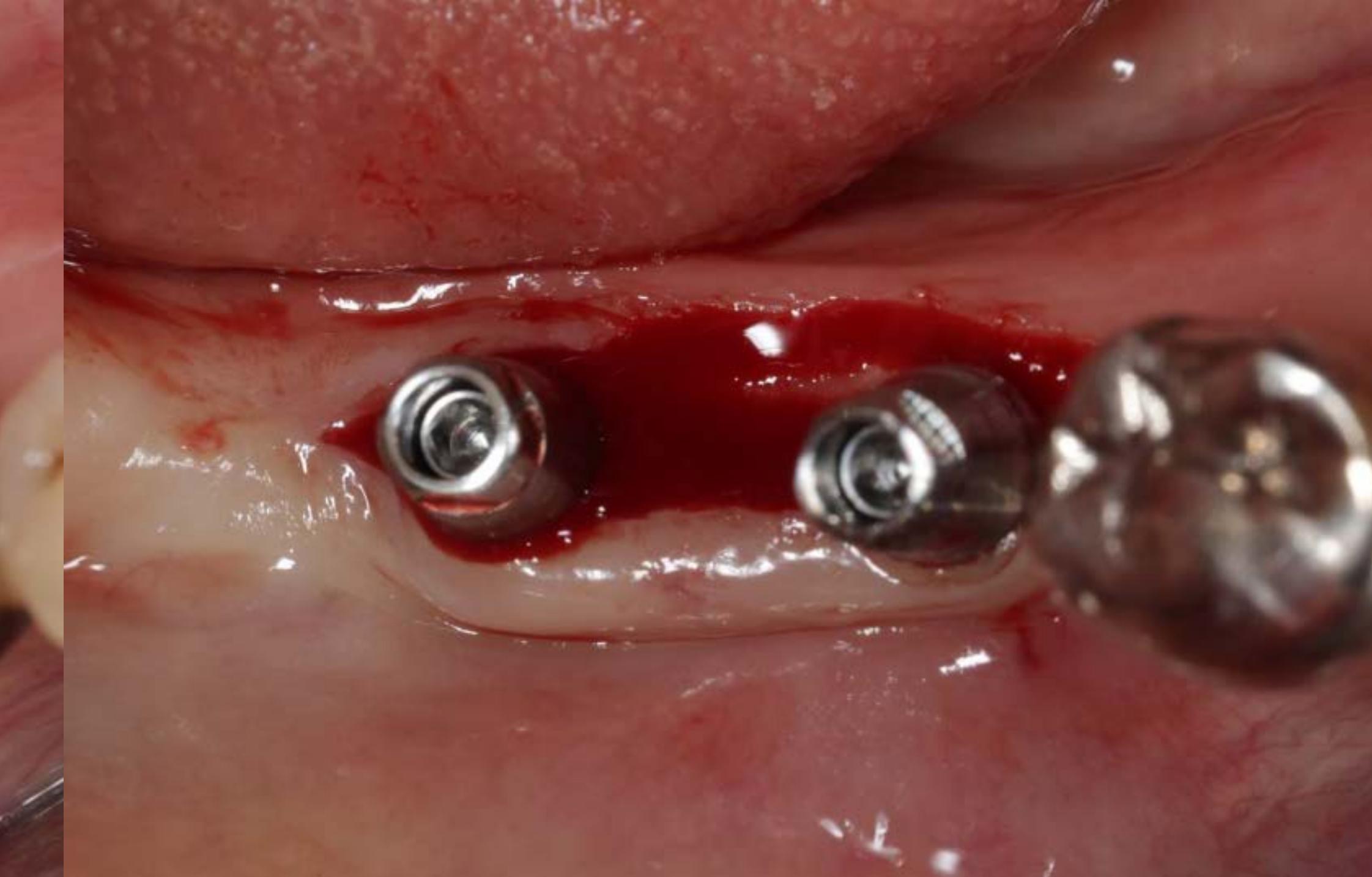
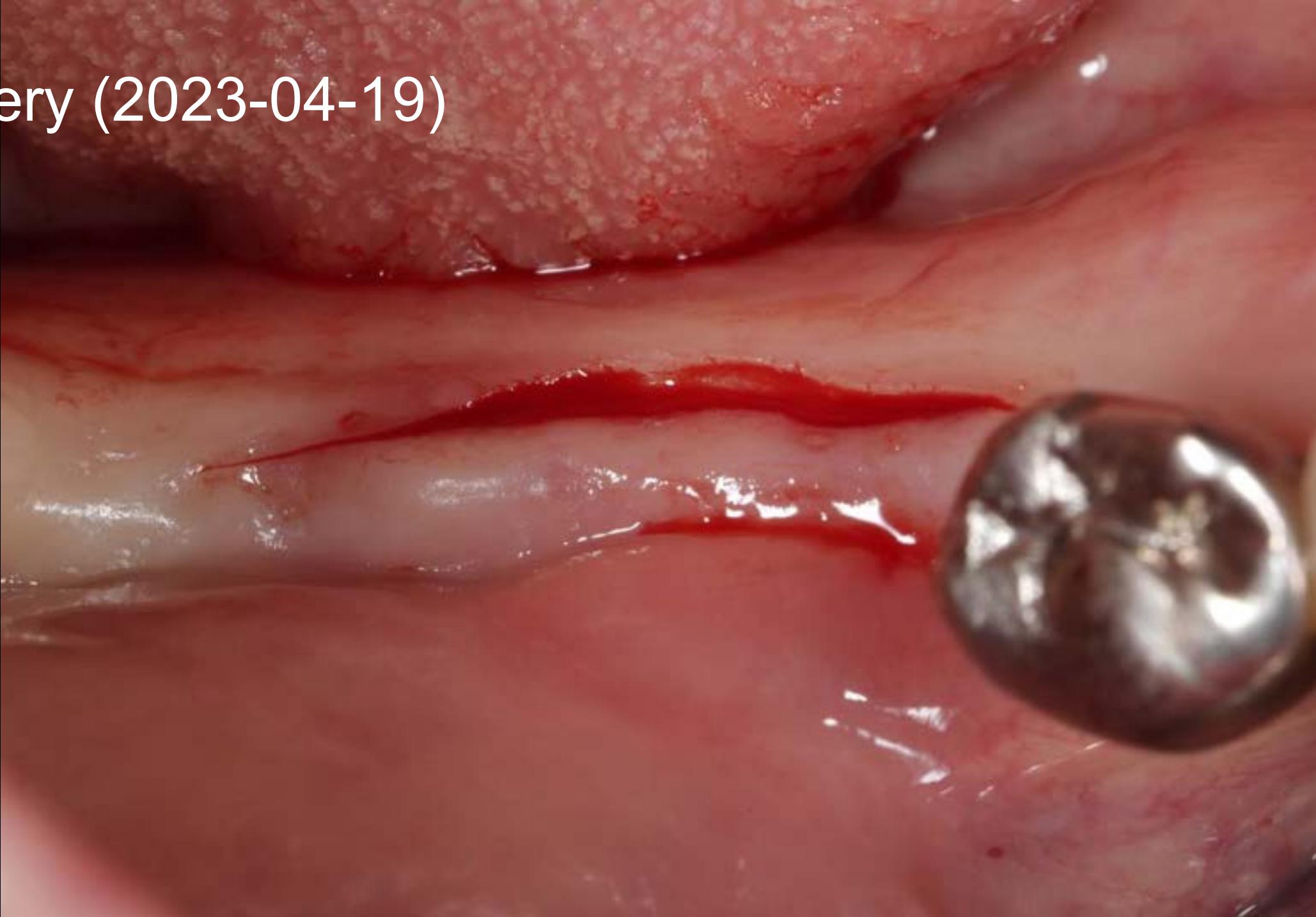
#46 Pre-op CT (2022-12-08)



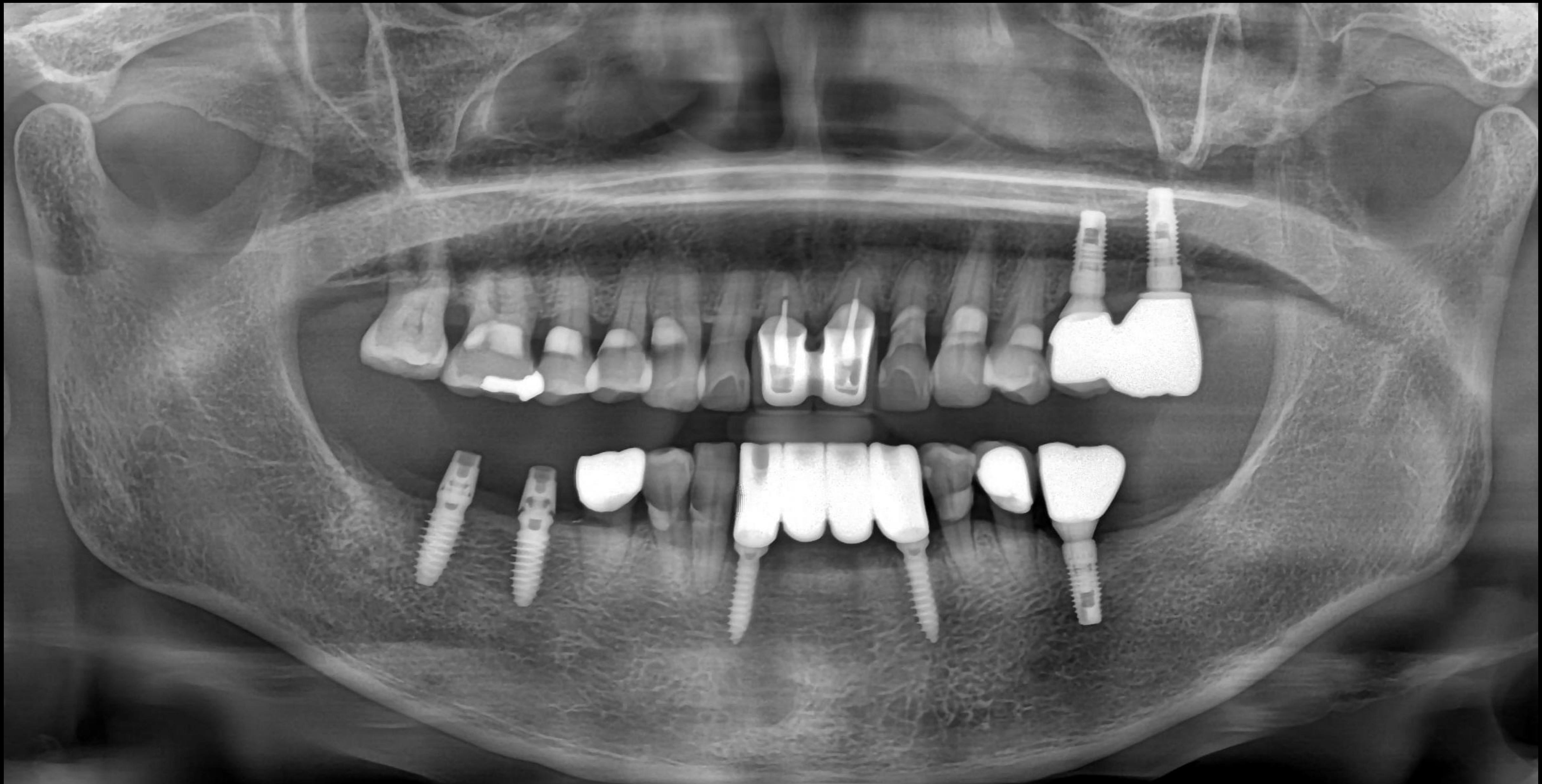
#47 Pre-op CT (2022-12-08)



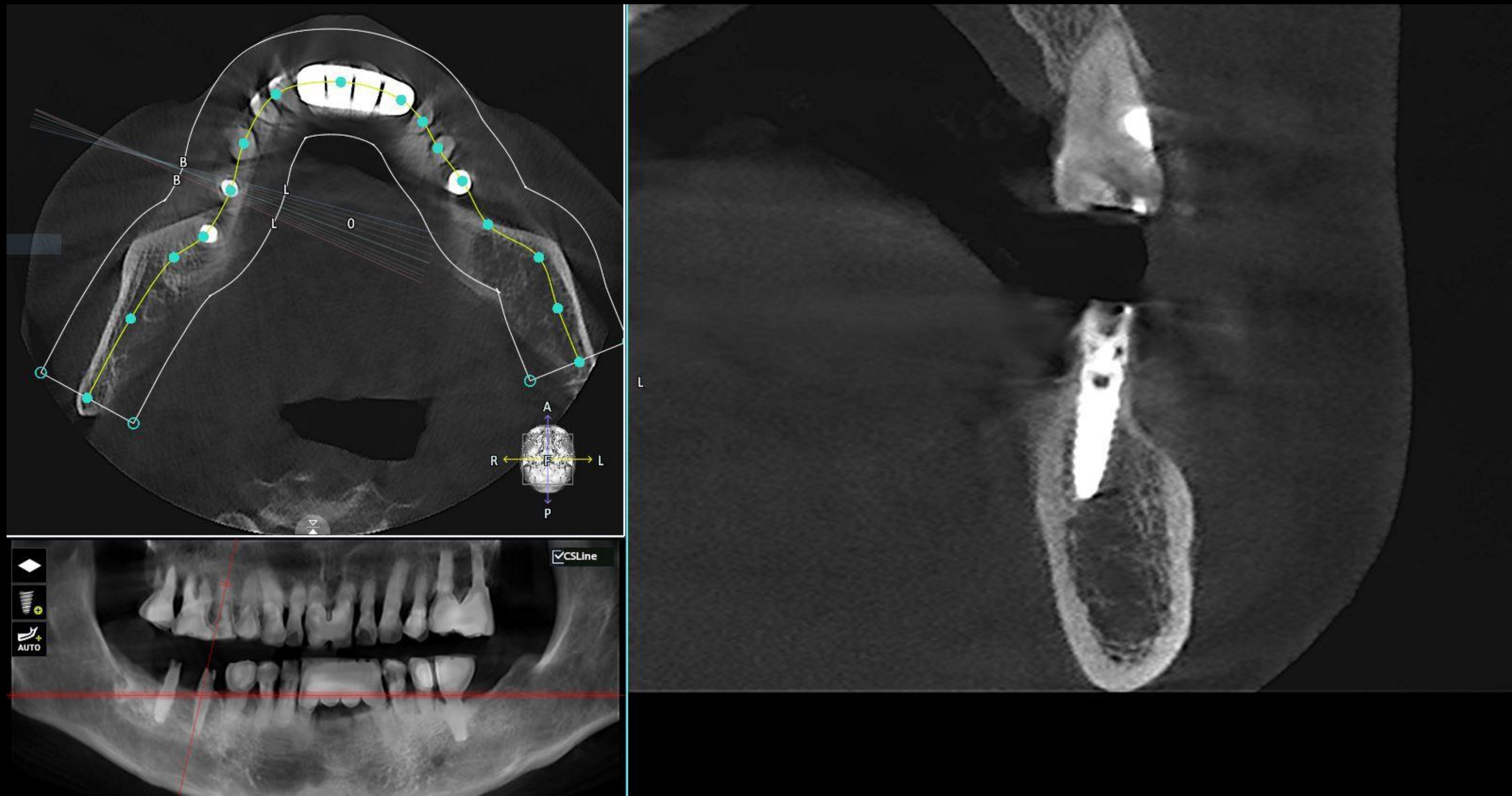
Surgery (2023-04-19)



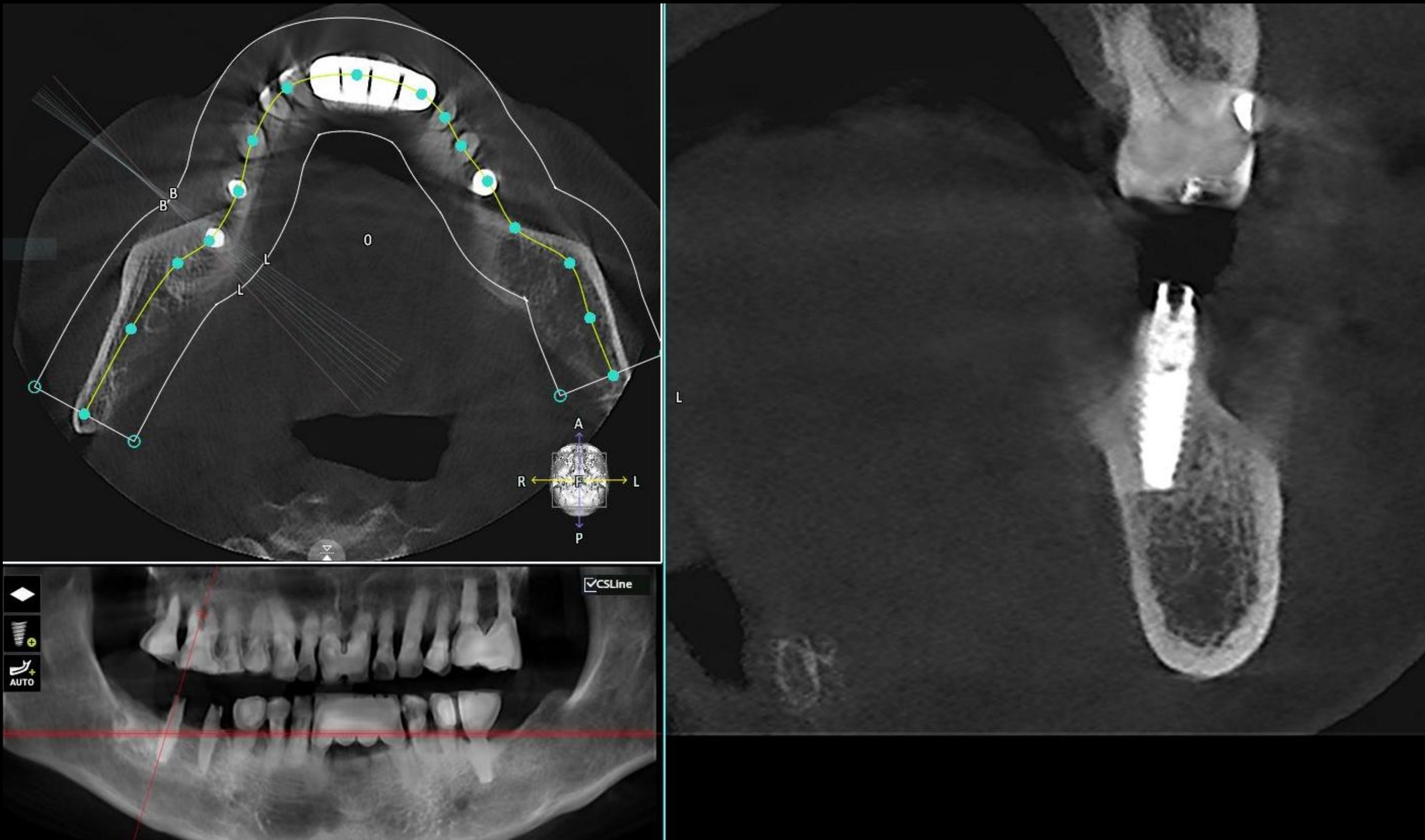
Post-op (2023-04-26)



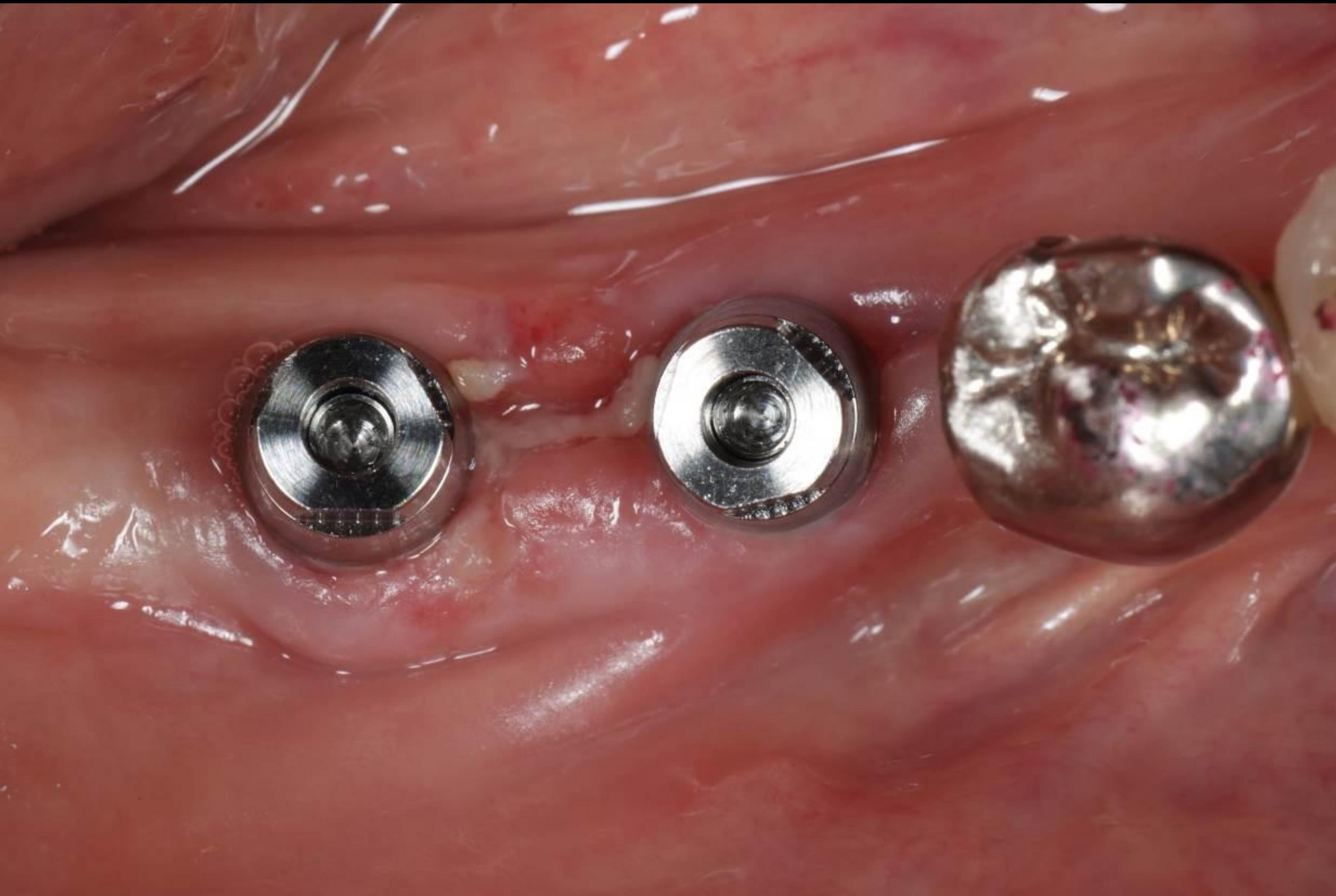
#46 Post-op CT (2023-04-26)



#47 Post-op (2023-04-26)



Healing : 1 week (2023-04-26)



Final prosthesis (2023-09-18)



Pre-op (2023-08-08)



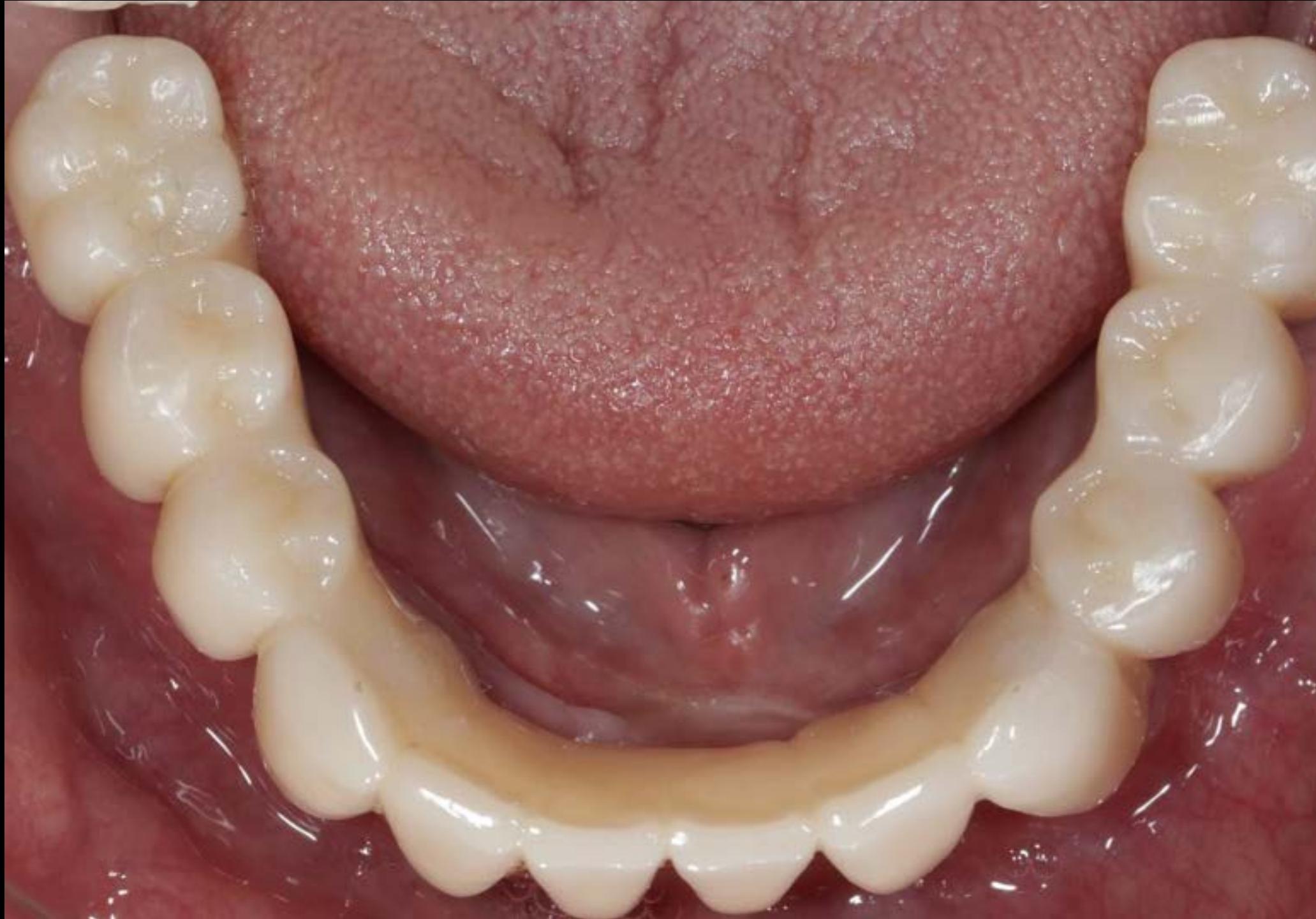
**PMH**

Heart stent transplants,  
diabetes, hyperlipidemia

Final prosthesis (2024-01-16)



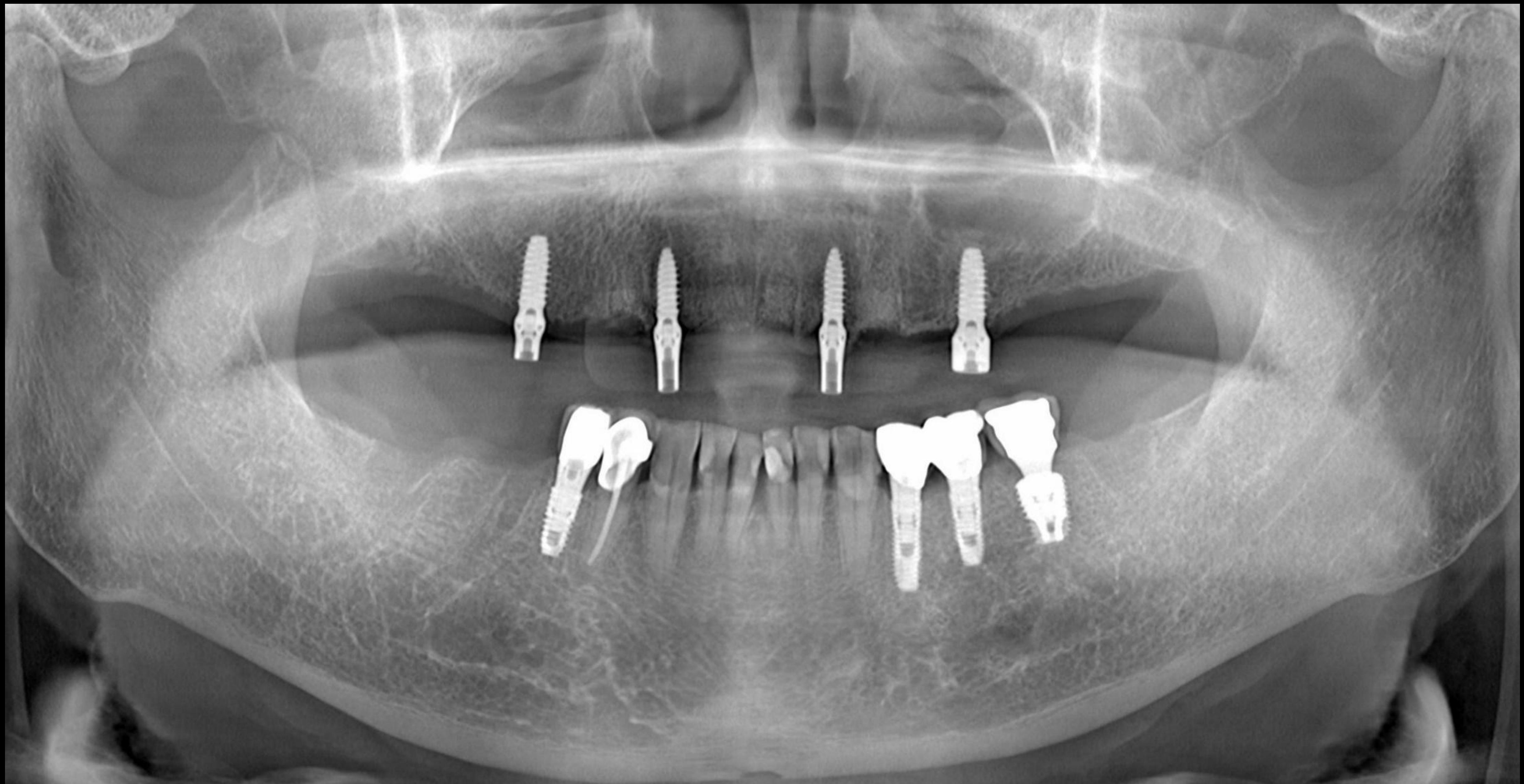
Final prosthesis (2024-01-21)



Pre-op (2021-04-07)



Post-op (2021-05-07)



Follow up : 1 year (2022-10-14)



Final prosthesis (2021-10-08)



Minimalism is

Not only minimal invasive surgery

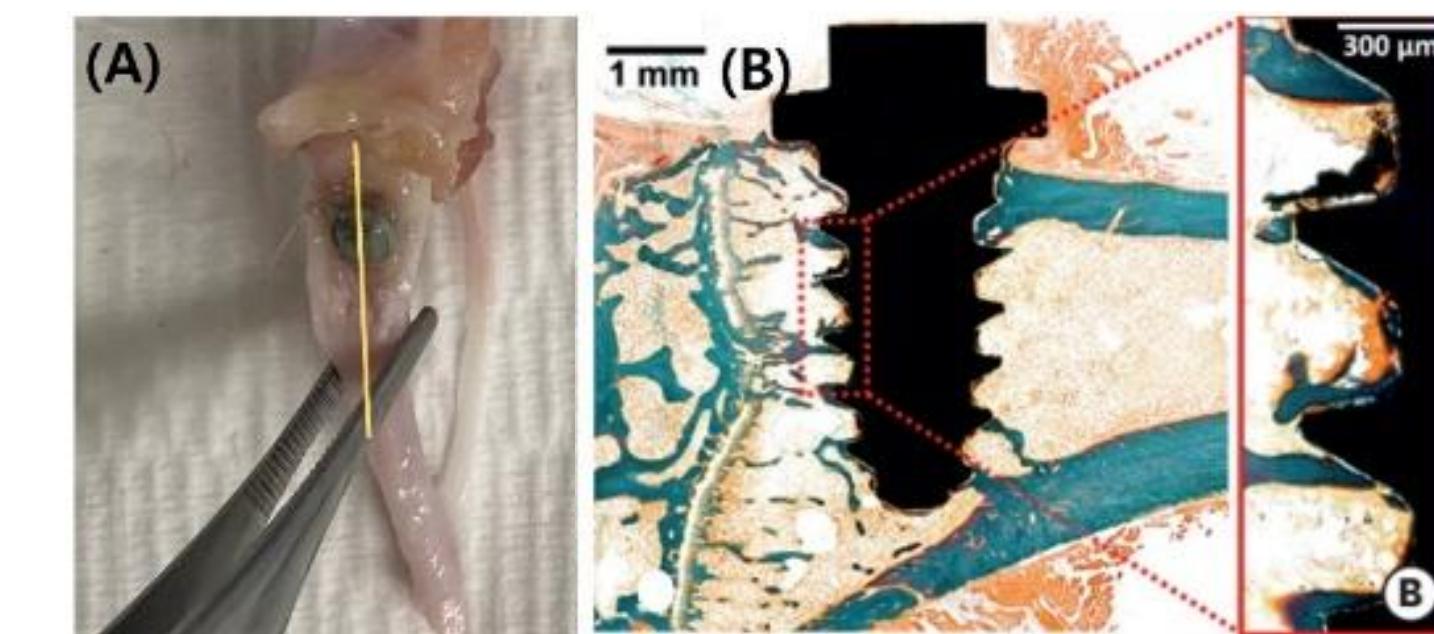
But also minimal number, short and narrow

And early loading - normally 4 week loading

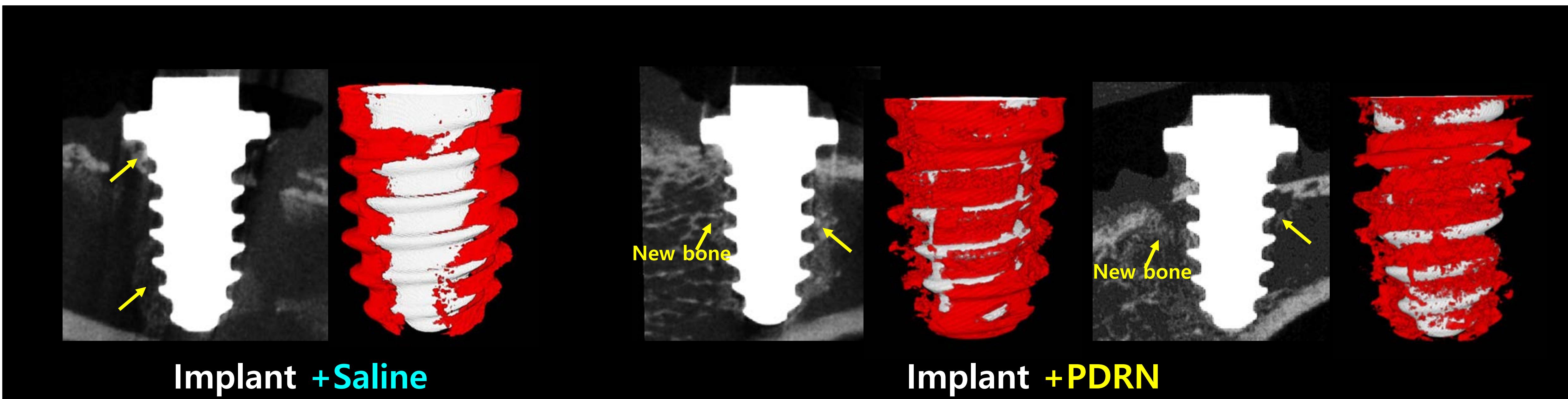
# Implant + GENOSS PDRN : 7 day

1 Objective : To evaluate the effect of PDRN on early bone regeneration

2 Conclusion : PDRN increased bone formation by 54%

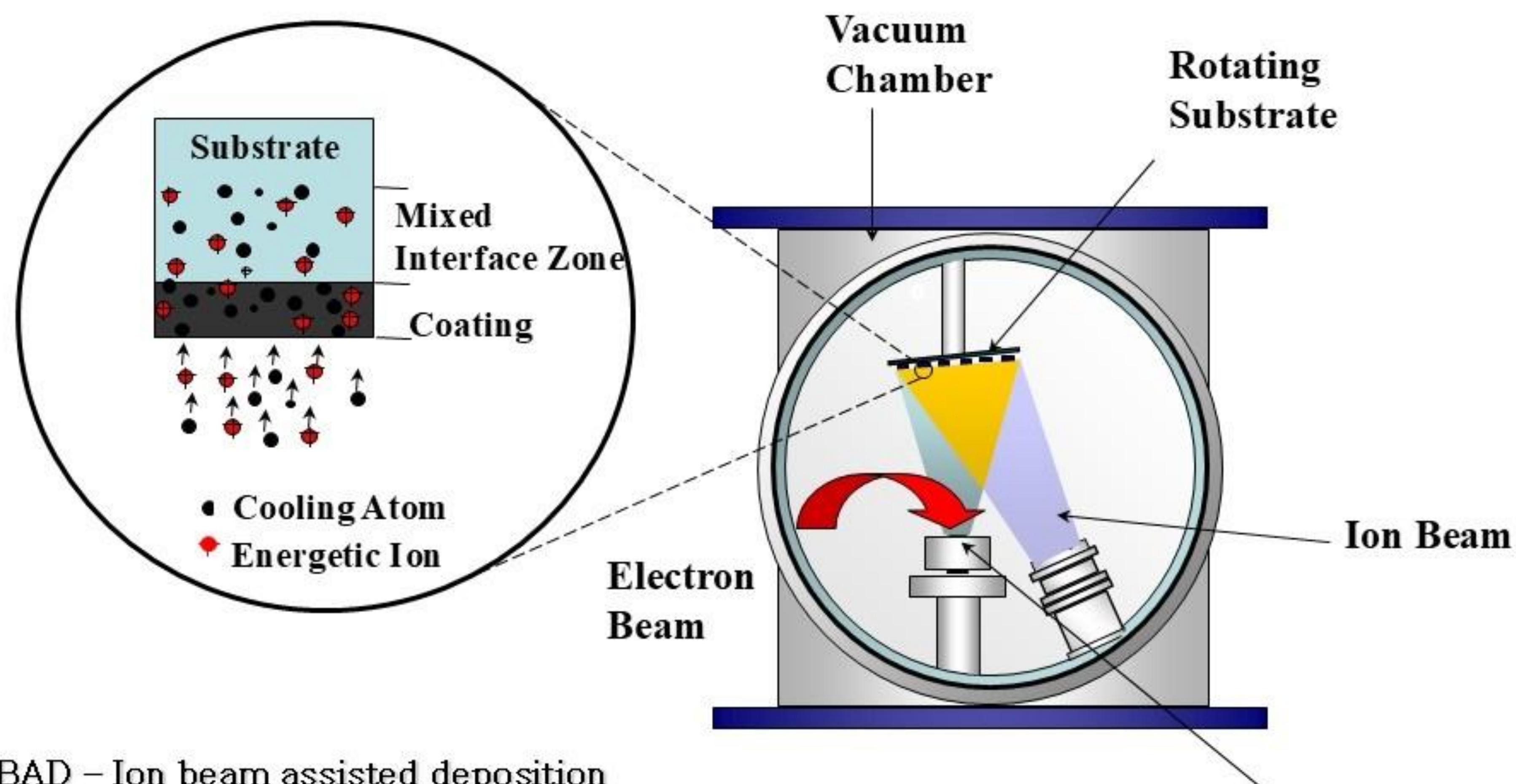


\* Experimental procedure: Implant placement in rat tibia after PDRN soaking





# IBAD Ca-P Coating System

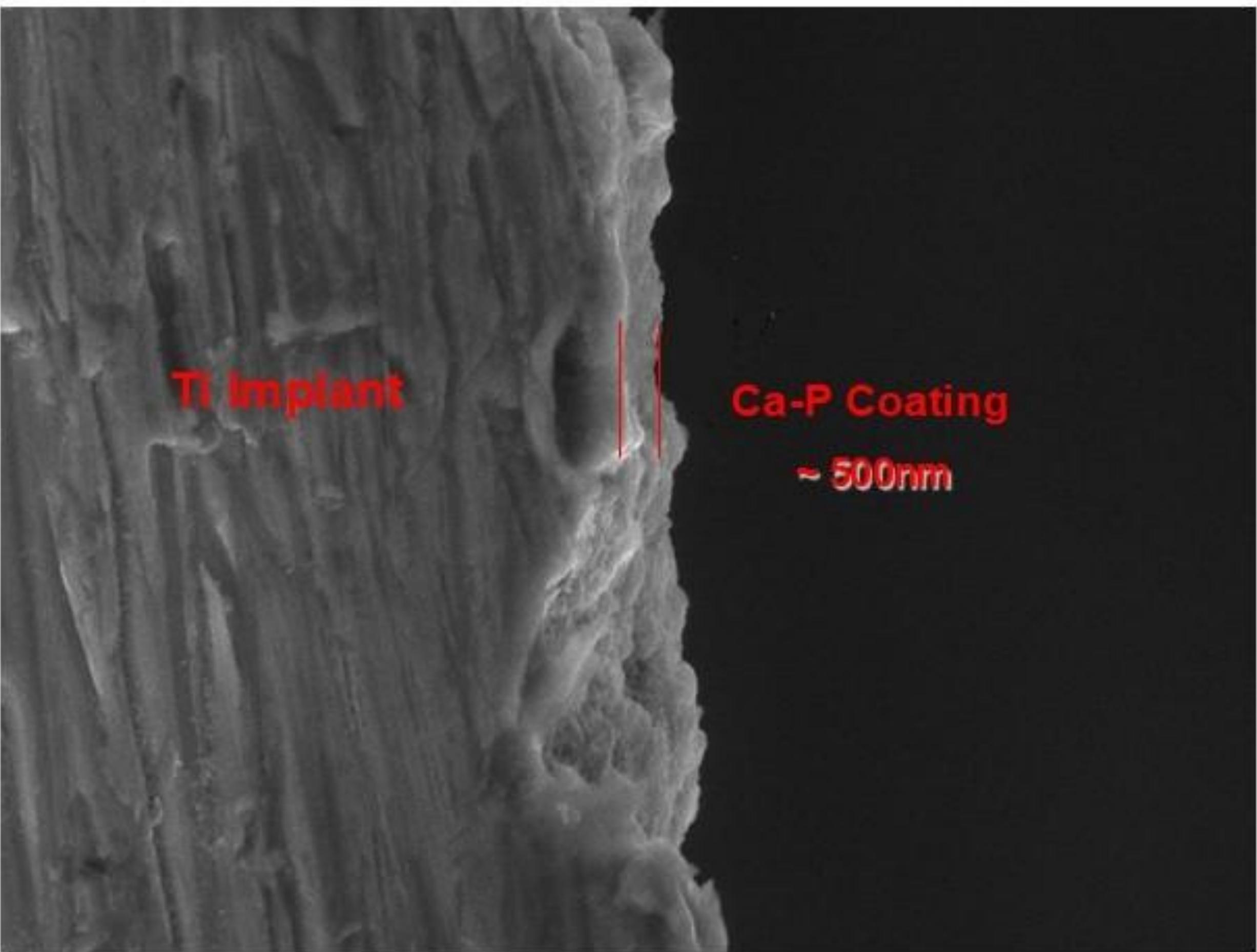


1. IBAD – Ion beam assisted deposition
2. Evaporant – Hydroxyapatite + CaO, Sintering at 1000°C
3. The thickness and component of thin film is easily control.

**HA**  
**Evaporants**

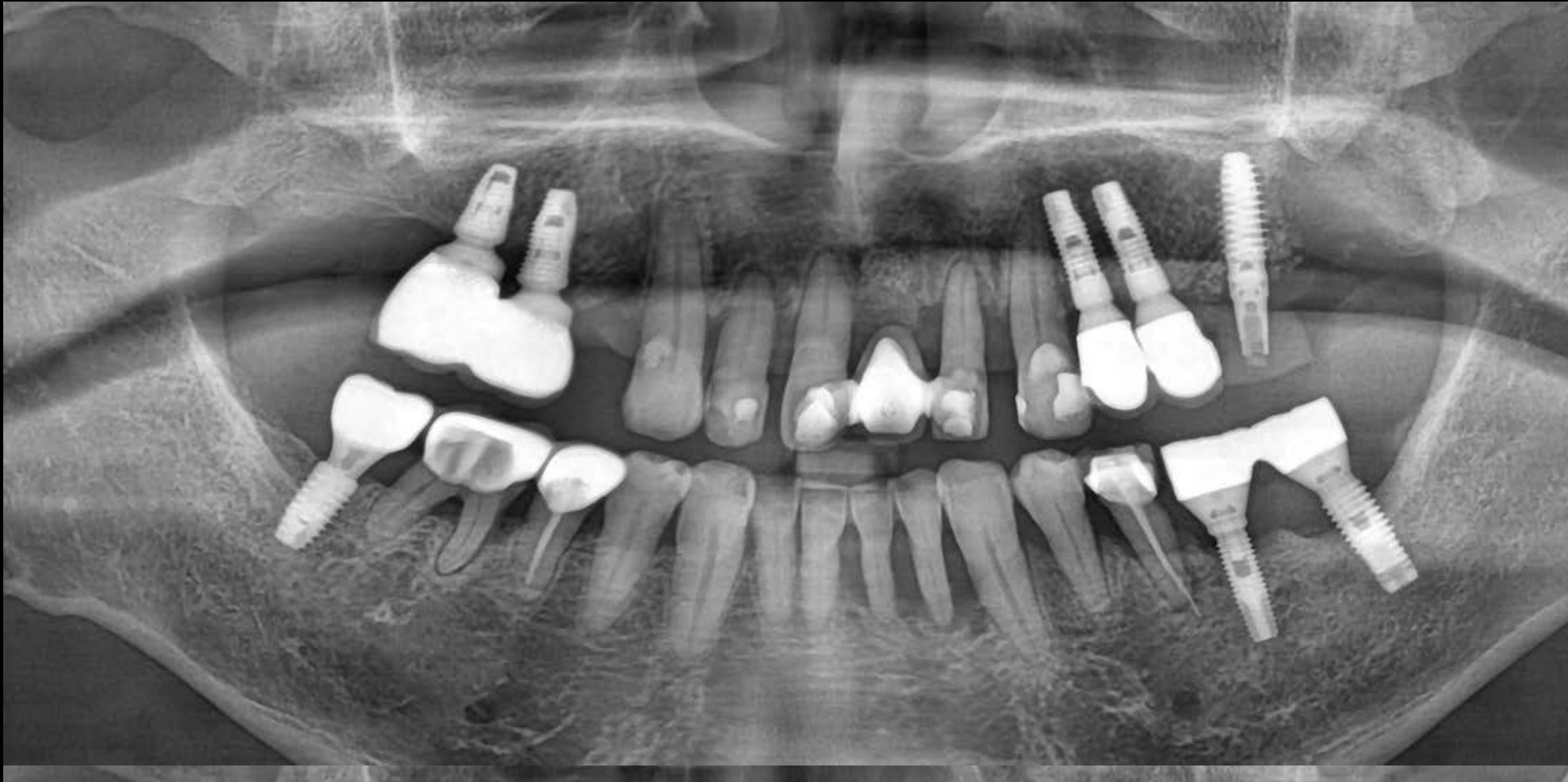


# Ca-P Coating Thickness

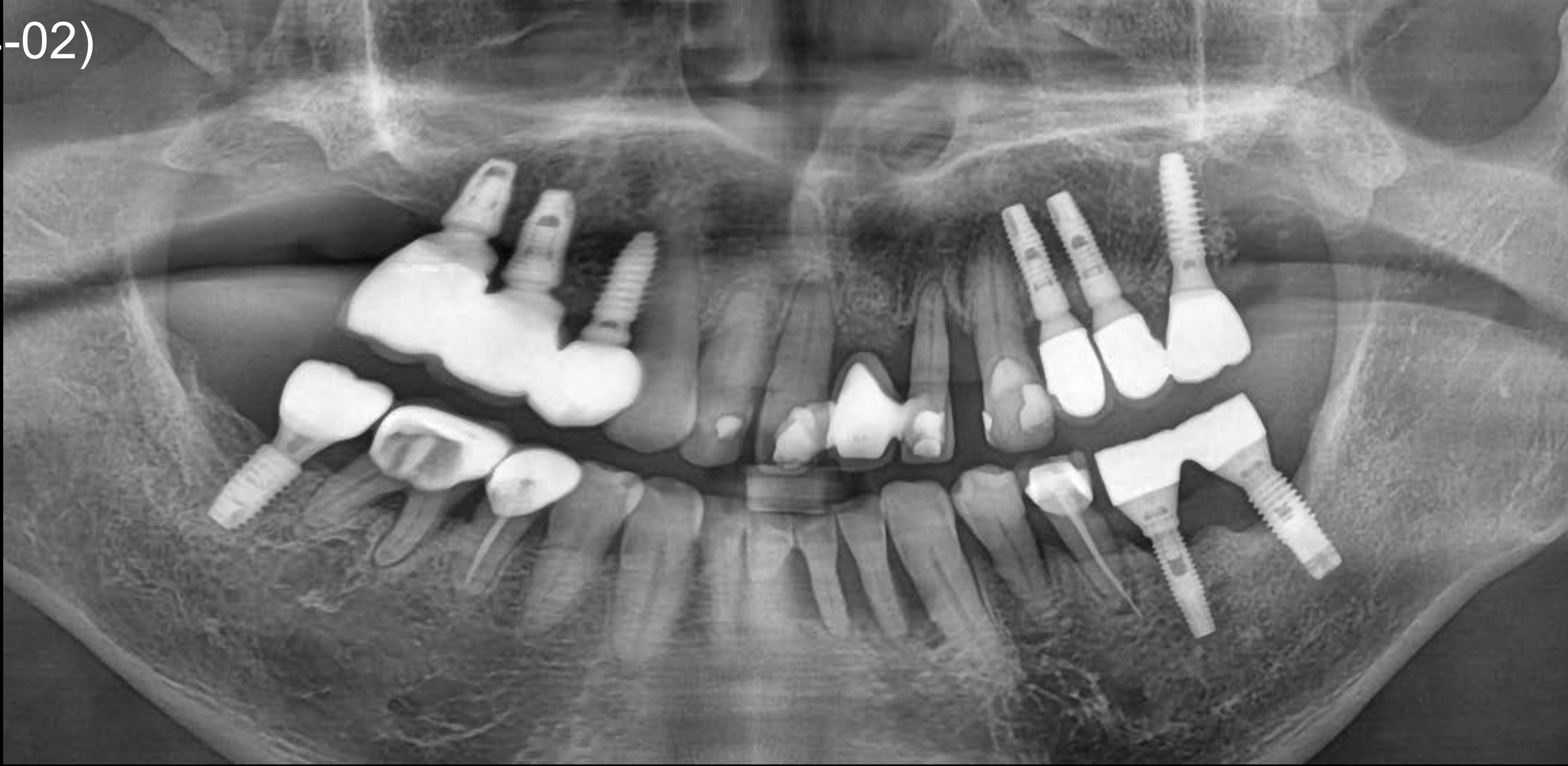


1. Thickness ~ 500 nm
2. The thin film is closely adherent on Ti substrate.
3. Bonding strength > 50 MPa

Oral exam (2024-11-15)



Final prosthesis (2025-04-02)

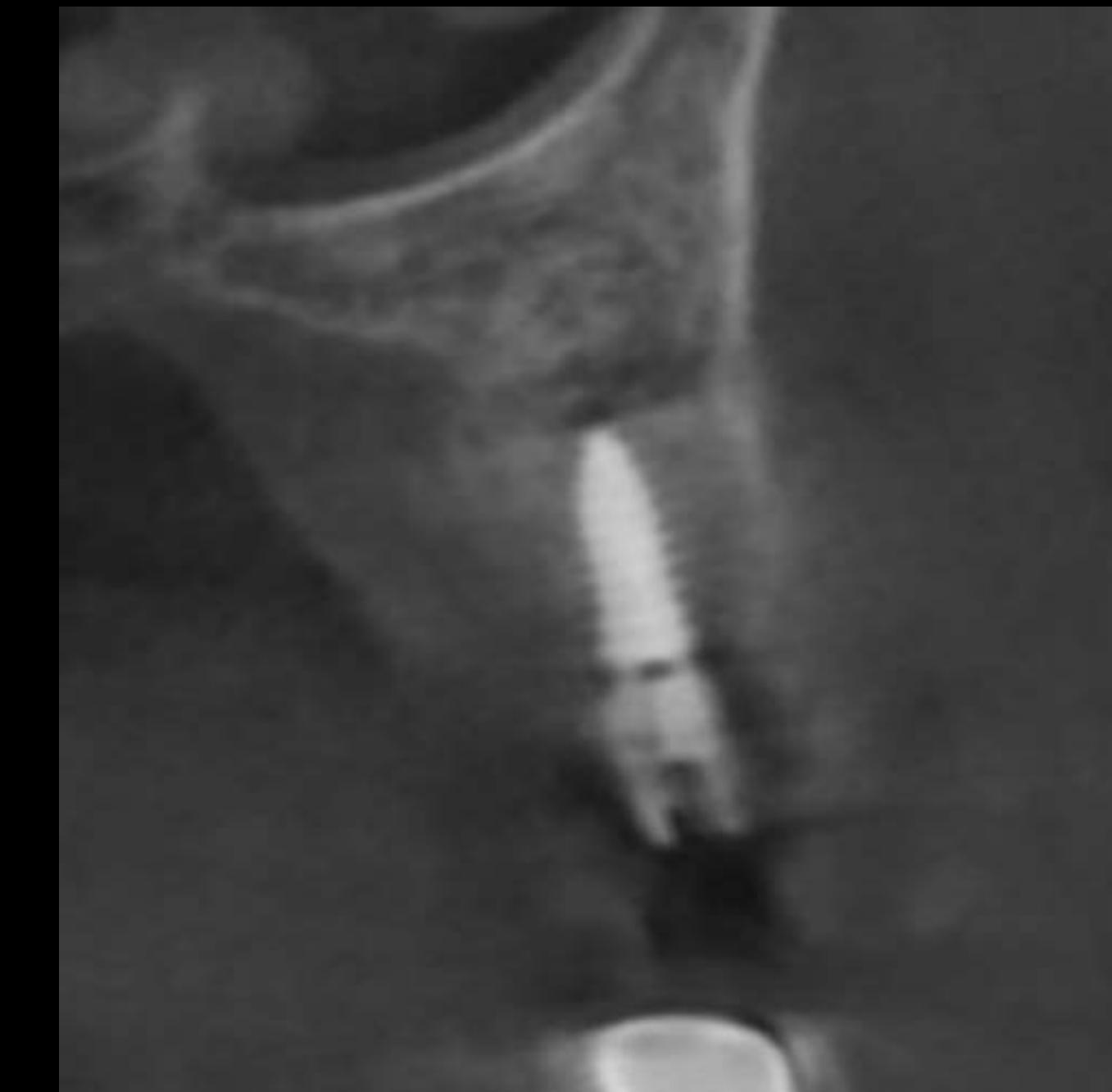


Pre-op CT (2025-03-10)



#14

Post-op CT (2025-03-10)

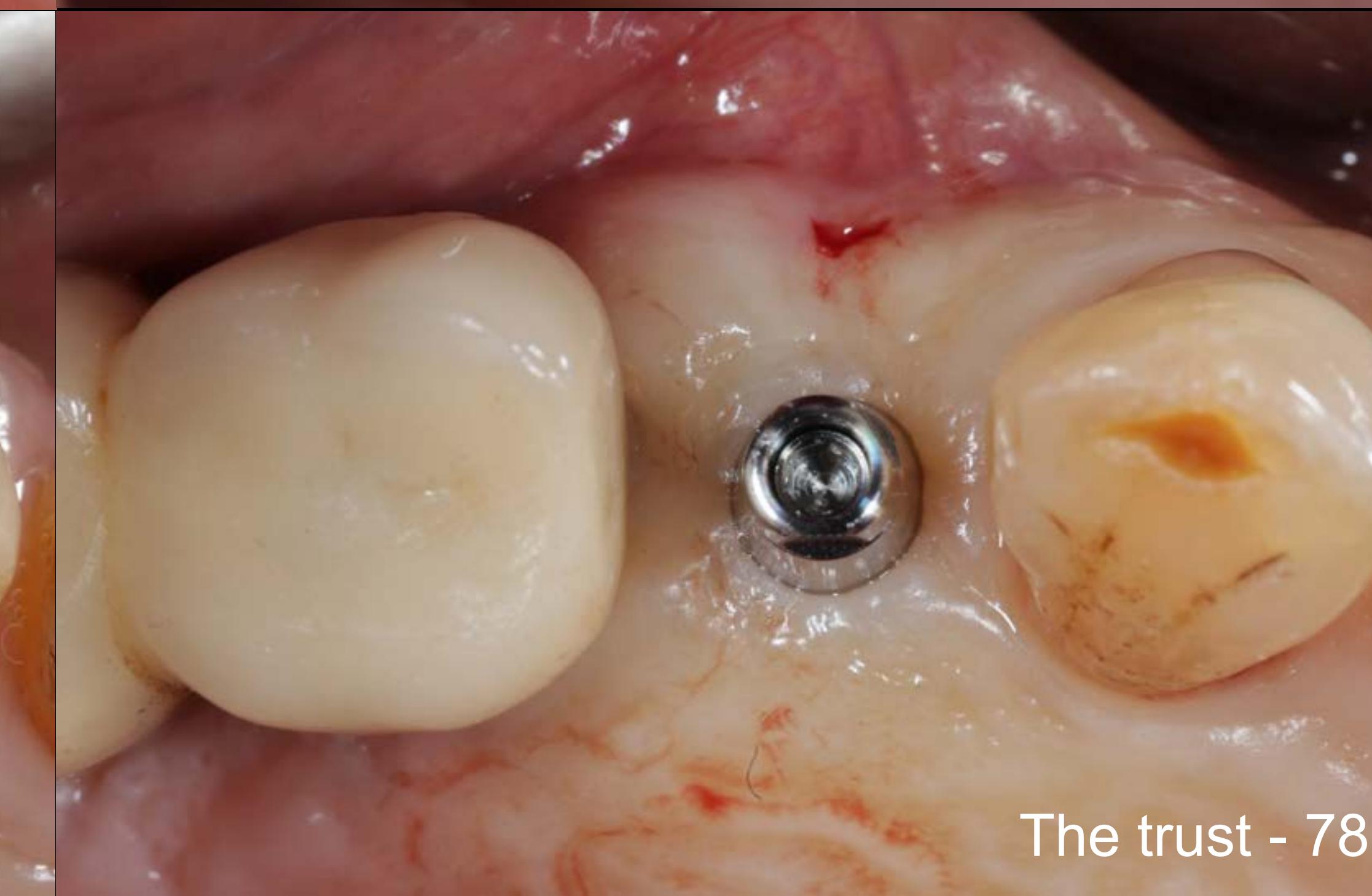


#14

Surgery (2025-03-10)

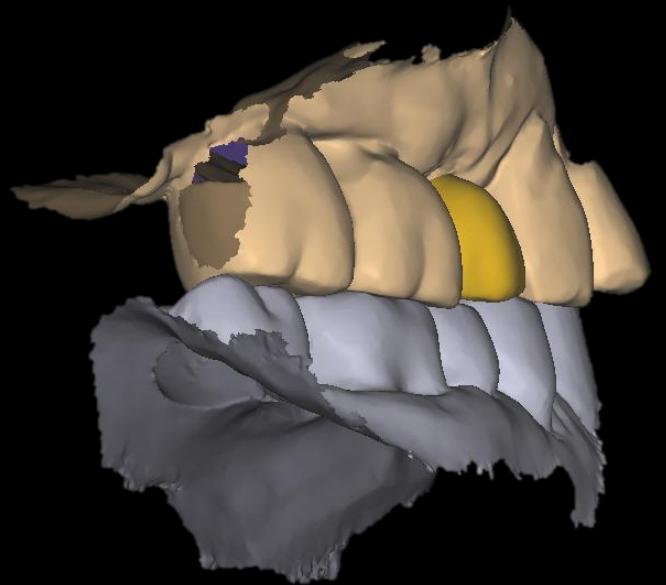
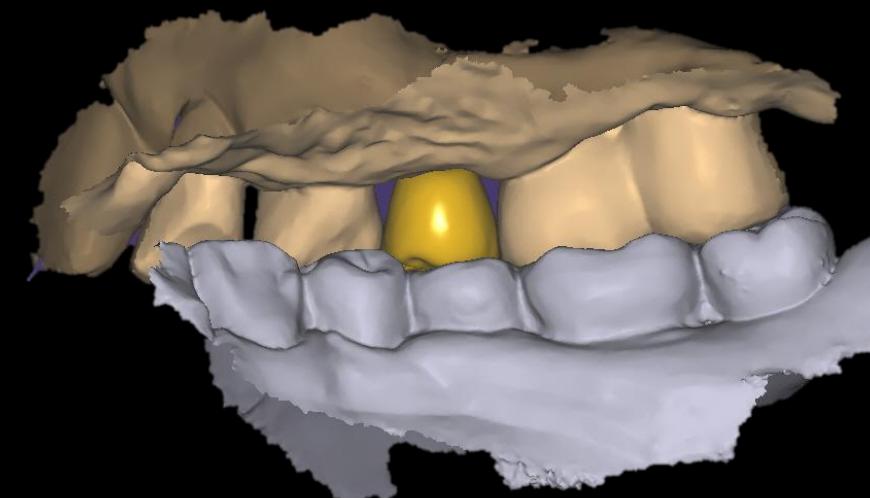
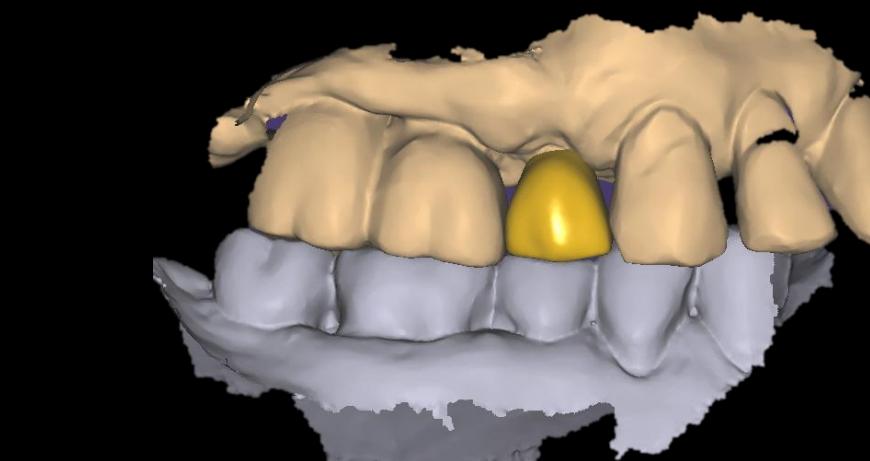
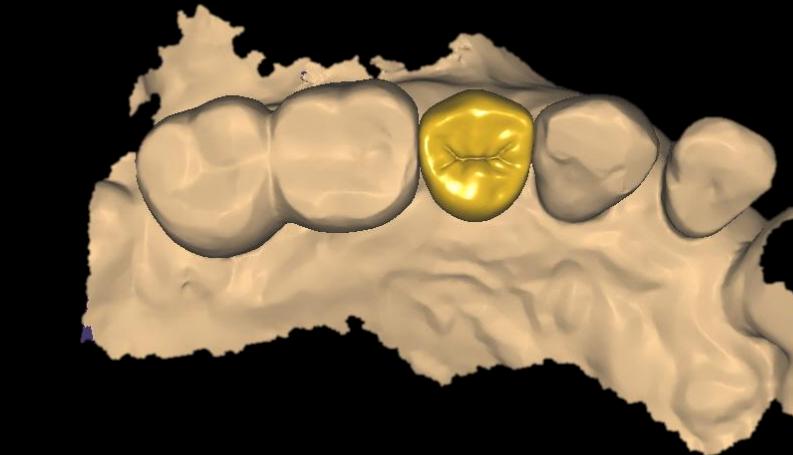
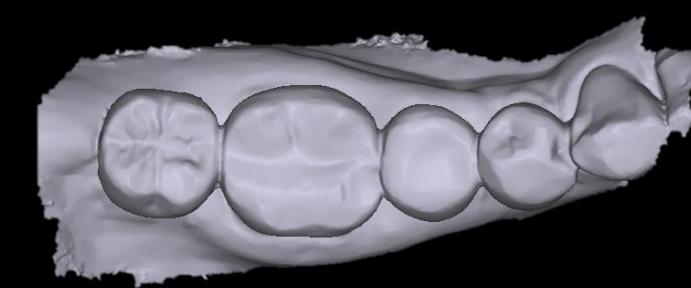
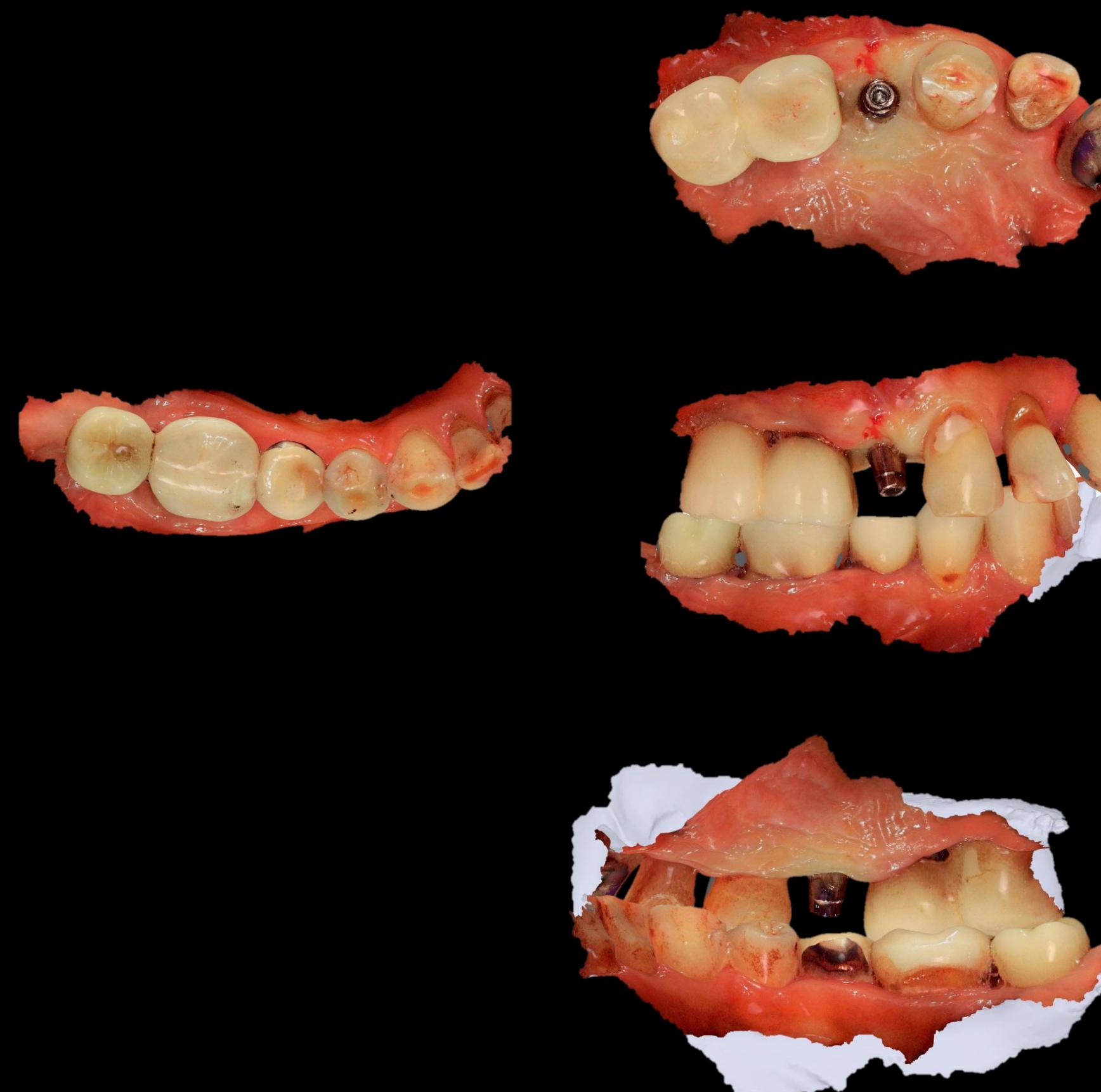


Pin guide



The trust - 78

# Intra Oral Scan



Final prosthesis (2025-04-02)



# Contents

Bright implant

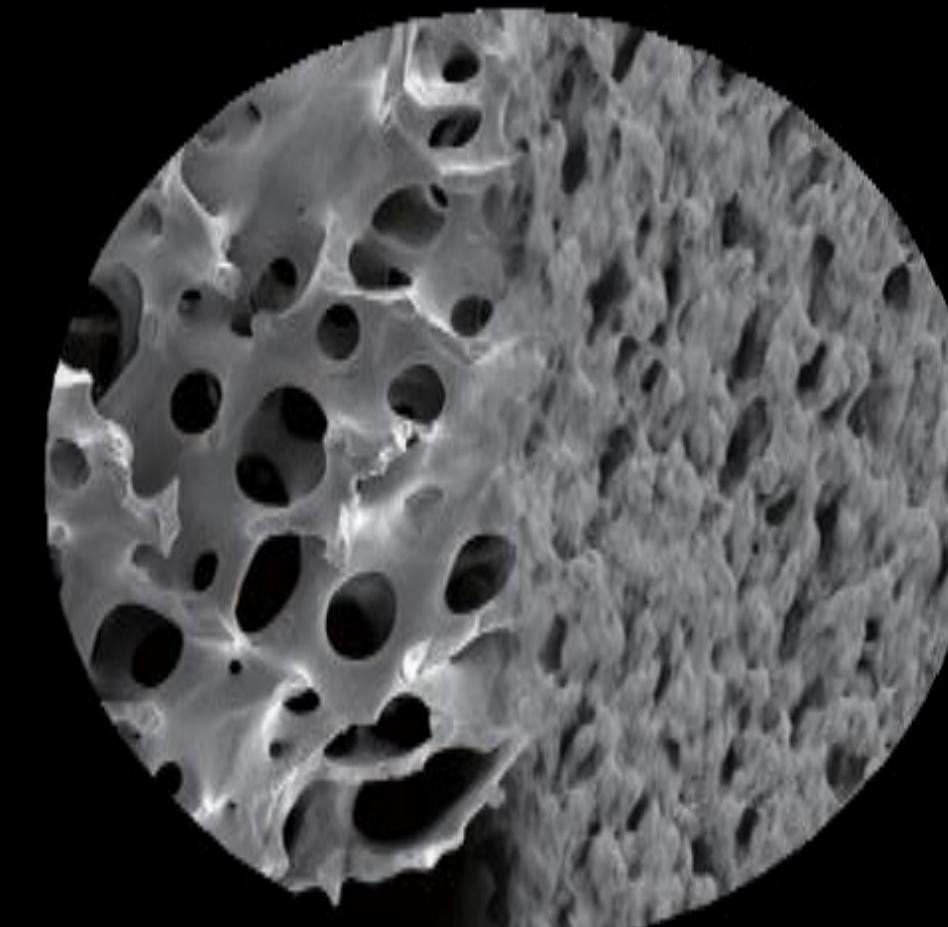
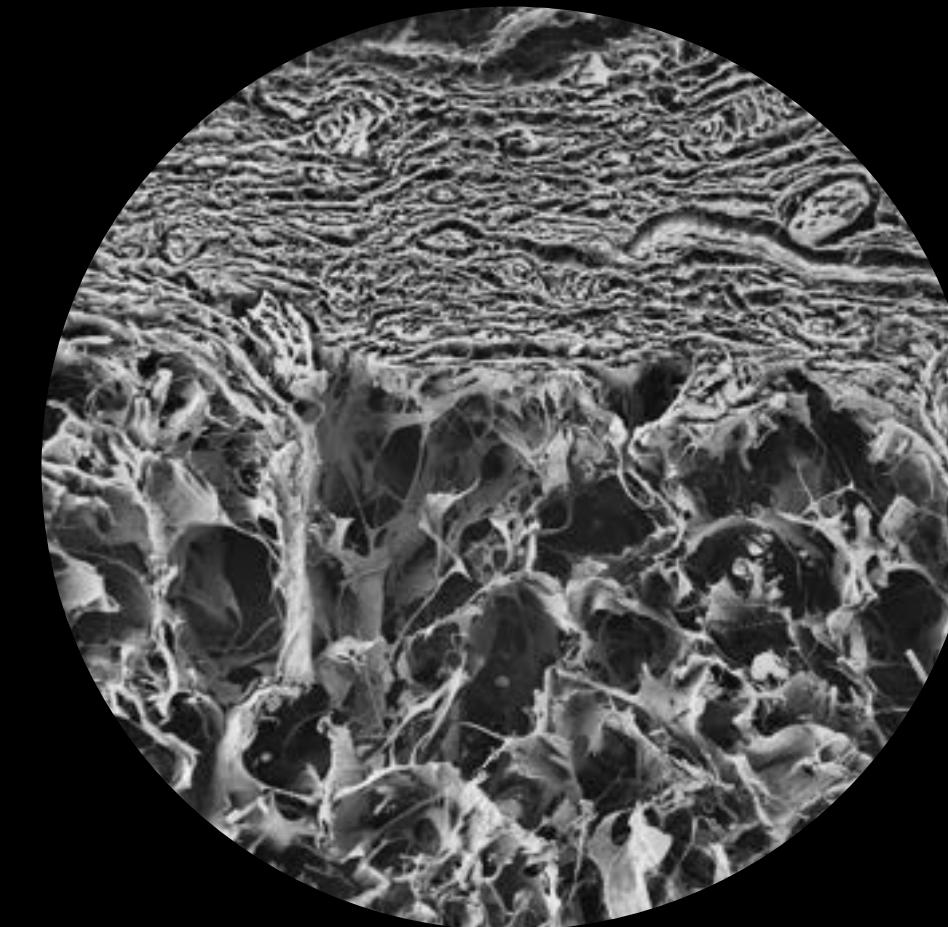
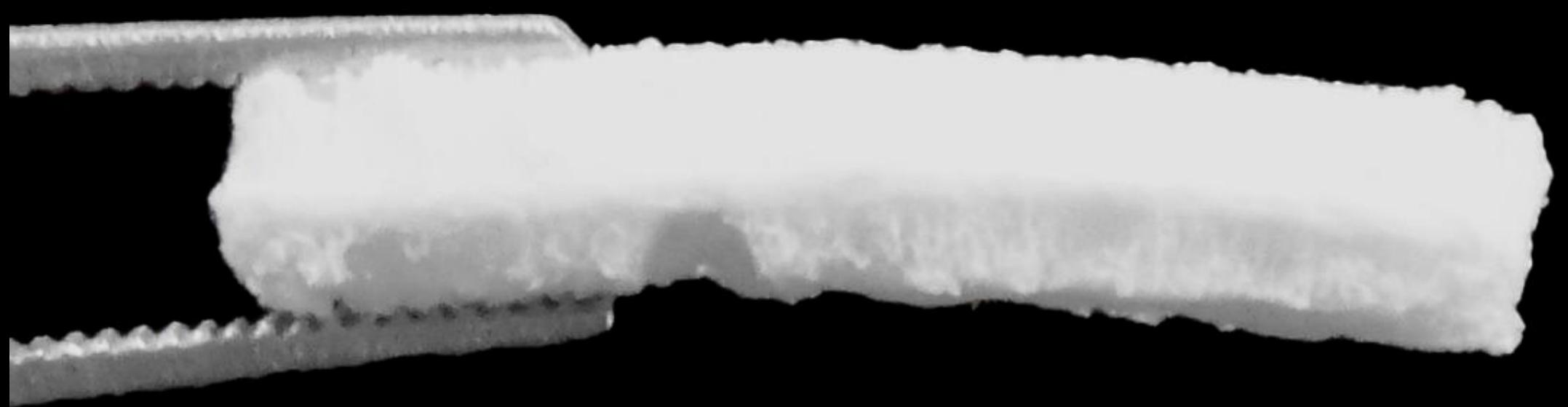
Narrow and short implants

Bone regeneration materials

Simple and exact digital concepts

Filler and toxin in dental field

# Correlation between industrialization and clinical applications

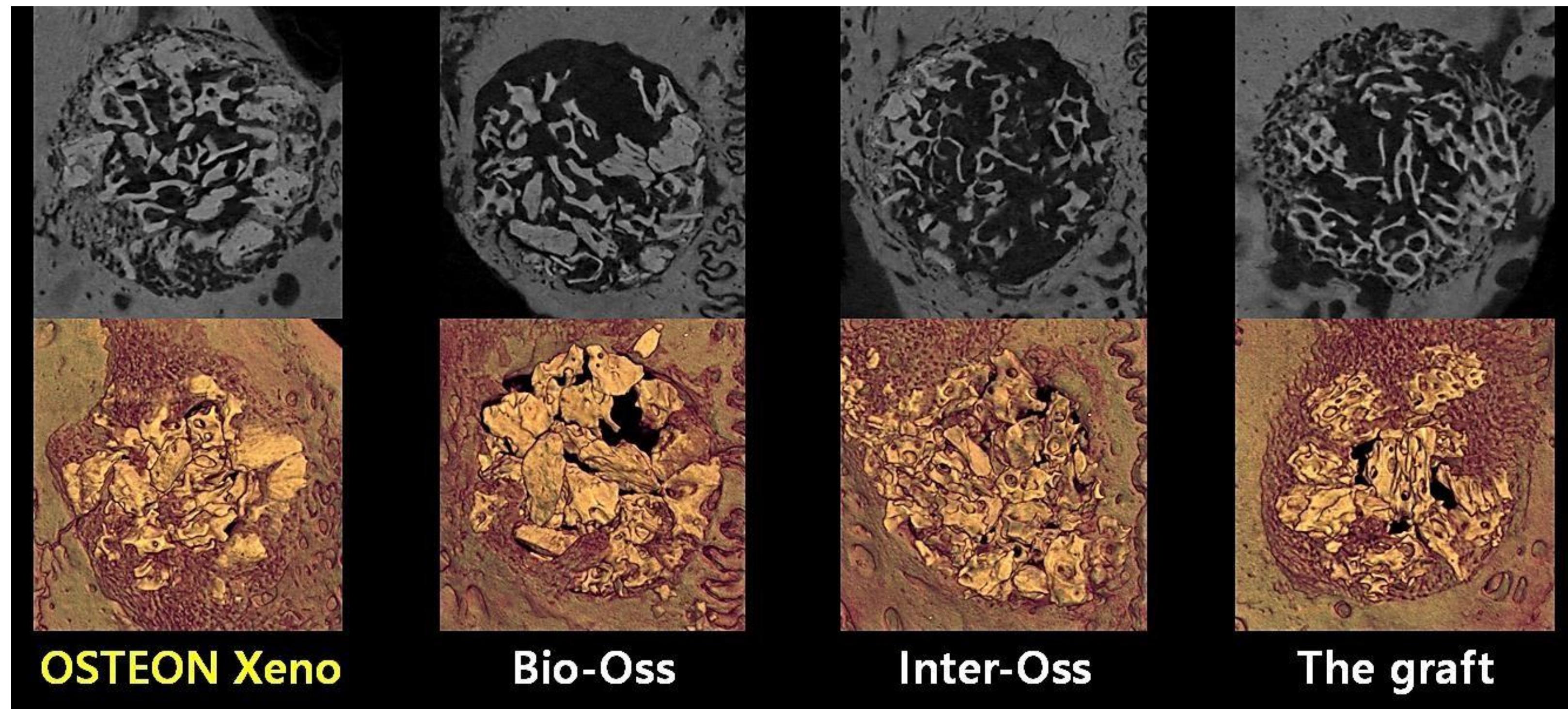


# OSTEON Xeno : Preliminary evaluation of bone formation (4W)

1. Objective : Comparative evaluation of three commercial bone grafts (Bio-Oss, Inter-Oss, The Graft)

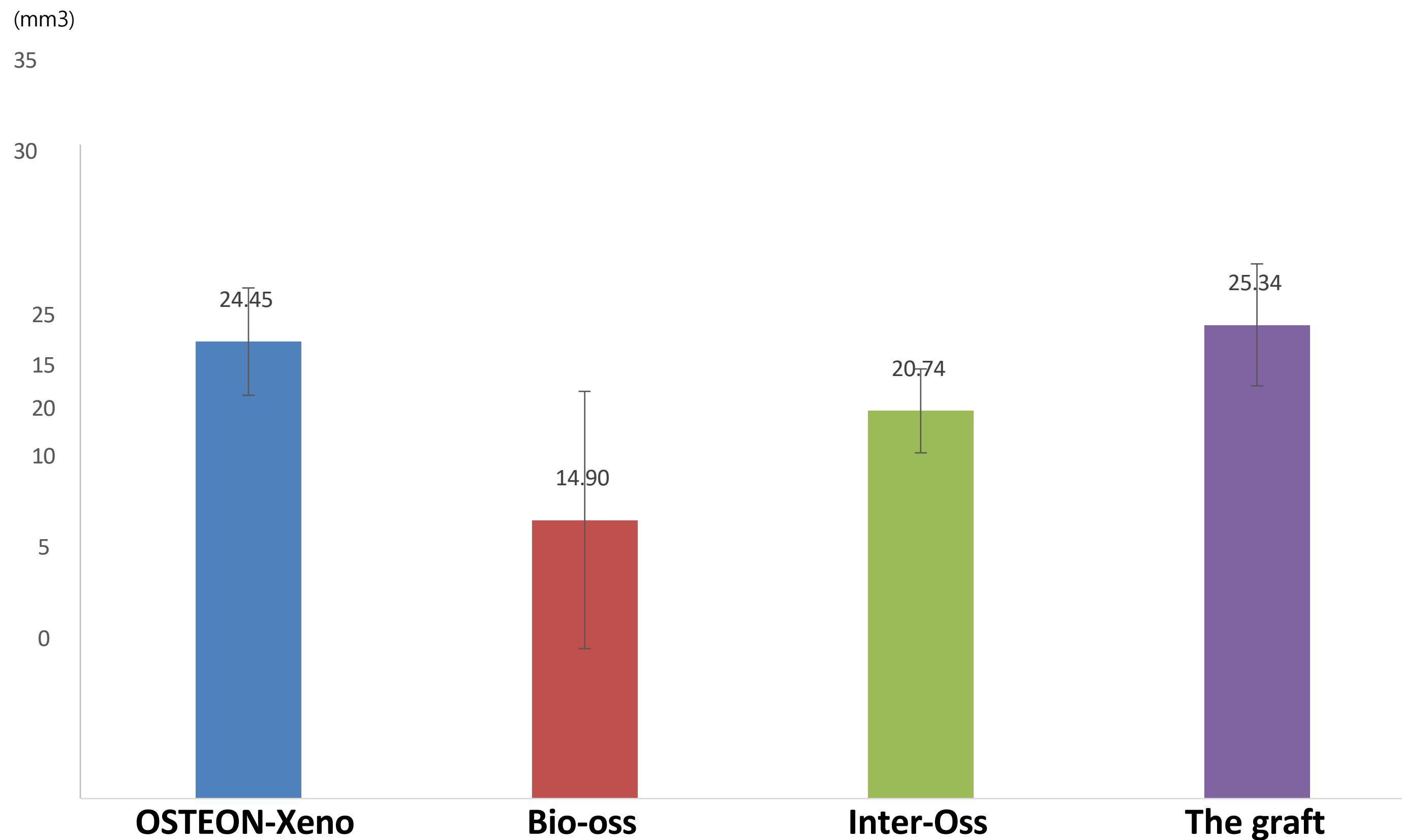
2. Conclusion : **OSTEON Xeno ≈ The graft > Inter-Oss > Bio-Oss**

3. Action plan : Prepare a report and share data with relevant departments



# Micro-CT quantitative analysis

## New bone volume in Rabbit calvaria (4w)

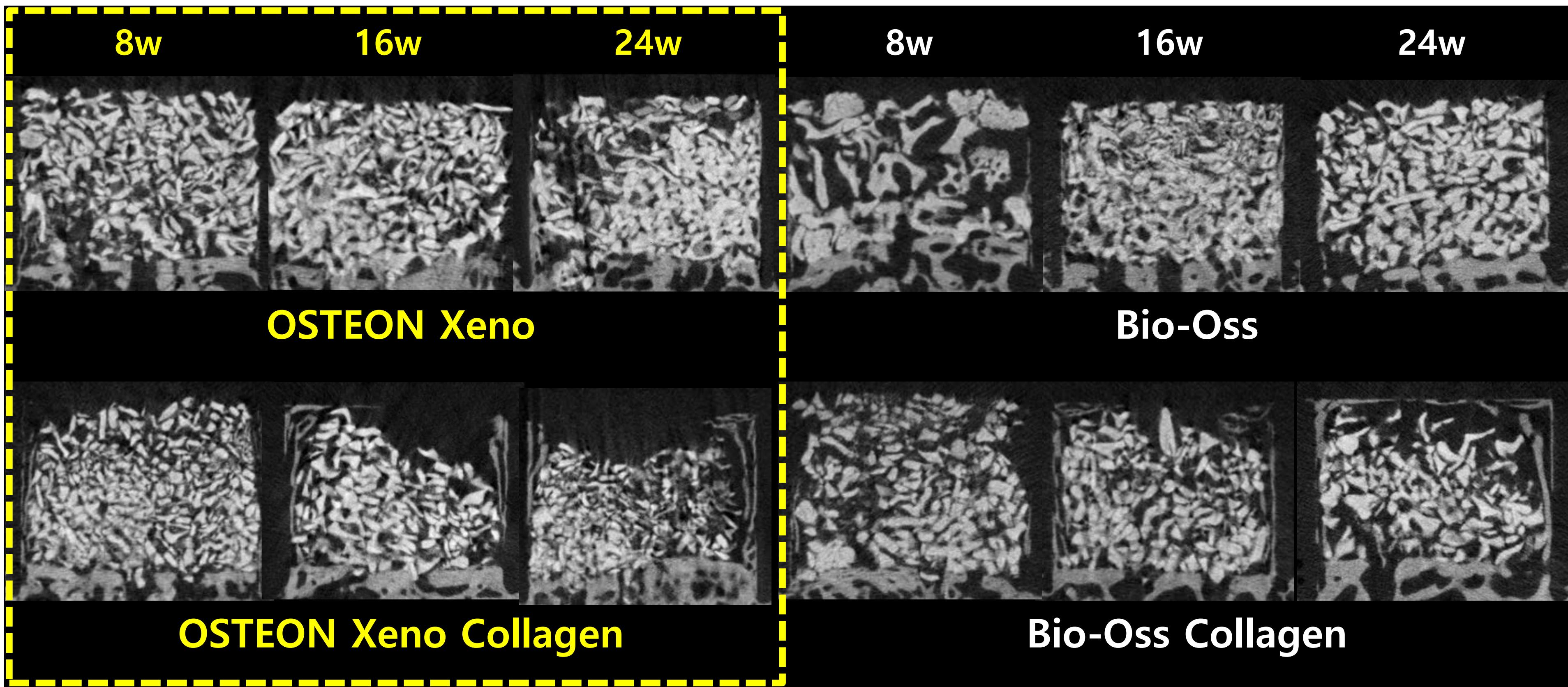


# OSTEON Xeno, Xeno collagen

1 What: Comparison between OSTEON Xeno and Bio-Oss (8, 16, 24 weeks)

2 How : Comparable osteogenic potential to Bio-Oss

No.	위치	분류	골이식재
1	토끼 대조군	Bio-Oss	Bio-Oss
2			Bio-Oss Collagen
3	두개골 실험군	OSTEON Xeno	OSTEON Xeno
4			OSTEON Xeno Collagen



► In-house animal study (rabbit experiment: implants in plastic tubes at 8 and 16 weeks)

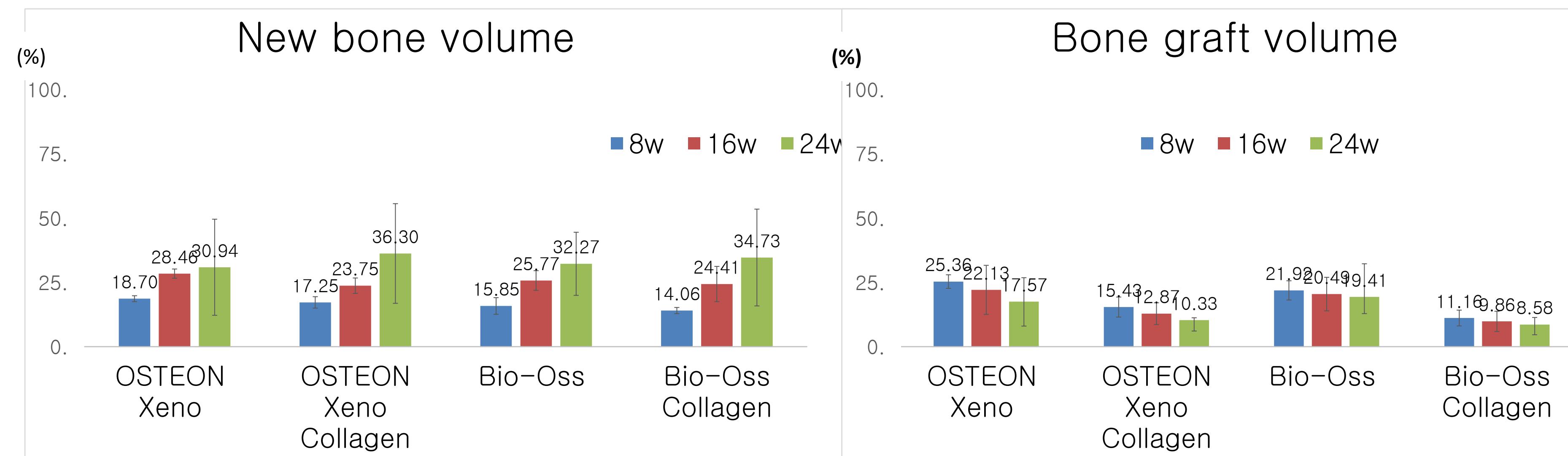
**OSTEON Xeno (8주)**



**OSTEON Xeno (16주)**



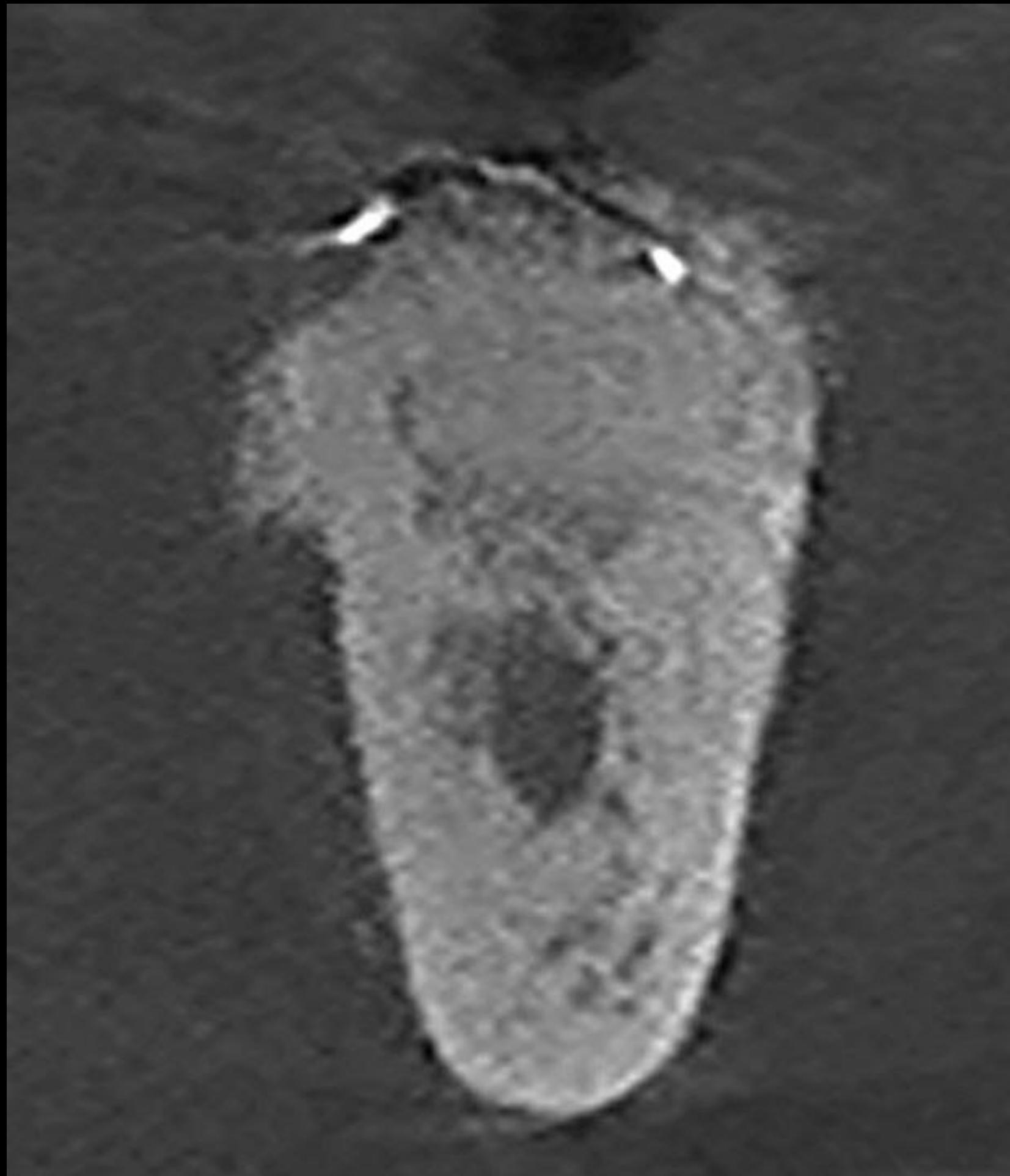
# Micro-CT quantitative analysis



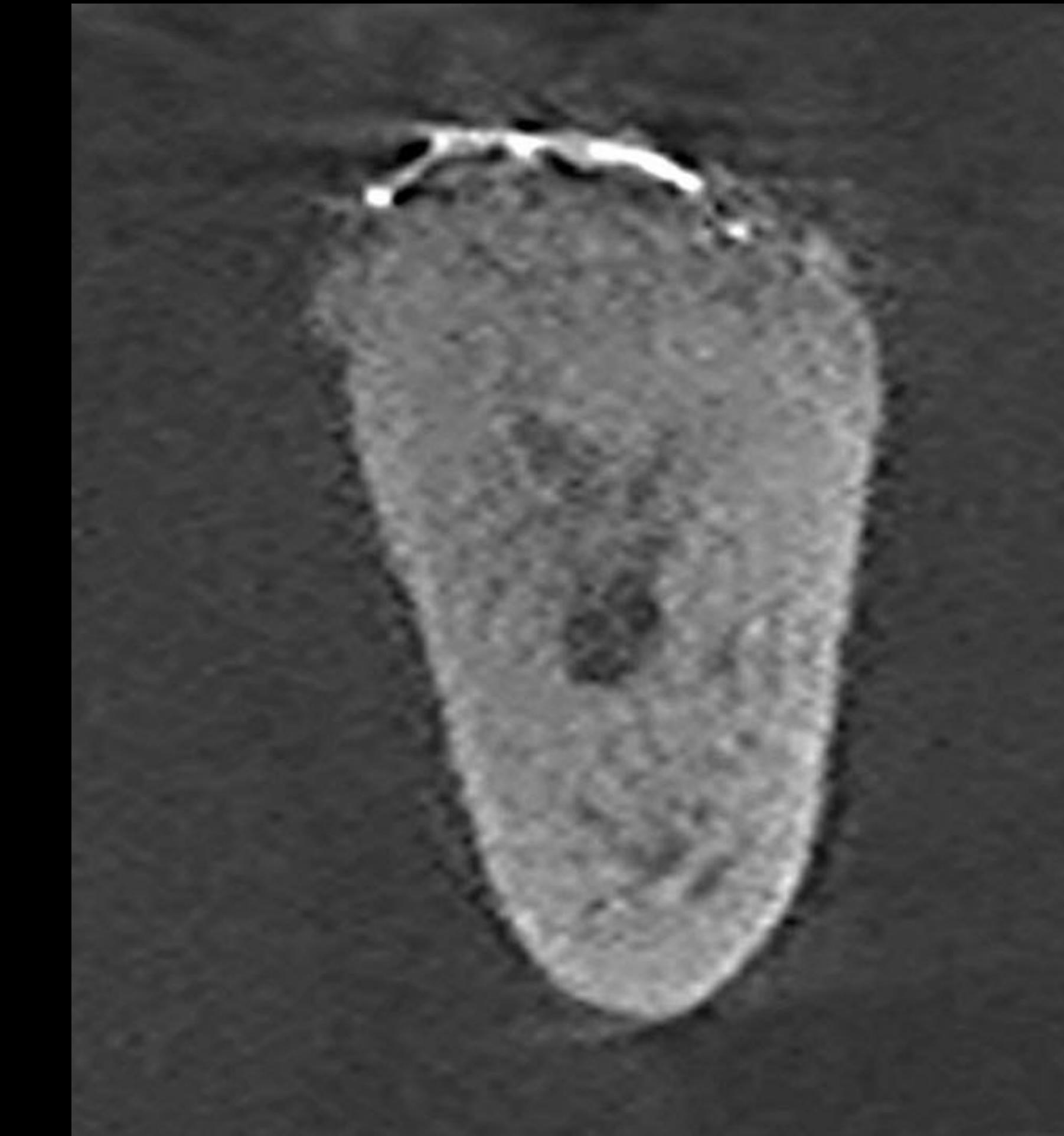
Oral-exam (2022-04-28)



