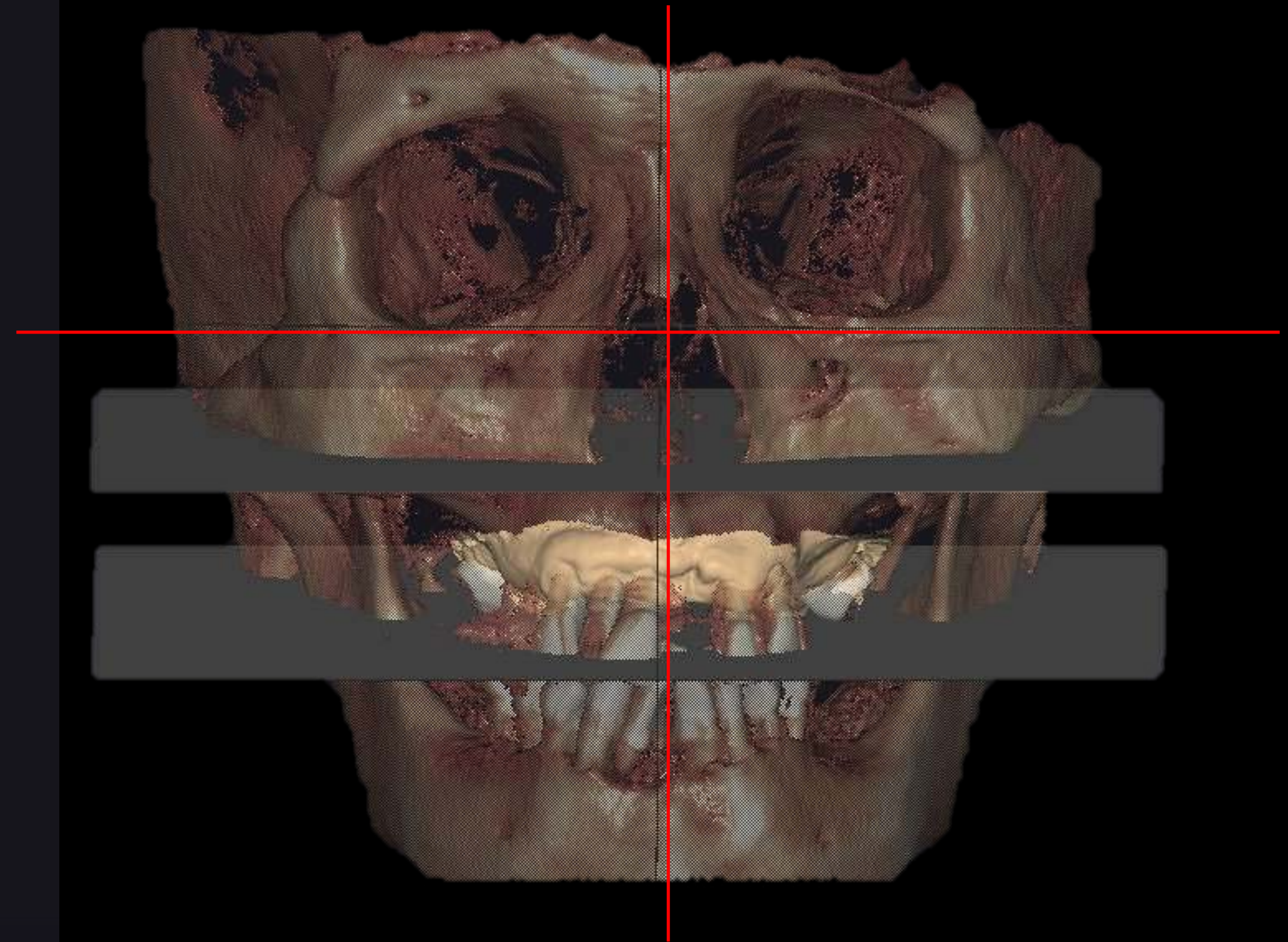


Minimalism

Progress through controversy



Dr Chung sungmin

Content

Introduction

Short and narrow implant

- change in sinus guideline and bone graft

Digital application based on CT and AI



Full mouth reconstruction

Part 1. Implant tourism with early loading

Part 2. Sinus elevation and complication solving

Part 3. Narrow but Strong Implant for narrow alveolar ridge

Problems

Unstable occlusion

Oroantral fistula

Wish teeth whitening

Visiting very far away and limited staying
- way to implant tourism

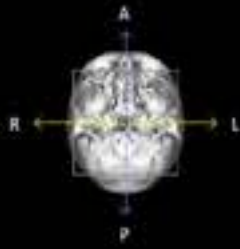
Full mouth reconstruction

Part 1. Implant tourism with early loading

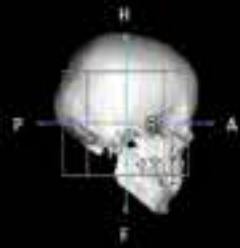


Pre-op_Sinusitis (2023-04-12)

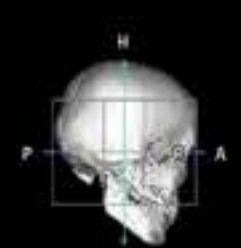
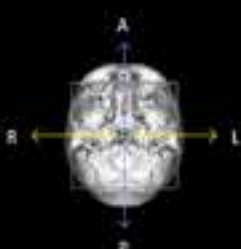
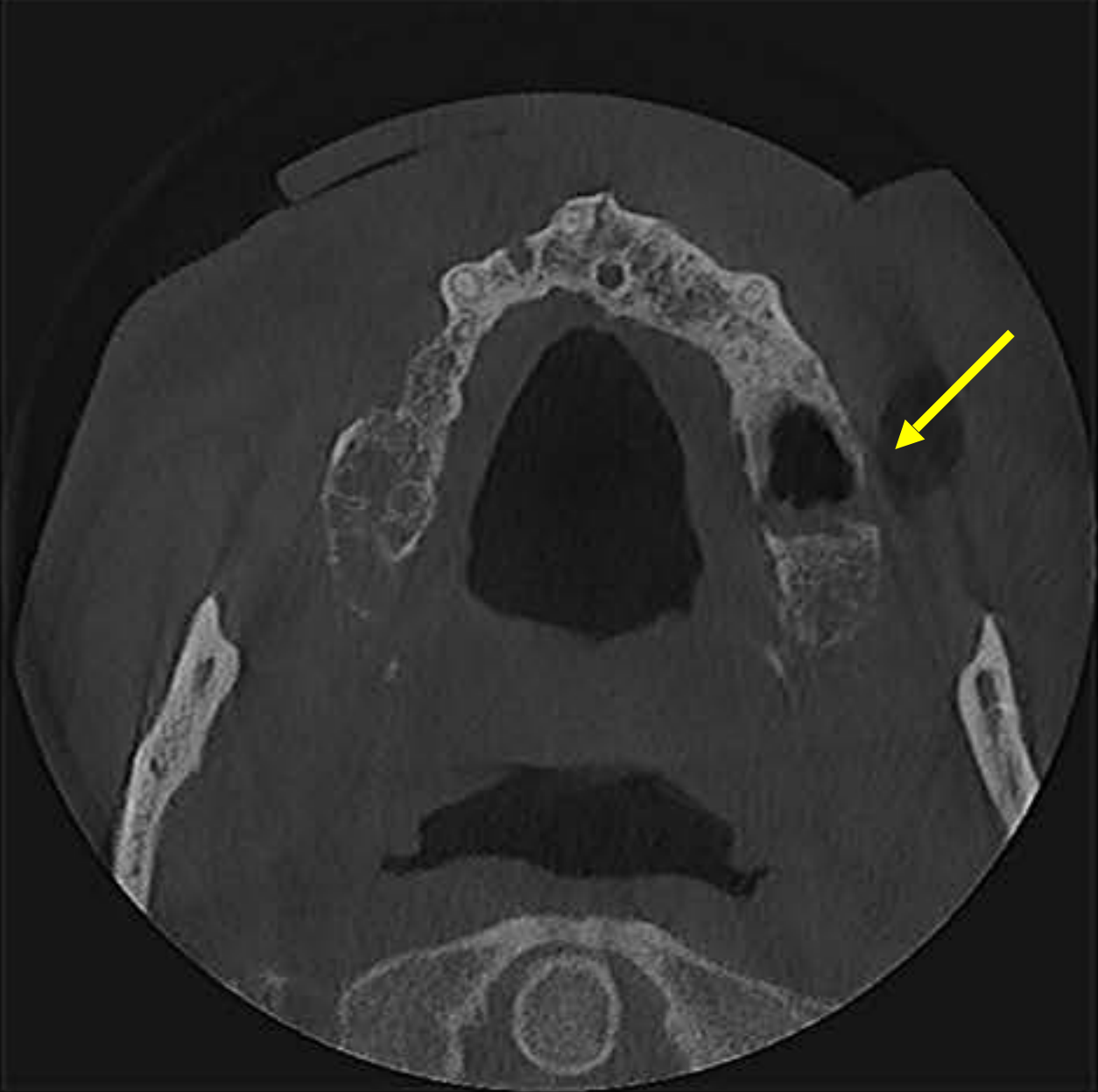
Axial[A]



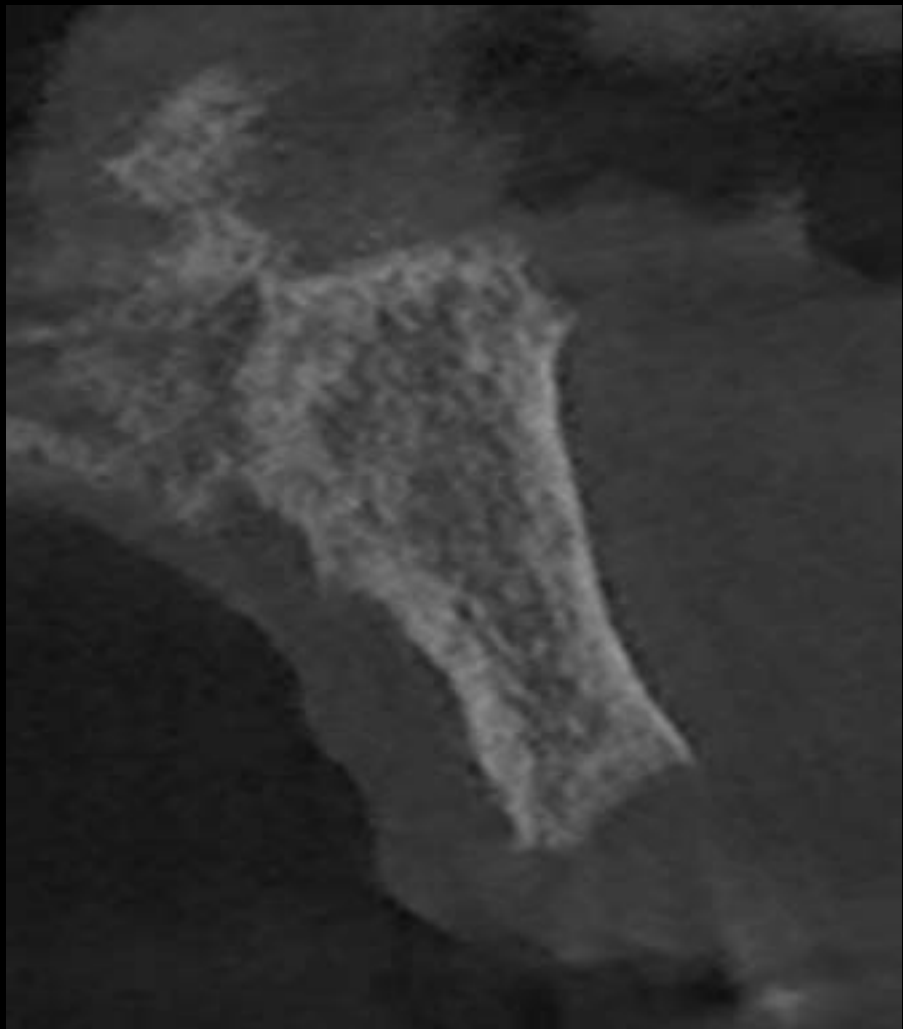
Sagittal[S]