Pre-op CT (2023-04-10)



#47

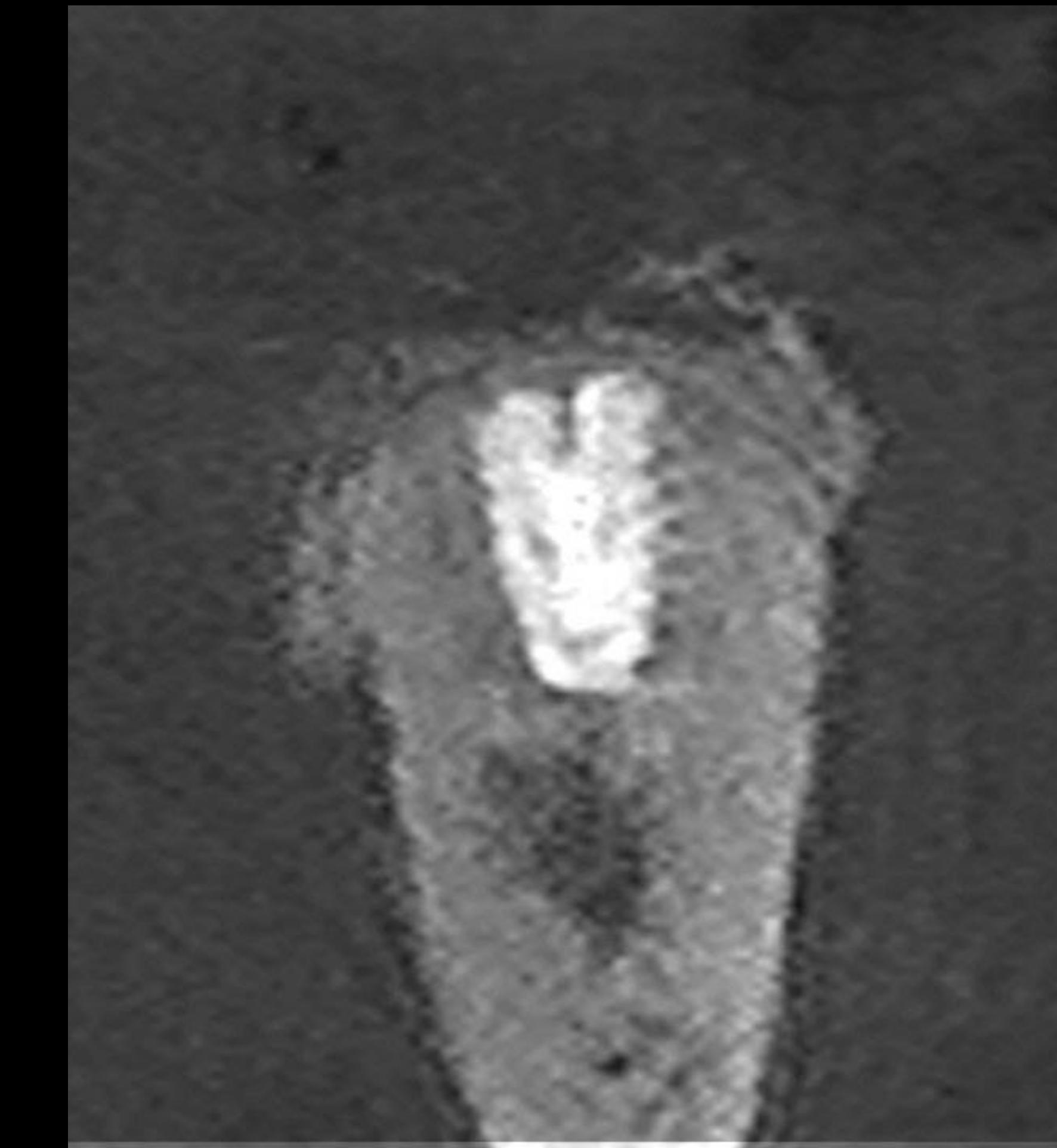


#46

Post-op CT (2023-04-10)

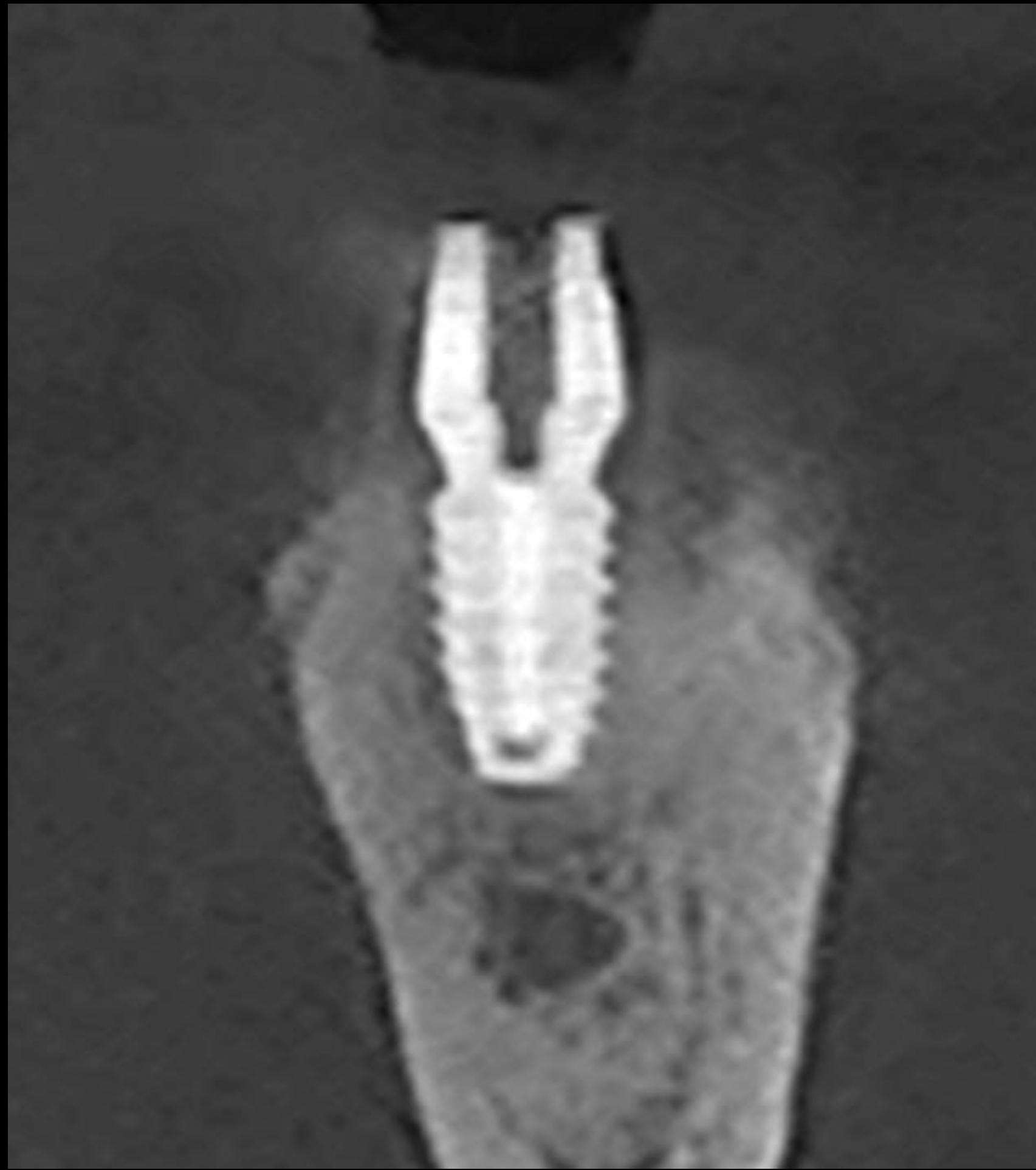


#47



#46

Healing : 3 months (2023-07-13)



#47



#46

Follow up : 3 months (2024-04-03)



Final prosthesis (2023-12-06)



# Description

## PN vs. PDRN

- Genetic material extracted from the testes and semen of salmon (*Oncorhynchus keta*)
- DNA polymer that exhibits tissue regeneration activity and anti-inflammatory effects



### PN (Polynucleotide)

Extracted from **salmon testes**

#### Polymer

500 ~ 3,000 kDa

#### Medical device material

Concentration used : 20 mg/mL

Average MW : 1,000 kDa

Physical restoration, hydration and tissue elasticity

### PDRN (Polydeoxyribonucleotide)

Extracted from **salmon semen**

#### Small molecules

50 ~ 1,500 kDa

#### Pharmaceutical material

Concentration used : 1.875 mg/mL

Average MW : 350 kDa

Wound healing, anti-inflammation, angiogenesis

## Examples of PDRN

@ Dentium Dental Clinic

- Soaking Collagen Graft and Bone graft material in PDRN injection before grafting
- The remaining PDRN is injected into the surgical site (after suture)

Collagen graft



OSTEON™ 3 Collagen



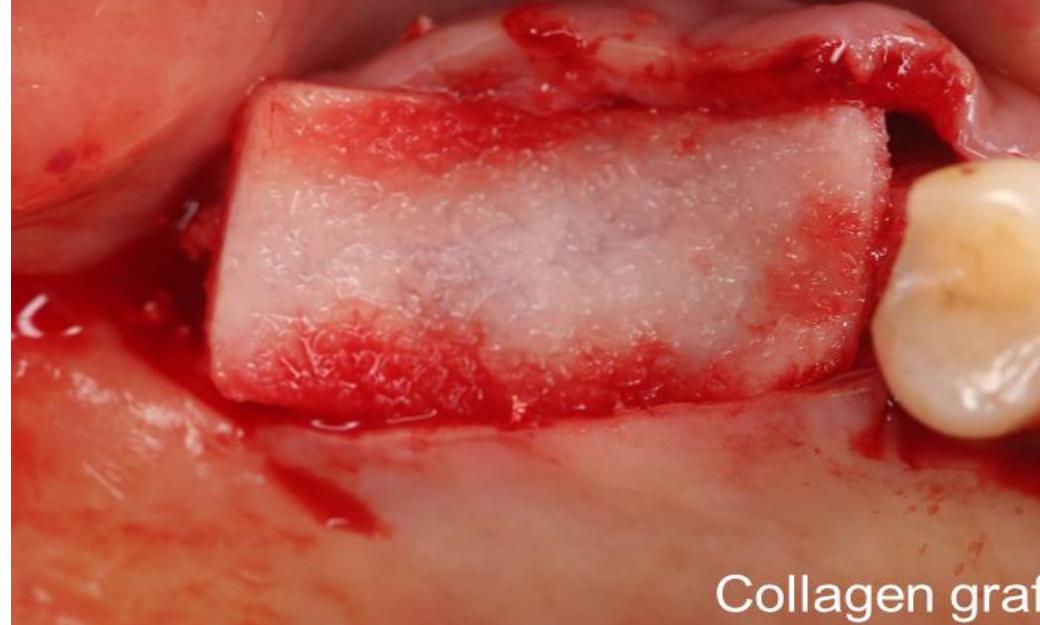
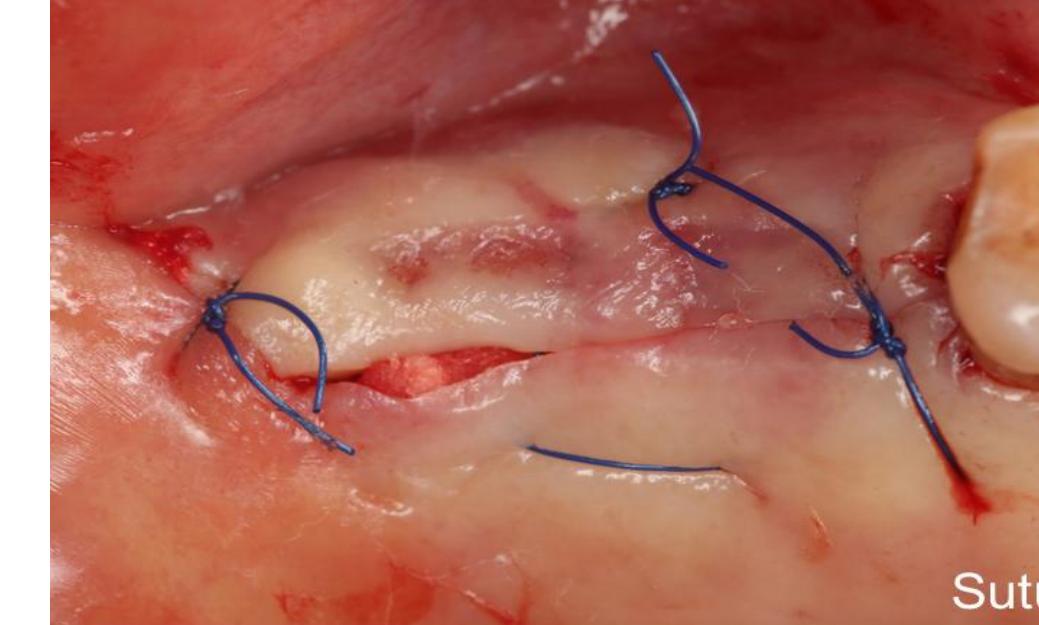
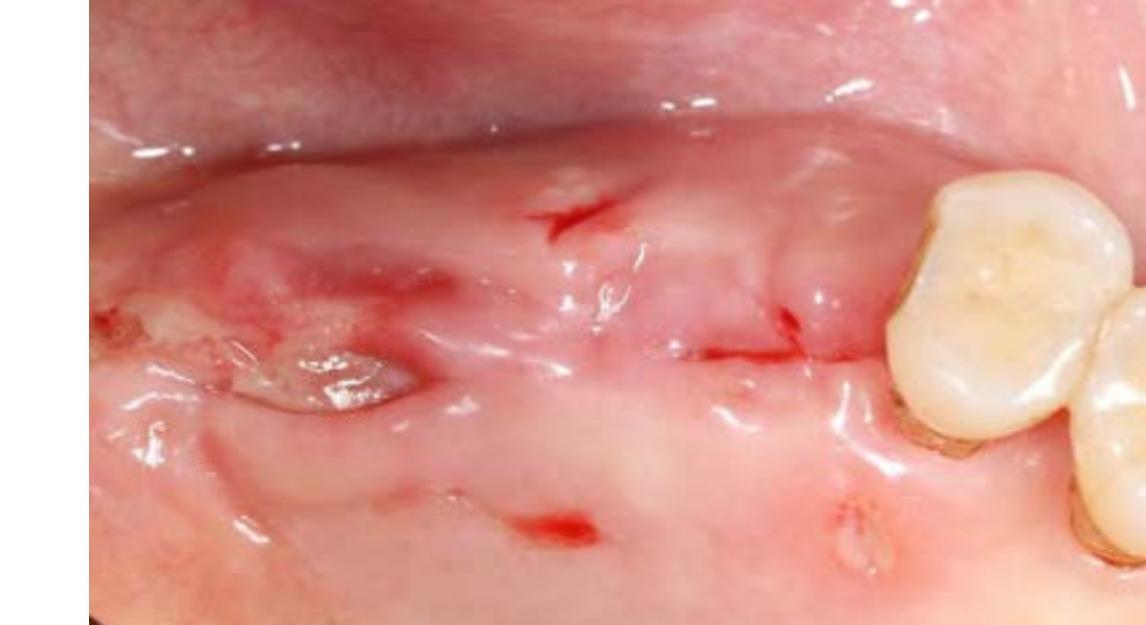
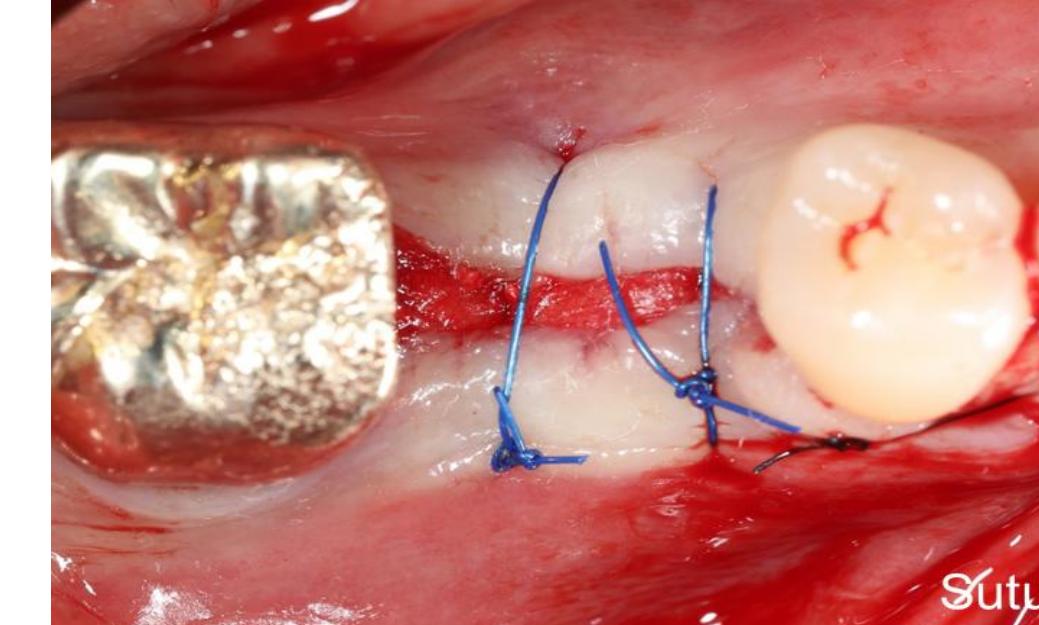
Collagen Graft



Osteon 3



Healing : 1 week

	Surgery		
Case 1 Collagen Graft			
Case 2 OSTEON™ 3, OSTEON™ 3 Collagen			

## Indication of PDRN or PN

Fast soft and hard tissue healing

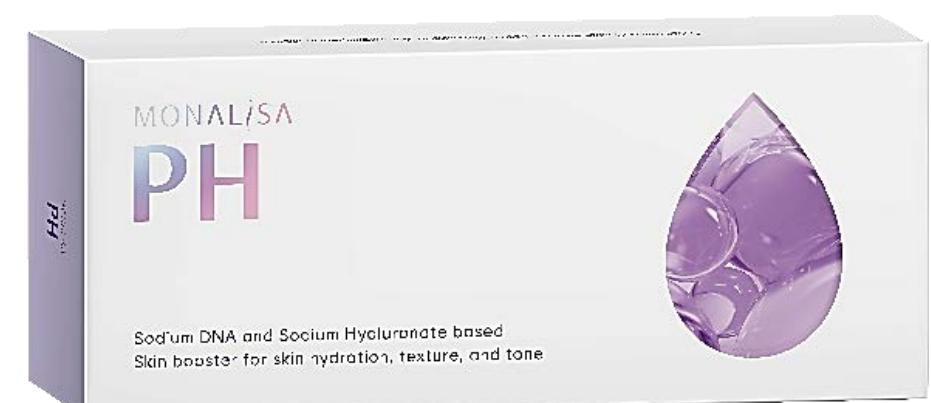
White lesions

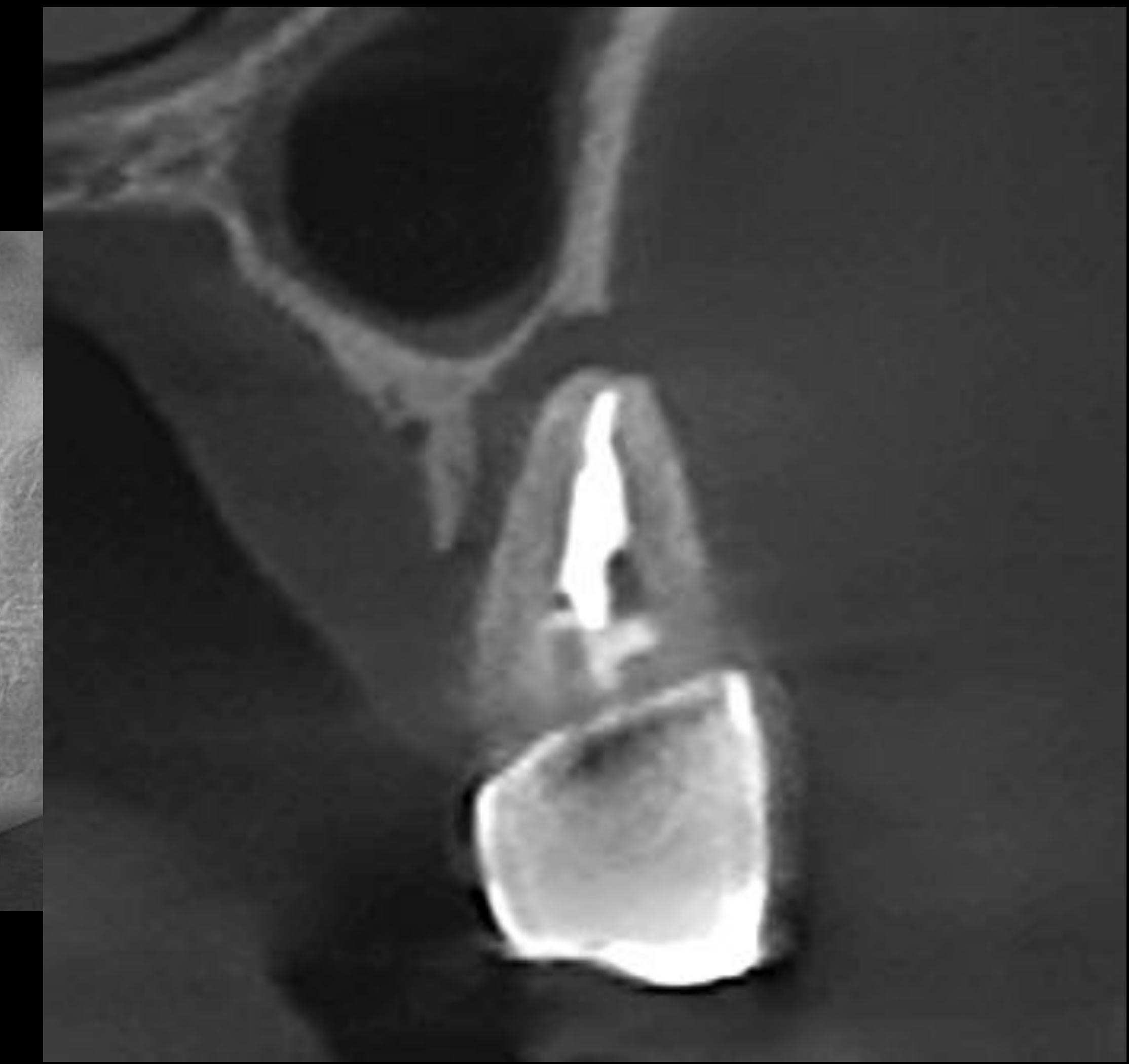
TMJ pain and inflammation relieve

Cellulitis

# Product Introduction – Monalisa Skinboosters, Dressing

Category	Medical Device (II)	Cosmetics		
Product	MONALISA Dressing	MONALISA HA 50+	MONALISA PN30	MONALISA PH
Shape	No impurities, transparent and colorless gel			
Ingredient	Polynucleotide (PN)	Hyaluronic Acid (HA)	Polynucleotide (PN)	Polynucleotide (PN) + Hyaluronic Acid (HA)
Conc.	30 mg/mL	50 mg/mL (High : low-molecular ratio = 1:4)	30 mg/mL	PN 20 mg/mL non-crosslinked HA 10 mg/mL
Volume	1.0 mL		2.0 mL	
Storage Temp.	2 ~ 25°C			



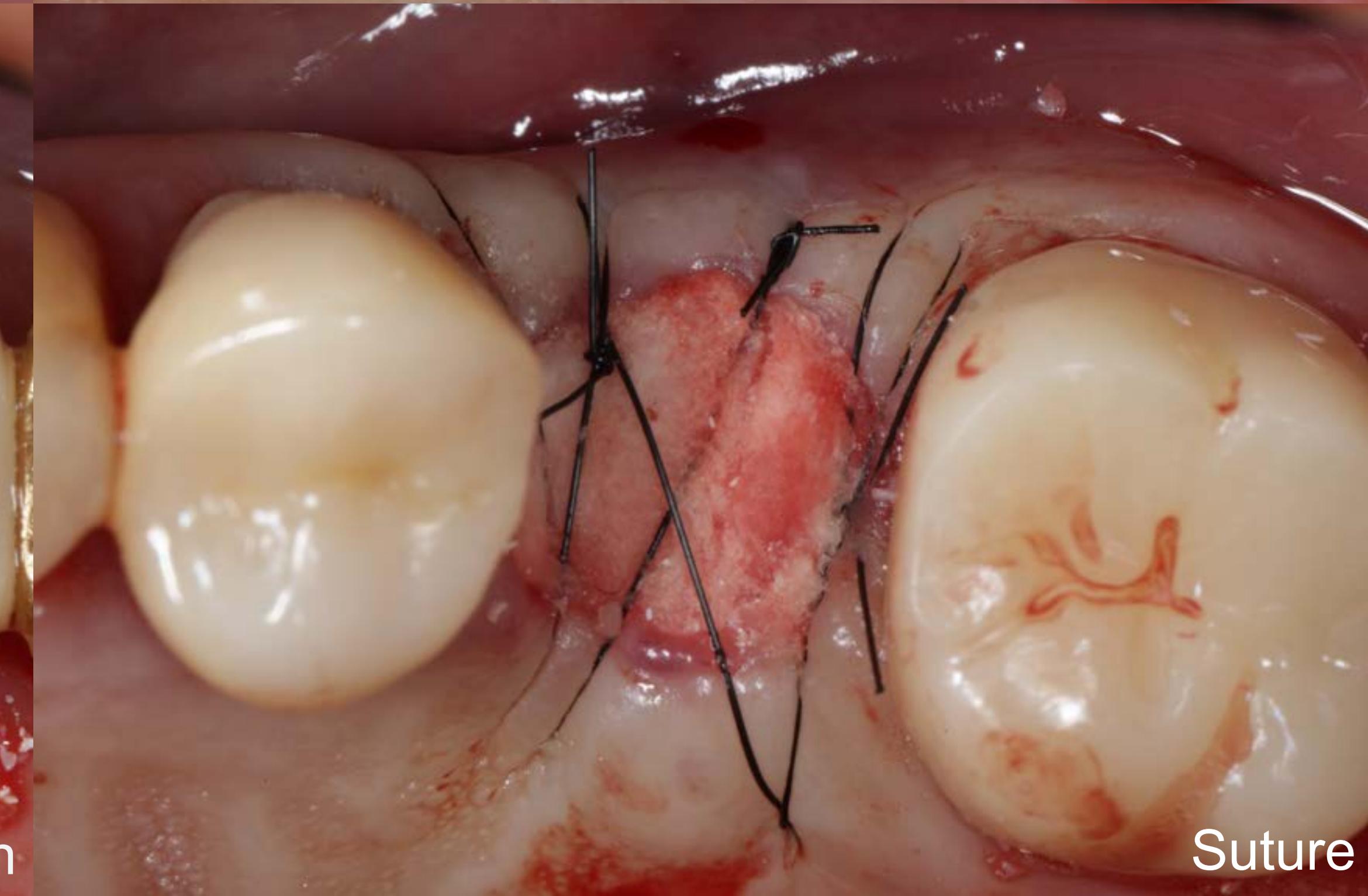
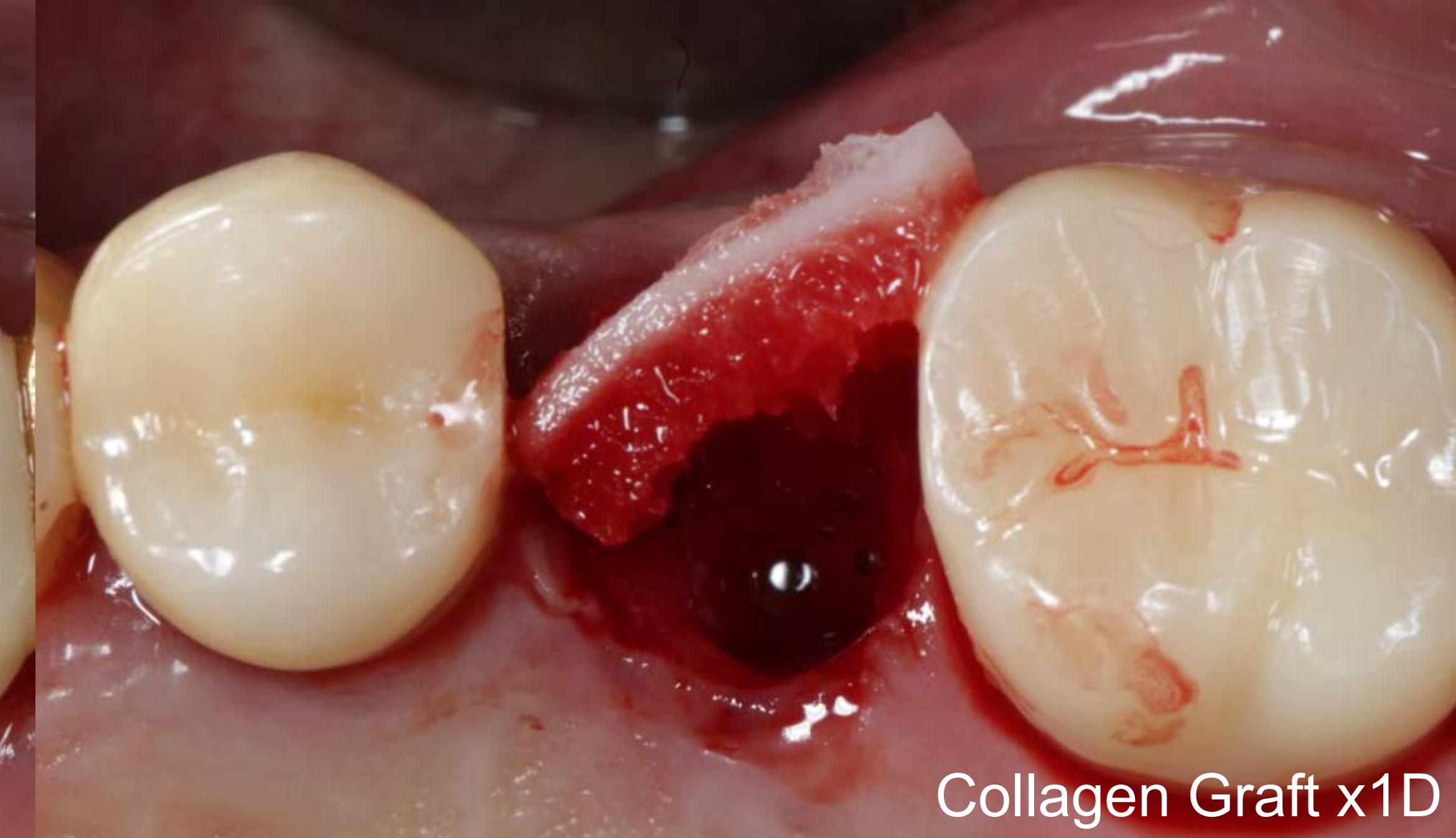


#25

Pre-op (2024-10-30)



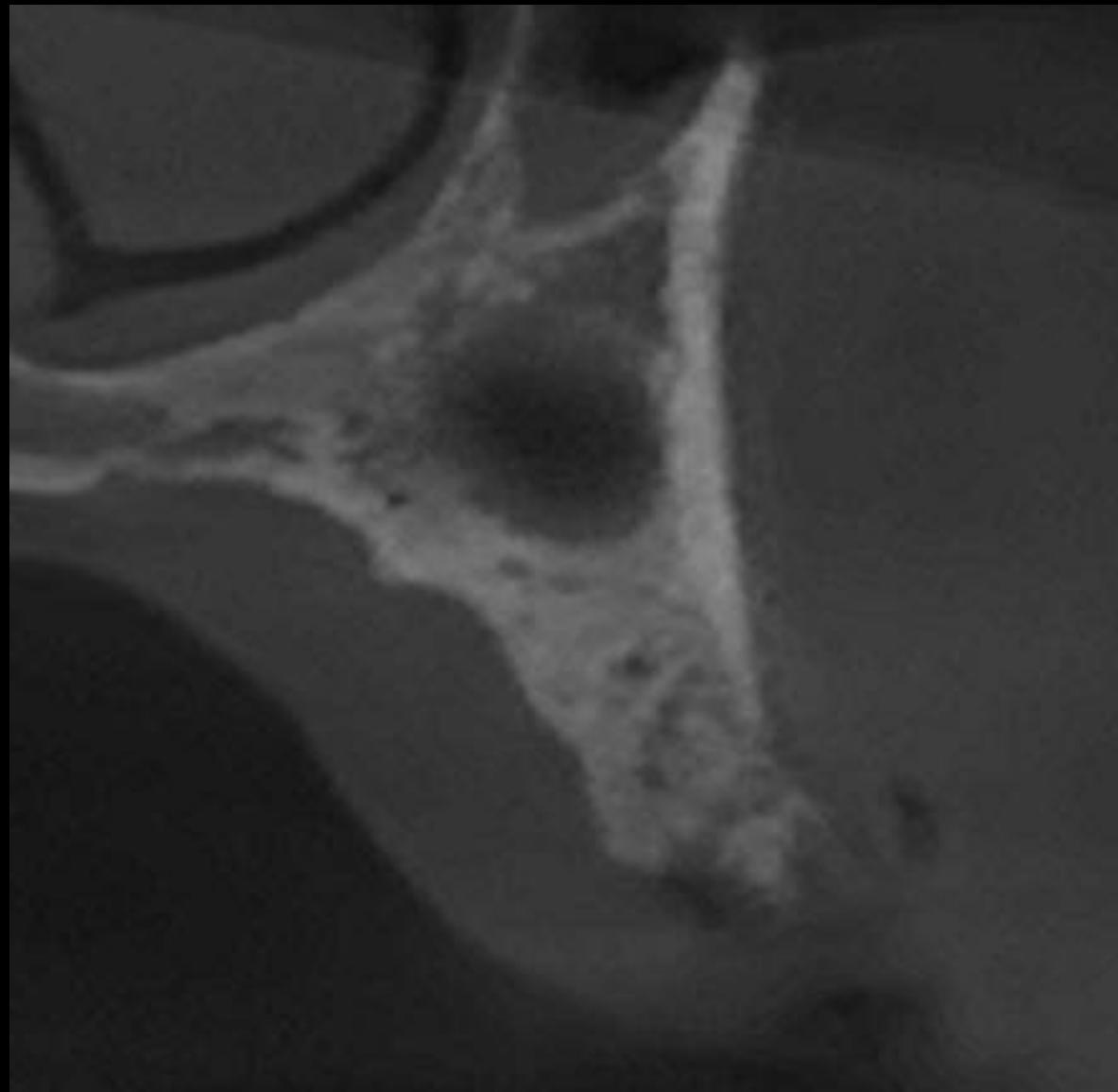
Surgery (2024-10-30)



Healing : 1 week (2024-11-06)



Pre-op CT (2025-06-25)



#25

Post-op CT (2025-06-25)



#25

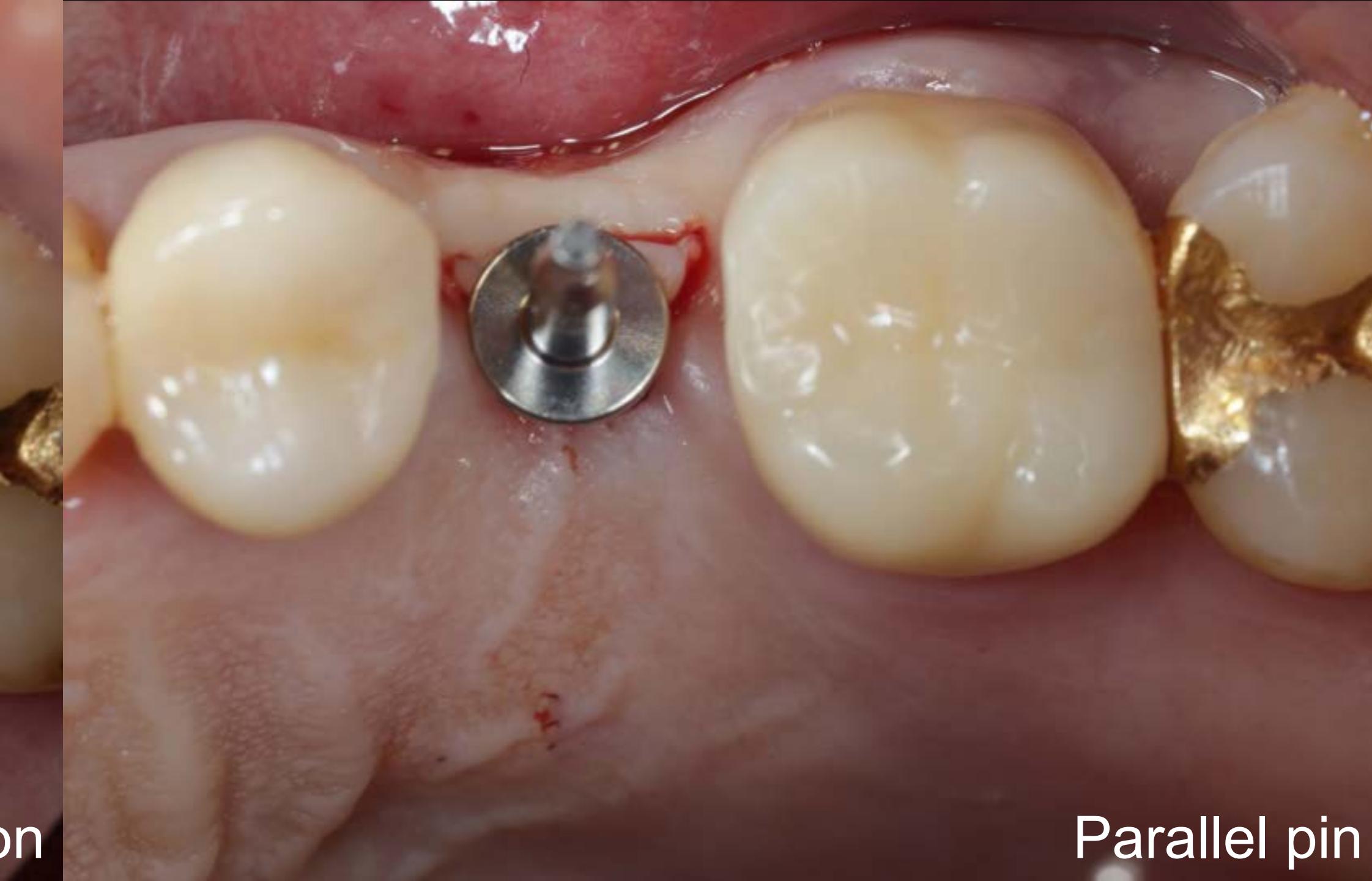
Pre-op 2<sup>nd</sup> Surgery (2025-06-25)



2<sup>nd</sup> Surgery (2025-06-25)



Incision

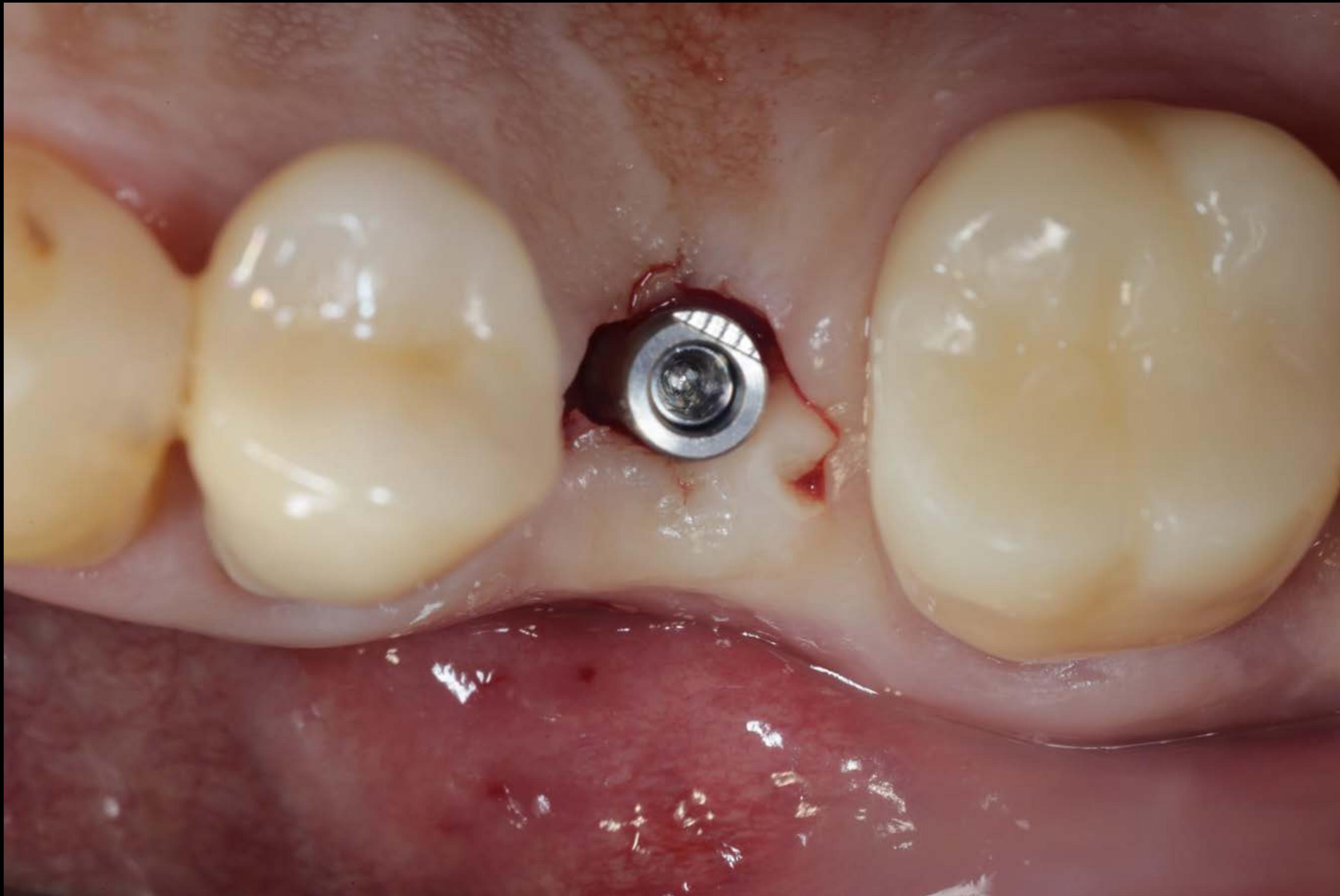


Parallel pin

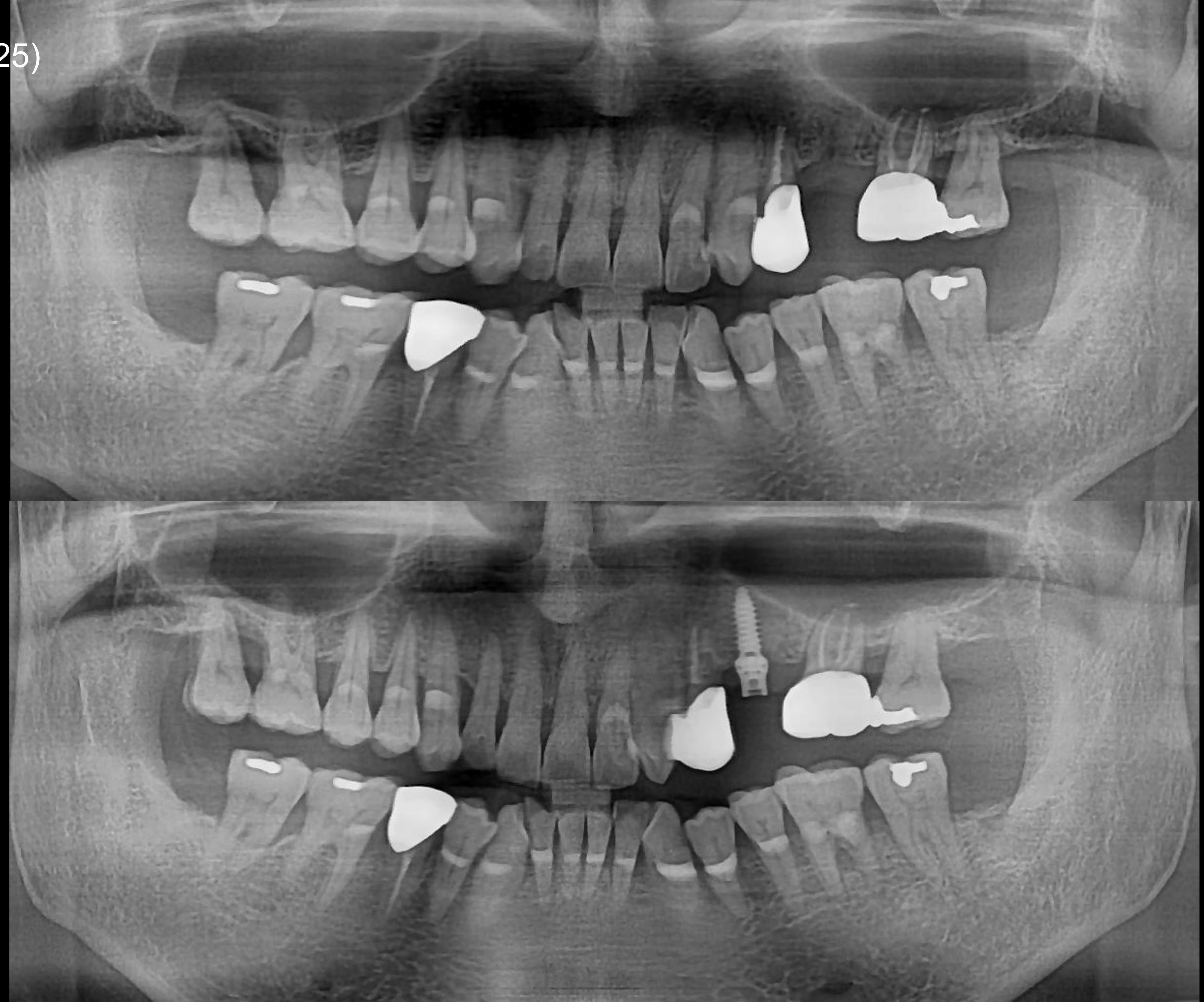


bright TL (Ø3.0 X 9.0)

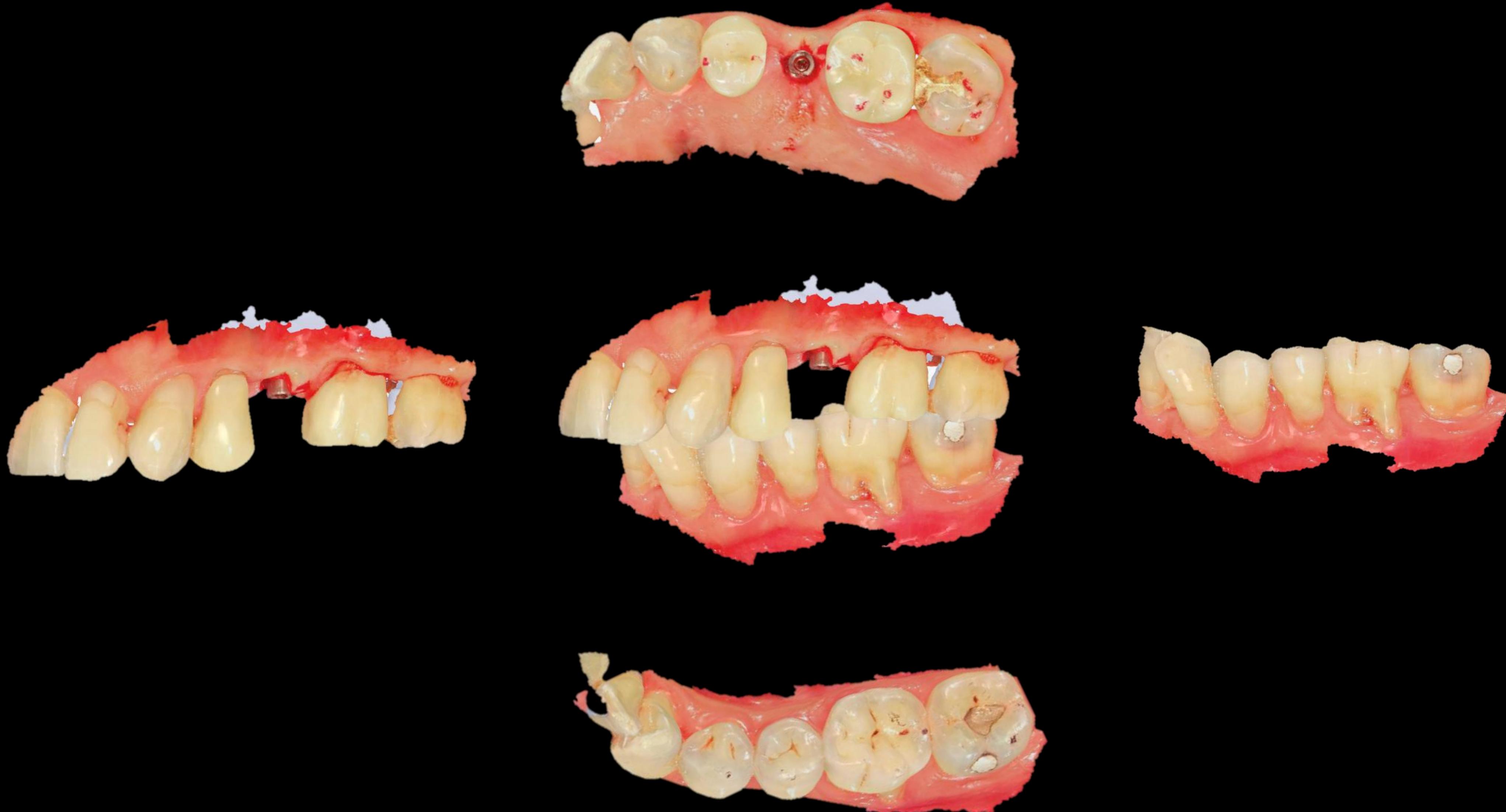
Post-op (2025-06-25)



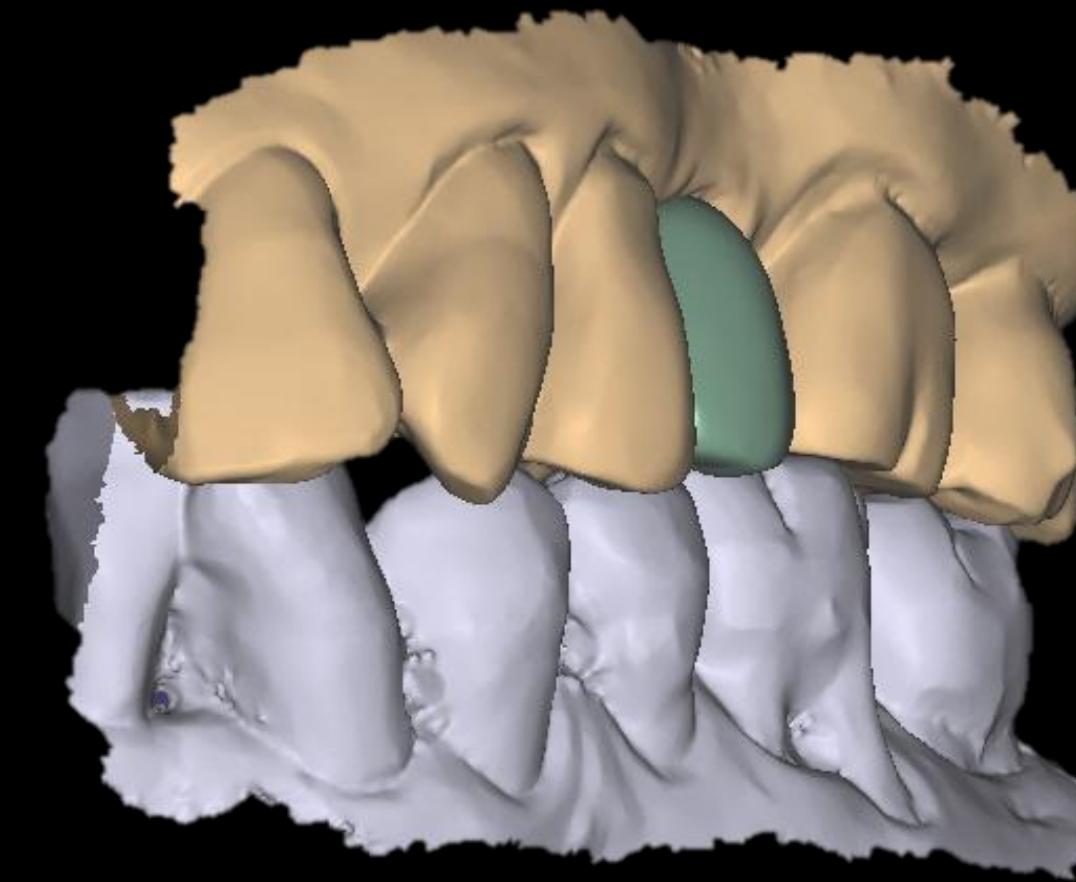
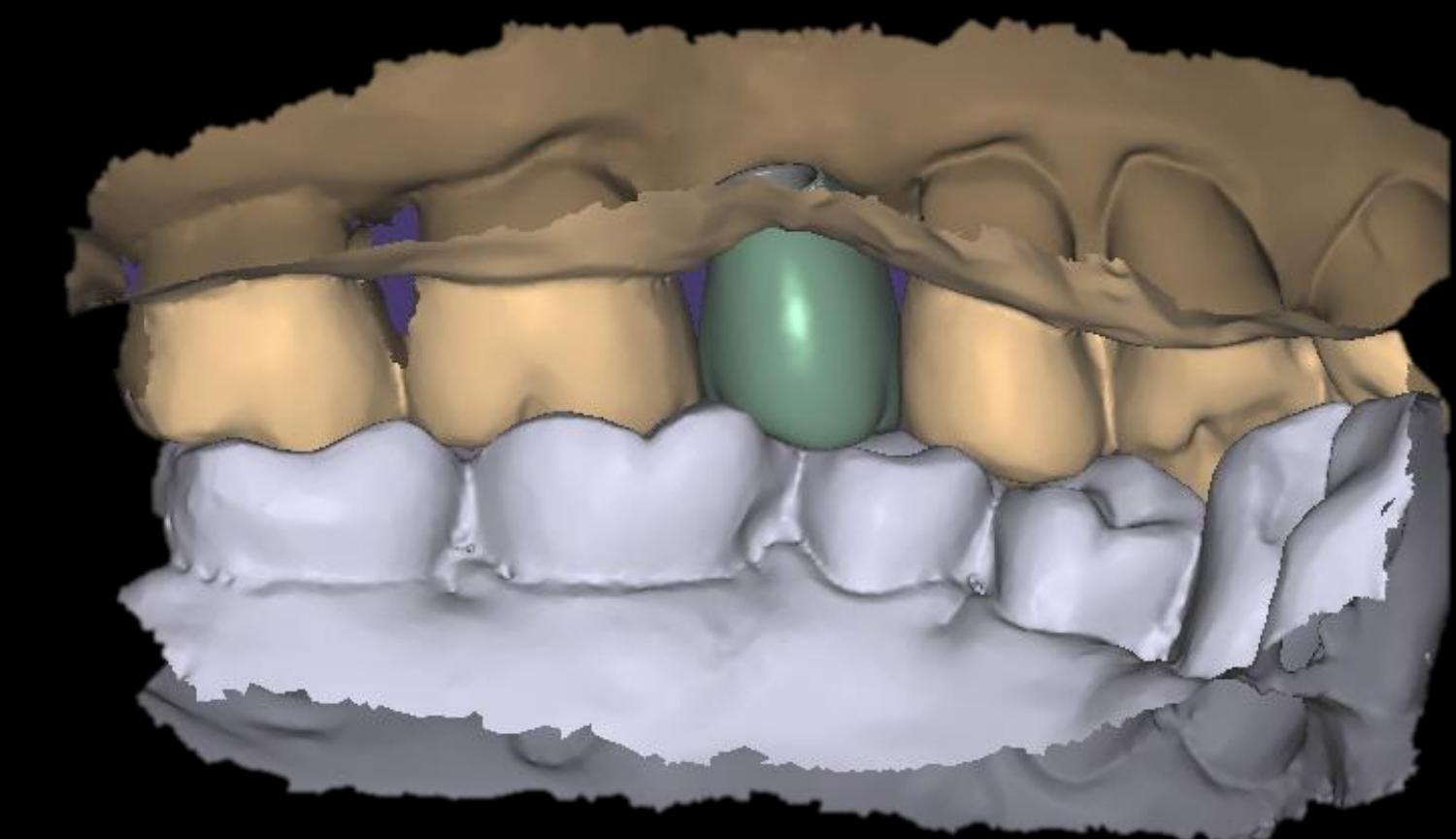
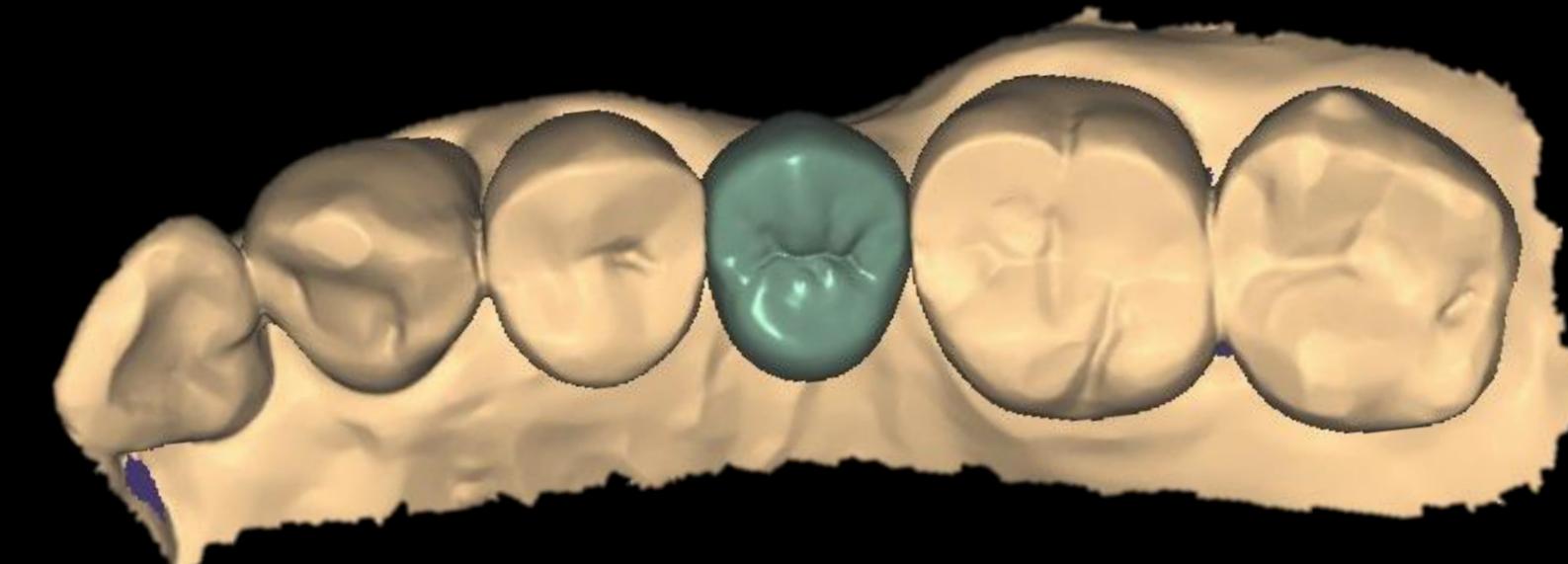
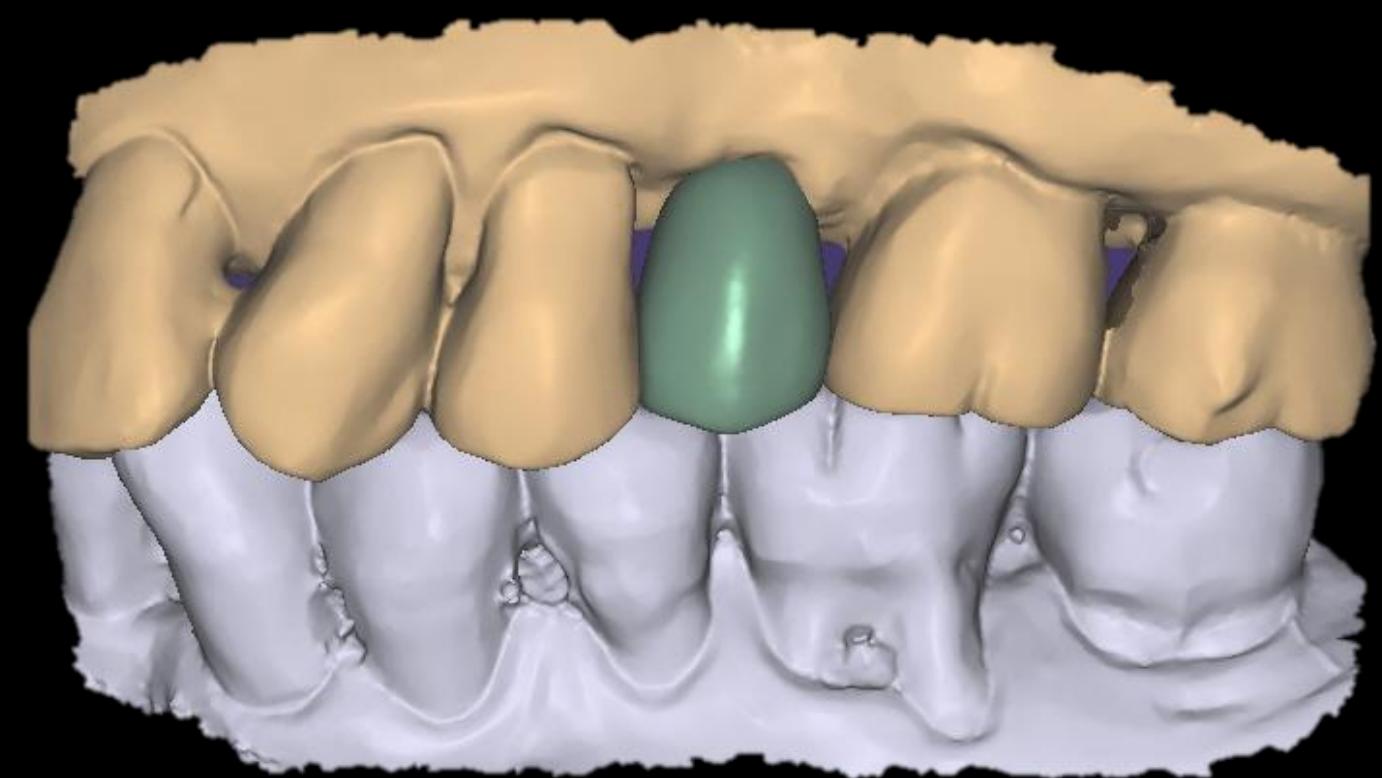
Pre-op (2025-06-25)



# Intra Oral Scan



CAD (Temporary)



Provisional restoration (2025-07-16)

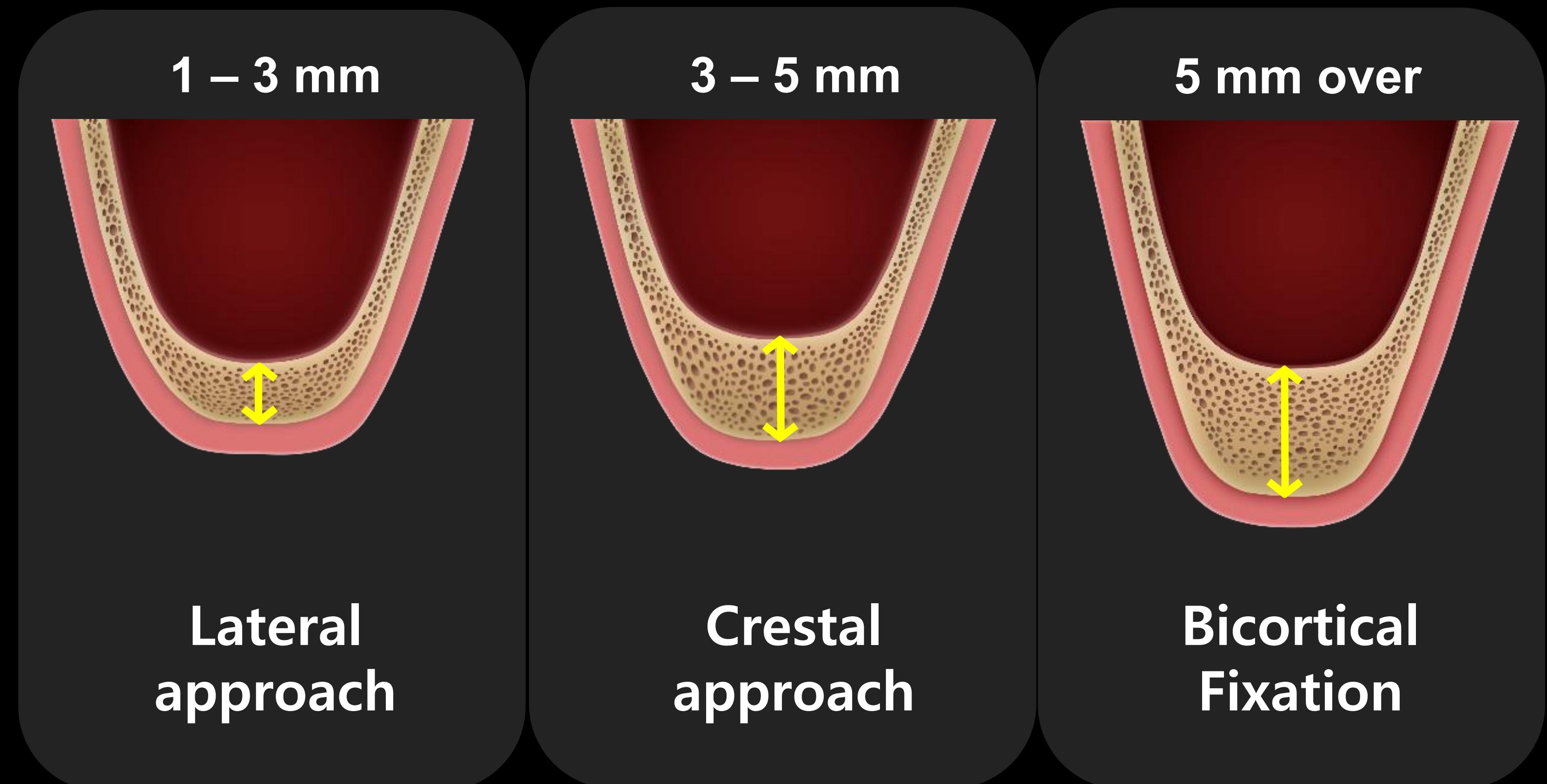




**Anesthetic  
injection**

**\*\*194p TMJ PDRN VOD 1**

# Crestal approach



Oral exam



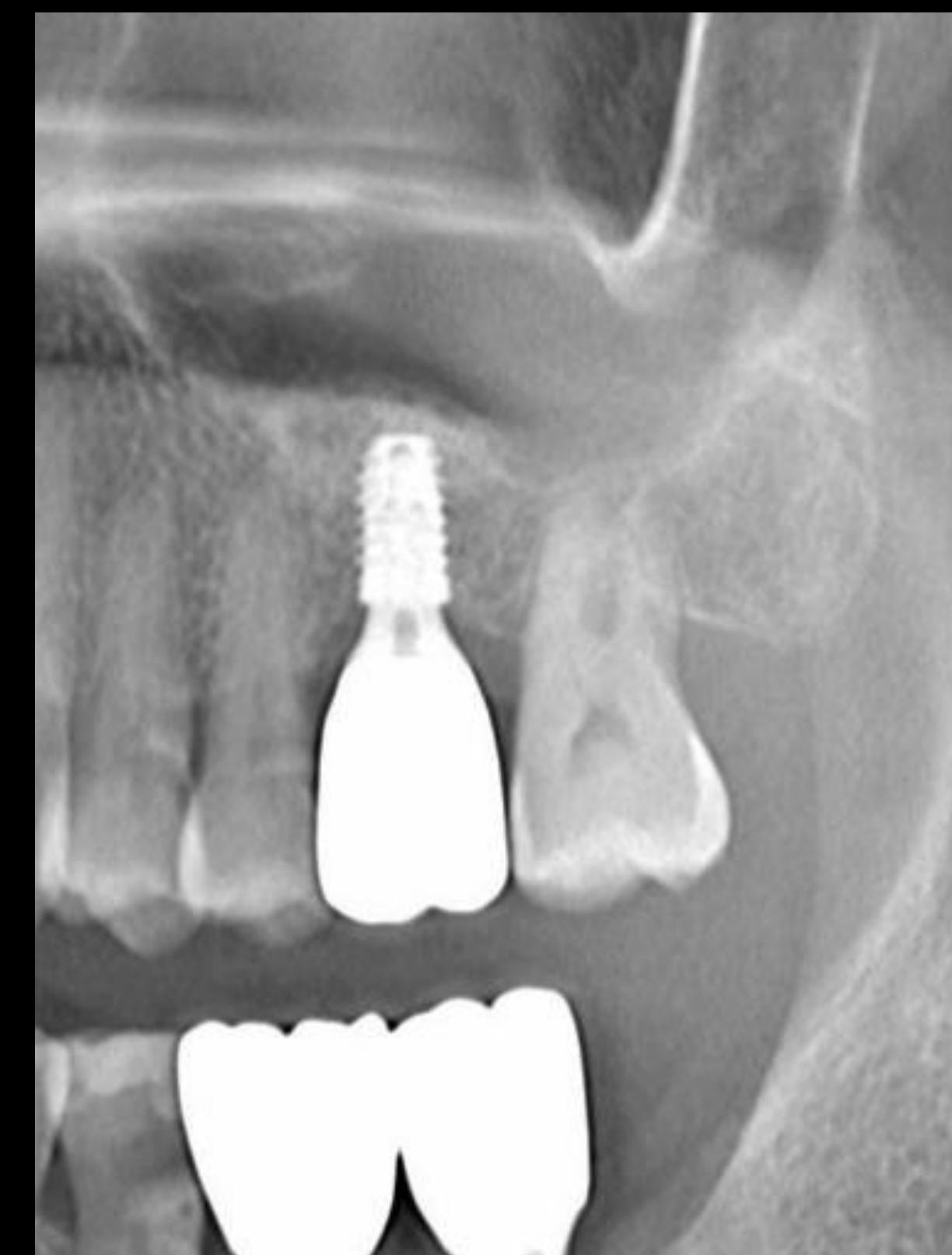
Pre-op



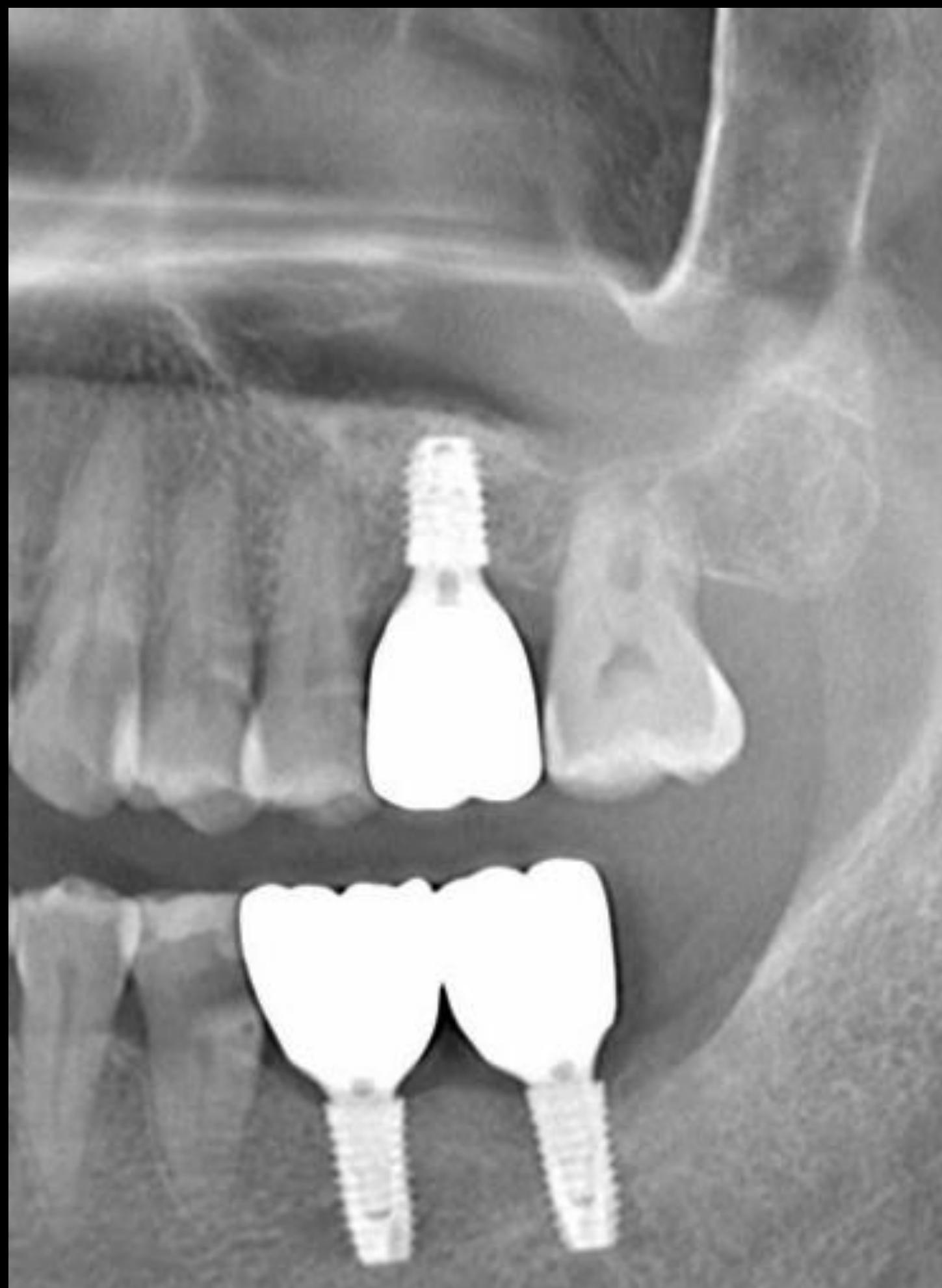
Post-op



Final



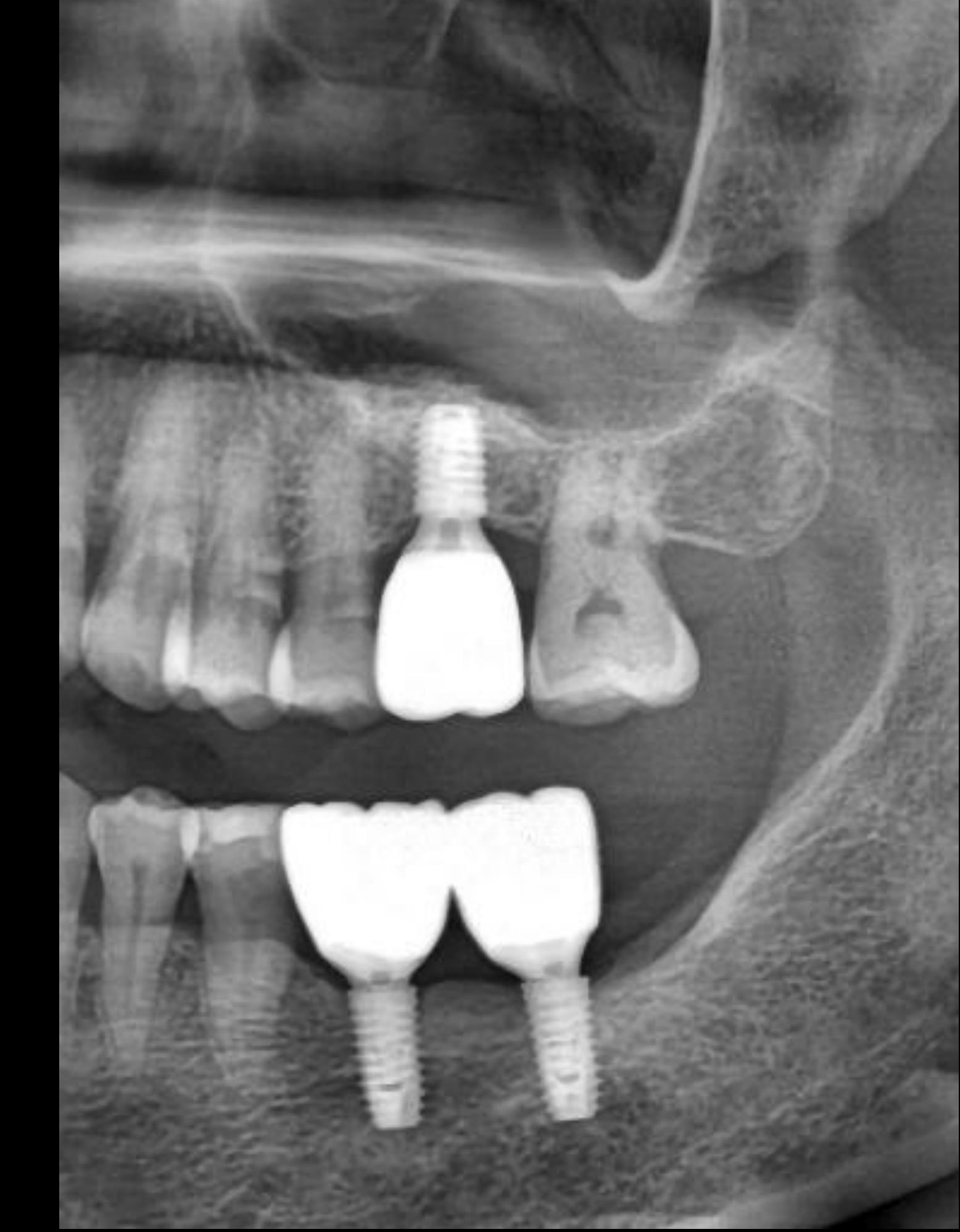
4 M



1Y 4M

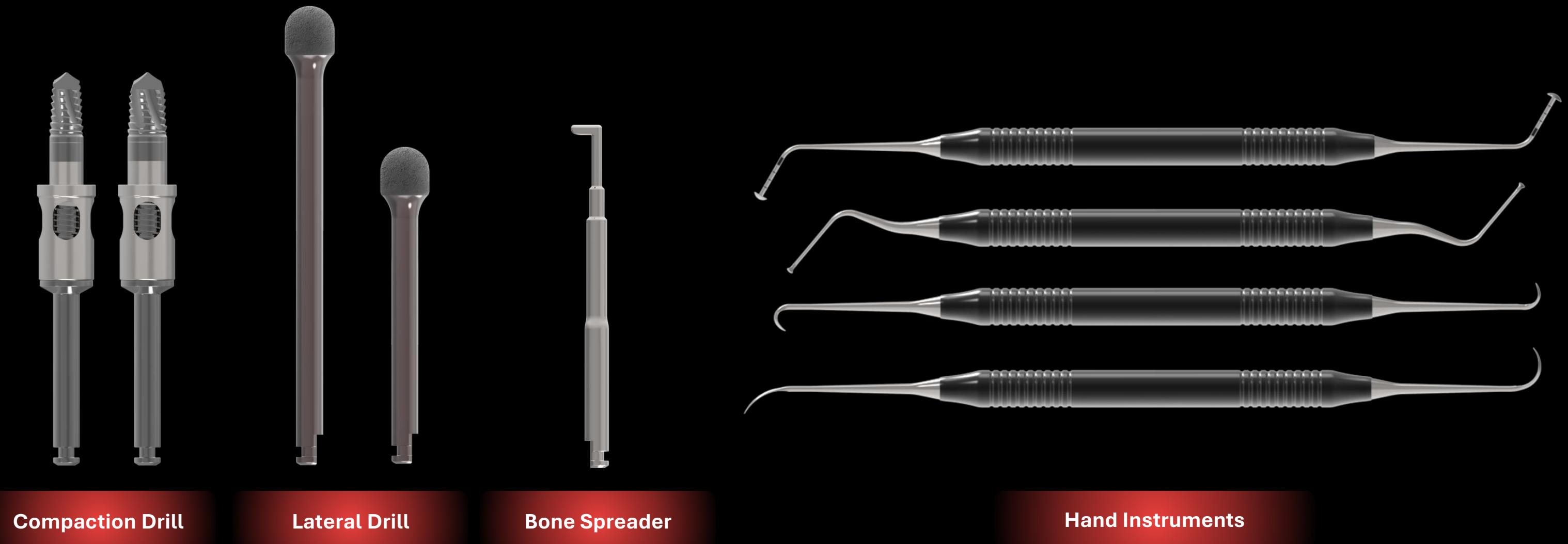
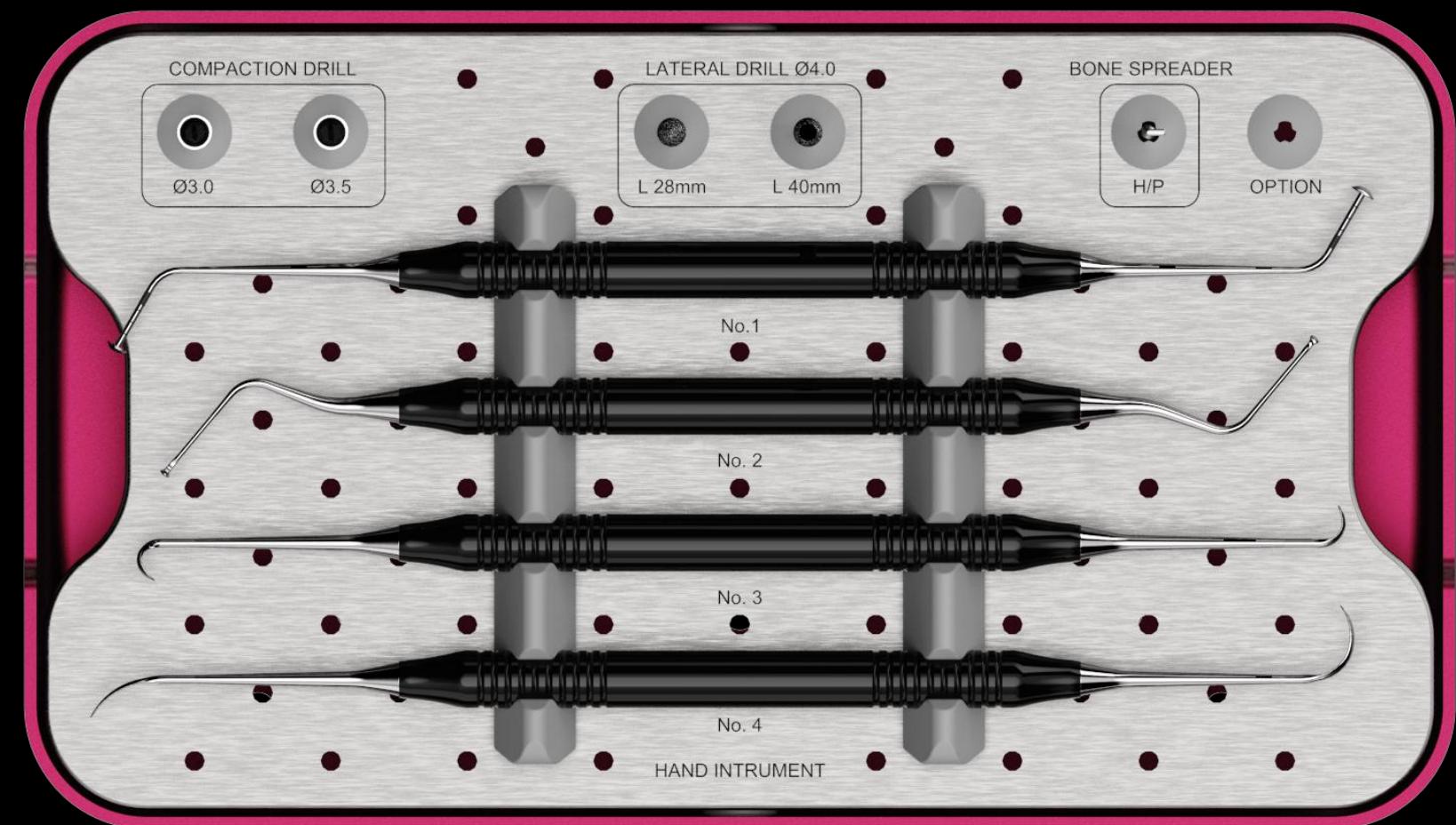


2Y 5M



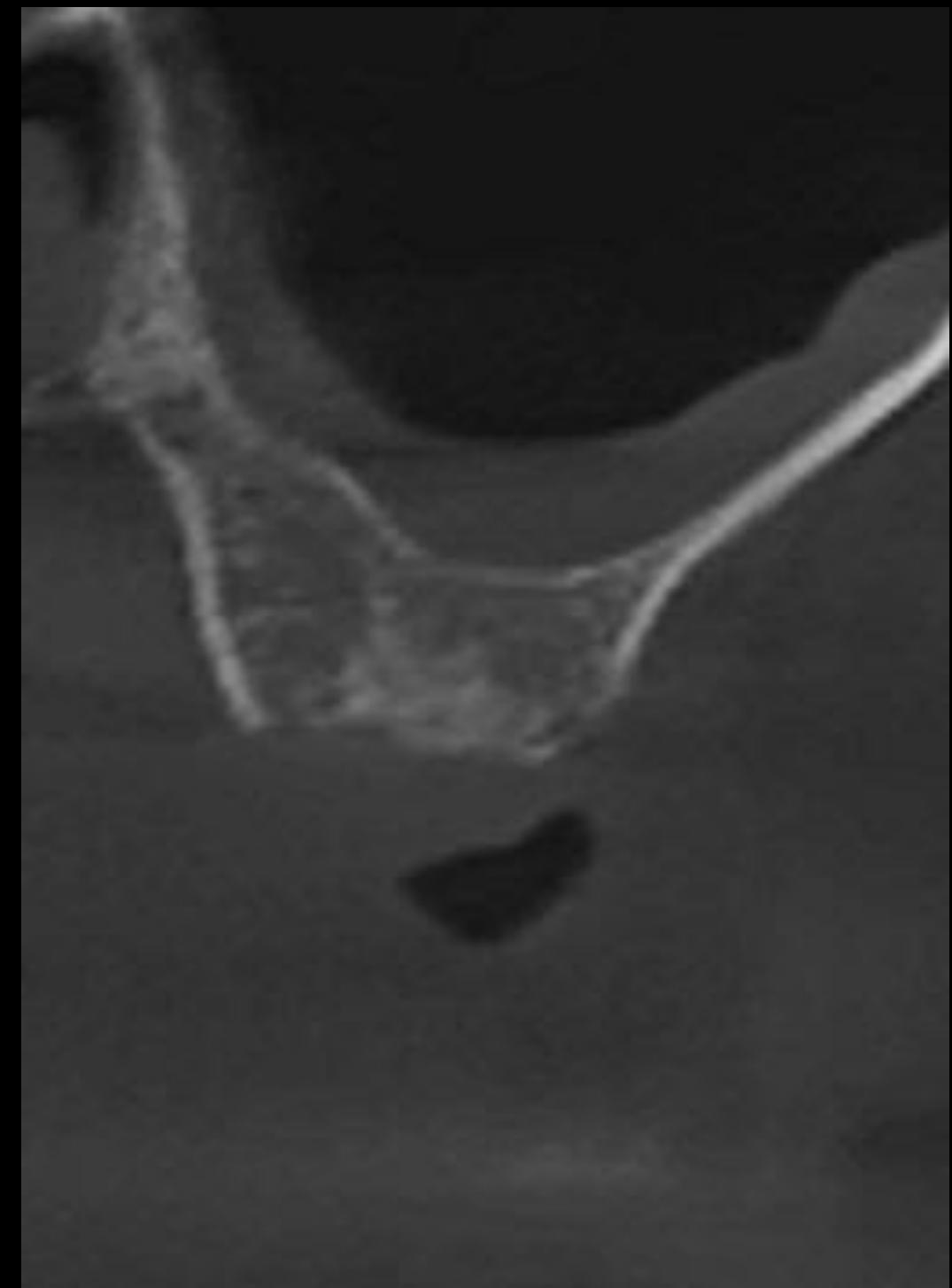
bright BL ( $\varnothing 4.5 \times 7.0$ )

# DASK *Simple*



**DASK Simple** is designed to facilitate safe, efficient and minimally invasive **Sinus Lift** procedures

Pre-op CT (2024-10-31)

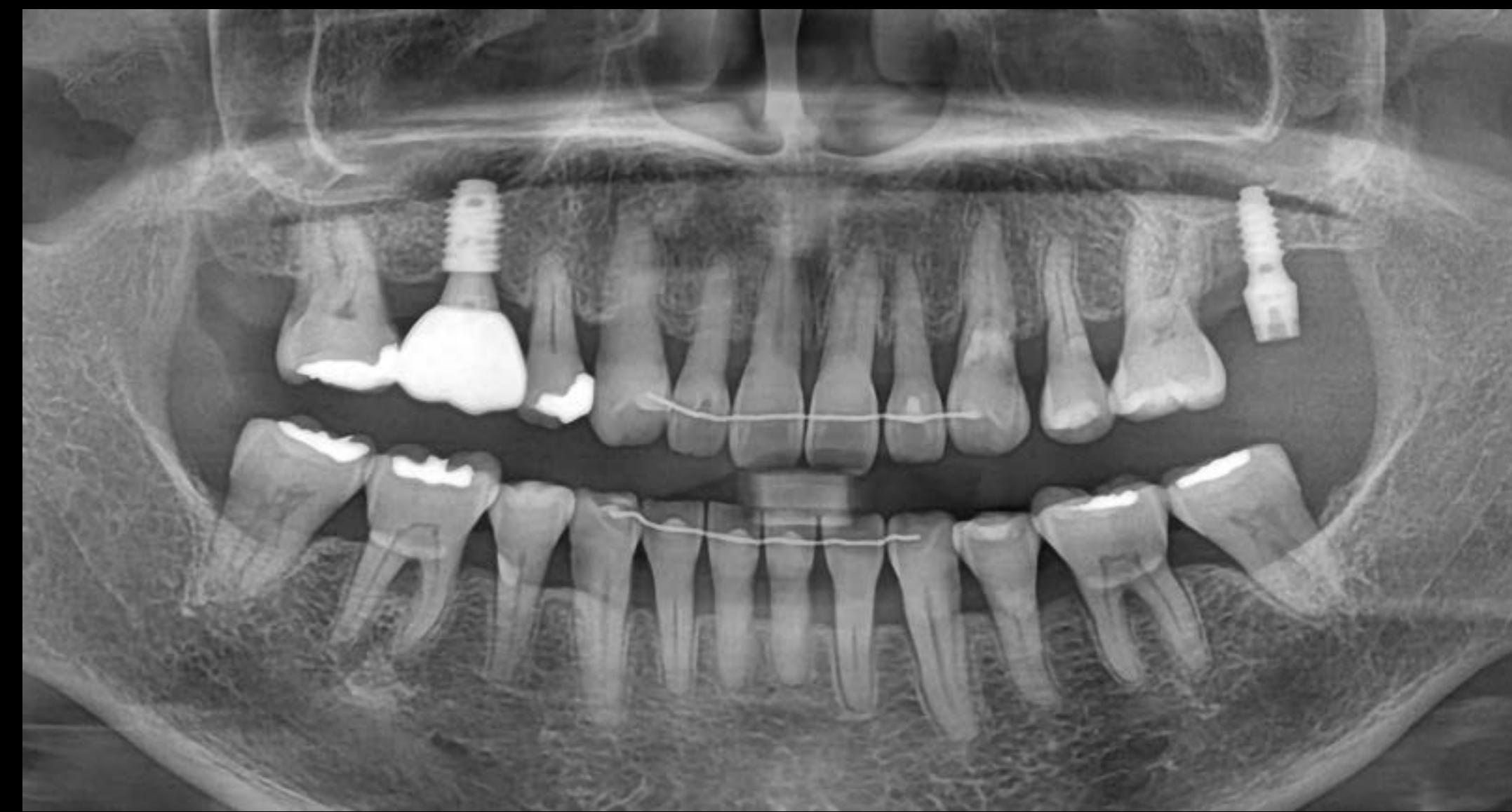


#27

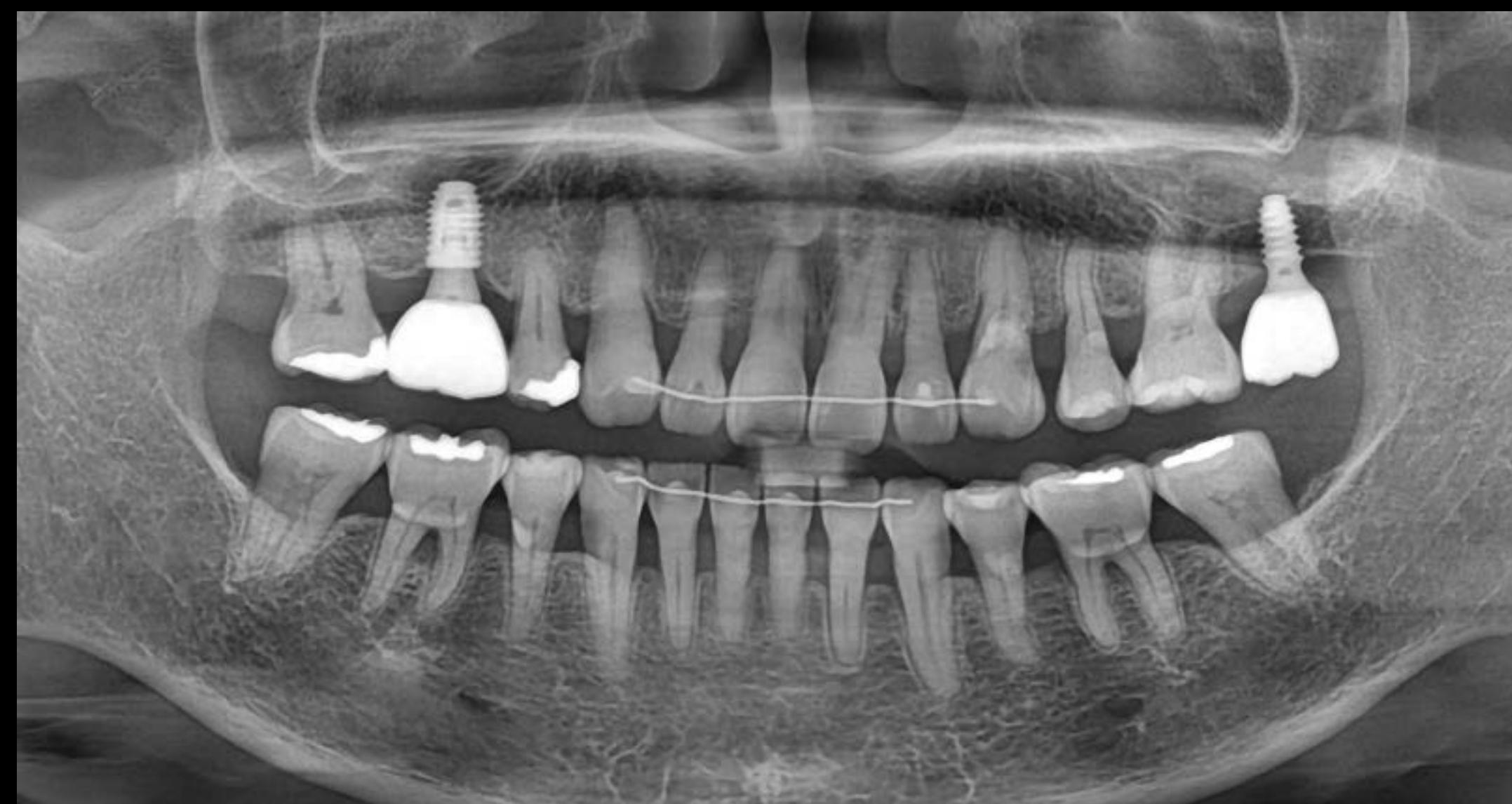
Post-op CT (2024-10-31)