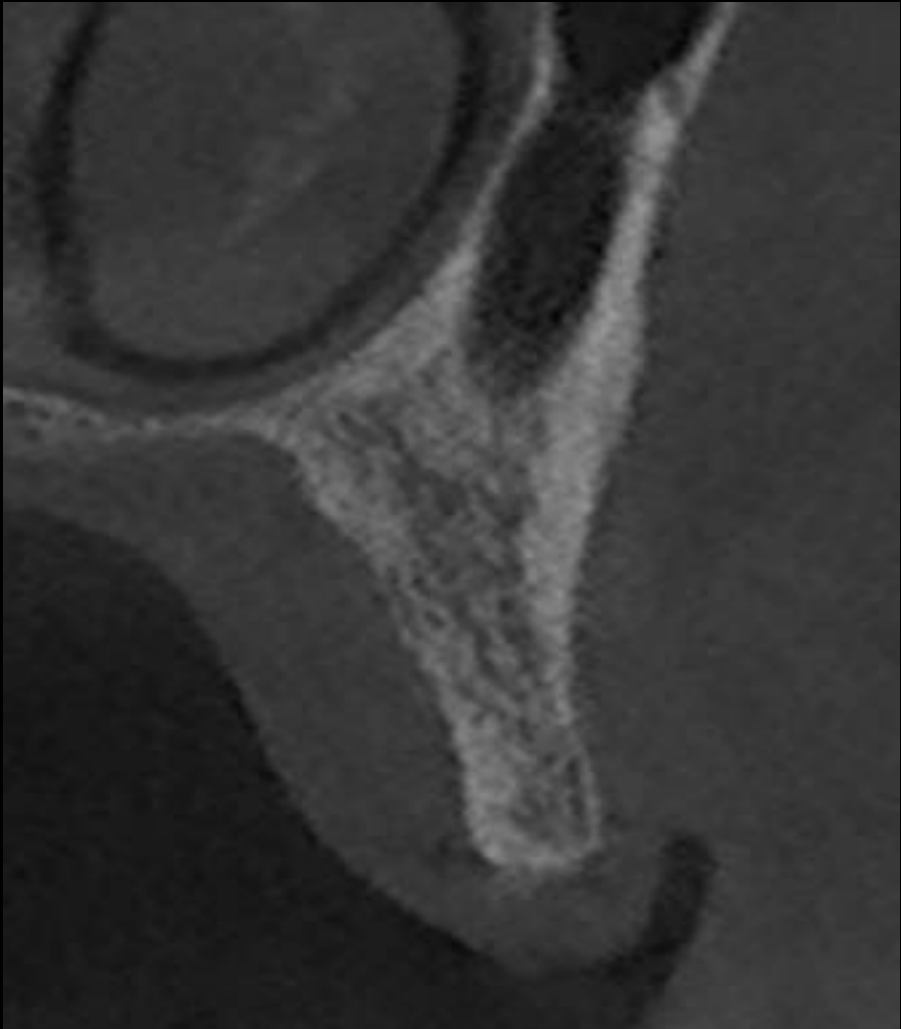
Post-op_Sinusitis treatment (2023-04-13)



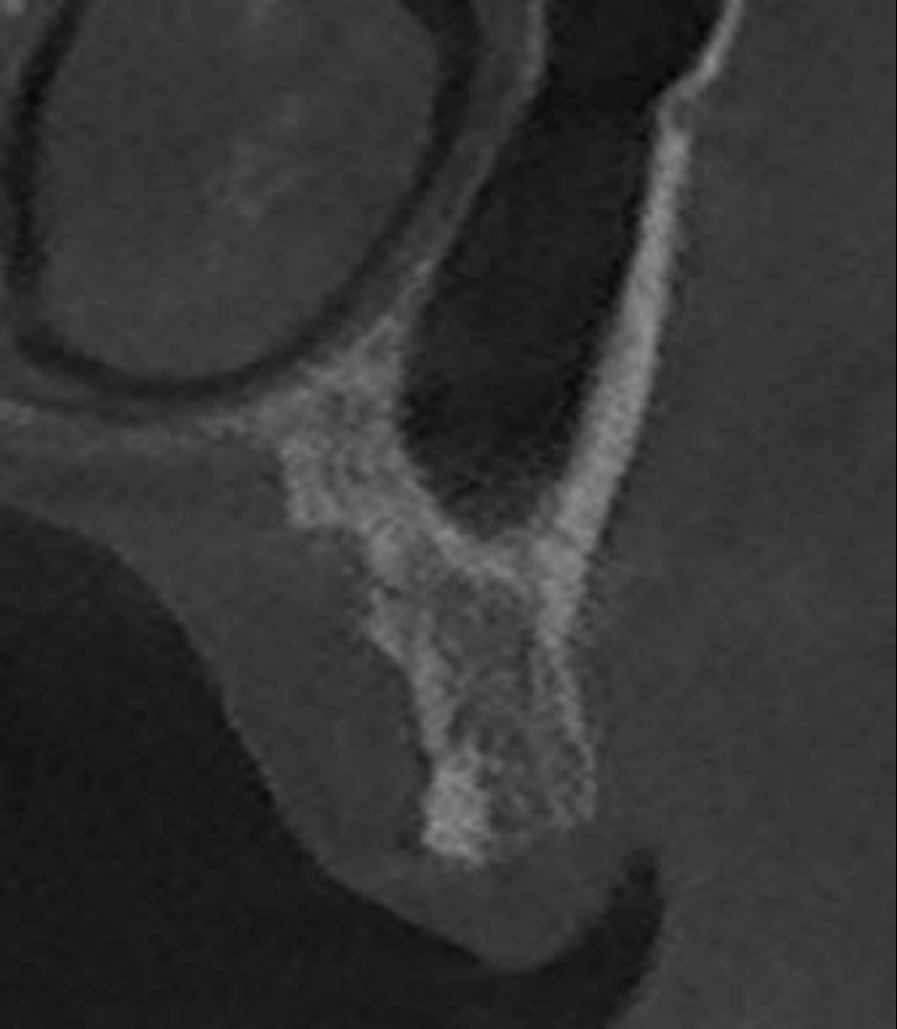
Pre-op CT (2023-04-13)



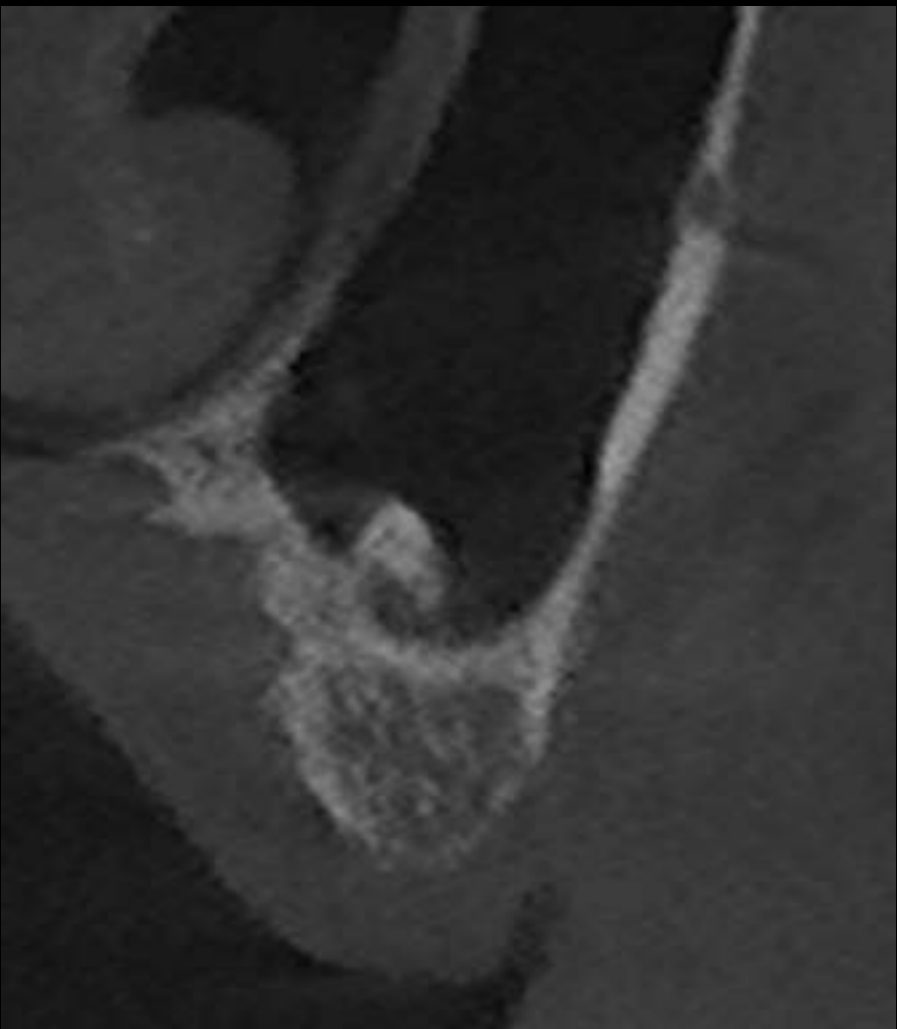
#12



#14



#15



#16



#47

Post-op CT (2023-04-17)



#12



#14



#15



#16

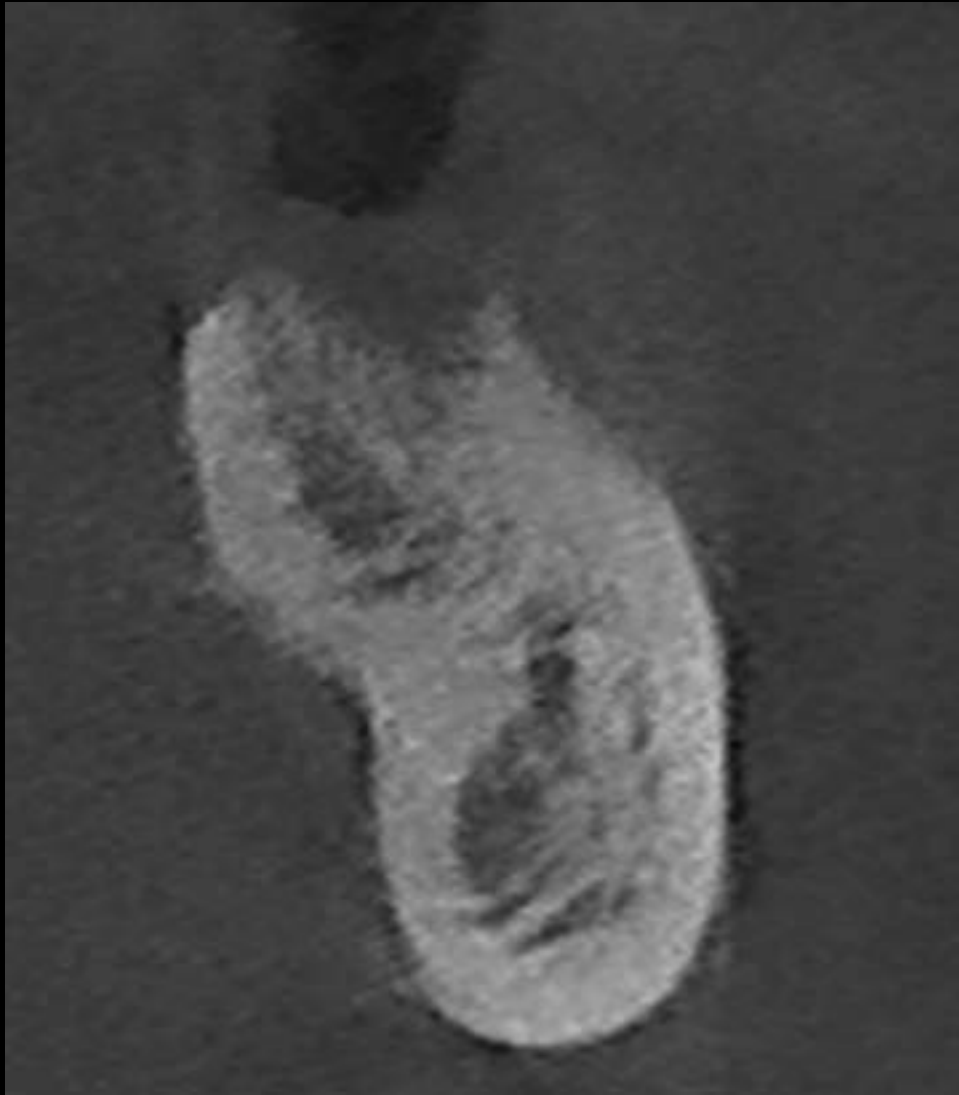


#47

Implantation #12,14,15,16,47 (2023-04-17)