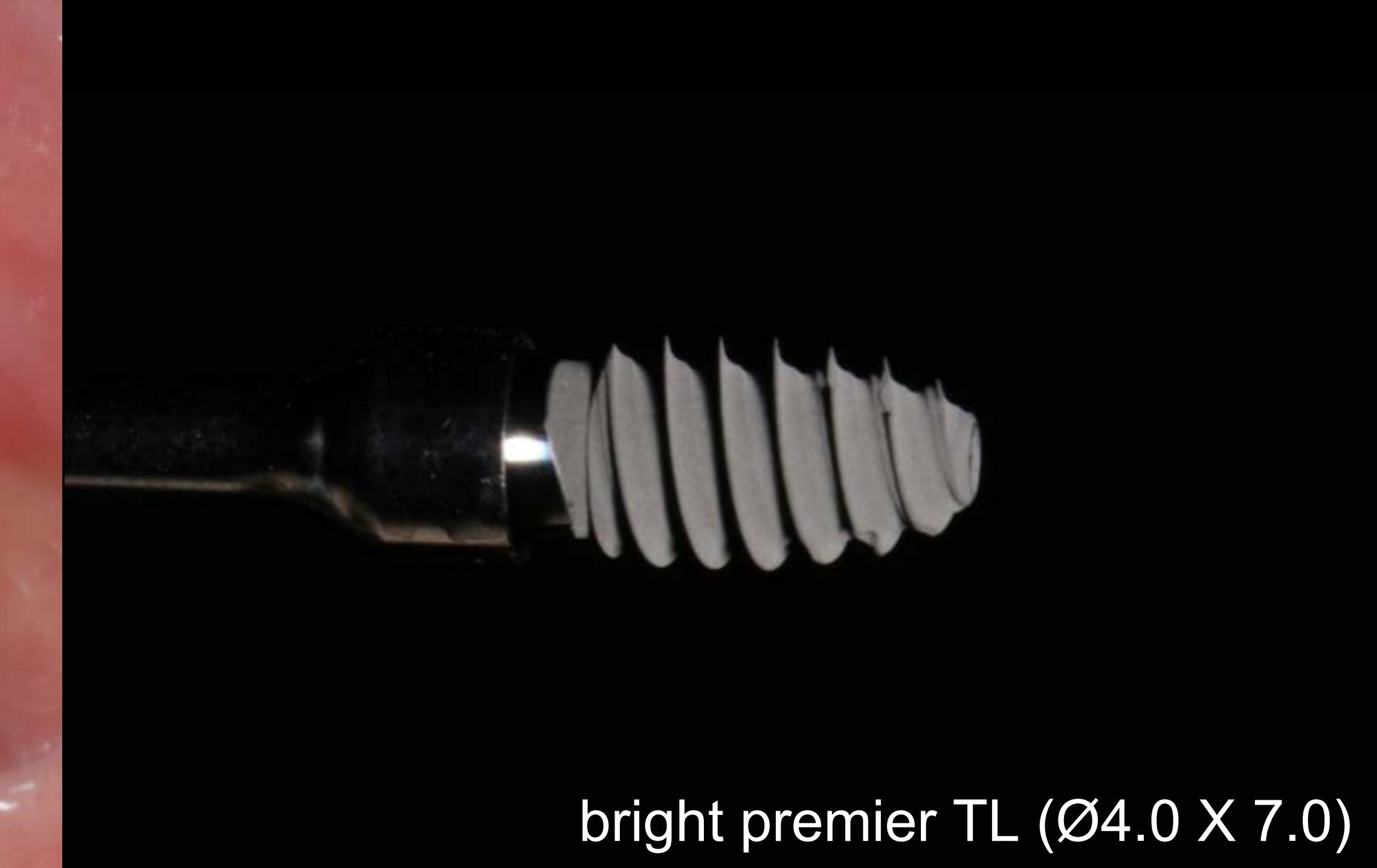
#27



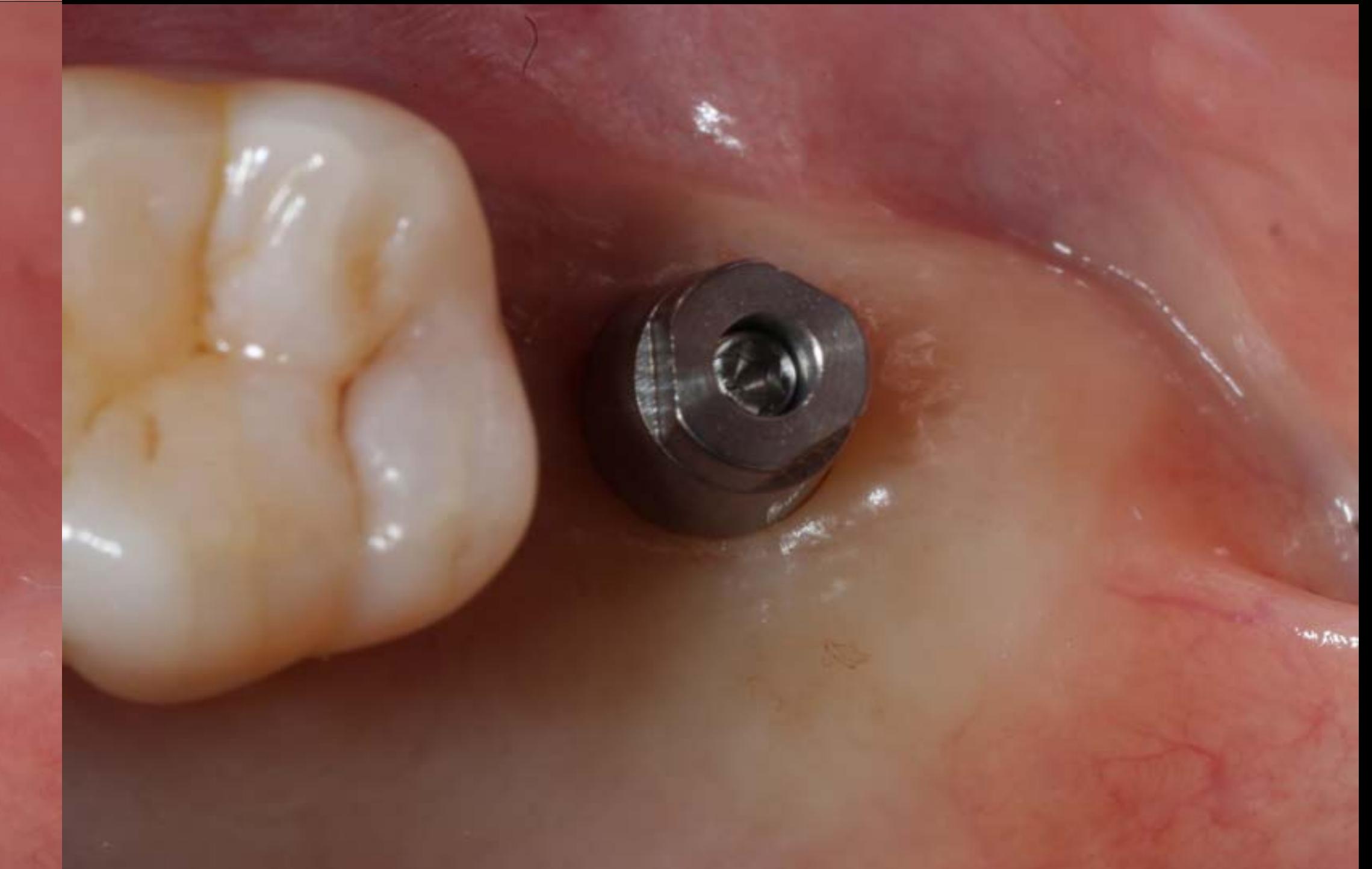
3 weeks later final prosthesis



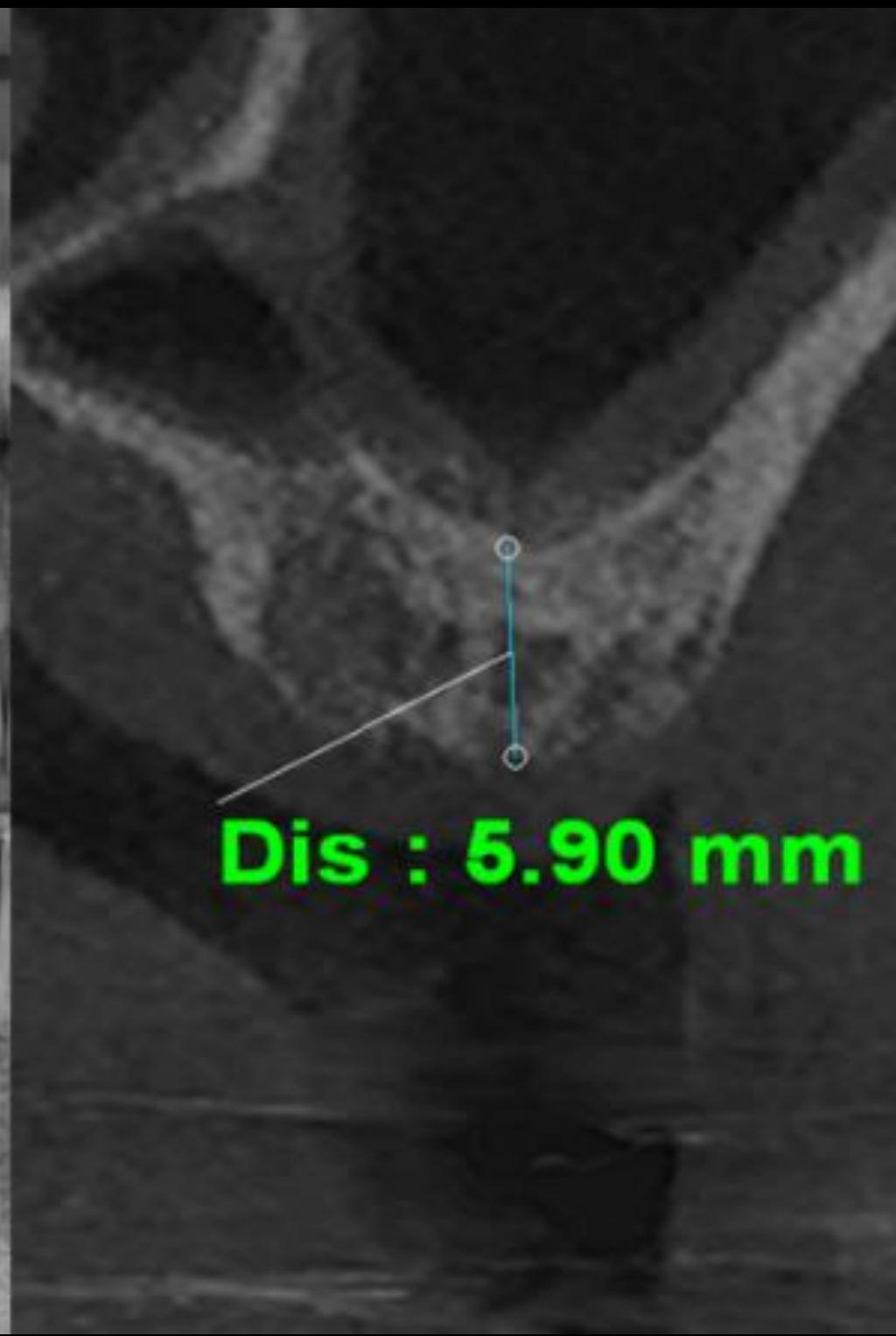
Surgery (2024-10-31)



bright premier TL ( $\varnothing 4.0 \times 7.0$ )







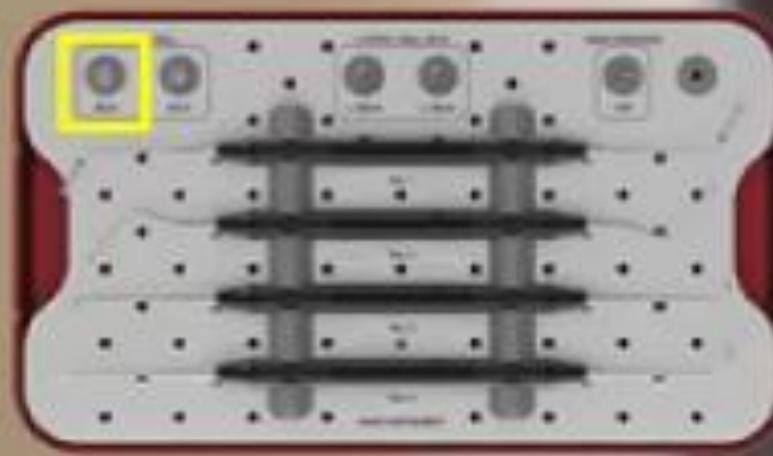
!

Auto bone chip lifting



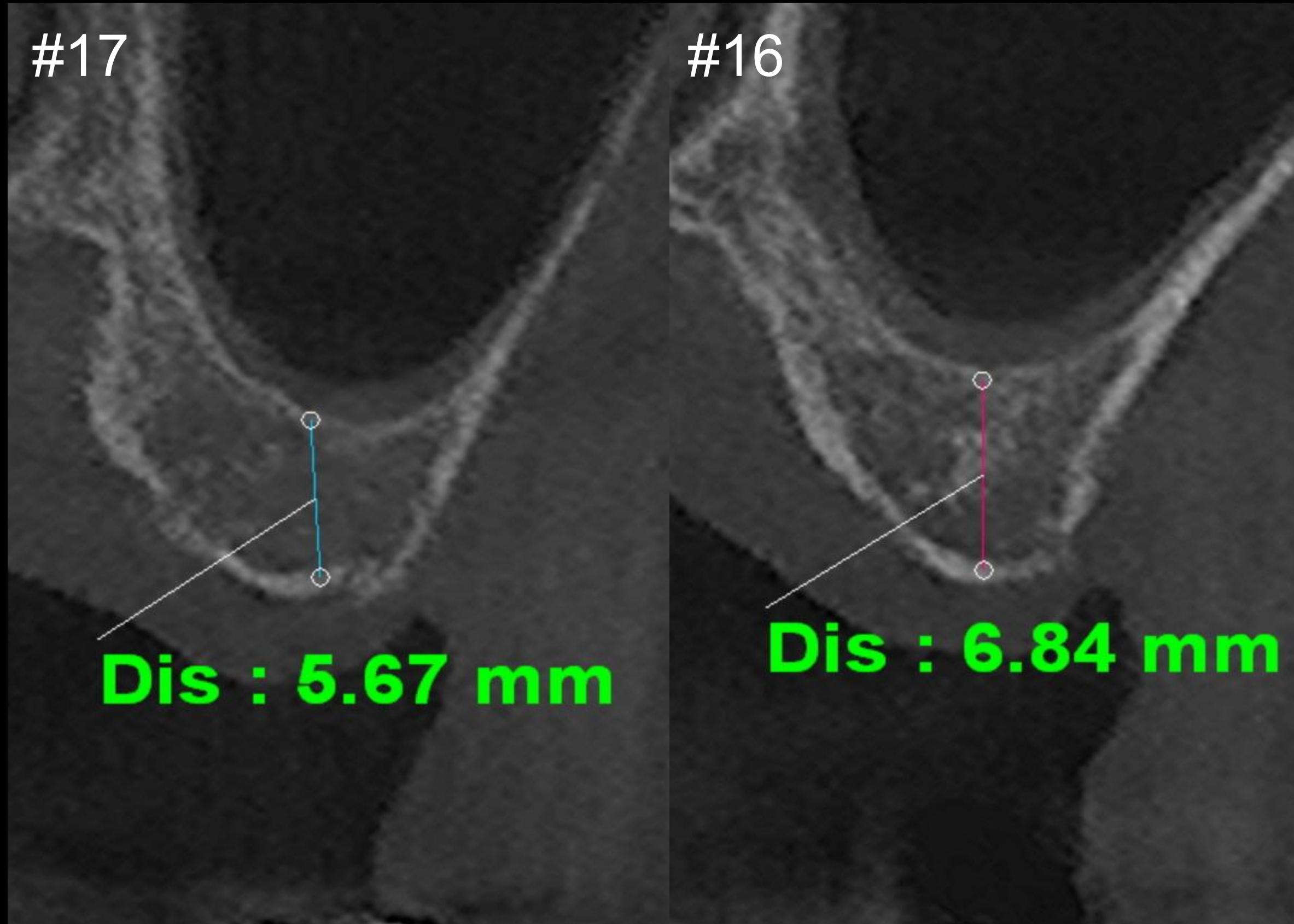
Crestal drill Ø 3.0

50 rpm / 70 Ncm<sup>2</sup> without irrigation

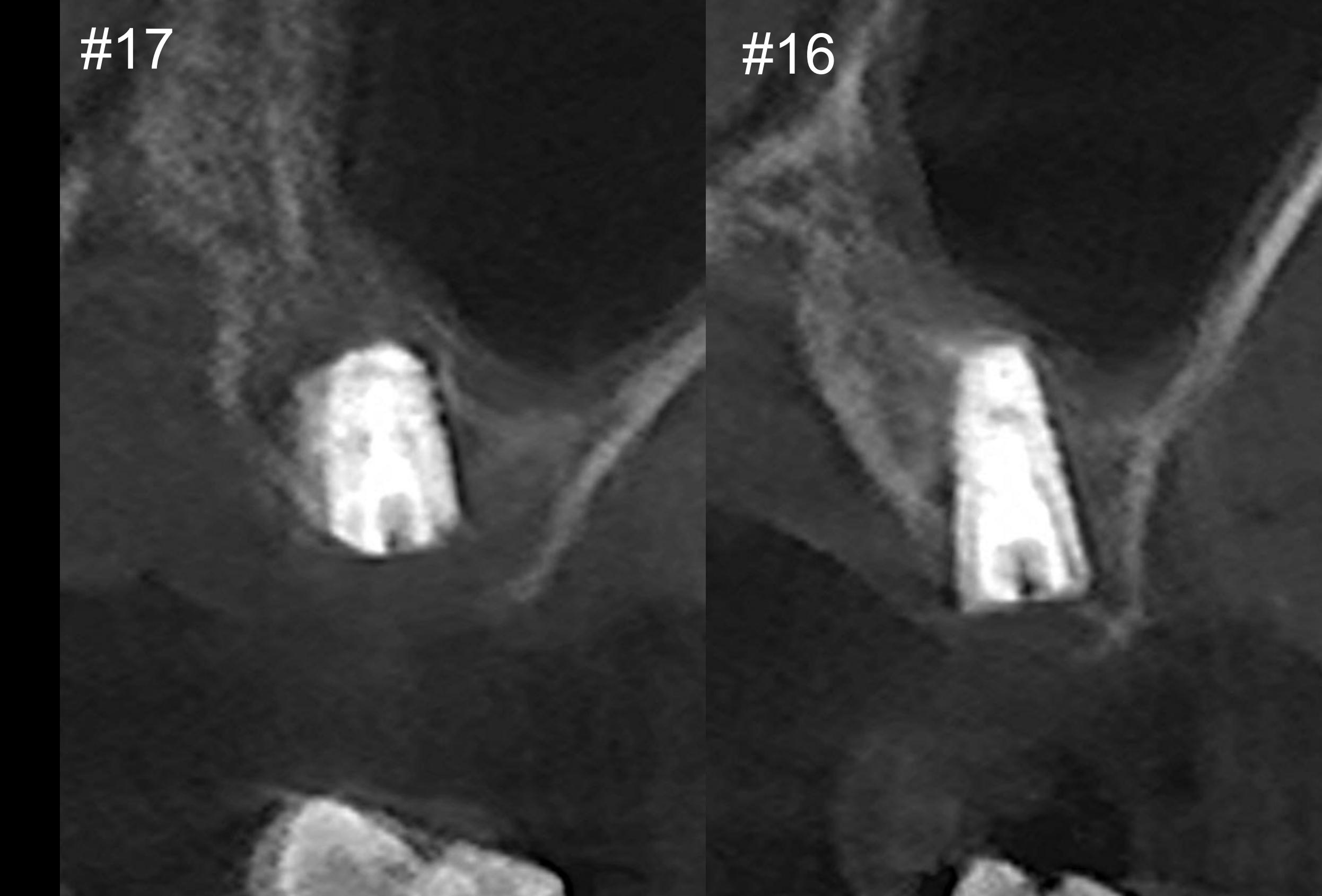


\*\* 203p DASK Simple Hands-on VOD

Pre-op (2022-03-20)



Post-op (2022-03-20)



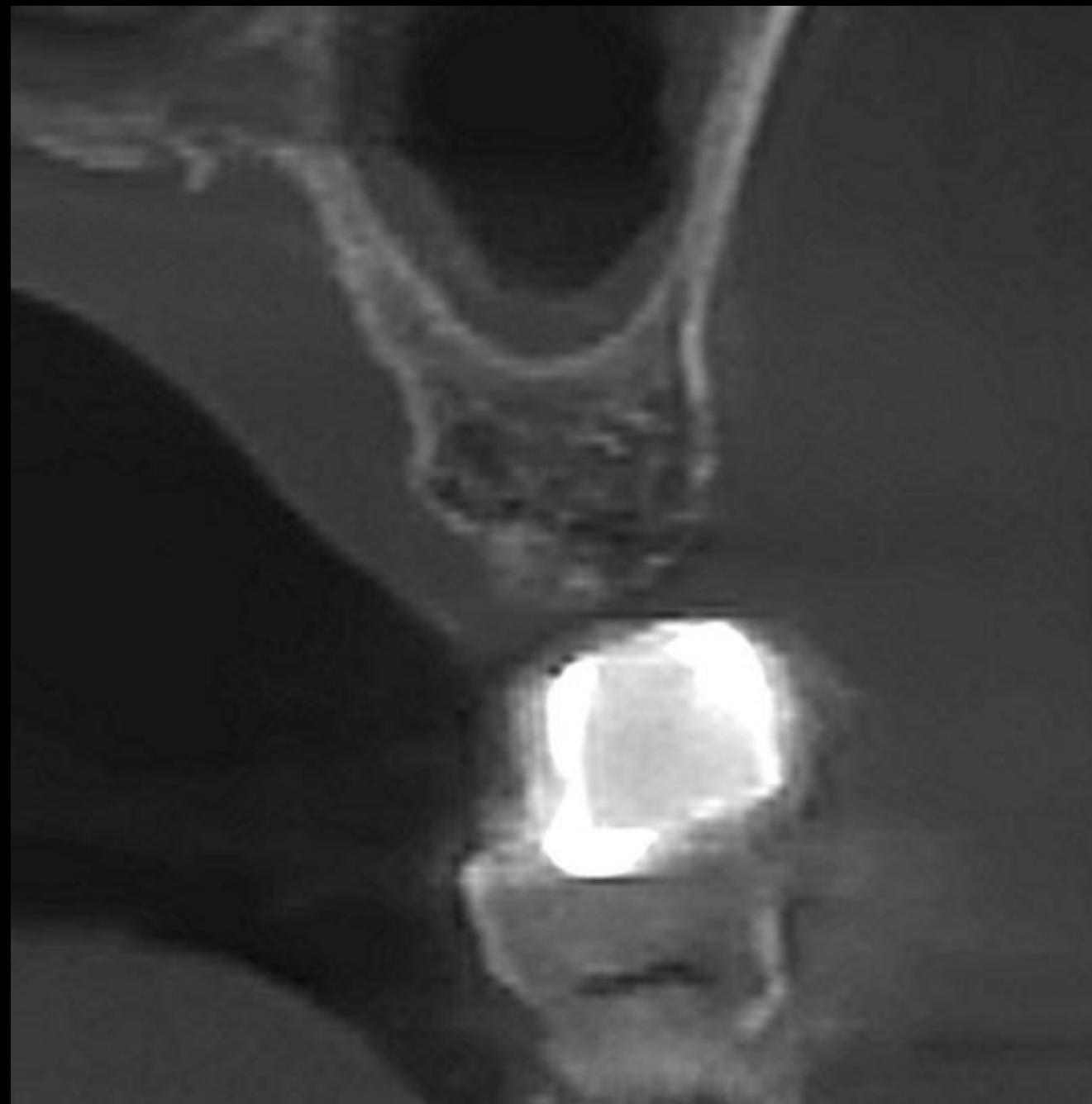
bright BL (Ø5.0 X 7.0)

bright BL (Ø4.0 X 9.0)

Oral exam (2024-07-31)



Pre-op CT (2024-07-17)

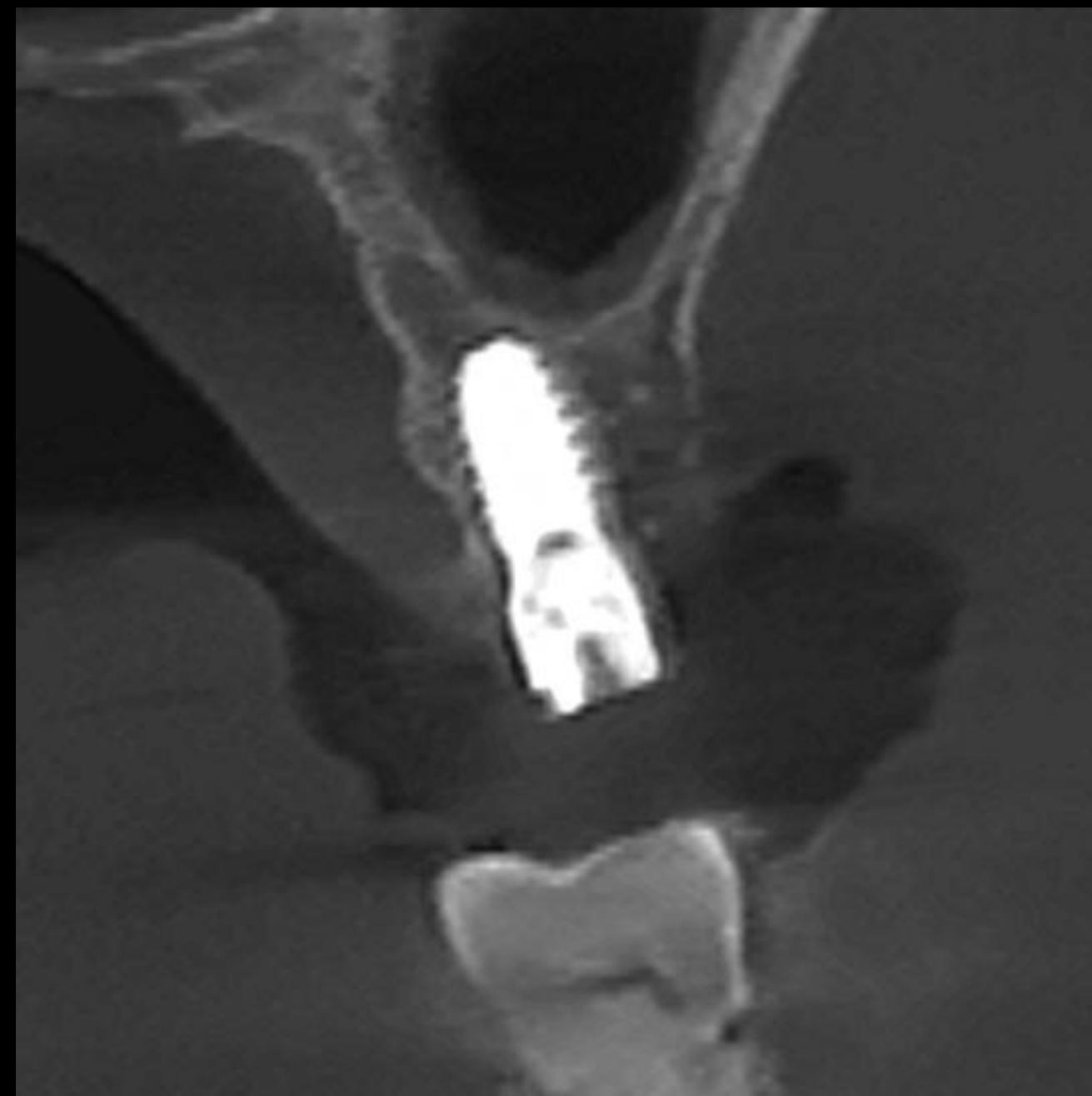


#26

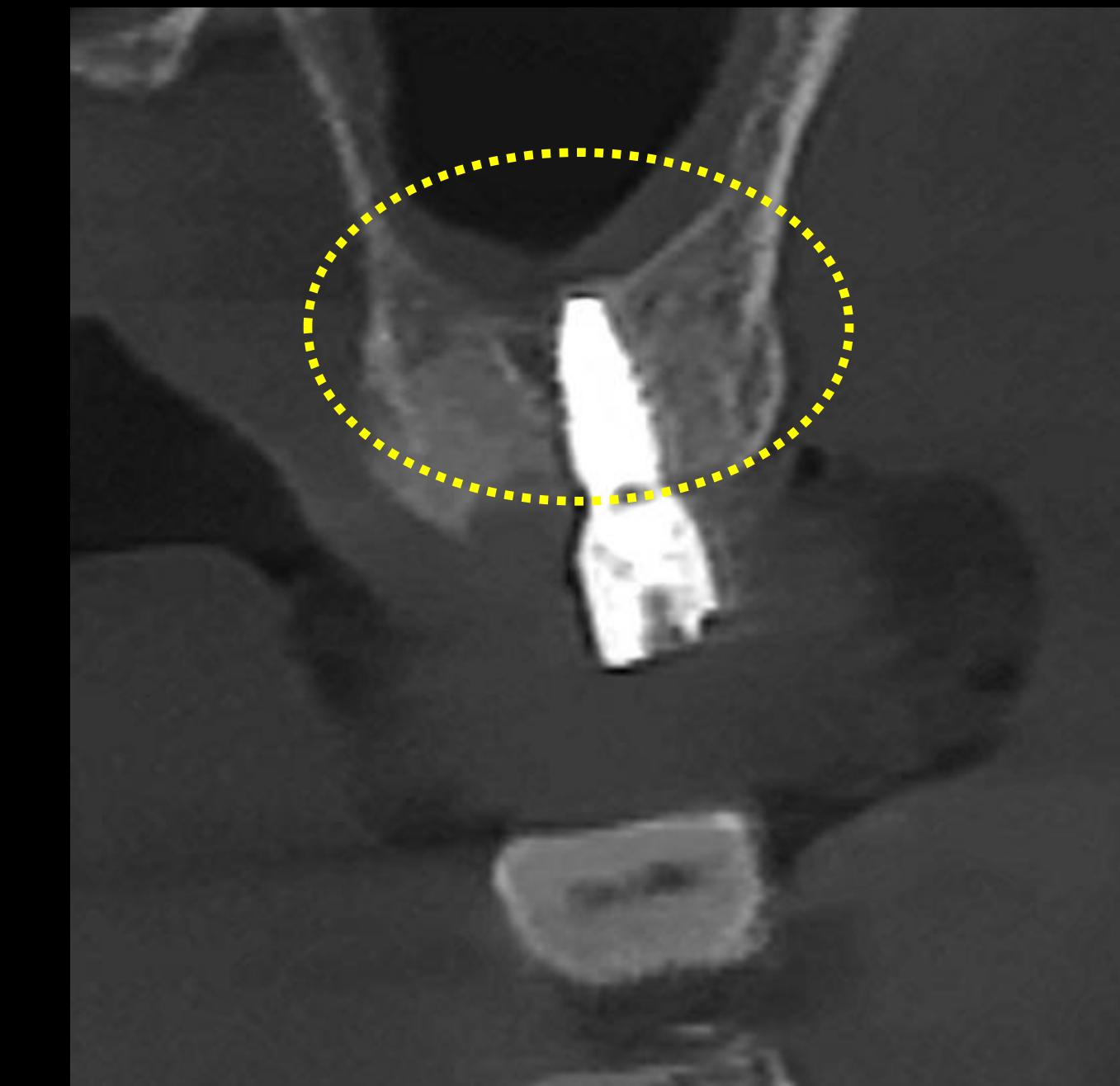


#27

Post-op CT (2024-10-02)



#26



#27

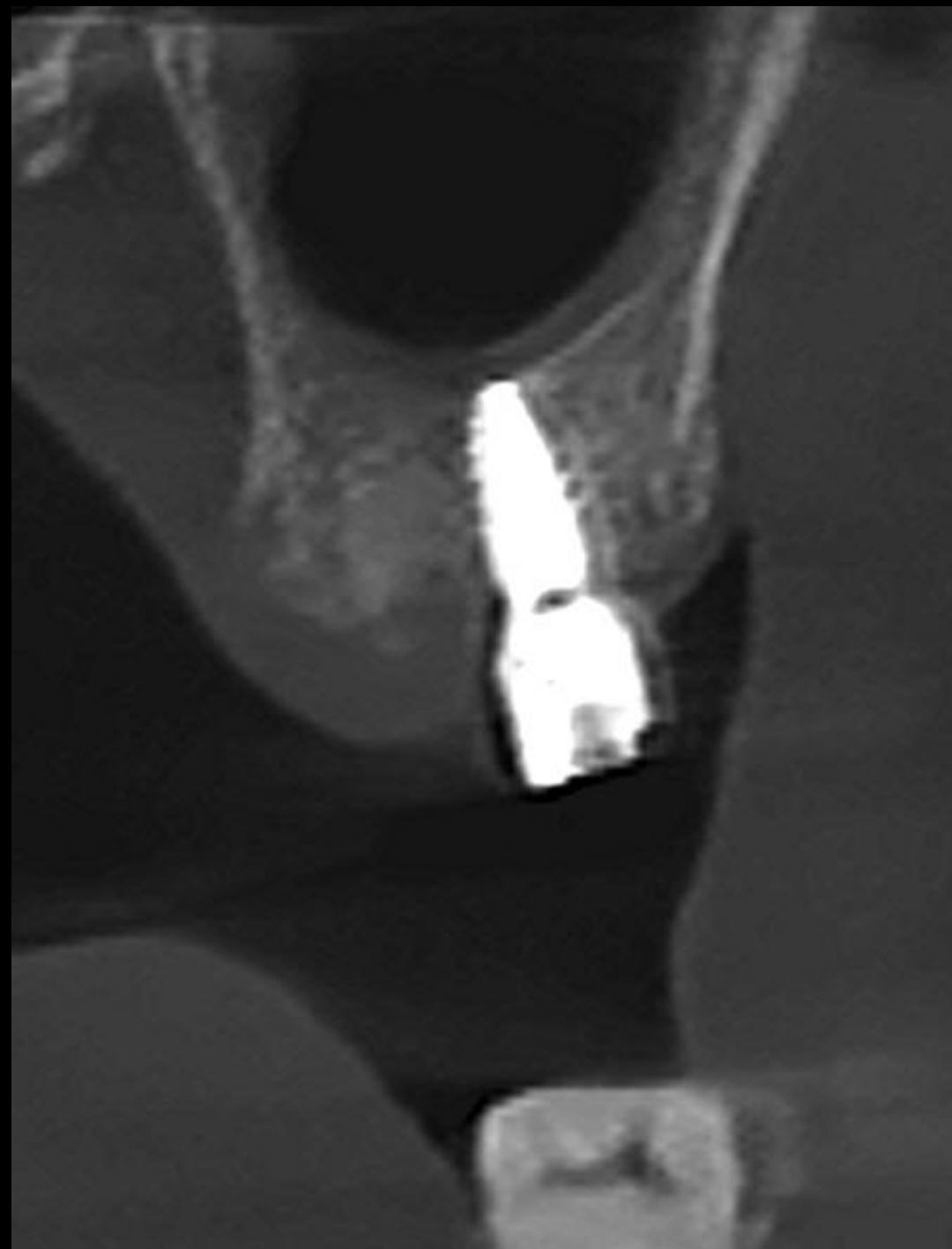
Post-op (2024-10-08)



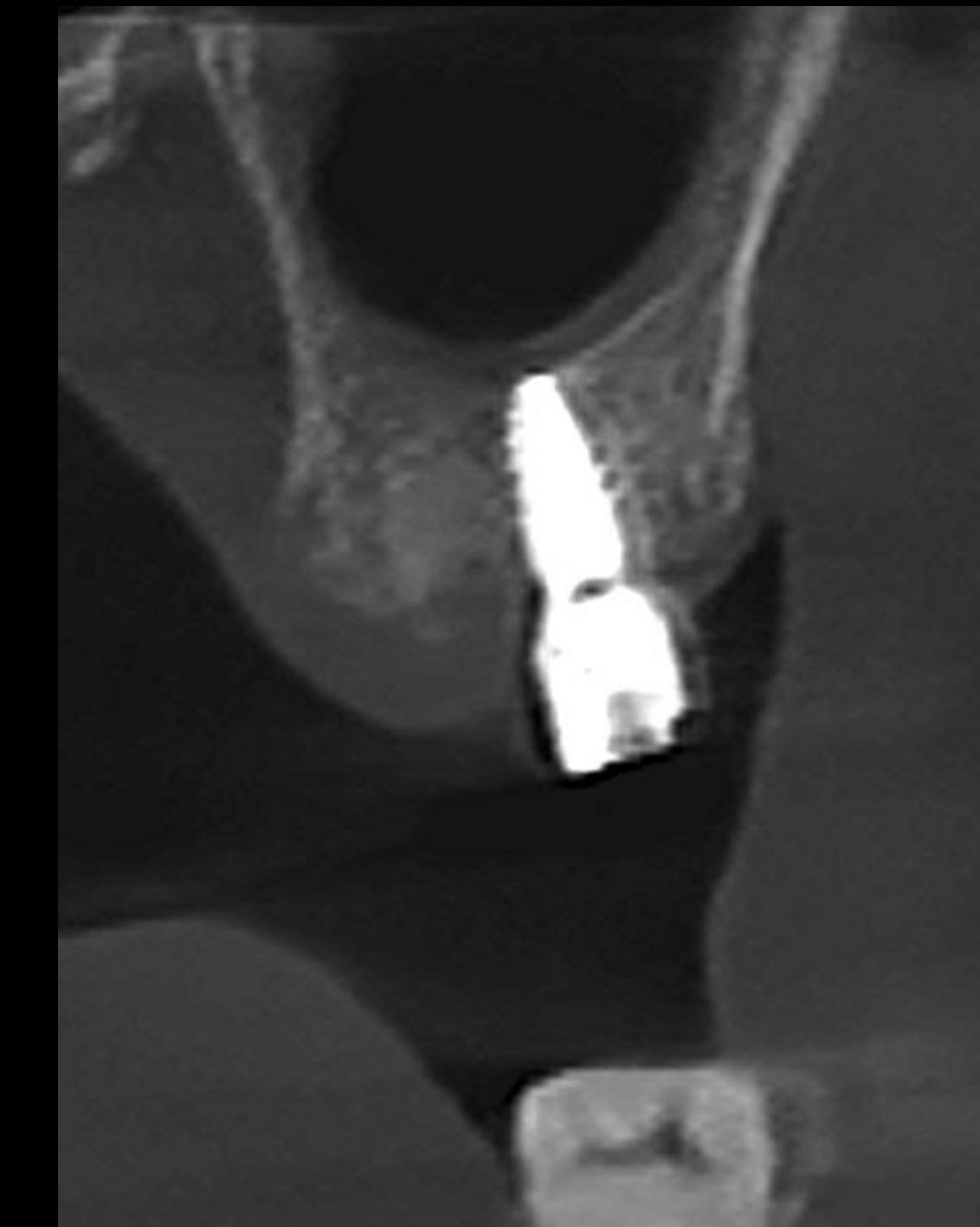
Final prosthesis (2025-01-08)



Follow up CT : 4 weeks (2024-10-30)

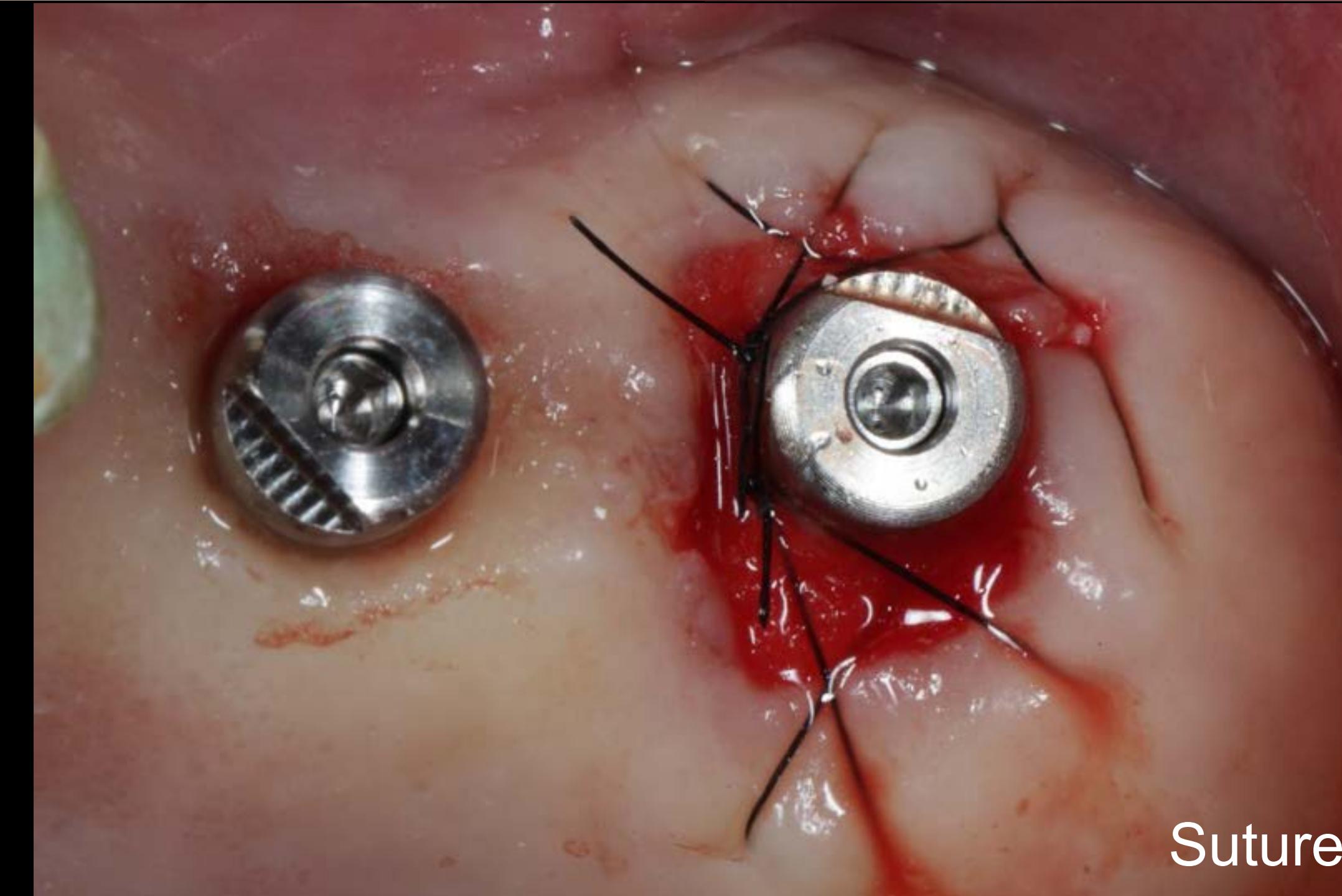
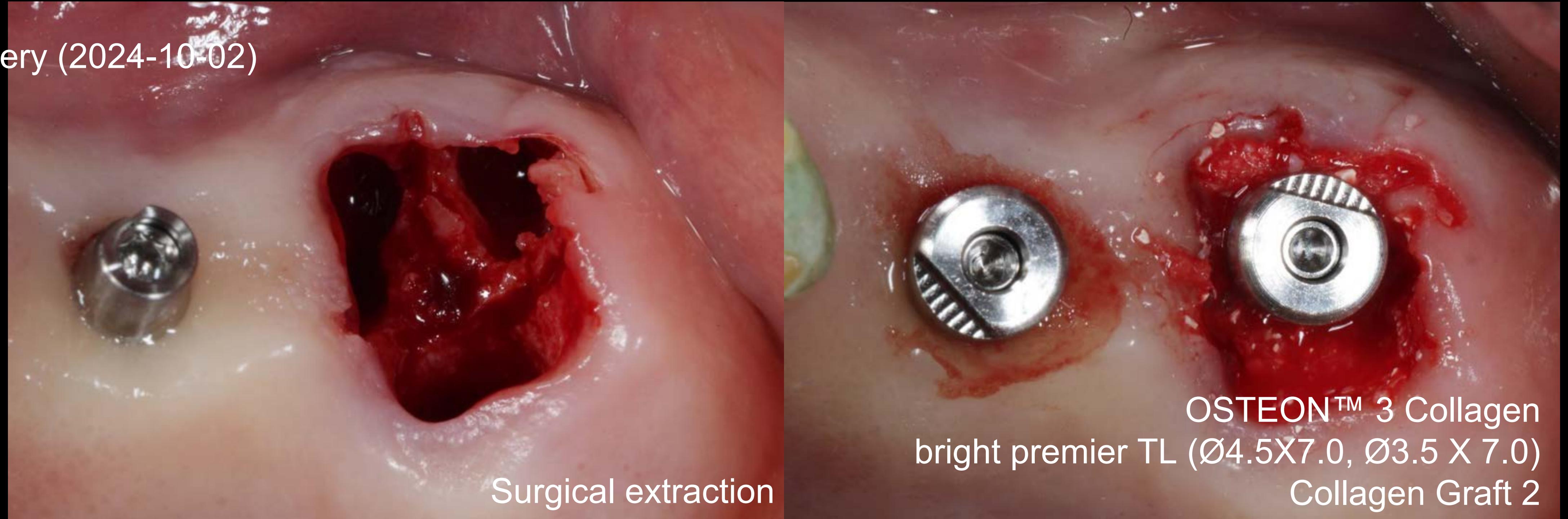


#26



#27

Surgery (2024-10-02)



Healing : 1 week (2024-10-08)



Healing : 1 month (2024-10-30)



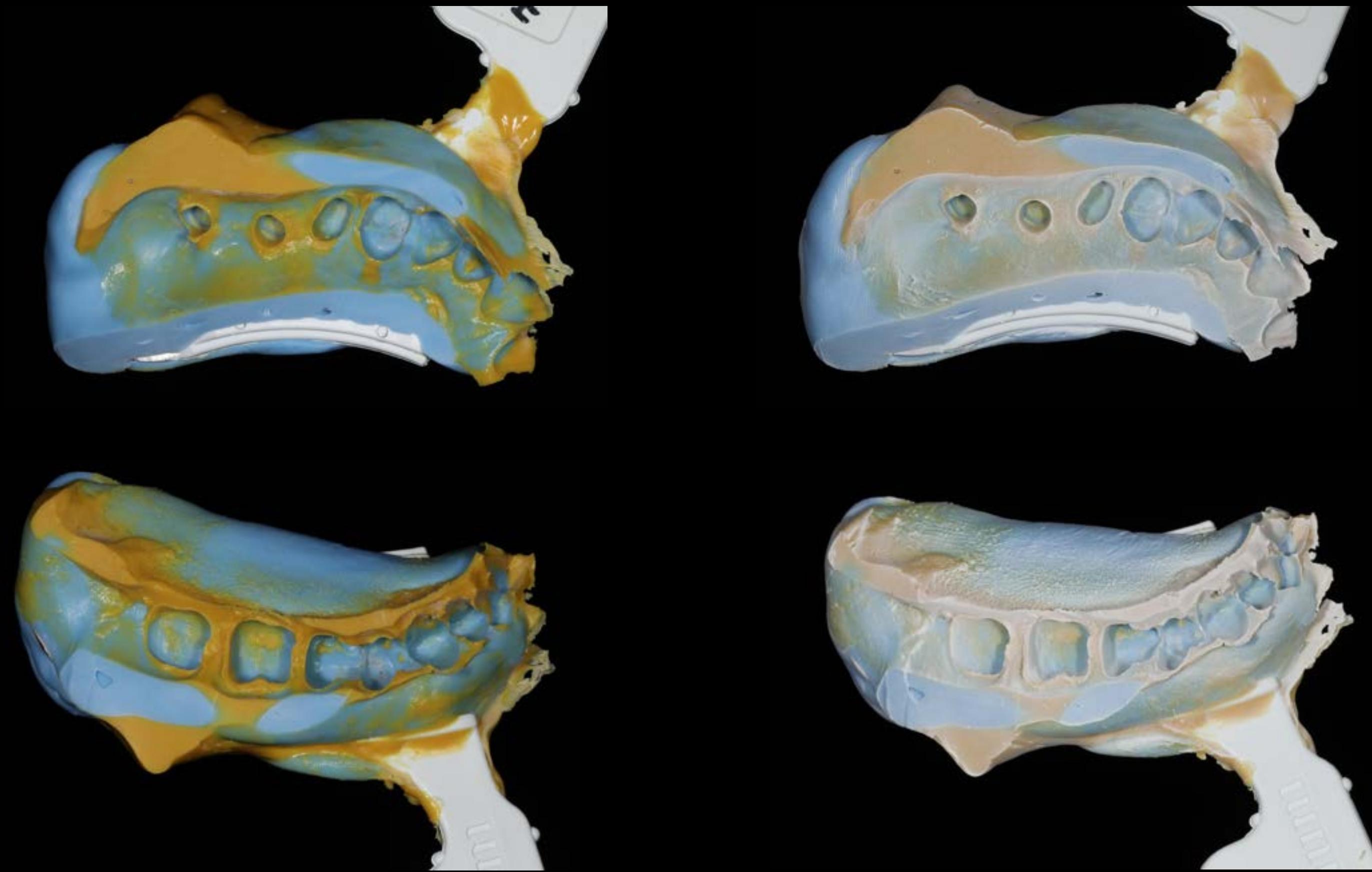
# Intra Oral Scan (Elite)



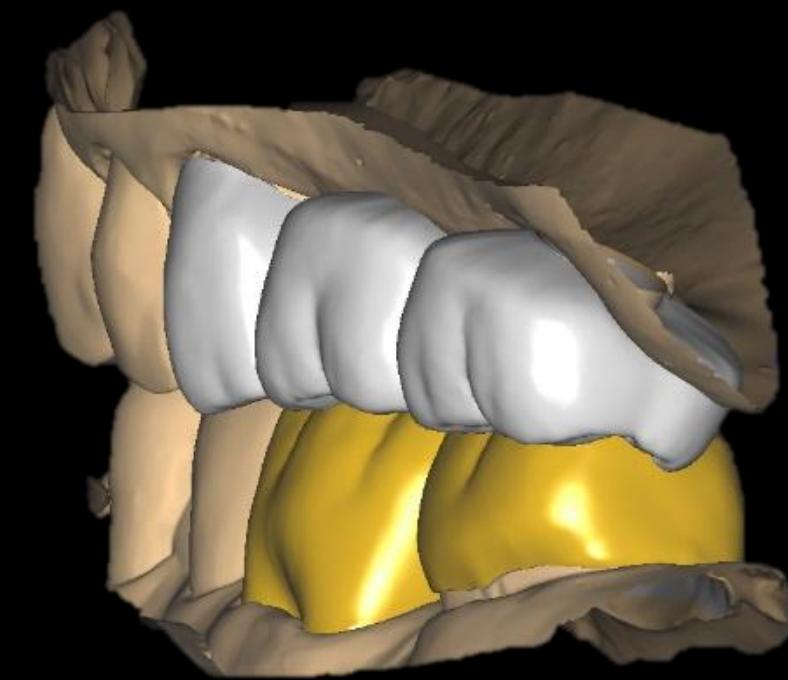
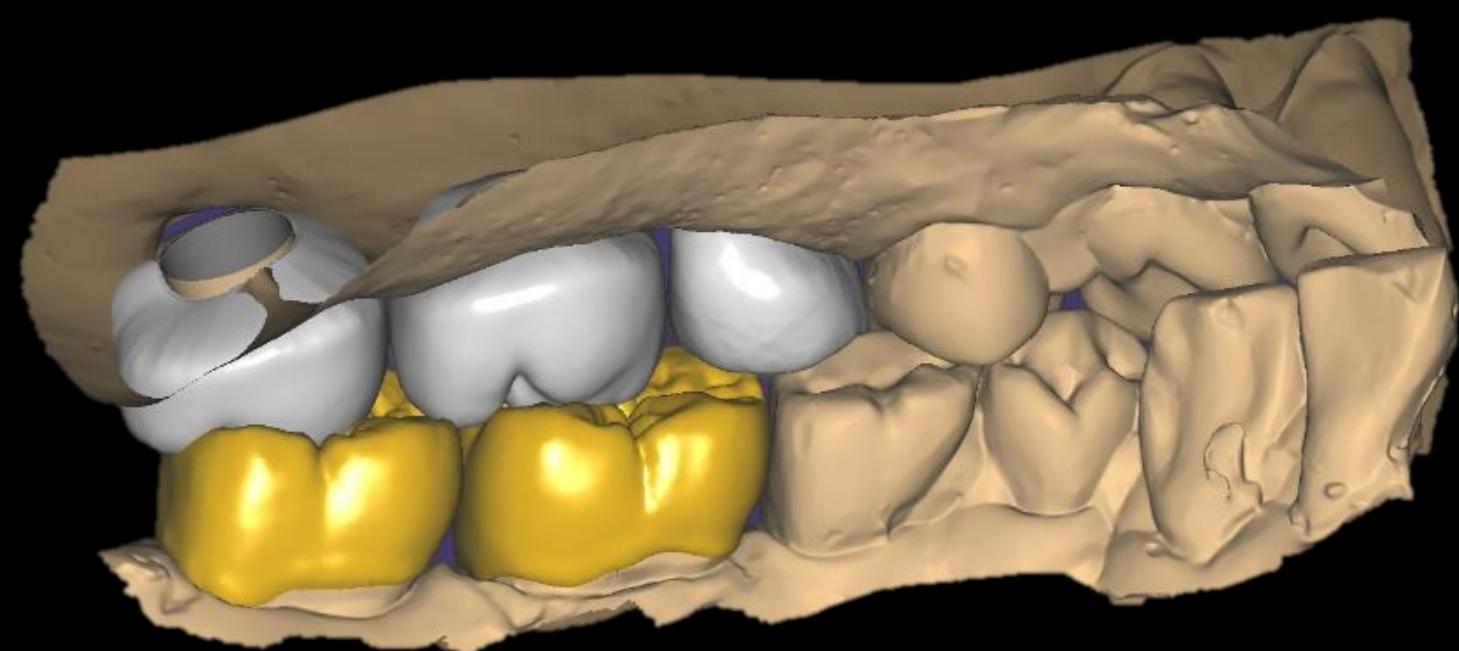
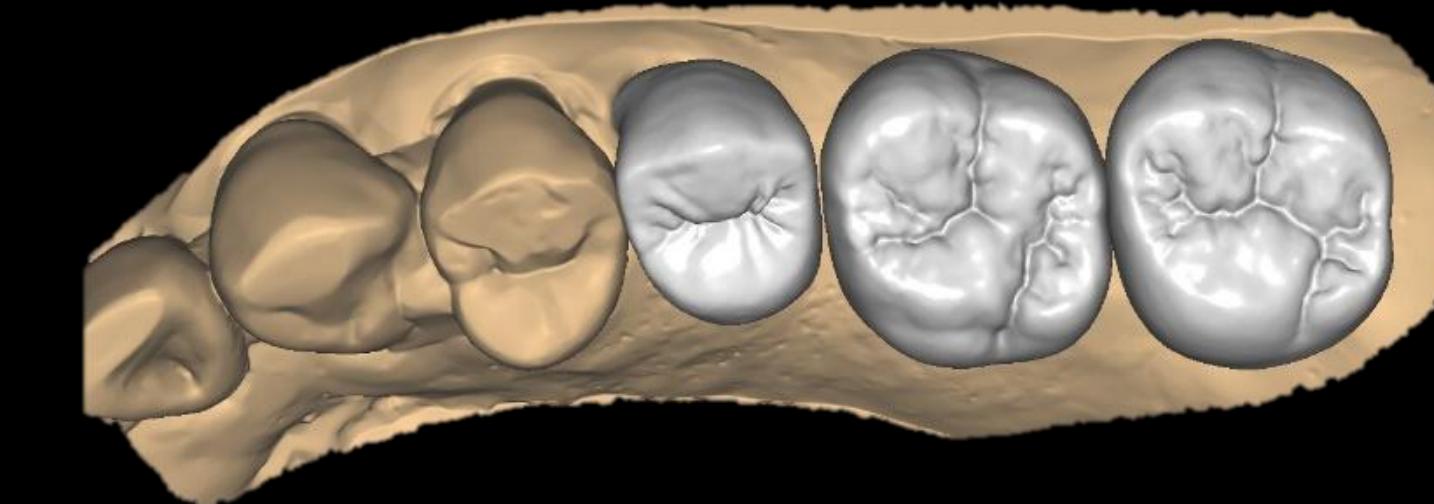
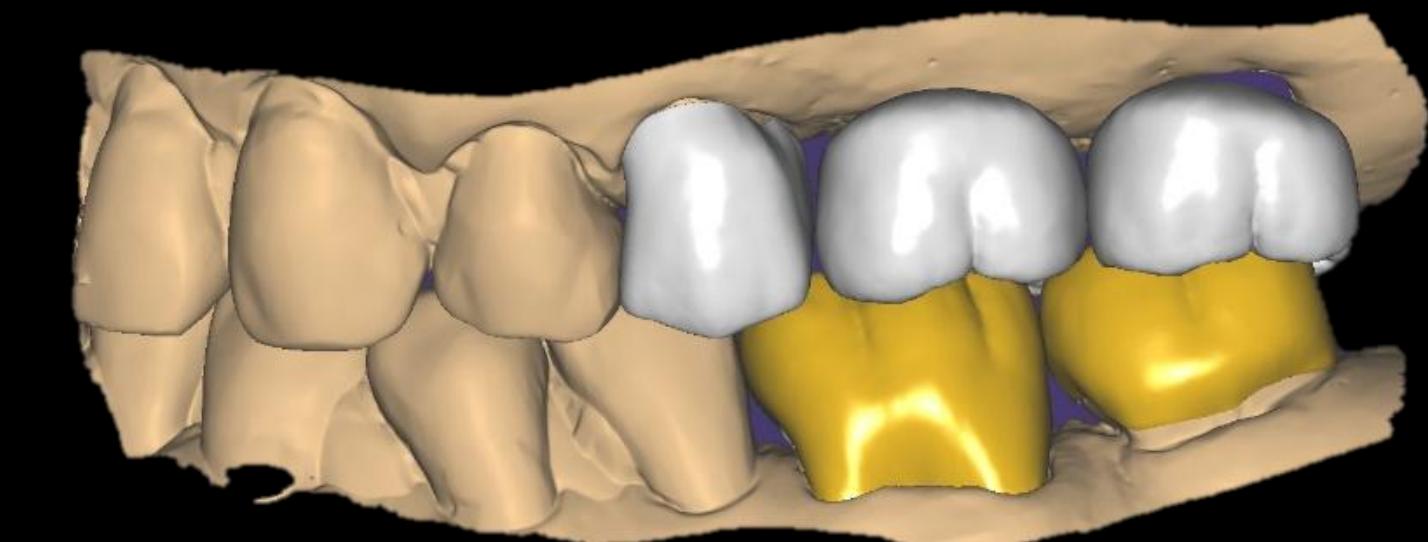
# Intra Oral Scan (Wireless)



# Impression / Trimming / Scan Spray



CAD (Temporary)



# Temporary Crown



Provisional restoration (2024-10-31)



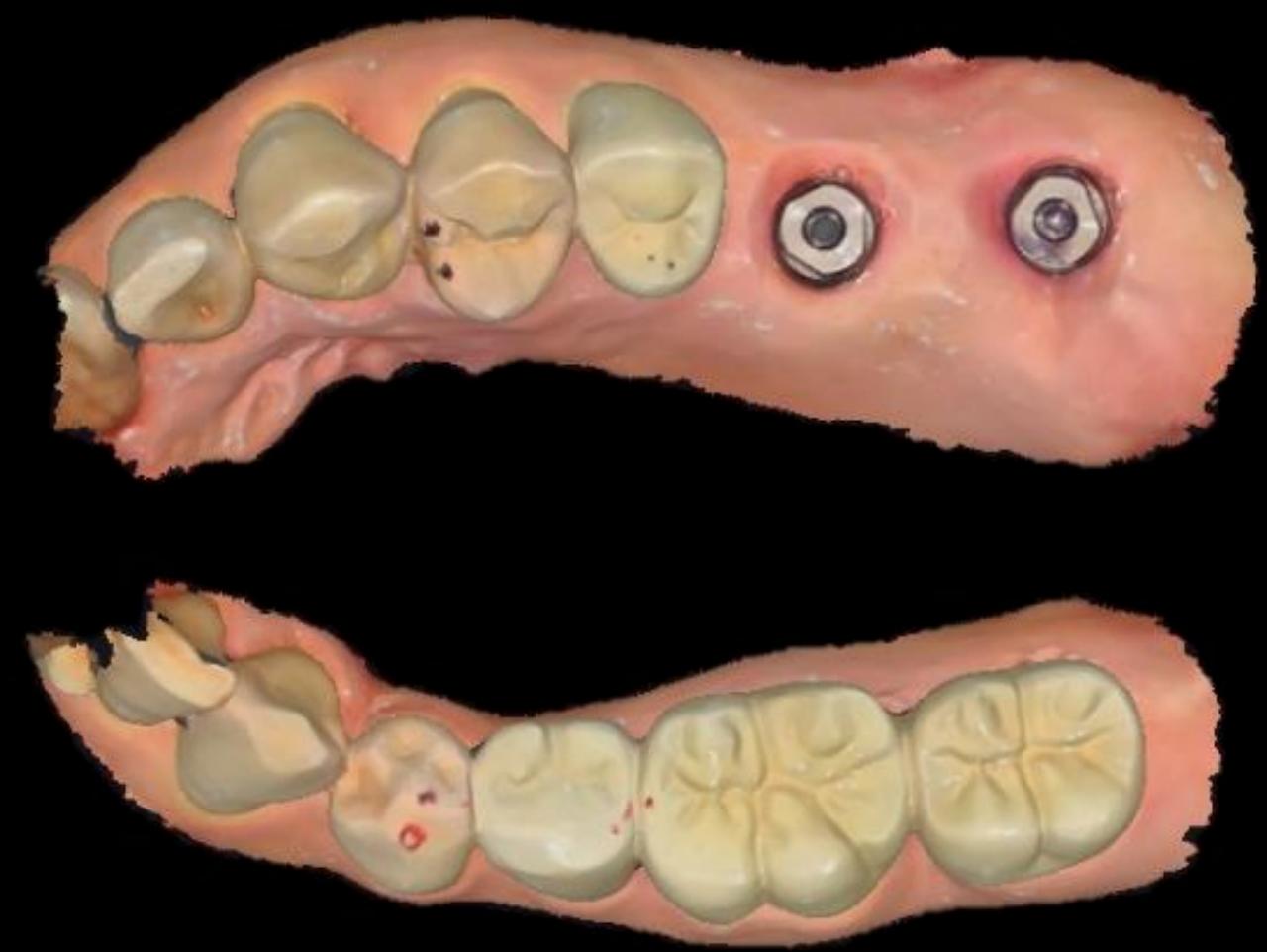
3 weeks later temporary crown



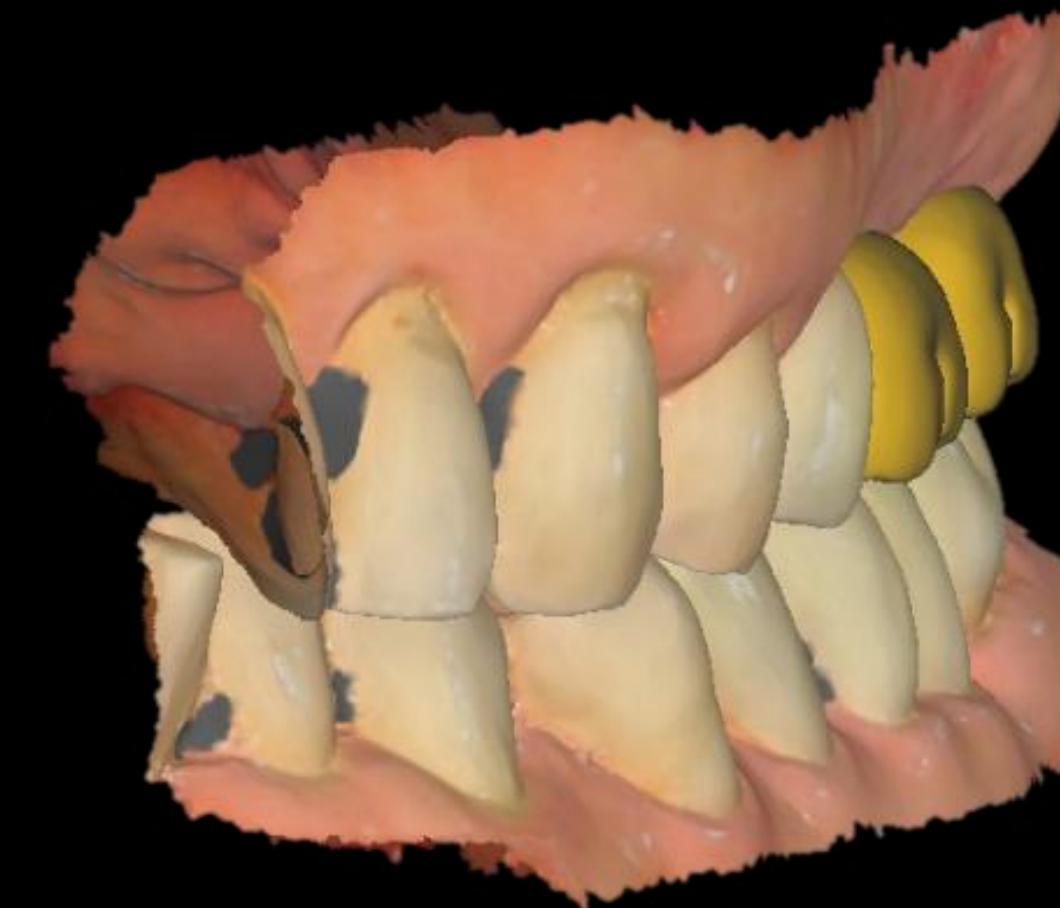
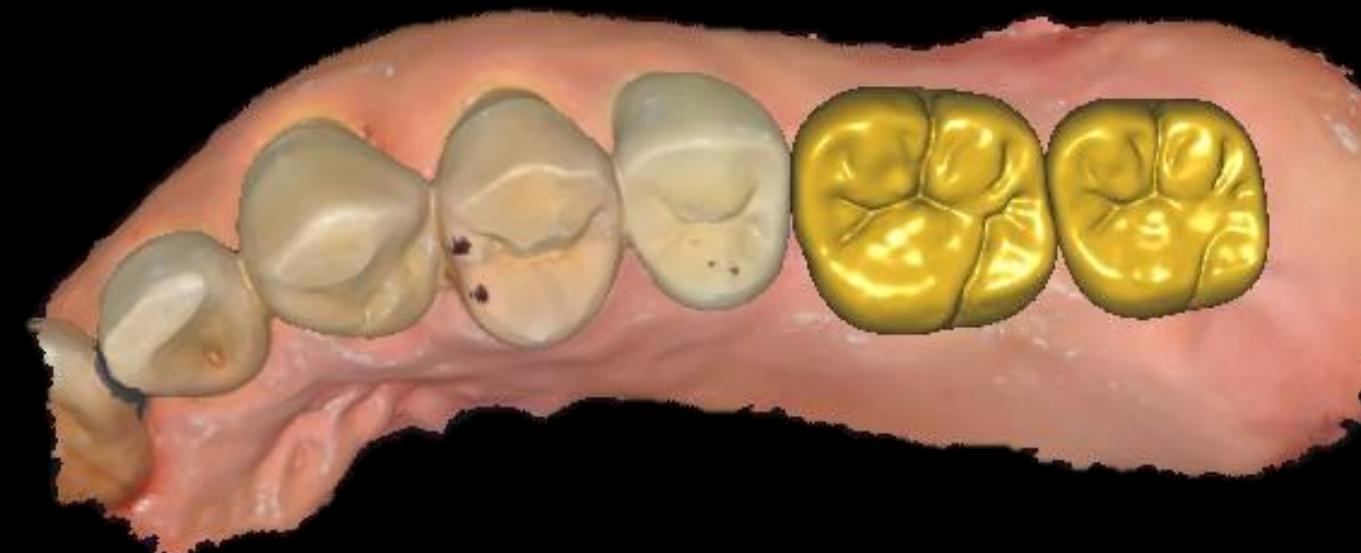
# Working model



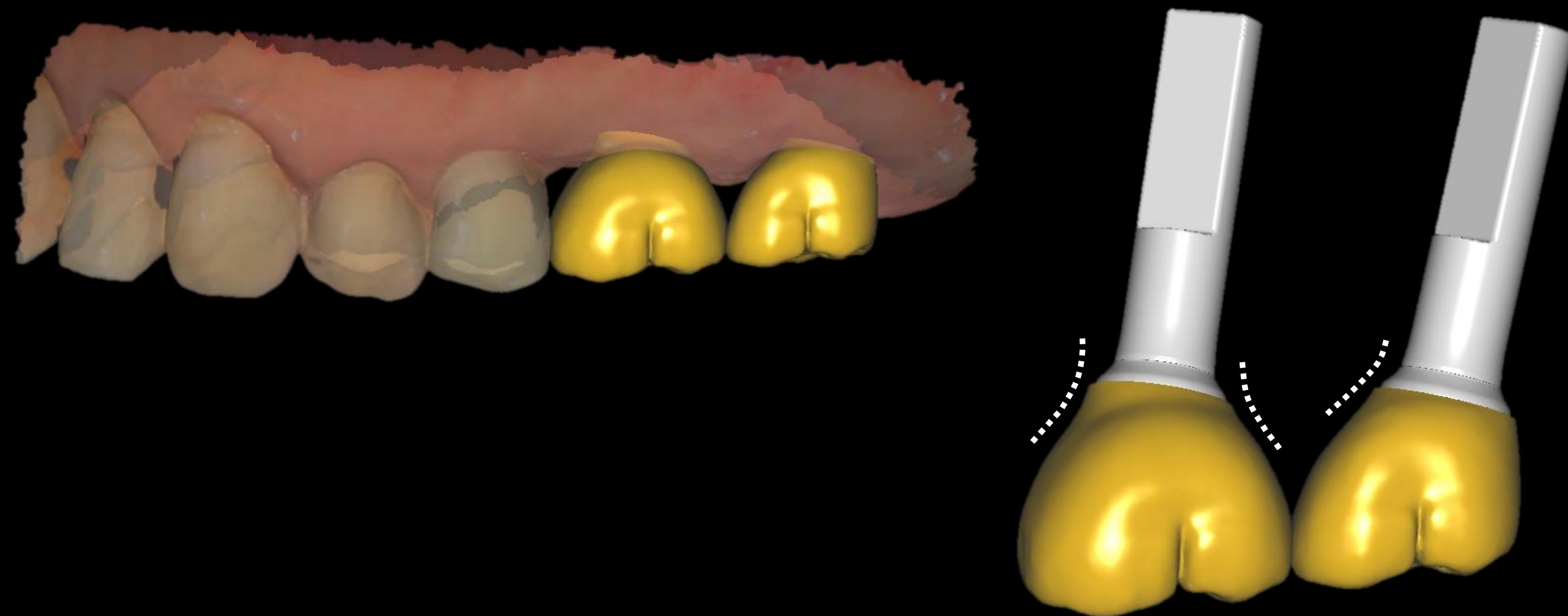
Shining3D Aoralscan  
Elite



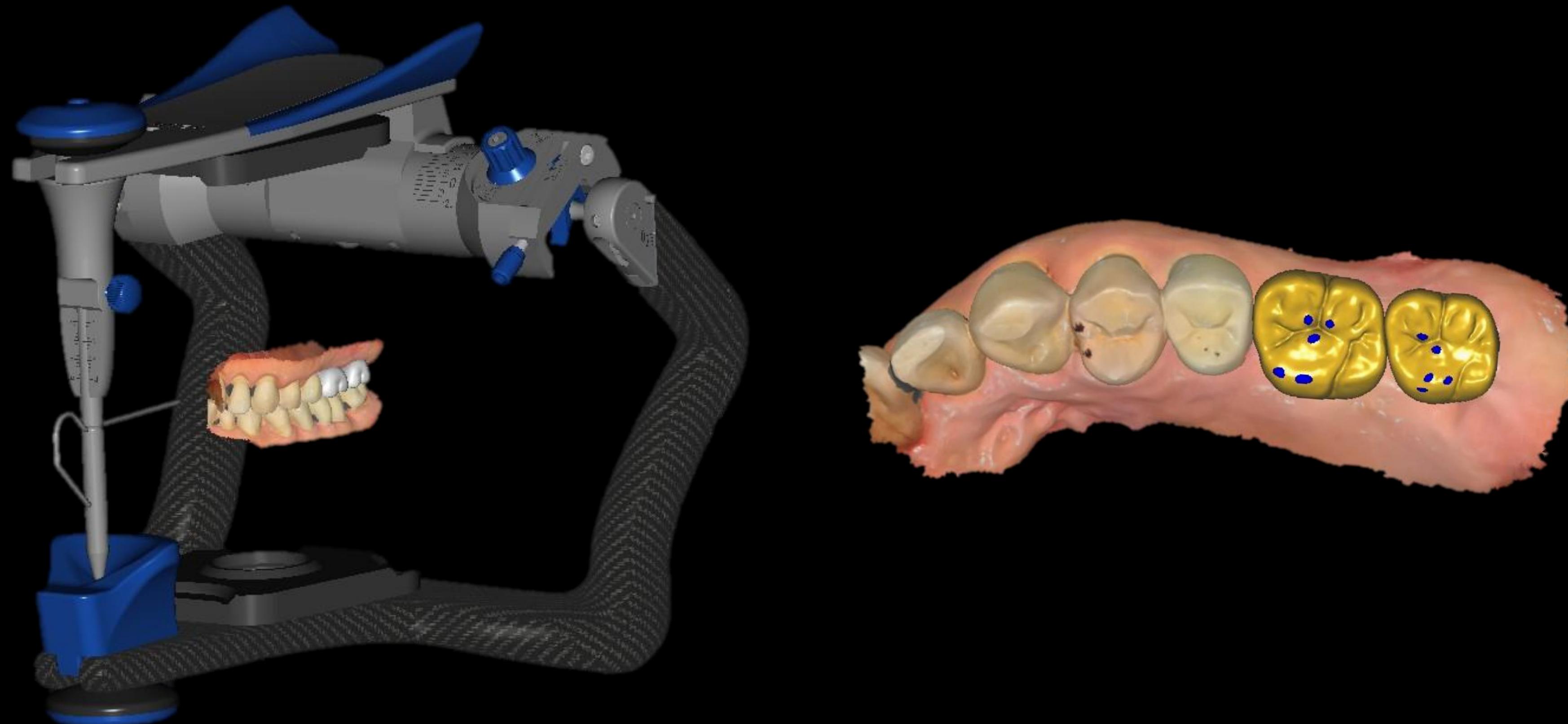
# Cad Design



# Cad Design



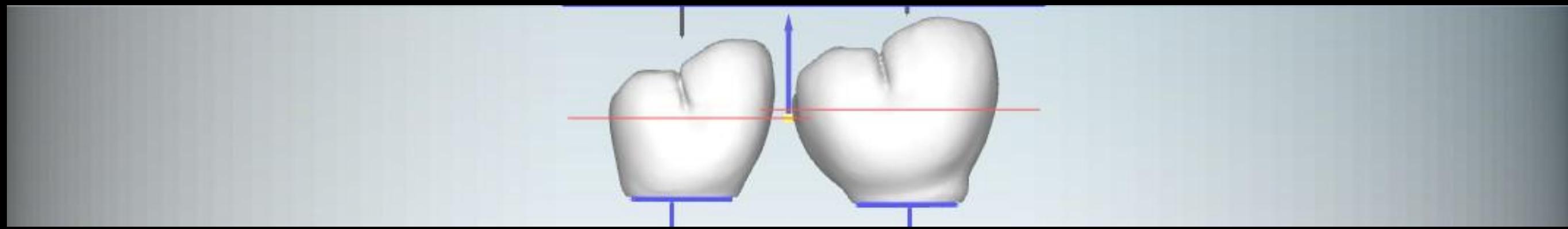
# Cad Design



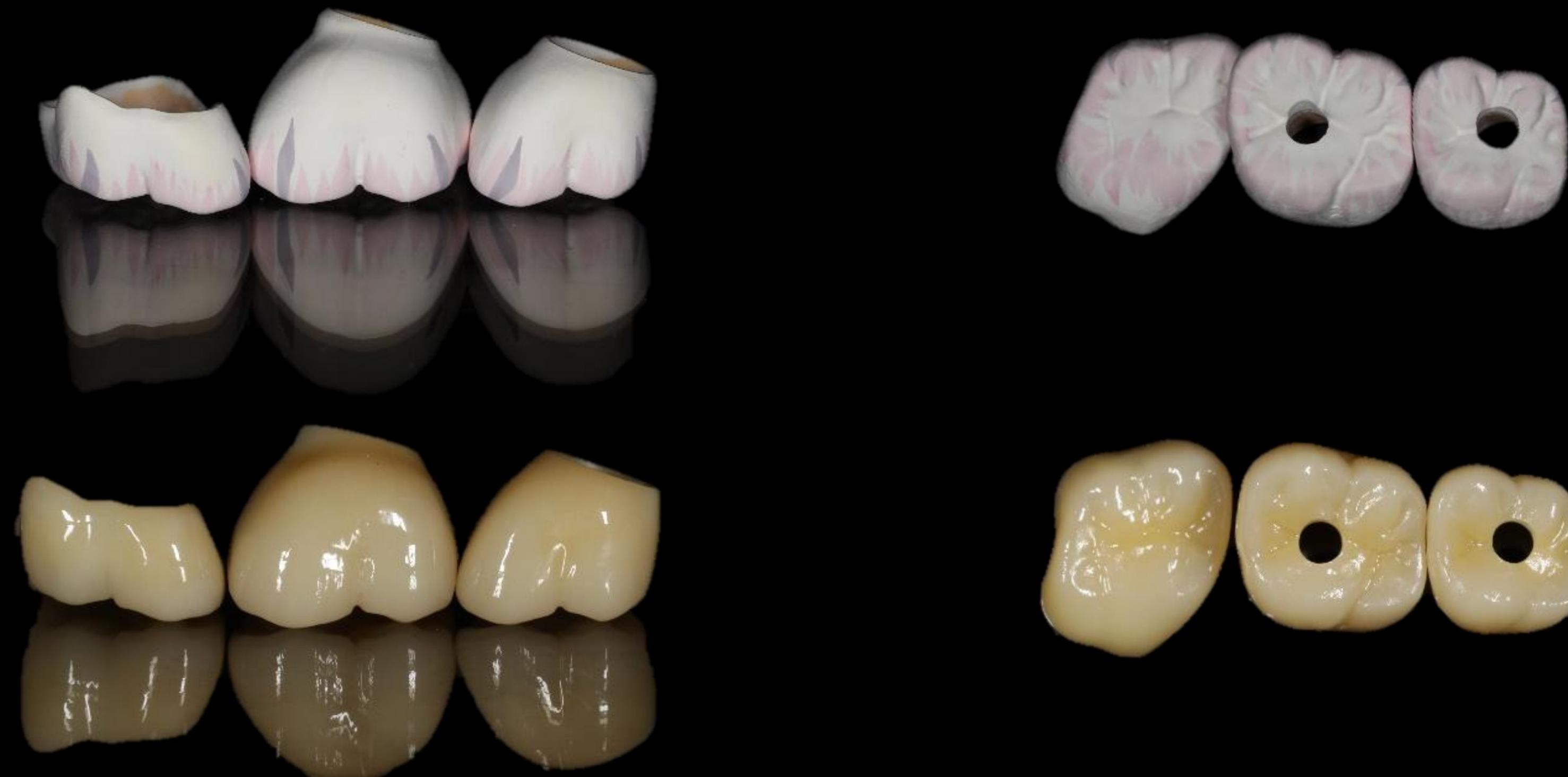
Virtual articulator

# Shade Taking





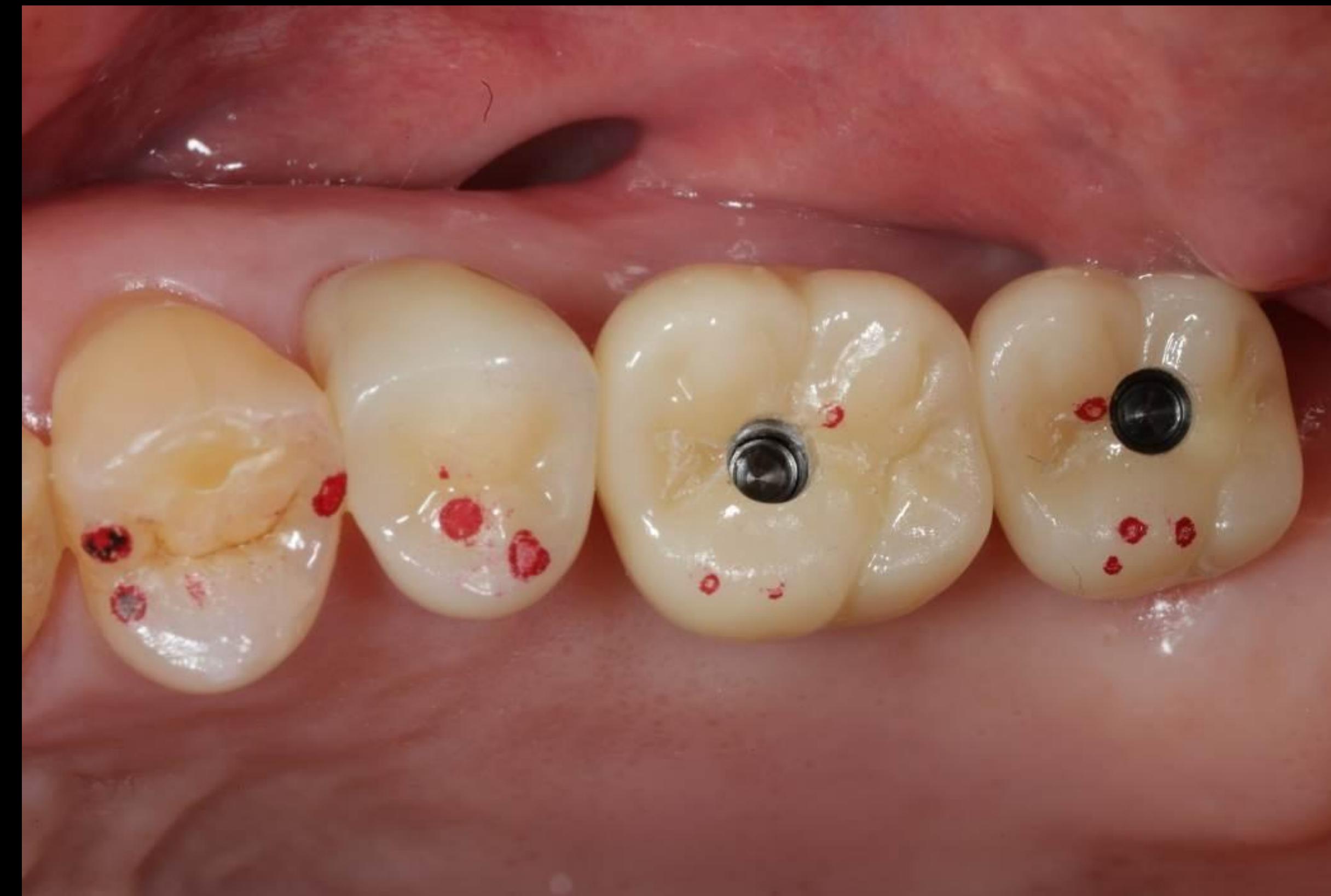
bright Mono Block A3

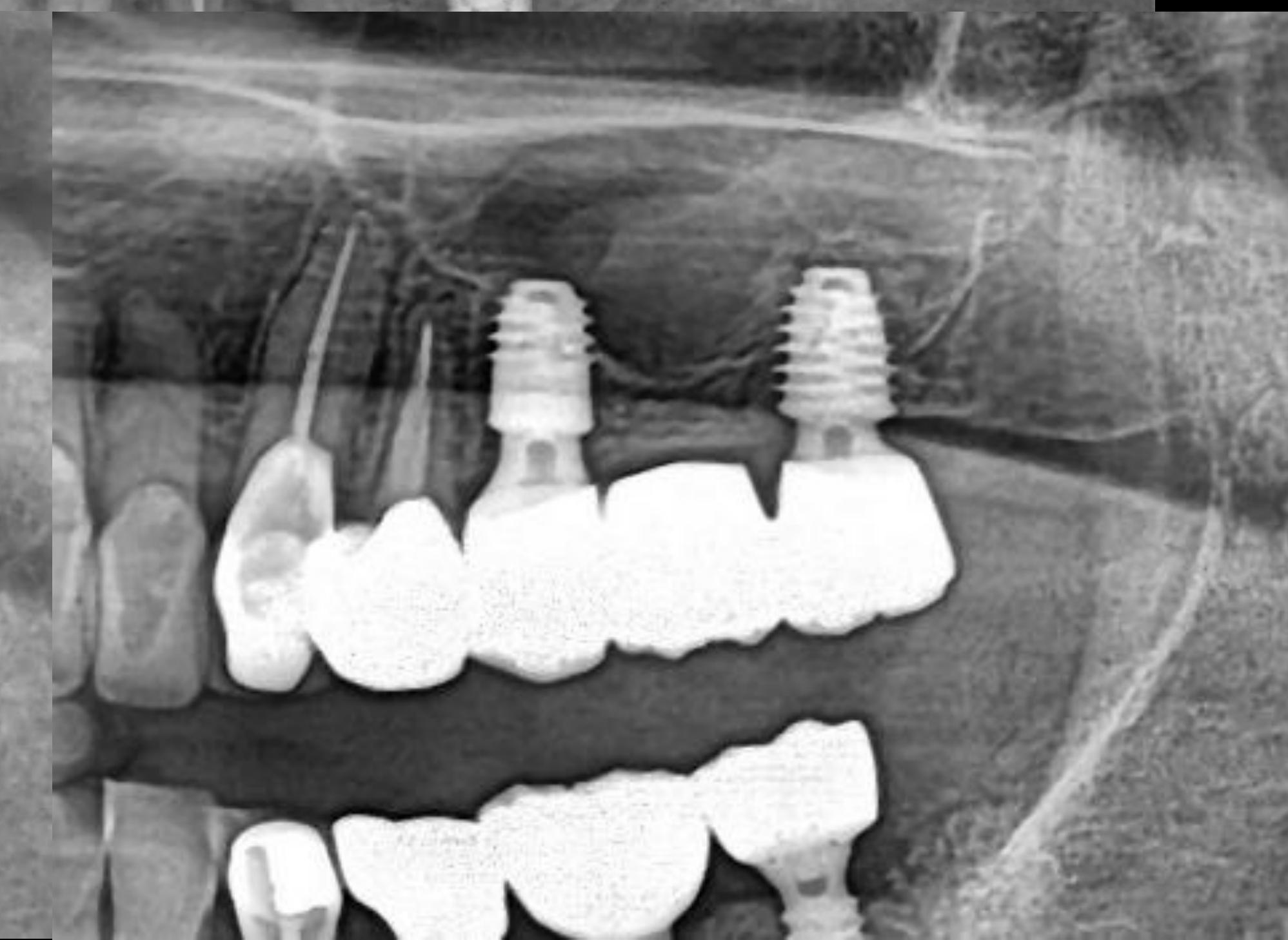


# Final Prosthesis

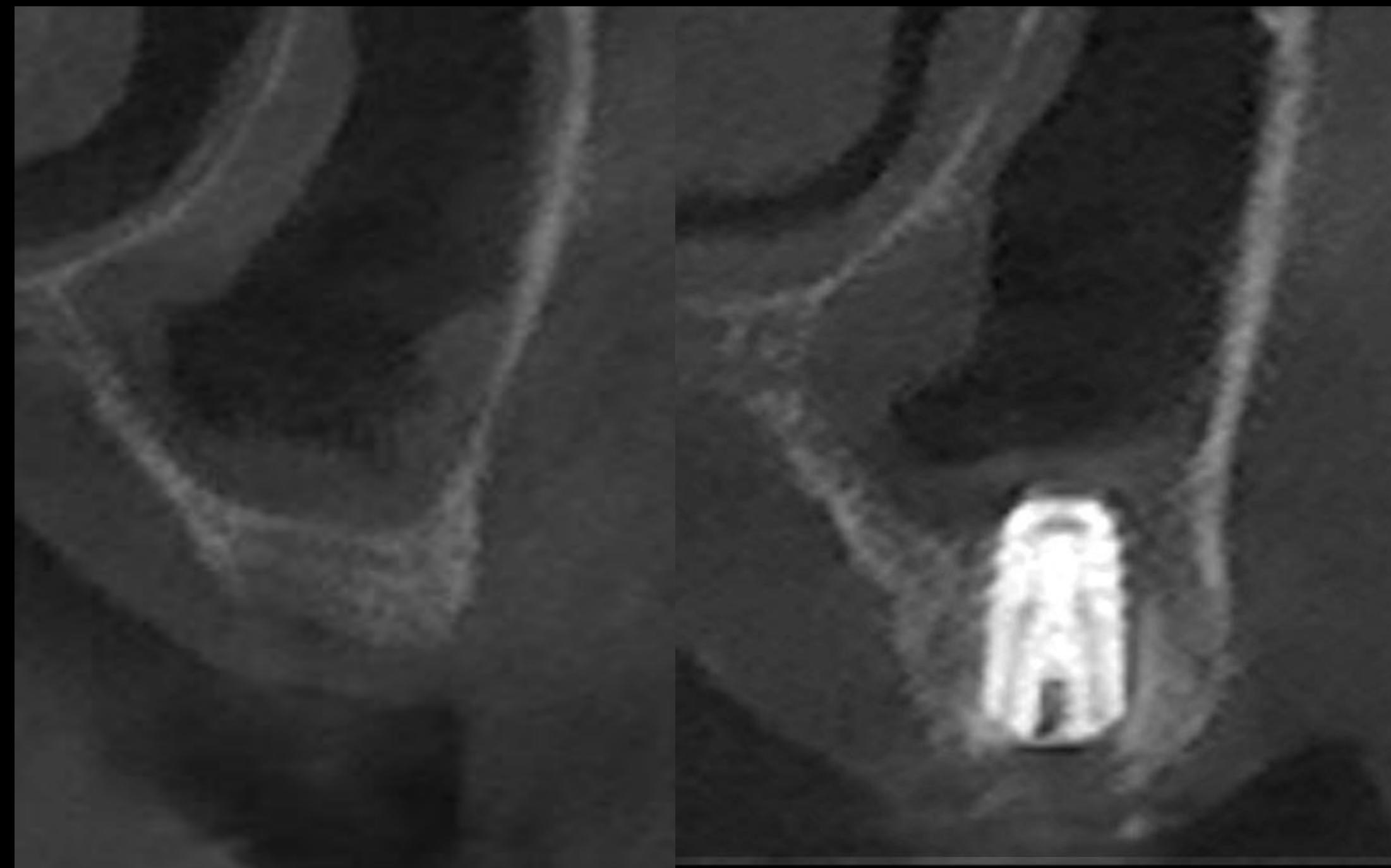


# Final Prosthesis

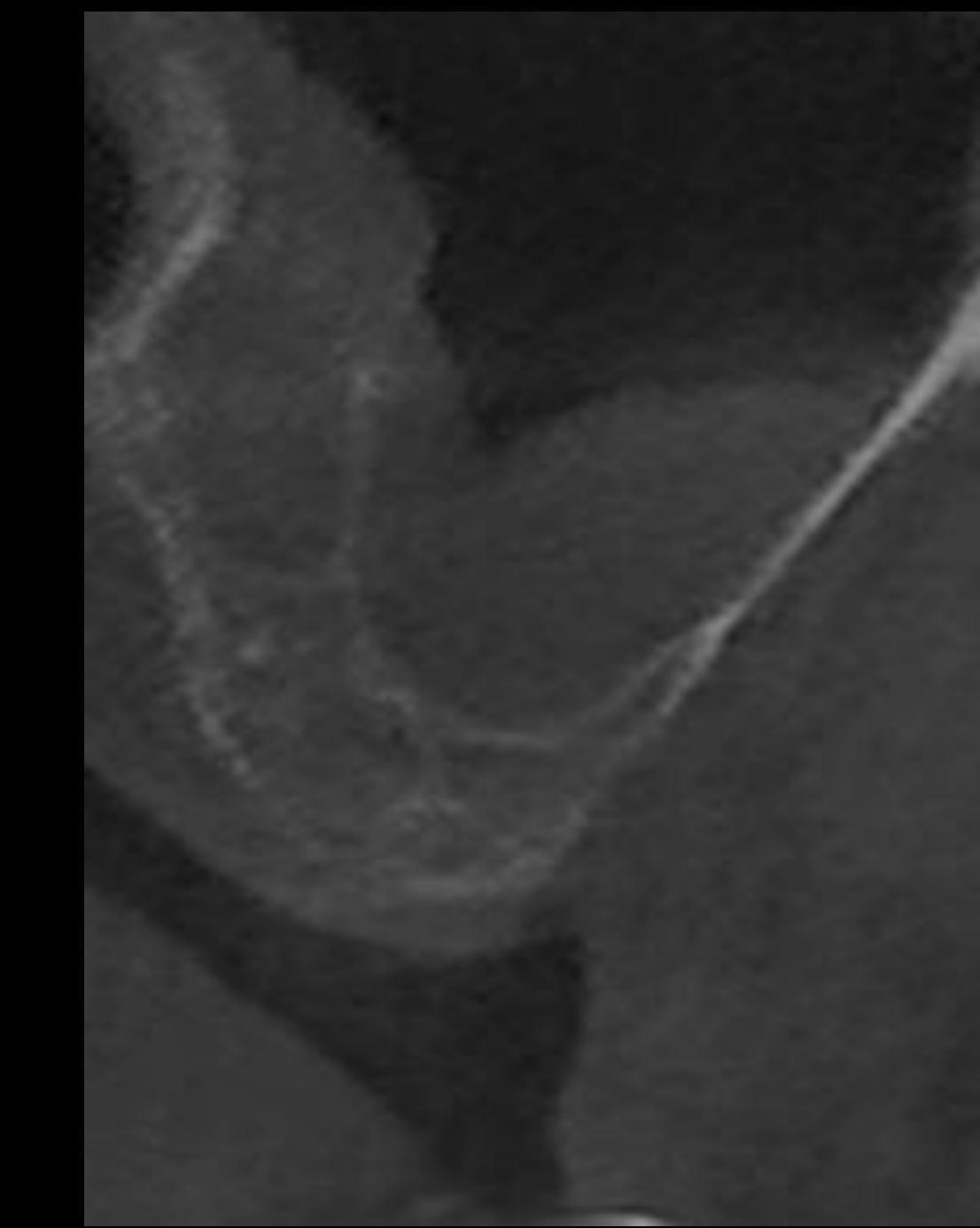




Pre-op (2023-03-09)



#25



#27



Pre-op (2022-03-09)



Abutment delivery (2023-07-26)

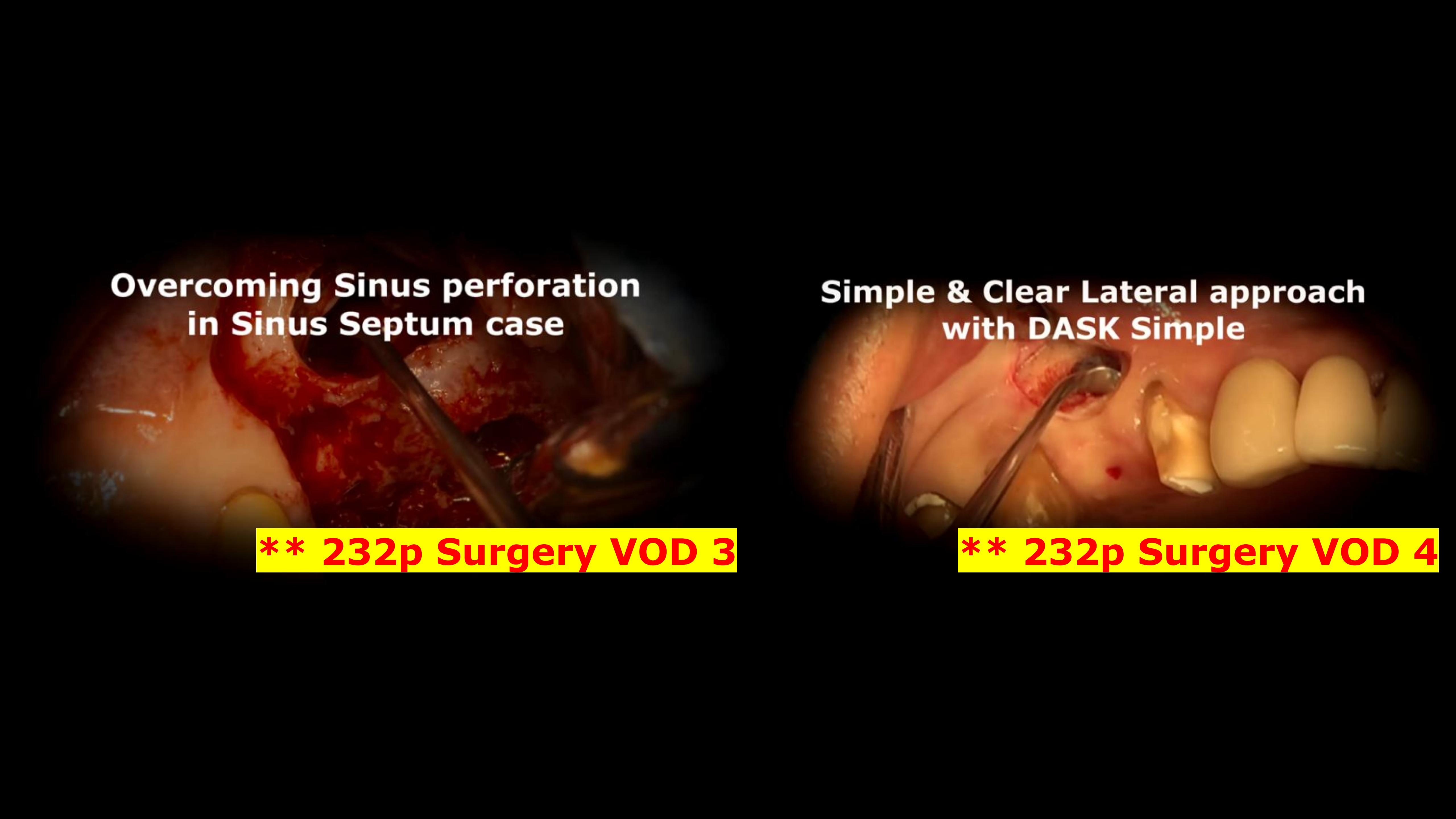


Provisional restoration (2023-07-26)

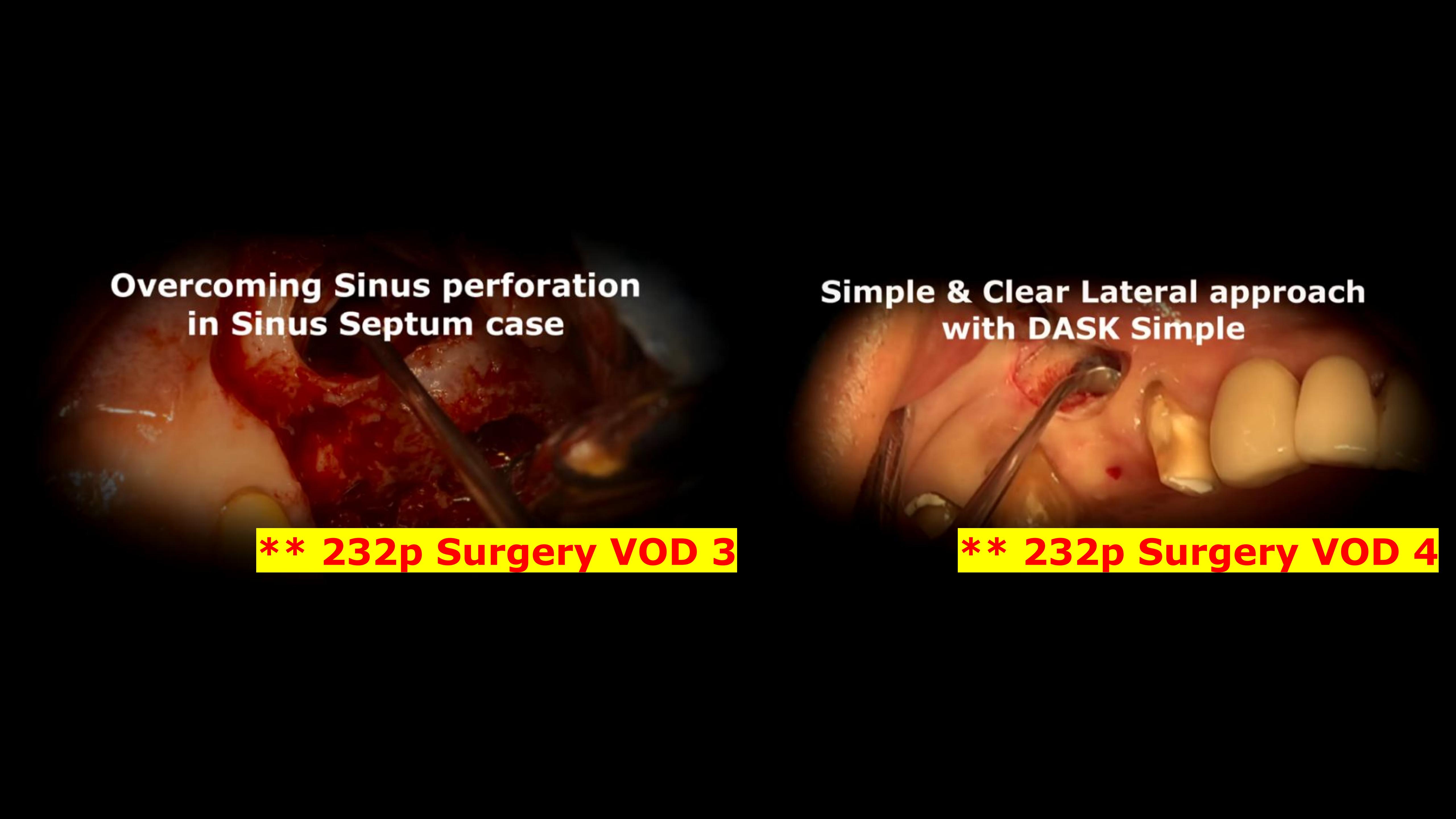


Final prosthesis (2023-08-09)





**Overcoming Sinus perforation  
in Sinus Septum case**

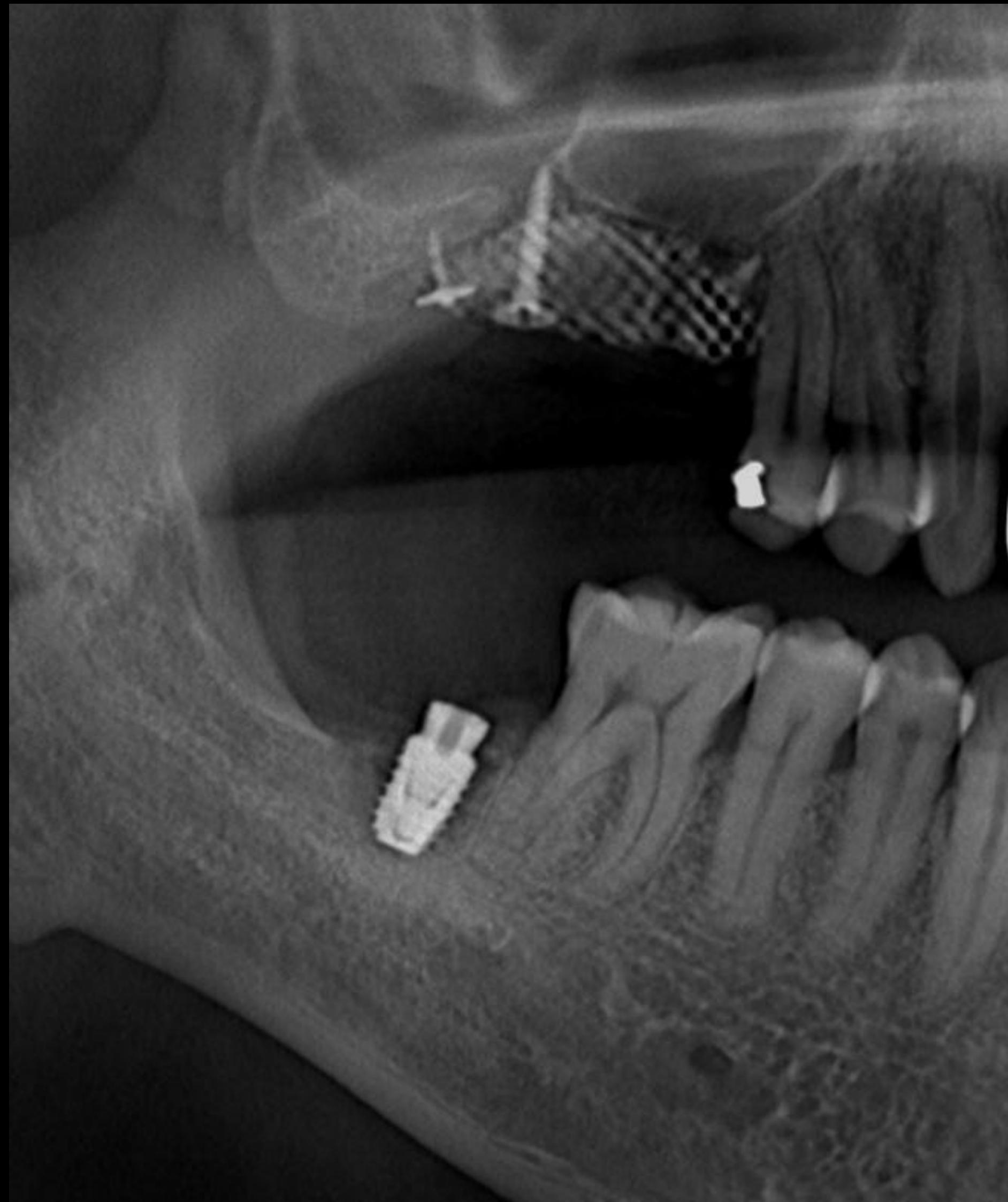


**Simple & Clear Lateral approach  
with DASK Simple**

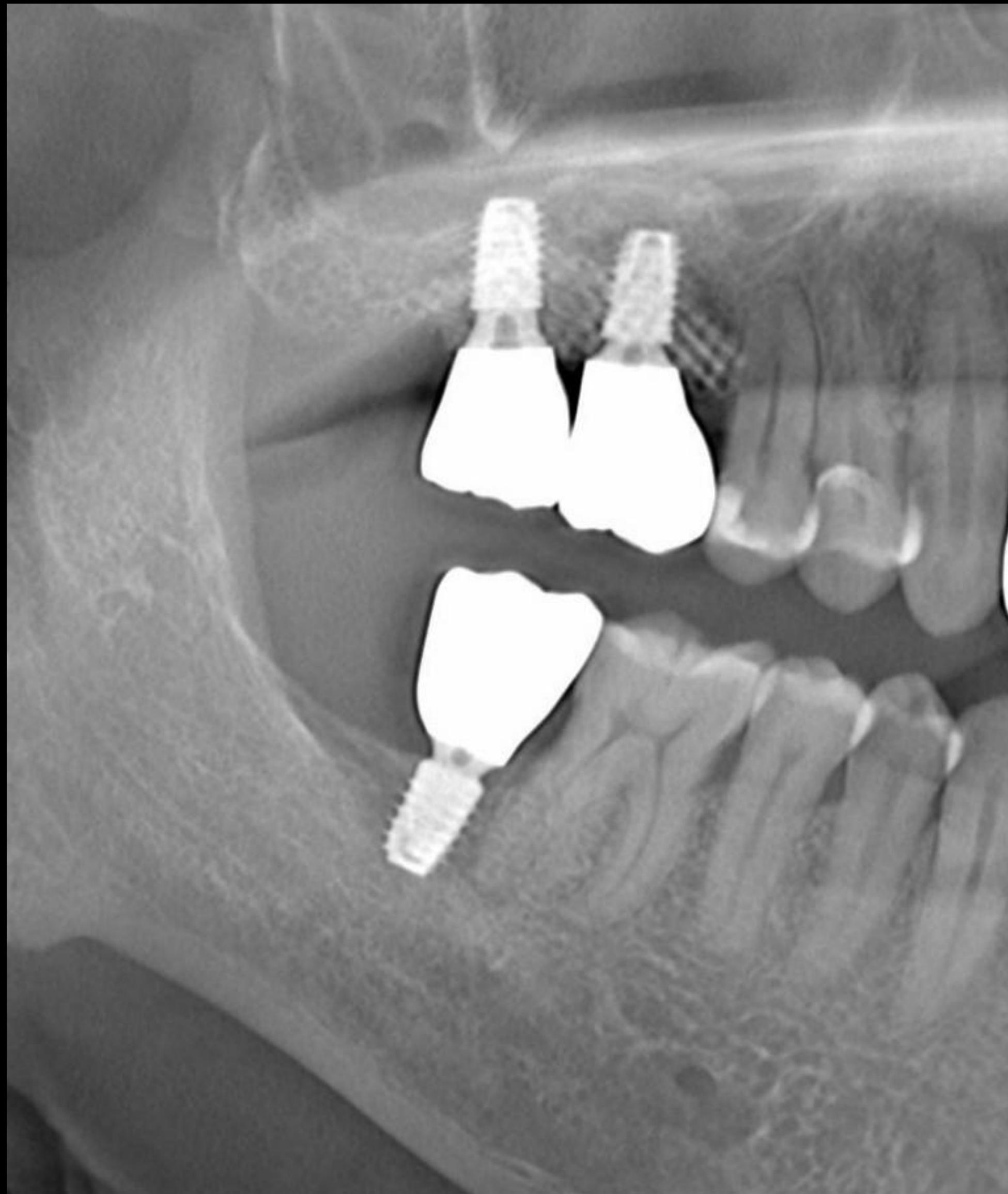
**\*\* 232p Surgery VOD 3**

**\*\* 232p Surgery VOD 4**

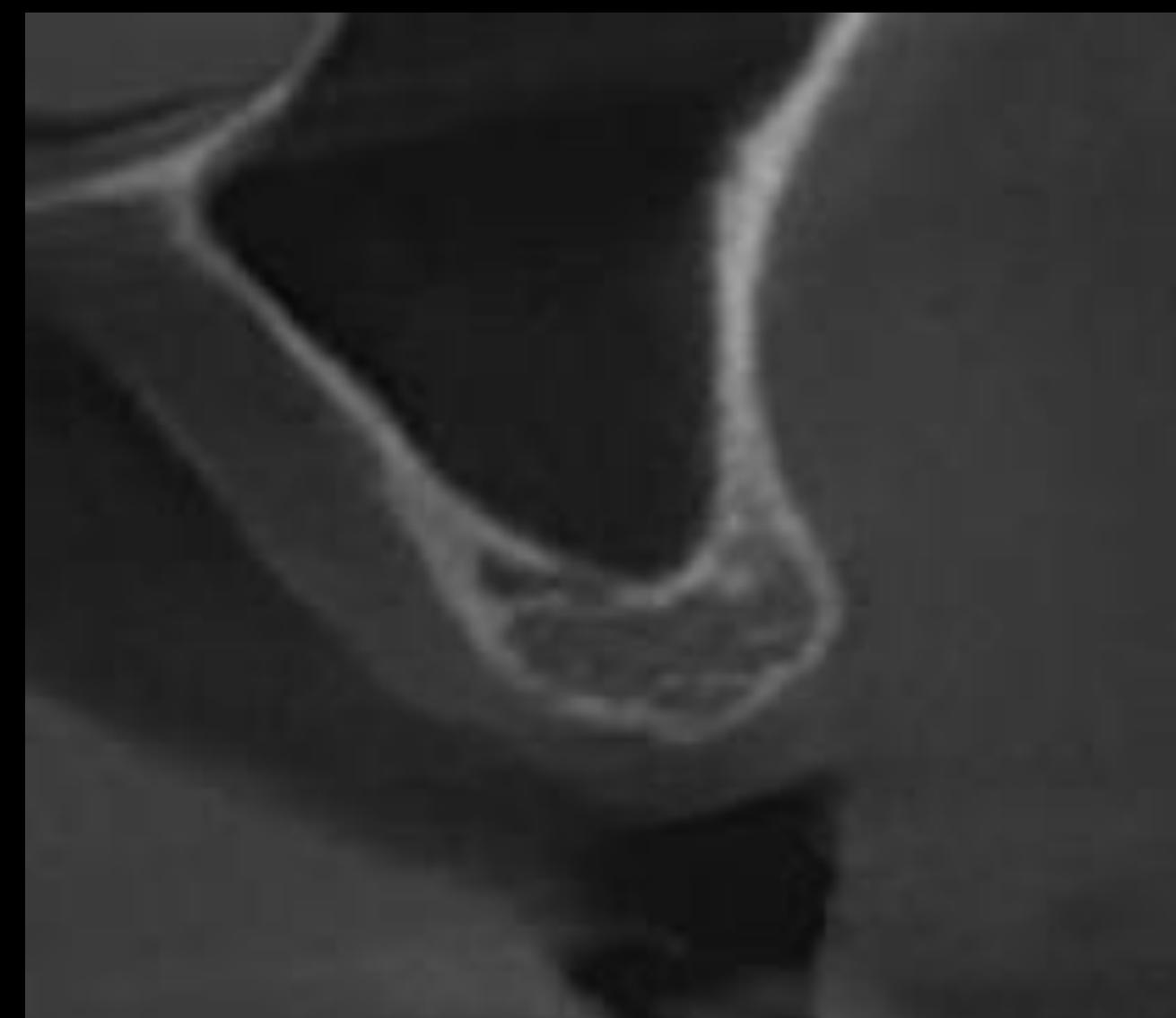
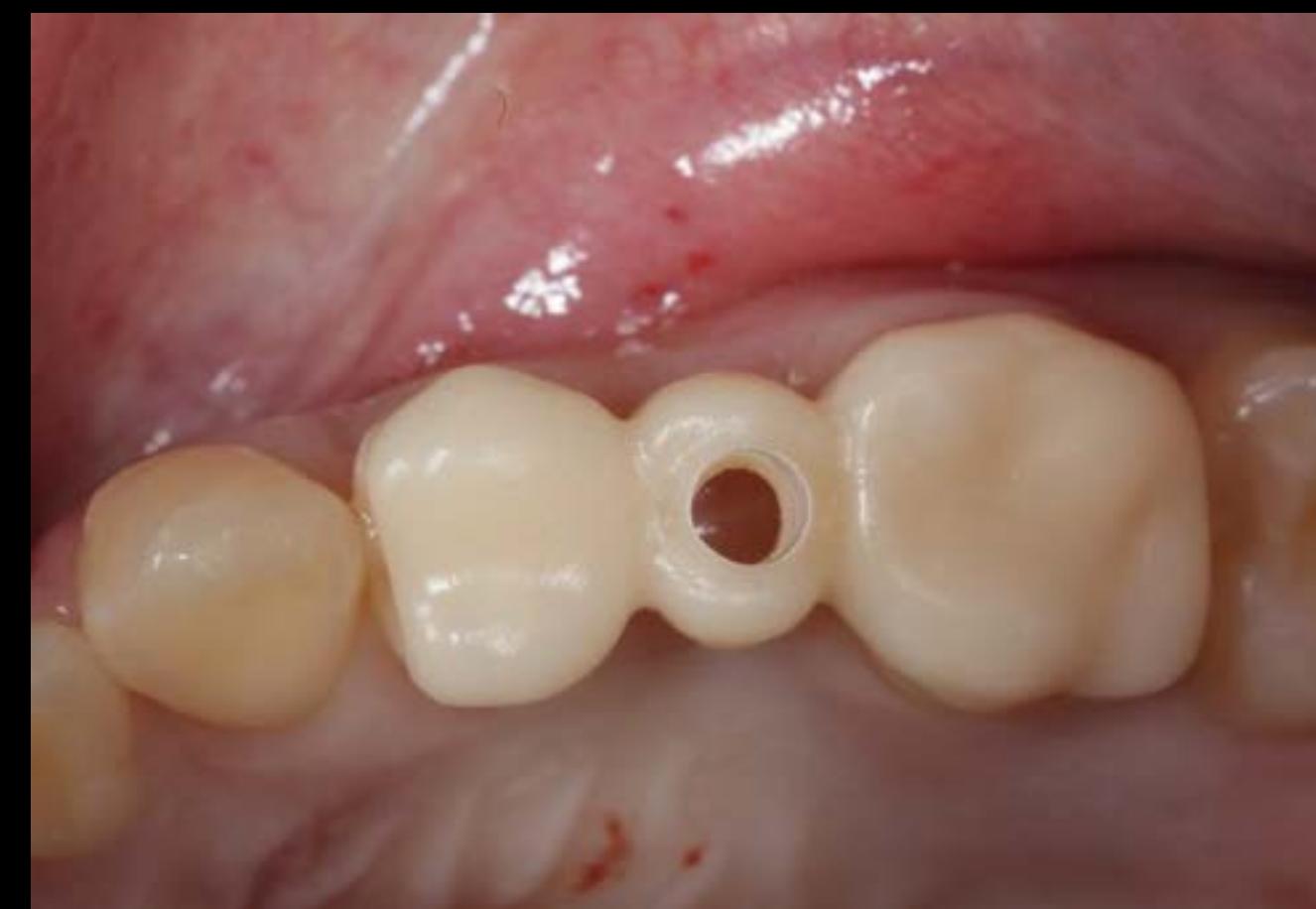
Post-op (2018-11-19)



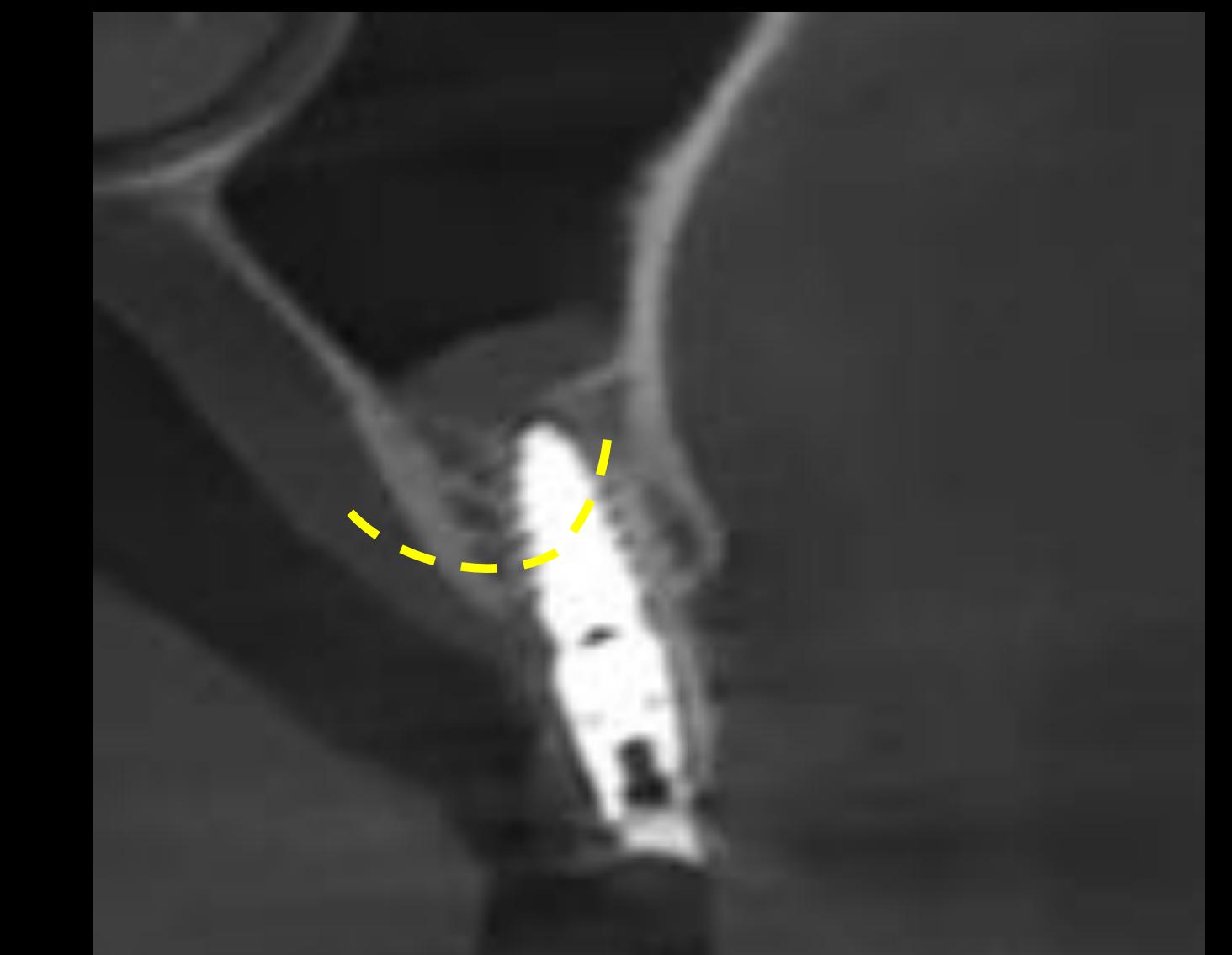
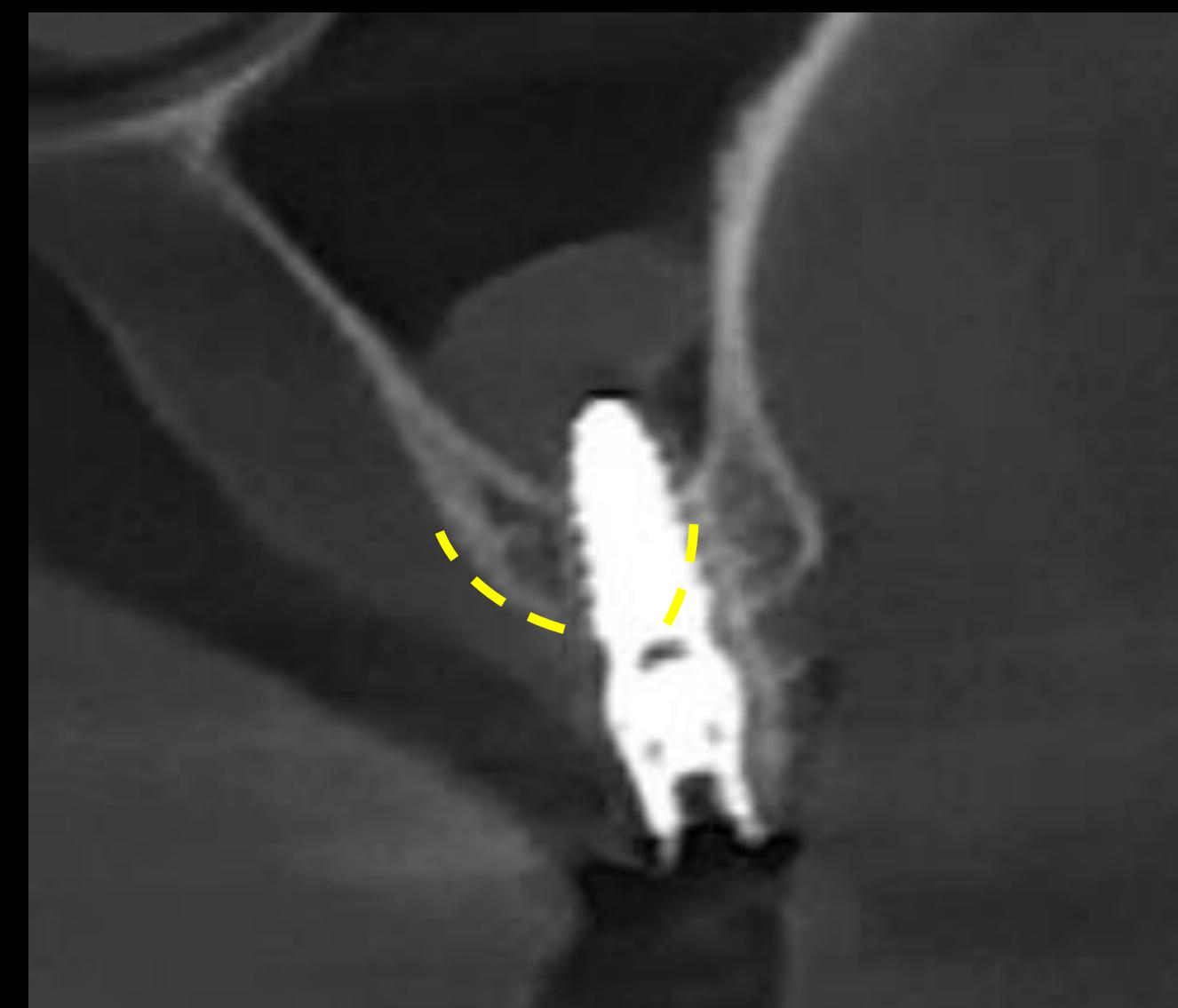
Final prosthesis (2020-07-23)



#15 I.S & bicortical (collagen graft2)



Pre-OP



Clear slinger for 26 distal driving with the implant anchor





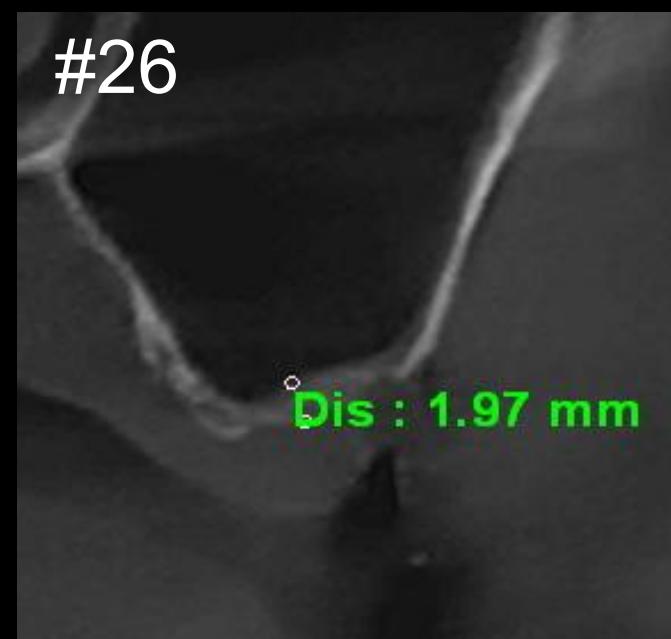


# Crestal Approach with DASK Simple

Dentium Dental Clinic  
Dr. SM Chung

\*\* 239p Surgery VOD 5

# Crestal Approach Clinical CASE



Pre-op CT



Post-op CT



Healing CT : 4M

➤ “Does **Collagen Graft** first layering enhance the performance of **OSTEON Xeno** or **OSTEON 3**?

➤ Can the **Crestal approach** be used in cases with 1–3 mm residual bone height?



Minimal invasive



Guide drilling



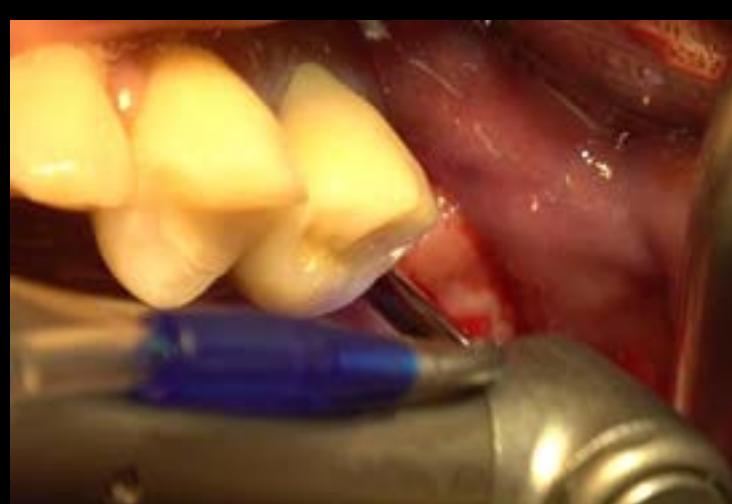
Sinus elevation



Collagen Graft x1D



Bone graft lifting



Bone graft spreading OSTEON™ Xeno Collagen



Bone graft lifting



bright TL (Ø4.5 X 7.0)



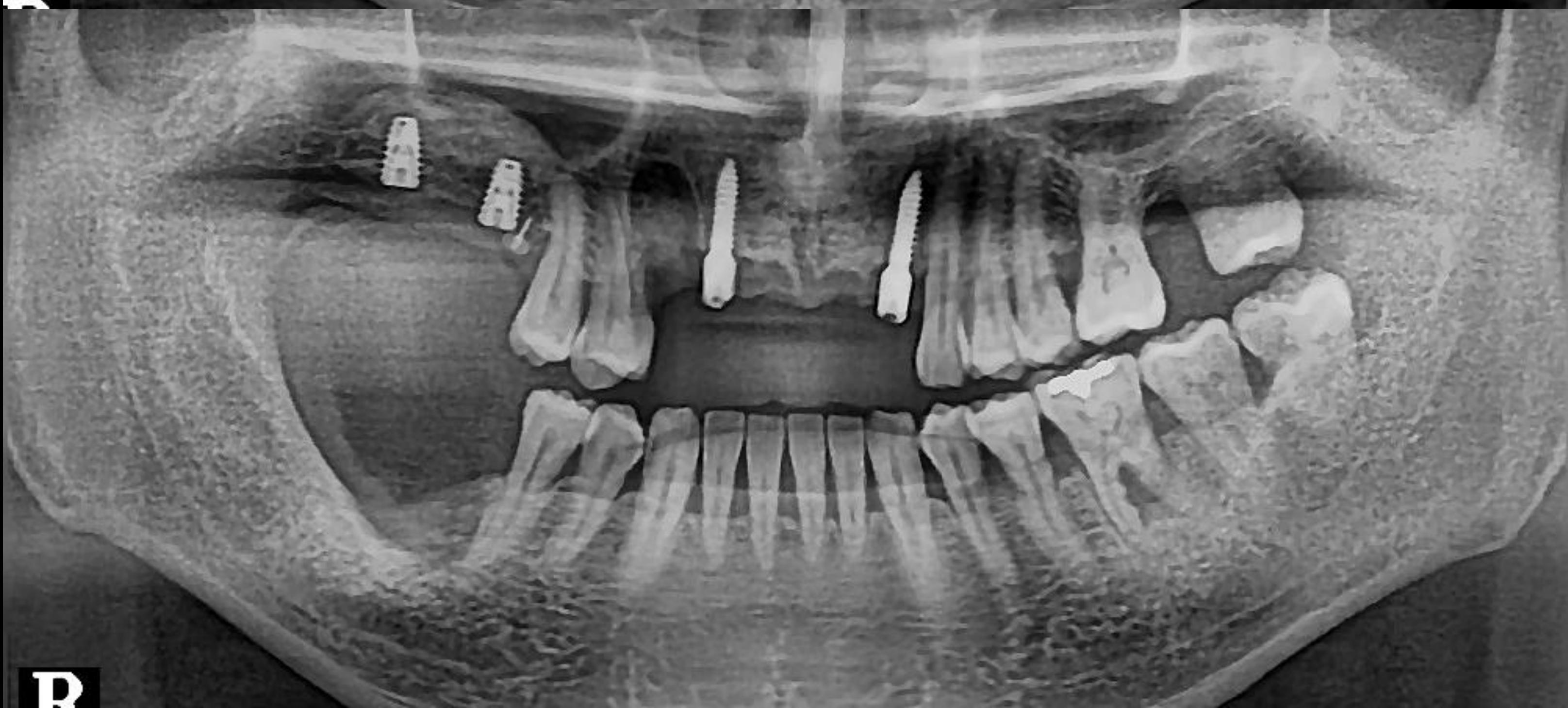
Healing : 1 month

Sinus lifting with **Collagen Graft** & Bone grafting with **OSTEON Xeno Collagen**

Pre-op (2025-08-08)



Post-op (2025-08-08)

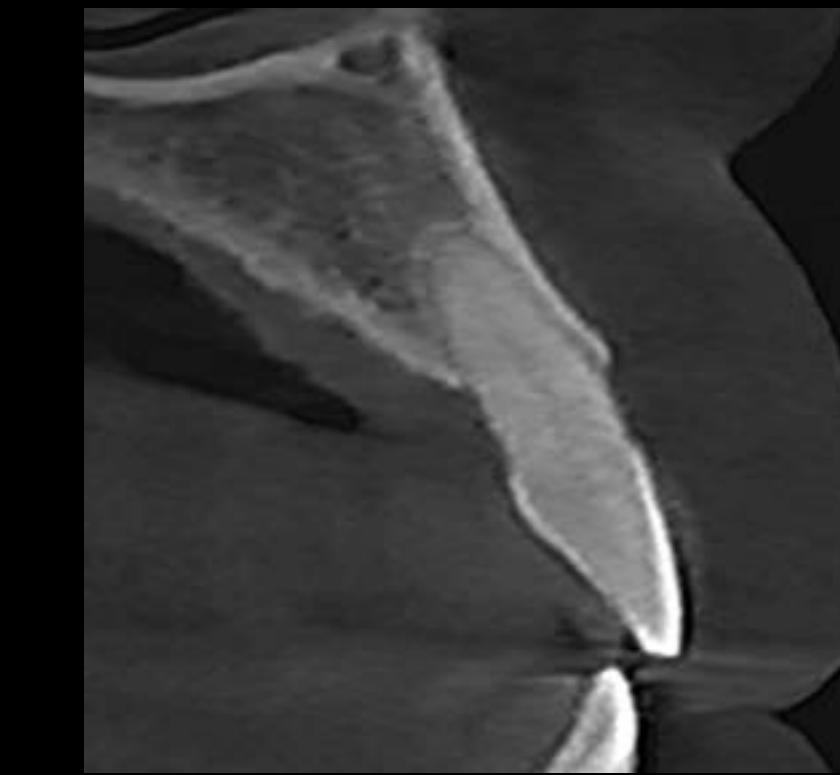


R

Pre-op CT (2025-08-08)



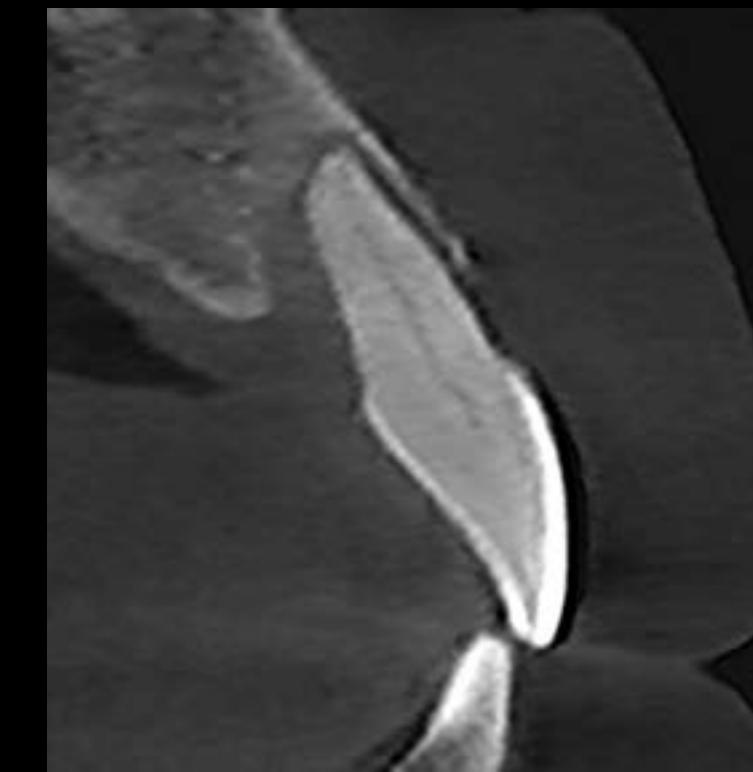
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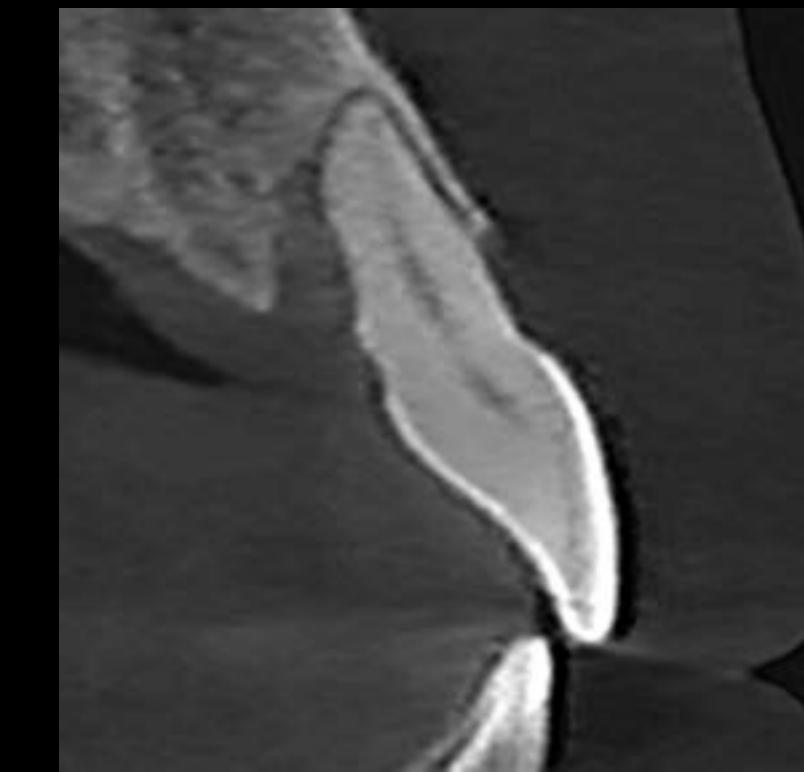
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#13

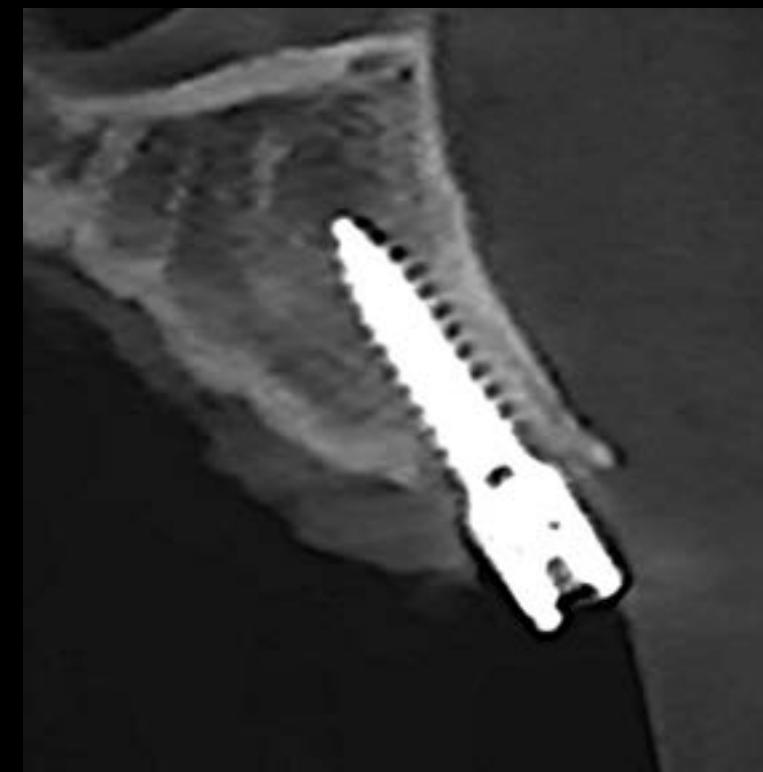


#11



#21

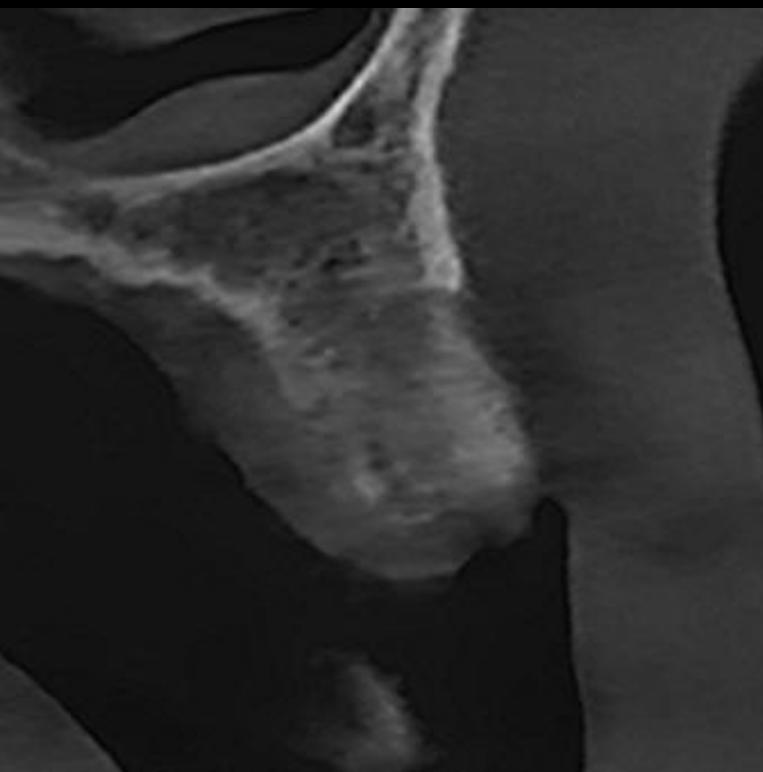
Post-op CT (2025-08-08)



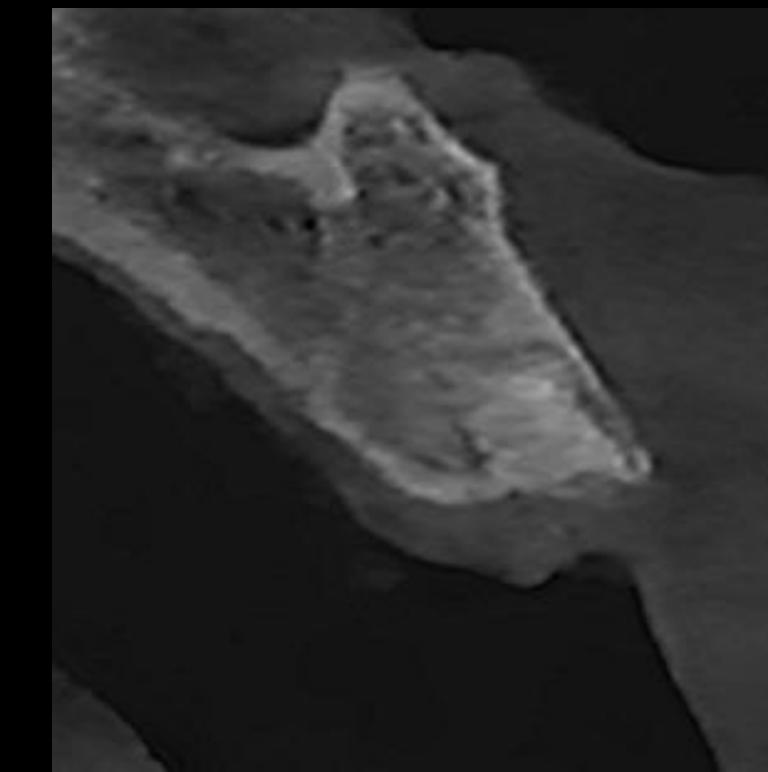
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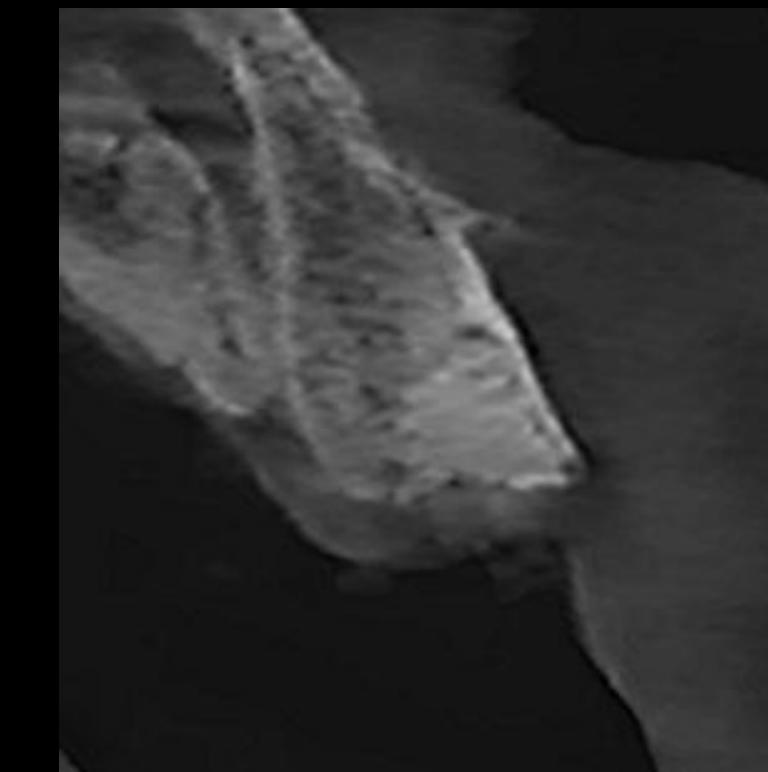
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#13

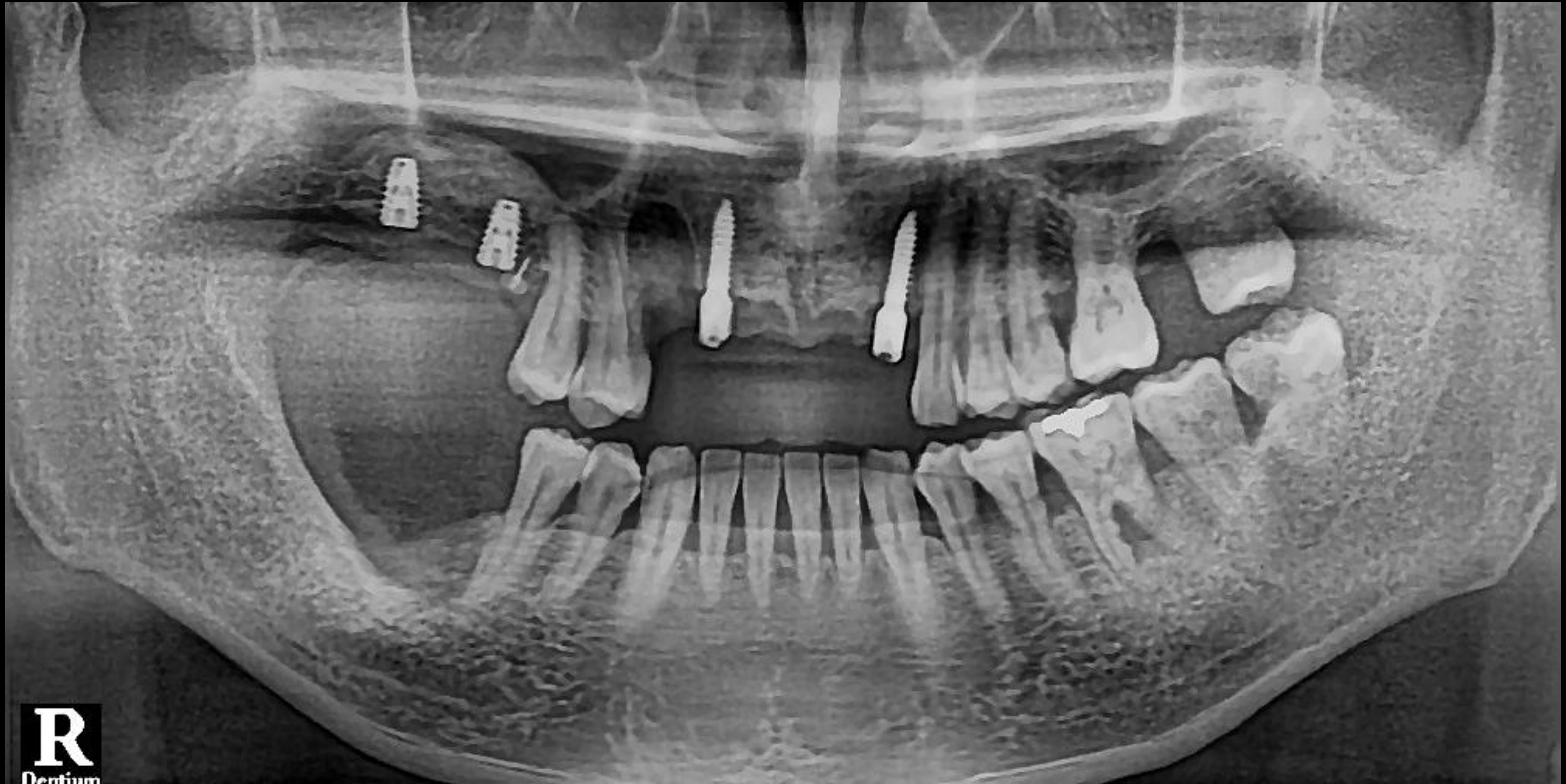


#11



#21

Post-op (2025-08-08)

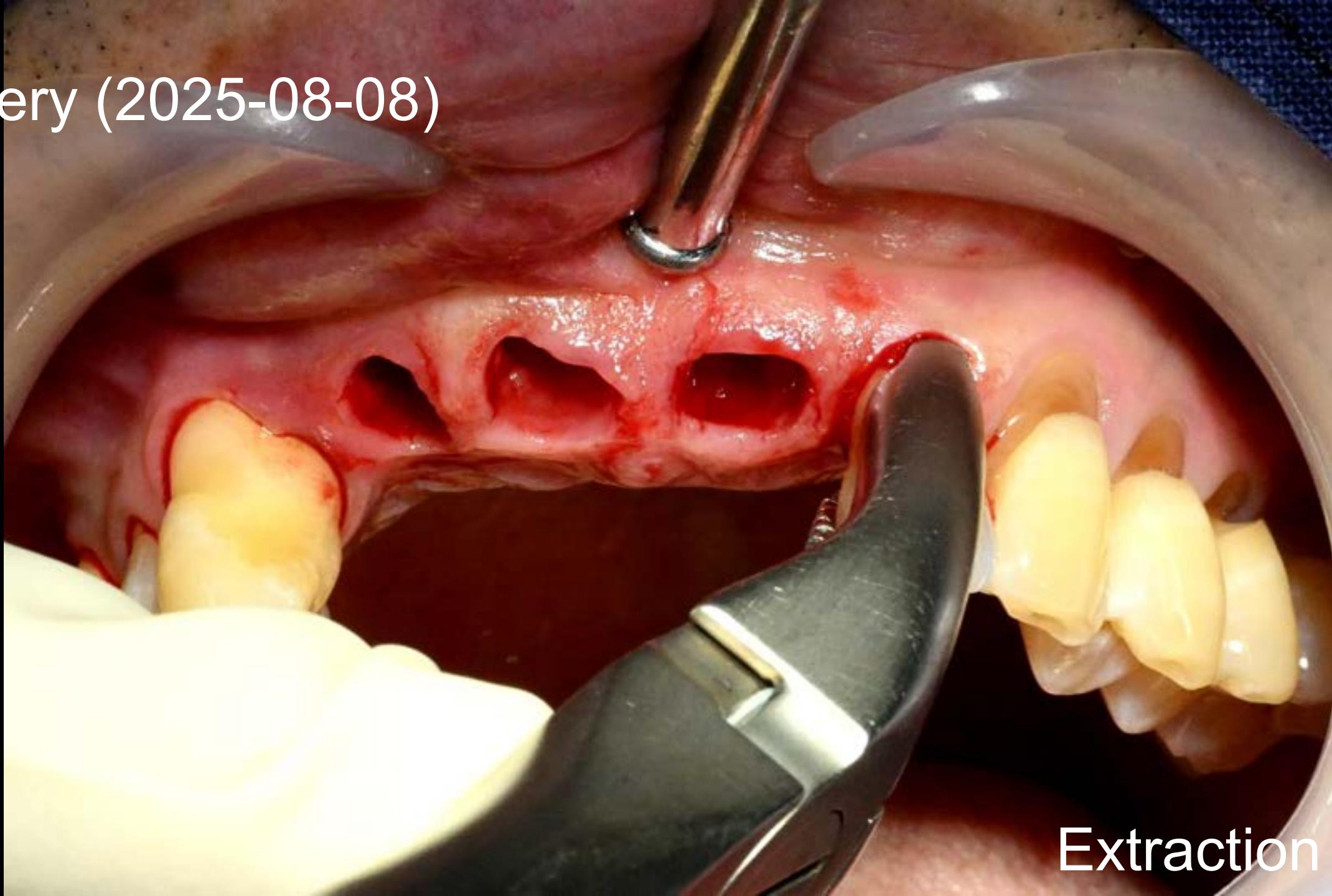


**R**  
Dentium

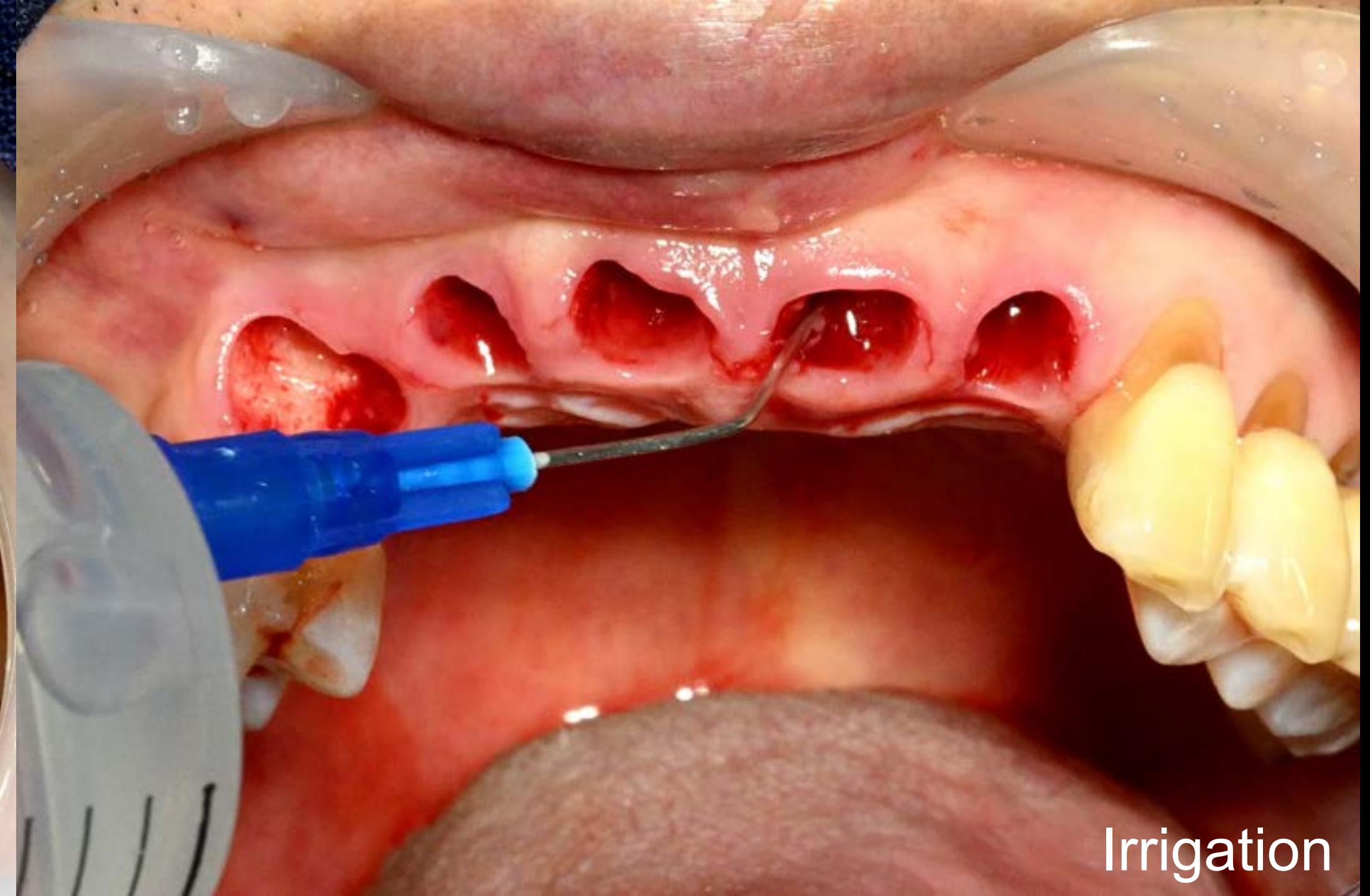
Pre-op (2025-08-08)



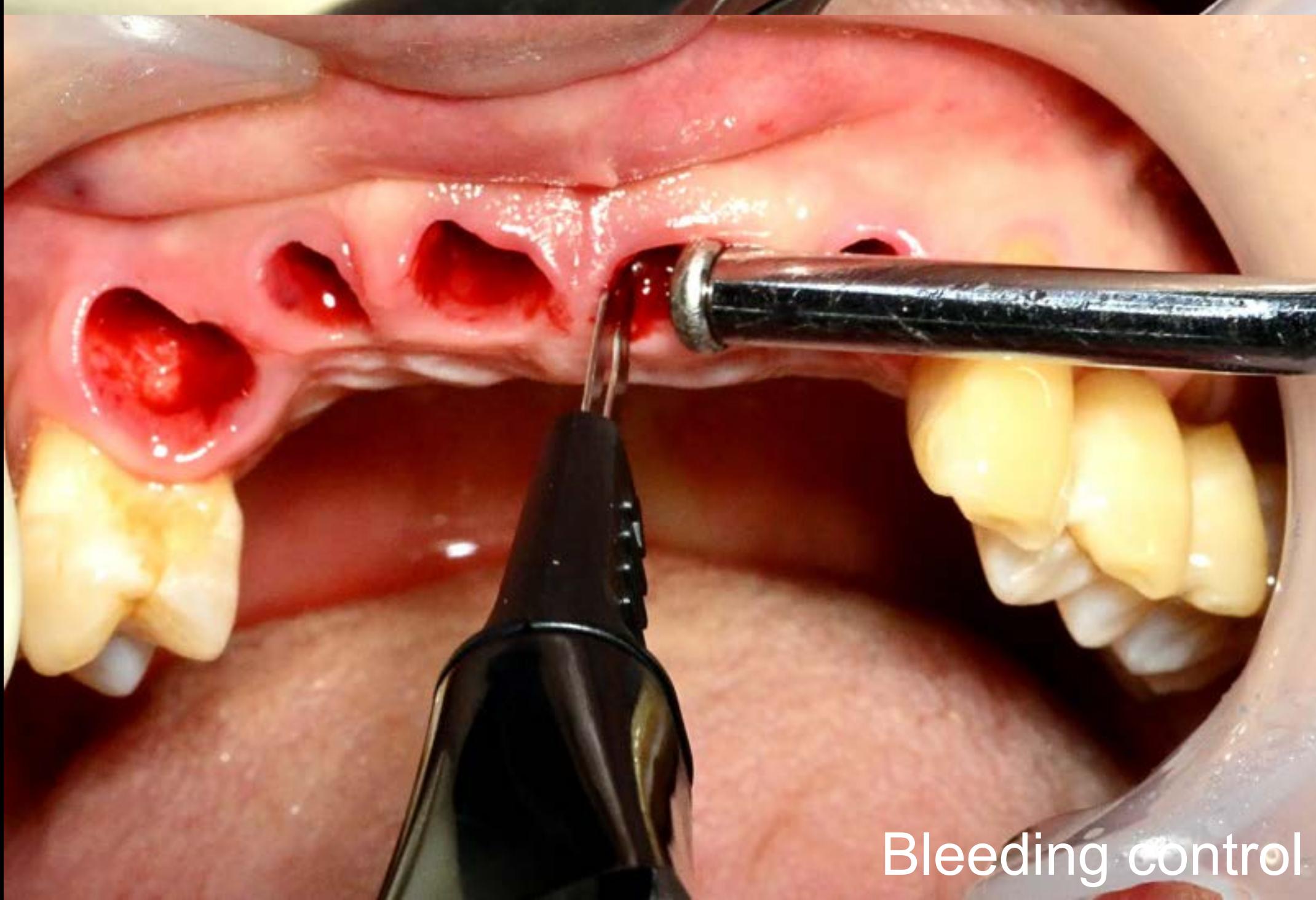
Surgery (2025-08-08)



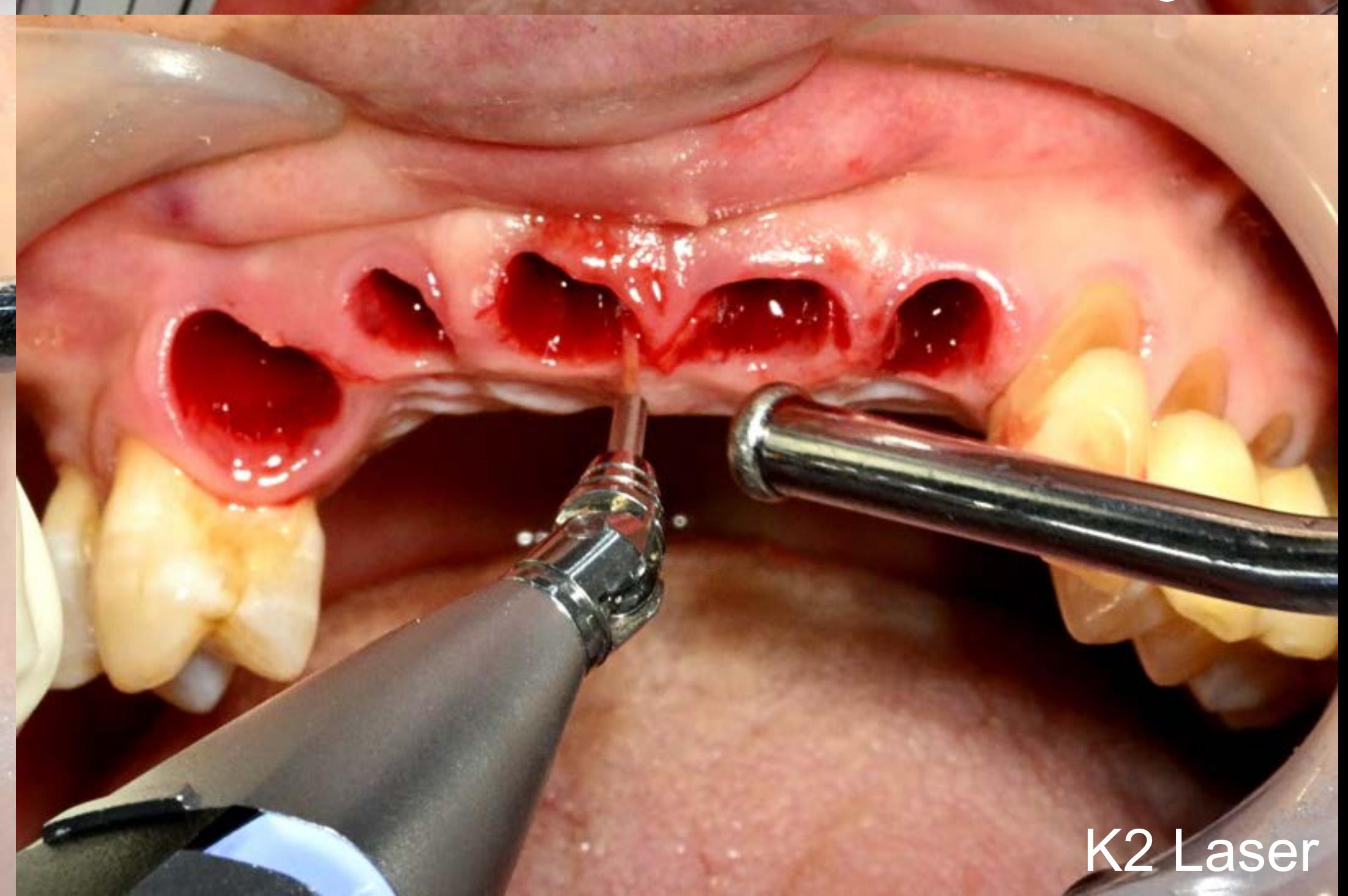
Extraction



Irrigation

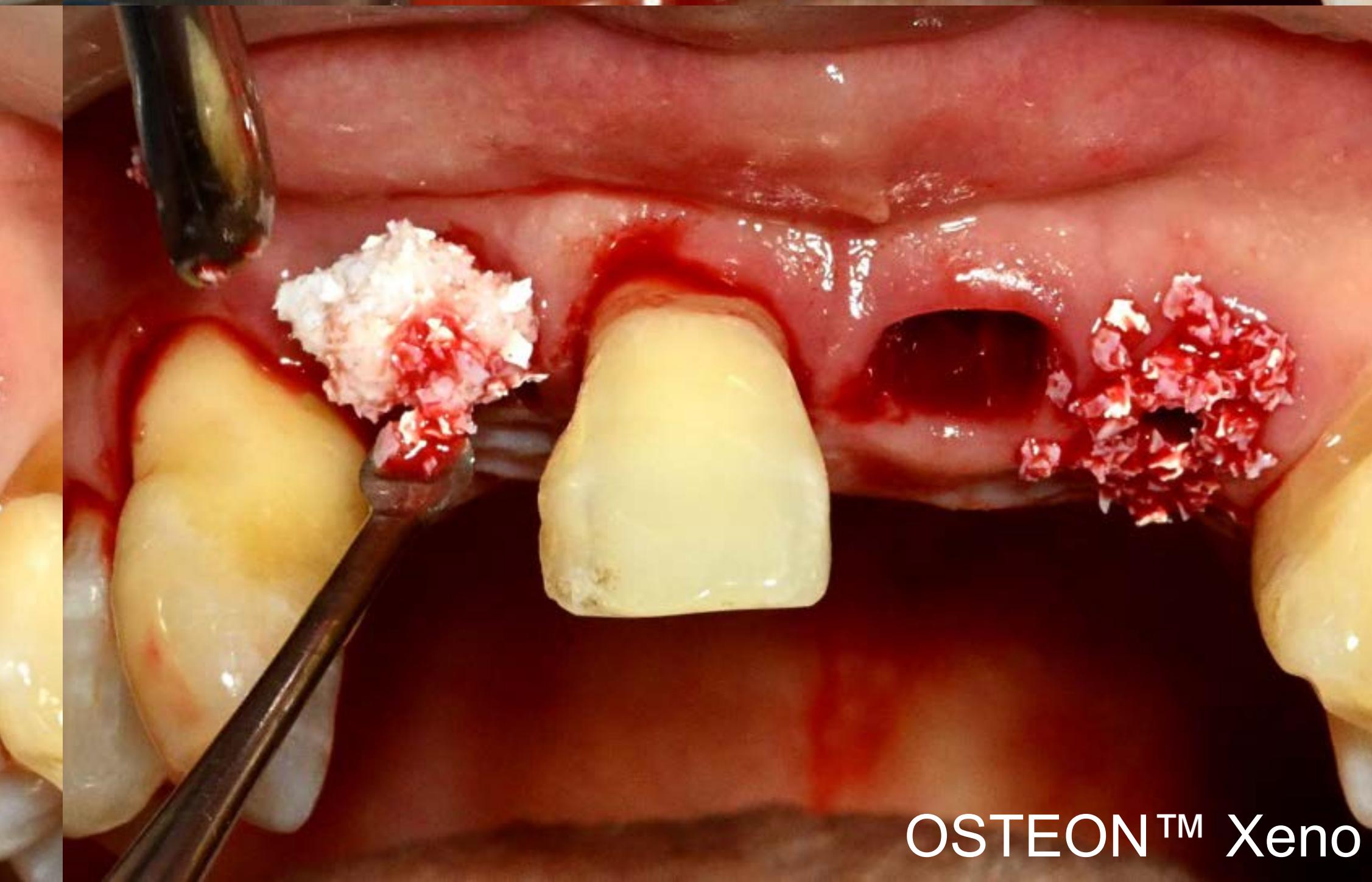
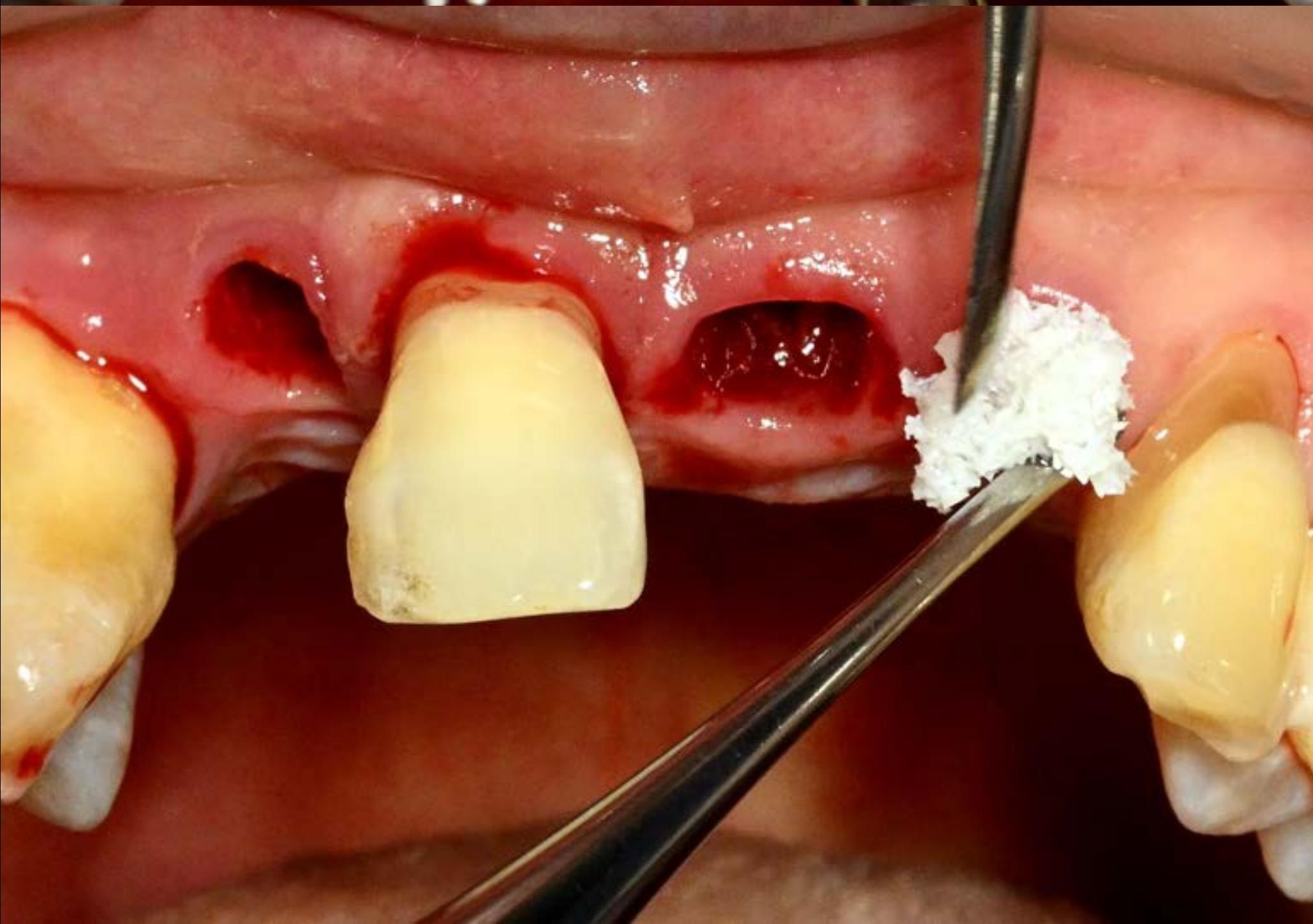
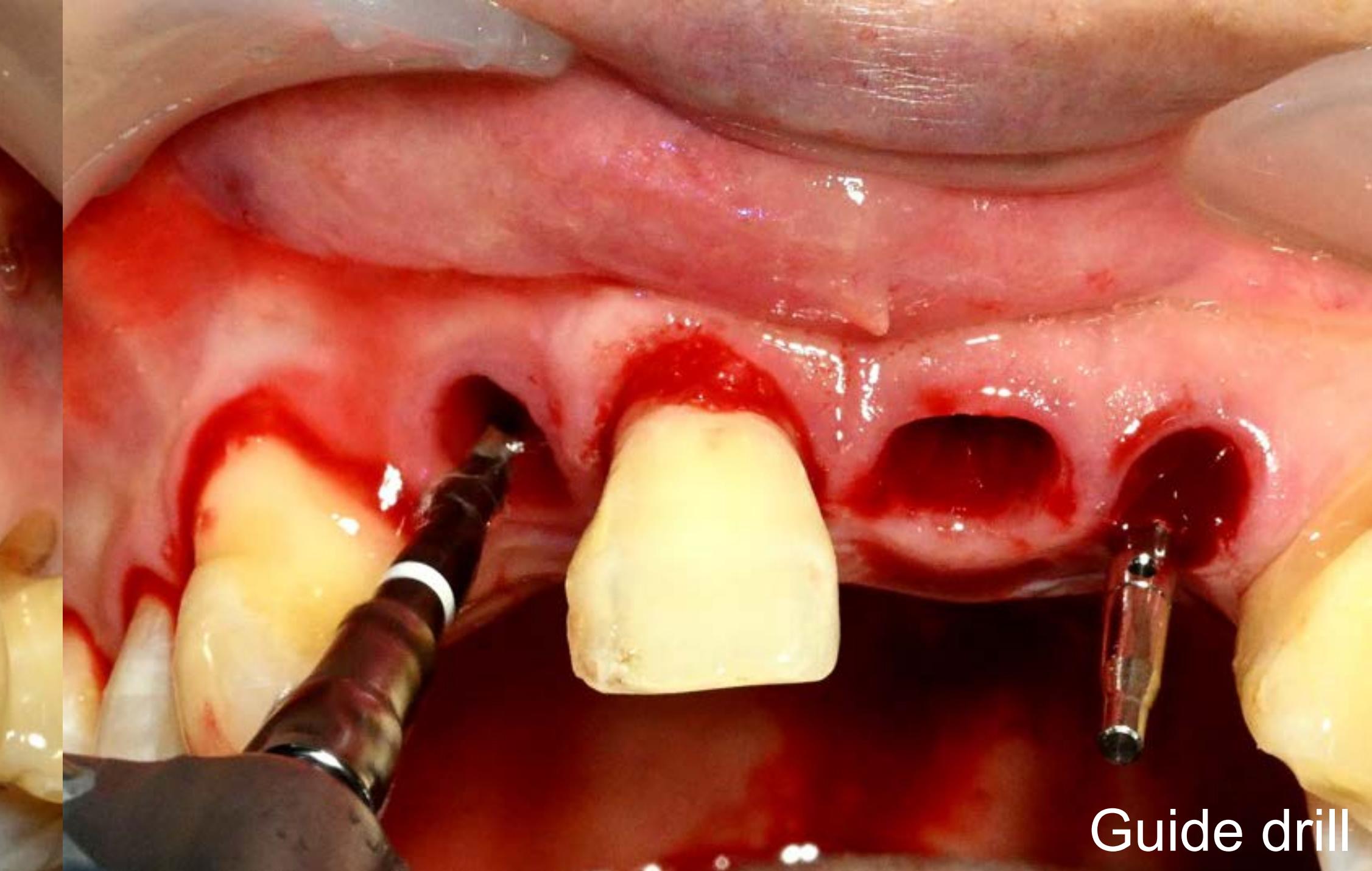


Bleeding control



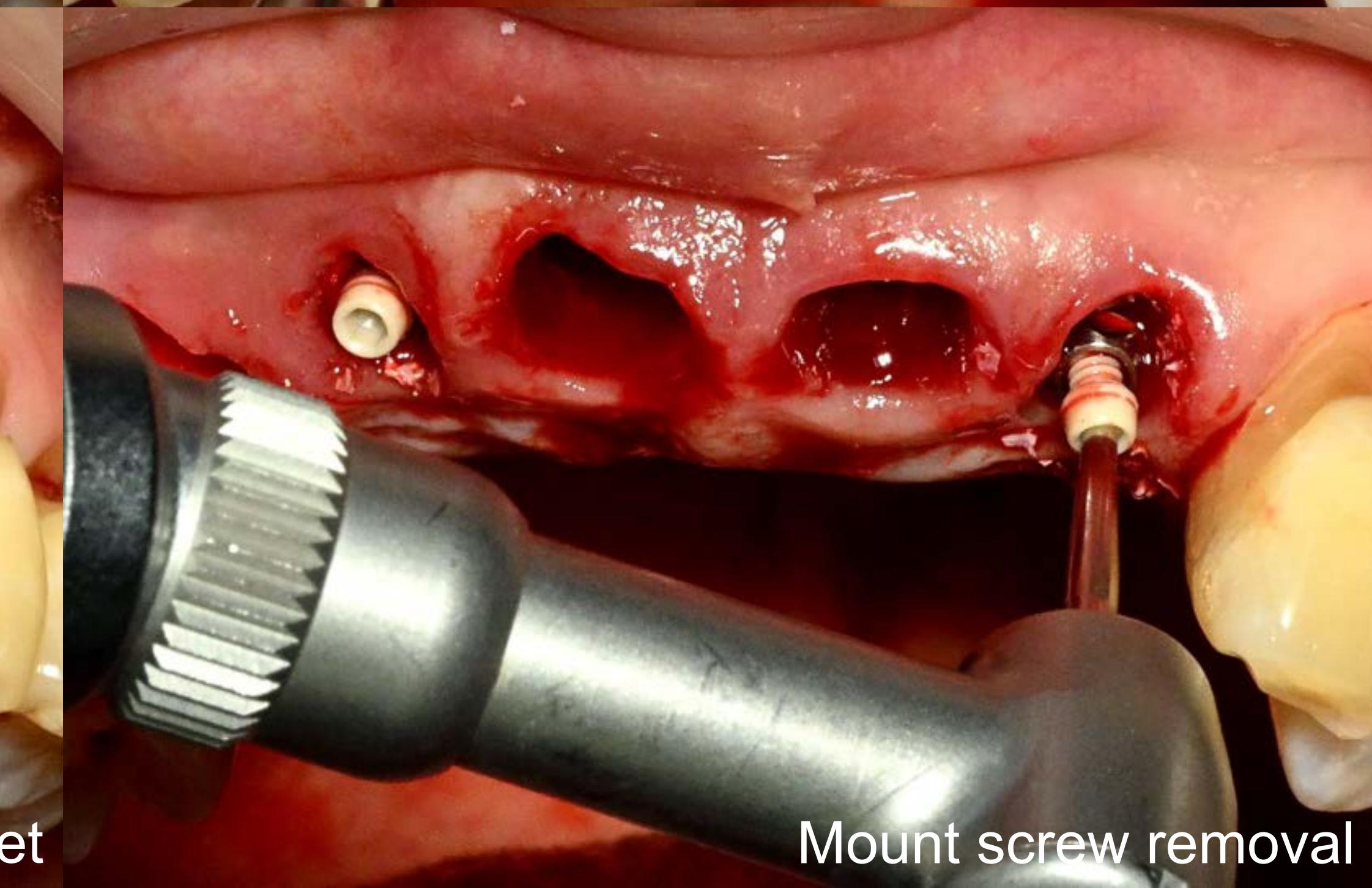
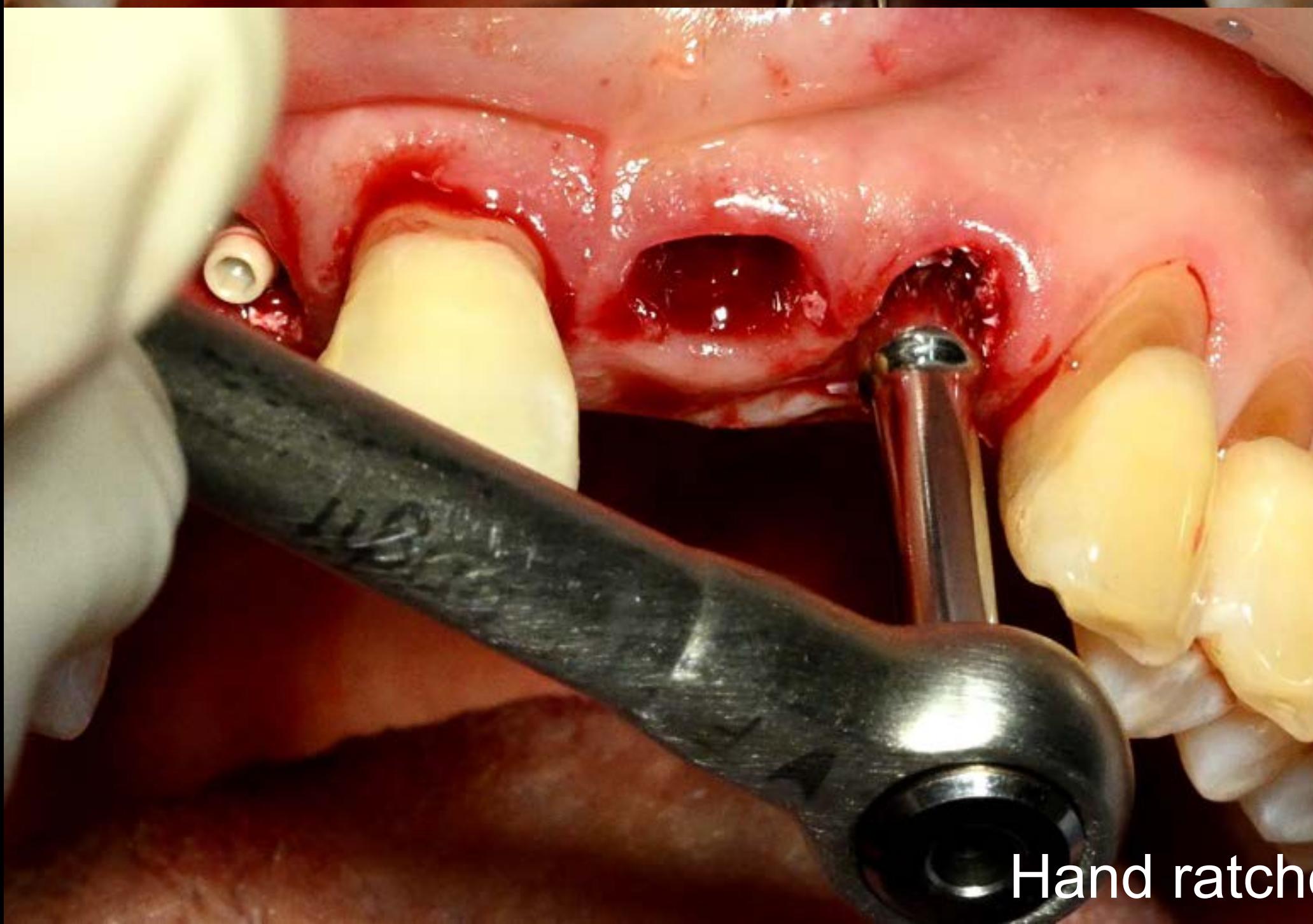
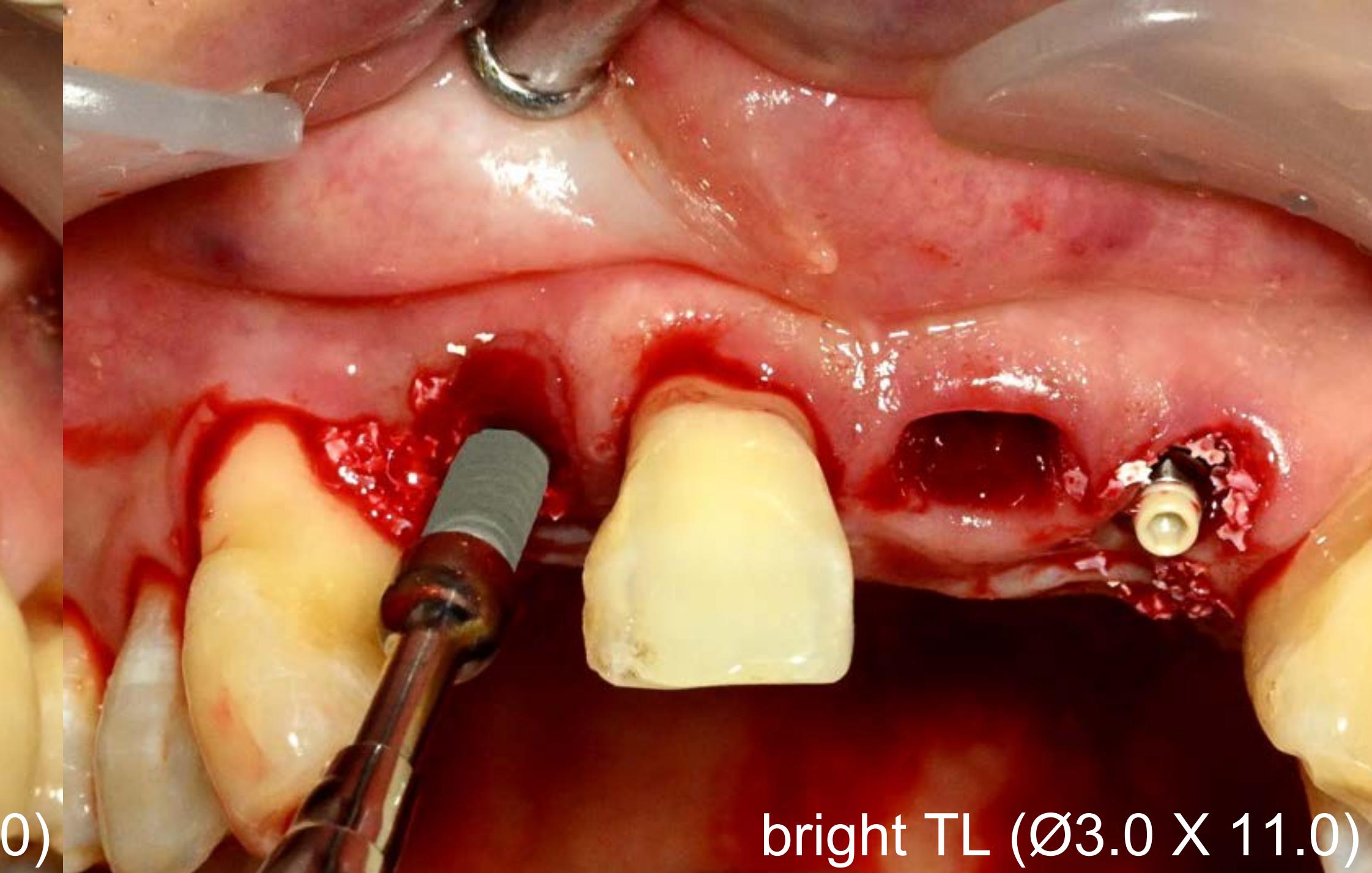
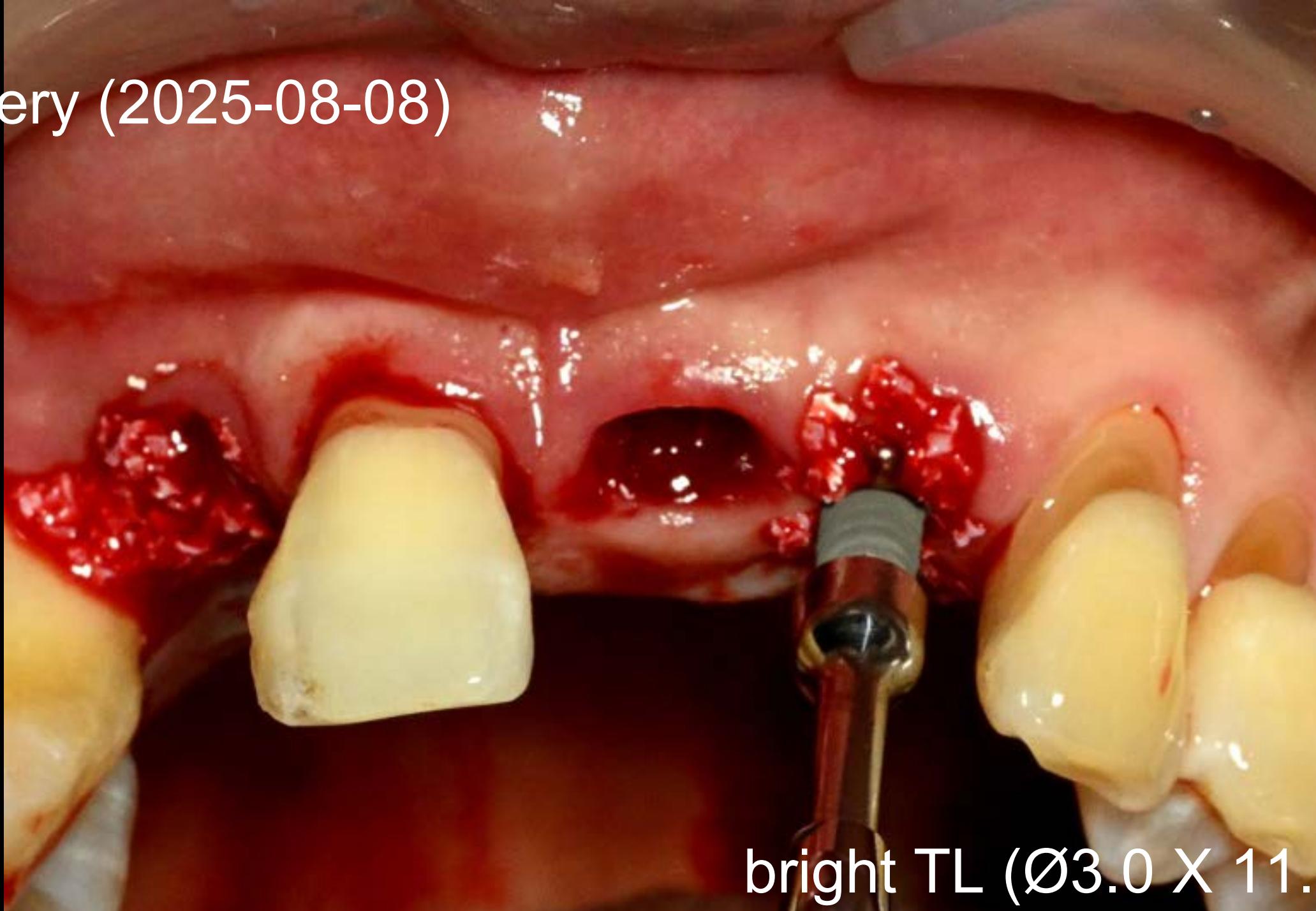
K2 Laser