Pre-op CT (2023-04-17)



#35

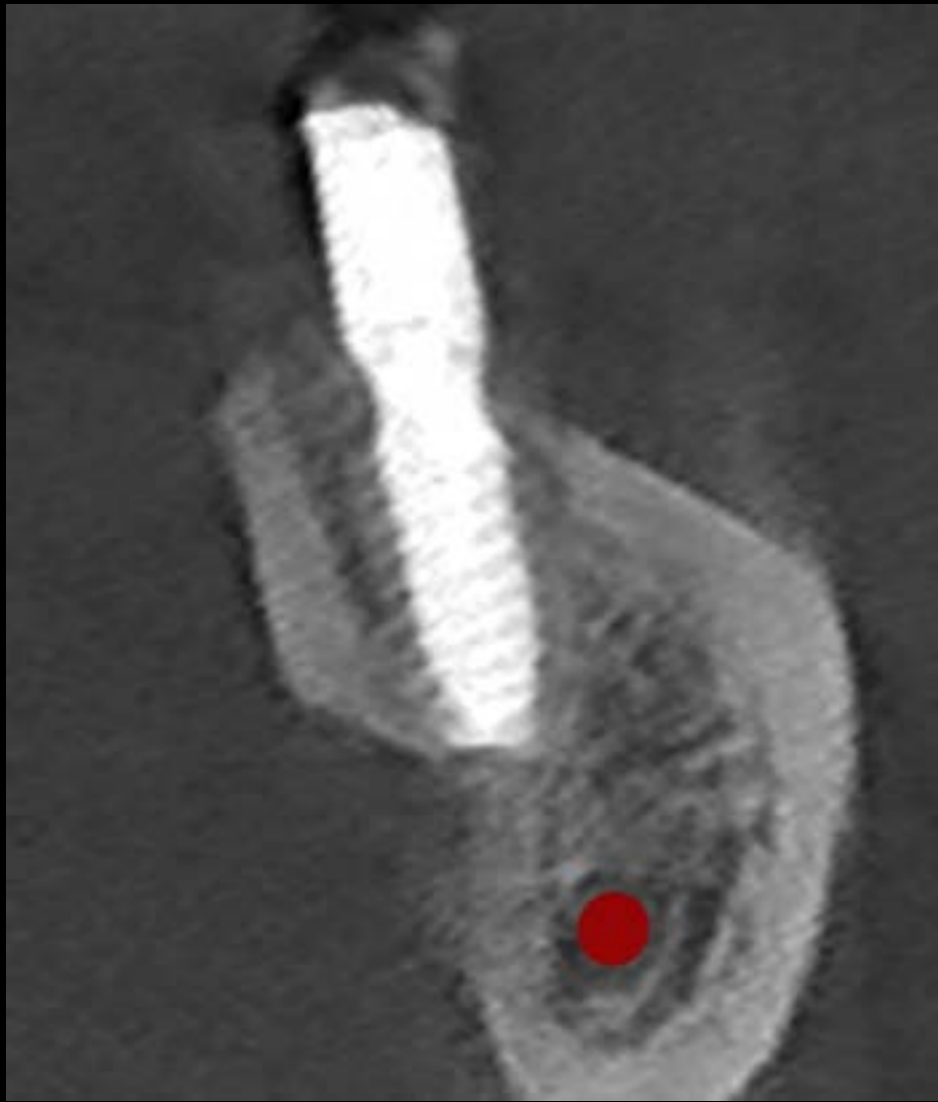


#37

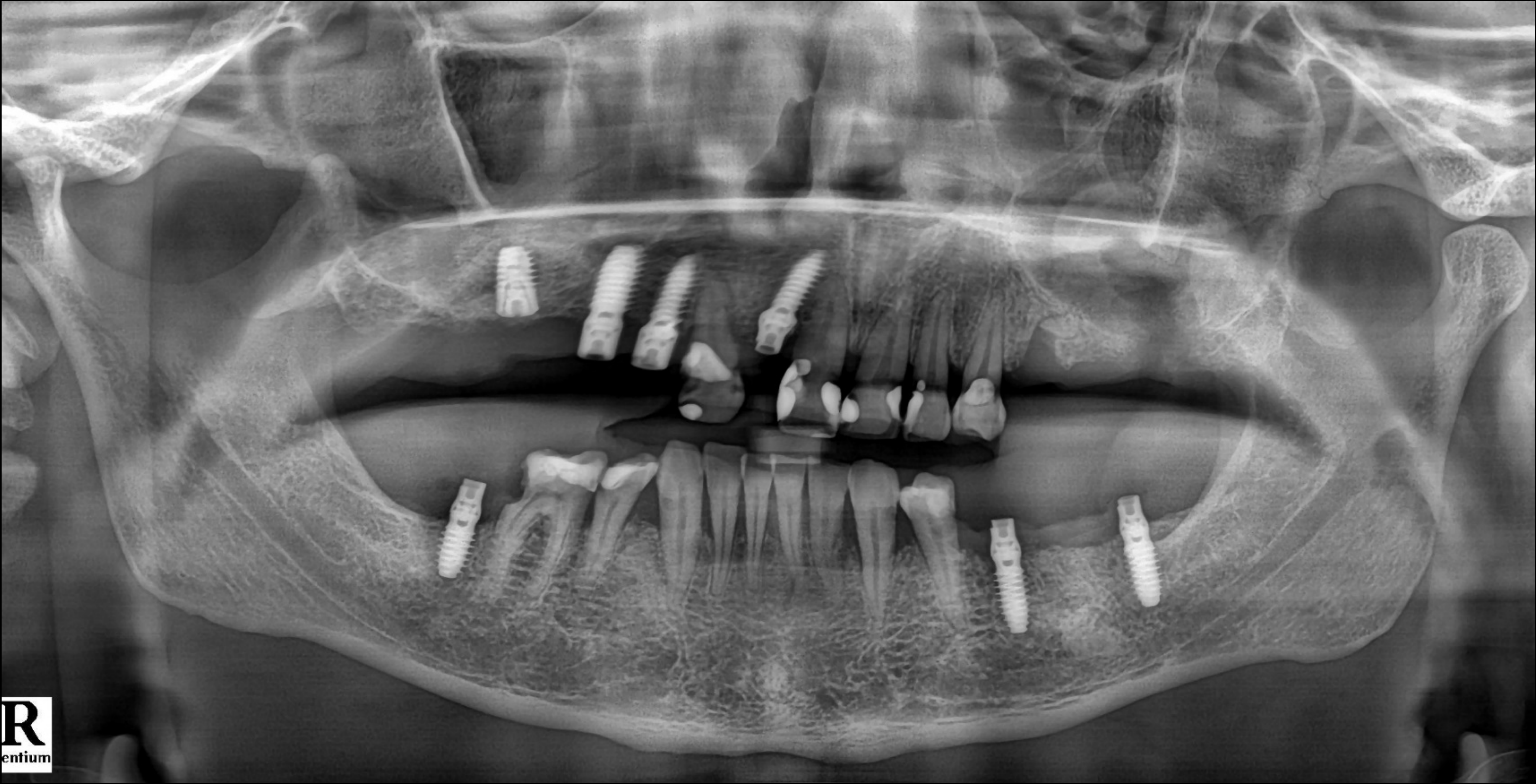
Post-op CT (2023-04-19)



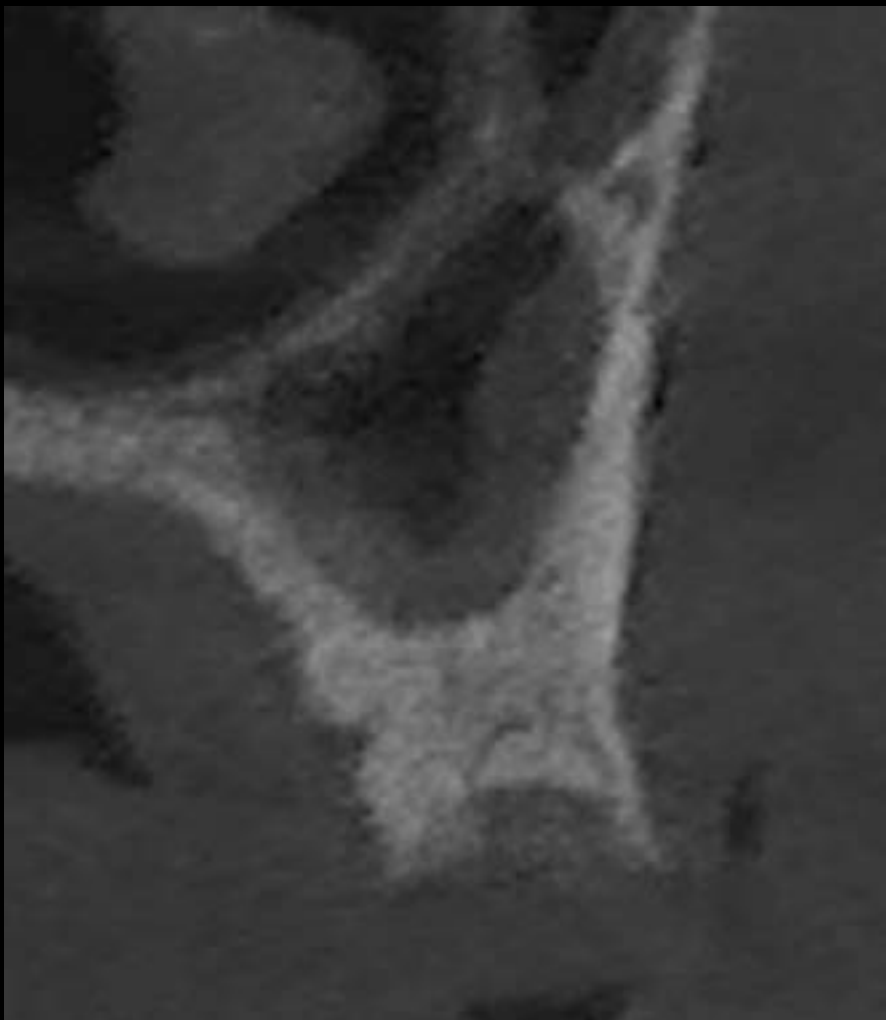
#35



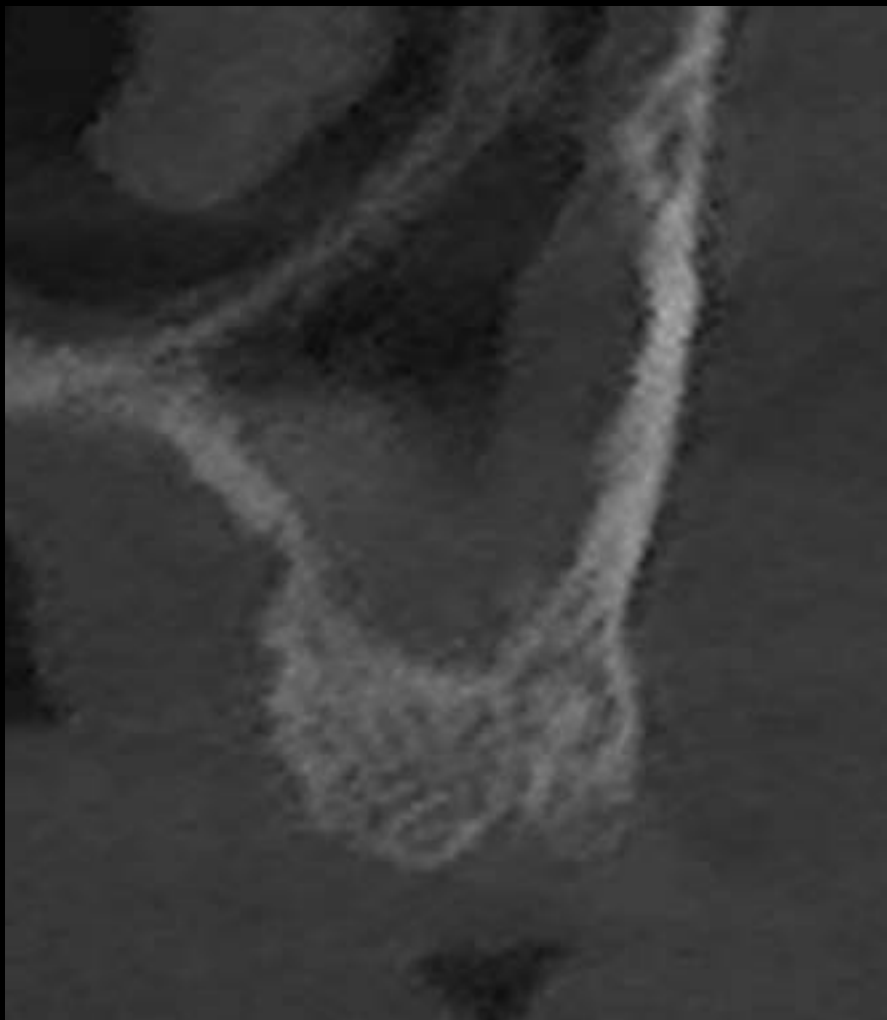
#37



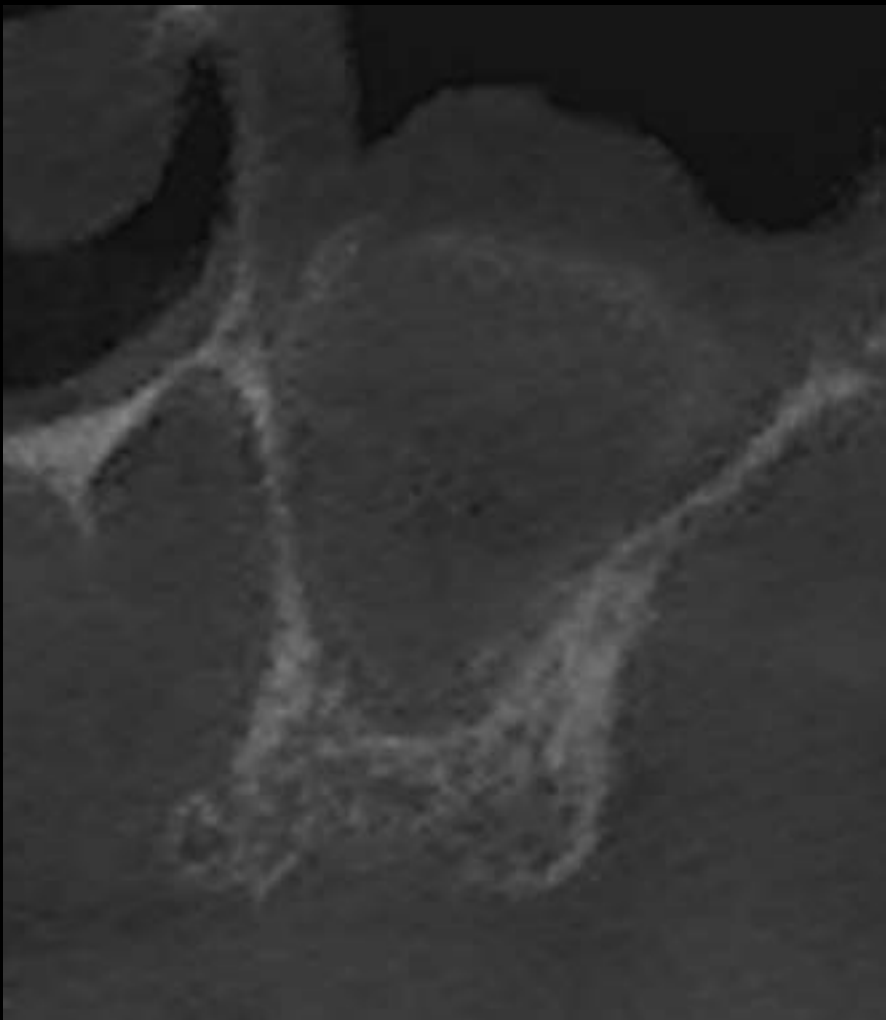
Pre-op CT (2023-04-20)



#24



#25



#27

Post-op CT (2023-05-04)



#24



#25



#27

Implantation #24, 25, 27 (2023-05-04)





Final prosthesis (2023-11-16)