Surgery (2025-08-08)

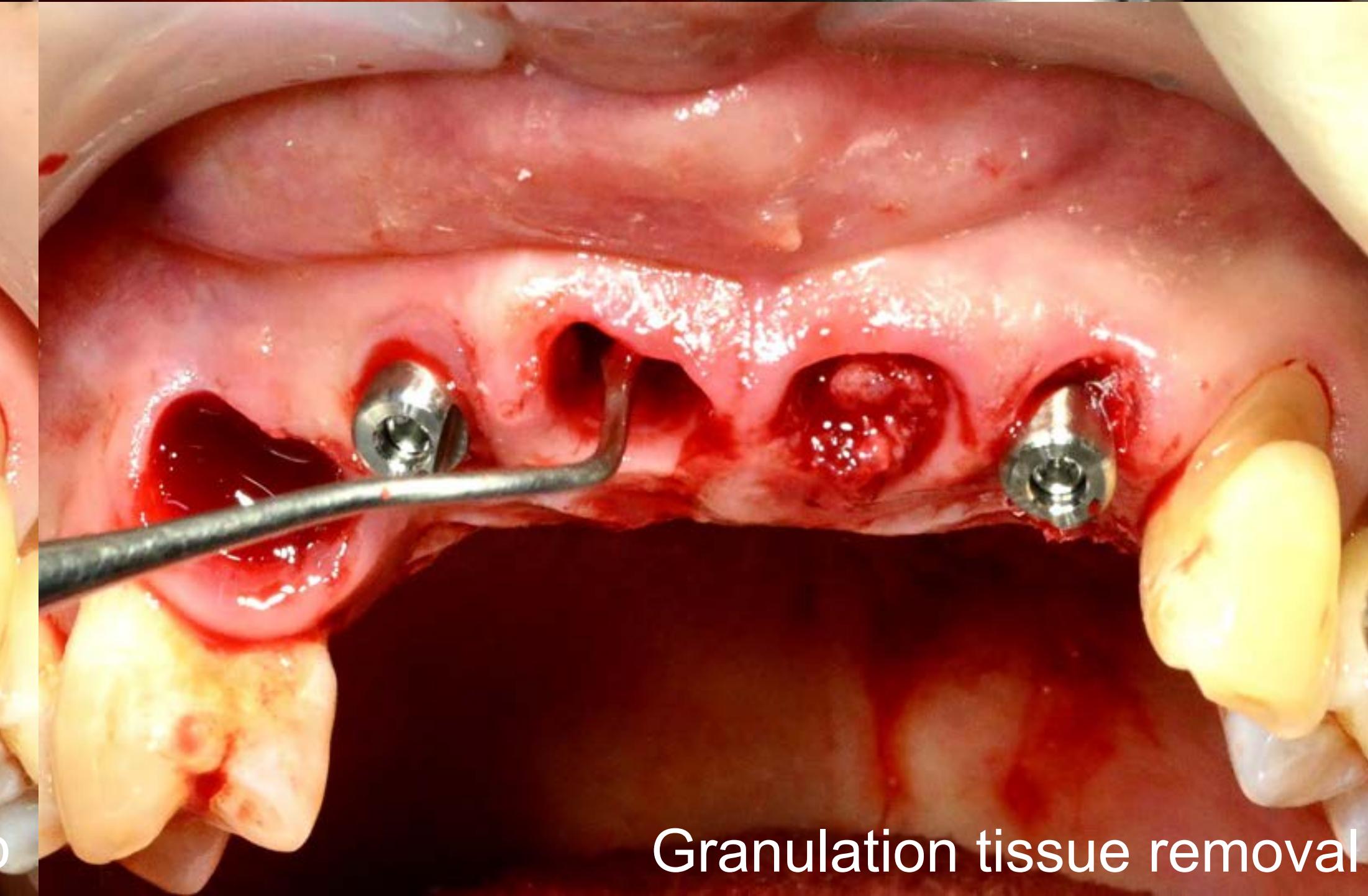
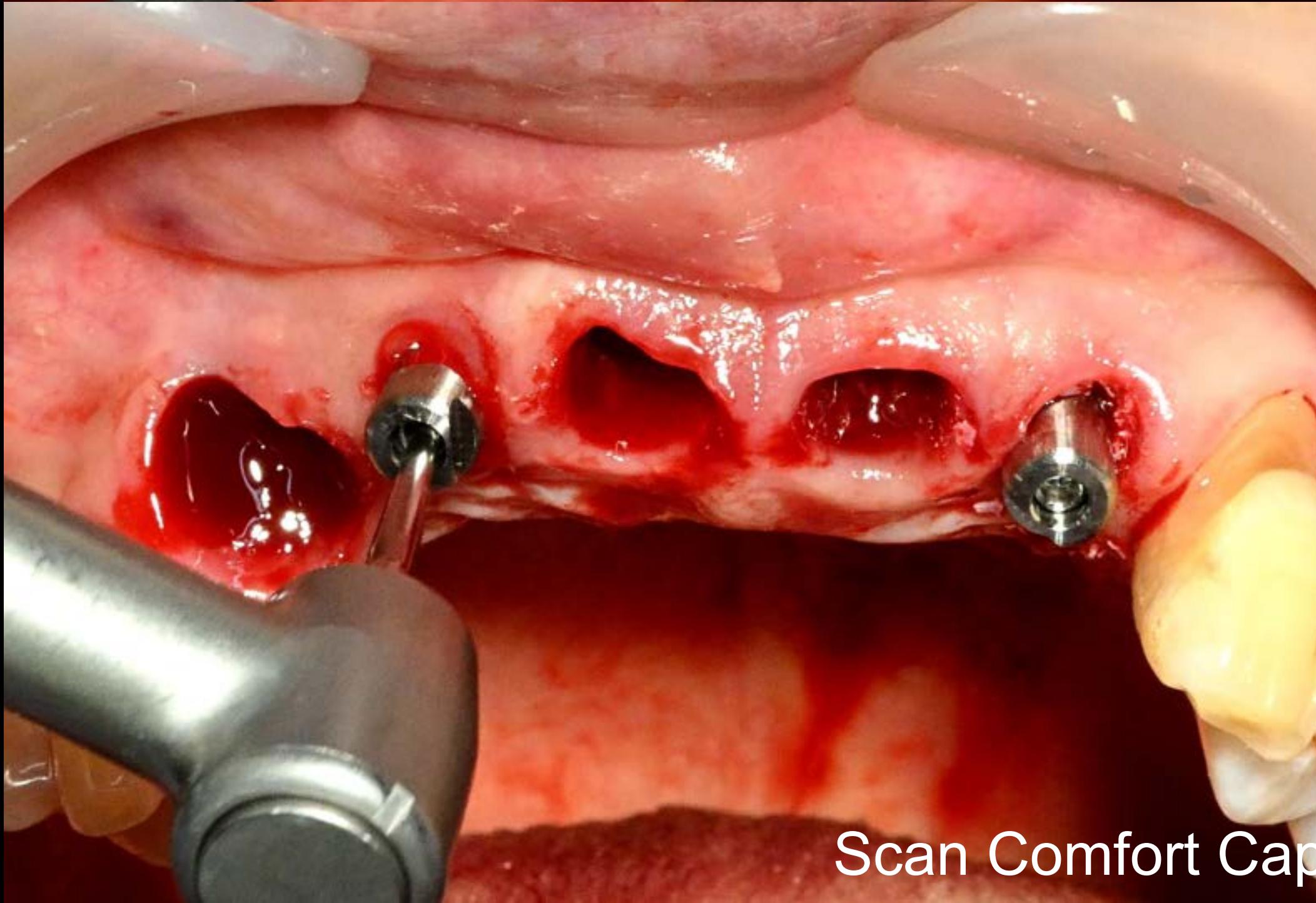
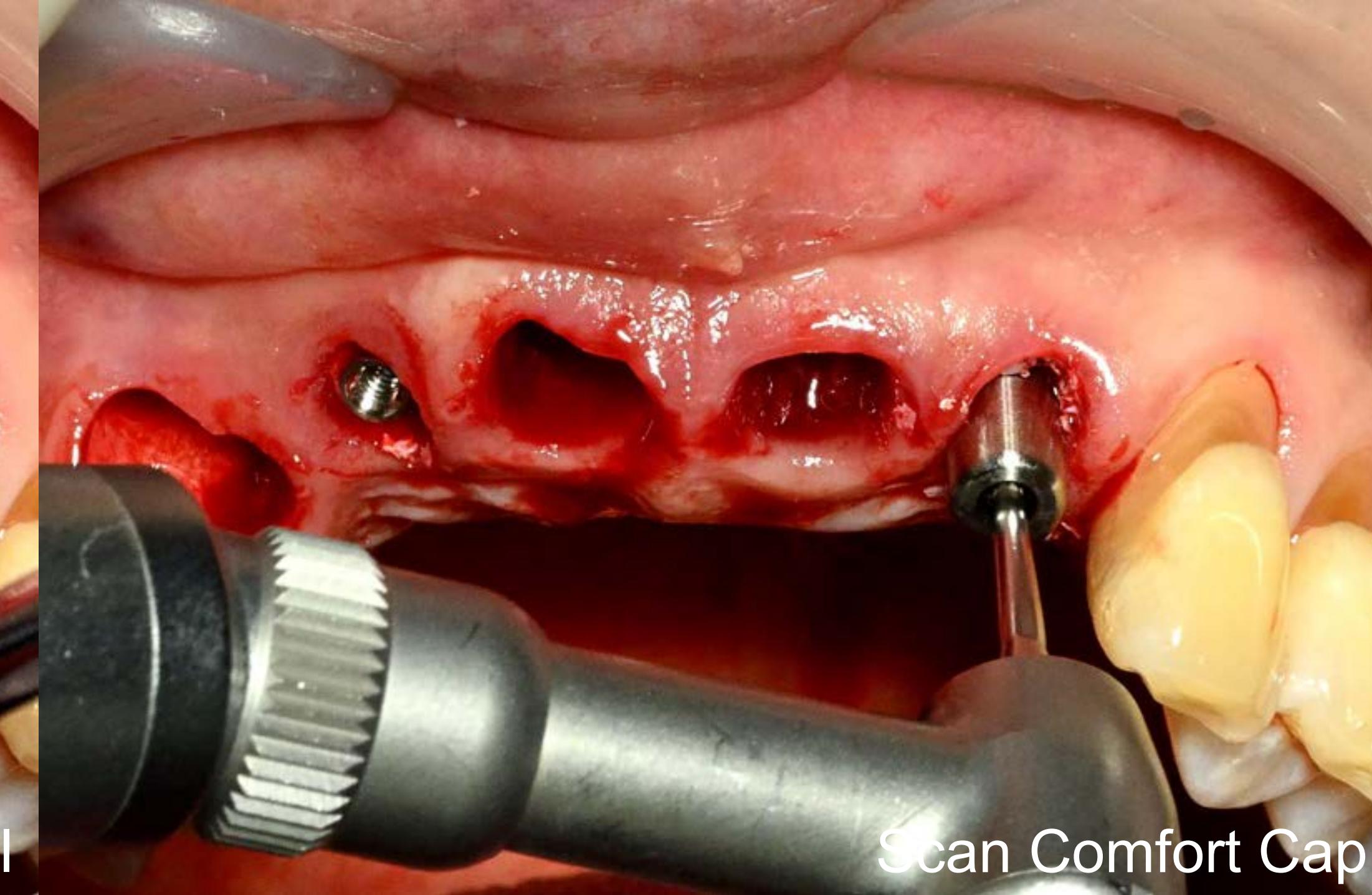
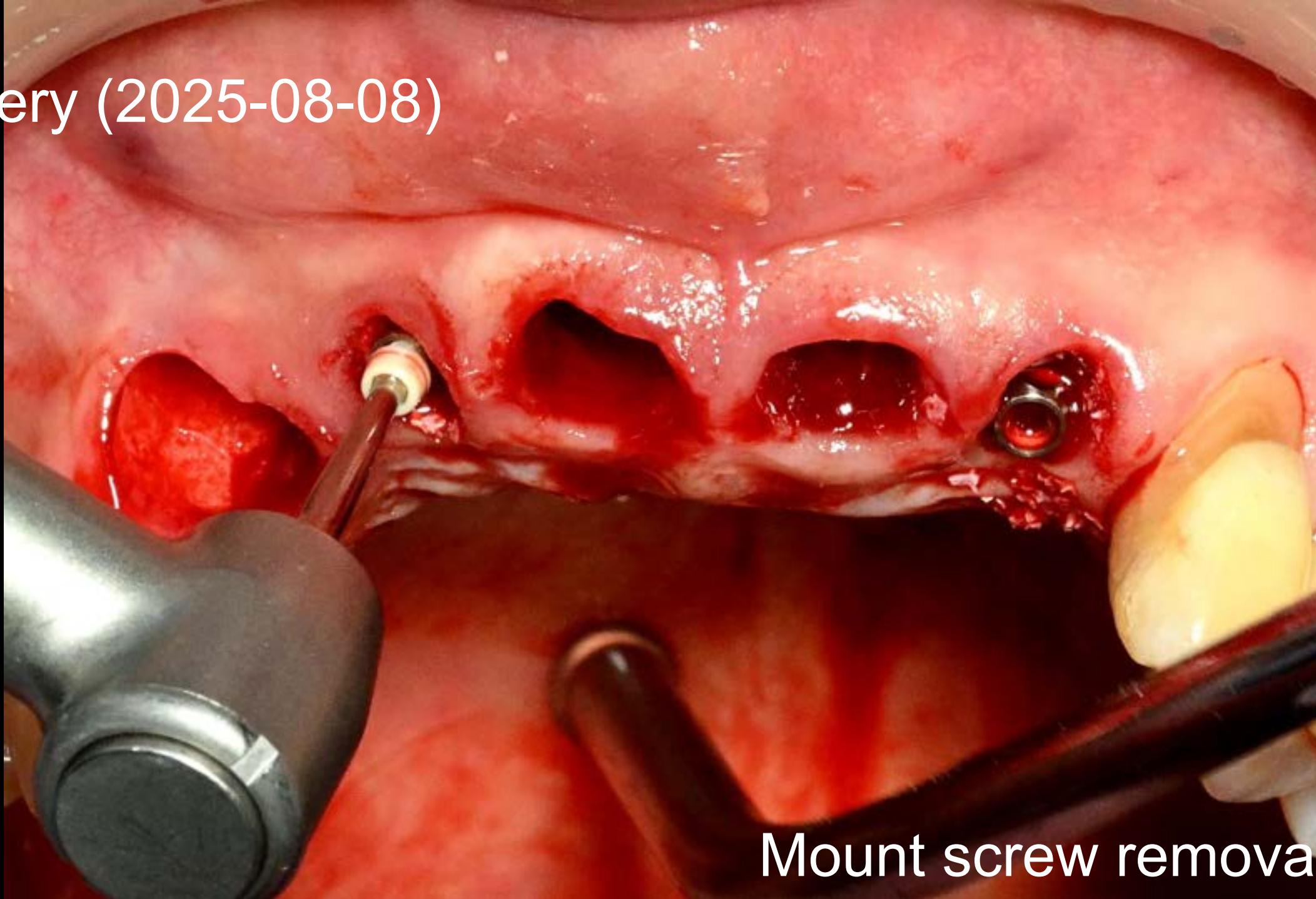


OSTEON™ Xeno

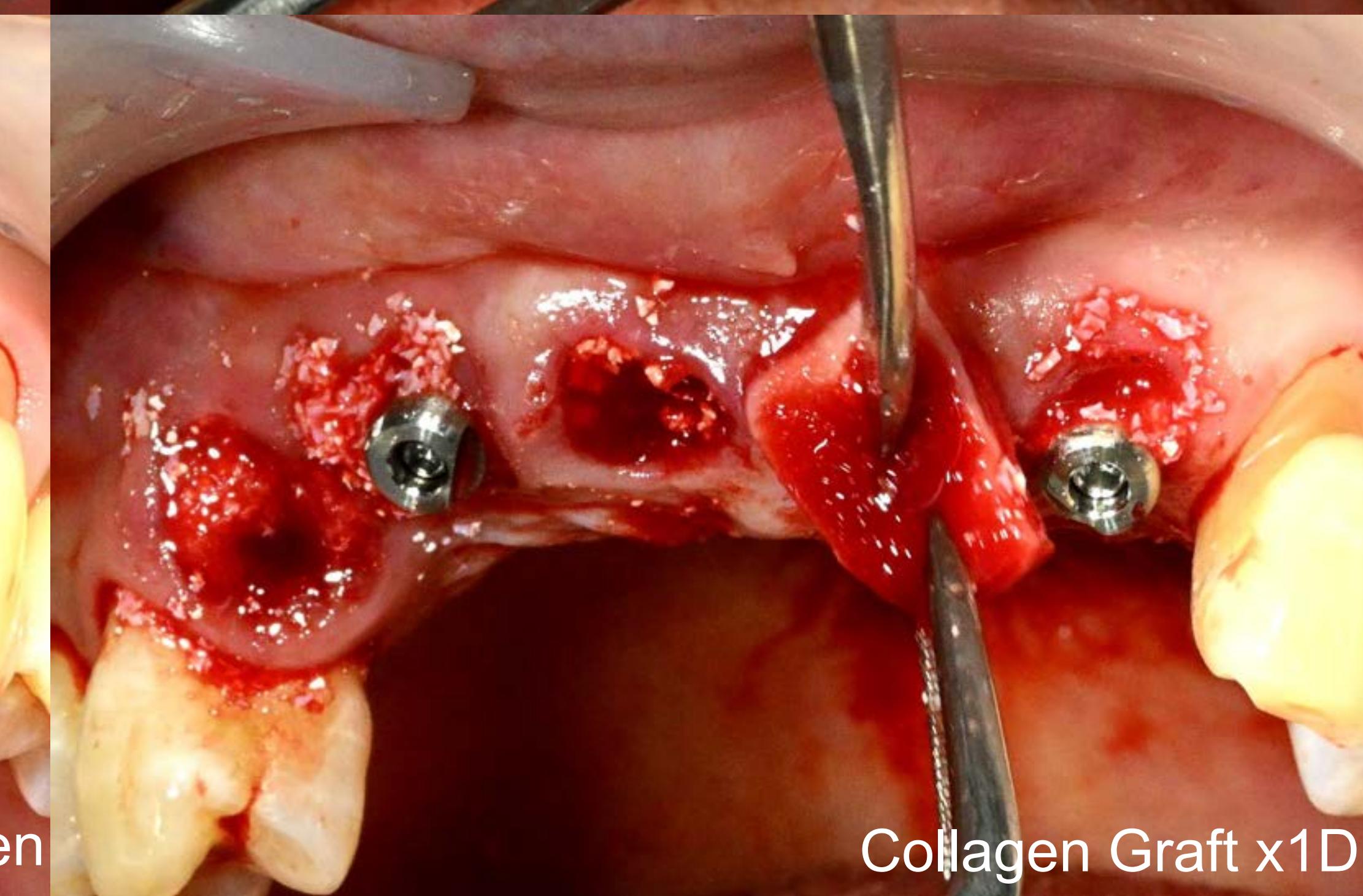
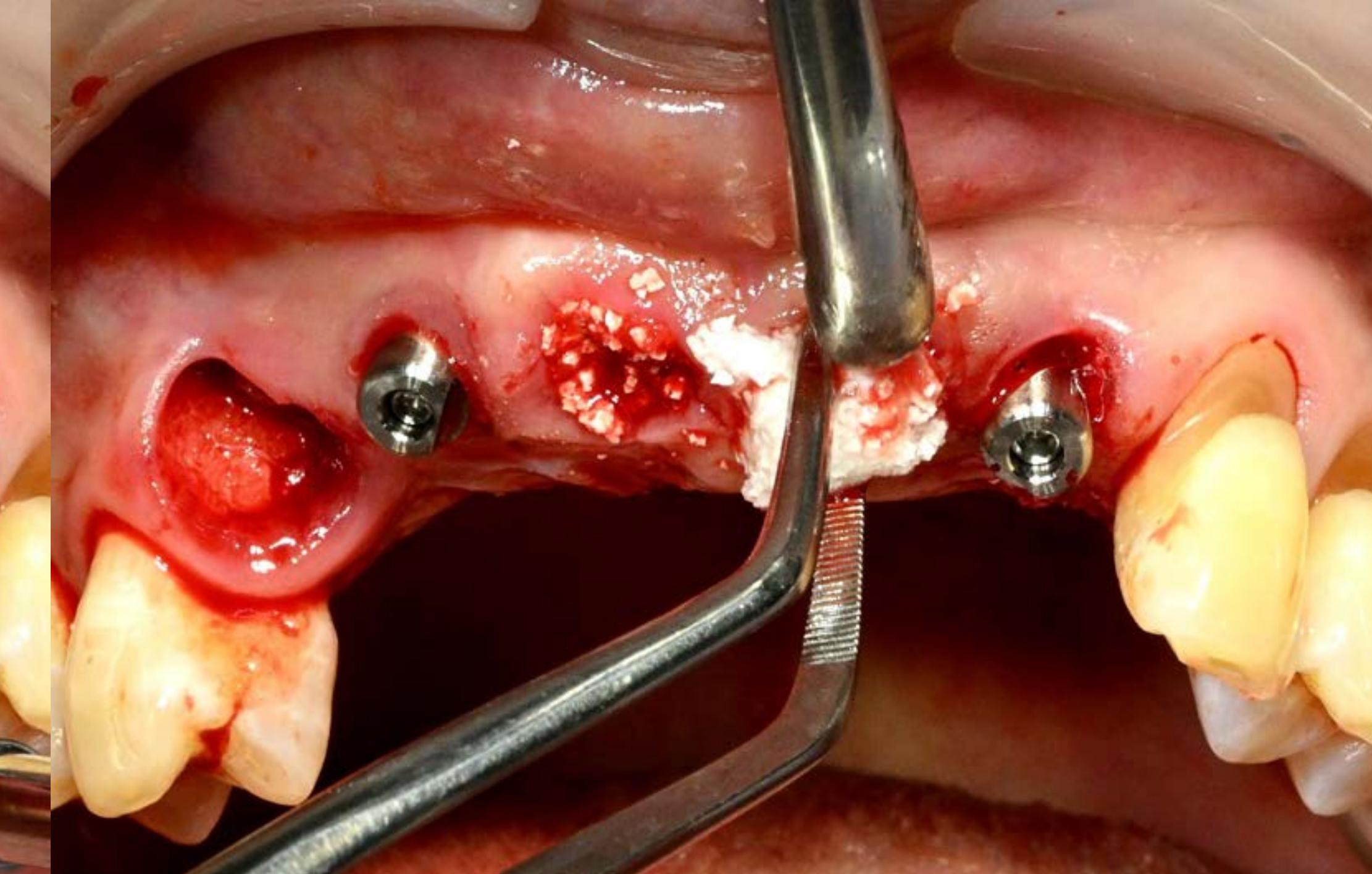
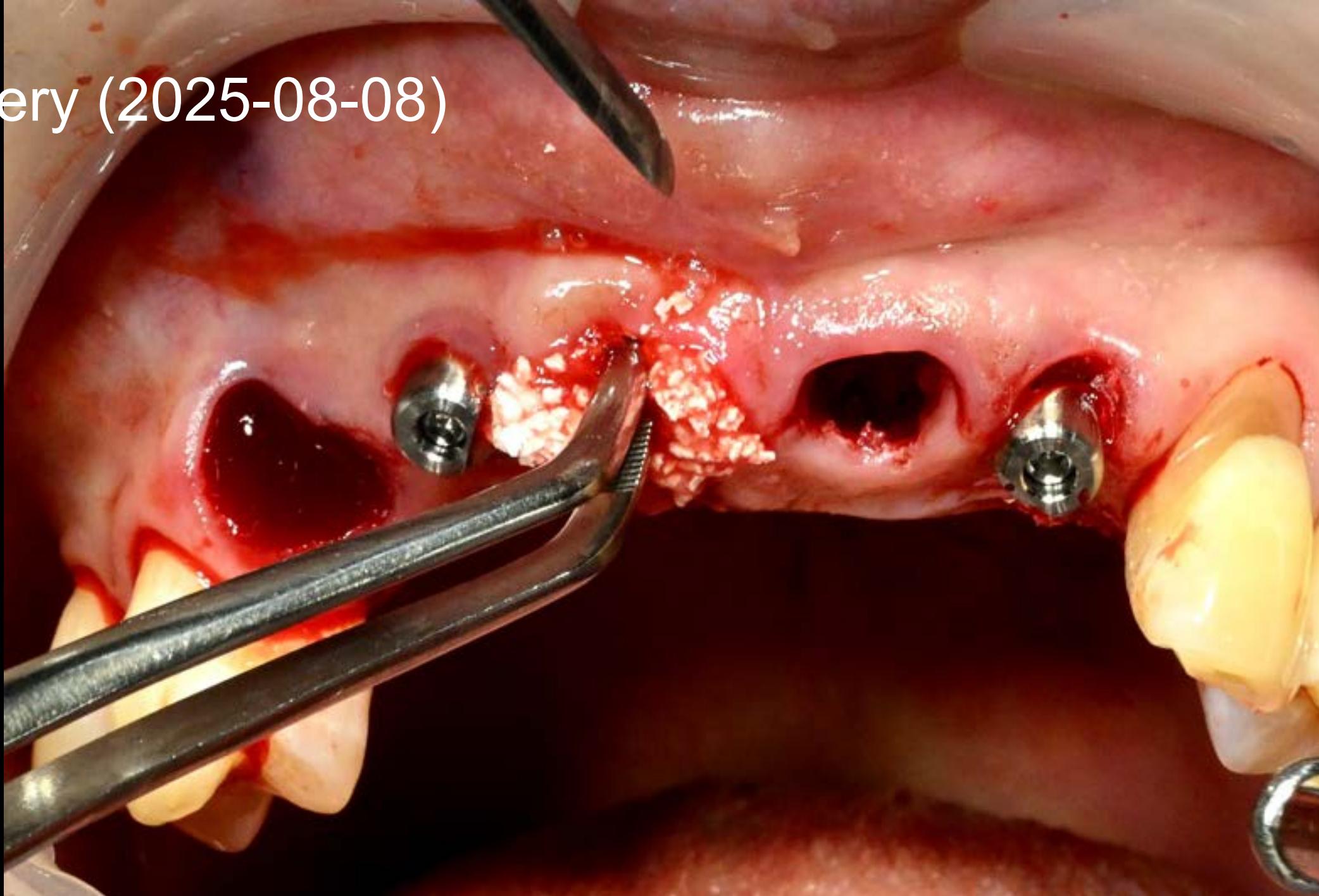
Surgery (2025-08-08)



Surgery (2025-08-08)



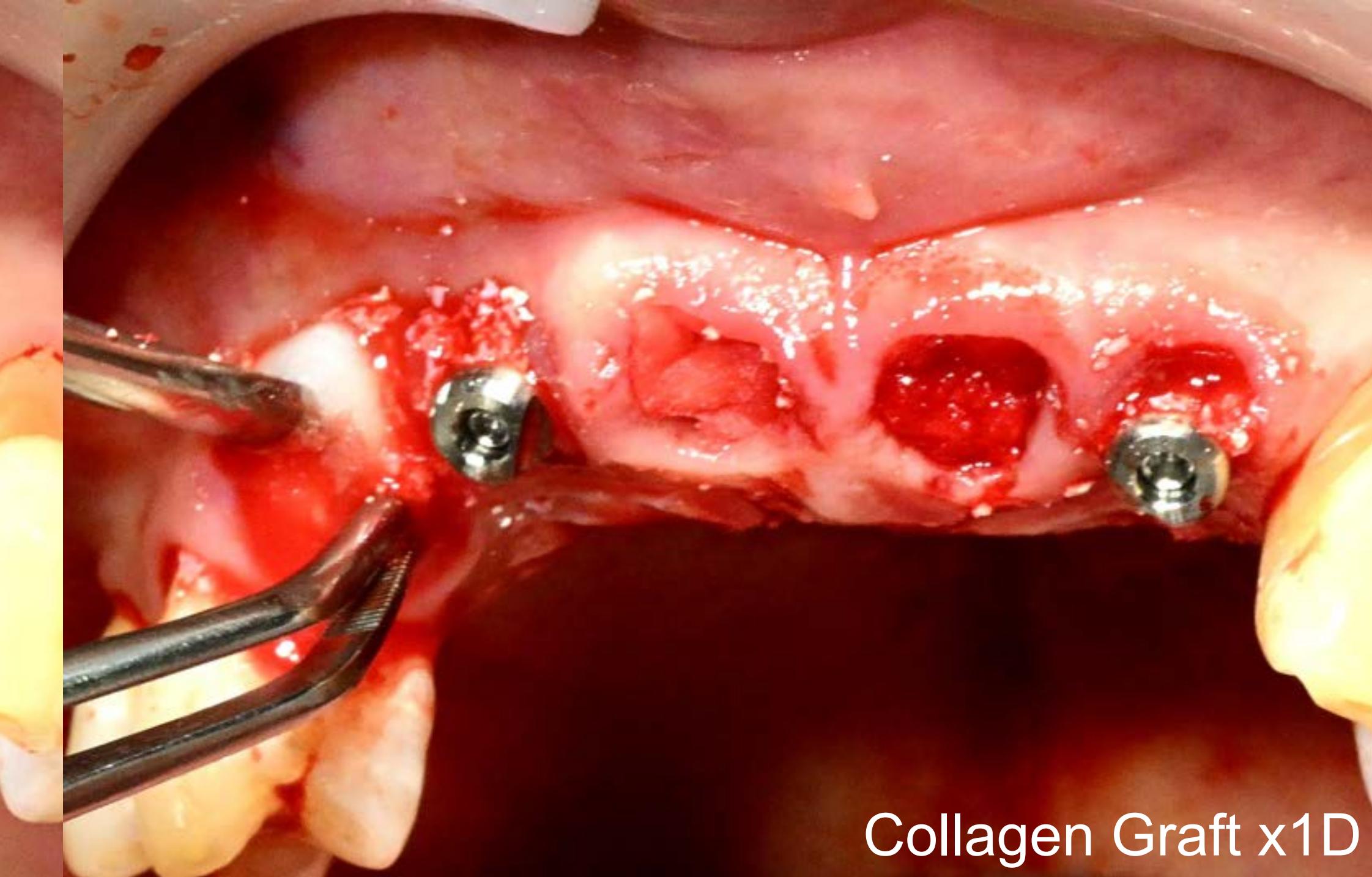
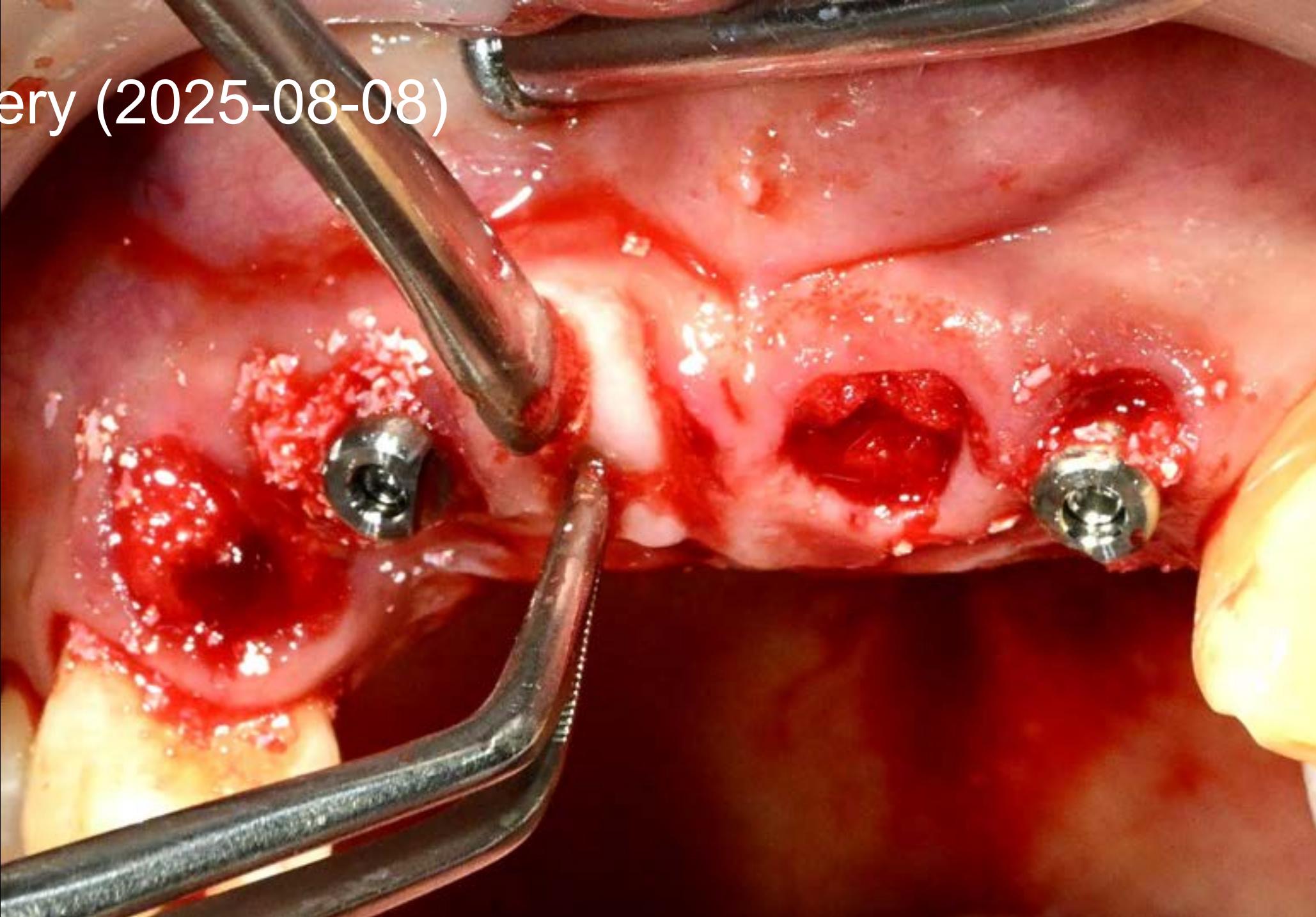
Surgery (2025-08-08)



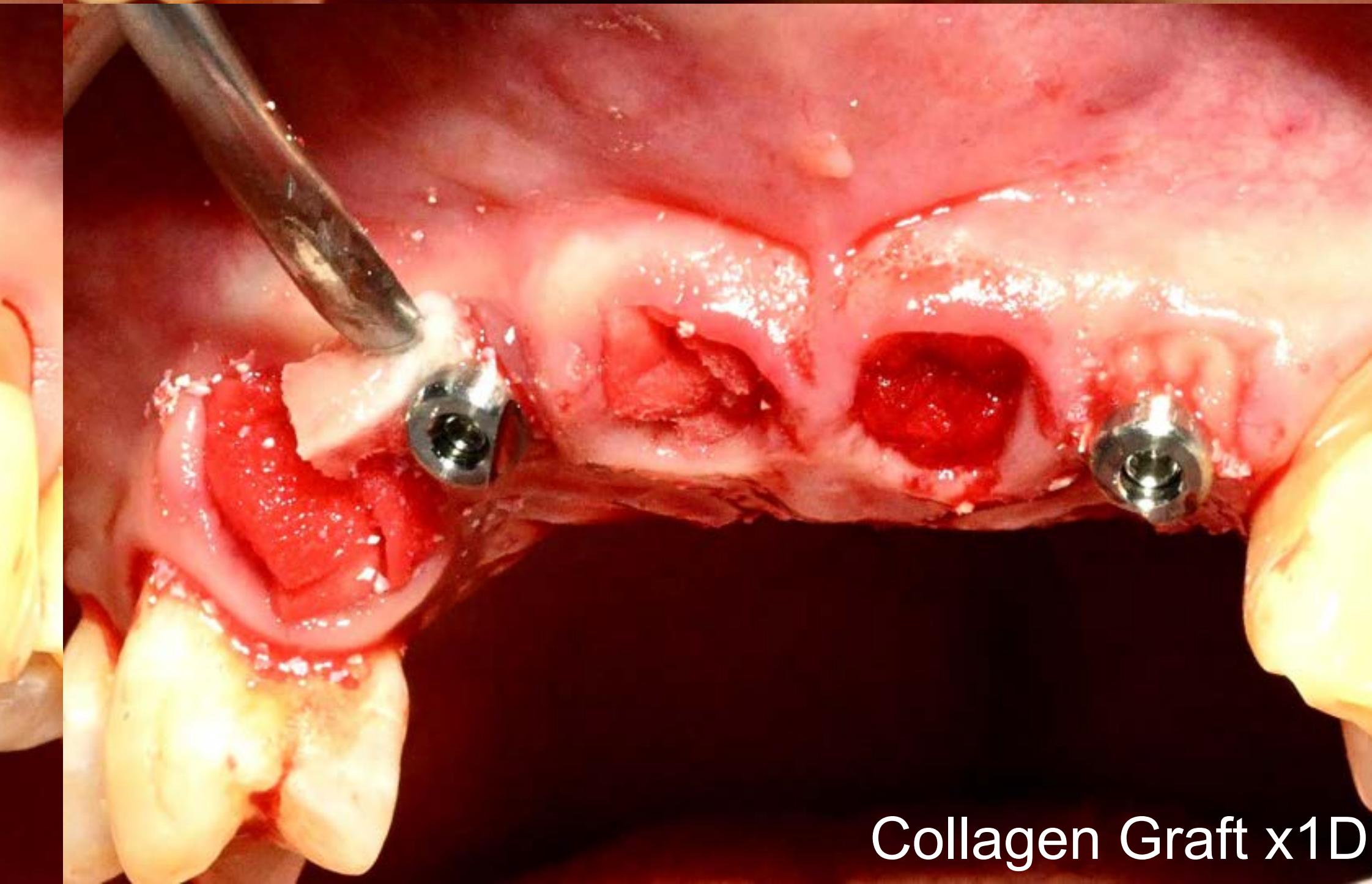
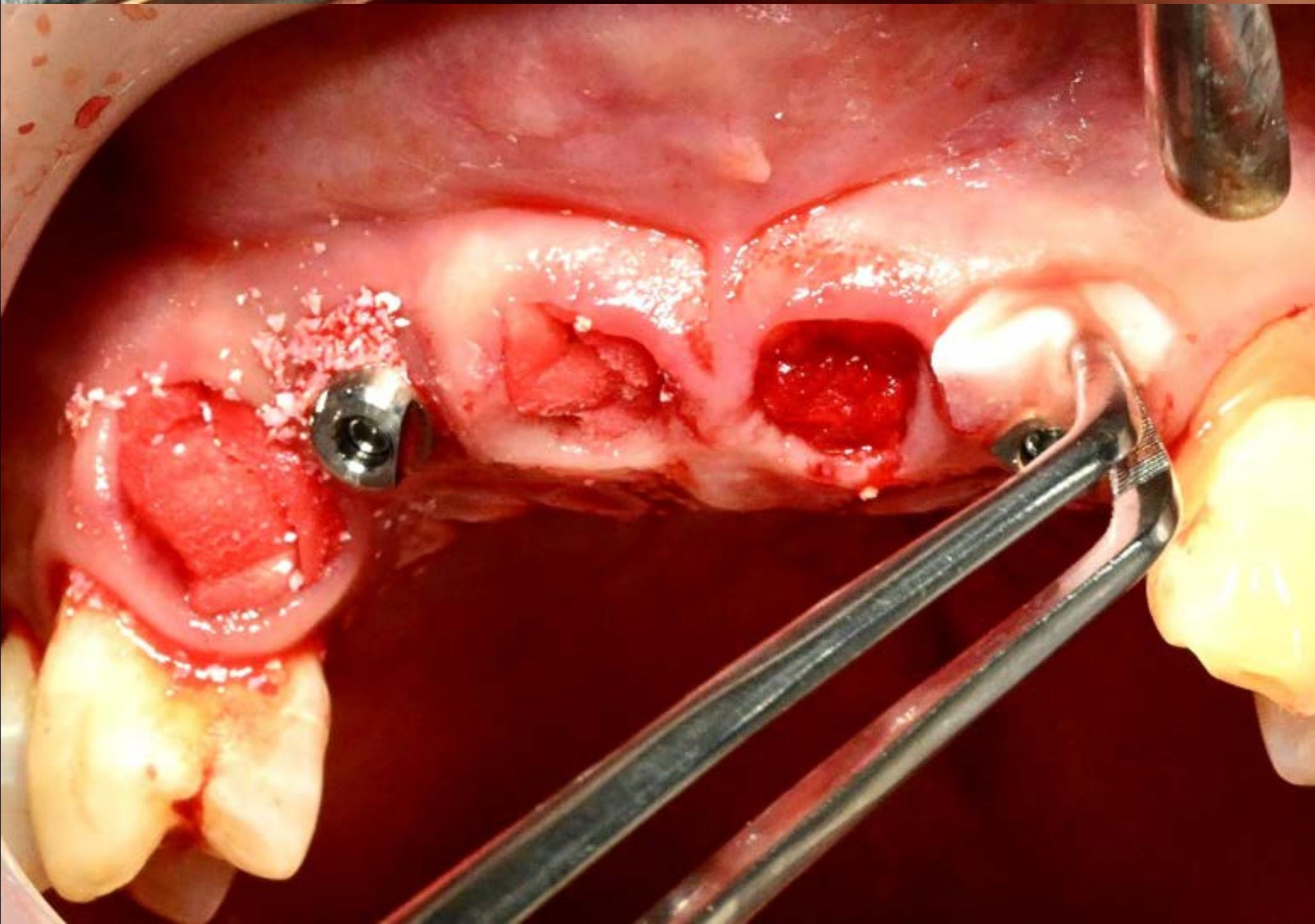
#13 OSTEON™ Xeno Collagen

Collagen Graft x1D

Surgery (2025-08-08)

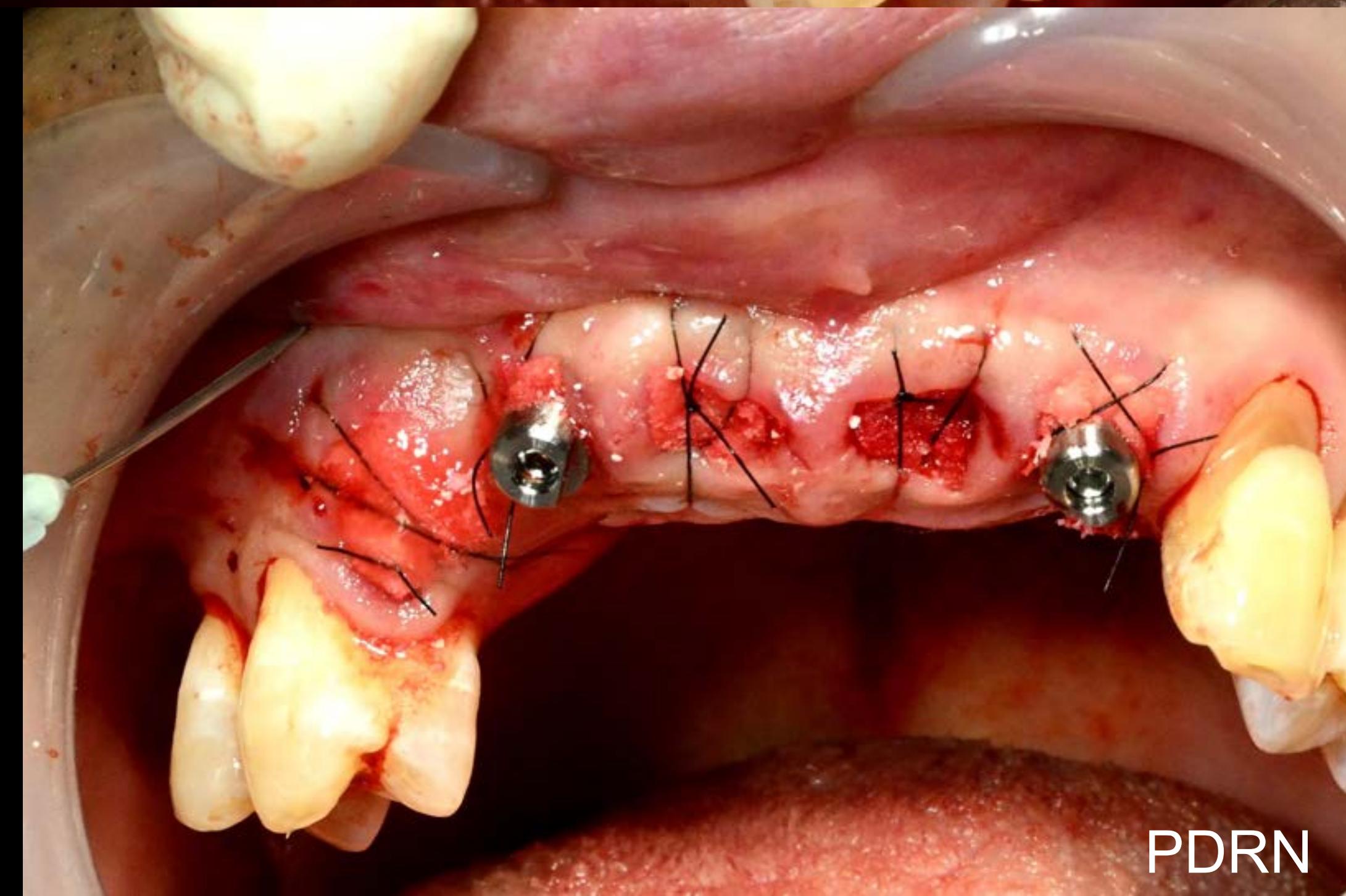
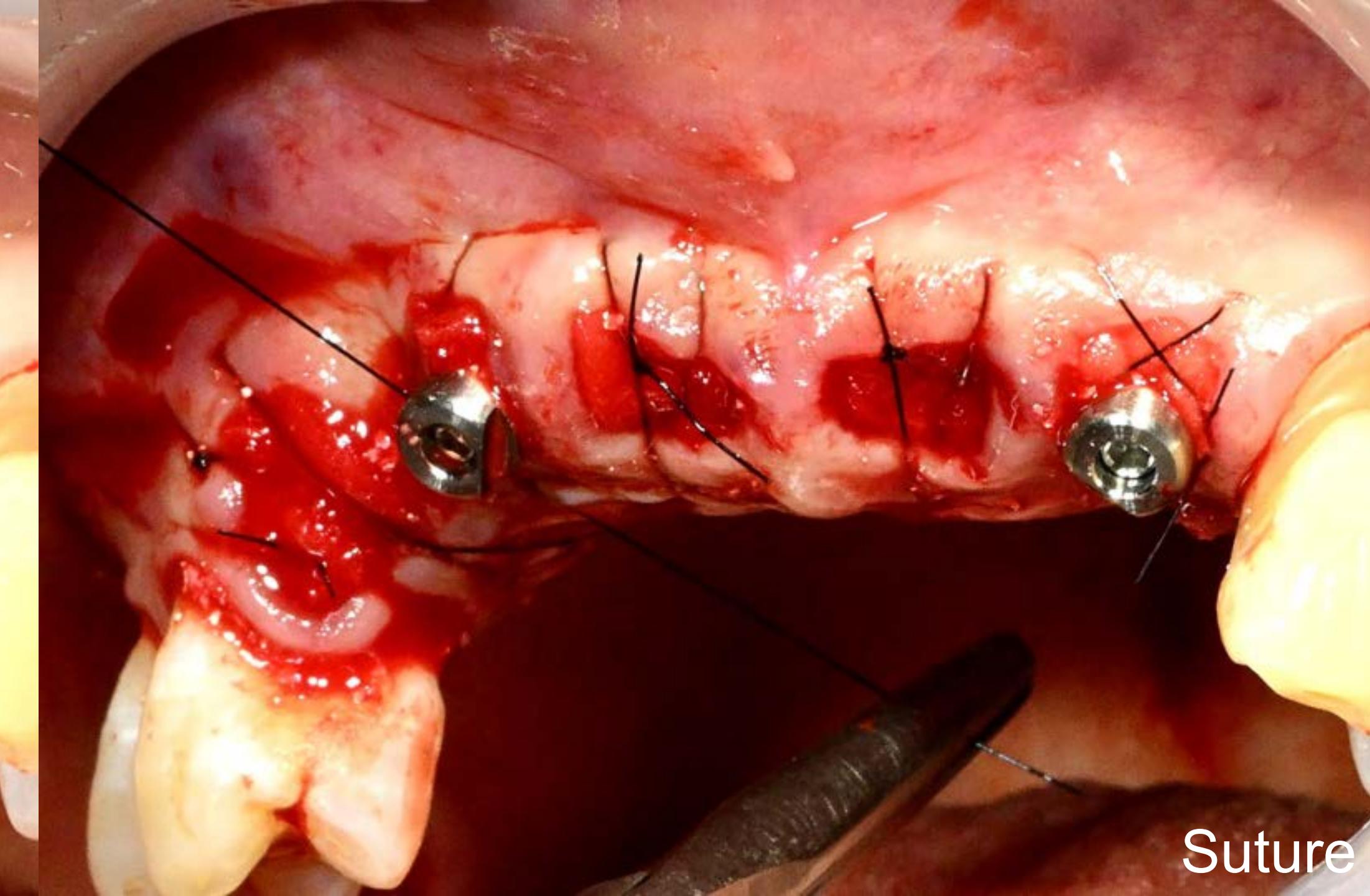
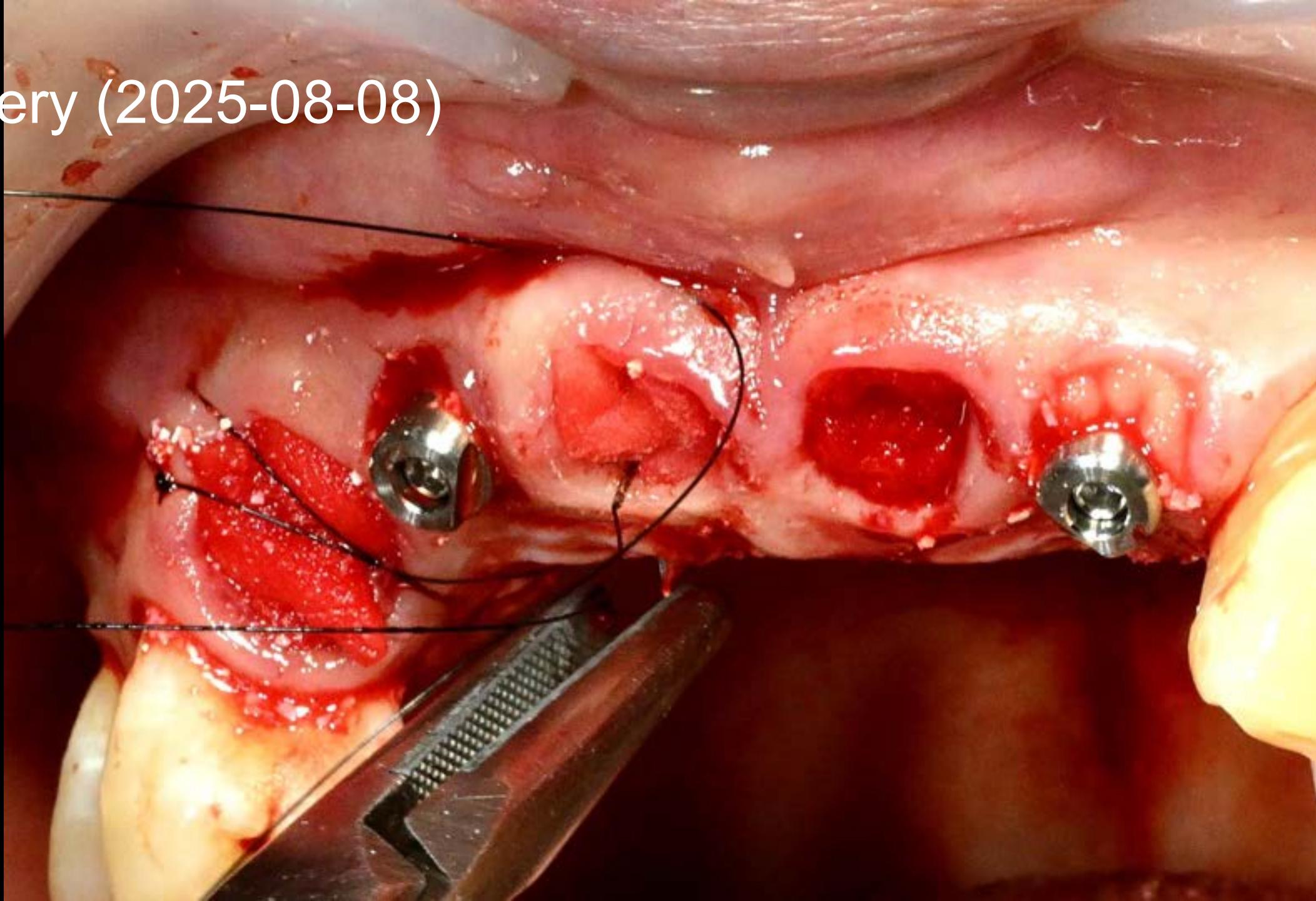


Collagen Graft x1D

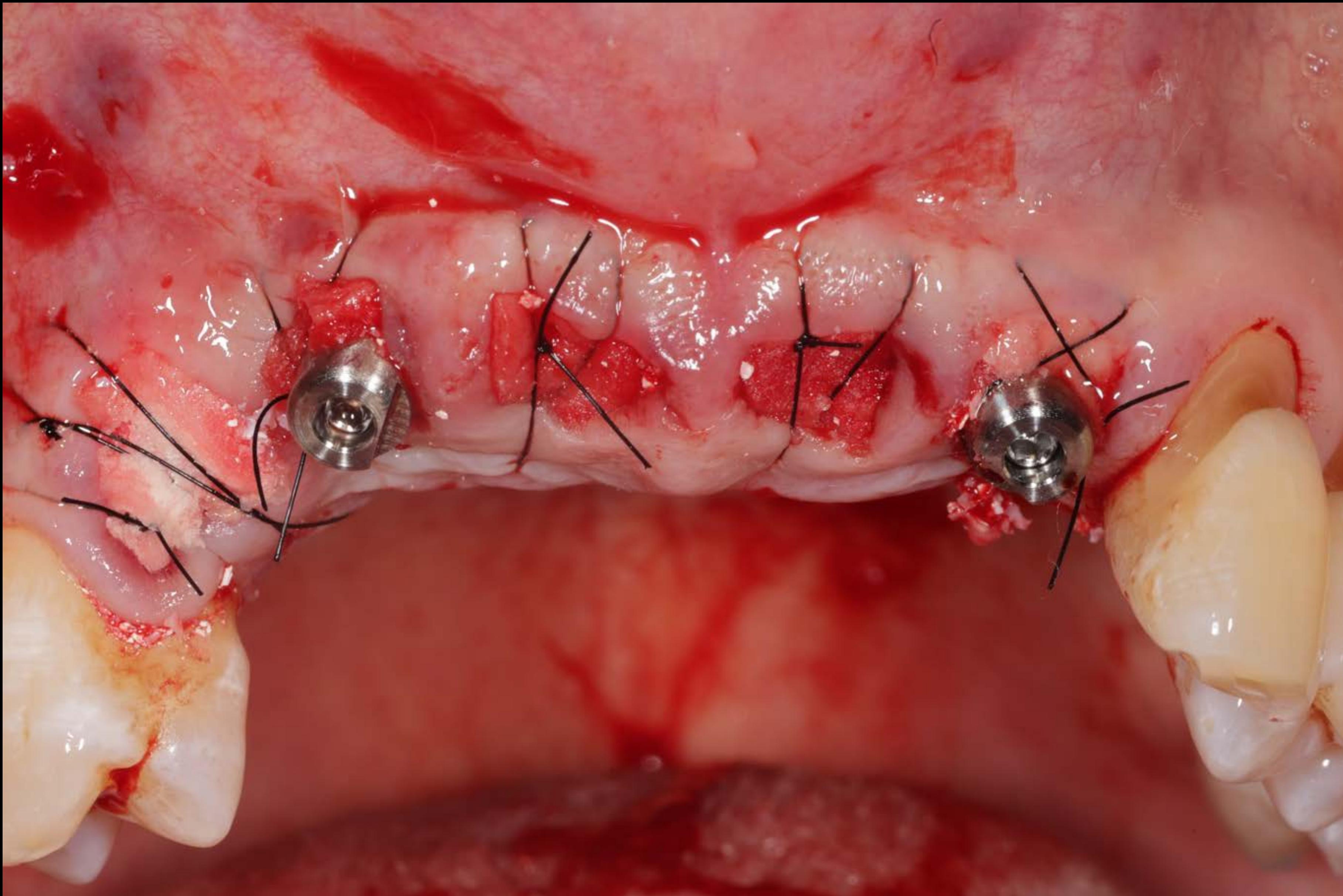


Collagen Graft x1D

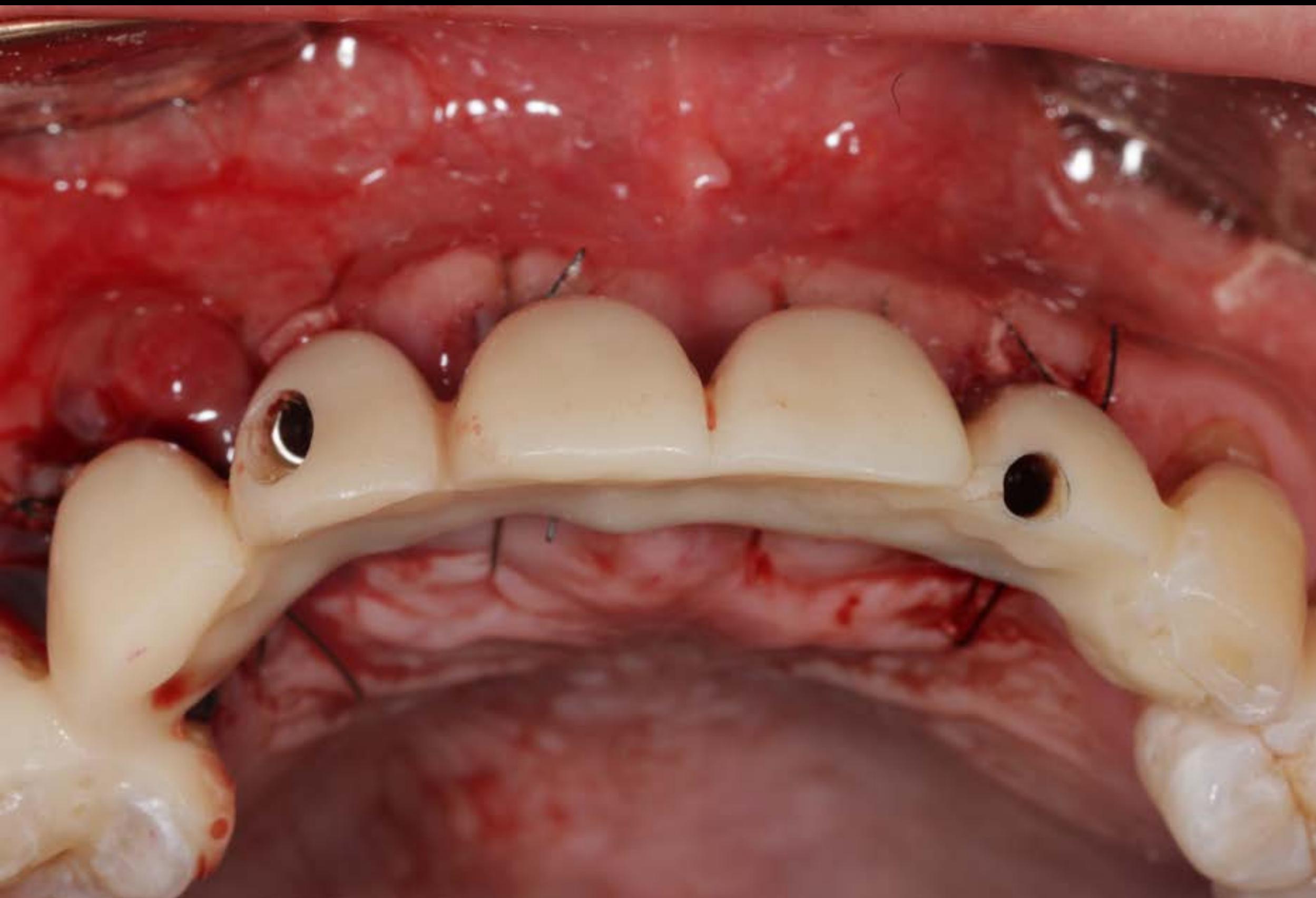
Surgery (2025-08-08)



Post-op (2025-08-08)



Provisional restoration (2025-08-08)



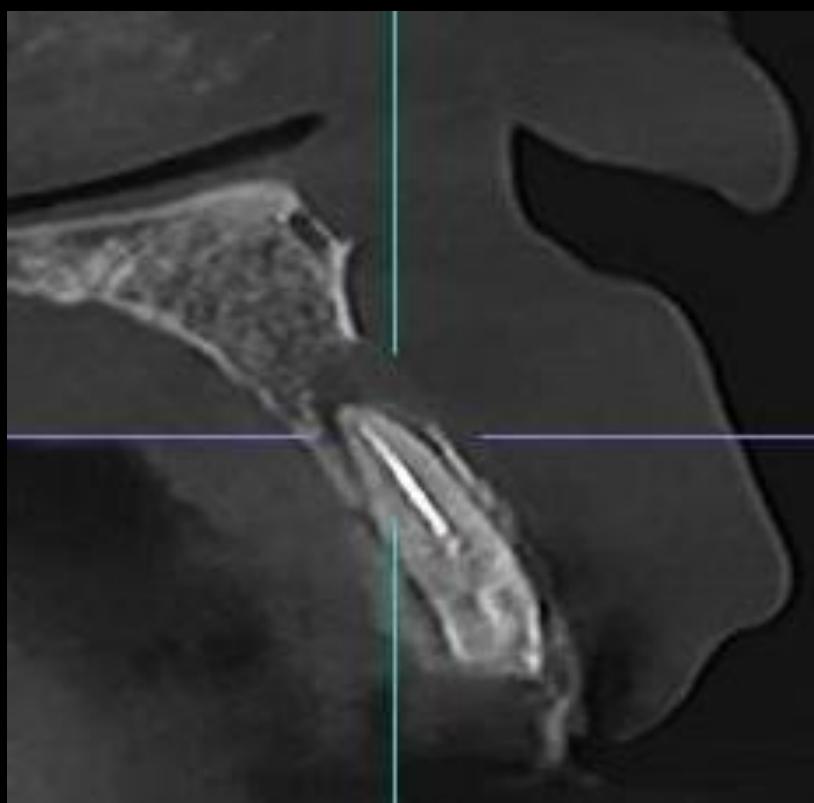
# Immediate Implantation with Easy Bone Graft



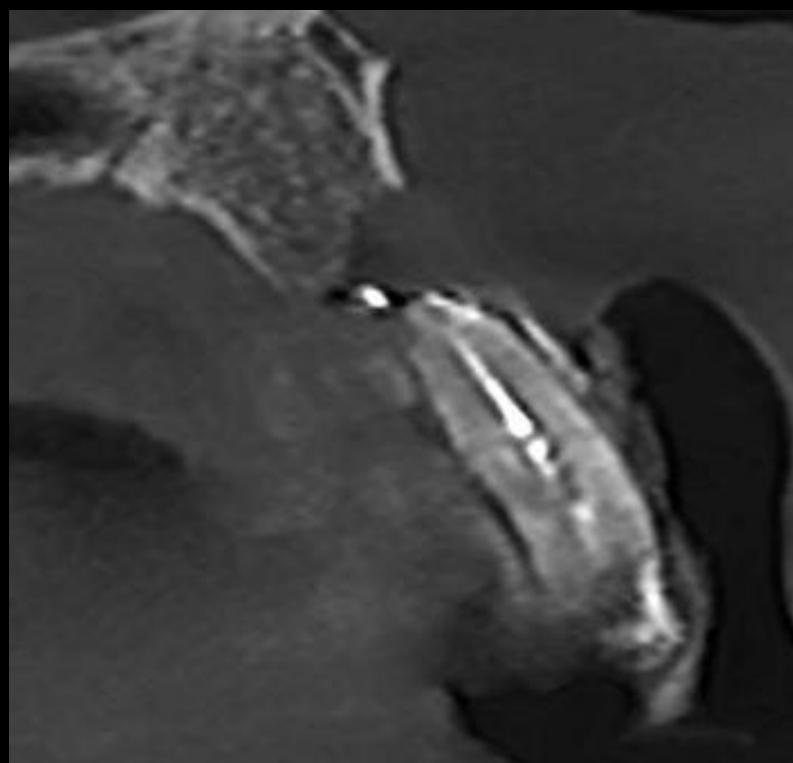
Dentium dental Clinic  
Dr. SM Chung

\*\* 255p Surgery VOD 6

Pre-OP CT



Post-OP CT



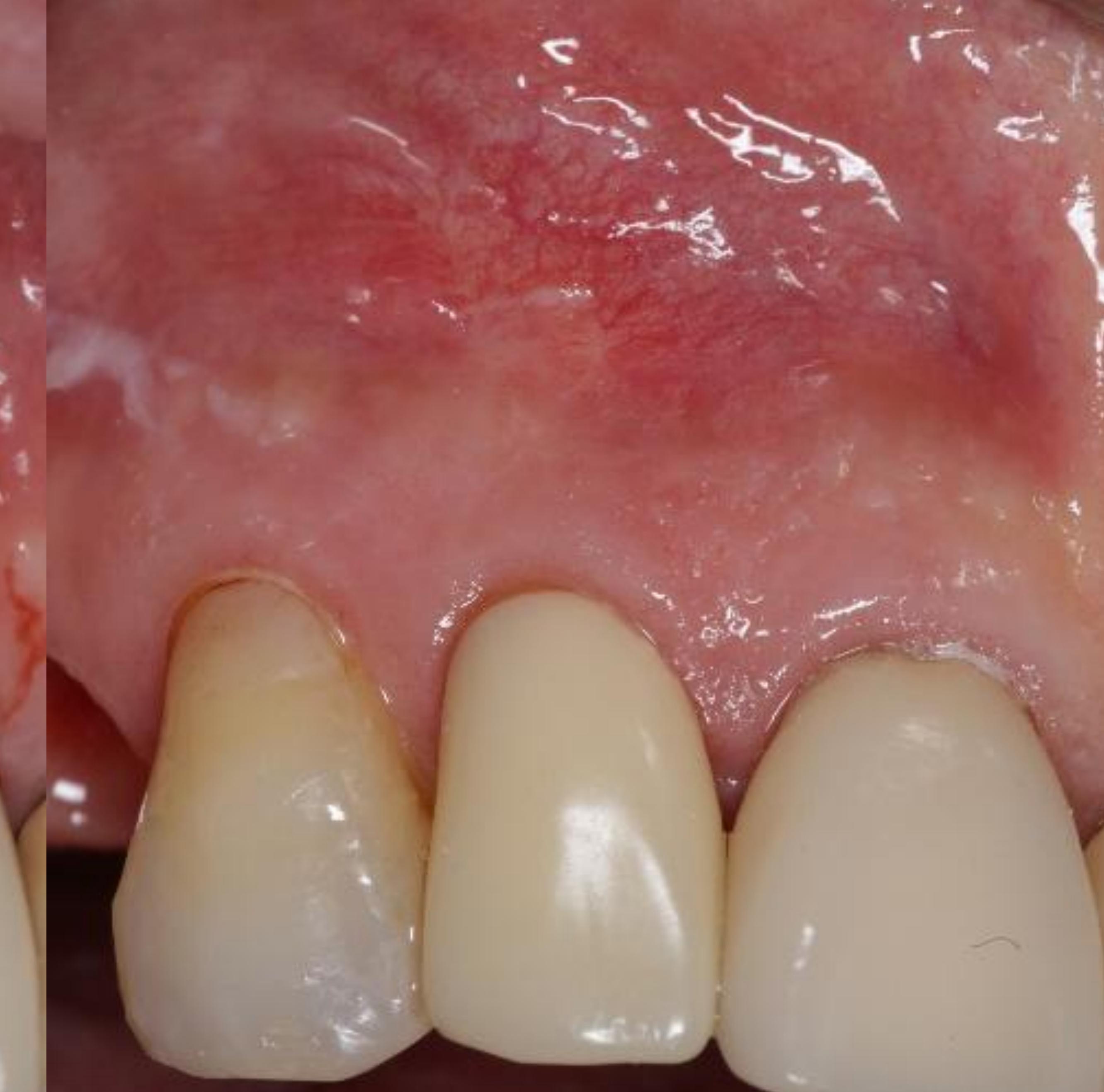
Collagen Graft x1D



Suture & PIN



1 week



4 weeks later



# Apicoectomy to preserve natural teeth

Dentium Dental Clinic  
Dr. SM Chung

\*\* 258p Surgery VOD 7

# Contents

Bright implant

Narrow and short implants

Bone regeneration materials

Simple and exact digital concepts

Filler and toxin in dental field

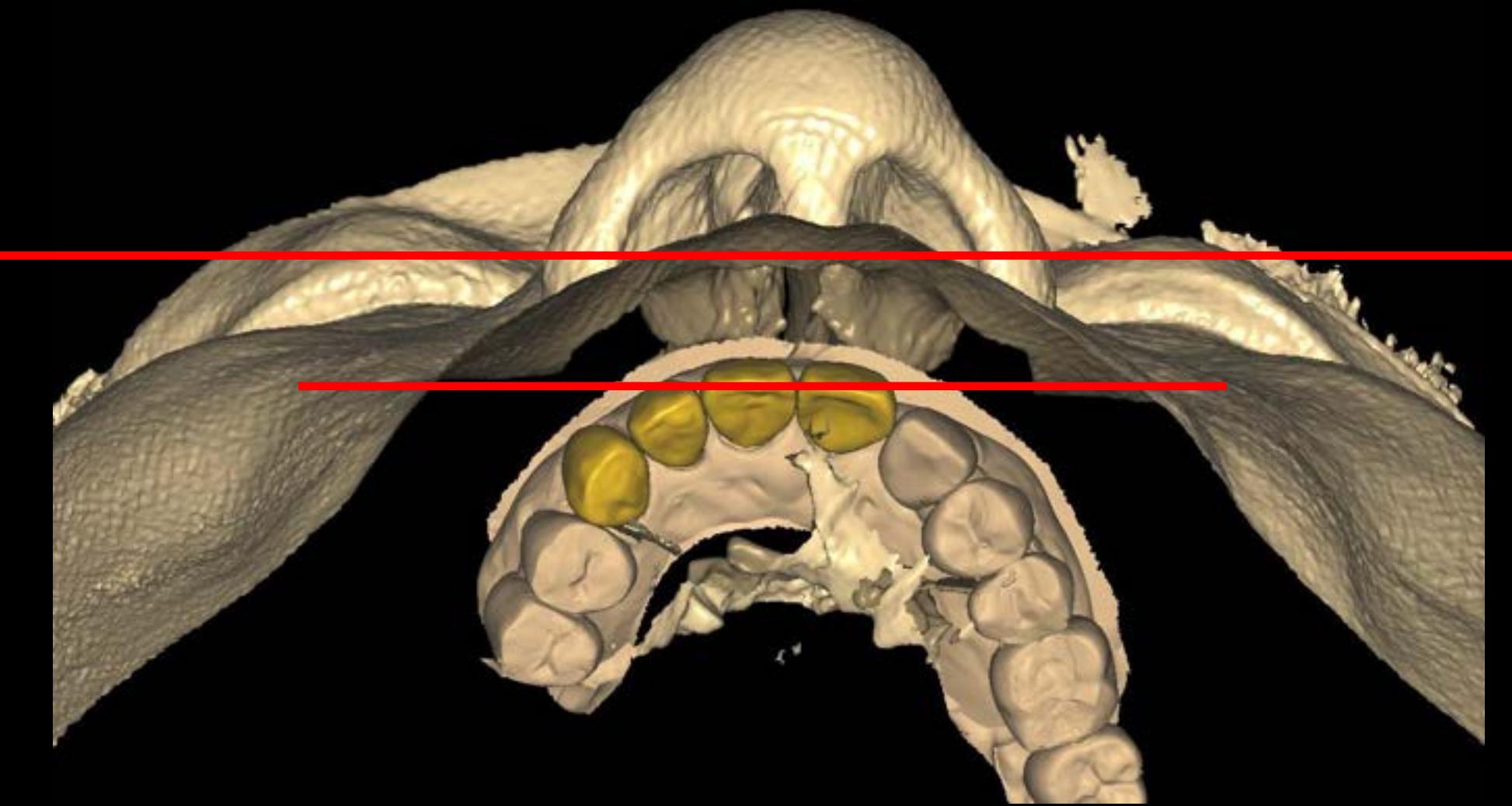
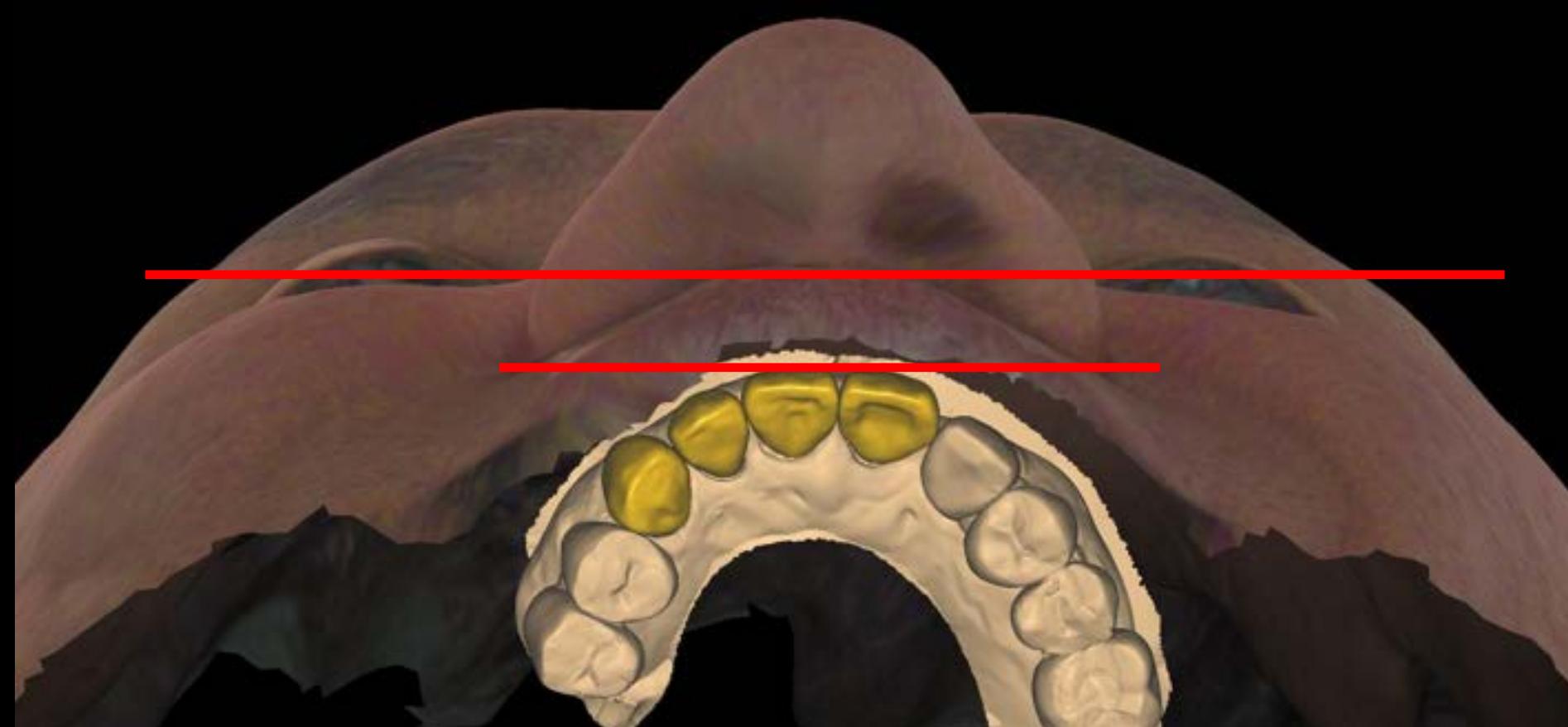
# Facial scanner vs CT data application



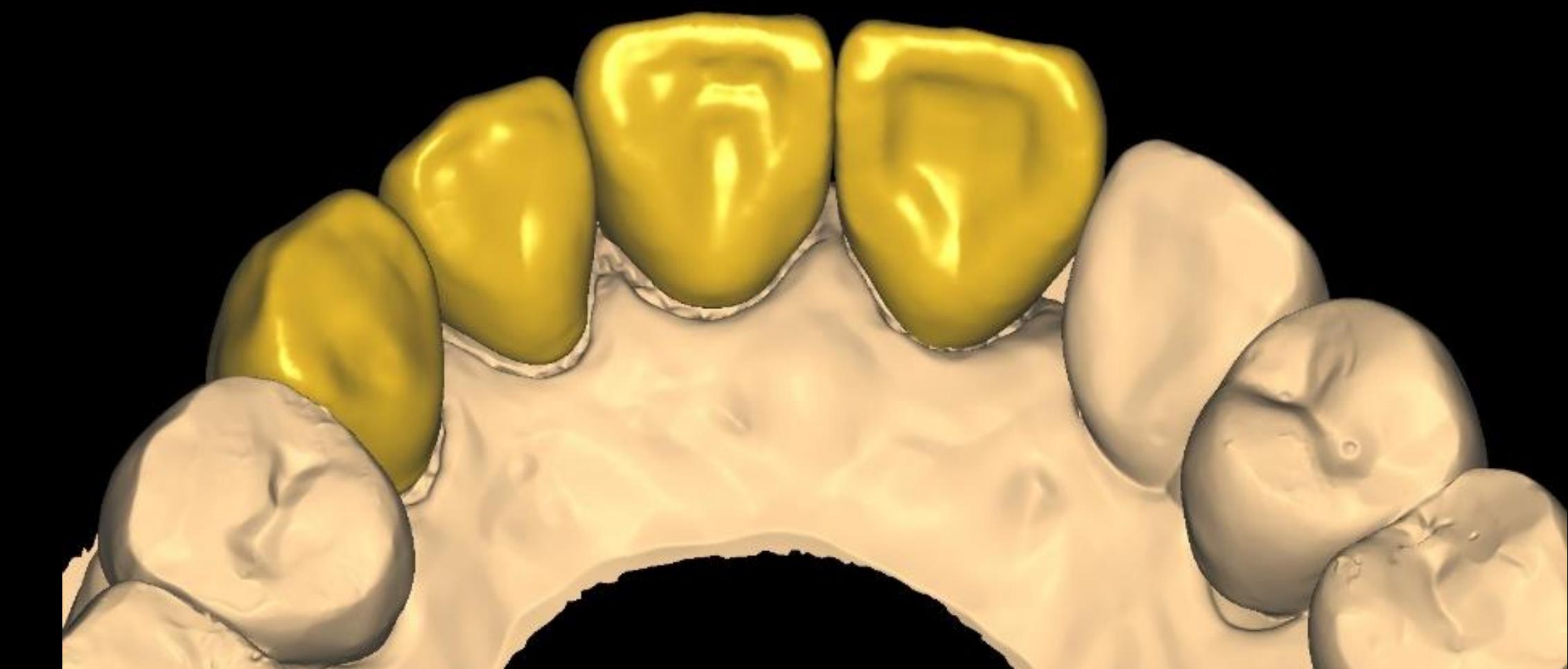
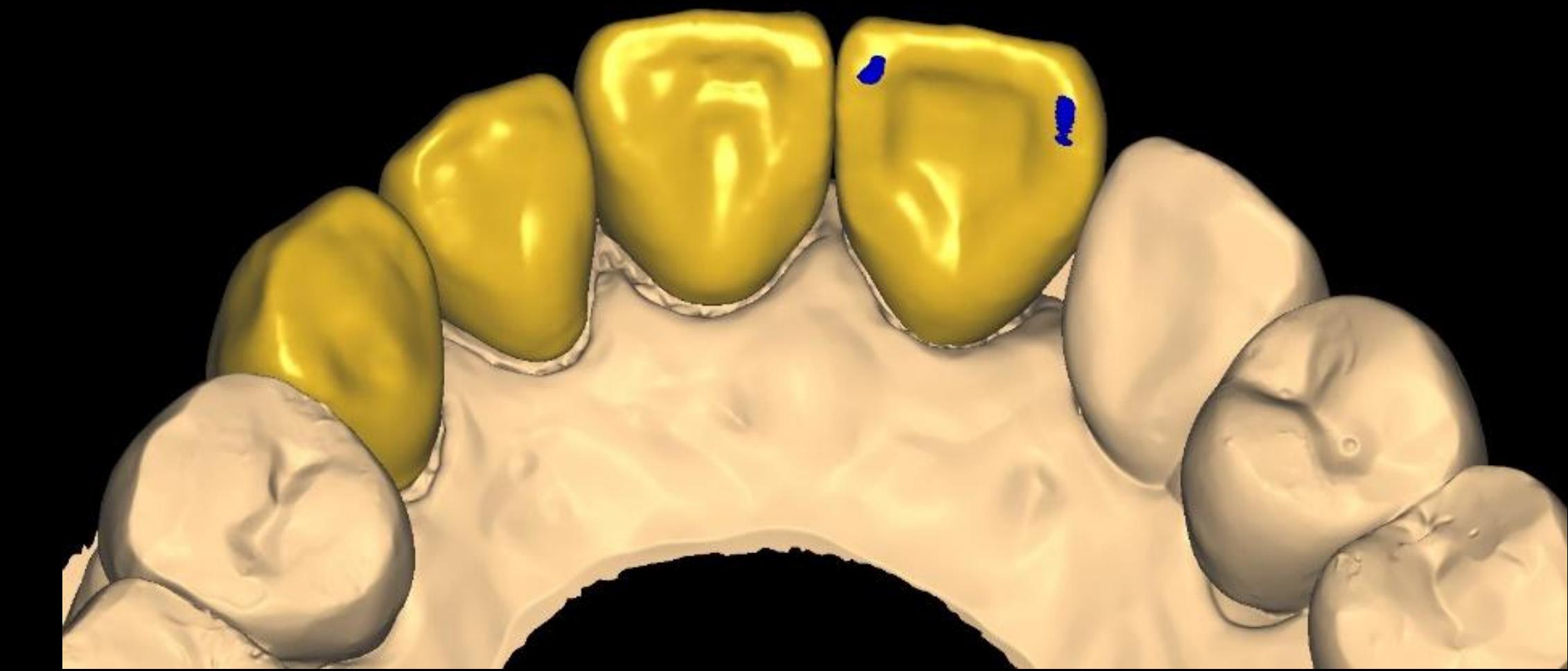
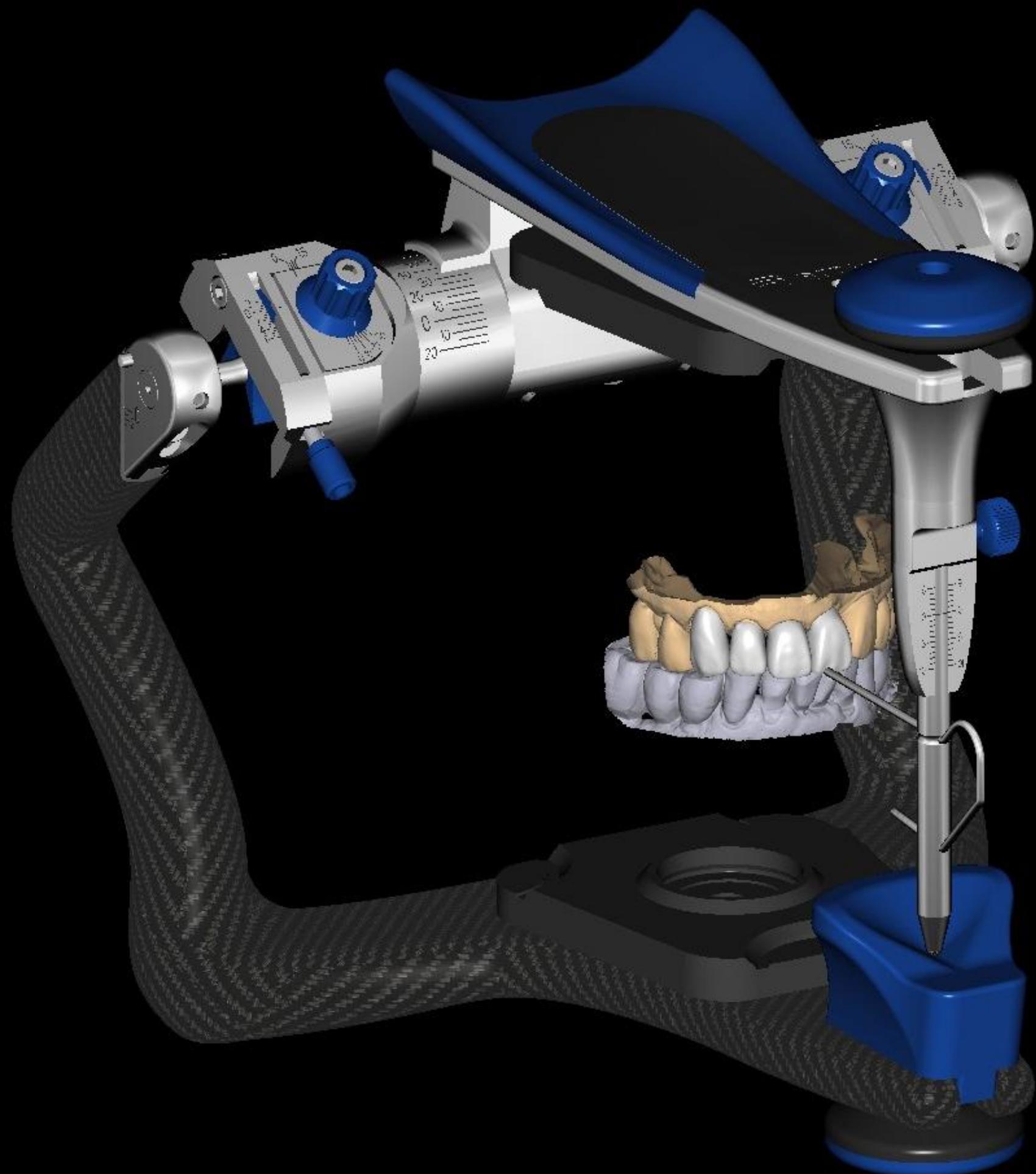
**Facial scanner**  
Good for pts consulting



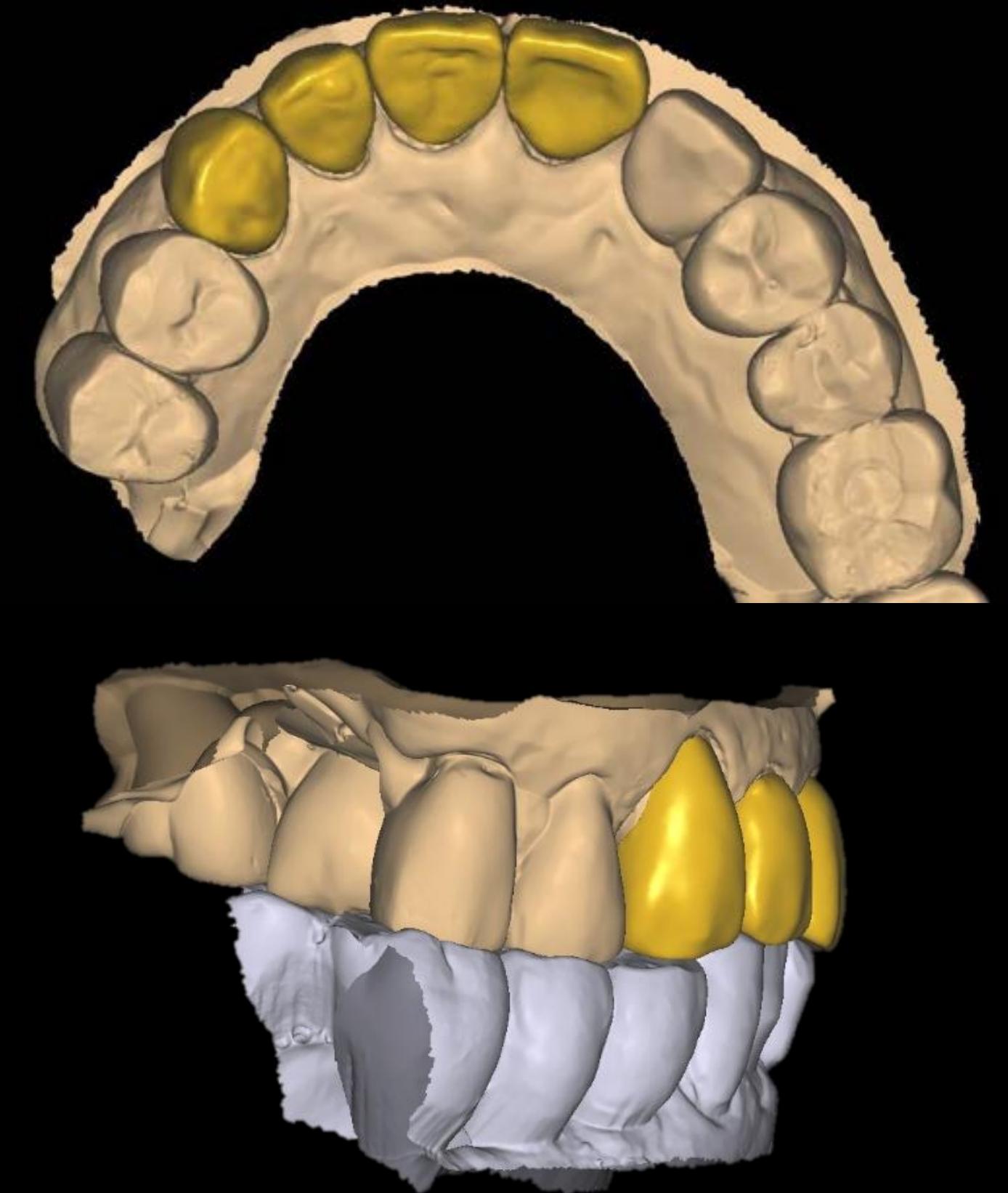
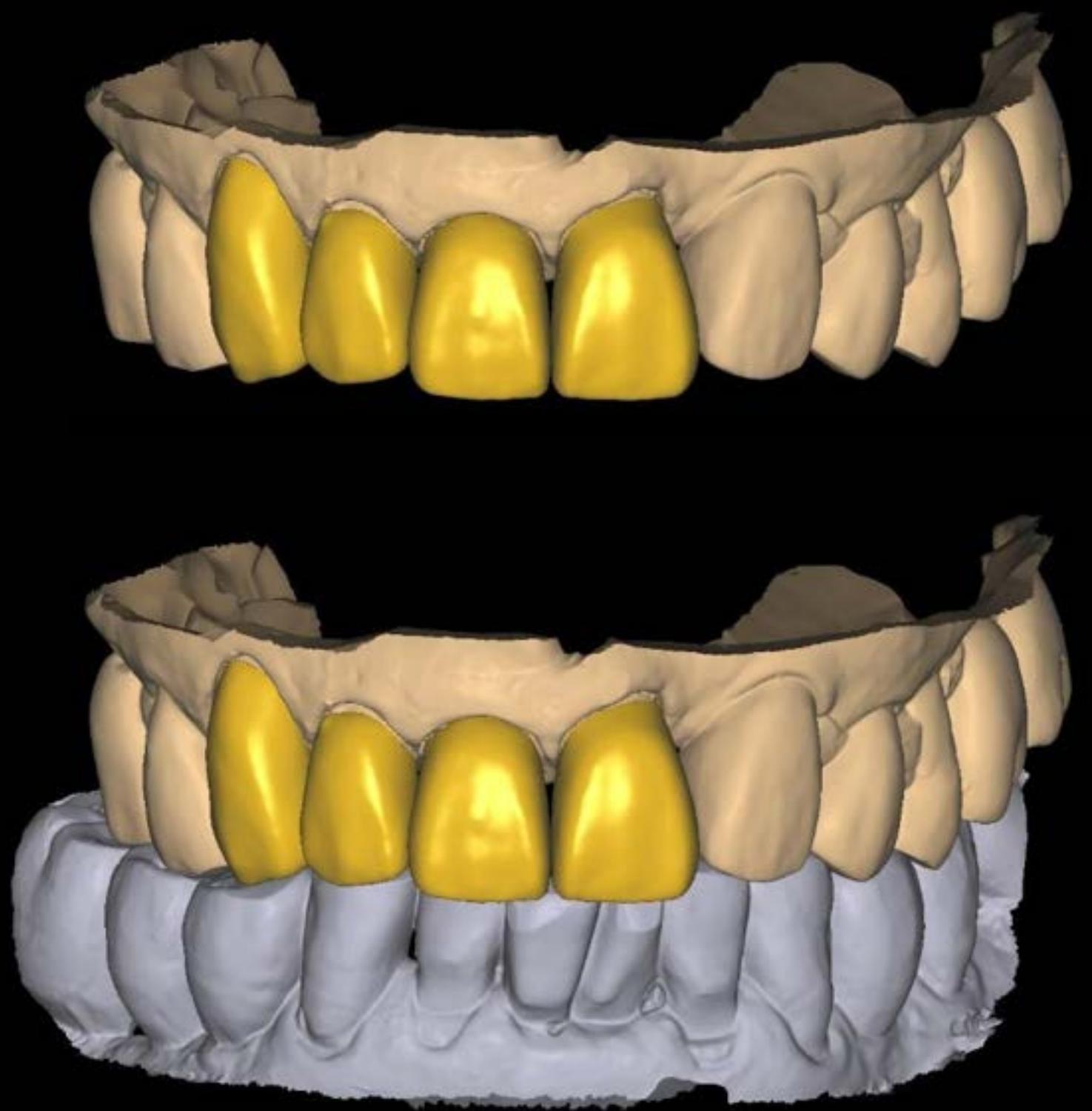
**CT STL**  
more precise for lab