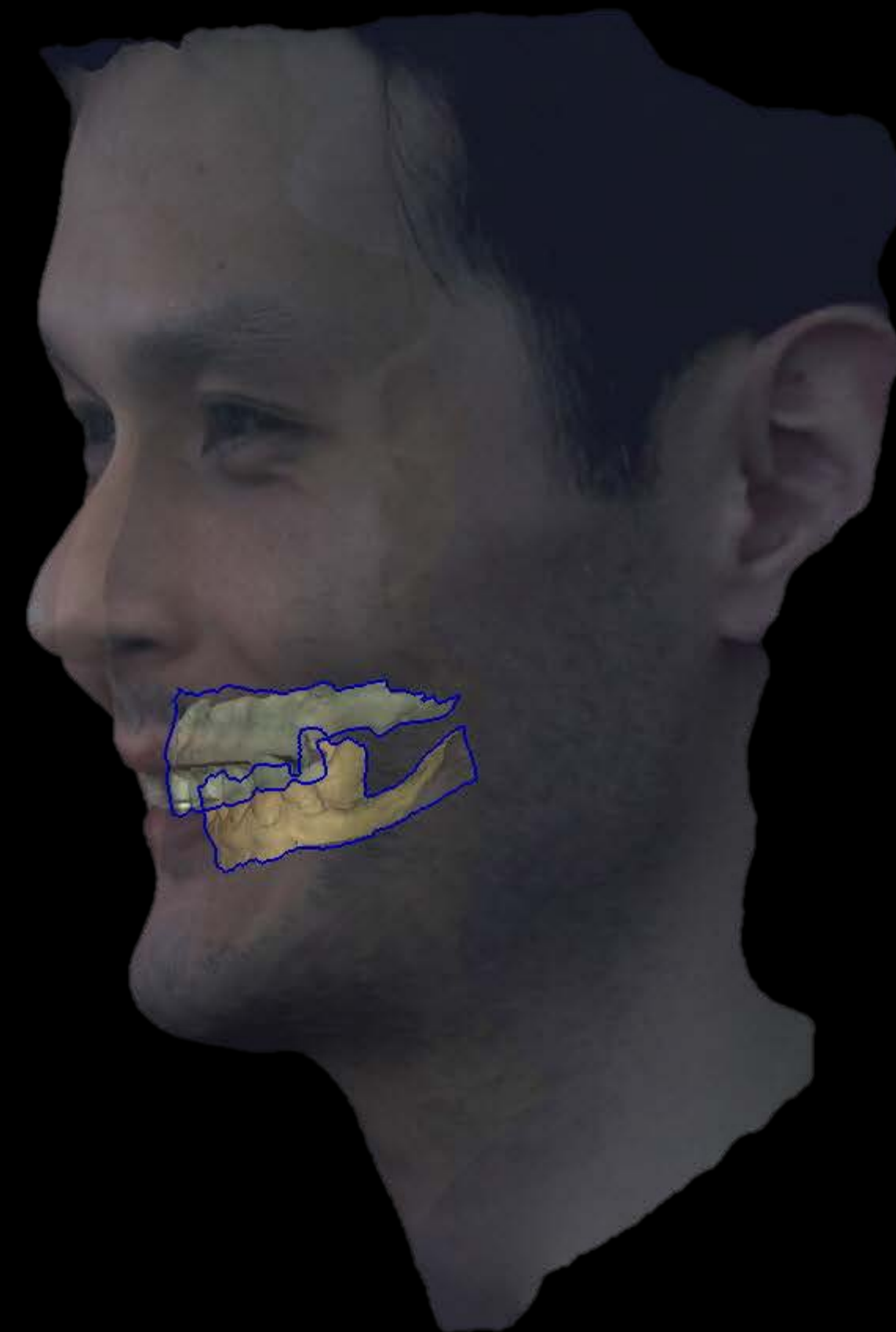
Scan data & Facial scan data stitching



Facial scan



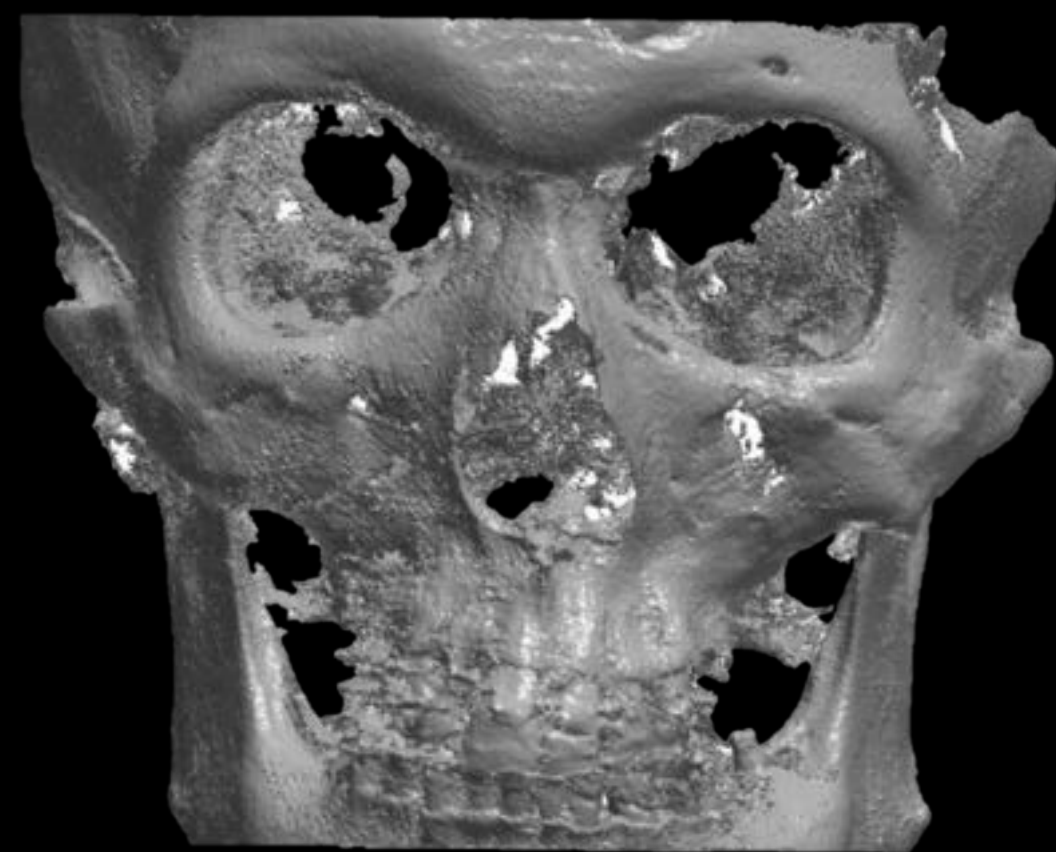
Intraoral scan



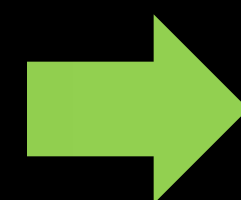
CT data stitching



&



CT STL



Facial Scan + IOS + CT STL

Scan data & Facial scan data stitching data



Facial Scan + Plane + IOS + CT

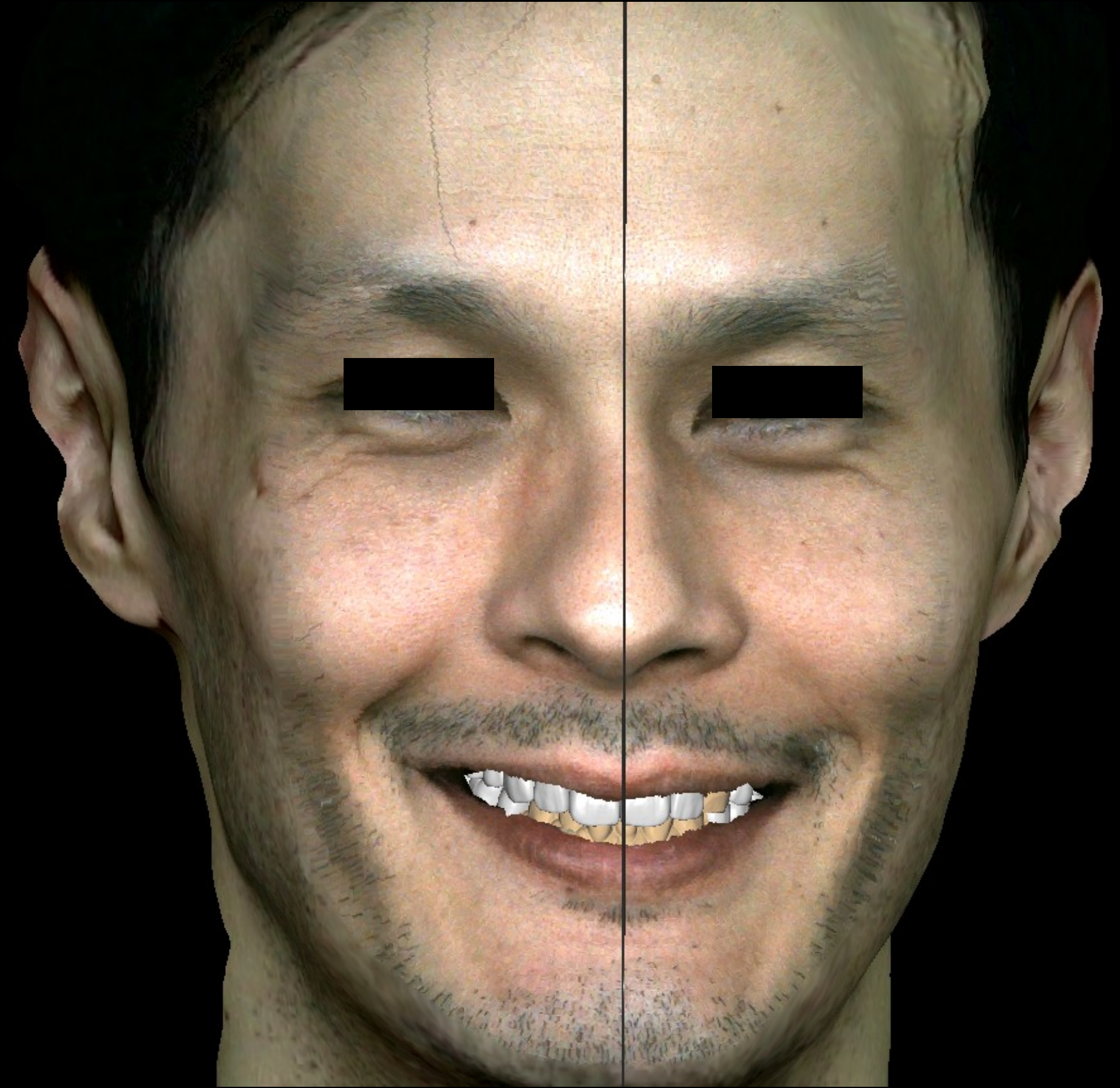
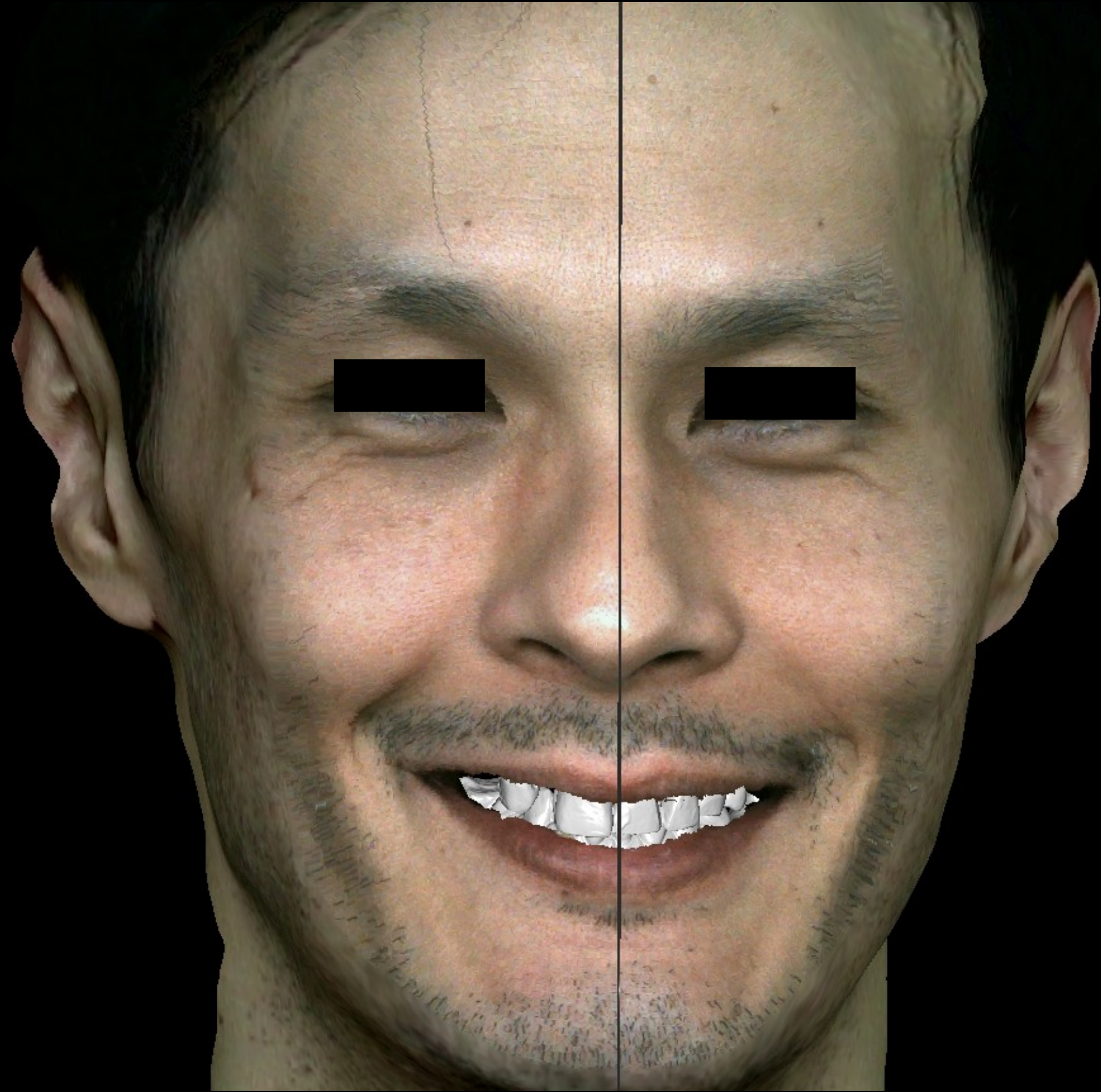


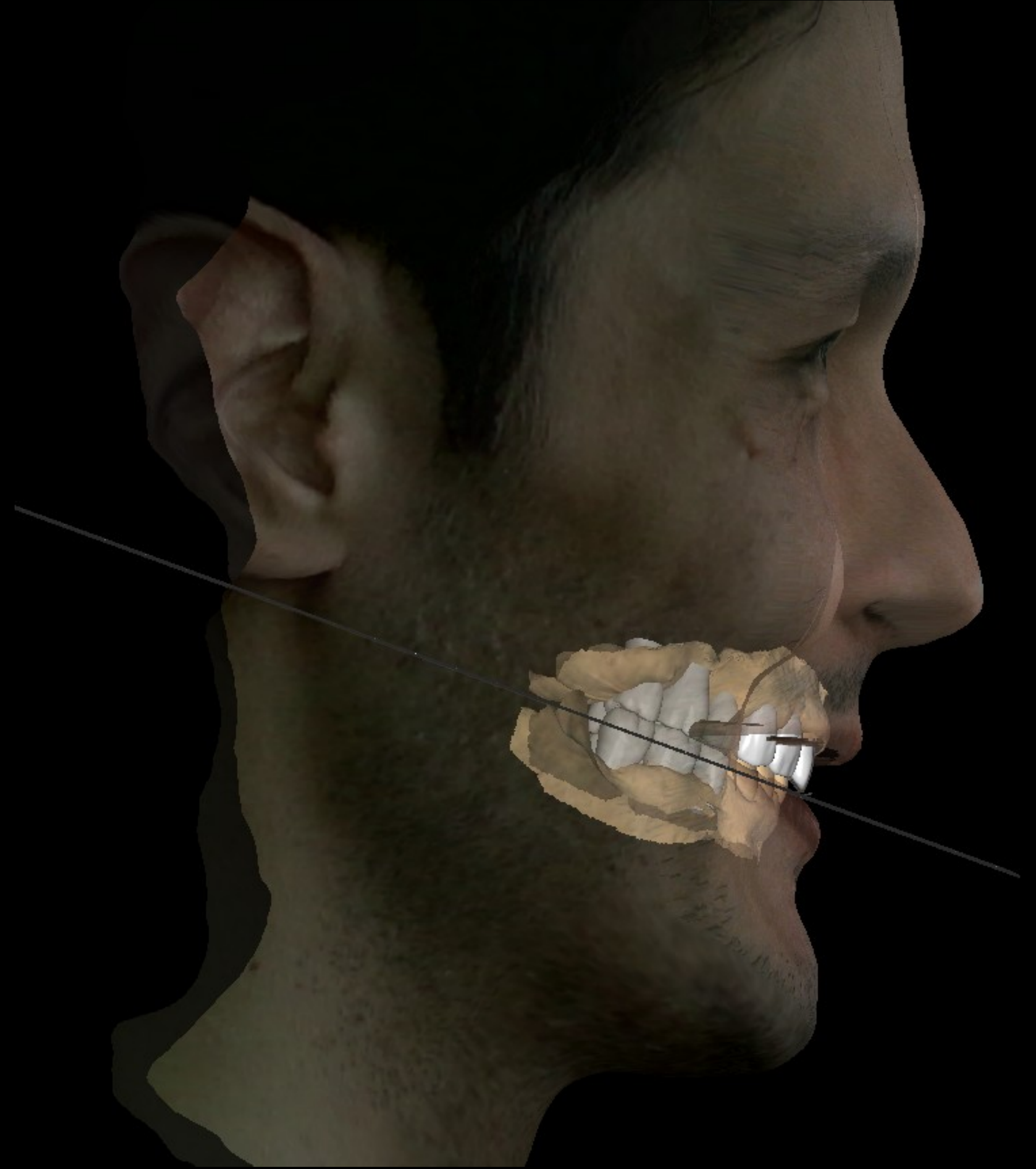
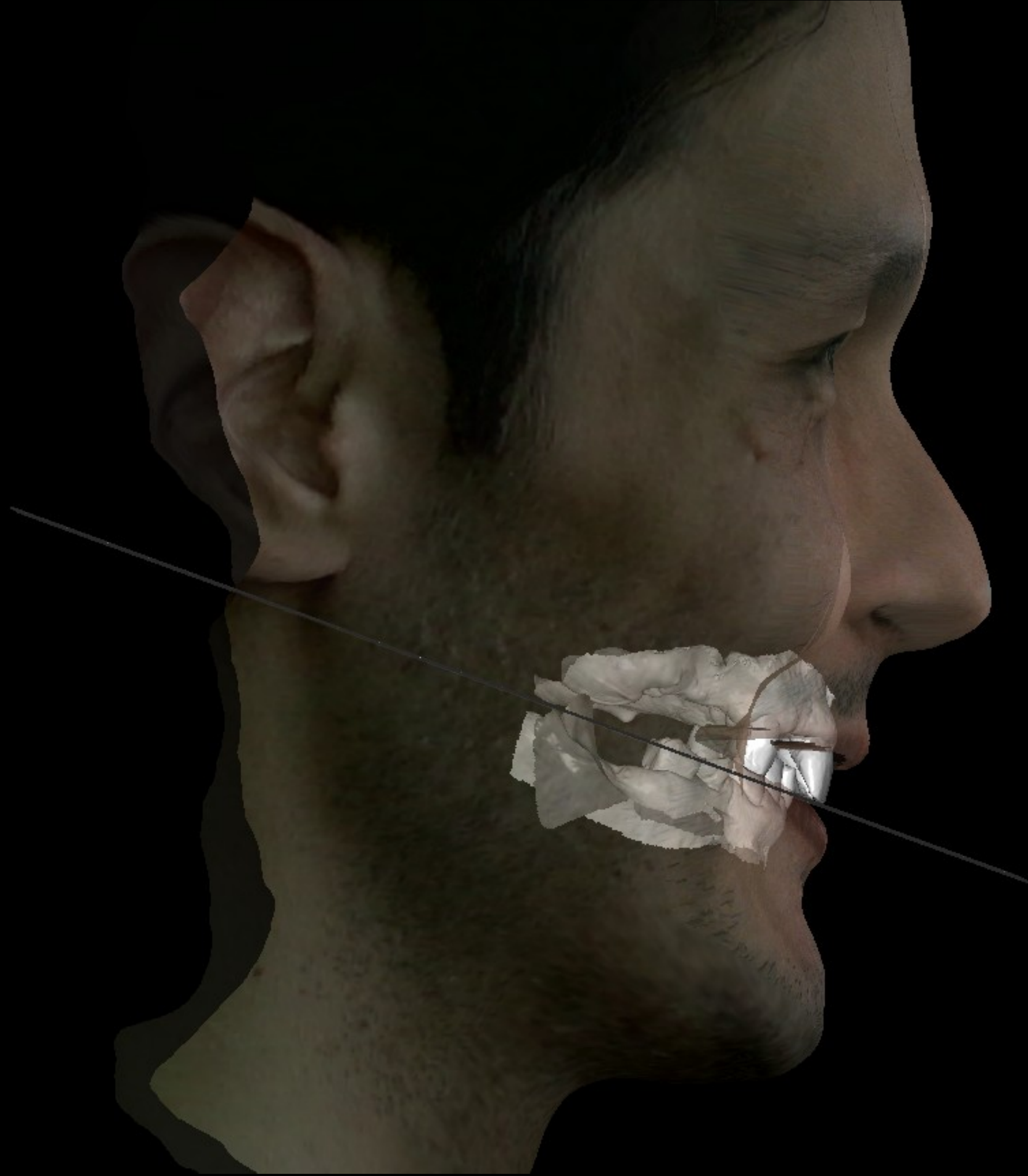
Landmark be easy to set up

Increased accuracy

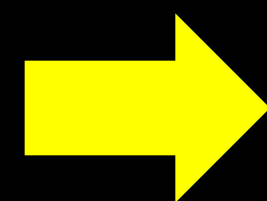
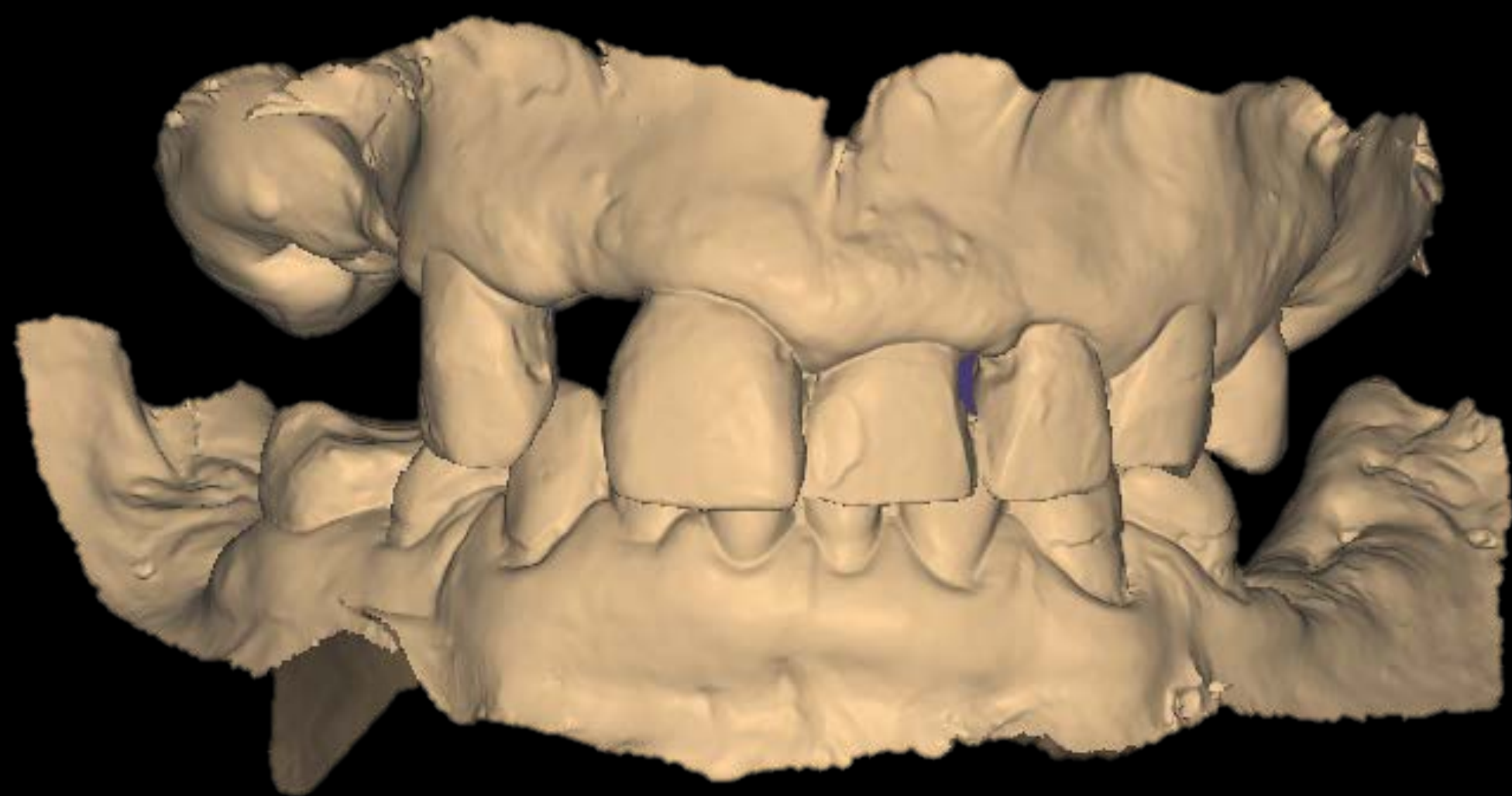
Cad Design