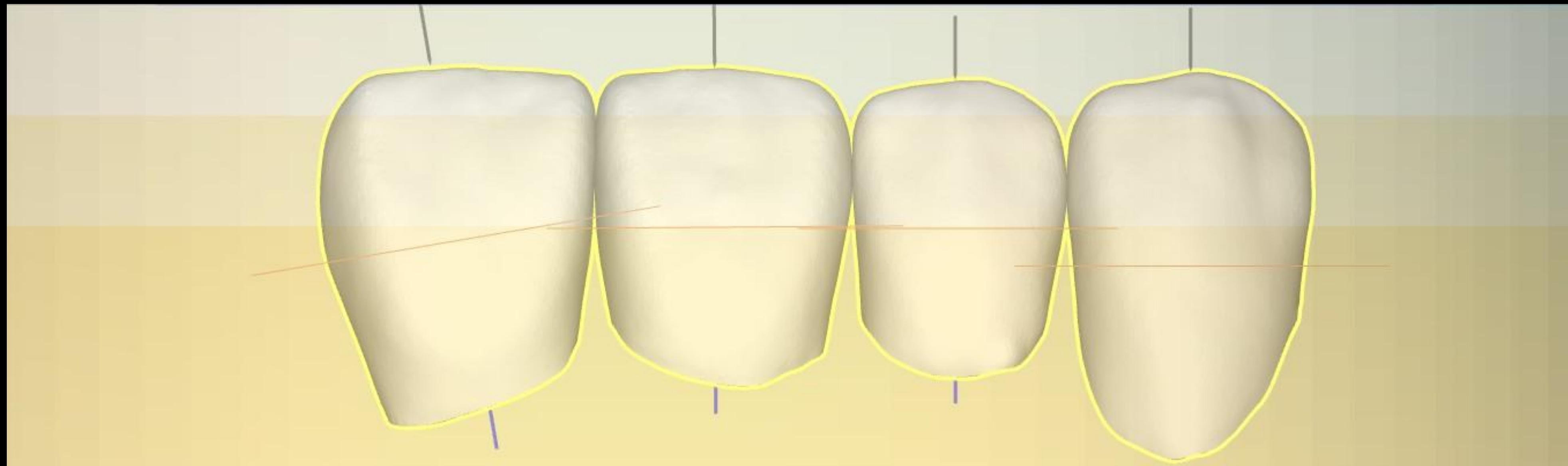
# Prosthesis design



# Prosthesis design



# Hyper Dent



A3 18T 3 Layer Block

# Coloring



Inner – White Opaque

Safe approach based on **evidence**

Dynamic approach based on **inspiration**

New field over dentistry

Toxin and filler, PDRN

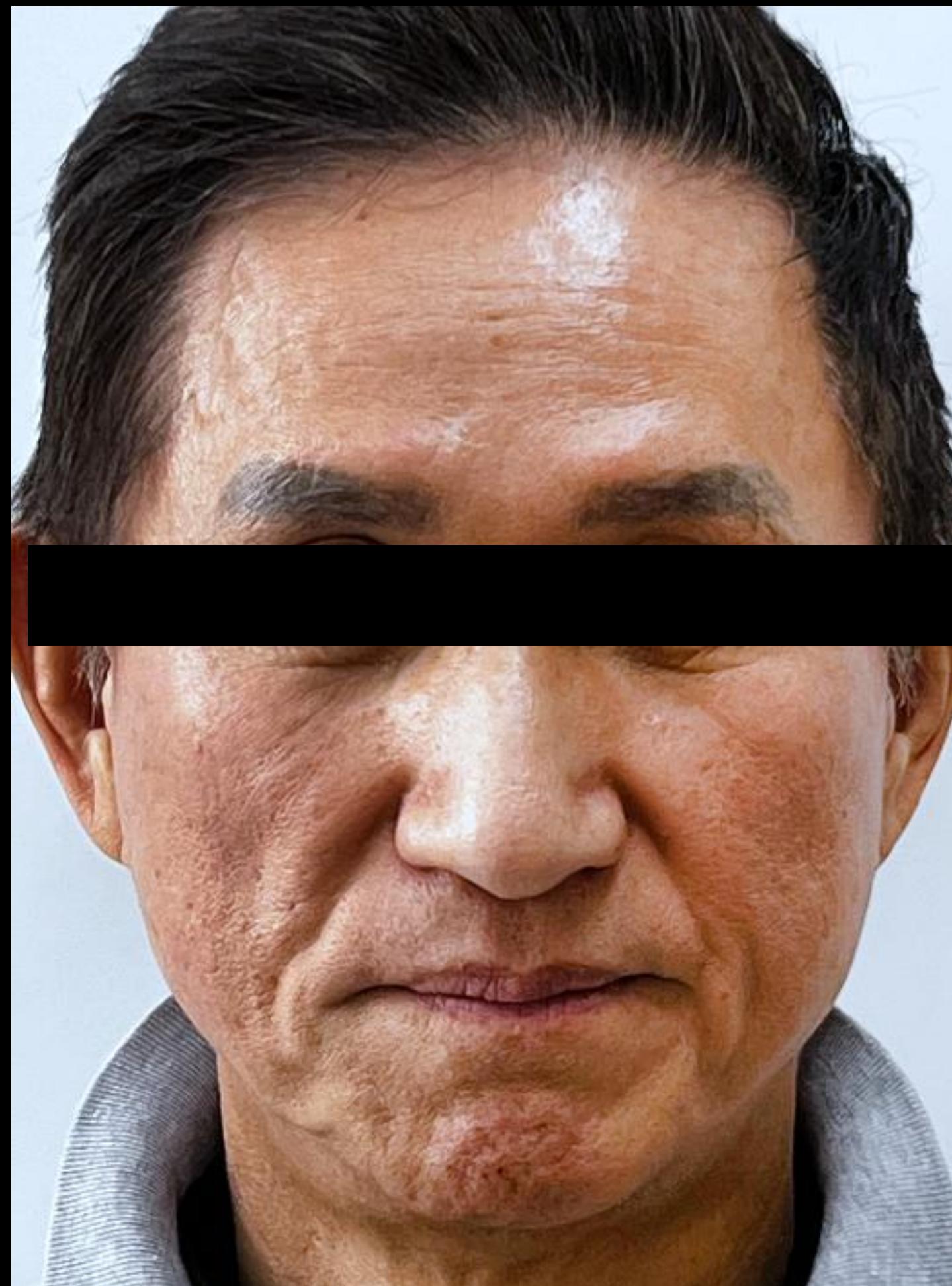
# Prosthesis design



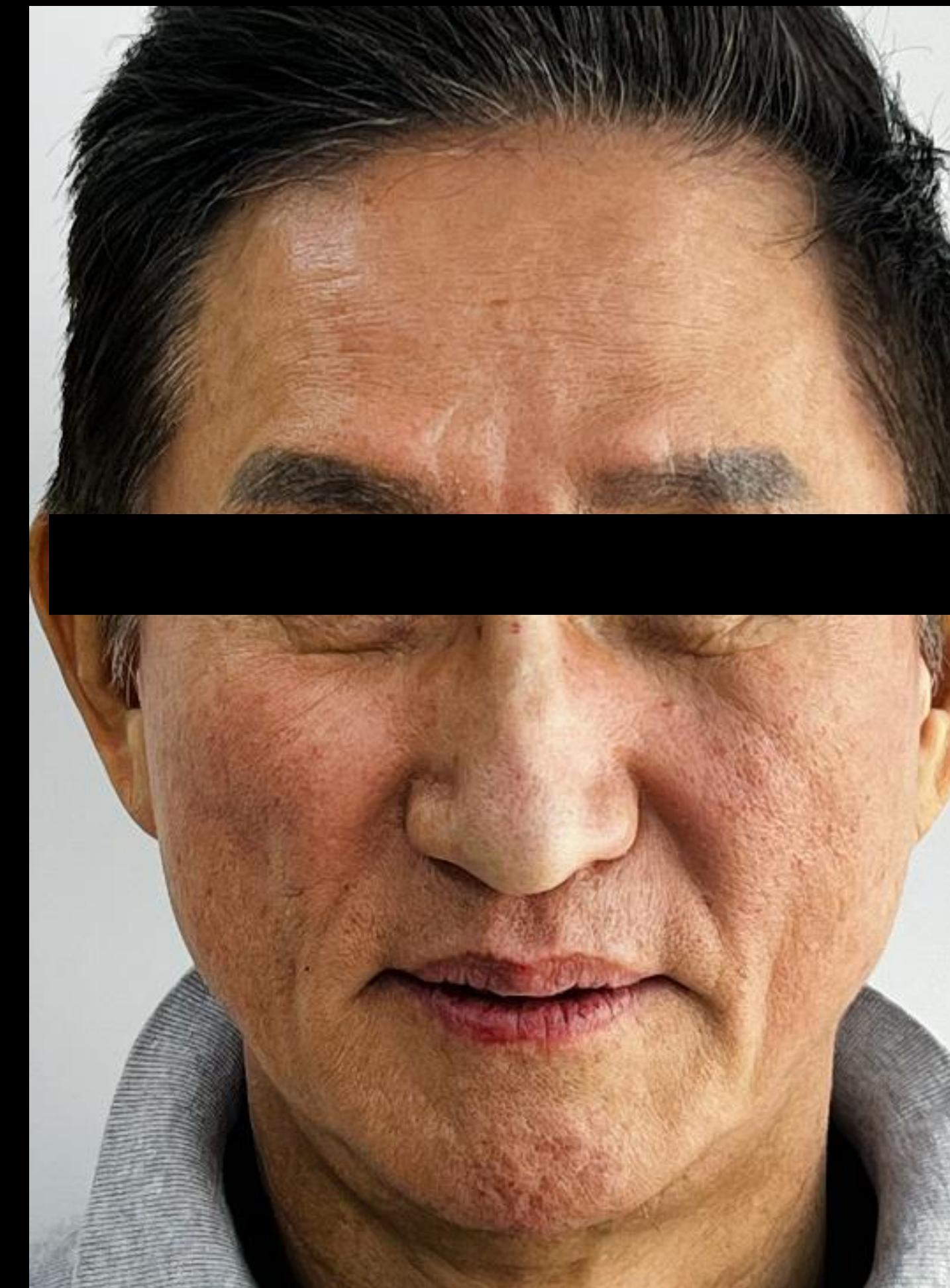
bright 3 Layer A3



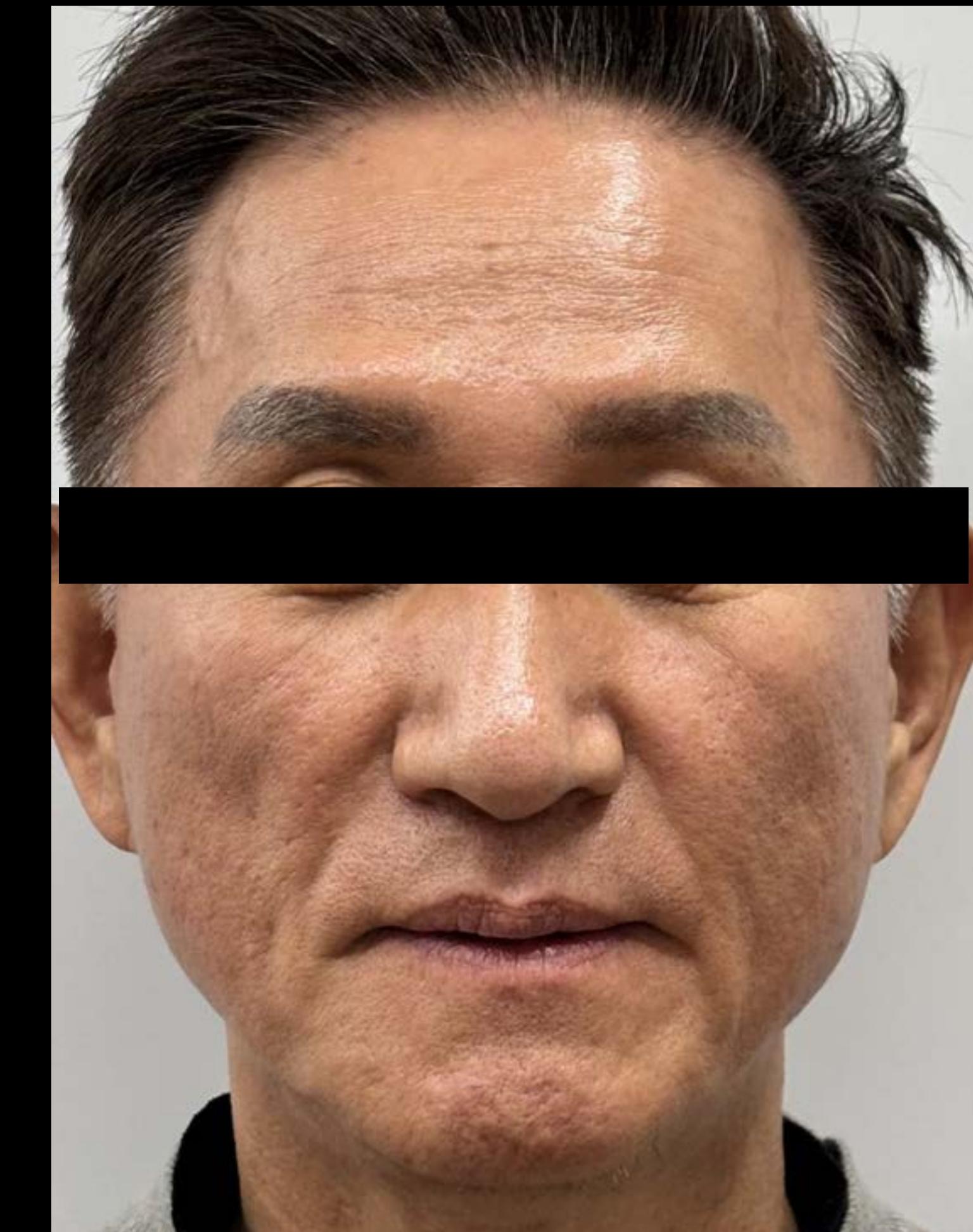
Before

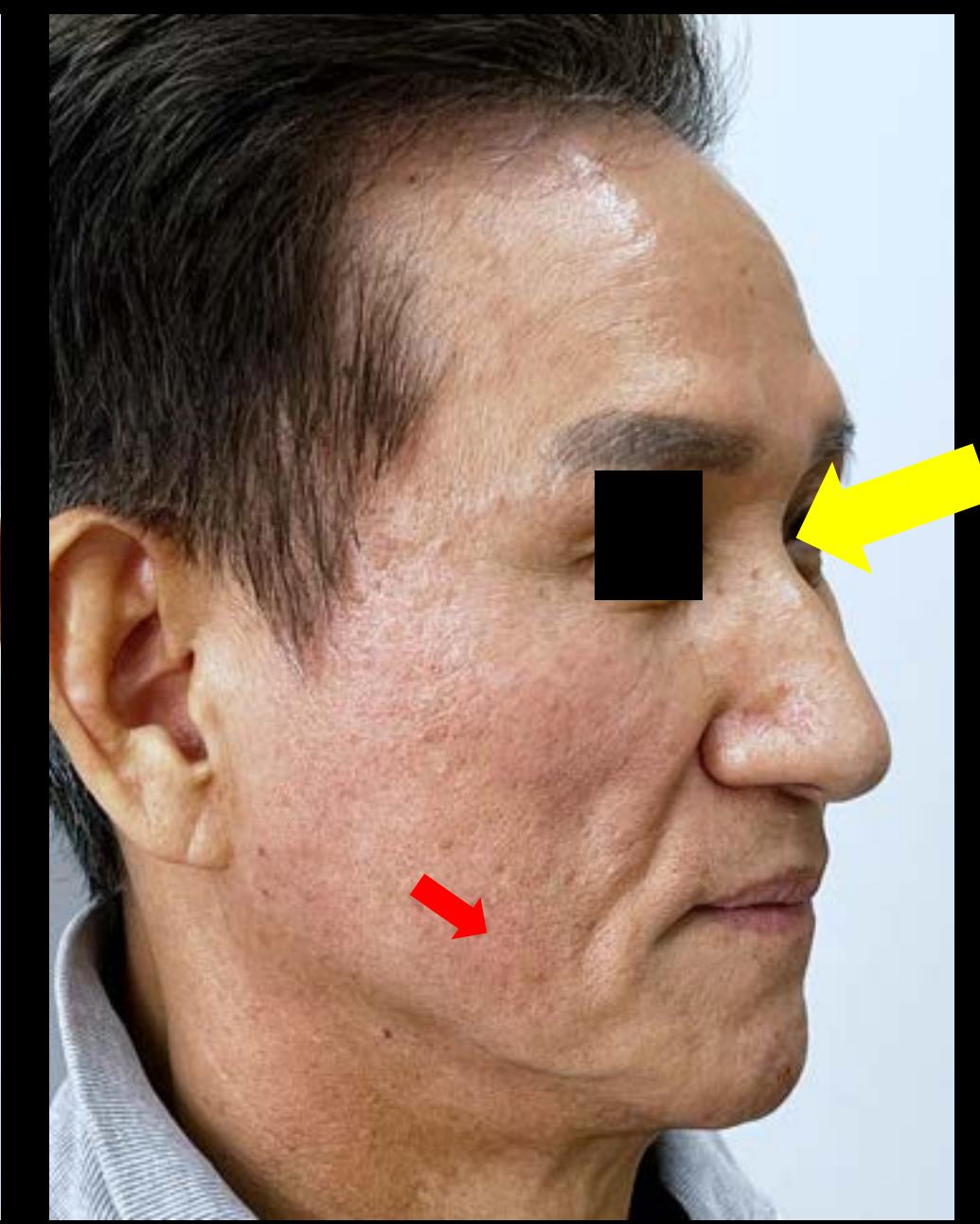
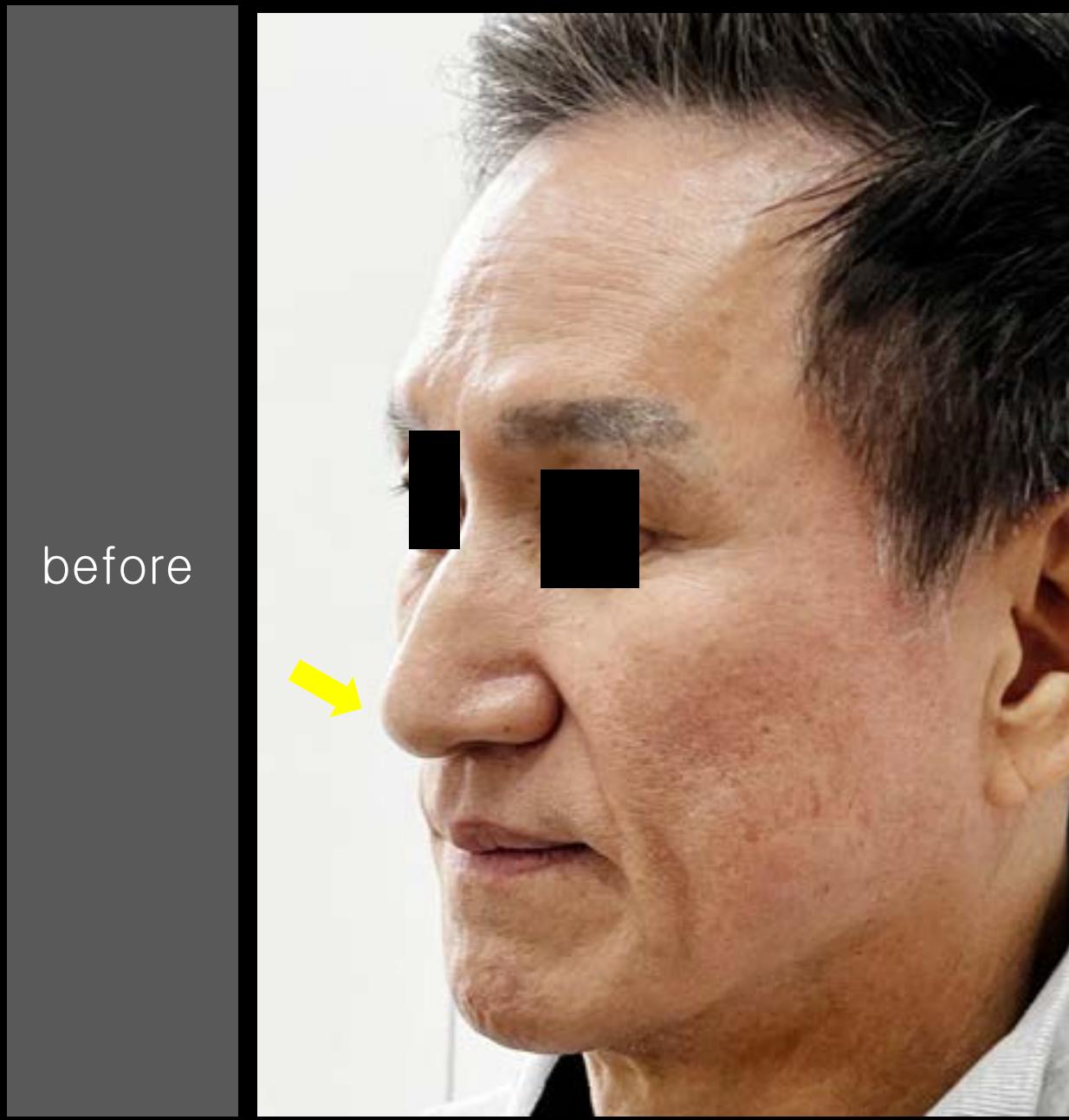


After



1 Month Later

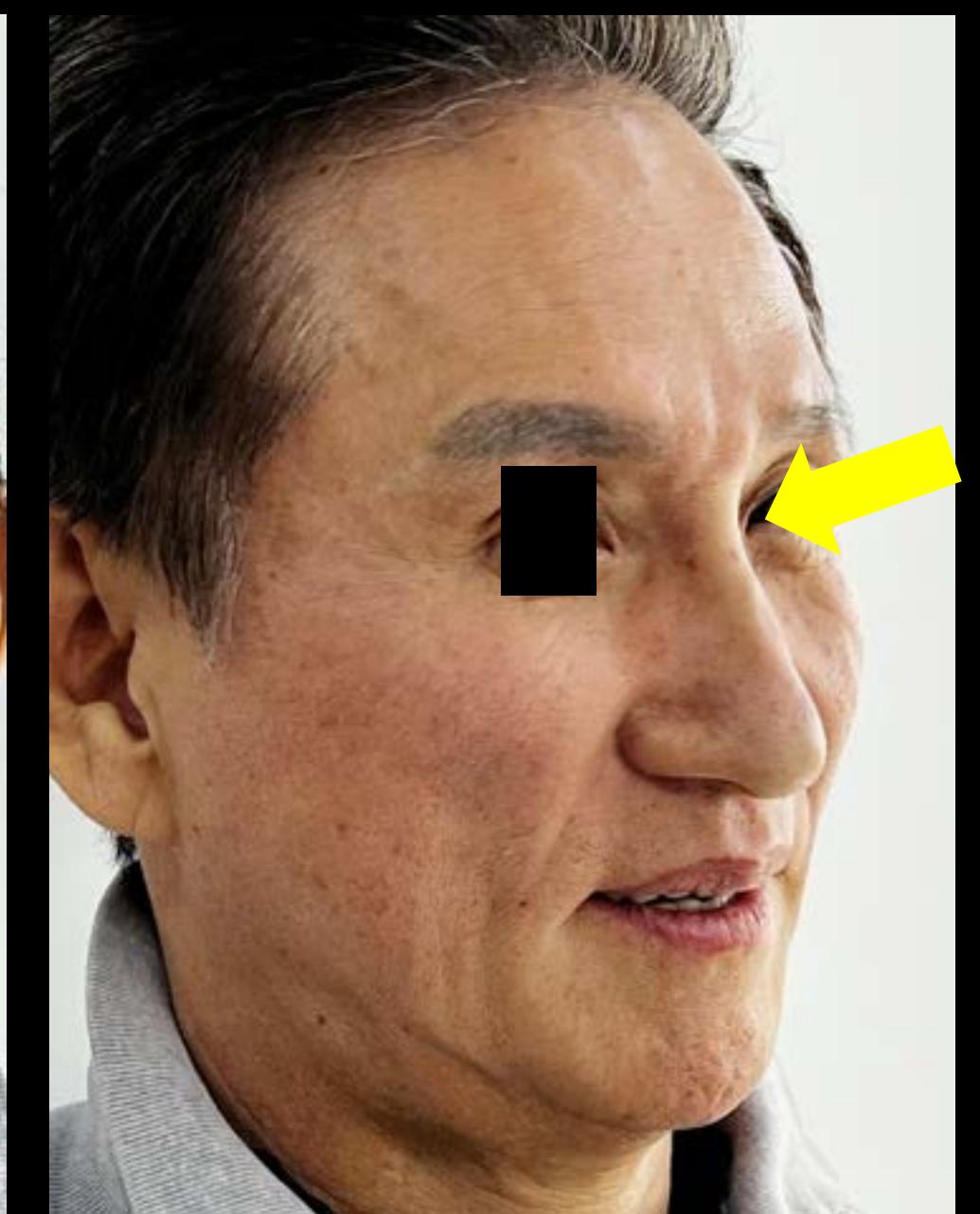
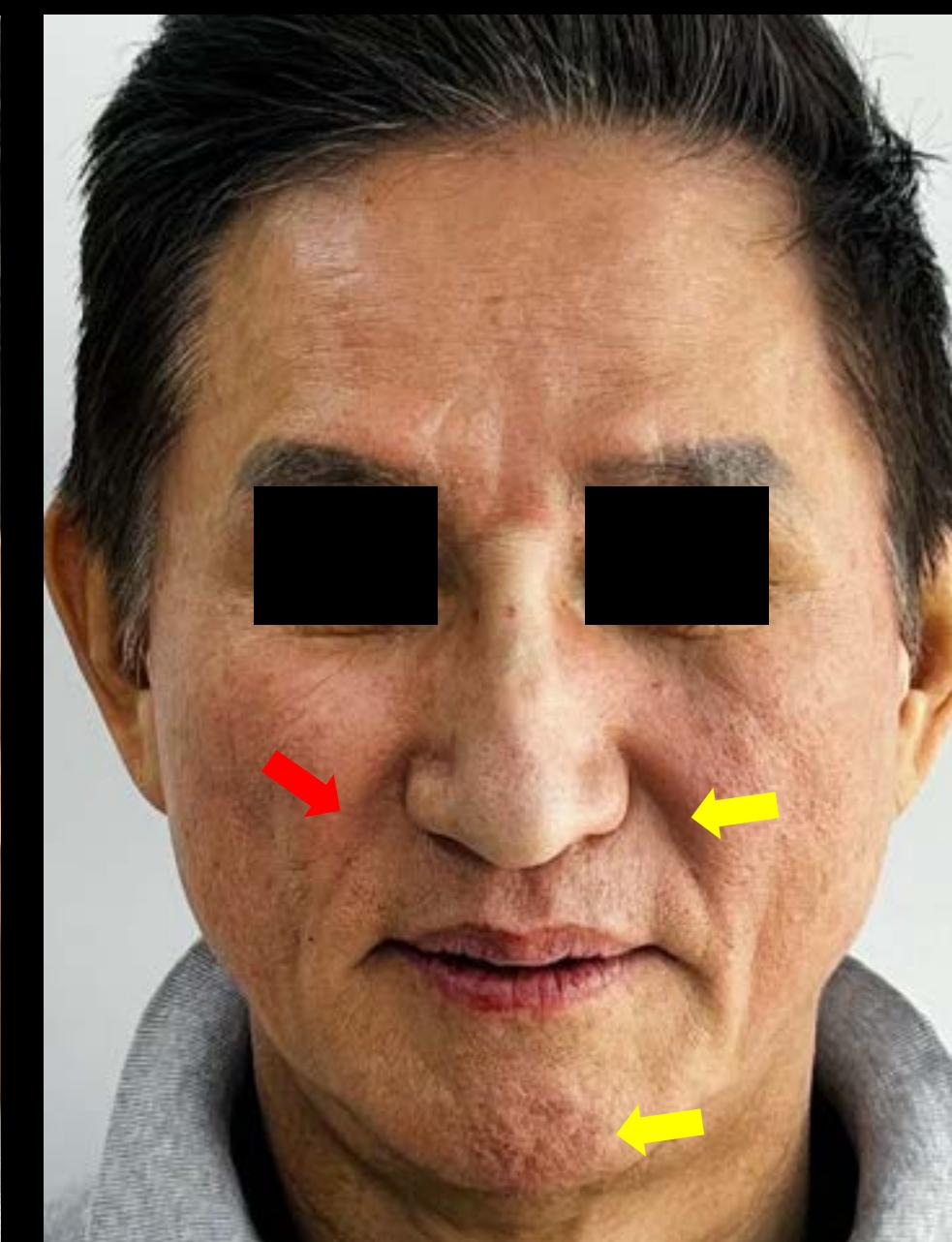




## application site

**High** ↘  
- Nose  
- Nasolabial folds  
- Chin

**Smile** ↗  
- Nasolabial folds  
- Marionette lines



**High elastic hyaluronic acid filler**



brightCT

More diverse images from one CT scan

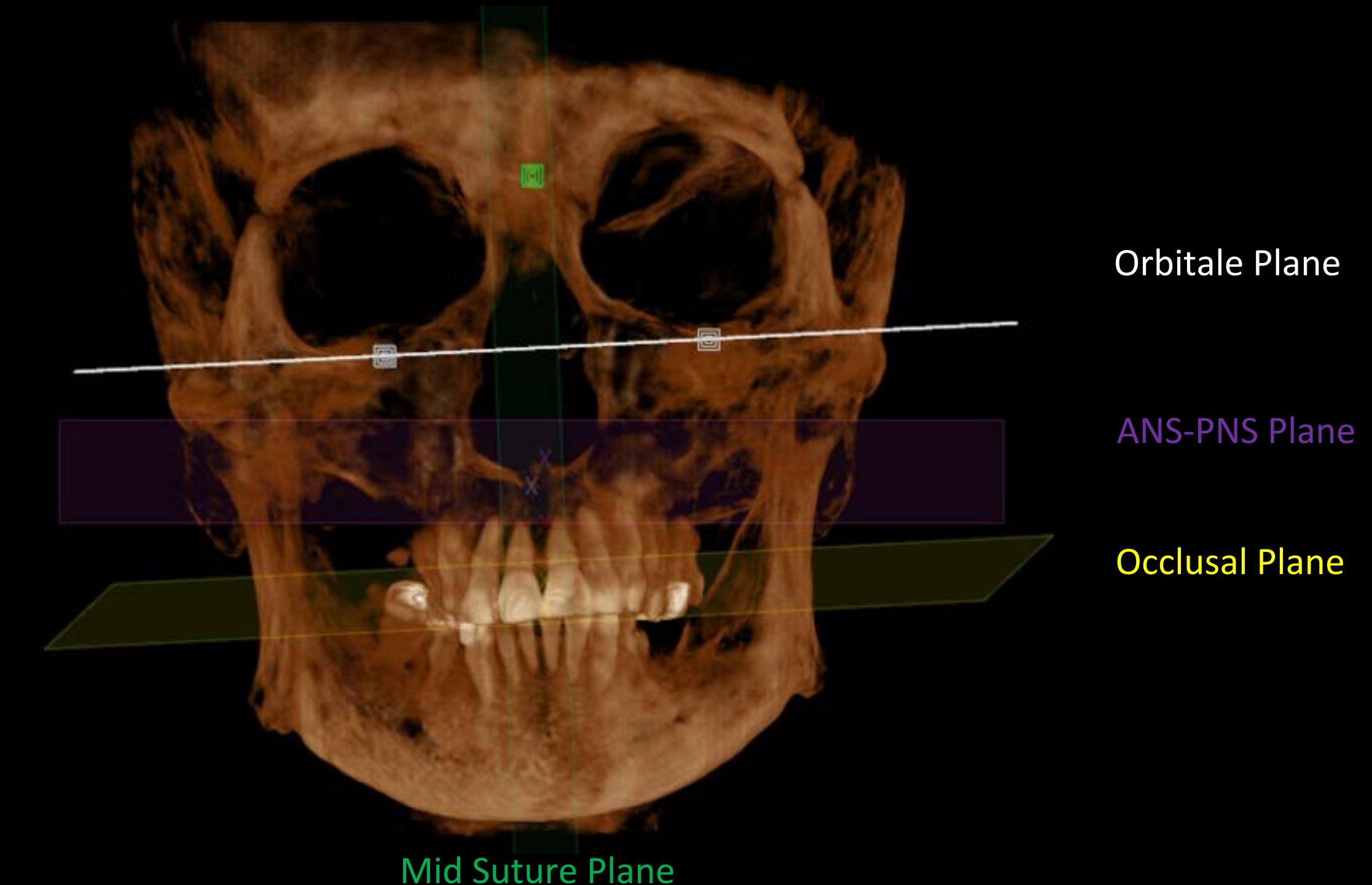
\*\* 269p Dentium CT Viewer VOD 1

# Clinical Case Applications

## Implant Cases

### 2. Advanced Case : AI Occlusal Plane

Defines ideal occlusal and midline planes using ANS-PNS, Orbitale, and Mid-suture line, helping clinicians establish precise prosthetic and orthodontic references.



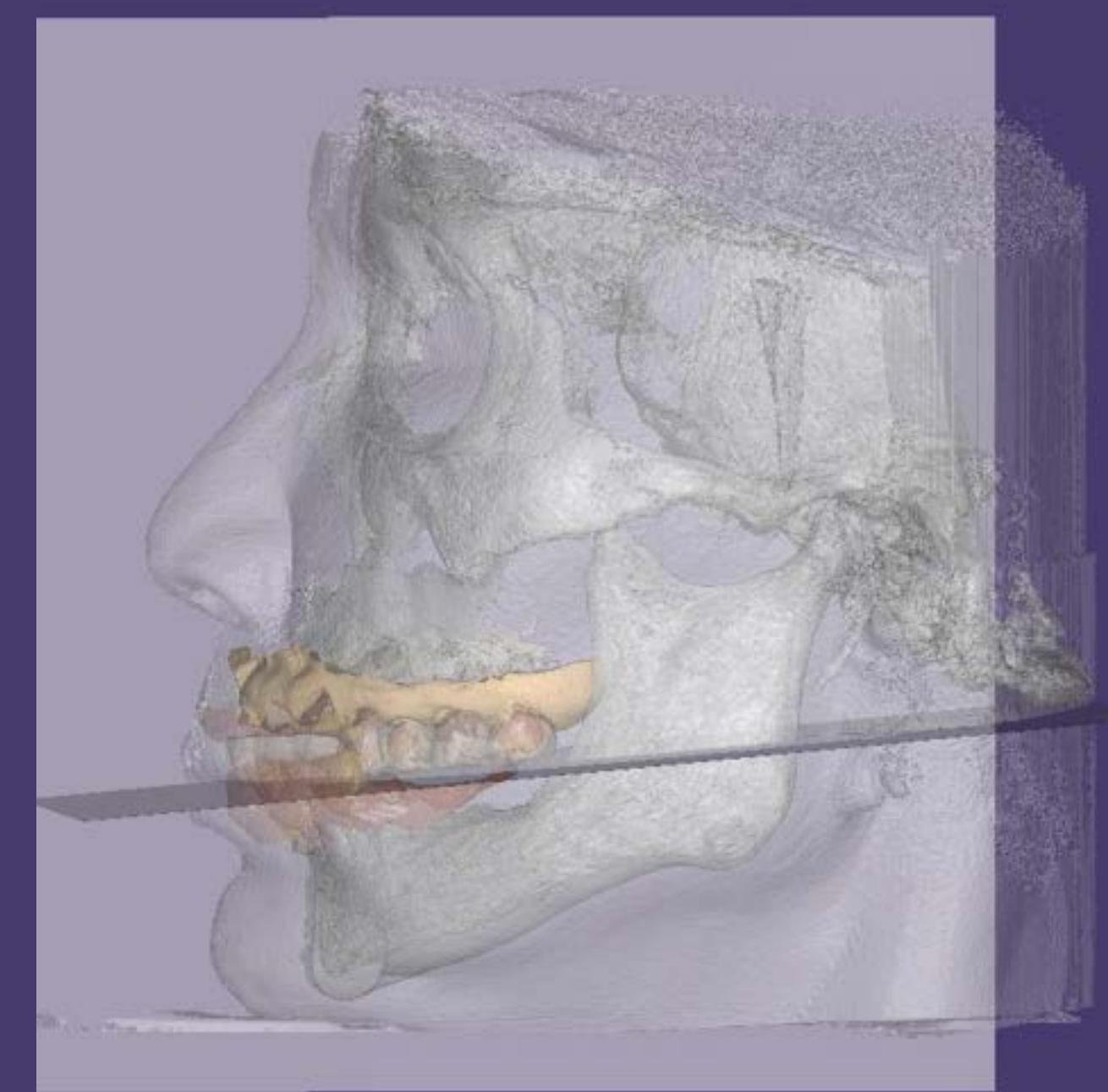
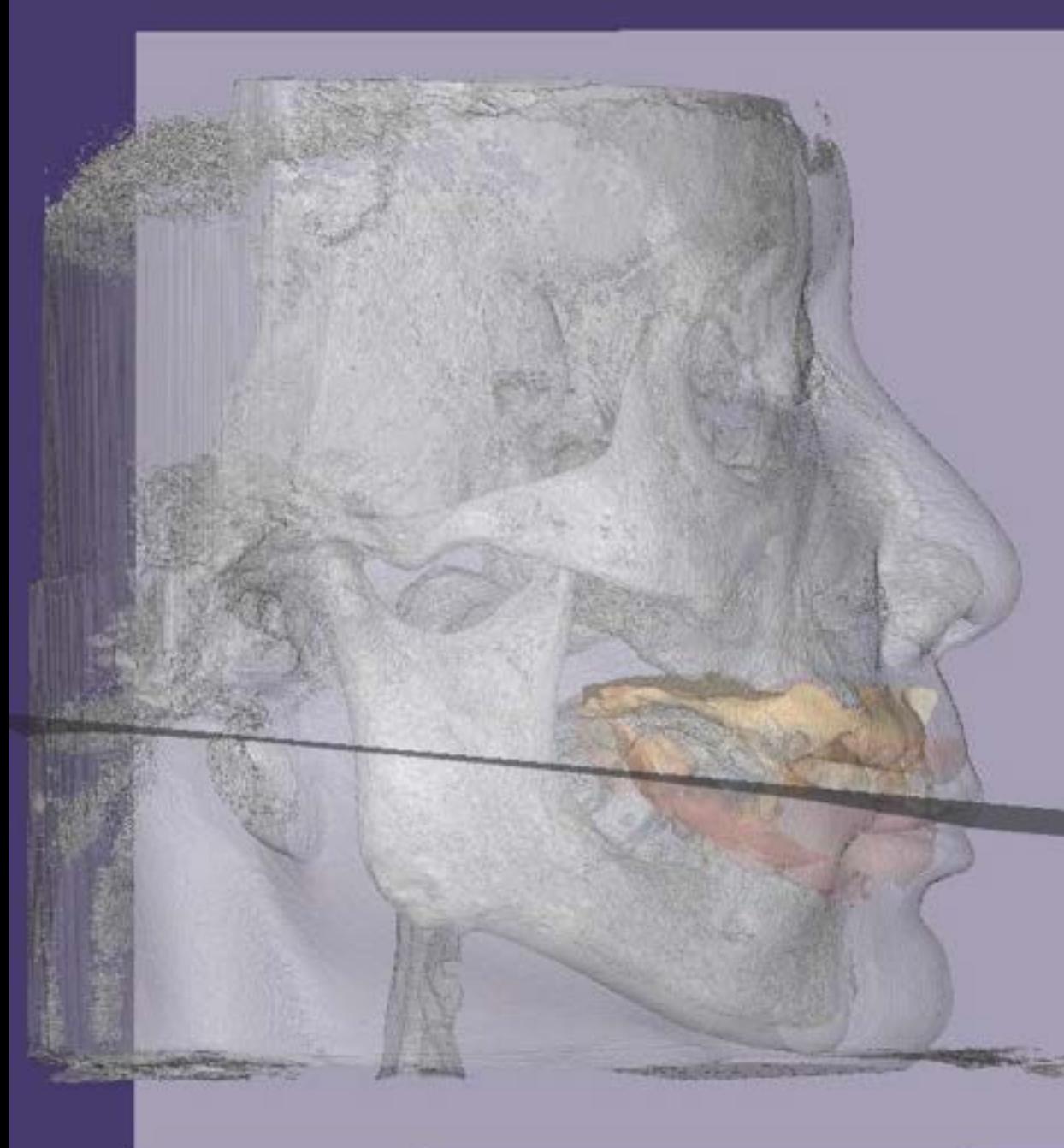
# Clinical Case Applications

## Implant Cases

### 2. Advanced Case : AI Occlusal Plane

2

Export occlusal plane, midline, and tissue data from the viewer as STL files to CAD for alignment with working models.



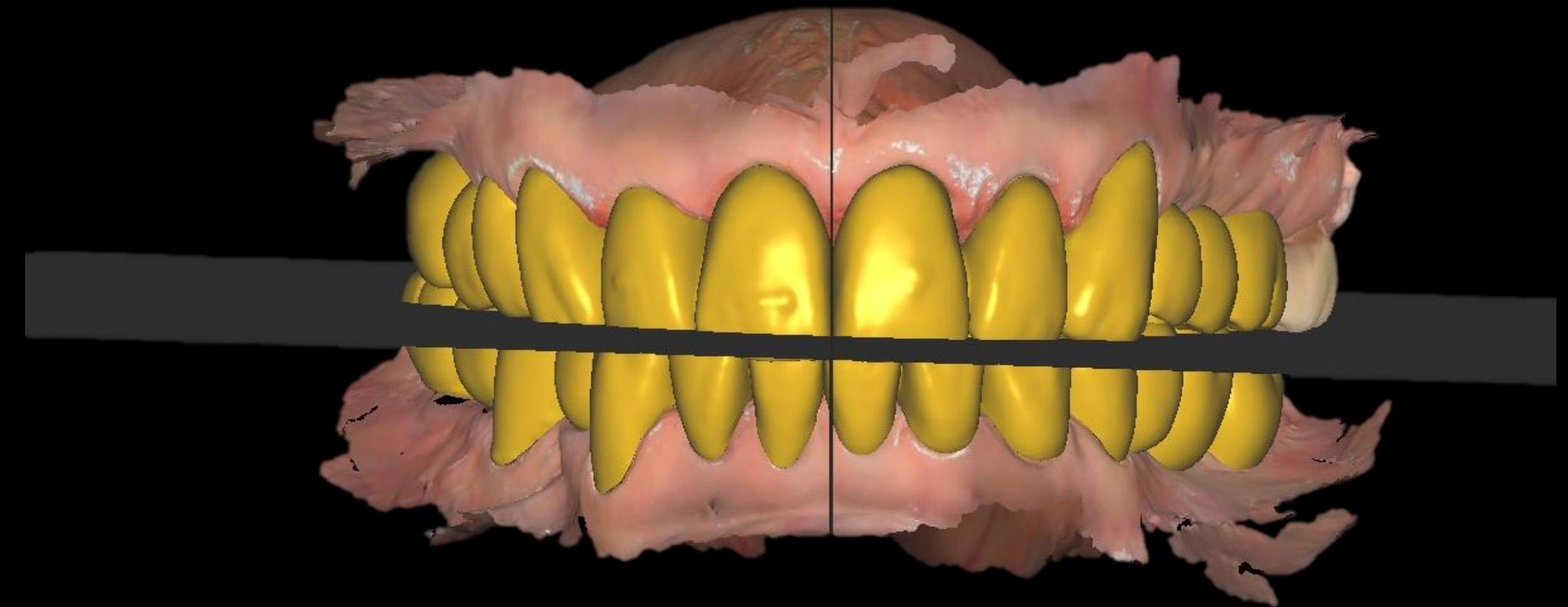
# Clinical Case Applications

## Implant Cases

### 2. Advanced Case : AI Occlusal Plane

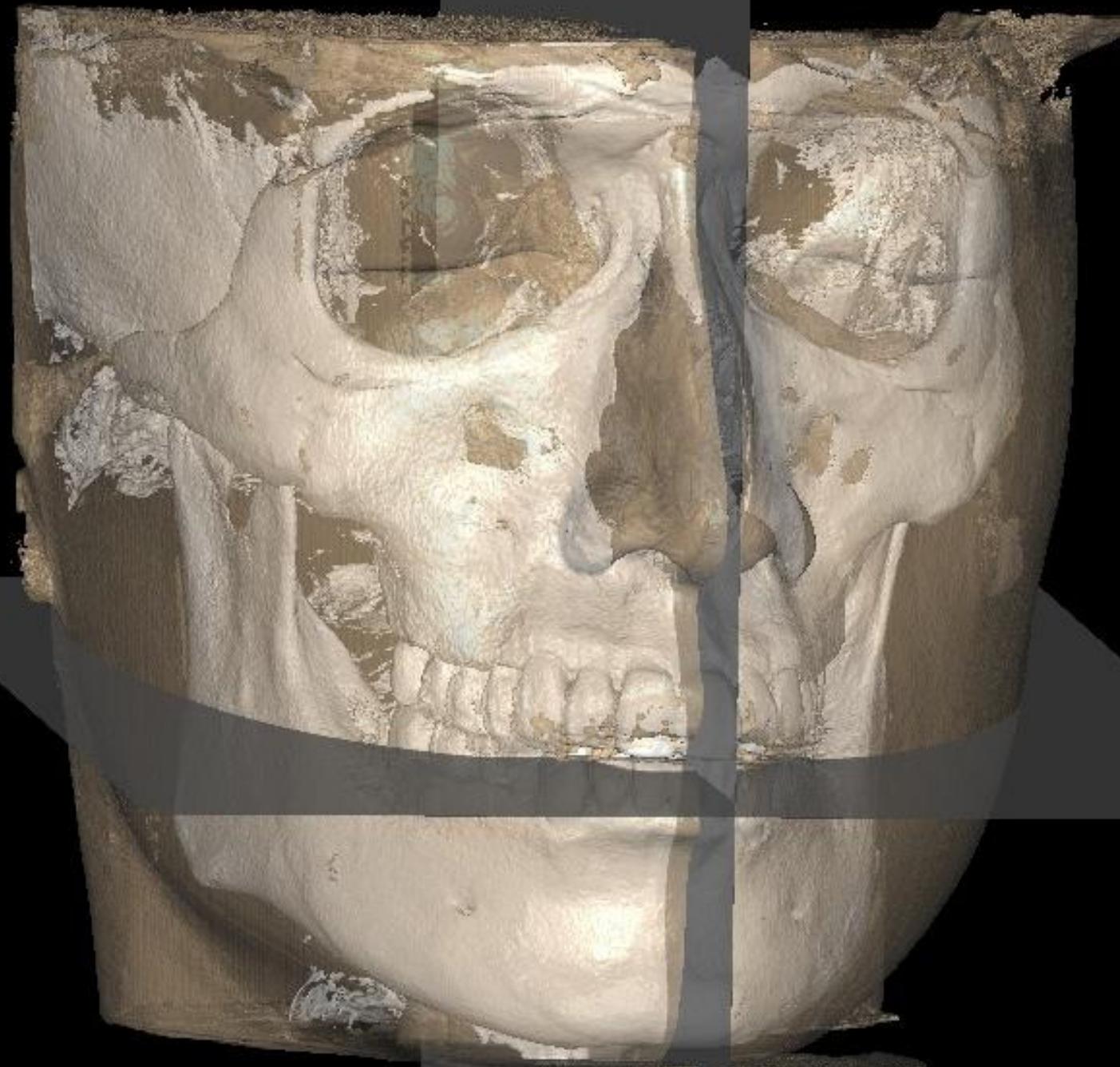
4

AI-generated midline and occlusal plane provide exact guidelines for tooth alignment in edentulous cases, especially in upper anterior esthetics.



CAD

# CT data with Orthodontics diagnose



CT data

(AI occlusal plane, Hard & Soft Tissue data)

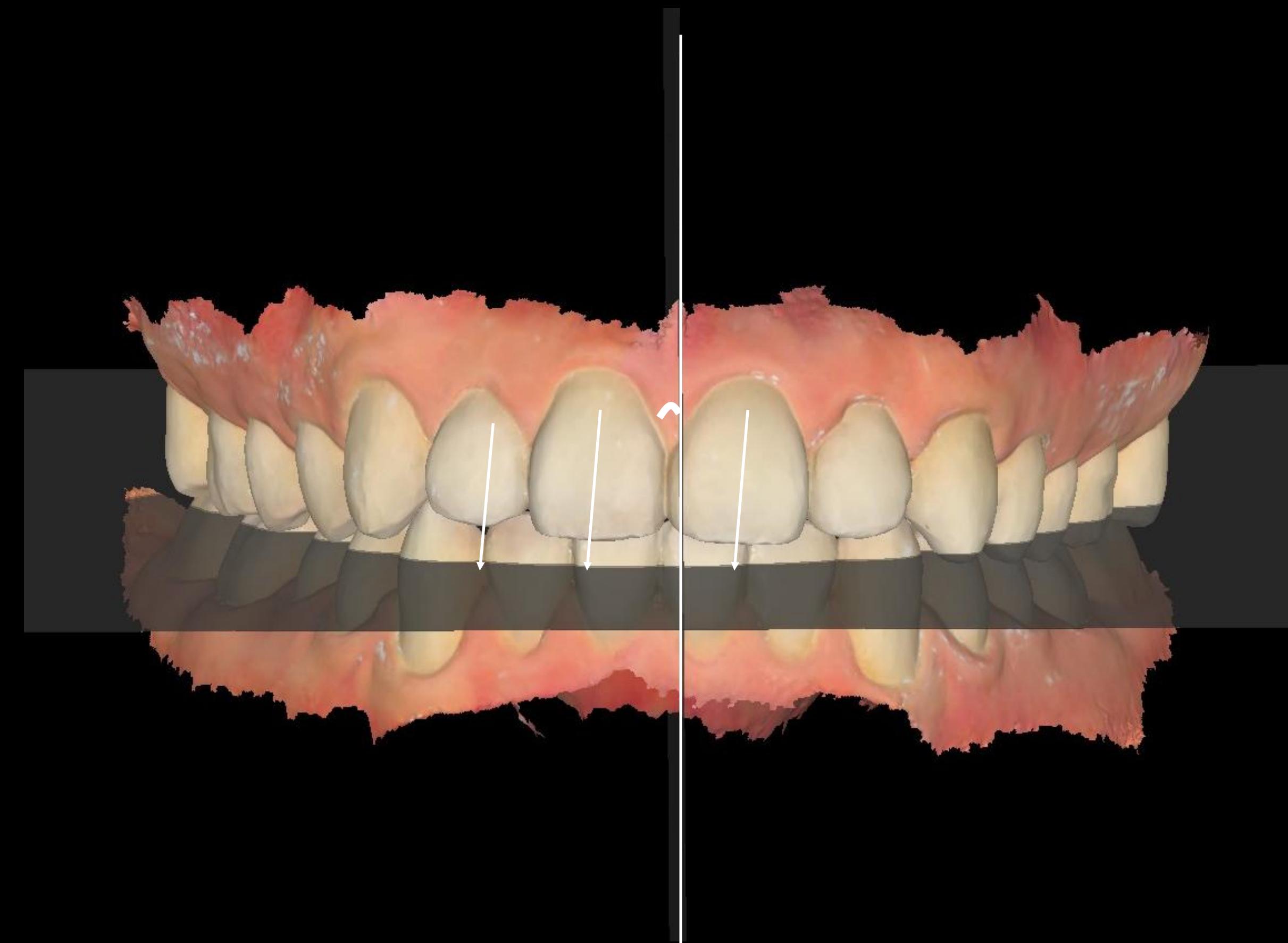


Shining 3d Elite los scan data



Shining 3d MetiSmile

# CT data with Orthodontics diagnose



**\*\*Assessment of Deviated Anterior Maxillary Tooth Axis & Midline\*\***

# CT data with Orthodontics diagnose

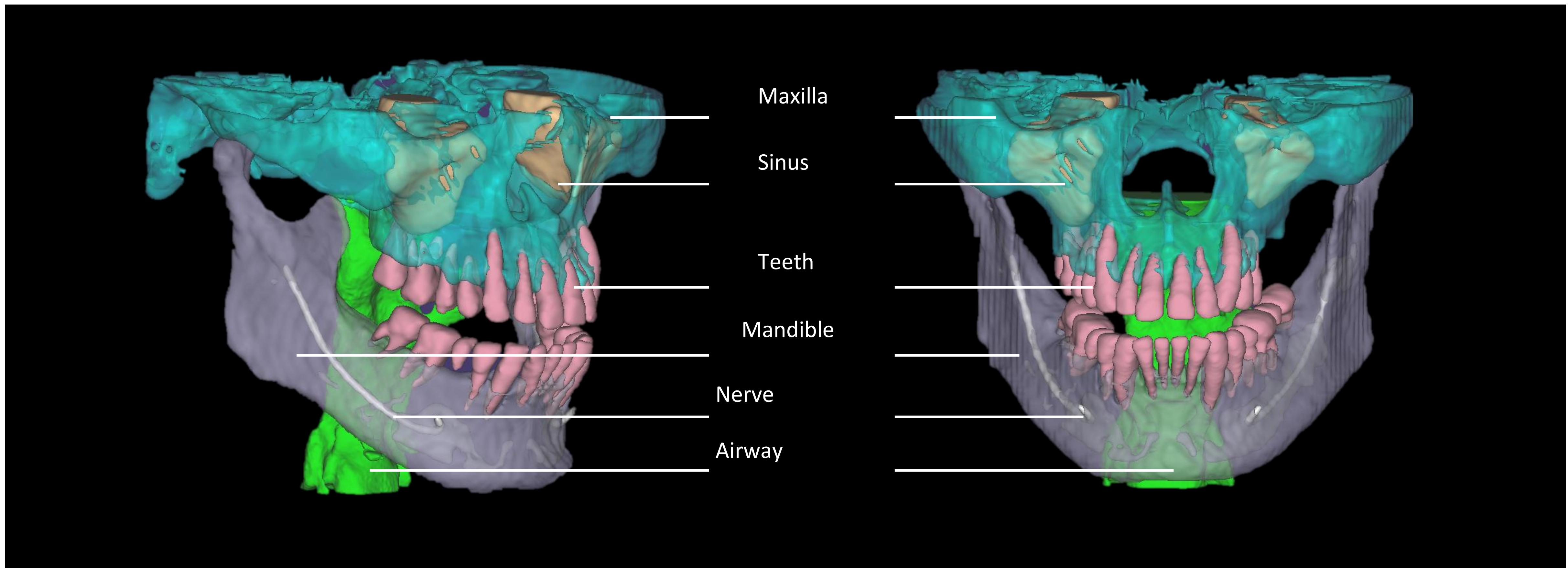


**\*\*Diagnosis of the occlusal plane in the left and right molars and mandibular anterior teeth\*\***

# Clinical Value

## AI Segmentation

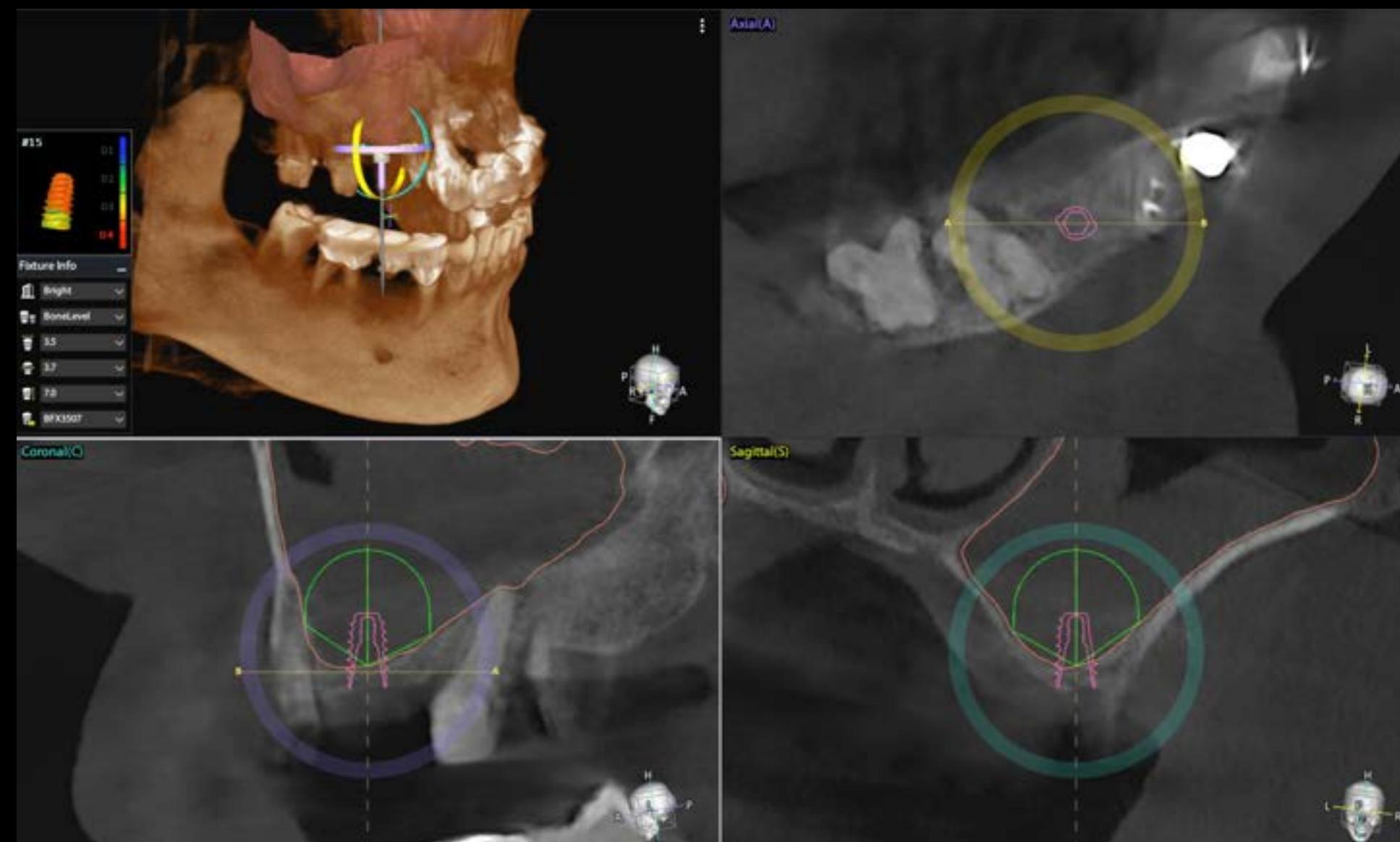
Automatically segments teeth, nerves, bones, sinus and airway clearly — very helpful for intuitive diagnosis and patient consultation.



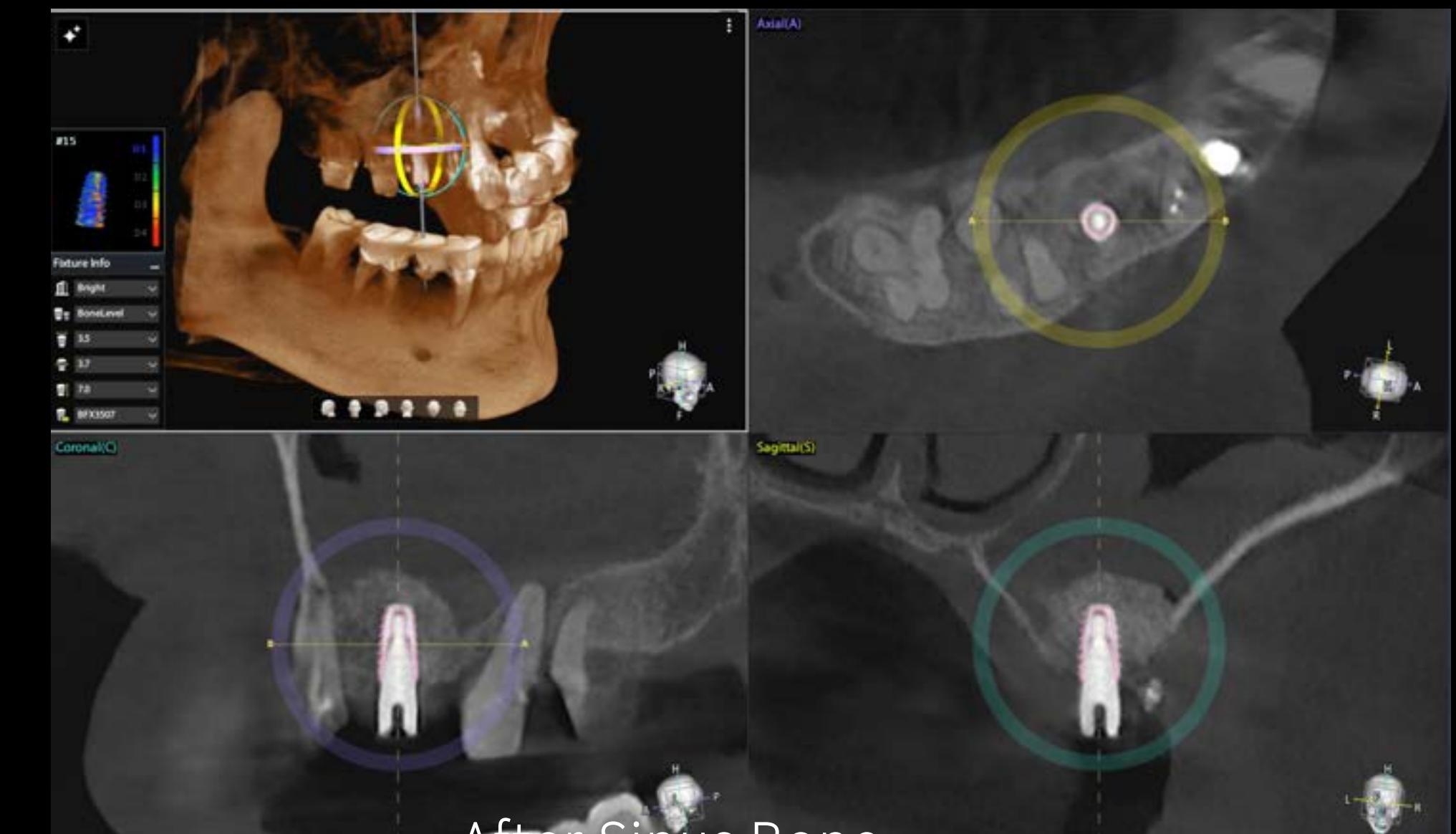
# Clinical Value

## AI Sinus Bone Graft

Based on segmented maxillary sinus data, the AI feature provides a visualization of the expected augmented volume in areas requiring sinus grafting.



Bone Graft Simulation

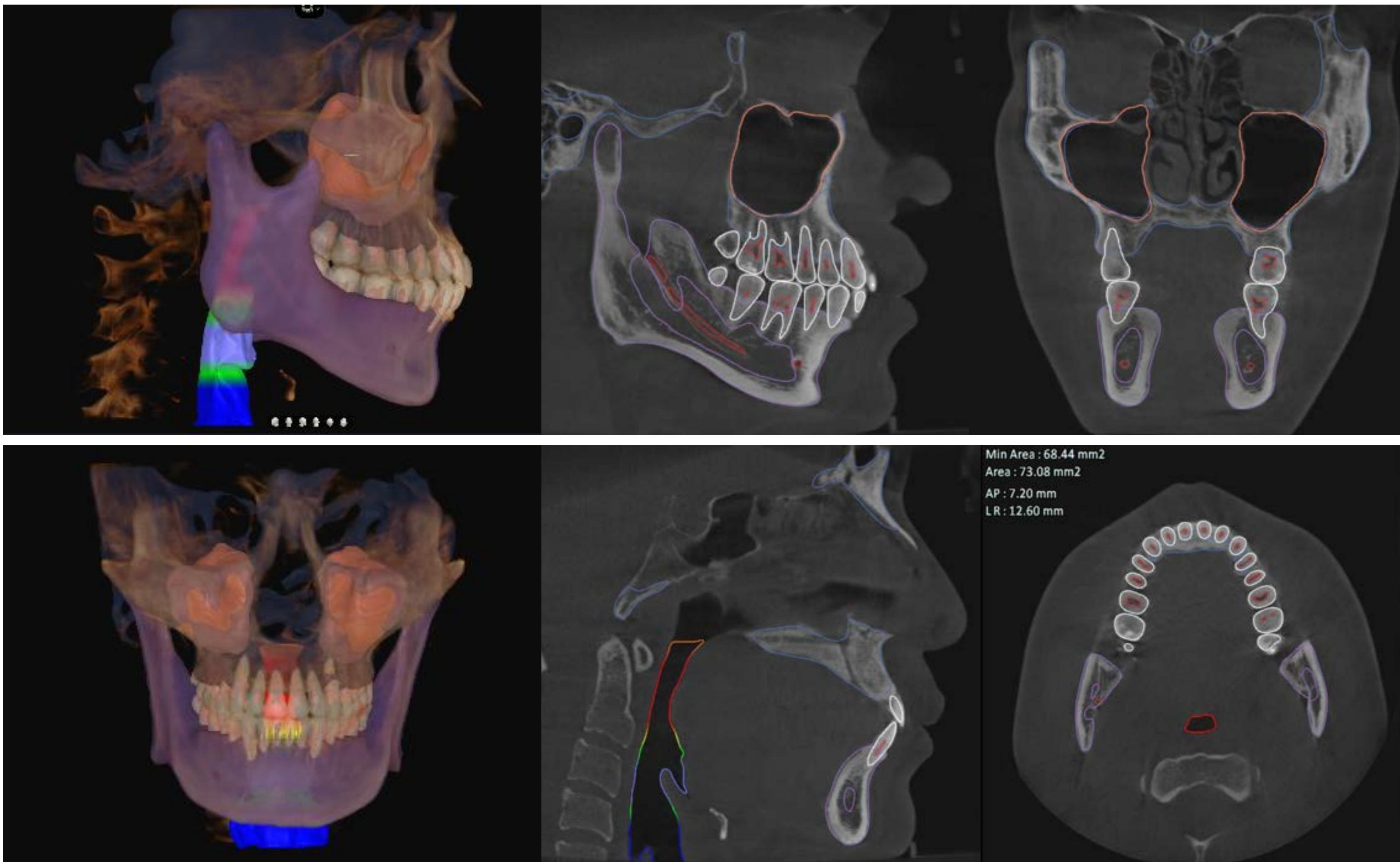


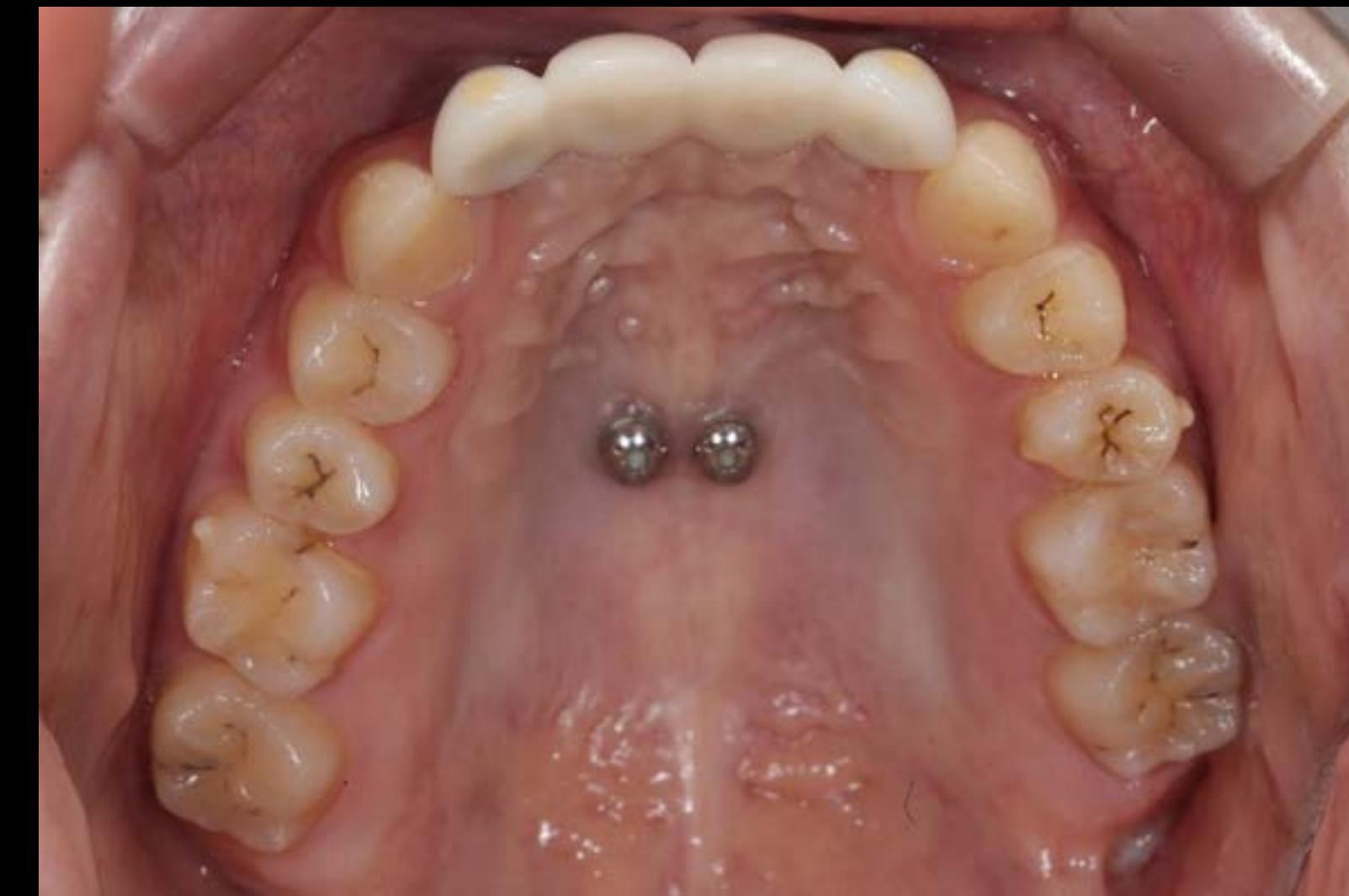
After Sinus Bone  
Graft

# Clinical Value

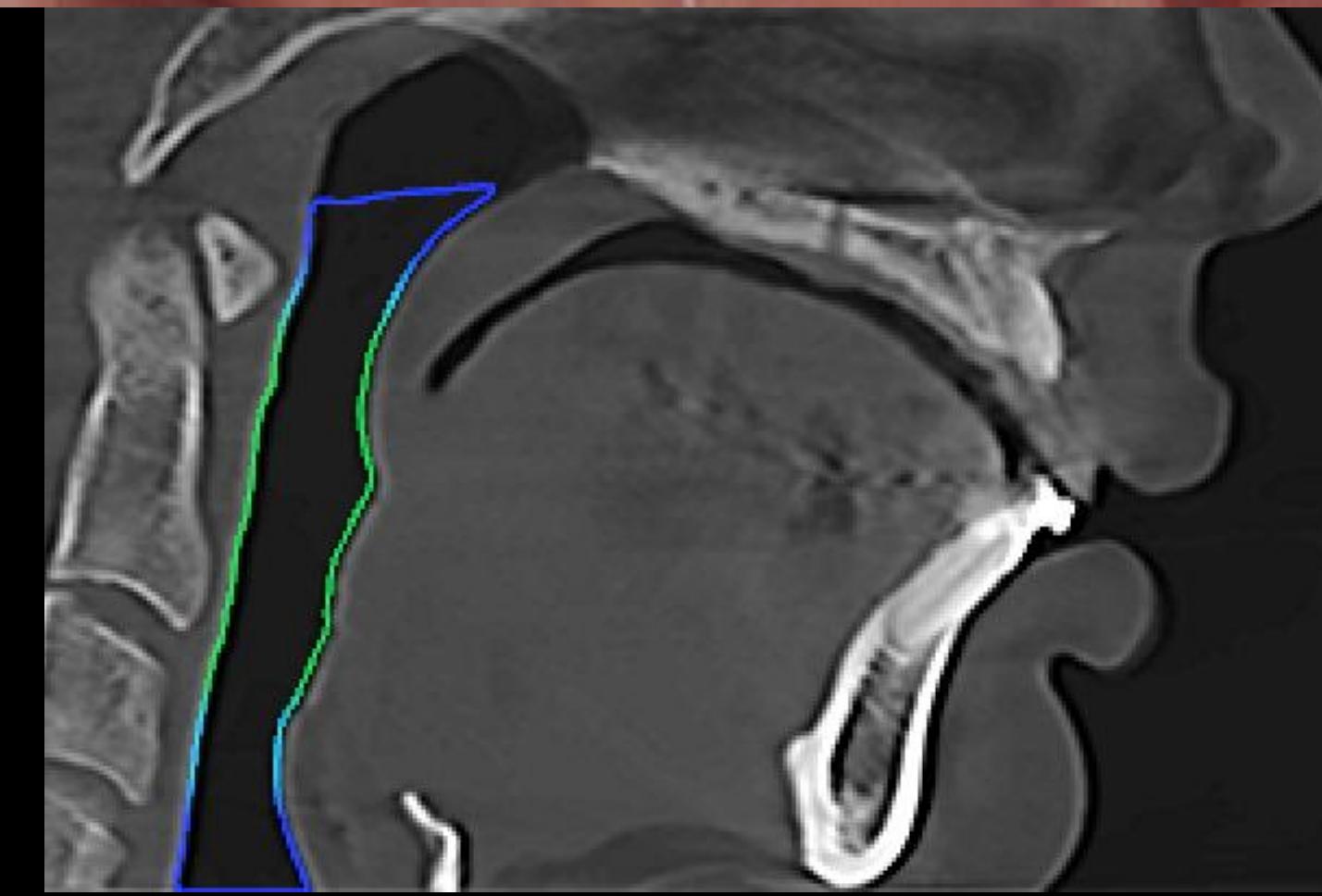
## AI Segmentation

Automatically segments teeth, nerves, bones, sinus and airway clearly — very helpful for intuitive diagnosis and patient consultation.





Before  
2023.12

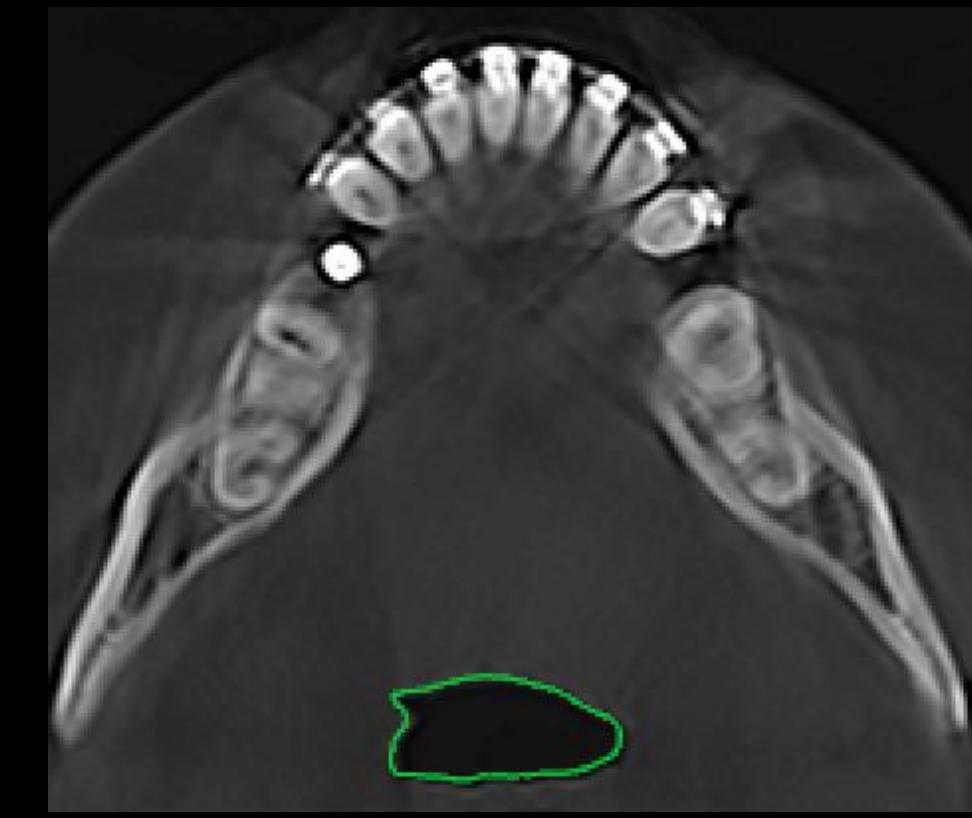


After  
2025.08



Total Volume : 11.13 cc  
Min Area : 0.00 mm<sup>2</sup>  
Area : 96.12 mm<sup>2</sup>  
AP : 6.20 mm  
LR : 19.00 mm  
100 300

96.12



Total Volume : 15.80 cc  
Min Area : 196.72 mm<sup>2</sup>  
Area : 221.80 mm<sup>2</sup>  
AP : 10.80 mm  
LR : 24.20 mm  
100 300

221.80

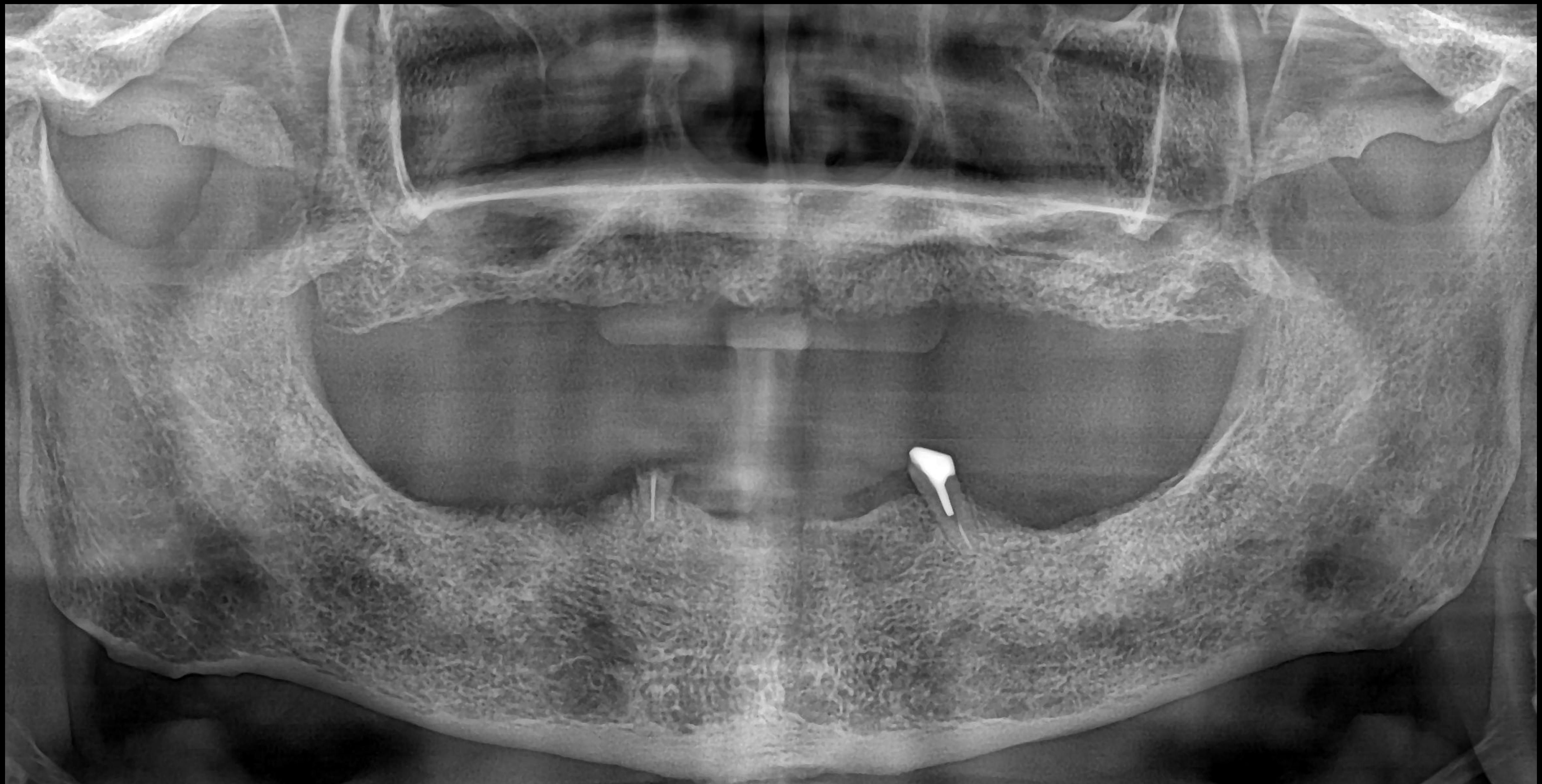
Mandibular orthodontic  
treatment in progress  
→ Continuous F/U required

# bright Implant

---



Pre-op (2025-07-08)



# All on x Denture Stent



Duplicating an existing denture and using it as a stent

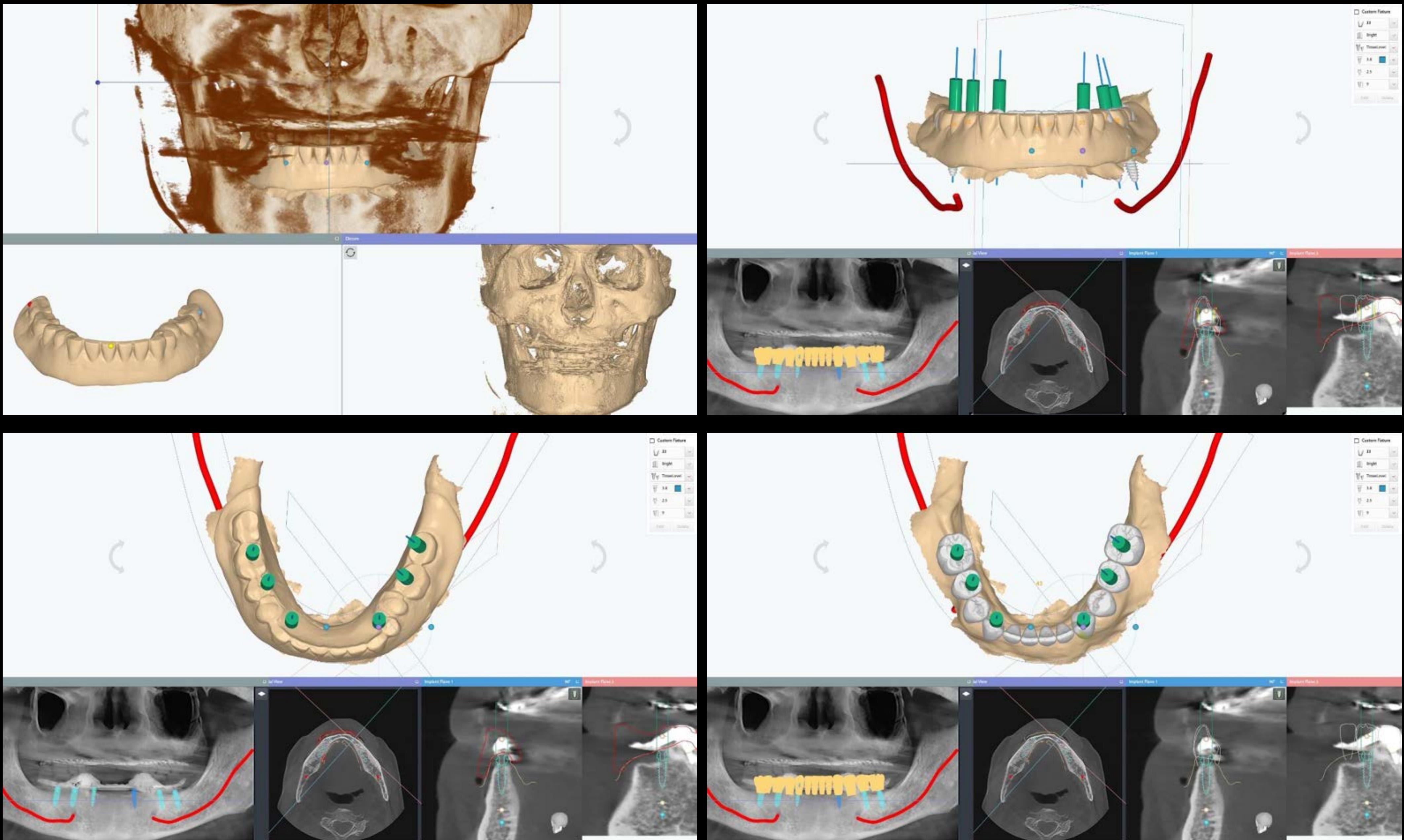
**\*\*Digital Guide software is used to check bone density at the surgical site and assess non ideal occlusion\*\***

# All on x Denture Stent

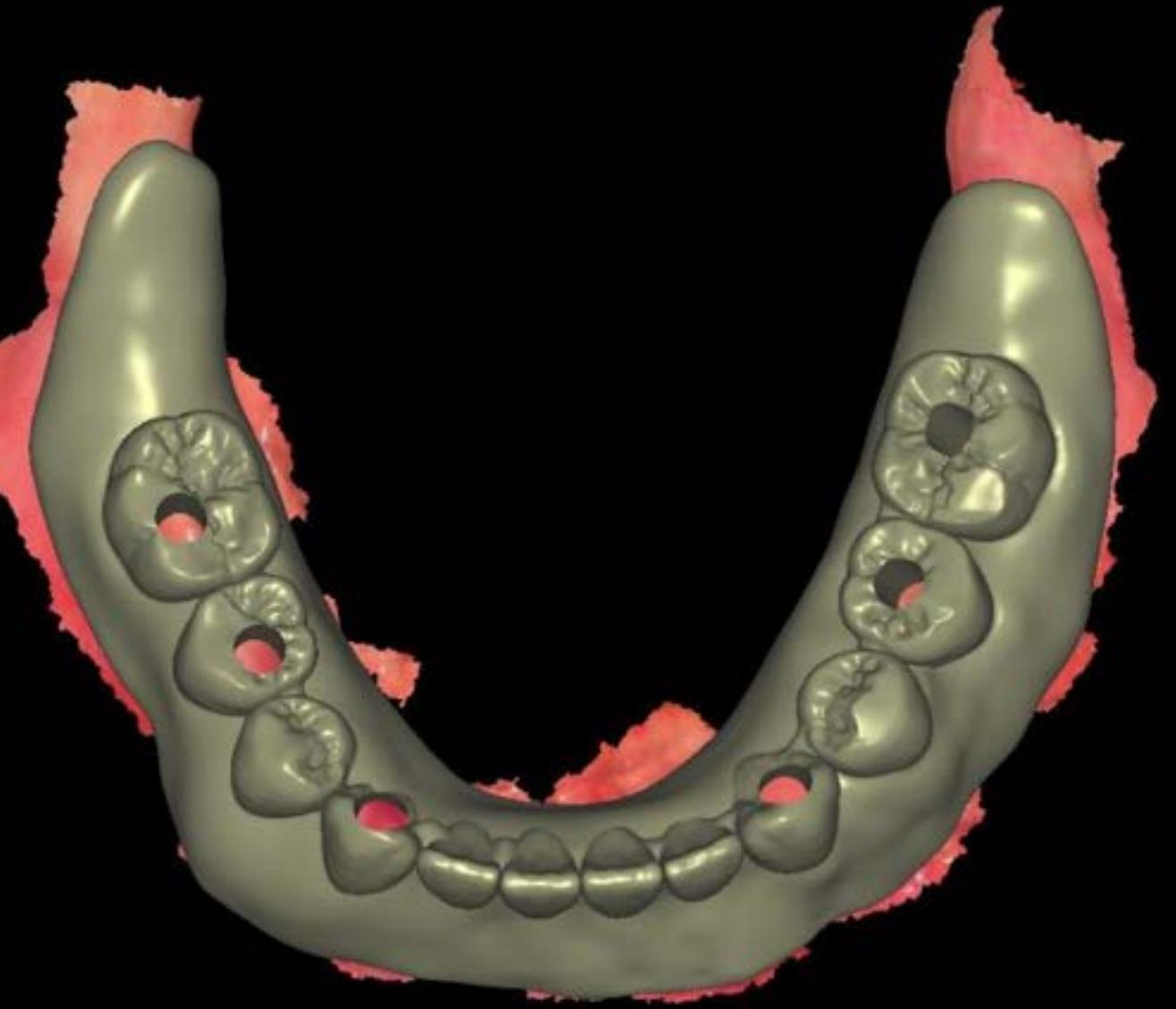


**Set up in an ideal position instead of the existing denture's occlusion,  
then fabricate a Denture stent & Check bite Denture**

# All on x Denture Stent

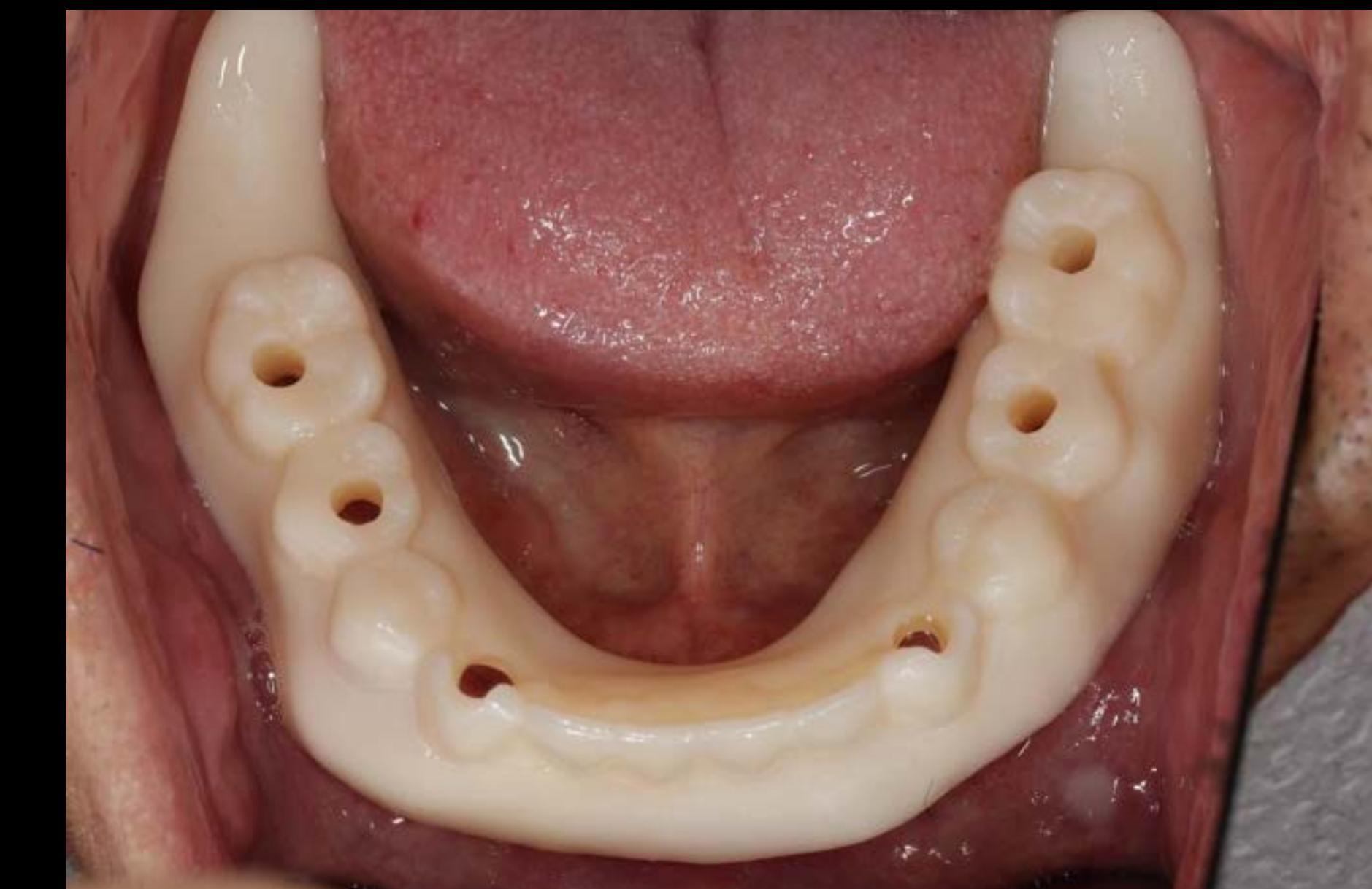
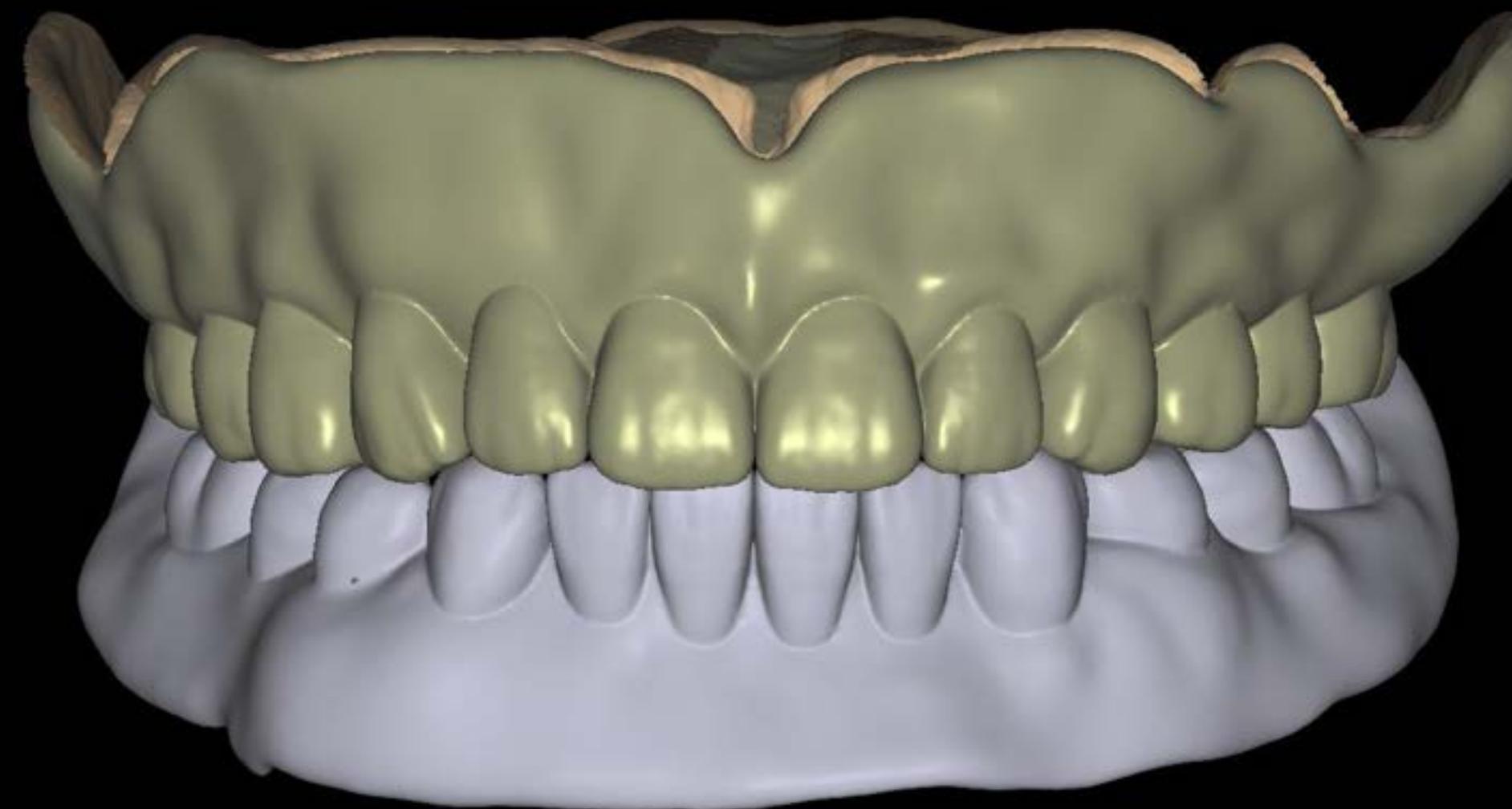