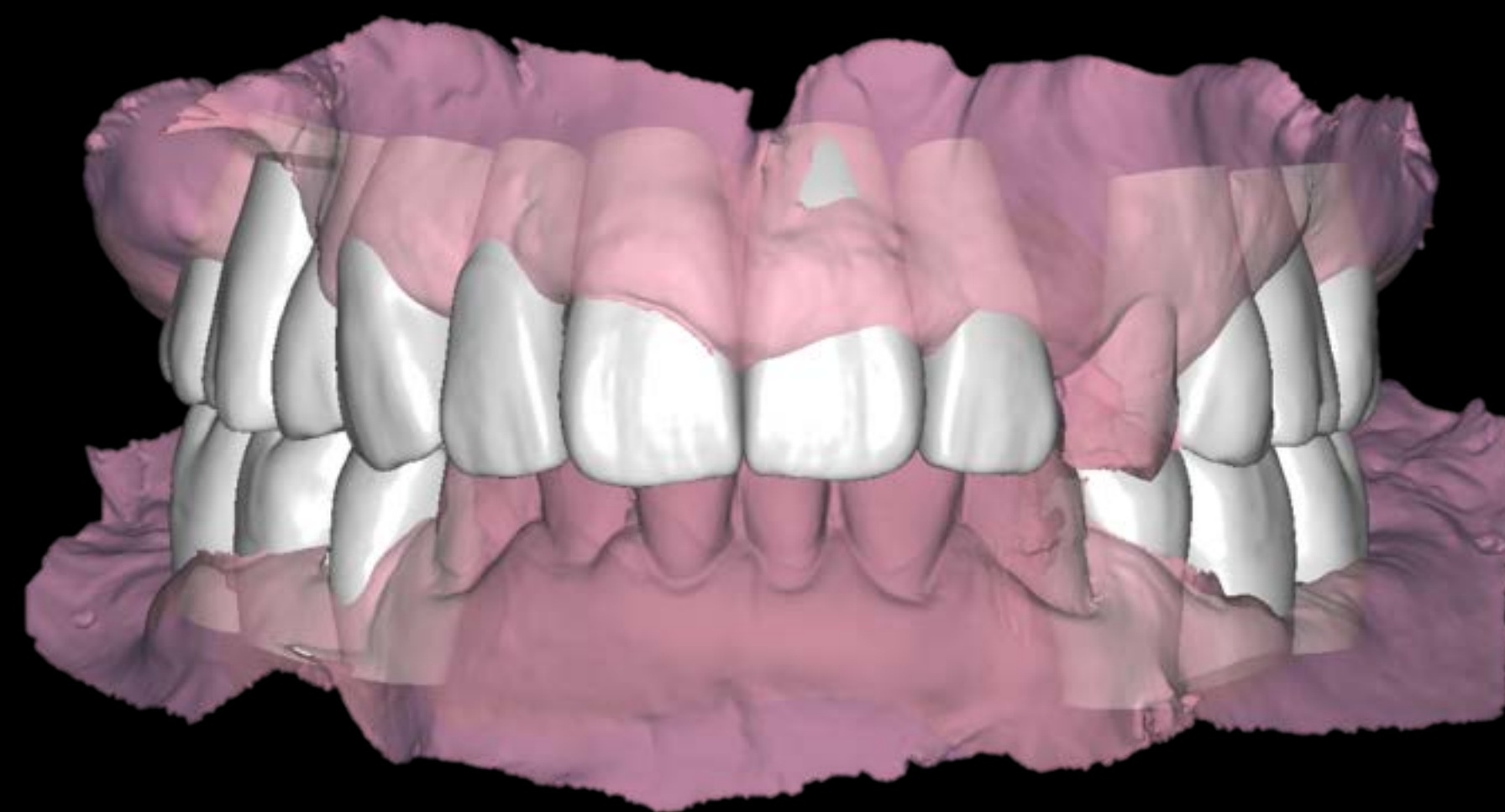




Intra-oral scanning

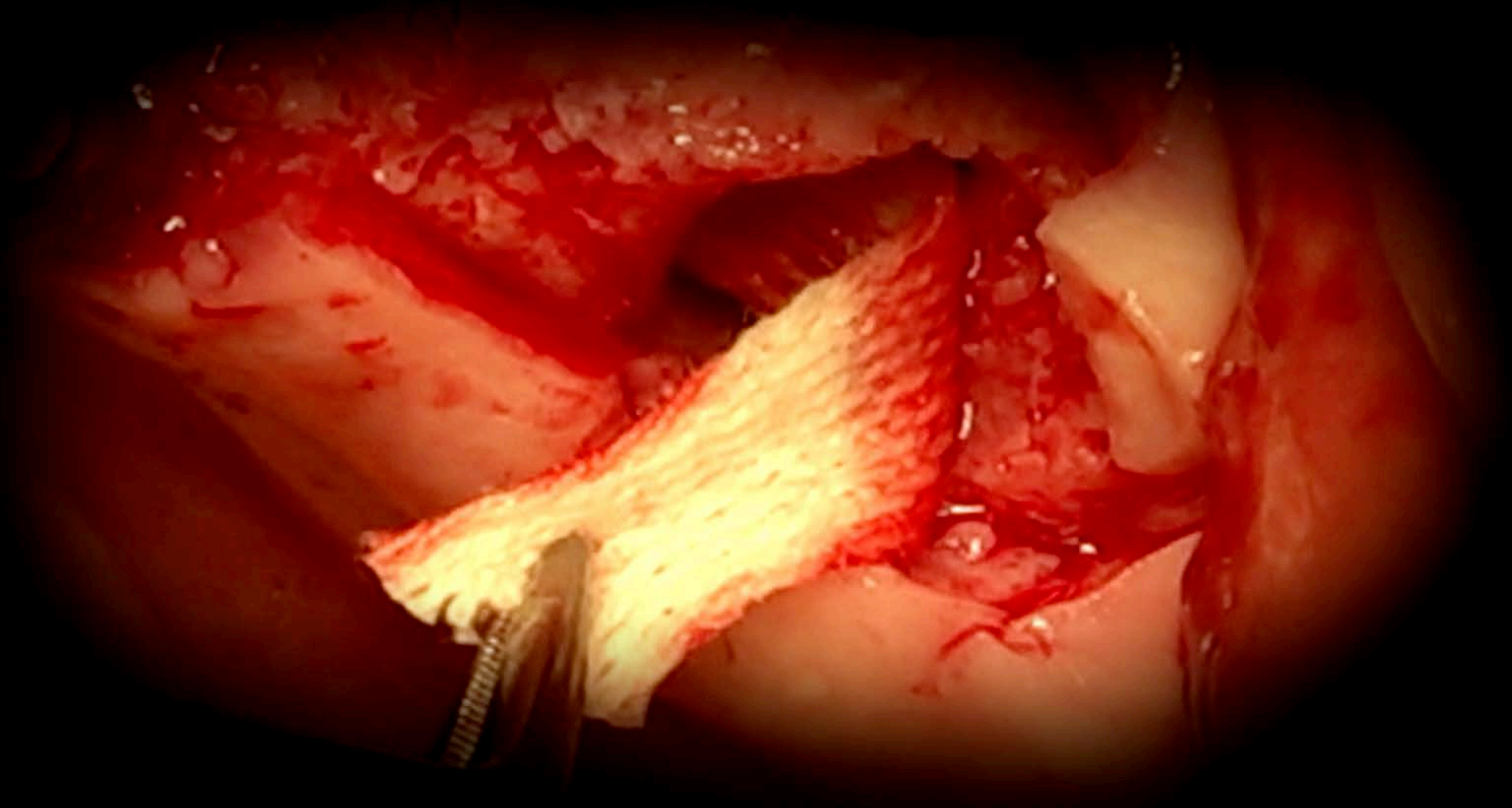


Virtual set up

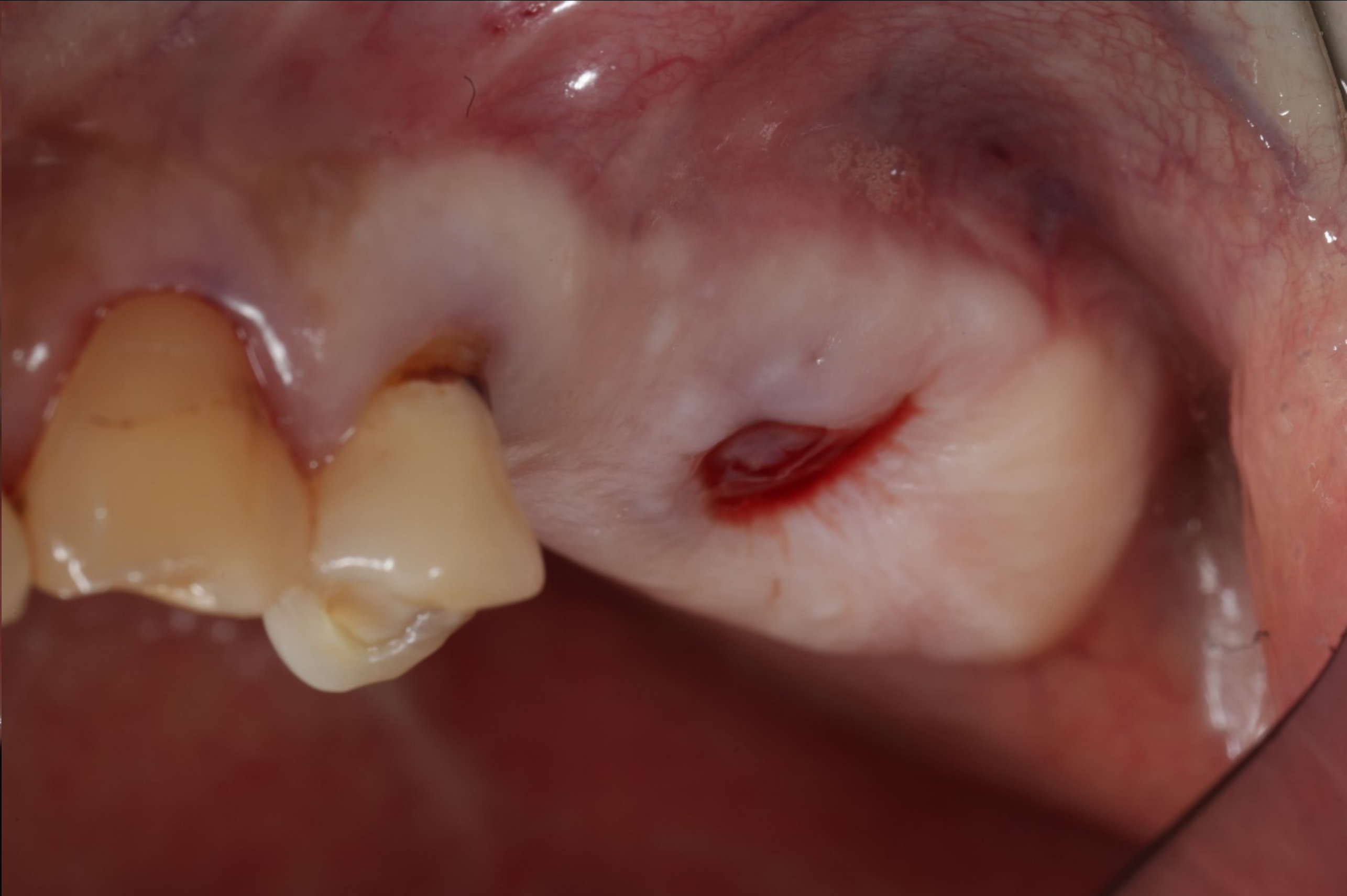
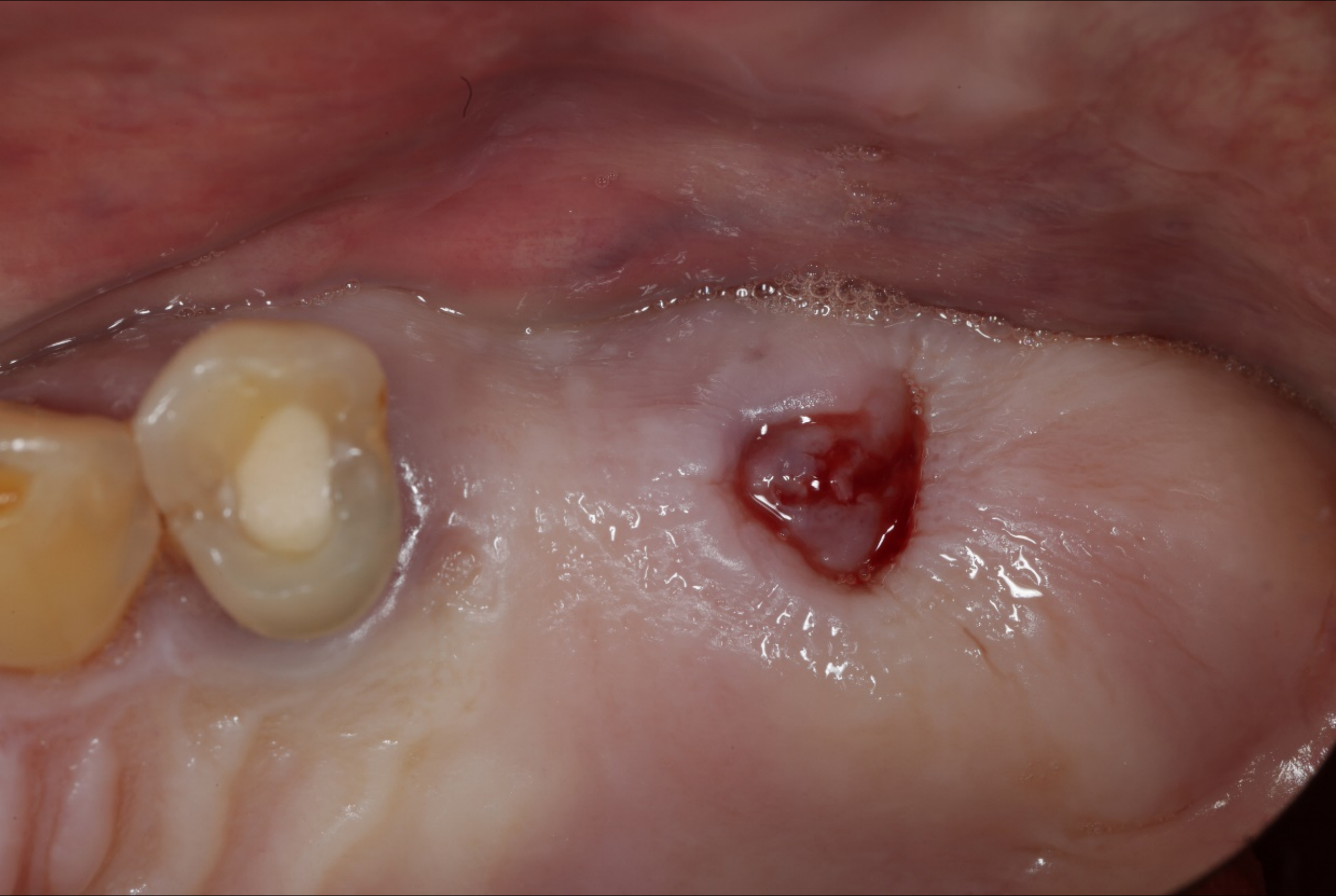