# All on x Denture Stent



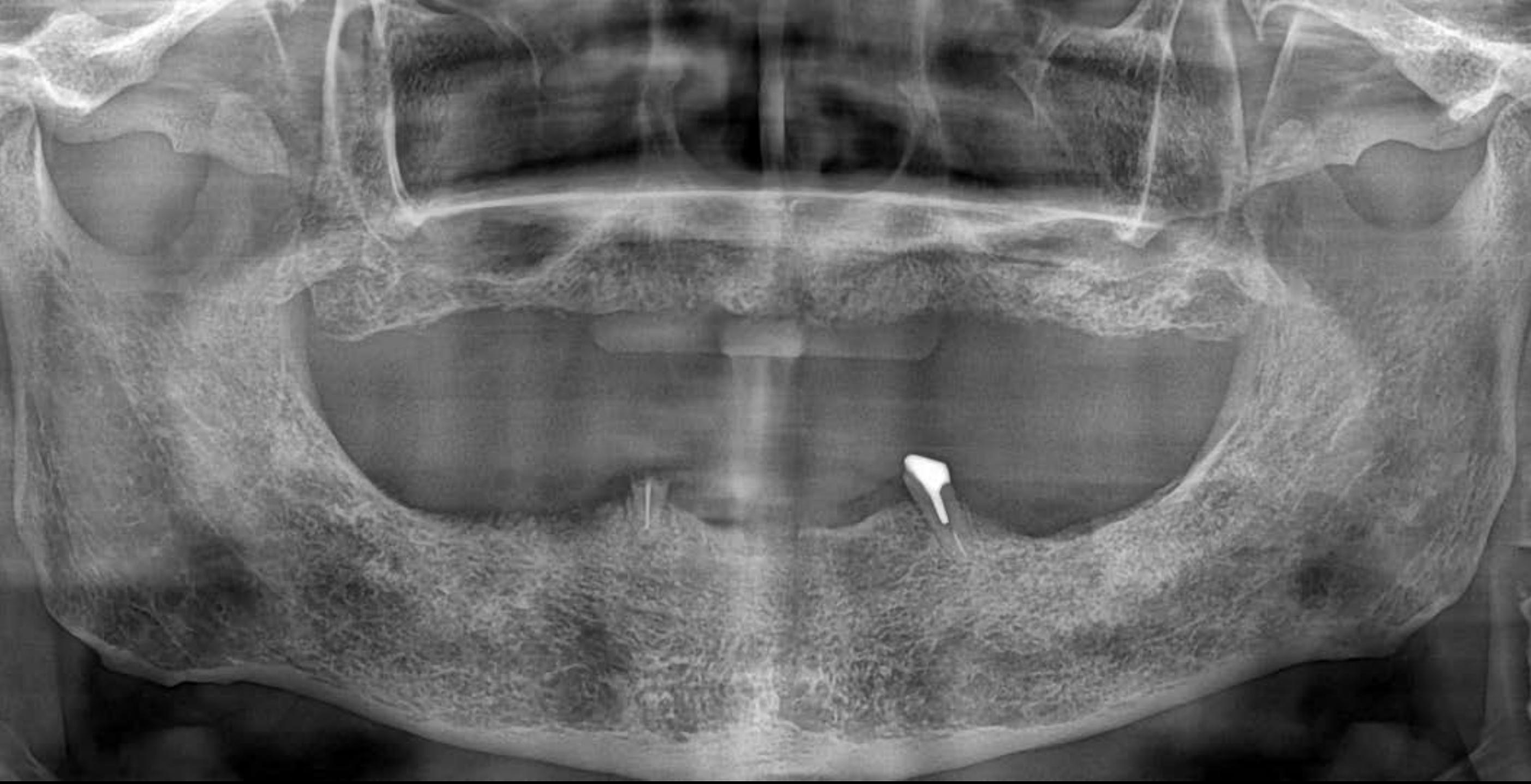
기존 Denture의 교합관계 대신 ideal 한 위치로 Set up 후  
Denture stent & Check bite Denture 제작

# All on x Denture Stent

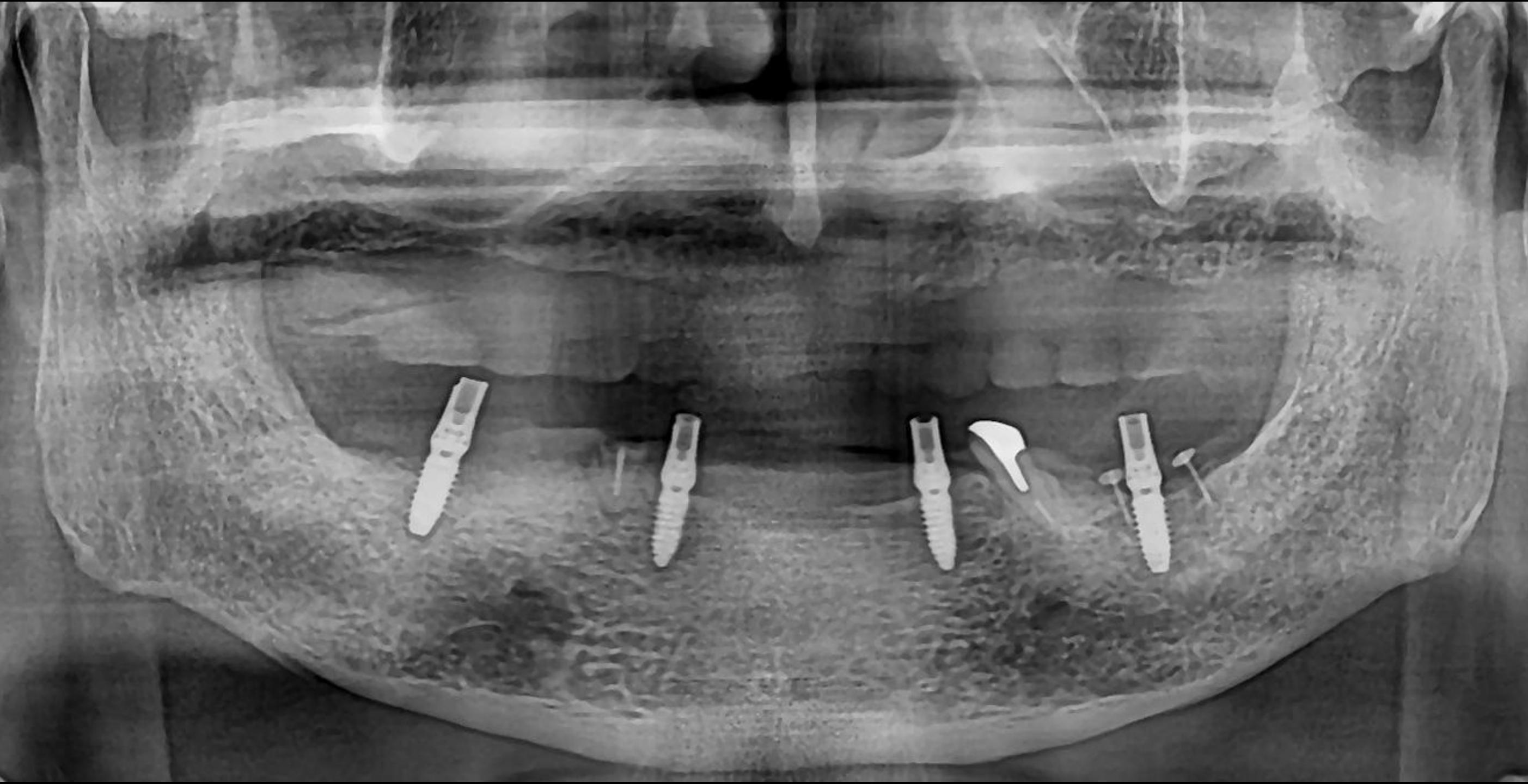


Check bite & Vertical dimension adjustments during the intraoral check bite

Pre-op (2025-07-08)



Post-op (2025-07-22)



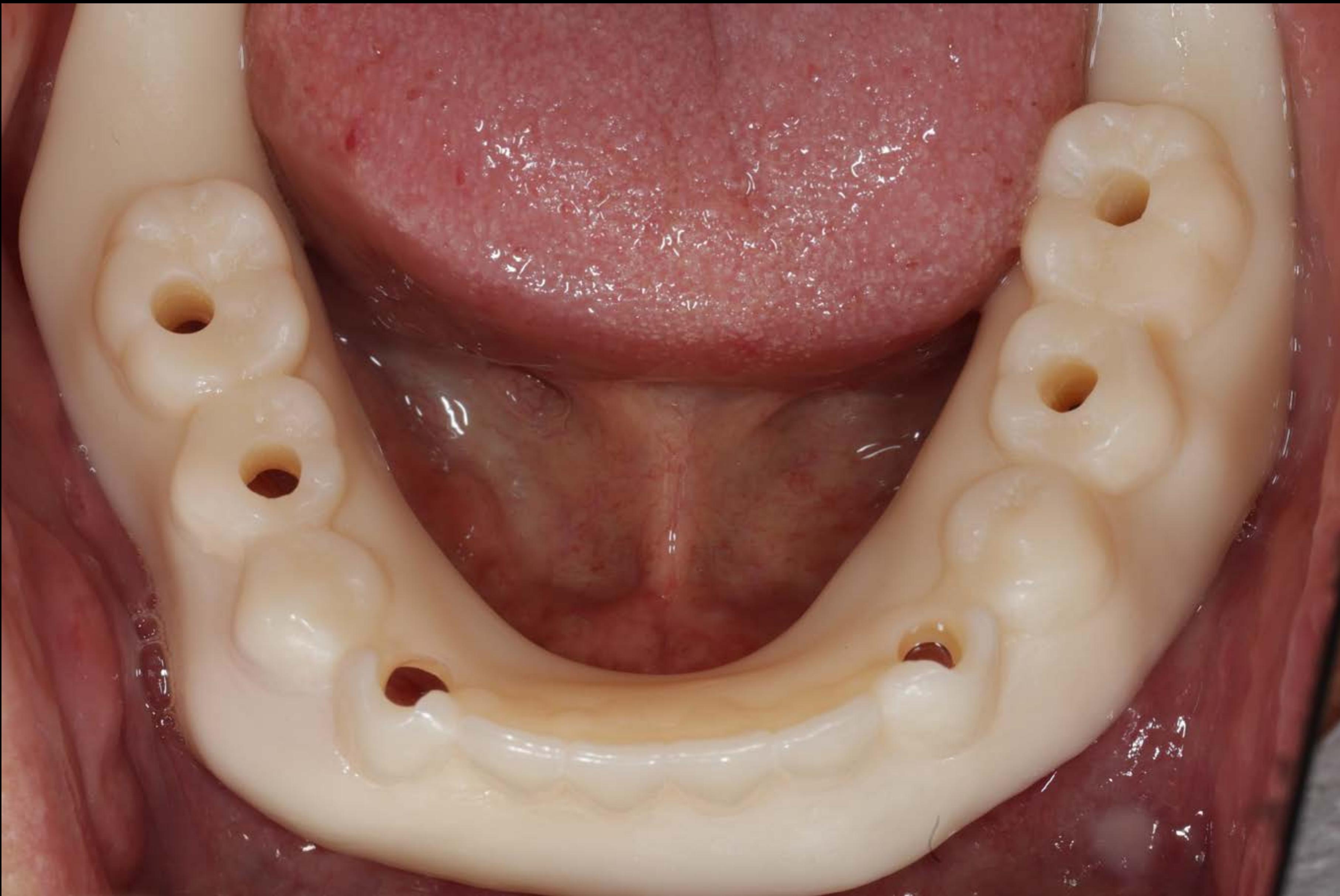
Denture



# Duplicated and 3D-printed Denture for use as a surgical guide



Duplicated and 3D-printed Denture for use as a surgical guide



Pre-op (2025-07-22)



# Rehabilitation of Severely atrophic Edentulous mandible



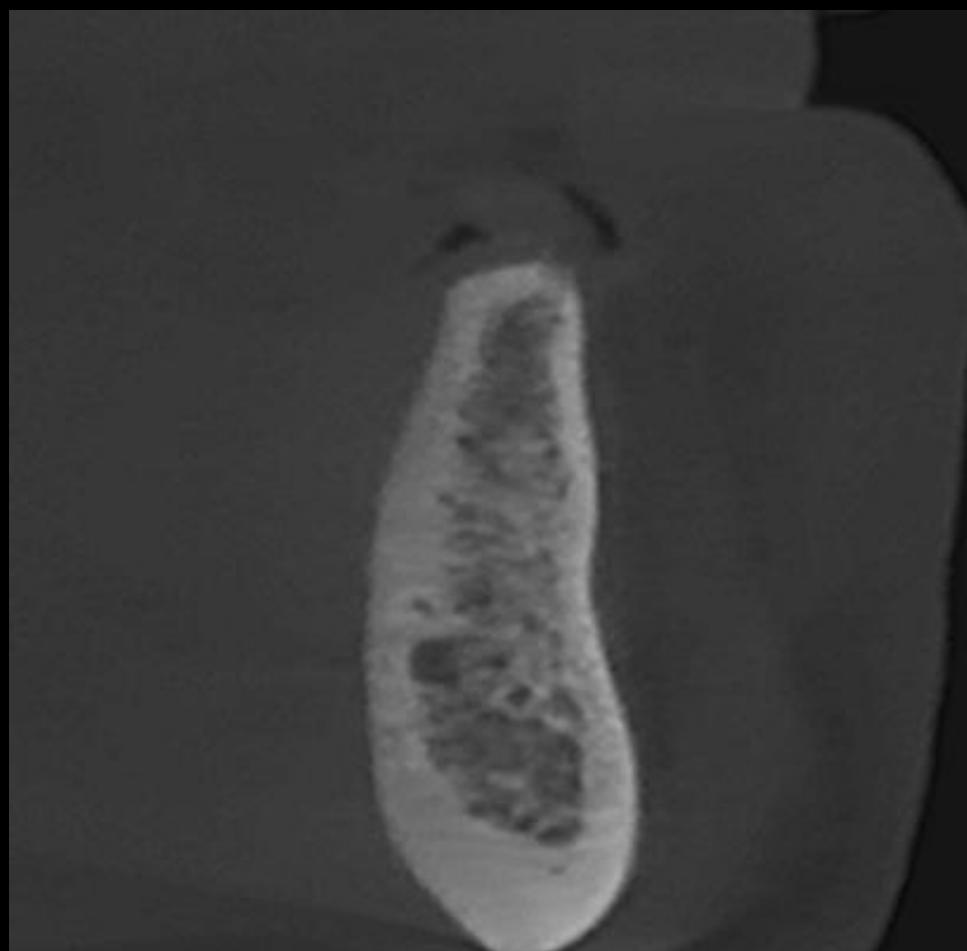
Dentium dental Clinic  
Dr. SM Chung

**\*\* 292p Surgery VOD 8**

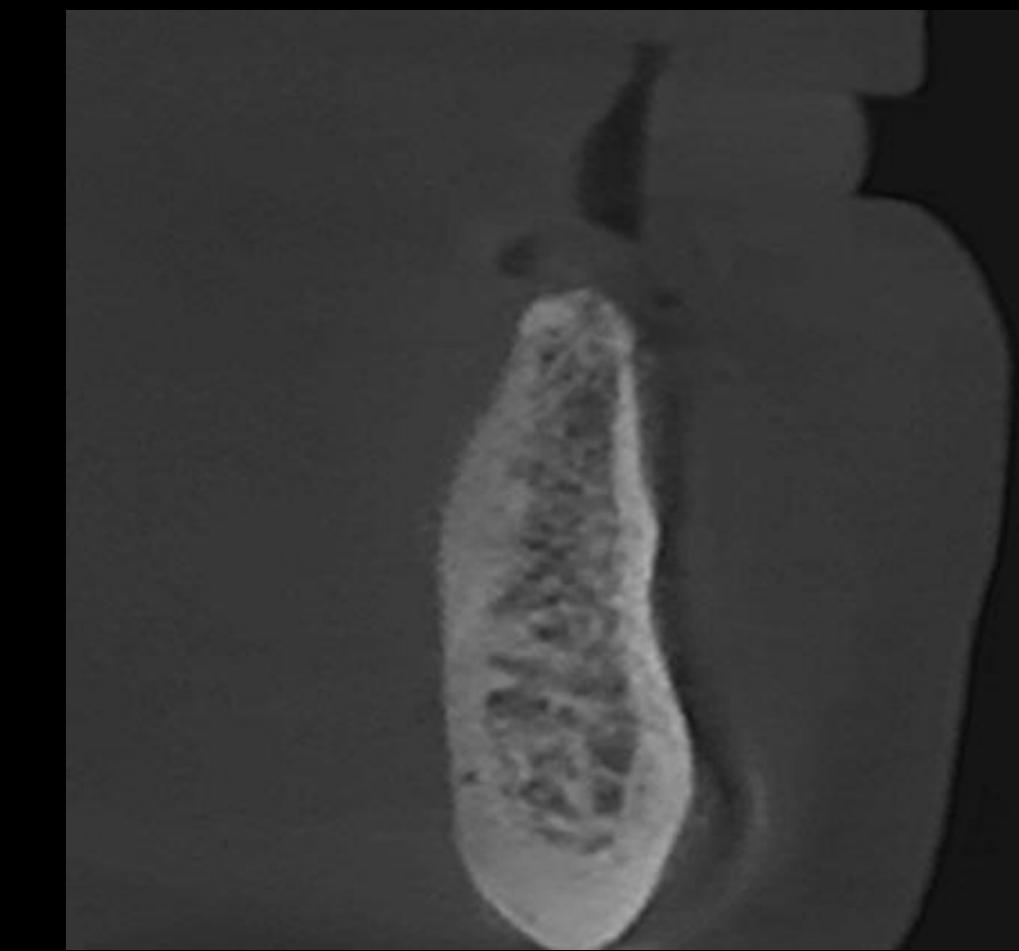
Pre-op CT (2025-07-22)



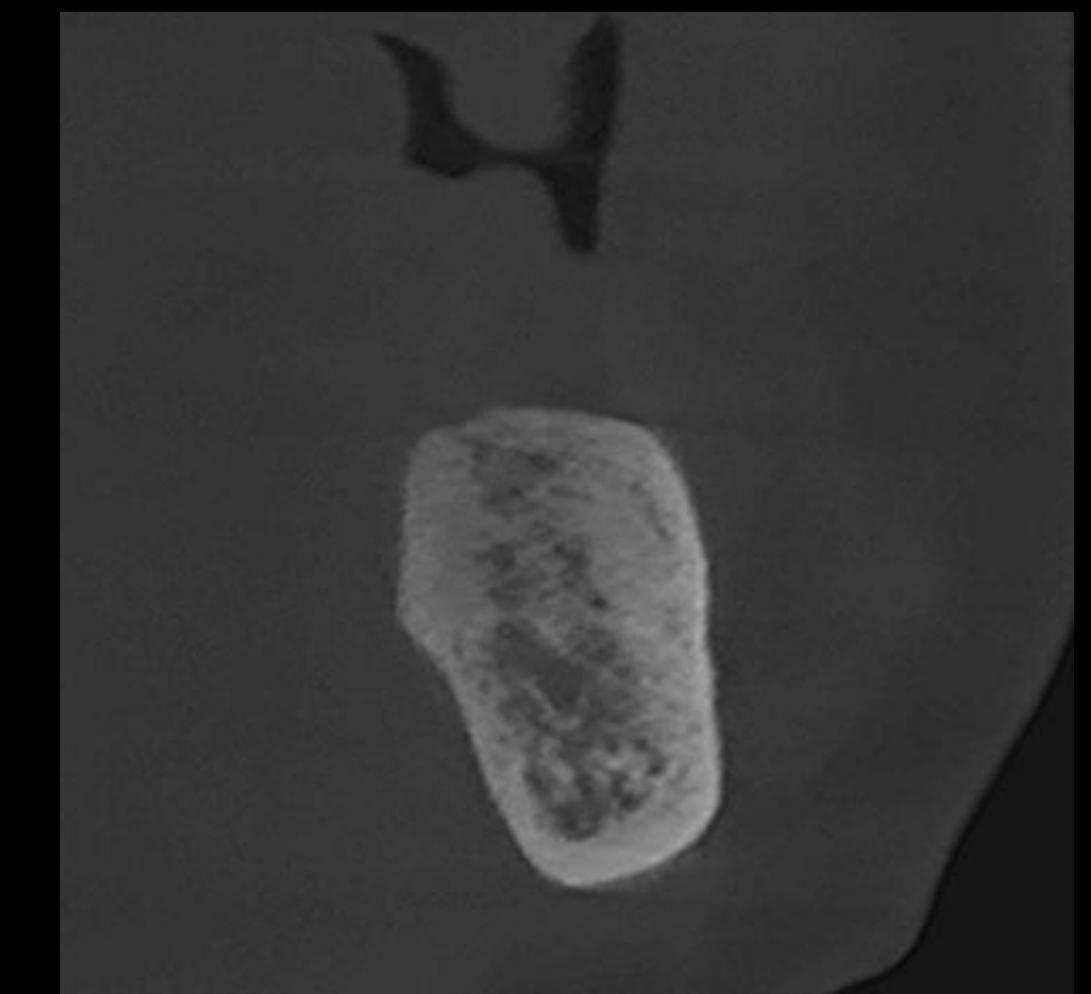
#46



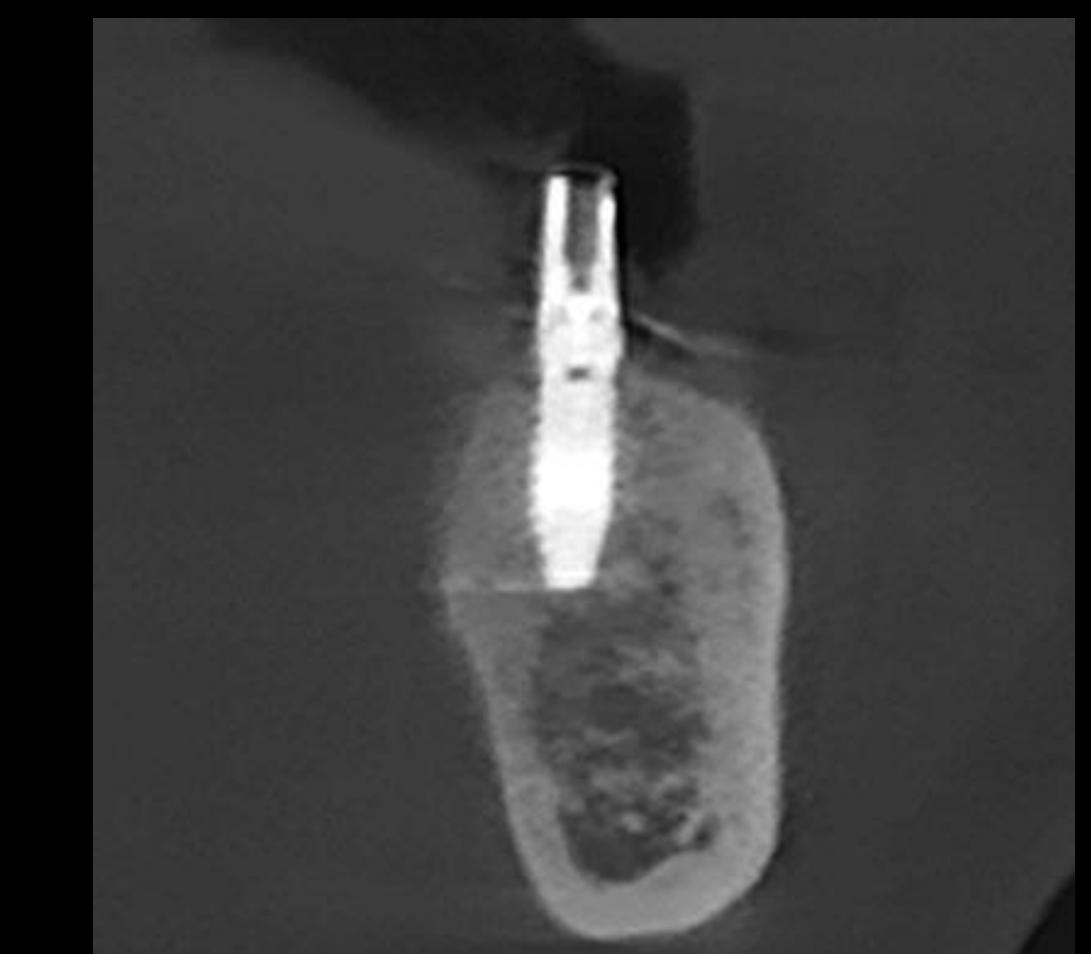
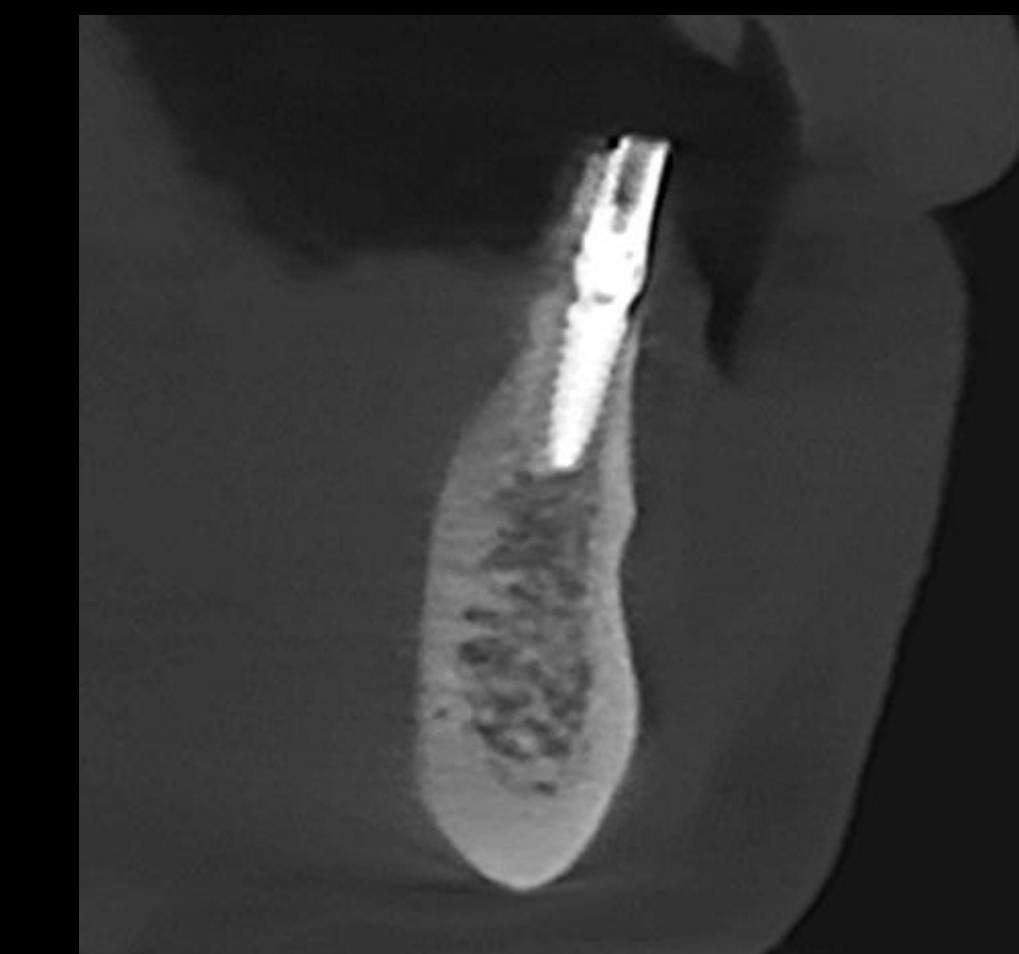
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#33



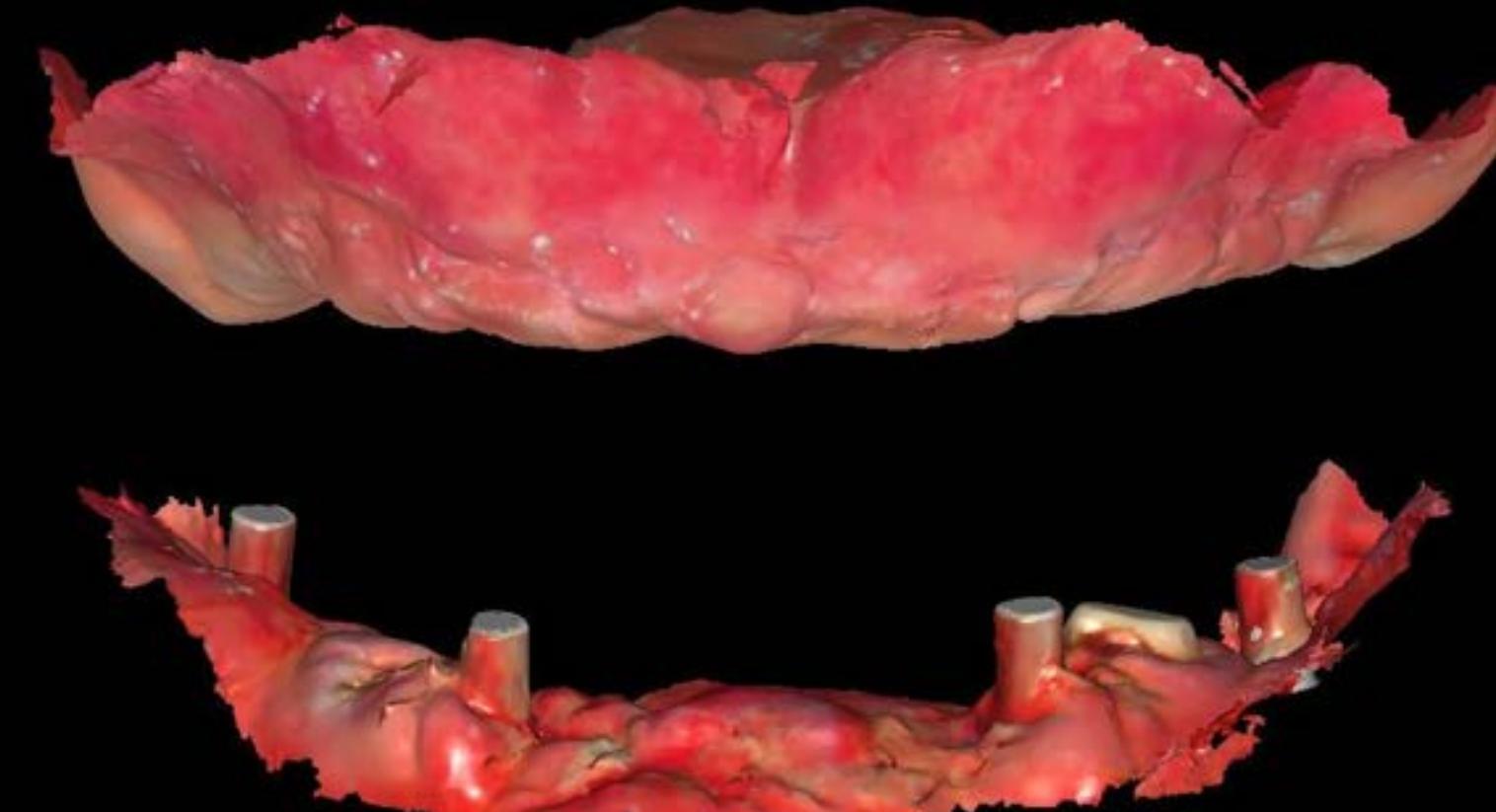
#36



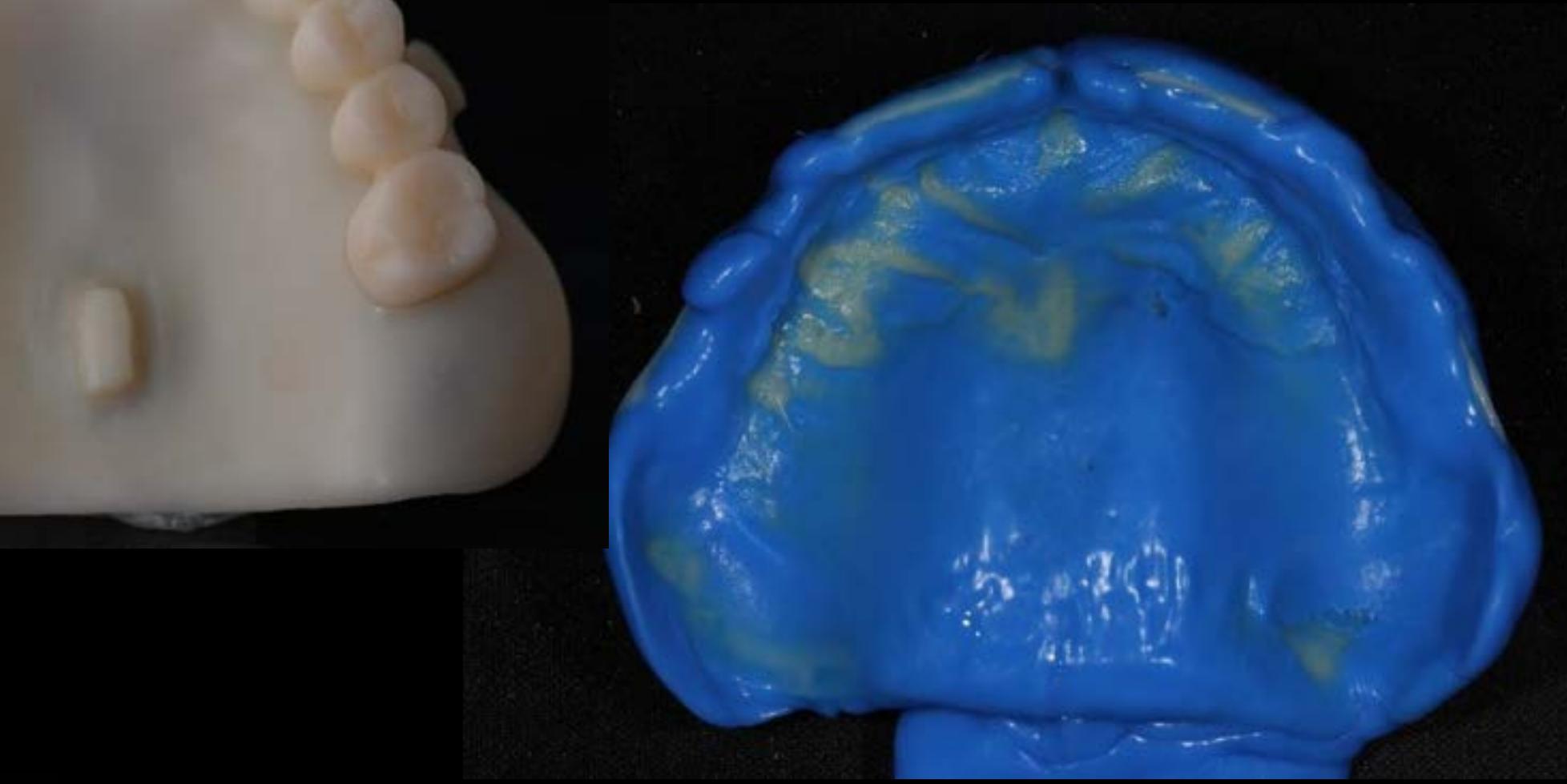
Healing : 2 weeks (2025-08-06)



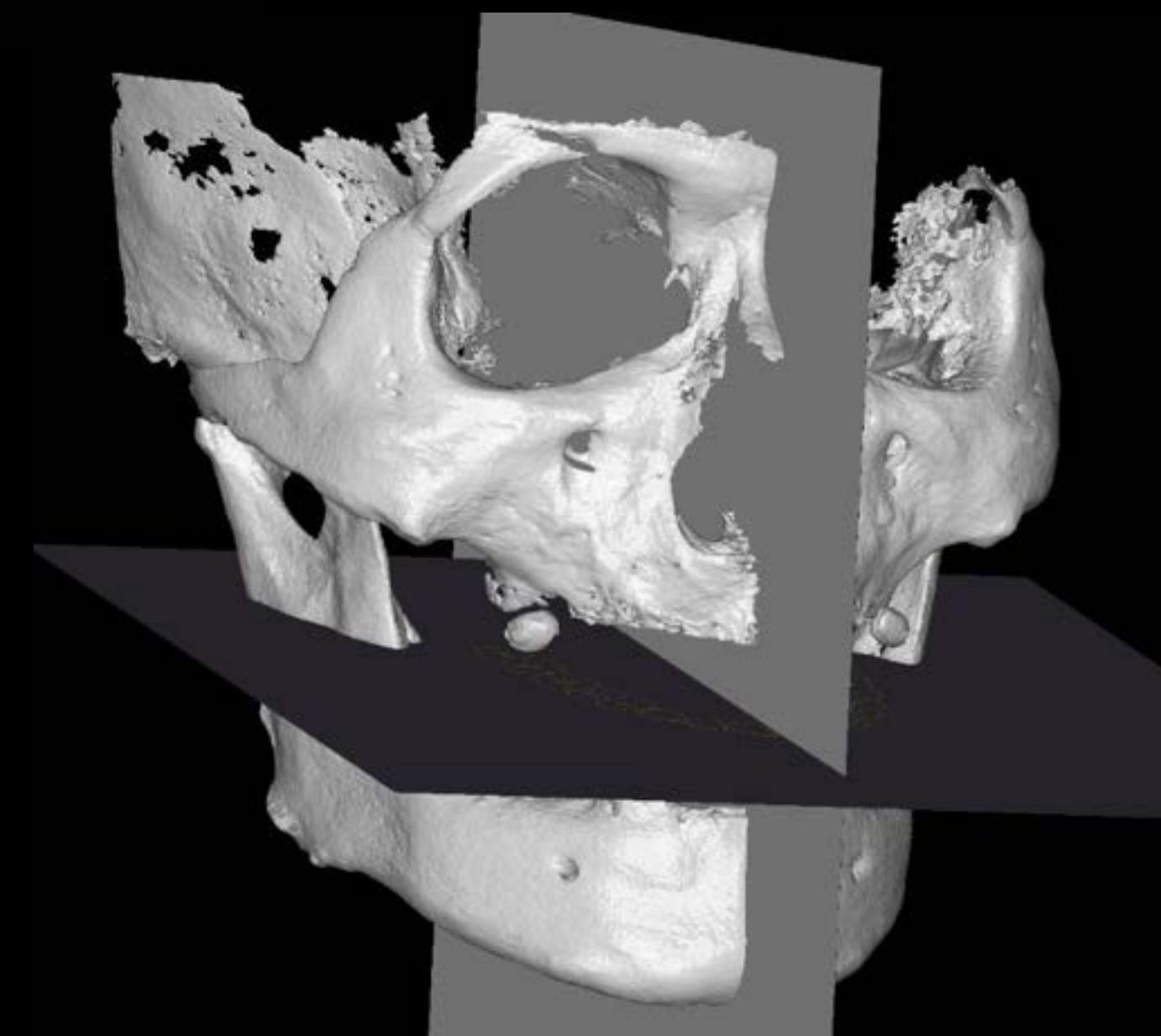
# Provisional restoraiton



Intro oral Scan



Denture Impression & zirconia Marker



CT data  
(AI Occlusal Plane)

# CT data (AI Occlusal Plane)

Patient Information

김형철  
M  
ID: 12124  
Age: 77  
Exam.date: 20250723

Virtual Ceph

Select Mark  
Create Ceph  
Create YTI

Occlusal Plane(OP)

Auto  
Hard Type

Viewport

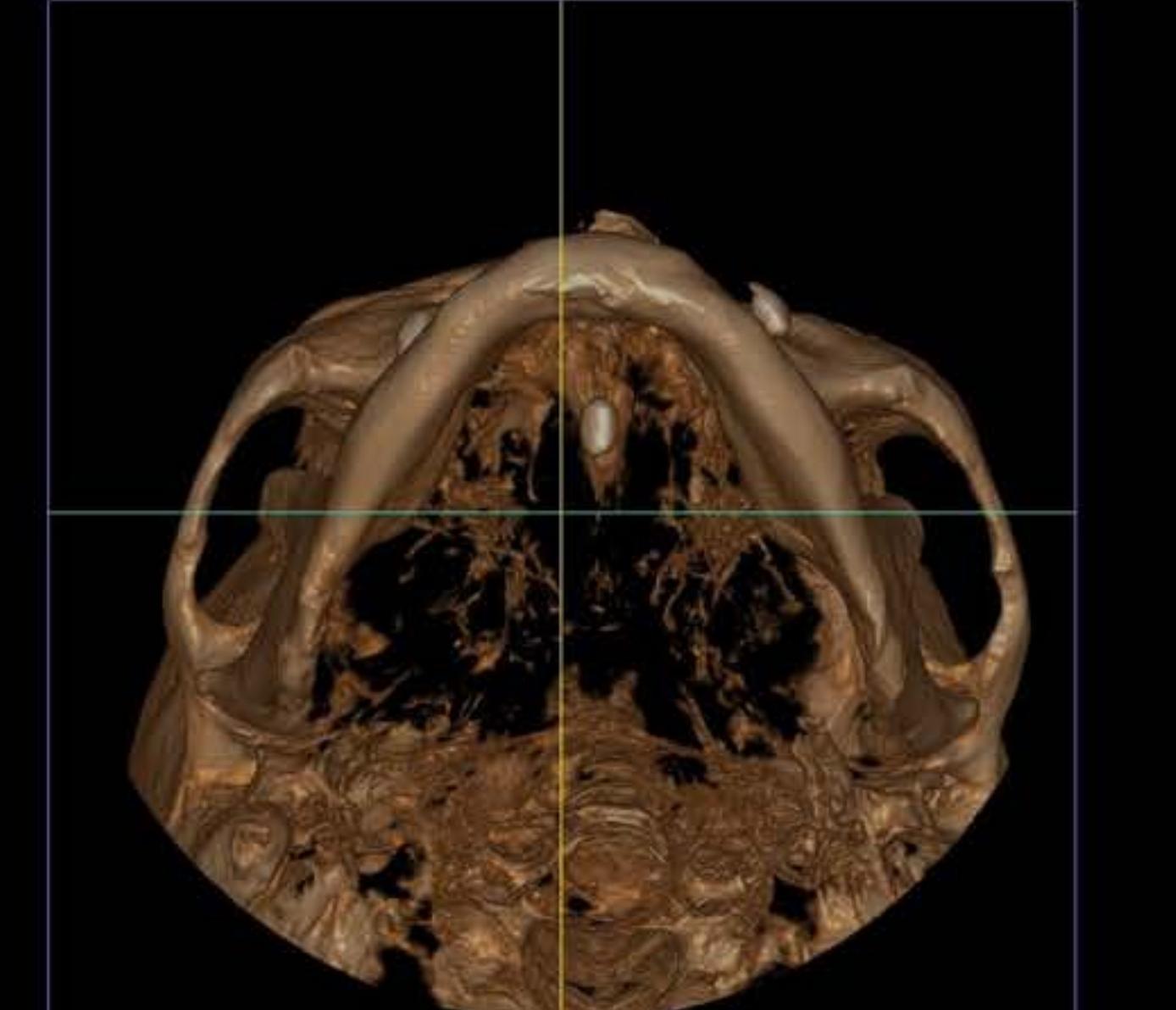
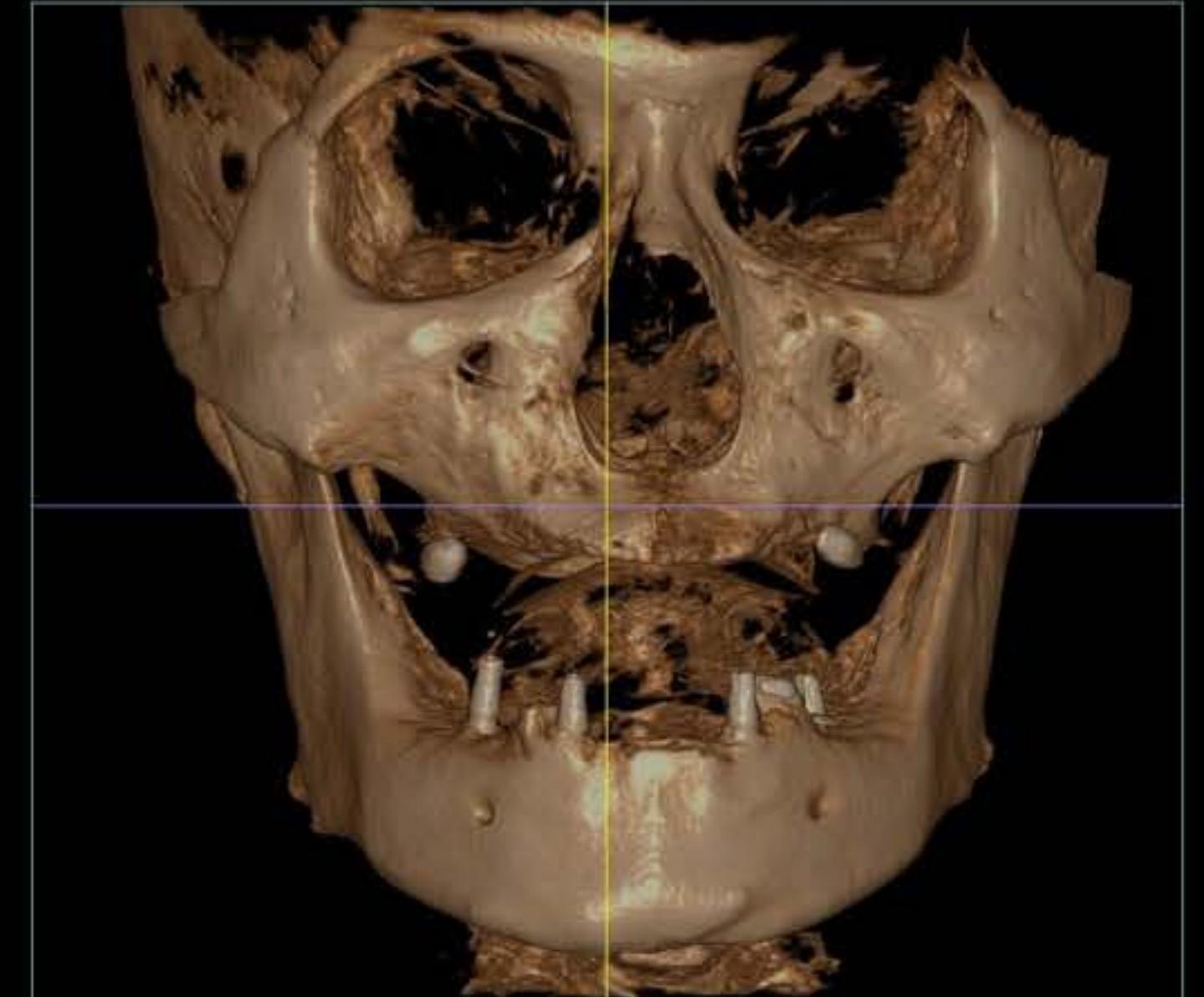
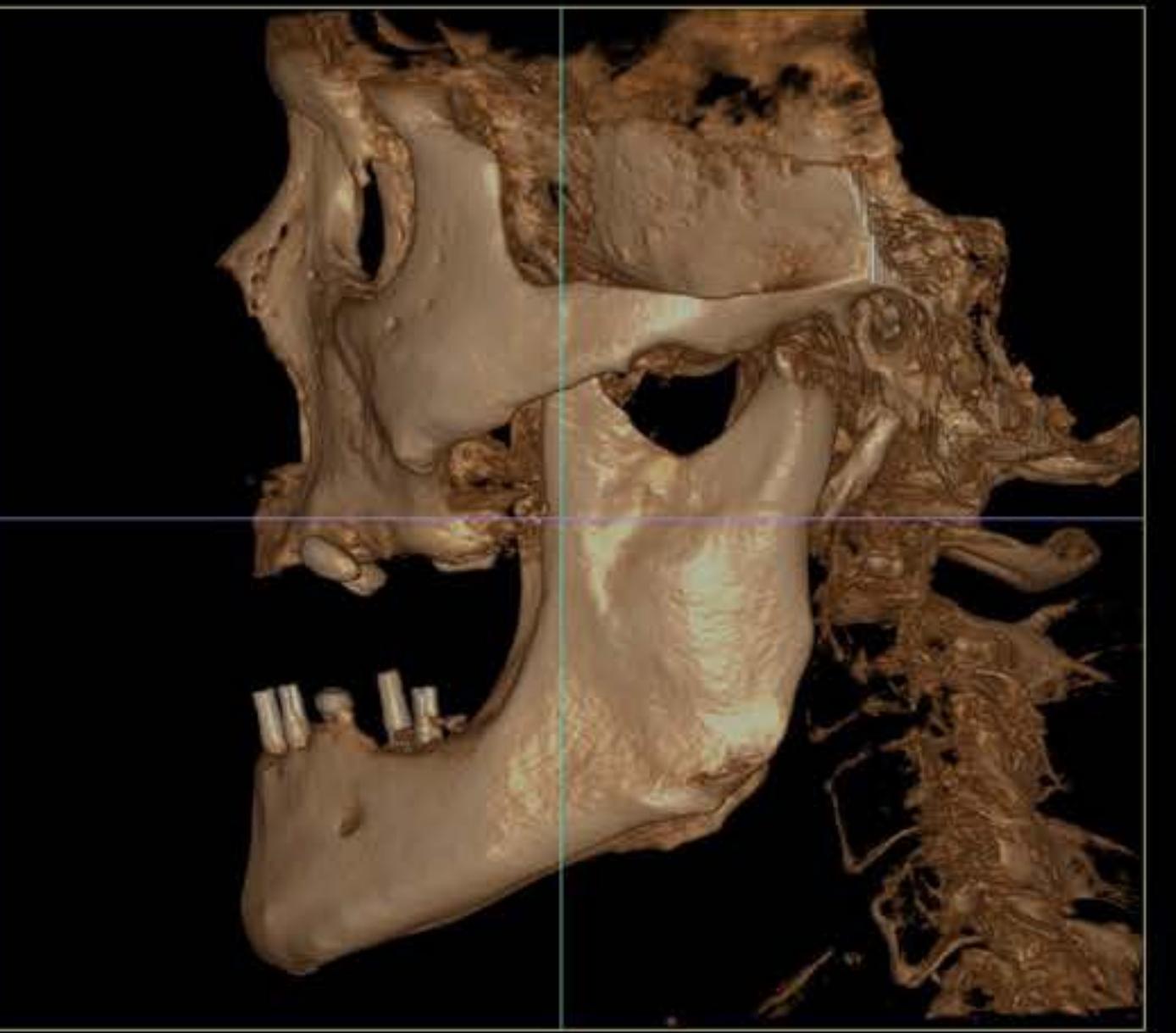
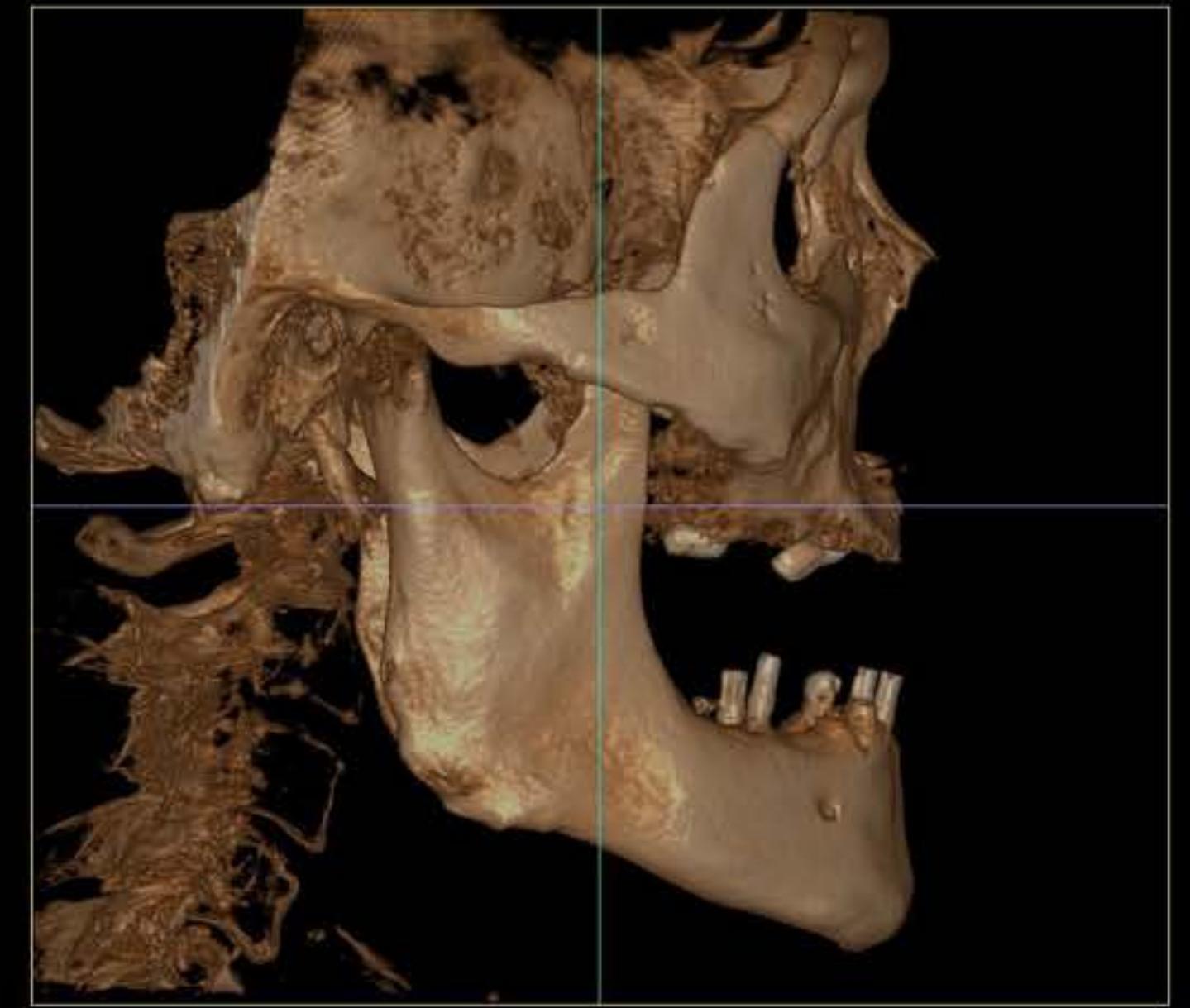
Hard Type

HU: 7200  
O: 76  
Q: Default

Capture Group

Reset

Ceph Mark  
All



# CT data (AI Occlusal Plane)

Patient Information

김형철  
M  
ID 12124  
Age 77  
Exam.date 20250723

ANS-PNS Plane

[IF] - [UpperAxisTip] : 24.0 mm  
[ANS-PNS] - [UpperAxis] Plane : 115.0 deg  
[UpperAxis] - [LowerAxis] Plane : 135.0 deg

Virtual Ceph

Select Mark  
Create Ceph  
Create YTI

Occlusal Plane(OP)

Landmark Mode  
Plane Lock

Render Type

Hard Type

Viewport

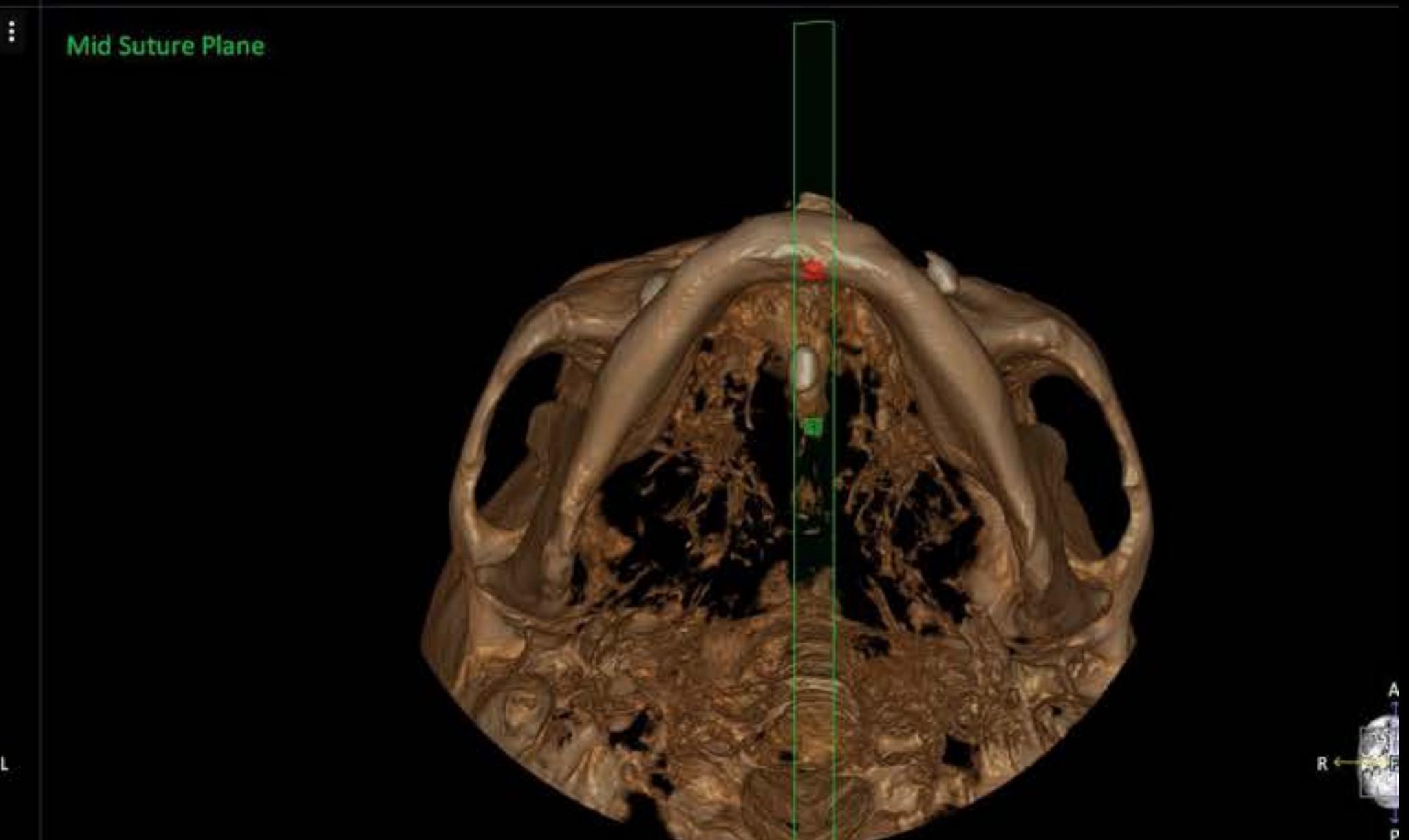
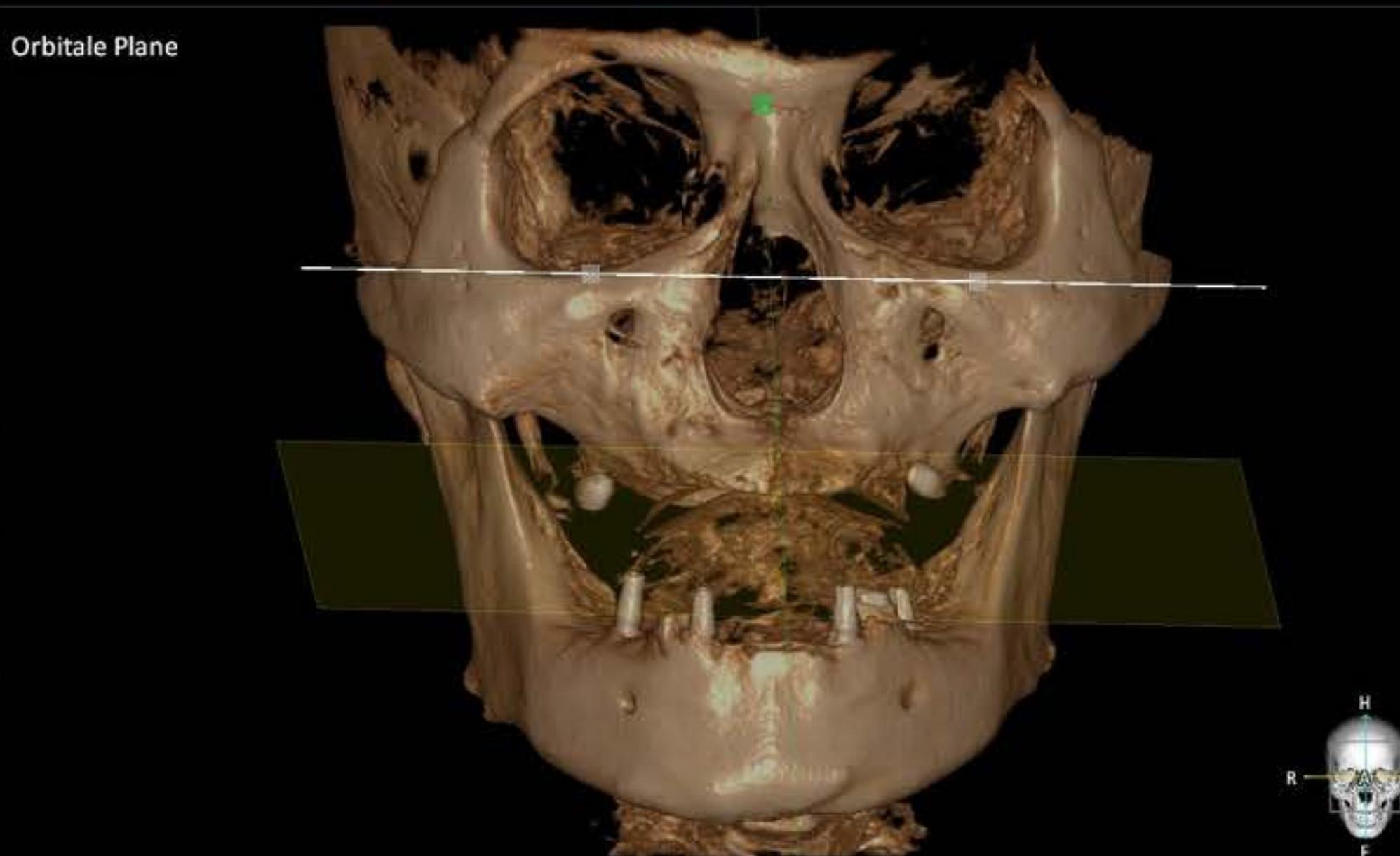
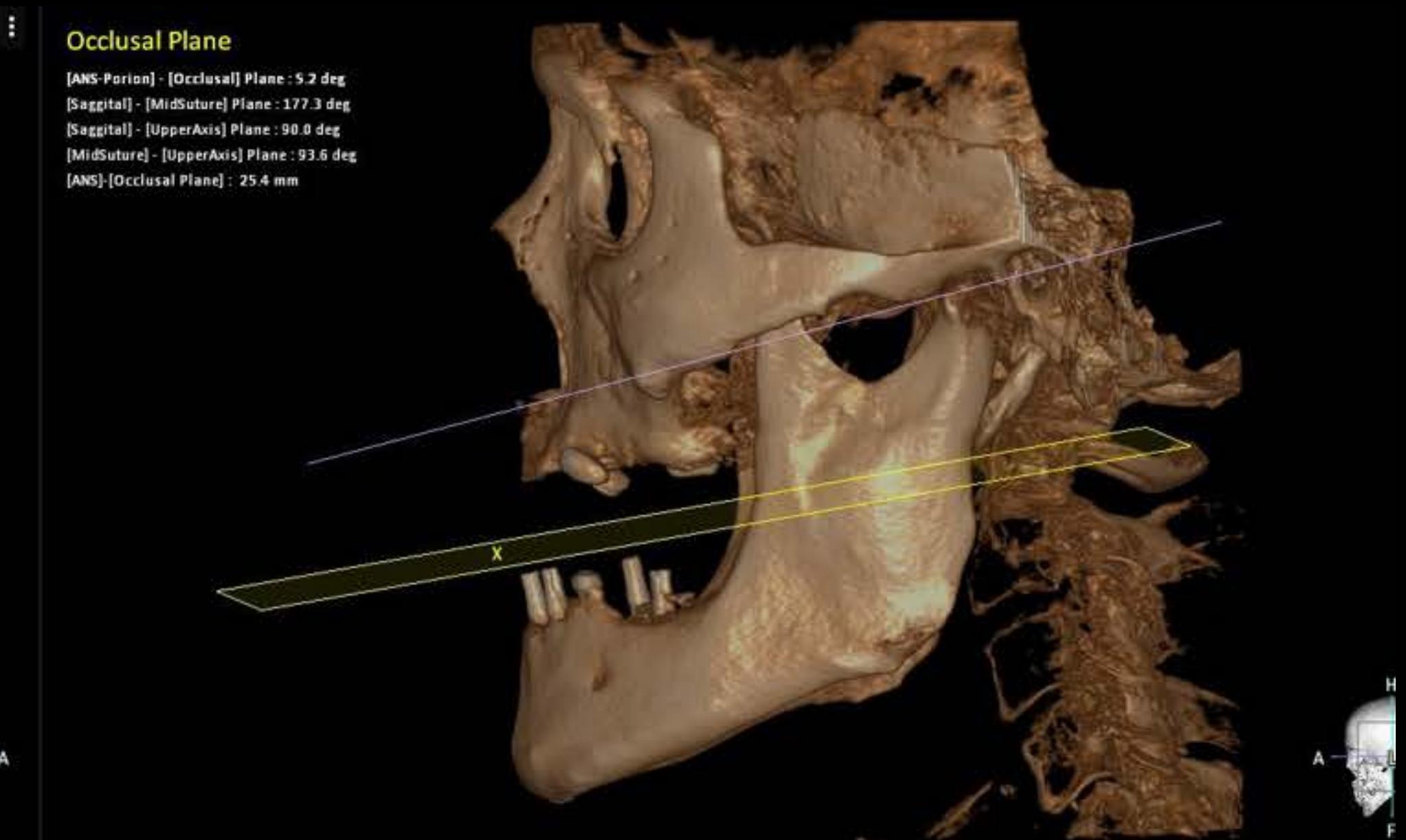
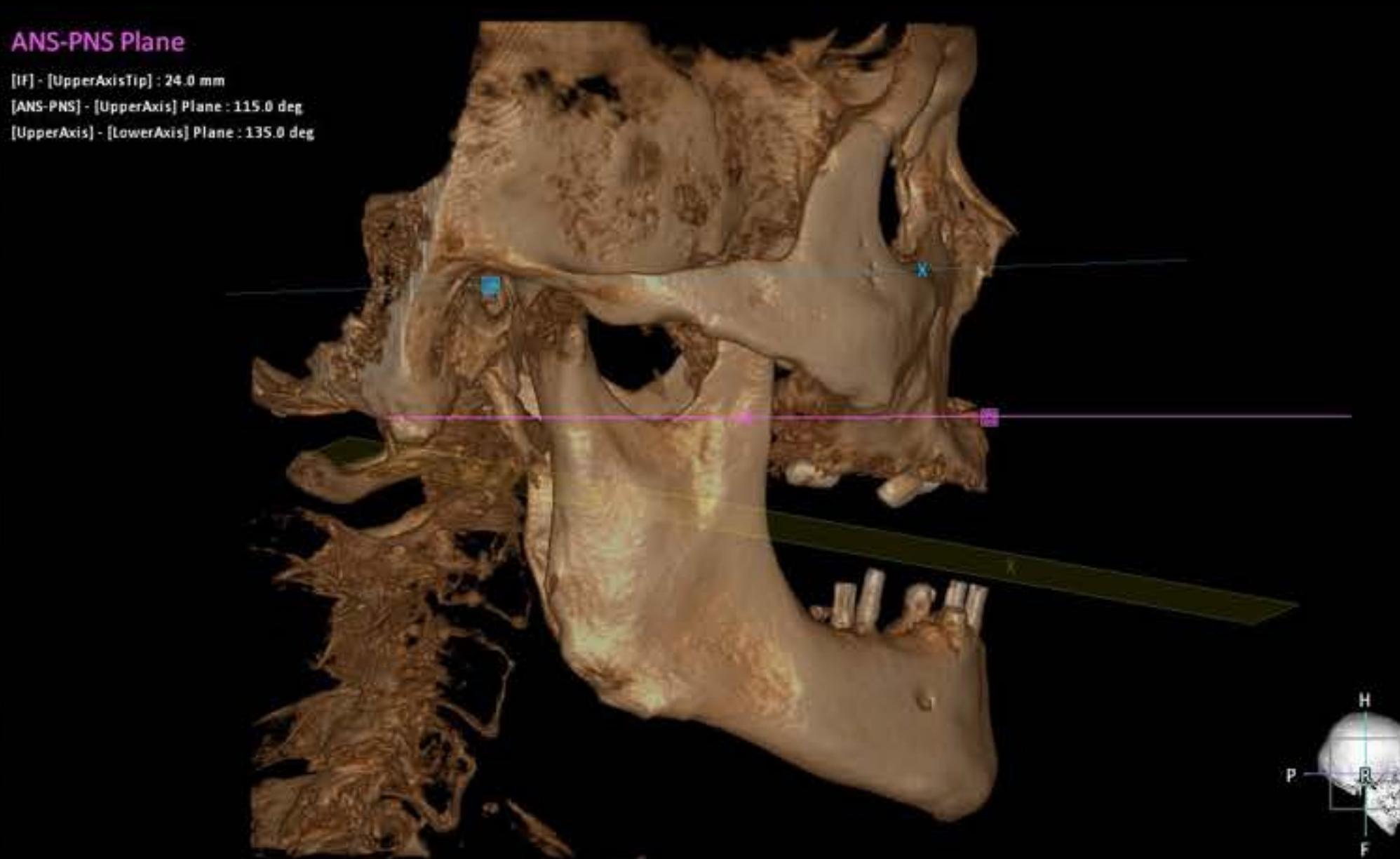
Orbitale Plane

HU 2038  
O 70  
Q Default

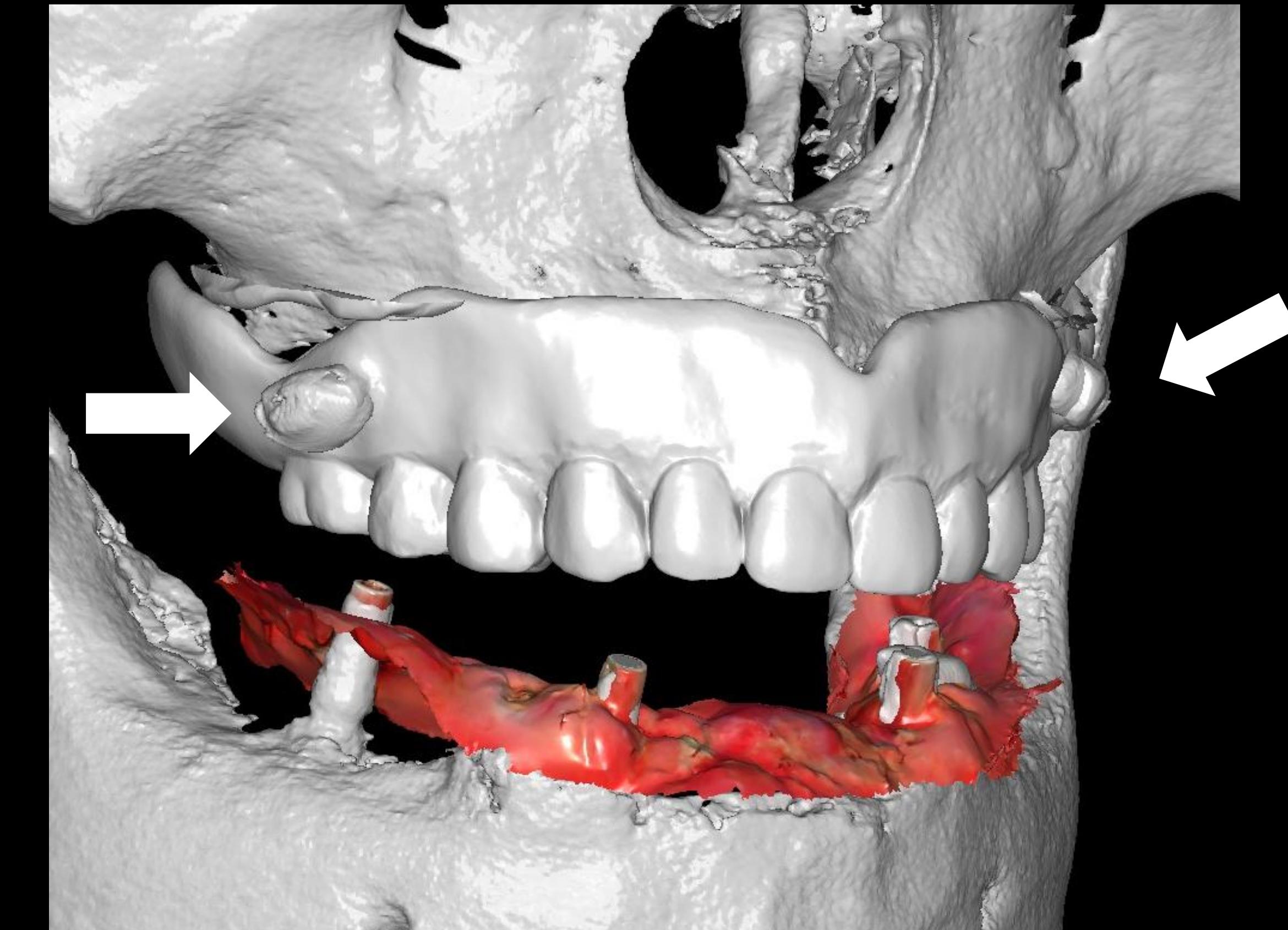
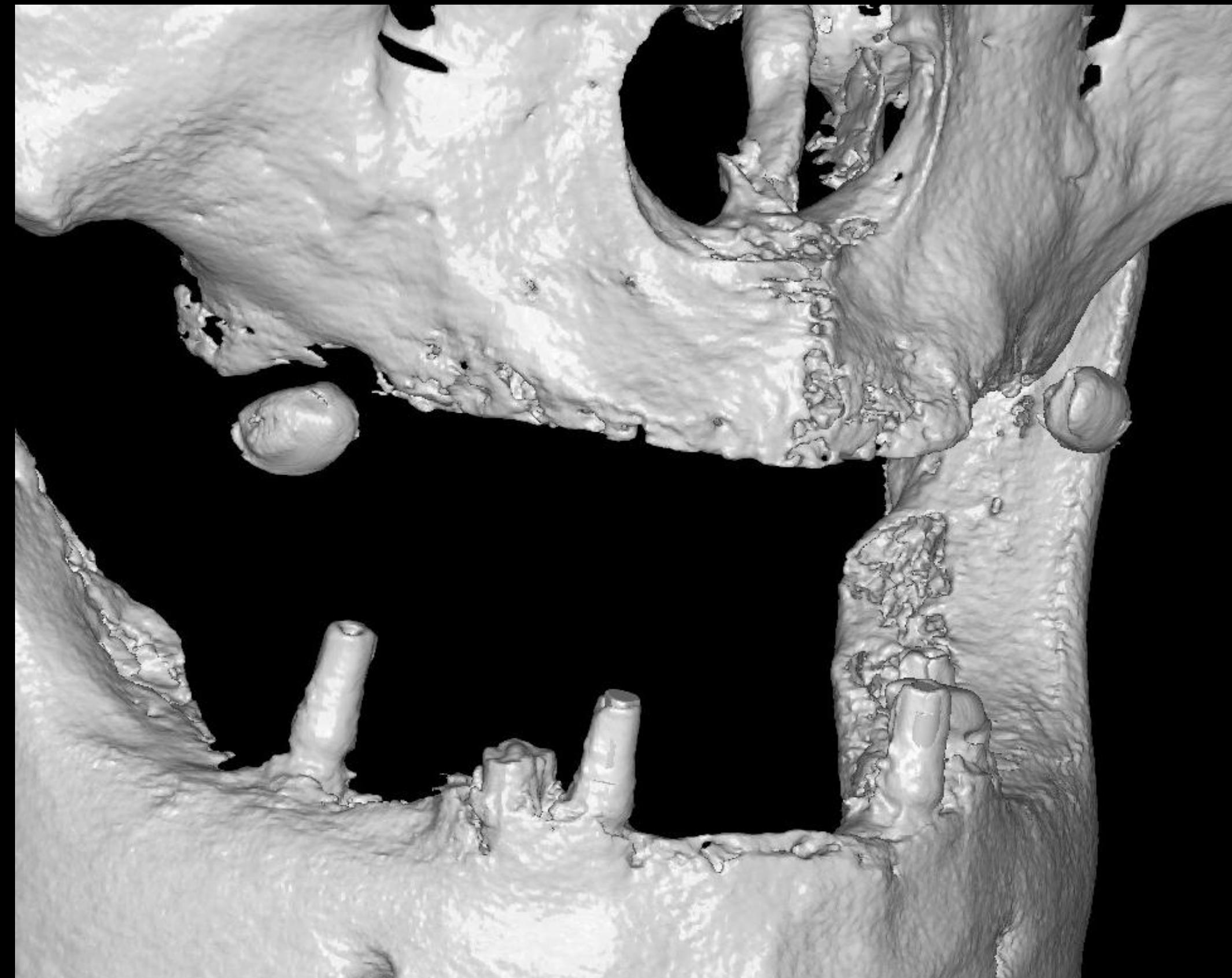
Capture Group

Reset

Ceph Mark  
All

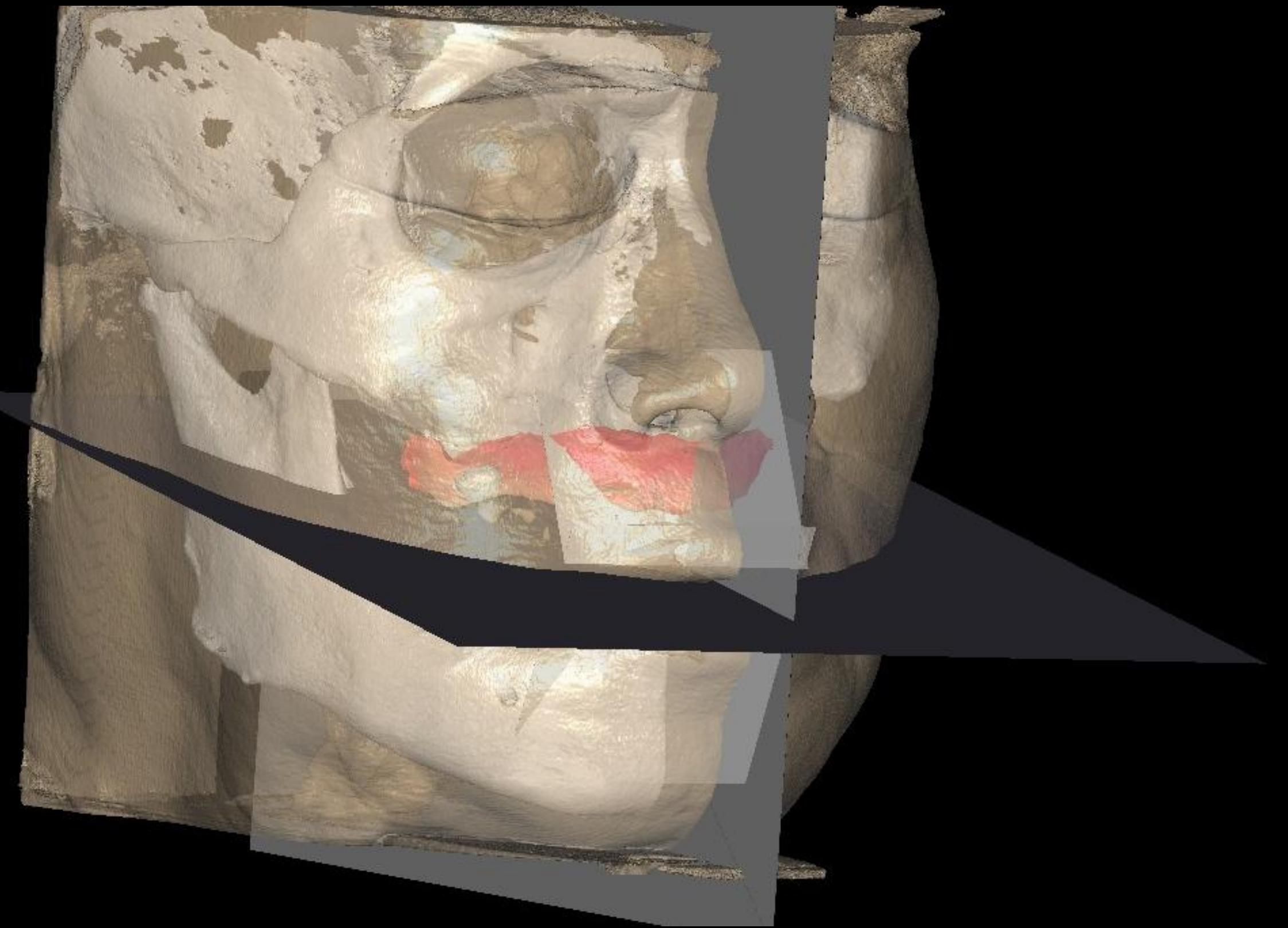
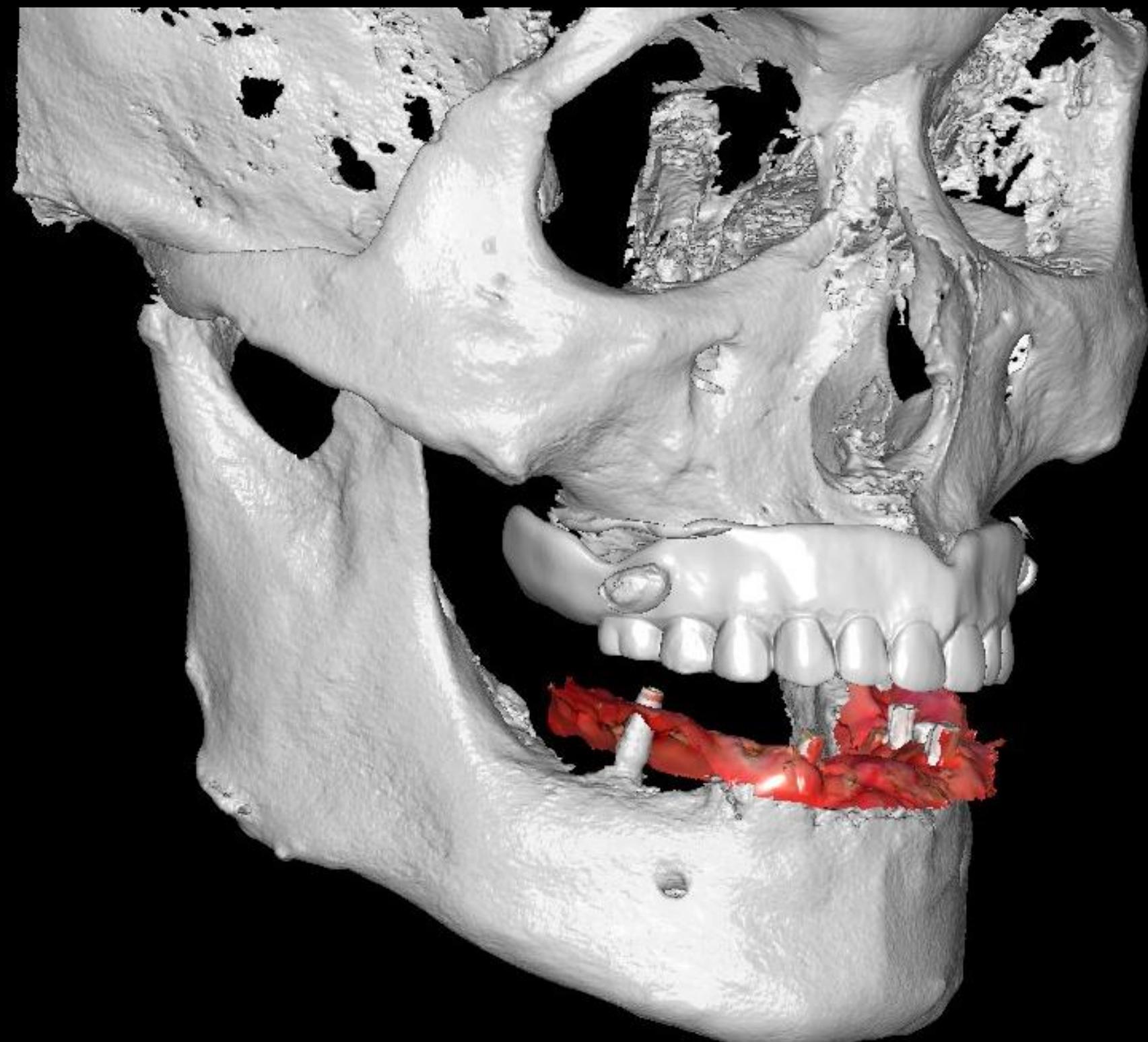


# CT data Stitching



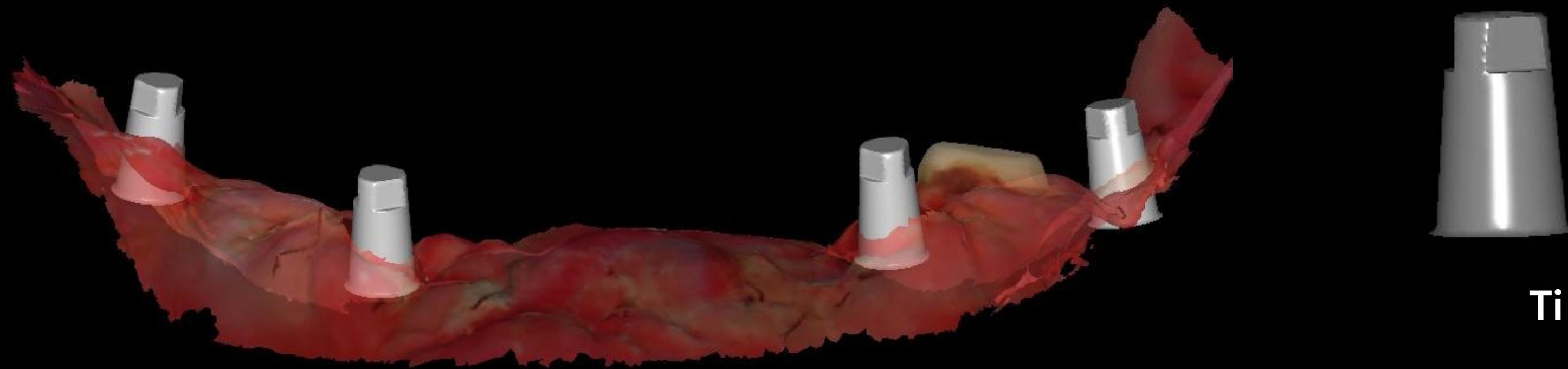
CT Check Bite with Zirconia Marker

# CAD design

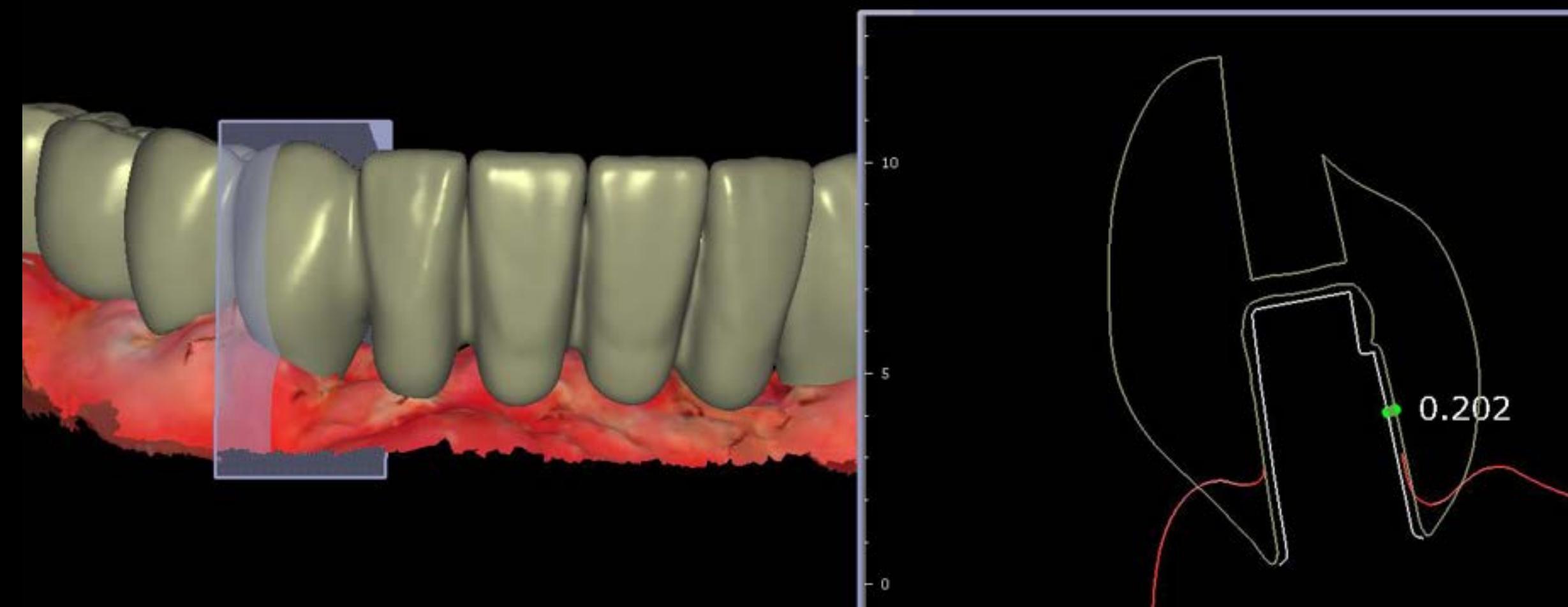


CT Check Bite with Zirconia Marker

# CAD design



Ti base Ø3.8 Gh2.0



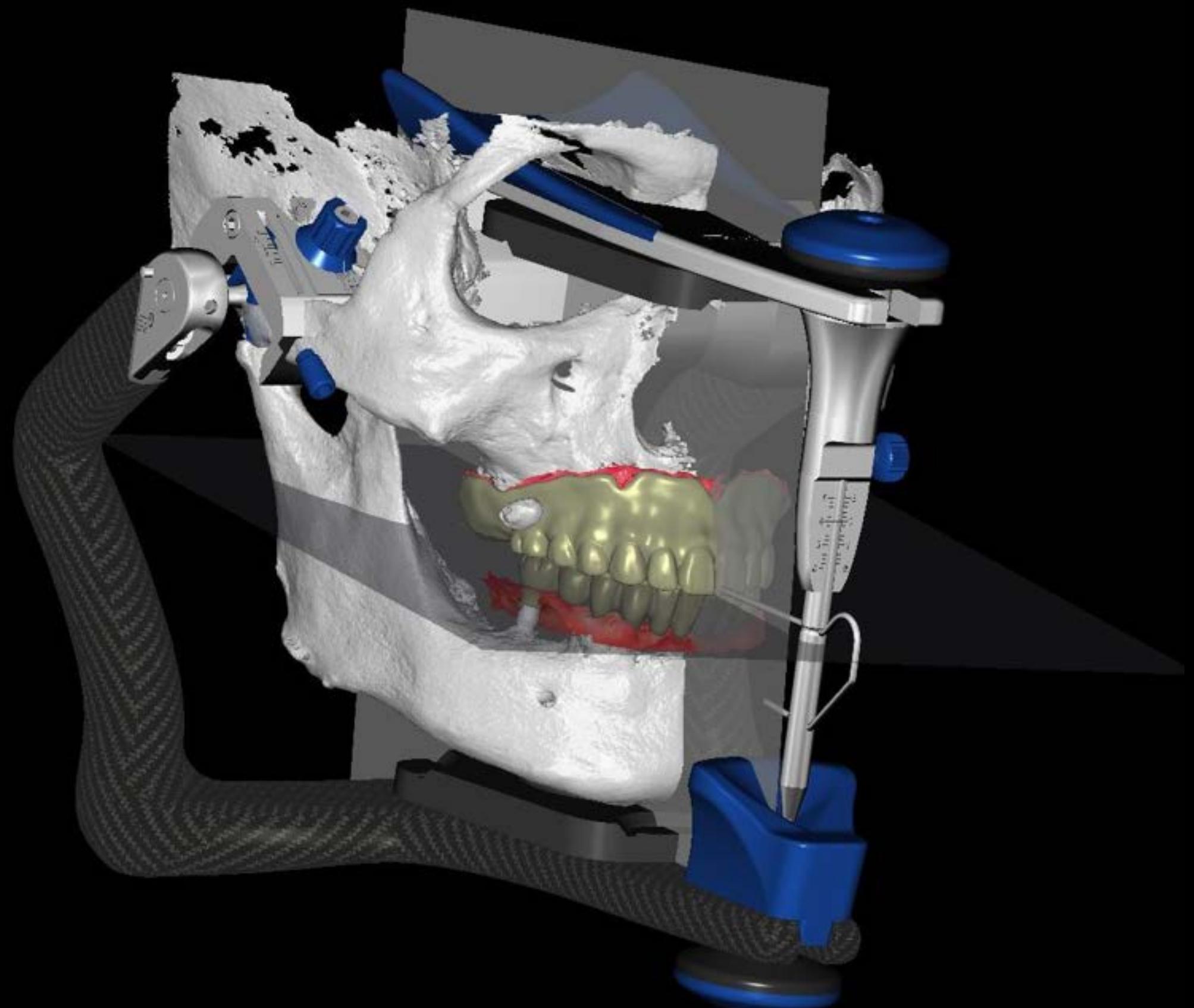
Multiple long case Cement gap

# CAD design



CT Check Bite with Zirconia Marker

# Virtual Ariticulator

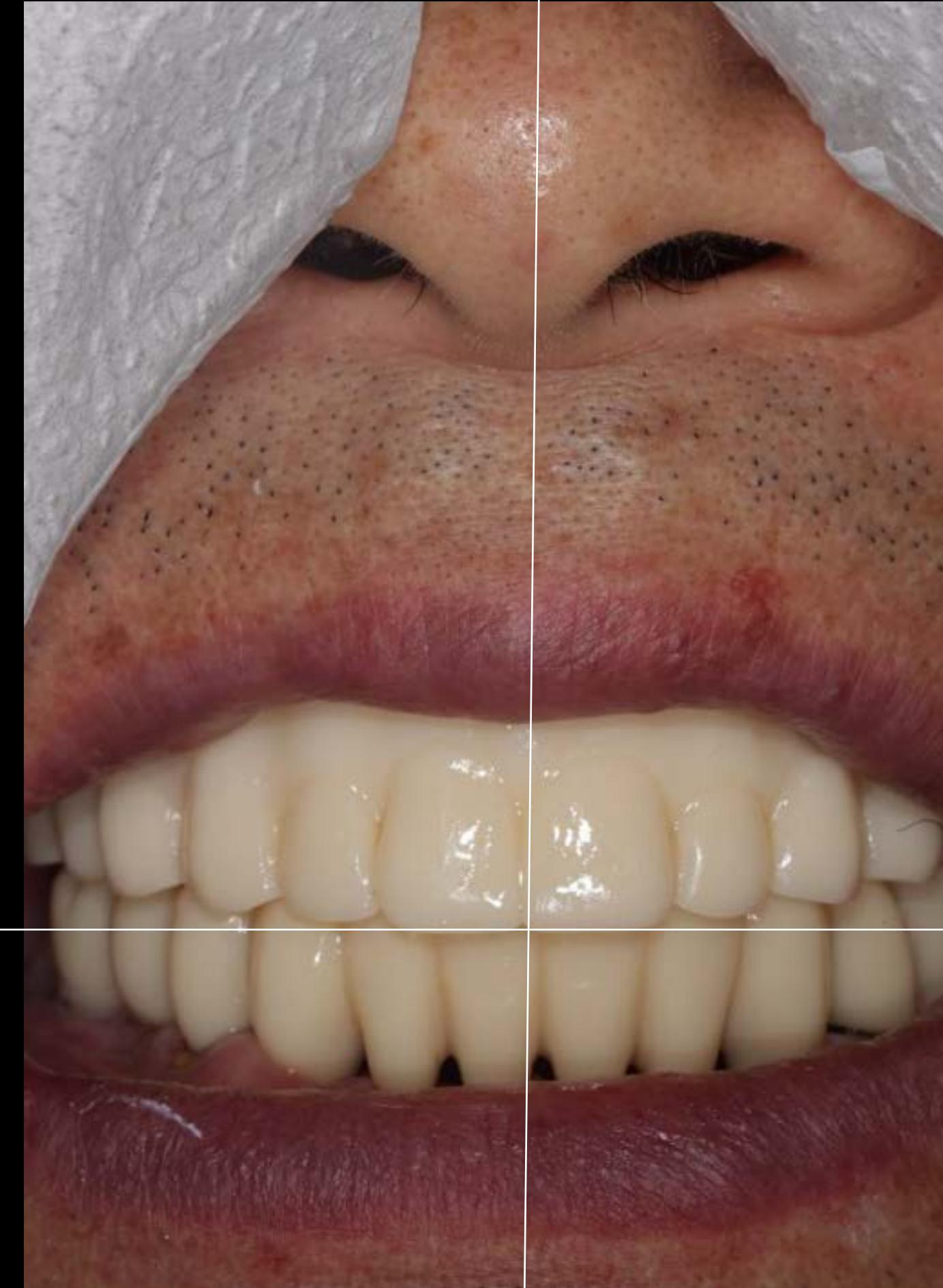


# Printing & Milling

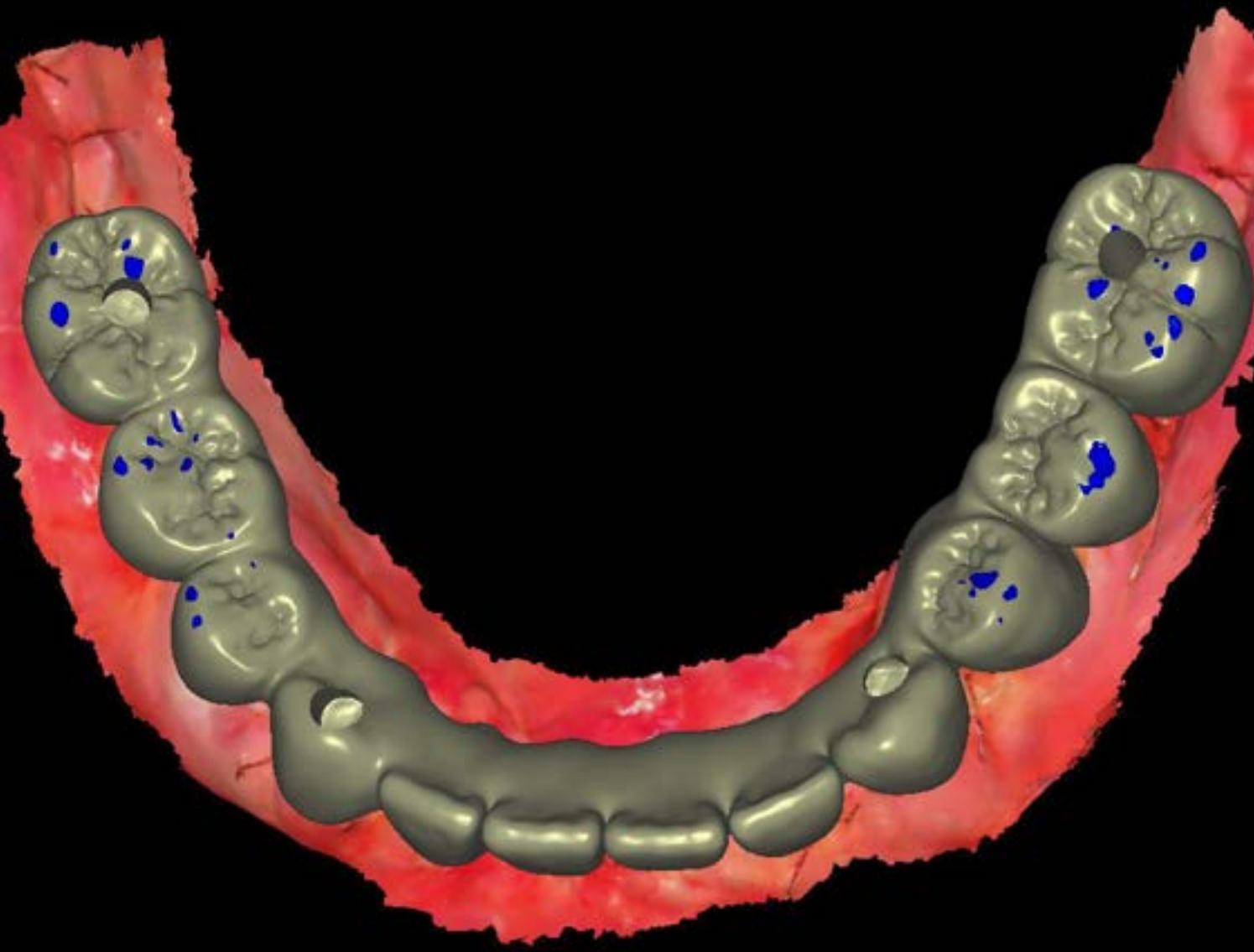
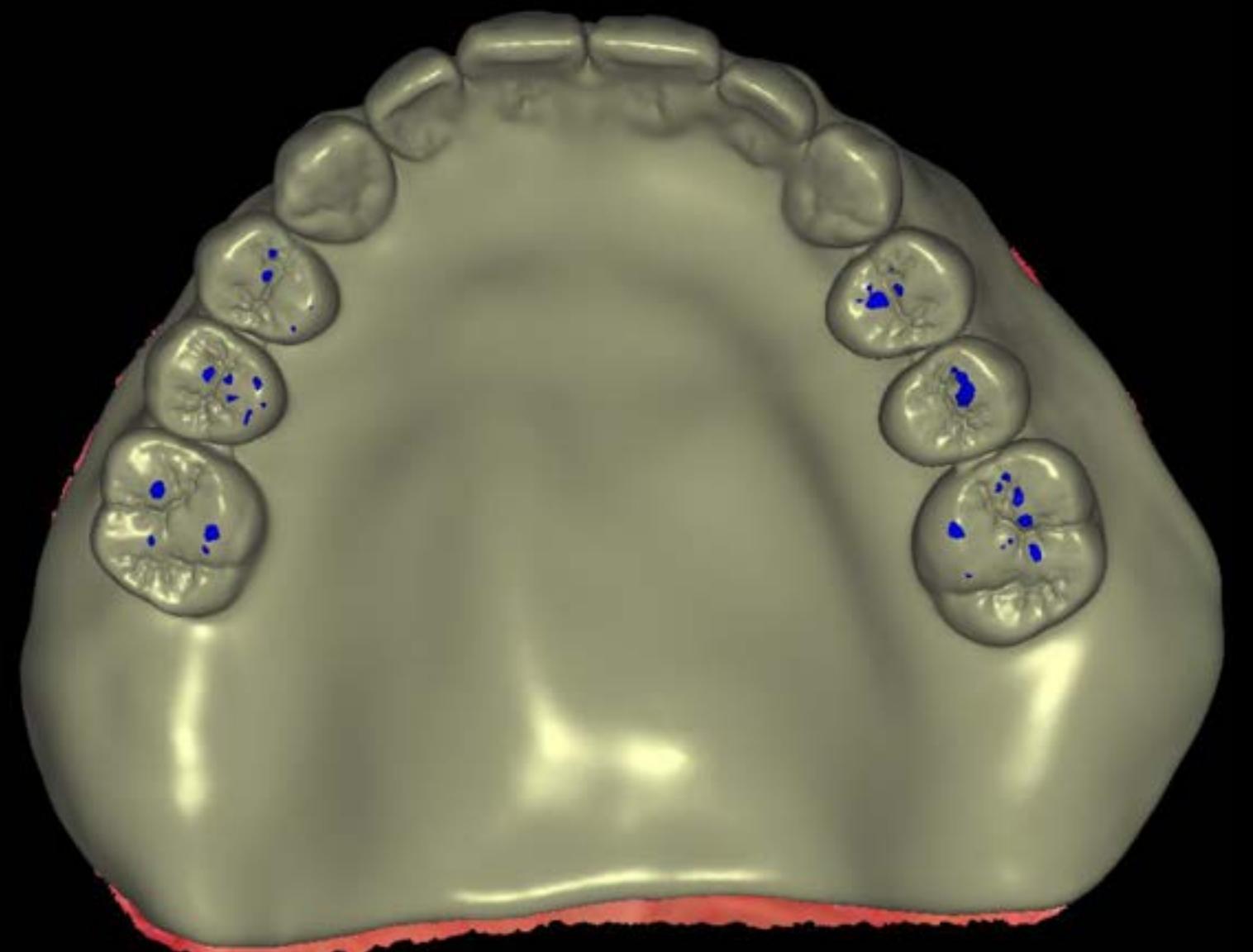


PMMA Block  
3D Prininting Resin

# Provisional Restoration

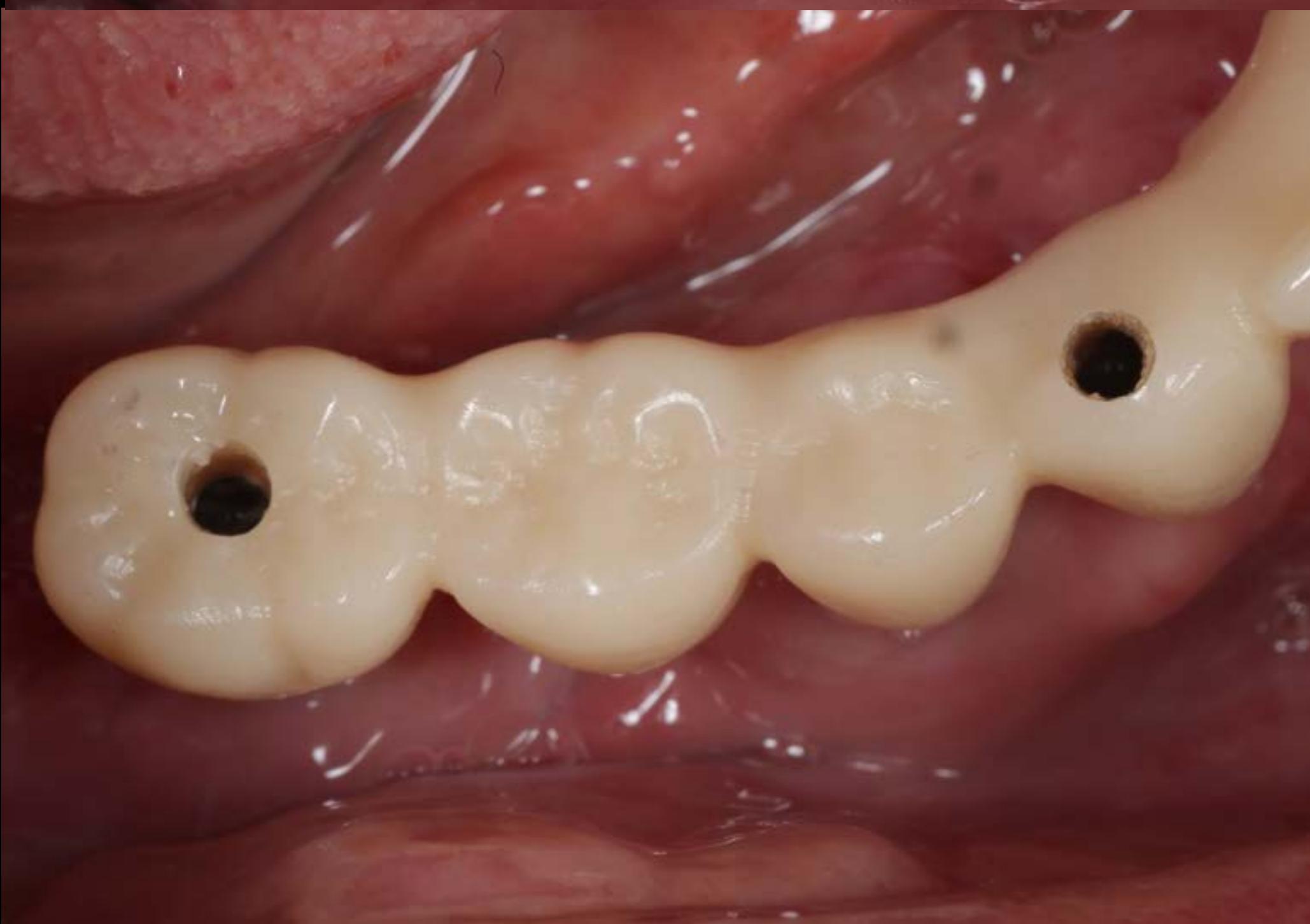


# Provisional Restoration



Model-Less

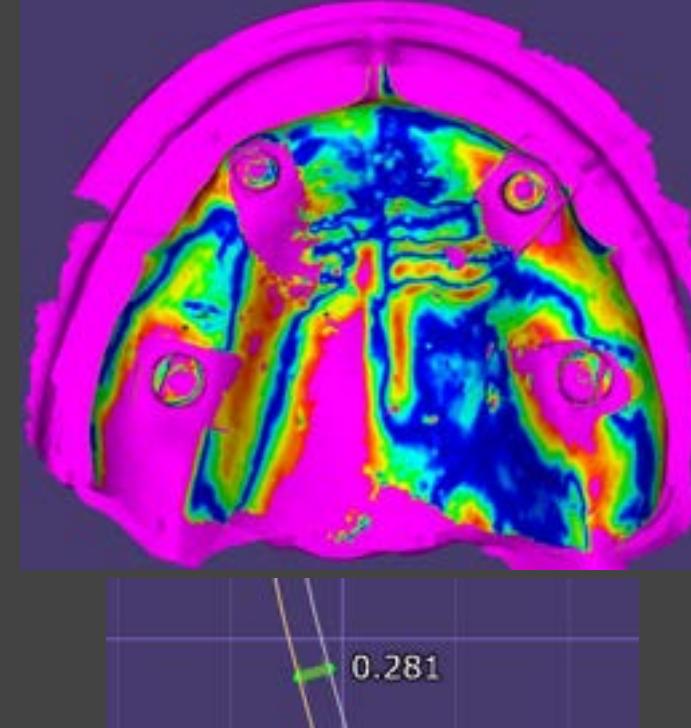
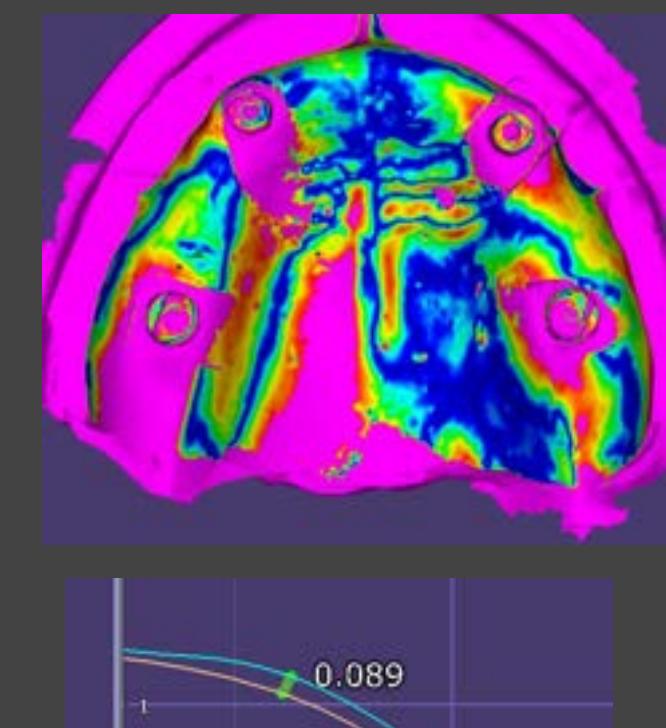
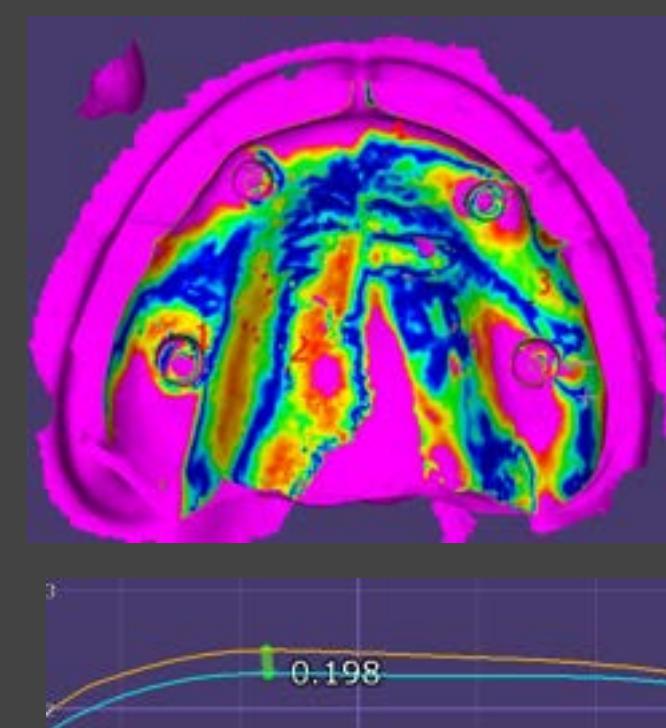
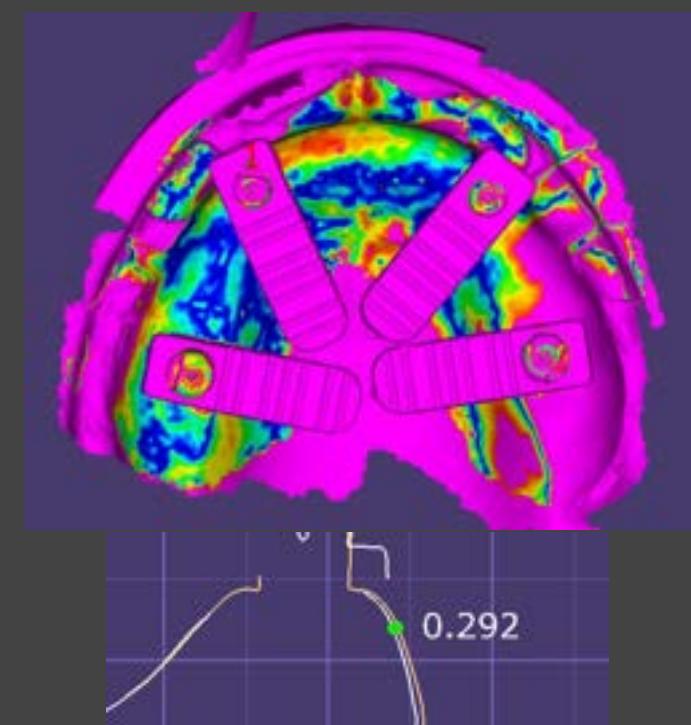
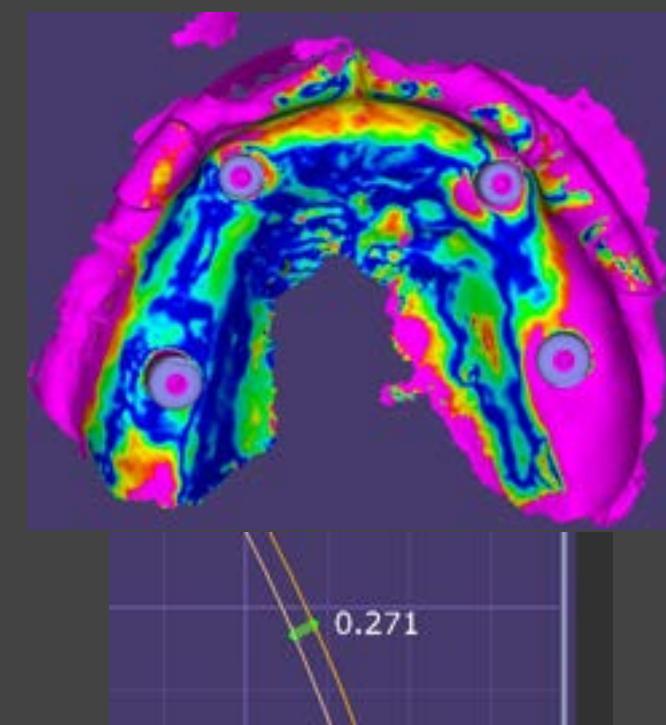
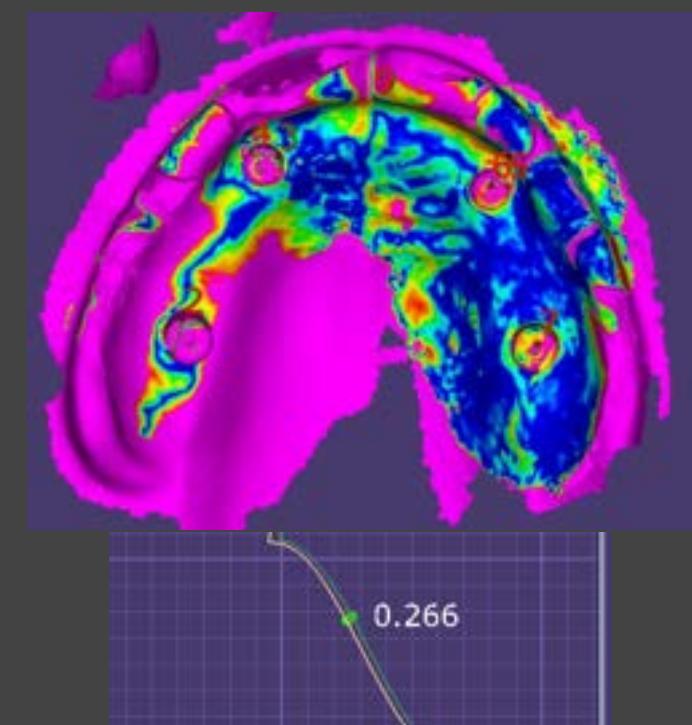
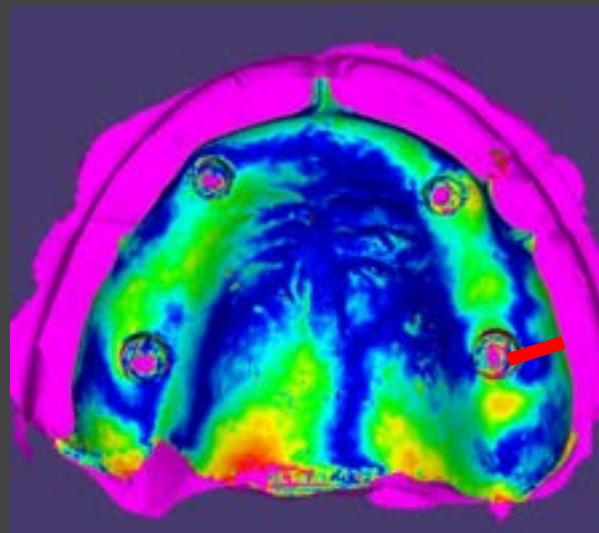
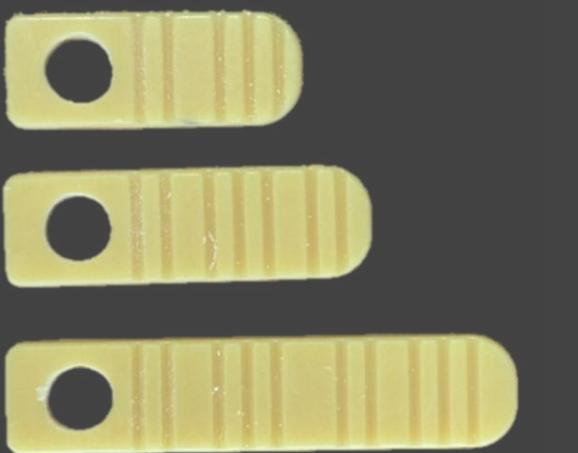
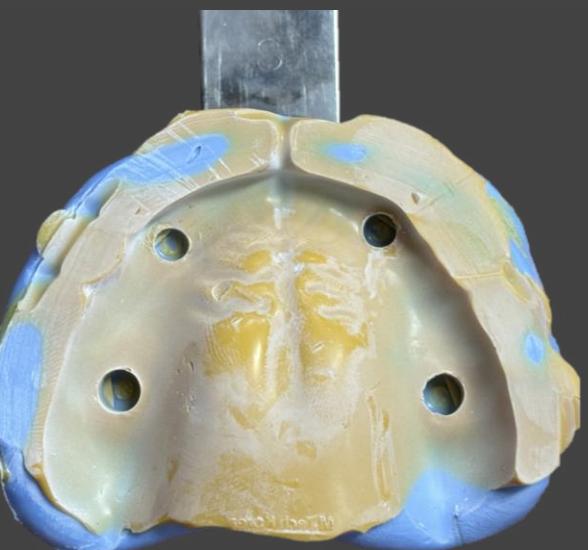
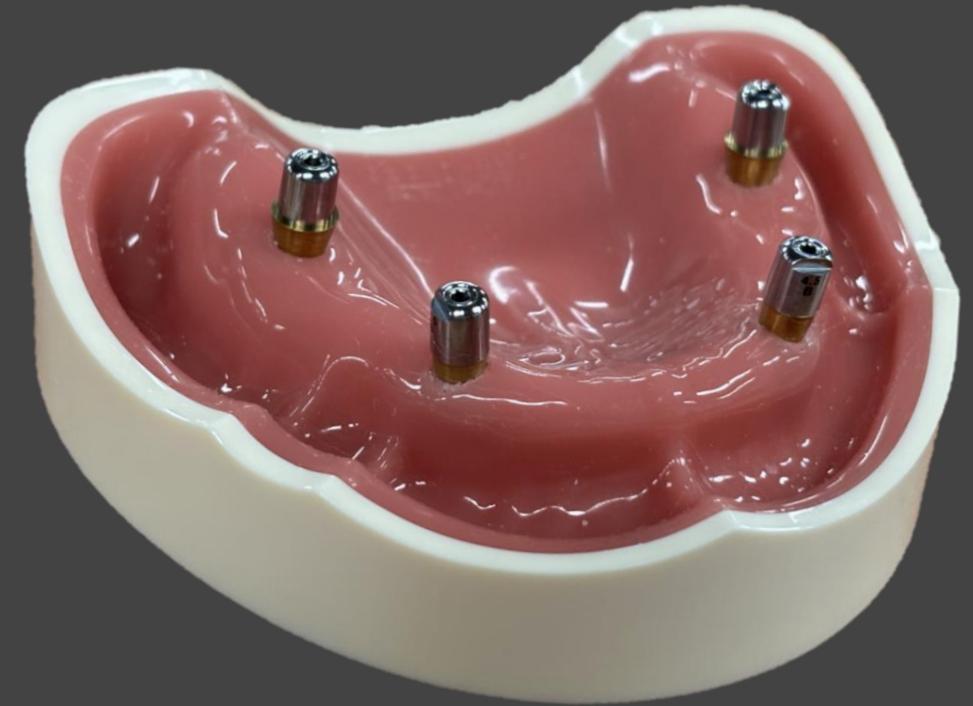
Provisional restoration (2025-08-06)



#40

Provisional restoration (2025-08-06)





BTS = BOS

Photogrammatory jig and simple jig are similar and fit well

Without Jig is less hittable

# Contents

Bright implant

Narrow and short implants

Bone regeneration materials

Simple and exact digital concepts

Filler and toxin in dental field

Safe approach based on **evidence**

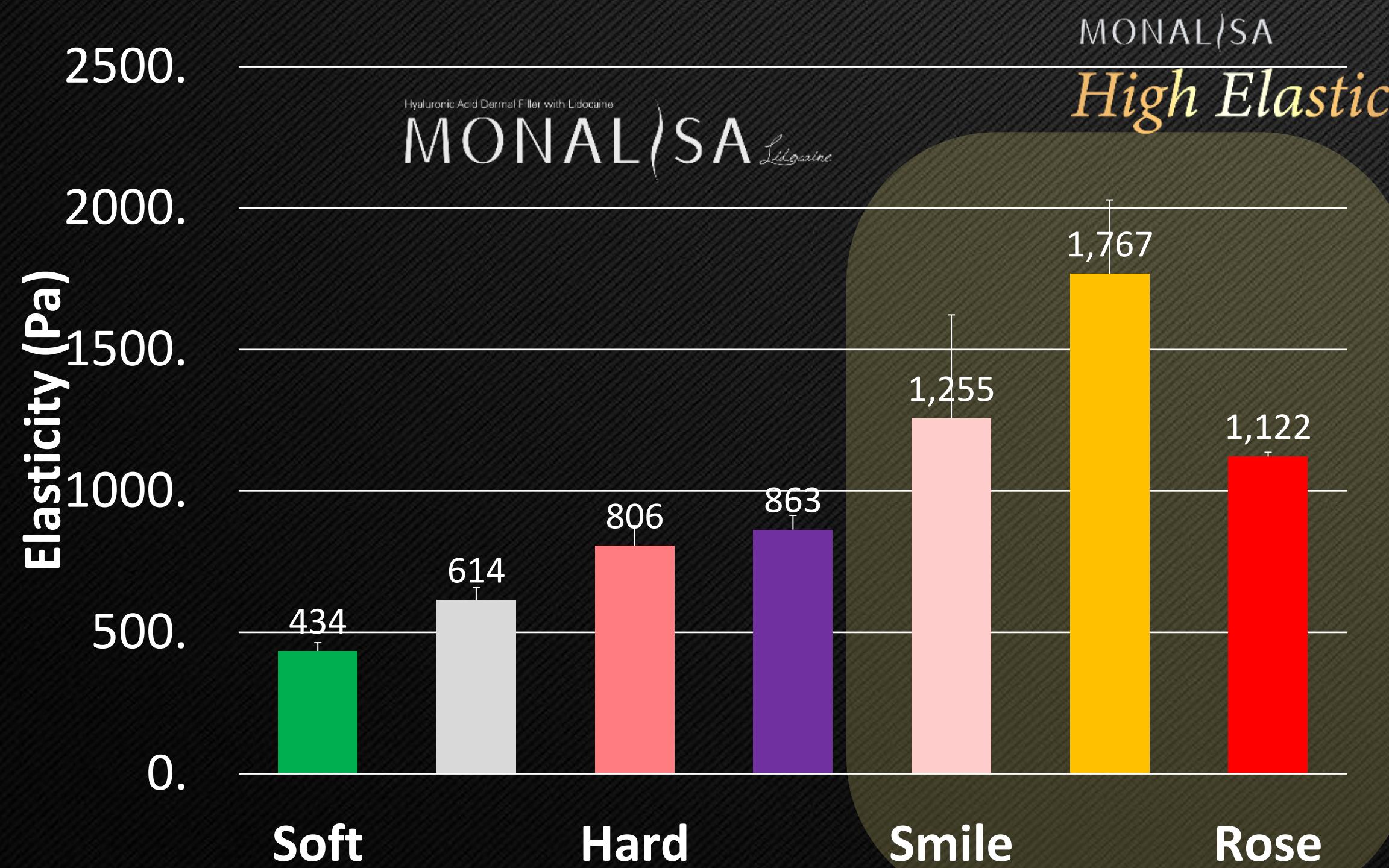
Dynamic approach based on **inspiration**

New field over dentistry

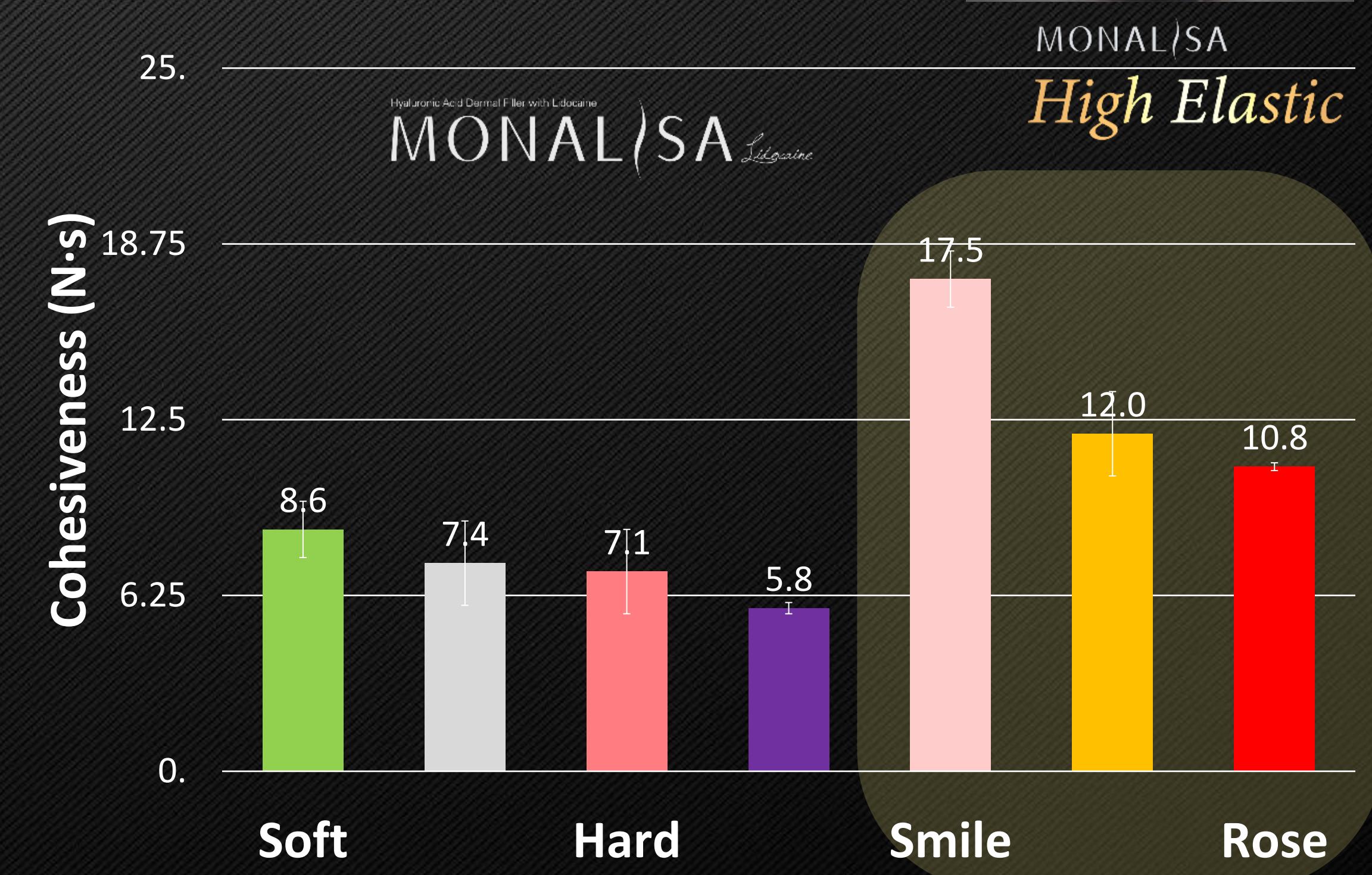
Toxin and filler, PDRN

# MONALISA High Elastic

## Elasticity

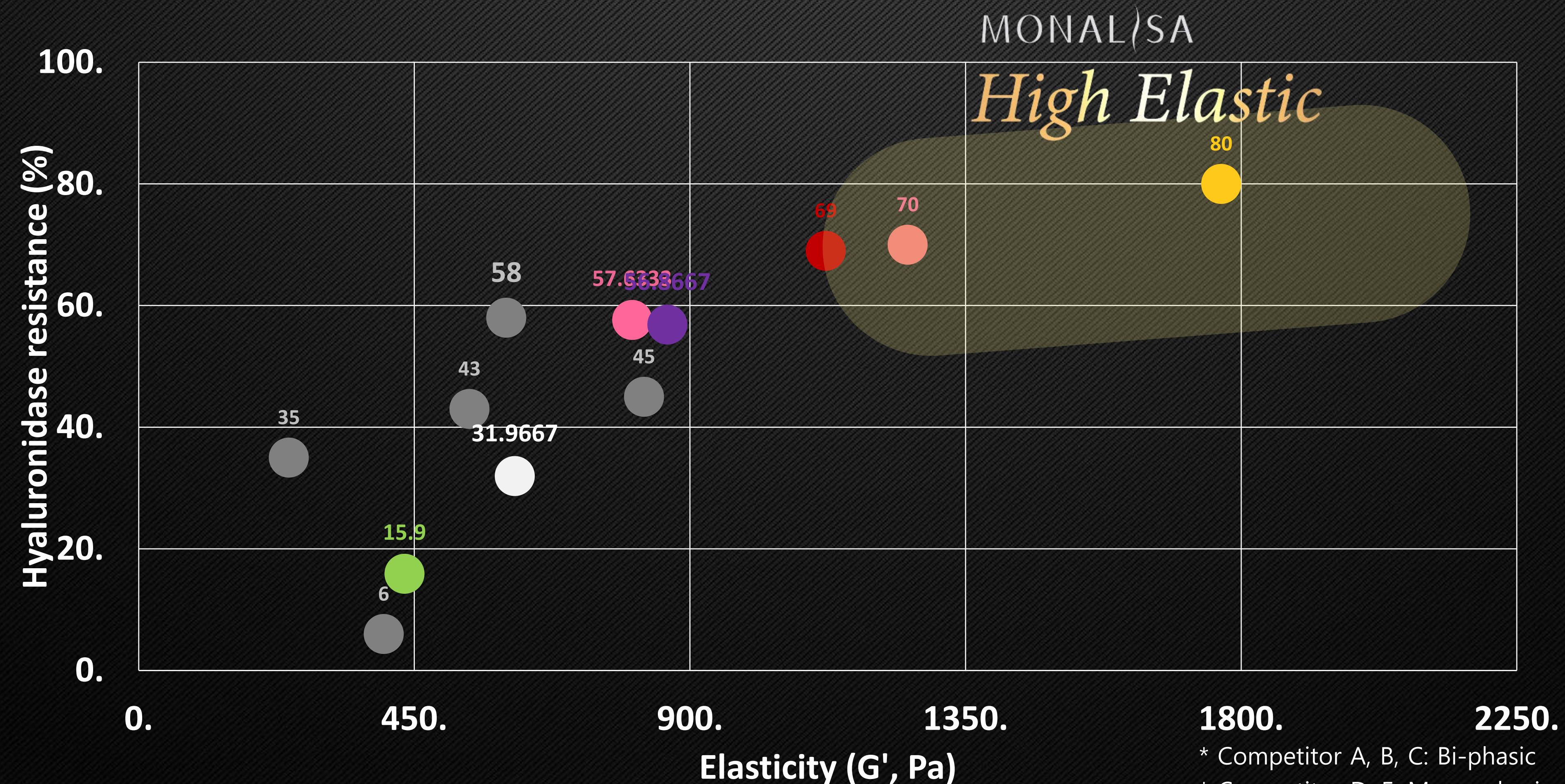


## Cohesion



# Comparison of physical properties with 5 third-party products

High elasticity and durability compared to other companies



# How to “Filler & Toxin”? \_ Treatment techniques



**\*\* 313p Filler VOD 2**

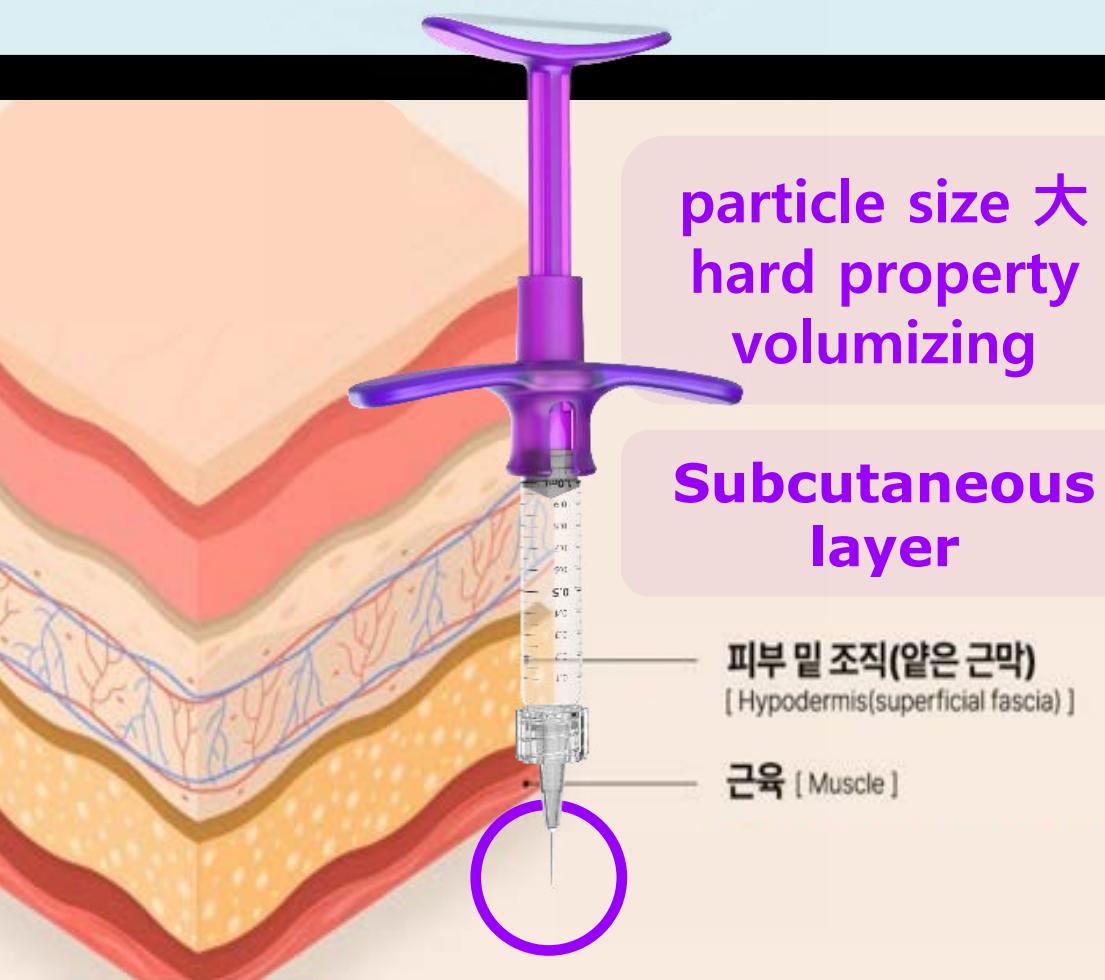


**\*\* 313p Filler VOD 3**

## Monalisa High Elastic Volume

**Bone-contact technique**

- Avoid anatomical hazards
- Minimize connective tissue damage
- Natural appearance
- Long-term stable



## Monalisa High Elastic Rose

**Needle-up technique**

- Intradermal angle (10~15°)
- On superficial layer
- Maintain smooth appearance
- Less invasiveness



# Mental crease

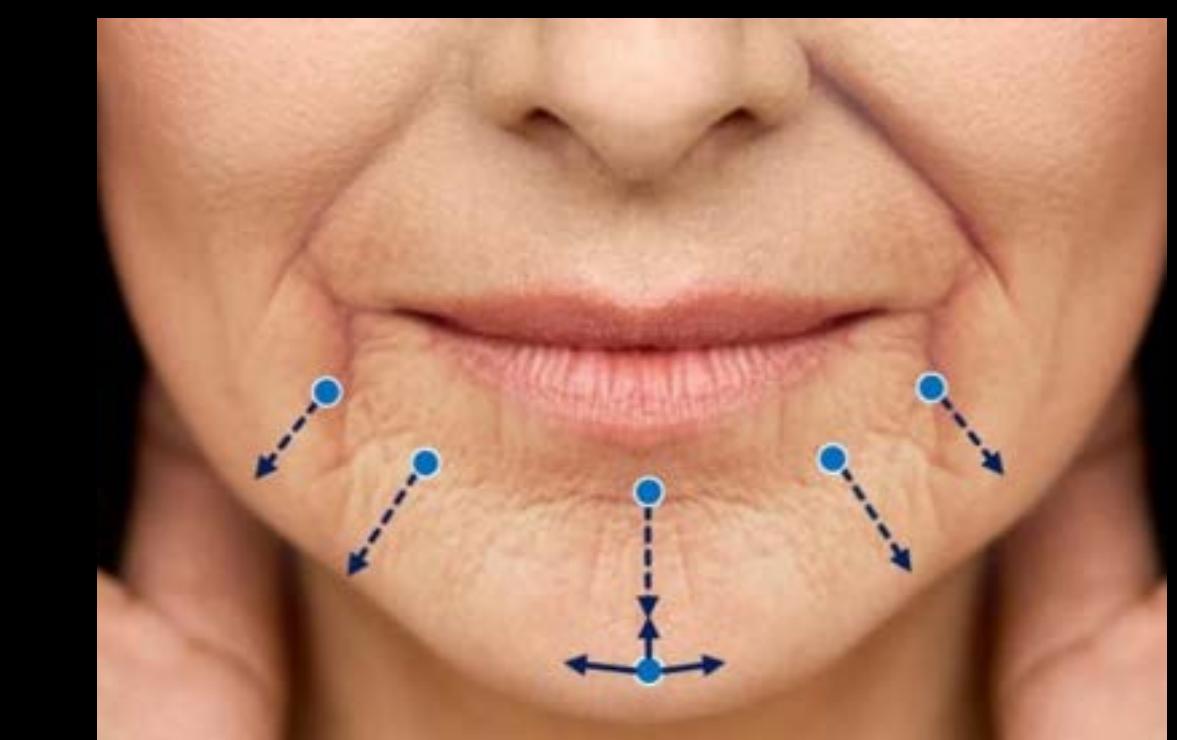
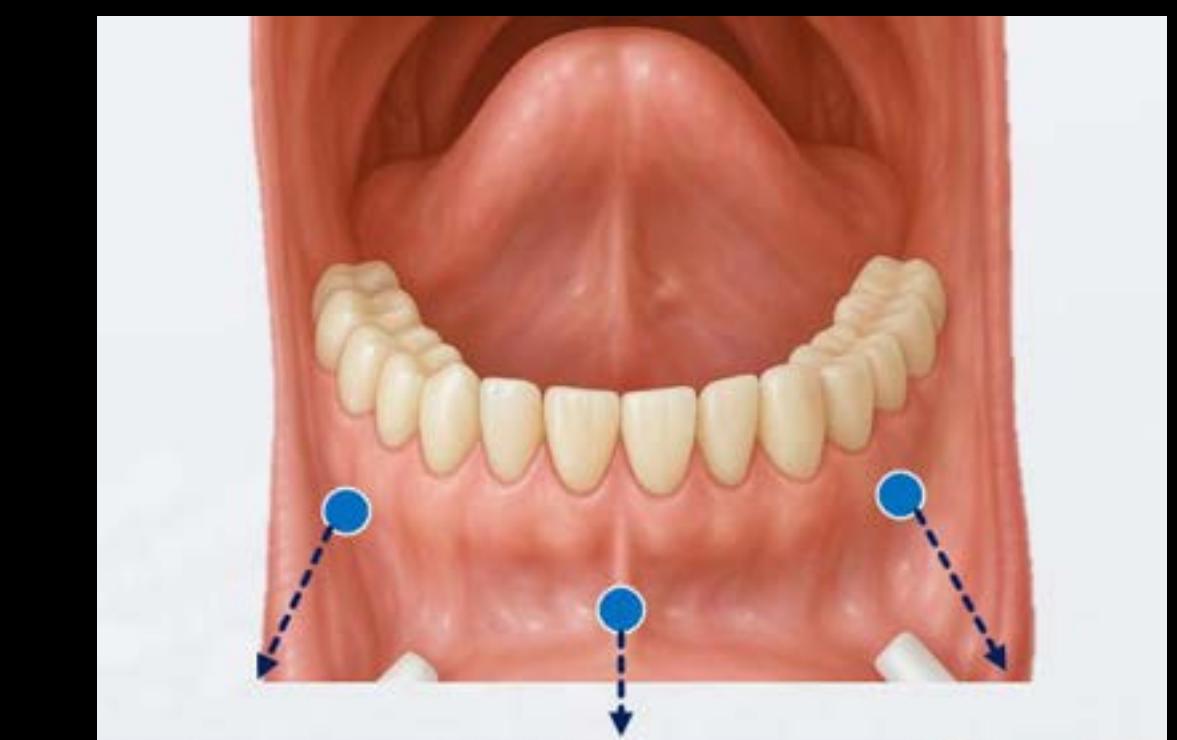


Dentium



Application sites

Smile / Rose ↗  
- Mental crease



## Bone contact technique

- With jawline reconstruction for balanced profile
- Superficial injection, ~2 cc total
- linear threading along contour



# Nasal contour

Dentium

**Dorsum: bone contact on nasal bone, linear threading**



**Tip: intraoral or perioral approach, small bolus injection**

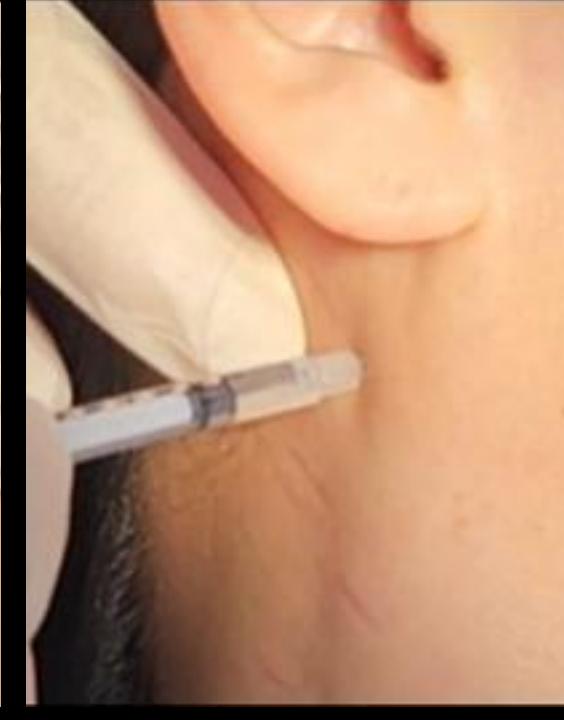
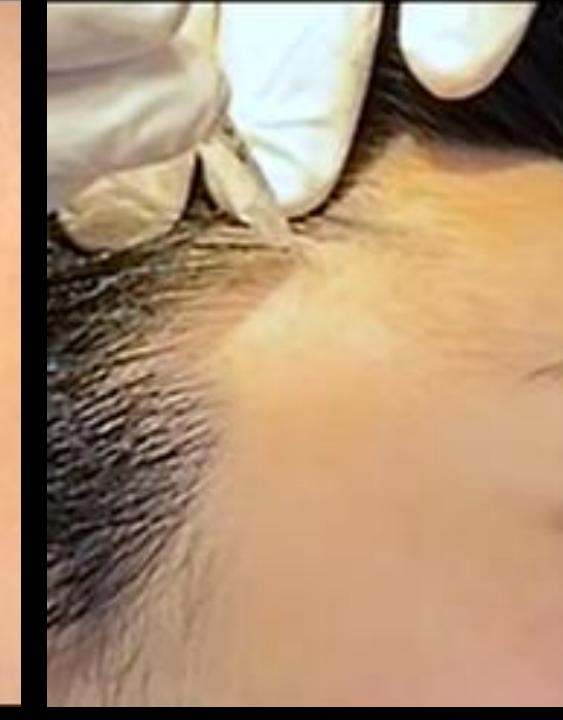
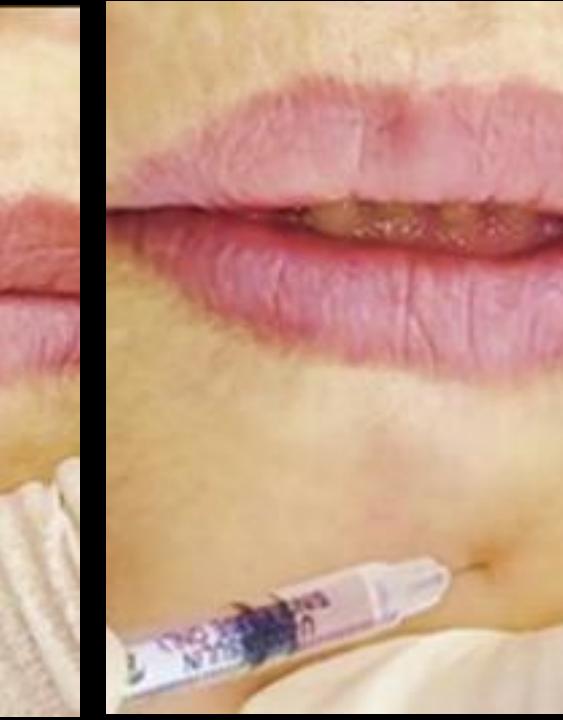
**Caution: avoid vascular compromise (dorsal nasal artery)**

# Injection point & recommended dose \_ HA Filler Dentium

Tx Plan	Intraoral	Perioral
Injection point	<b>Nasolabial folds &amp; Marionette lines</b> <ul style="list-style-type: none"> <li>✓ Superficial injection</li> <li>✓ Bone contact on buccal apex</li> <li>✓ 3~5mm upwards from nasolabial folds</li> <li>✓ Canine fossa pressure</li> <li>✓ 0.5-1cc</li> </ul>	<b>Nasolabial folds &amp; Marionette lines</b> <ul style="list-style-type: none"> <li>✓ Superficial injection</li> <li>✓ Bone contact on nasal bone</li> </ul> <b>Nose dorsum</b> <ul style="list-style-type: none"> <li>✓ Both intraoral and perioral approach are achievable</li> </ul> <b>Nose tip</b> <ul style="list-style-type: none"> <li>✓ Both intraoral and perioral approach are achievable</li> </ul> <b>Forehead &amp; Frown line</b> <ul style="list-style-type: none"> <li>✓ Bone contact on frontal sinus</li> <li>✓ On depressed volume</li> </ul> <b>Lip contour</b> <ul style="list-style-type: none"> <li>✓ Subdermal injection</li> </ul> <b>Chin contour</b> <ul style="list-style-type: none"> <li>✓ With jawline reconstruction</li> <li>✓ Superficial injection</li> <li>✓ 2cc</li> </ul>
Specific remarks		
Recommended product	MONALISA High Elastic Volume	MONALISA High Elastic Volume

# Injection point & recommended dose \_ Toxin

Dentium

Tx Plan	Intraoral	Perioral					
Injection point	Lateral pterygoid	Masseter	SCM (sternocleidomastoid)	Temporalis	Depressor anguli oris	Mentalis	Procerus
Specific remarks	<ul style="list-style-type: none"> <li>✓ Palpation on bucco-apex area of 3<sup>rd</sup> molar</li> <li>✓ Induce the patient to clench</li> </ul>	<ul style="list-style-type: none"> <li>✓ Male : 40 unit</li> <li>✓ Female : 20 unit</li> <li>✓ Palpation &amp; inducing the patient to clench</li> </ul>	<ul style="list-style-type: none"> <li>✓ 10 unit</li> <li>✓ On superior aspect of SCM</li> </ul>	<ul style="list-style-type: none"> <li>✓ 5 unit</li> <li>✓ Palpation &amp; inducing the patient to clench</li> </ul>	<ul style="list-style-type: none"> <li>✓ Prior to HA filler injection</li> </ul>	<ul style="list-style-type: none"> <li>✓ 2–5 units per side (total 4–10 units)</li> </ul>	<ul style="list-style-type: none"> <li>✓ 4–8 units at frown-line</li> </ul>
✓ VD reconstruction (4~5mm)							

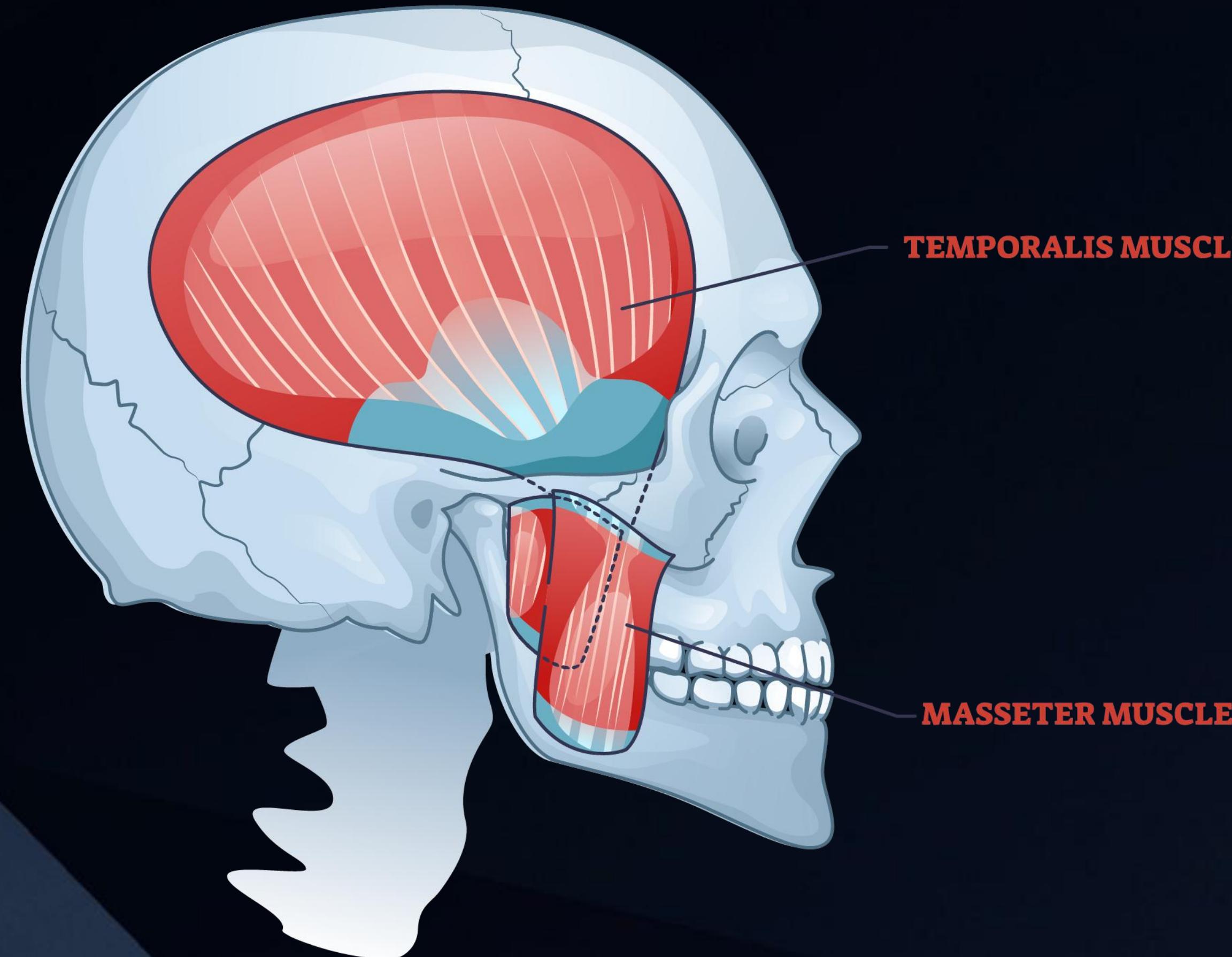
## PDRN injection into TMJ

TMJ problem patients - sound, displacement, dislocation and resorption

Clinically not yet proven but effective due to strong anti-inflammatory  
and regenerative effects

# Why Filler and Botox?

# Botox



Traditionally focused  
on jaw-closing muscles

Limited to the masseter and  
temporalis muscles

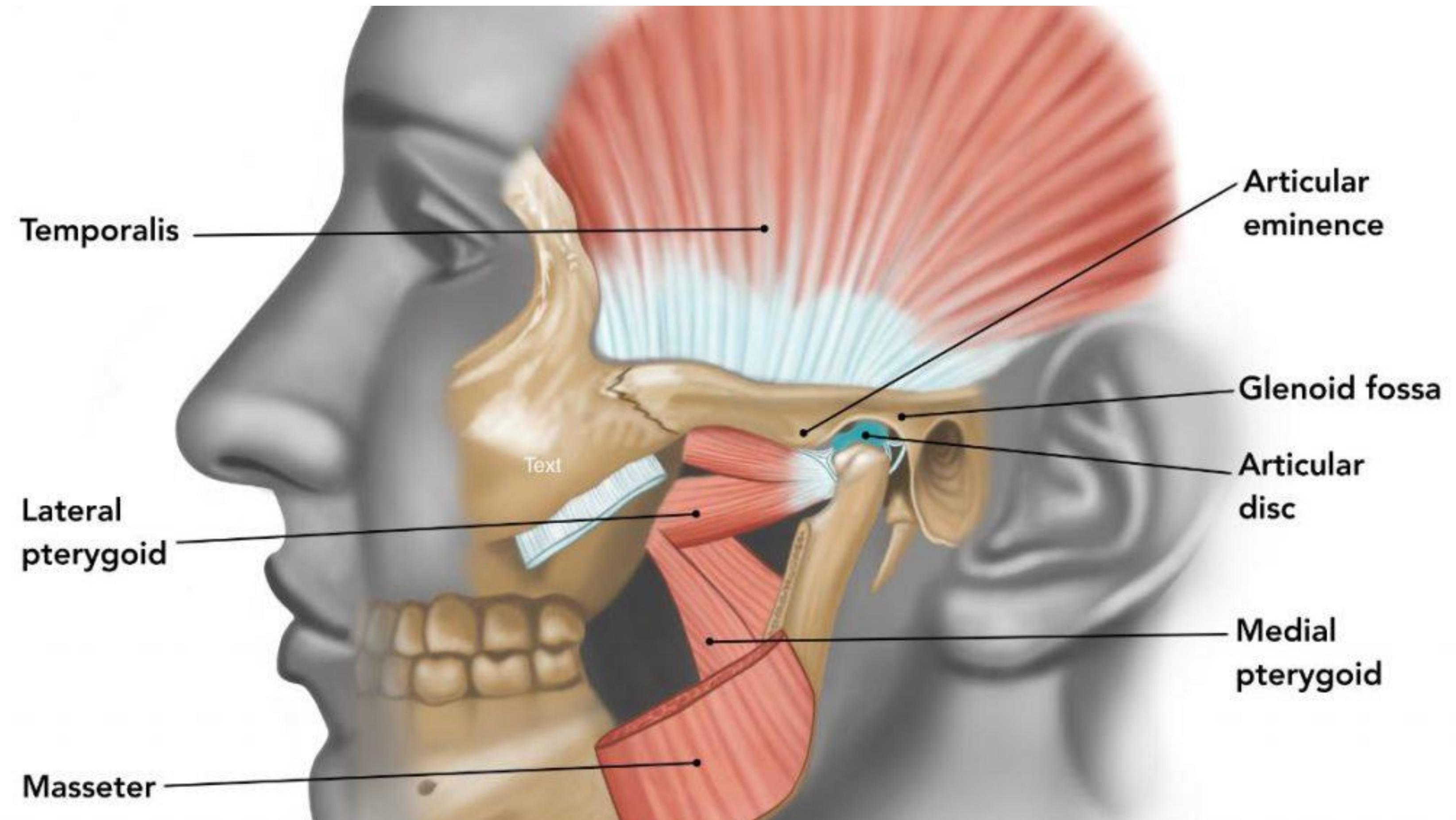
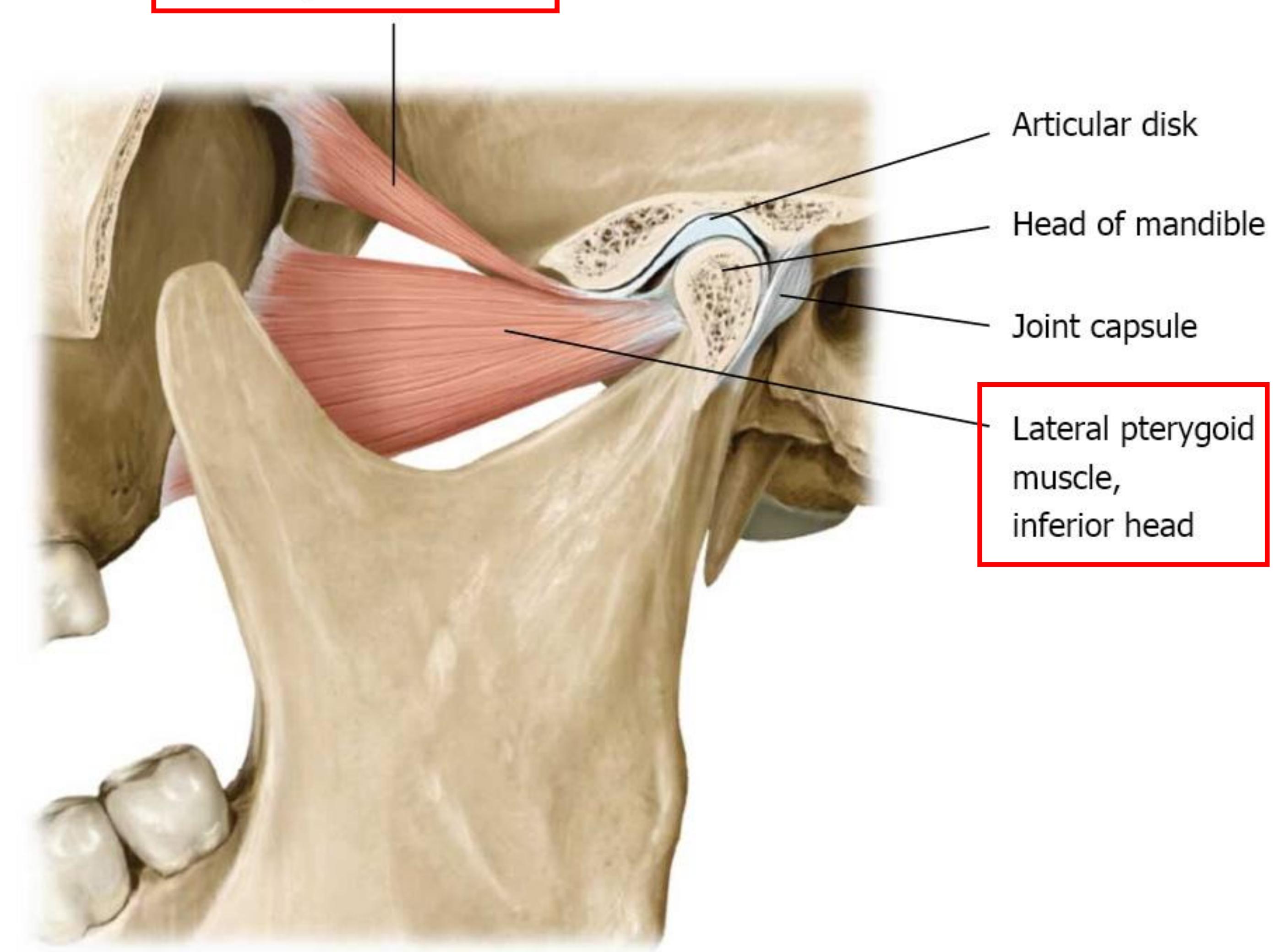
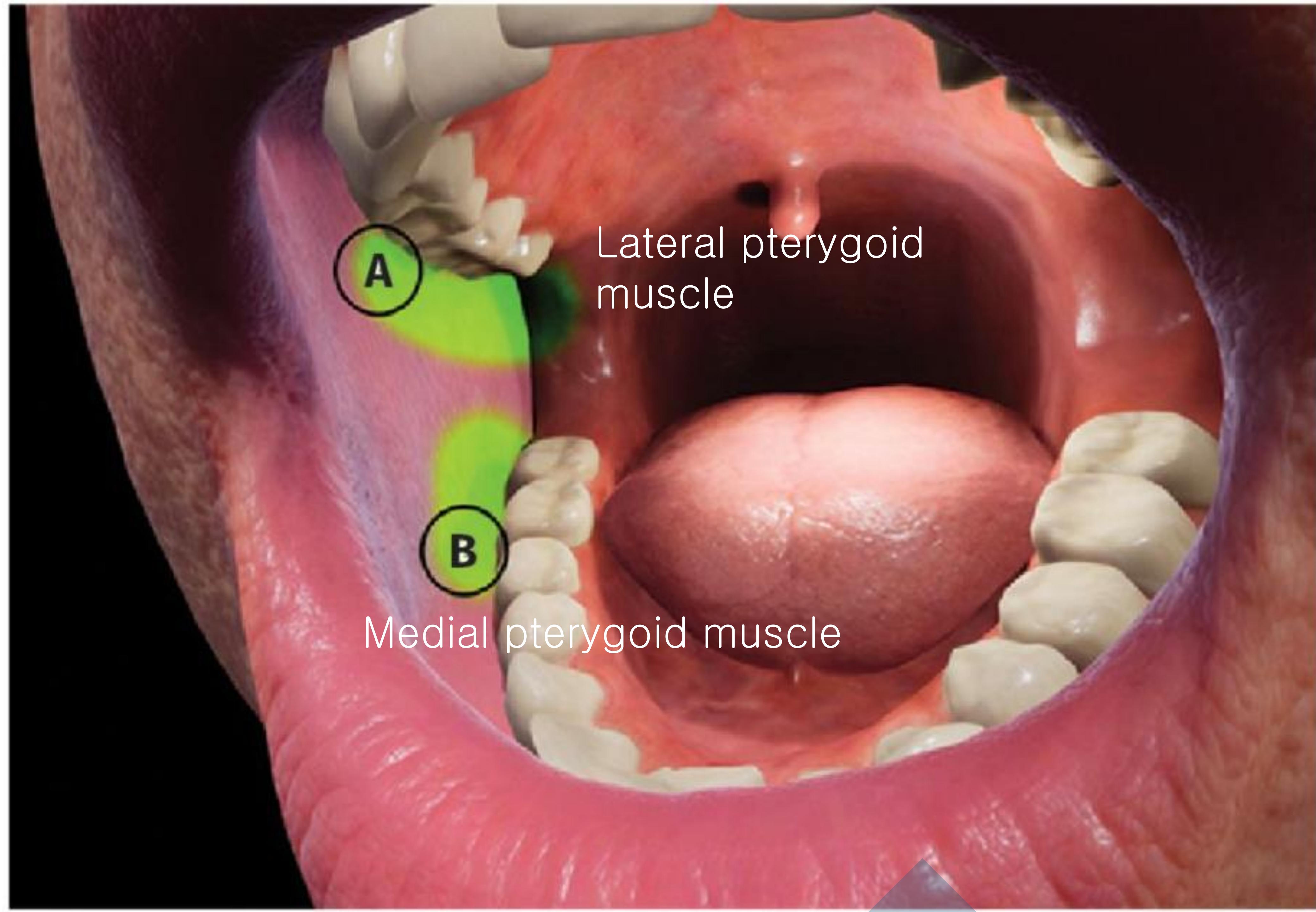
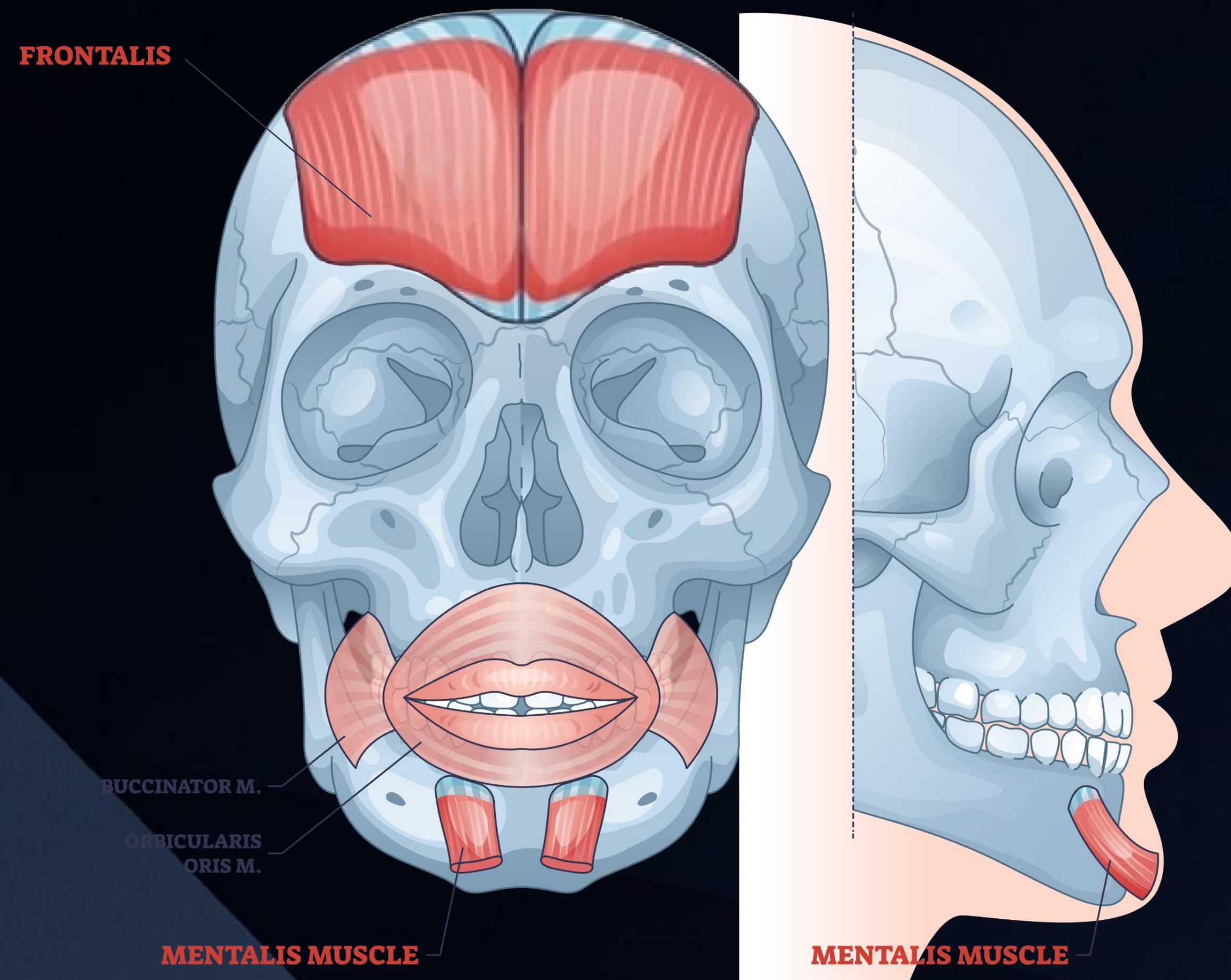


Photo Courtesy of Dr. Liam Moore





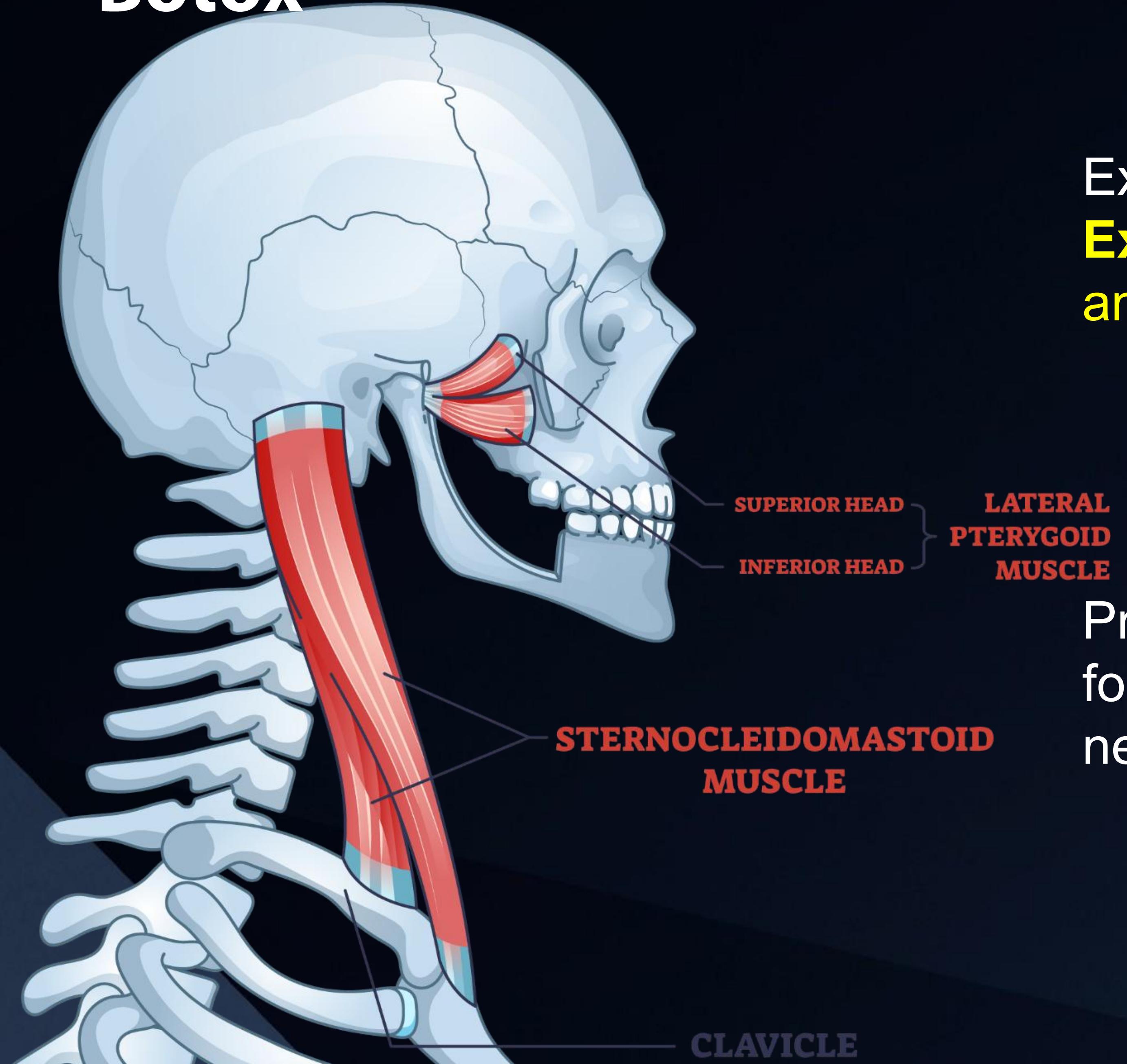
# Botox



Glabellar and forehead line correction aimed at balanced brow and forehead harmony

Reducing dynamic wrinkles and puckering in the chin area

# Botox



Expanded to include  
**External pterygoid muscle**  
and **Sternocleidomastoid muscle**

Presenting various clinical options  
for temporomandibular and  
neck muscle disorders

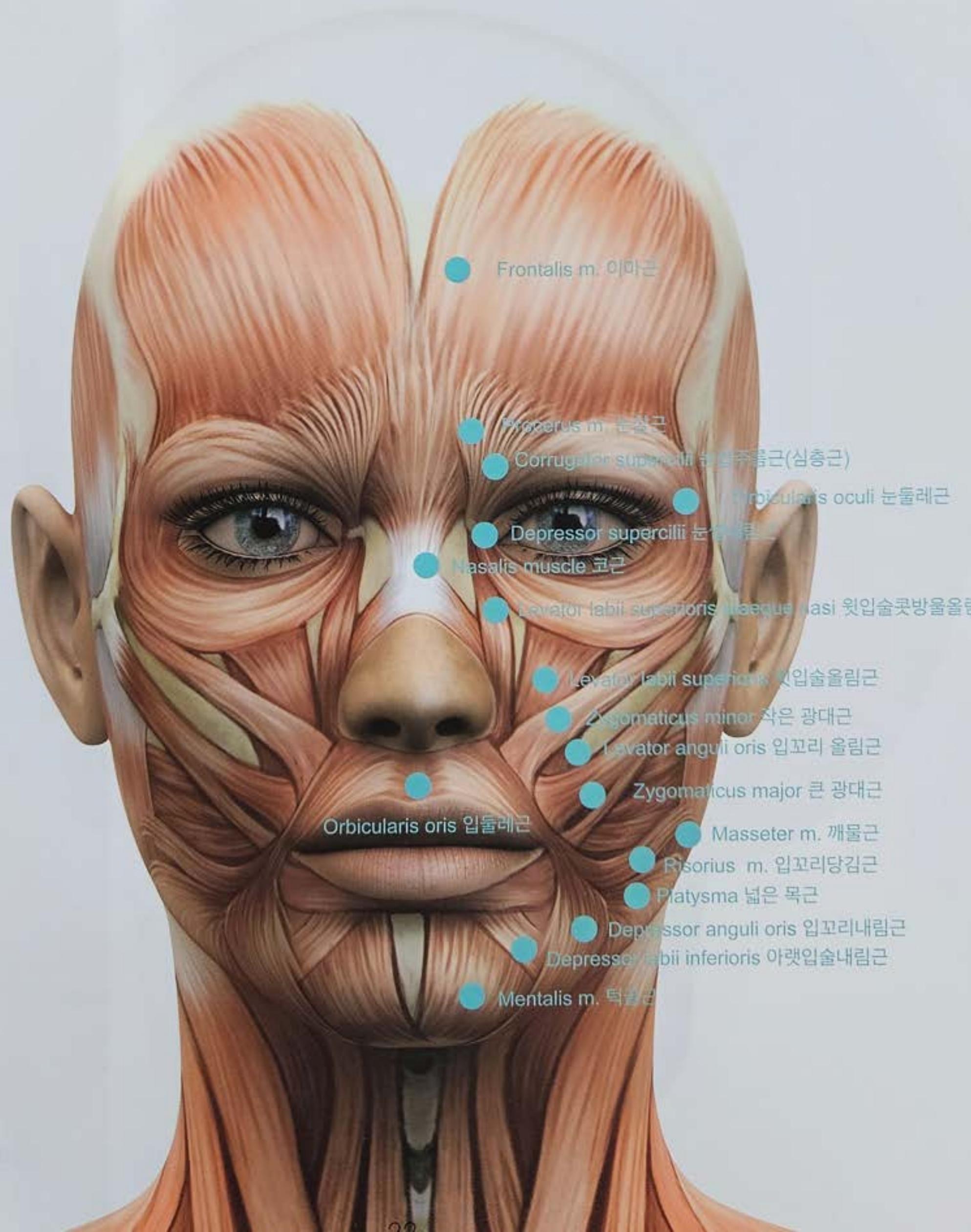
# Botulinum toxin injection & Jaw management

Dentium d  
SM Chung



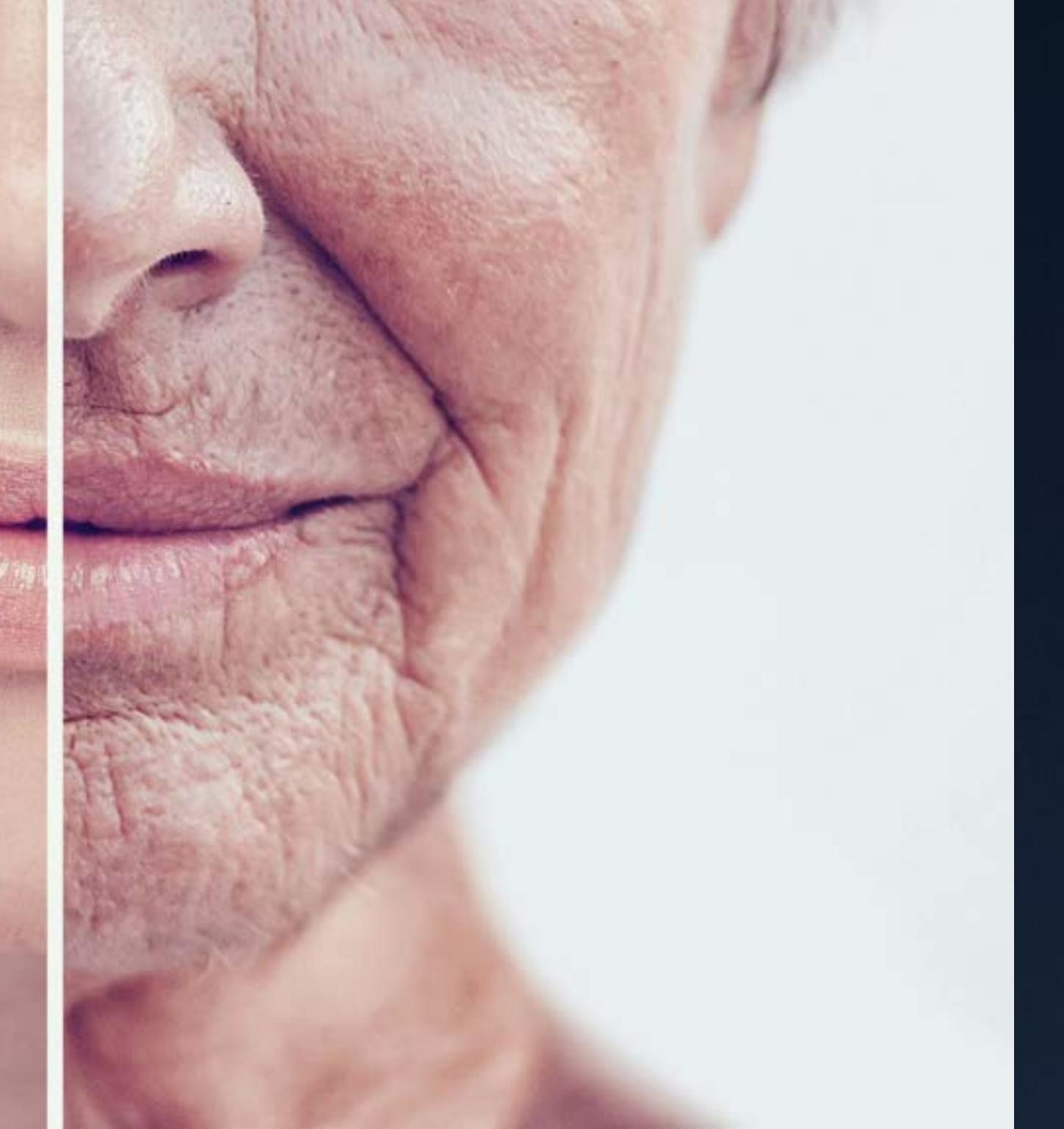
\*\* 327p TMJ PDRN VOD 2,3

## Facial muscles



**Why at now Filler ?**

# Aged person wrinkle



## **Dermal filler**

It improves the shape of the face by increasing volume and smoothing it out. It fills in gaps caused by age or accidents.

## Dermal filler

Increase soft-tissue volume to improve and soften facial contours

Filling spaces created by aging, trauma, or other causes of volume loss

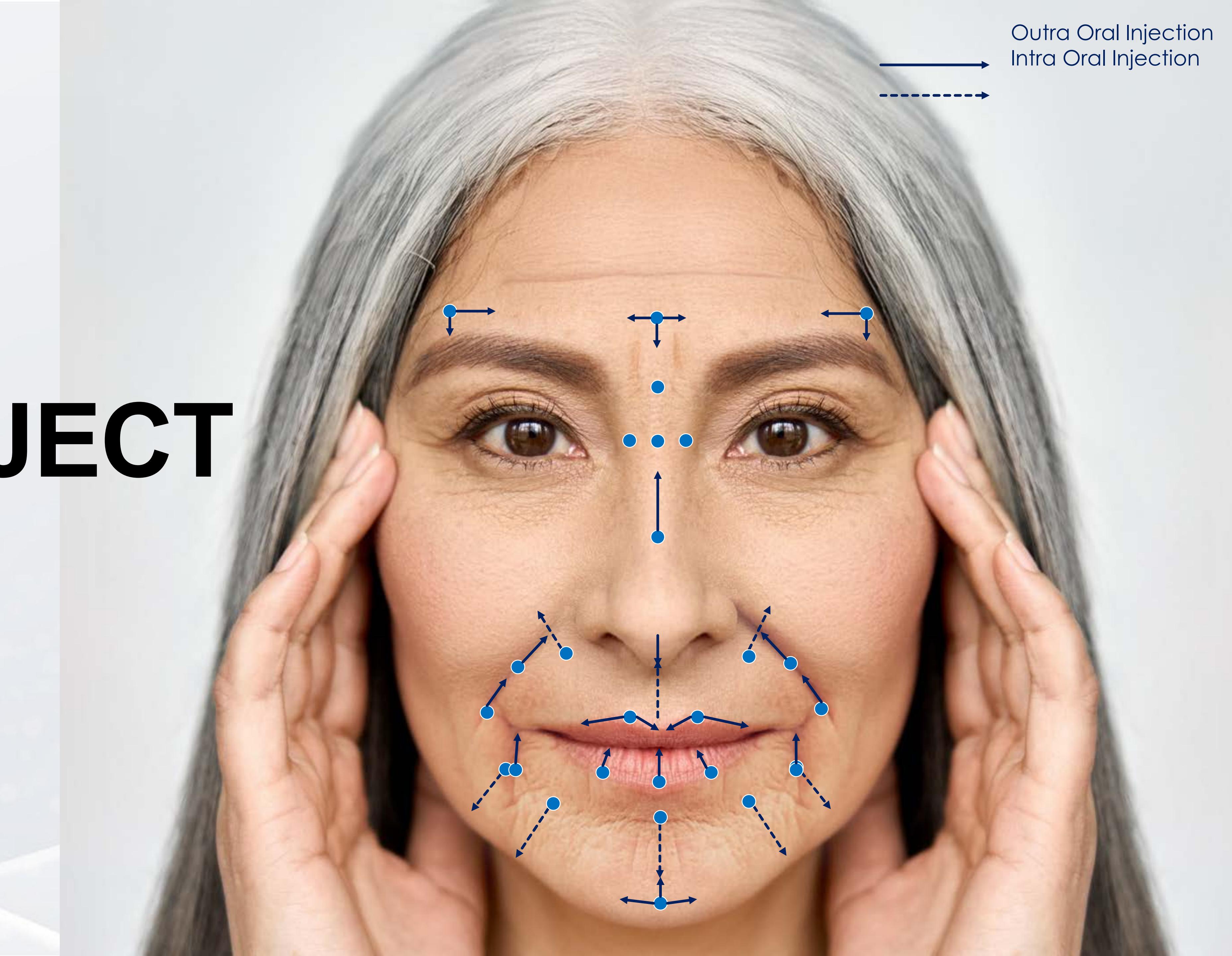
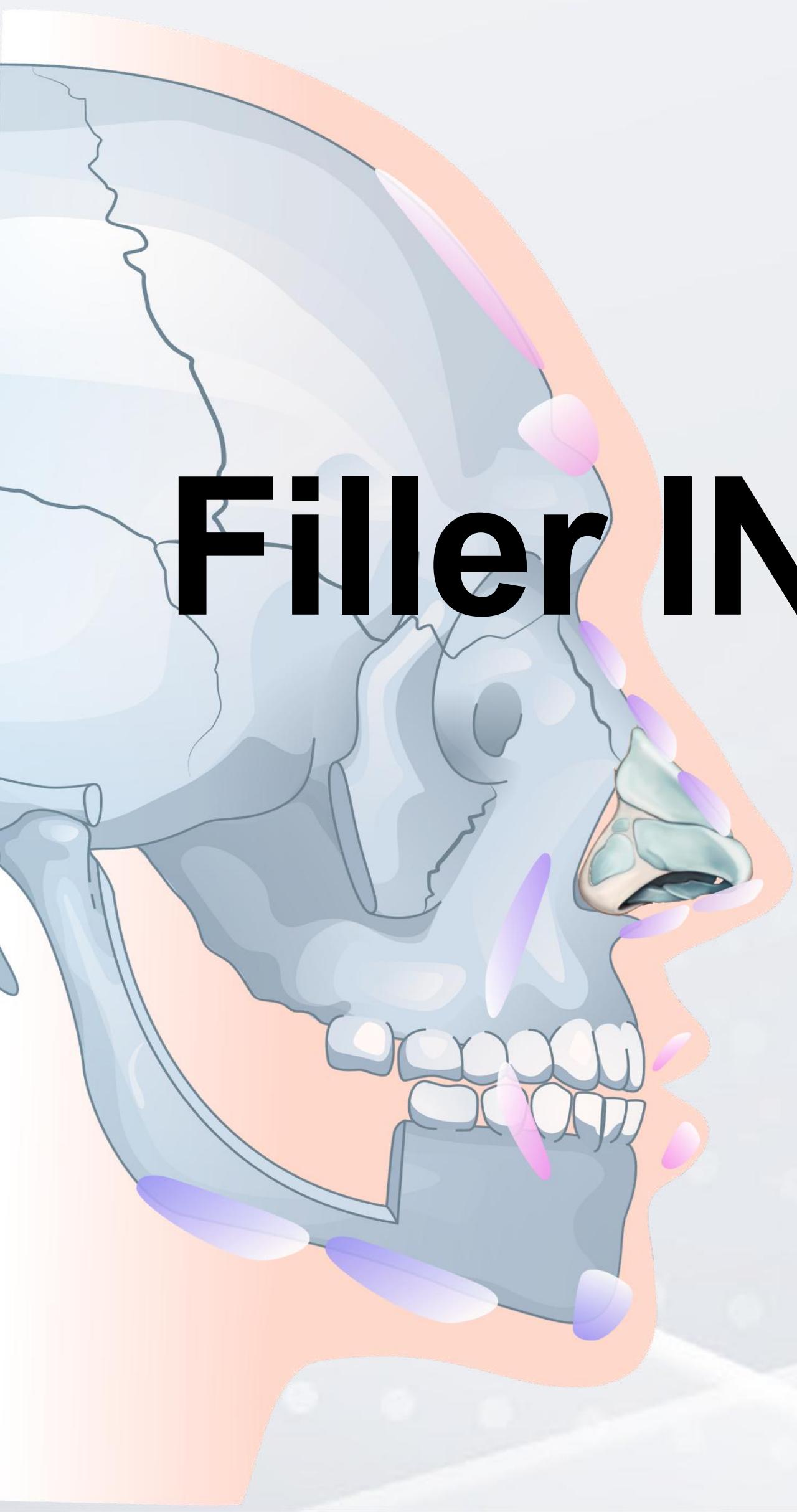
## Types of fillers

Hyaluronic acid - 6 to 18months

CaHA - 12 to 18months

PLLA - over 2 years

PCL



Hyaluronic Acid Dermal Filler

# MONALISA

Long-term Volume Up

Dentium Dental Clinic  
Dr. SM Chung



**\*\* 334p Filler VOD 4**

# Clinical case : Lip, Chin, Nasolabial fold



# The left side

Before



After



After : 1 month



# The front of

Before



After



After : 1 month



# The right side

Before



After



After : 1 month