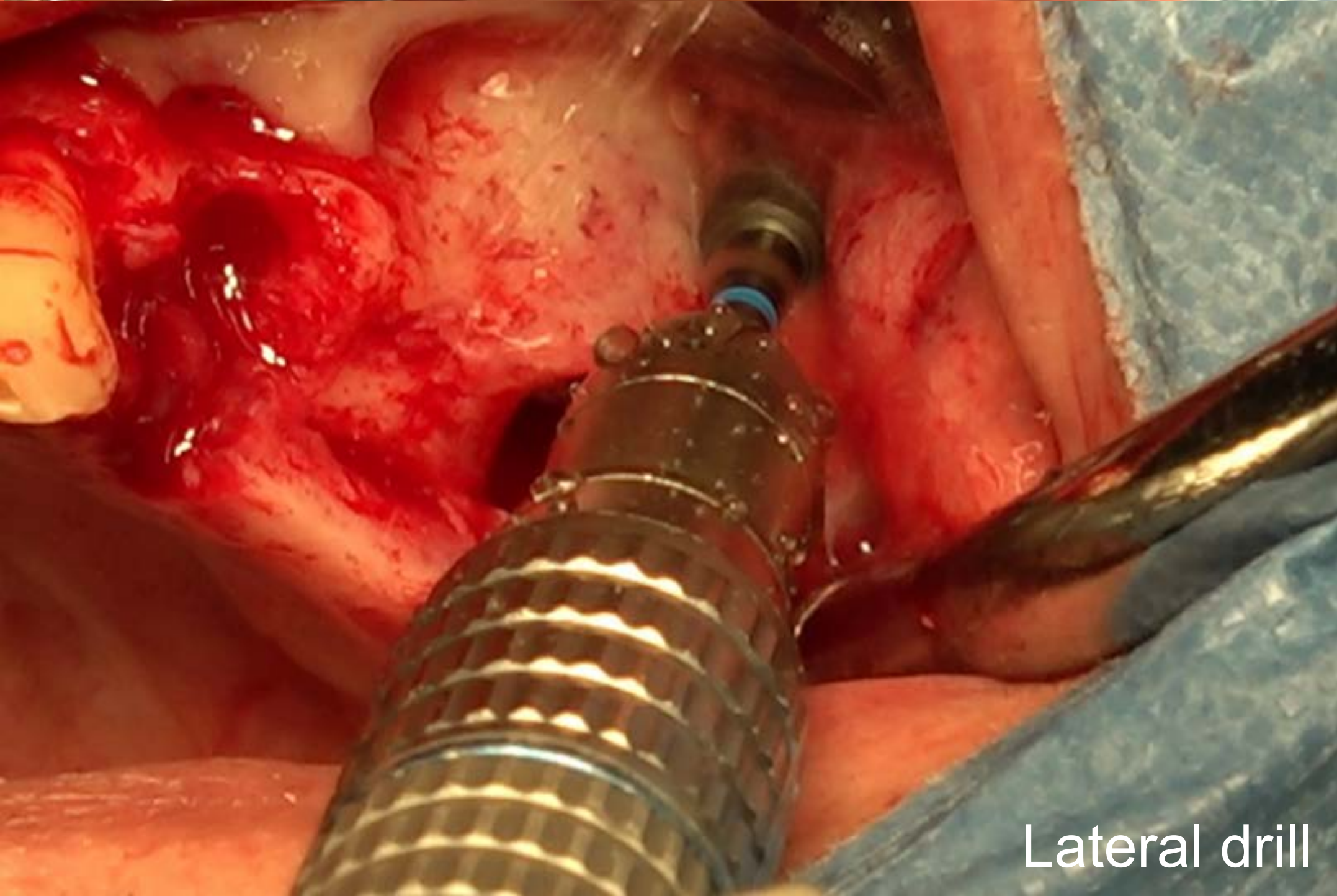
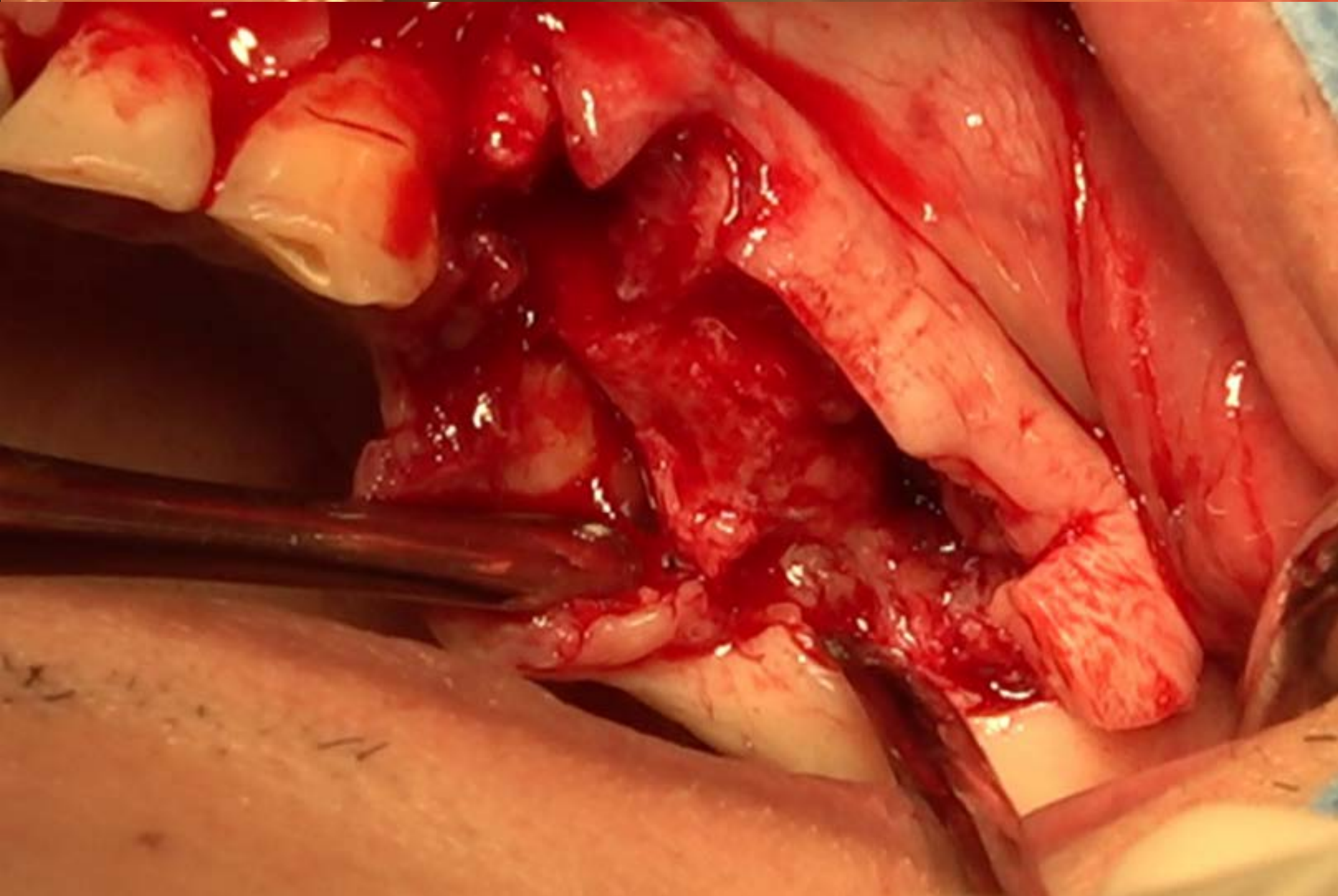
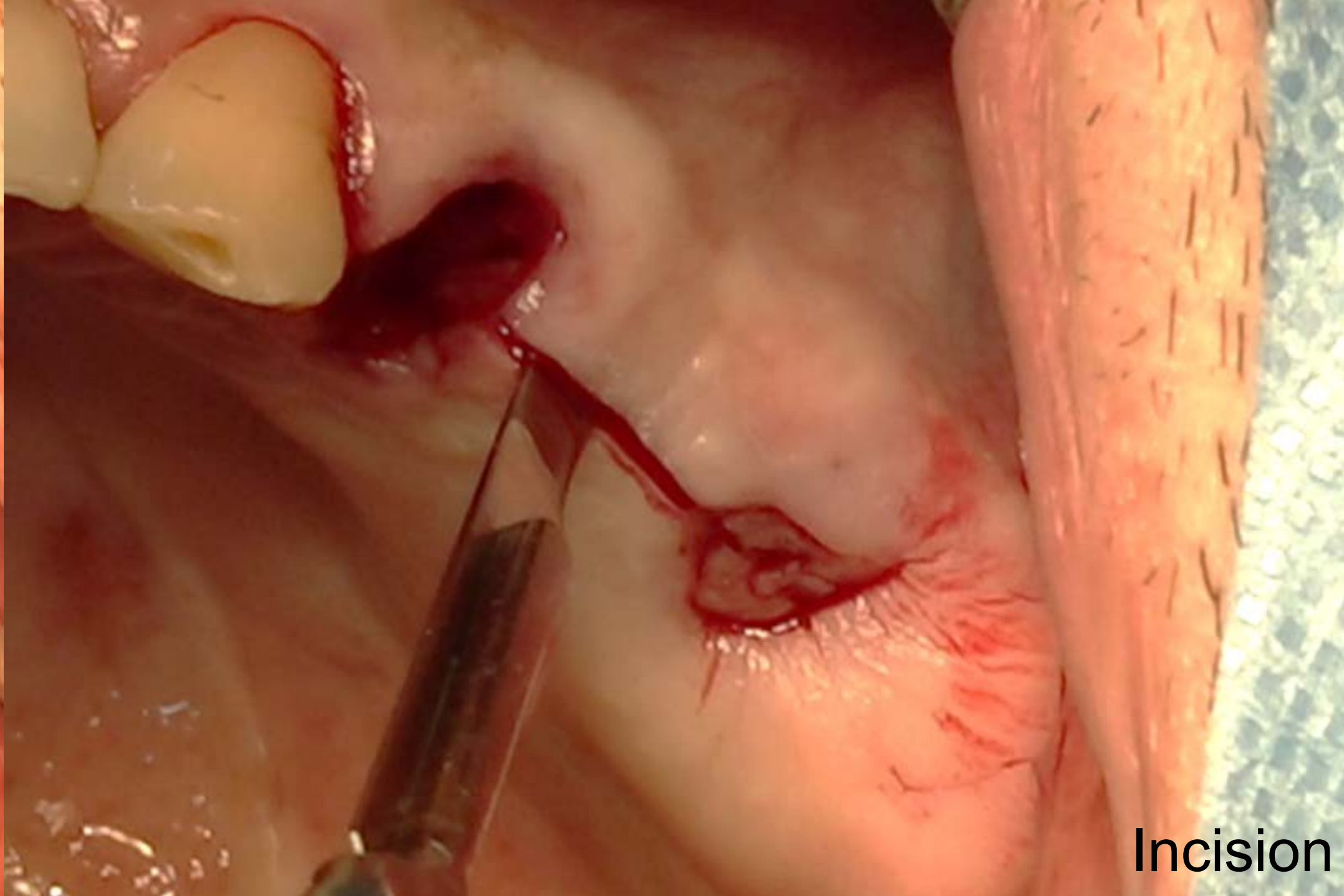
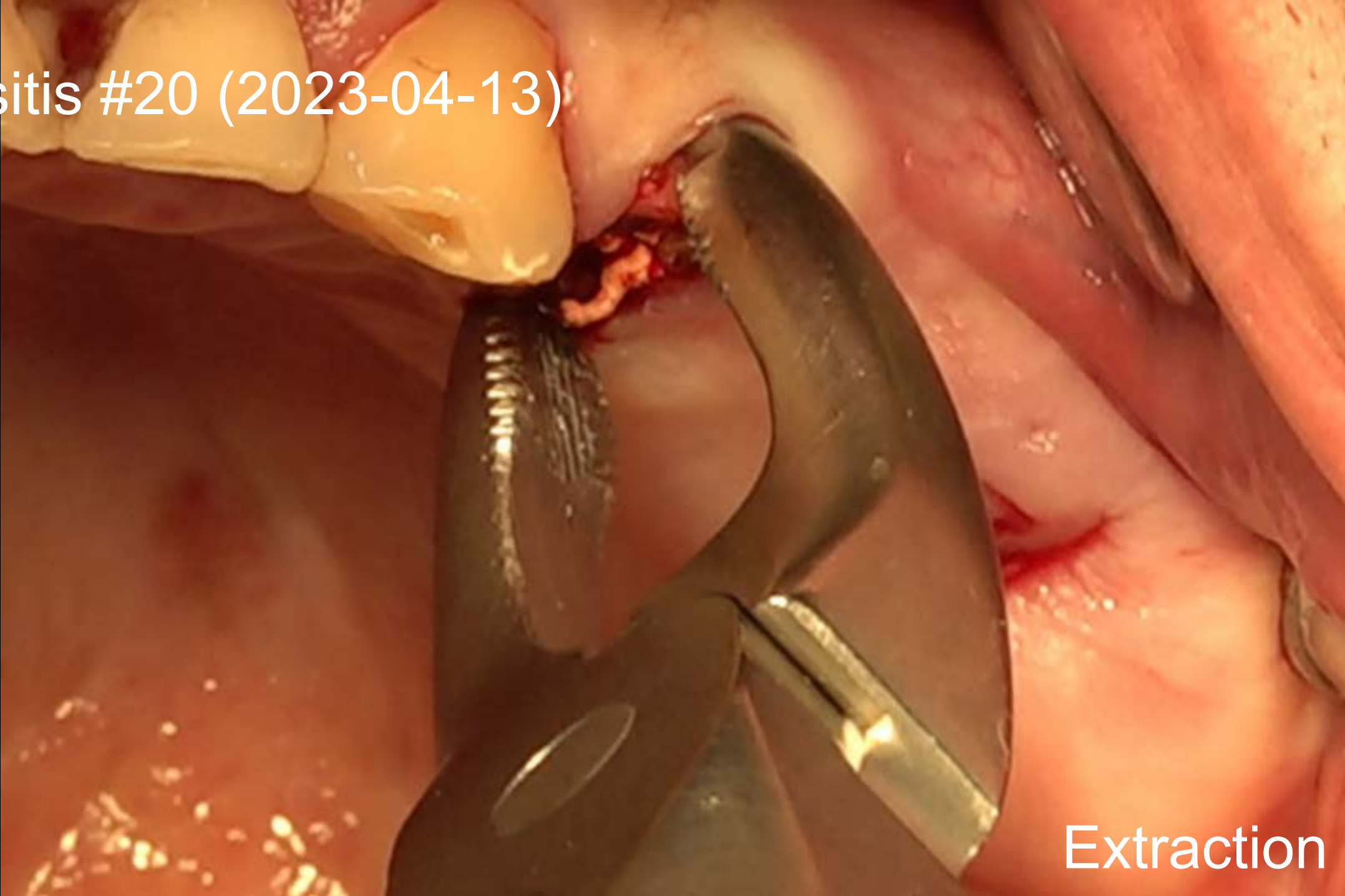
Full mouth reconstruction

Part 2. Sinus elevation and complication solving

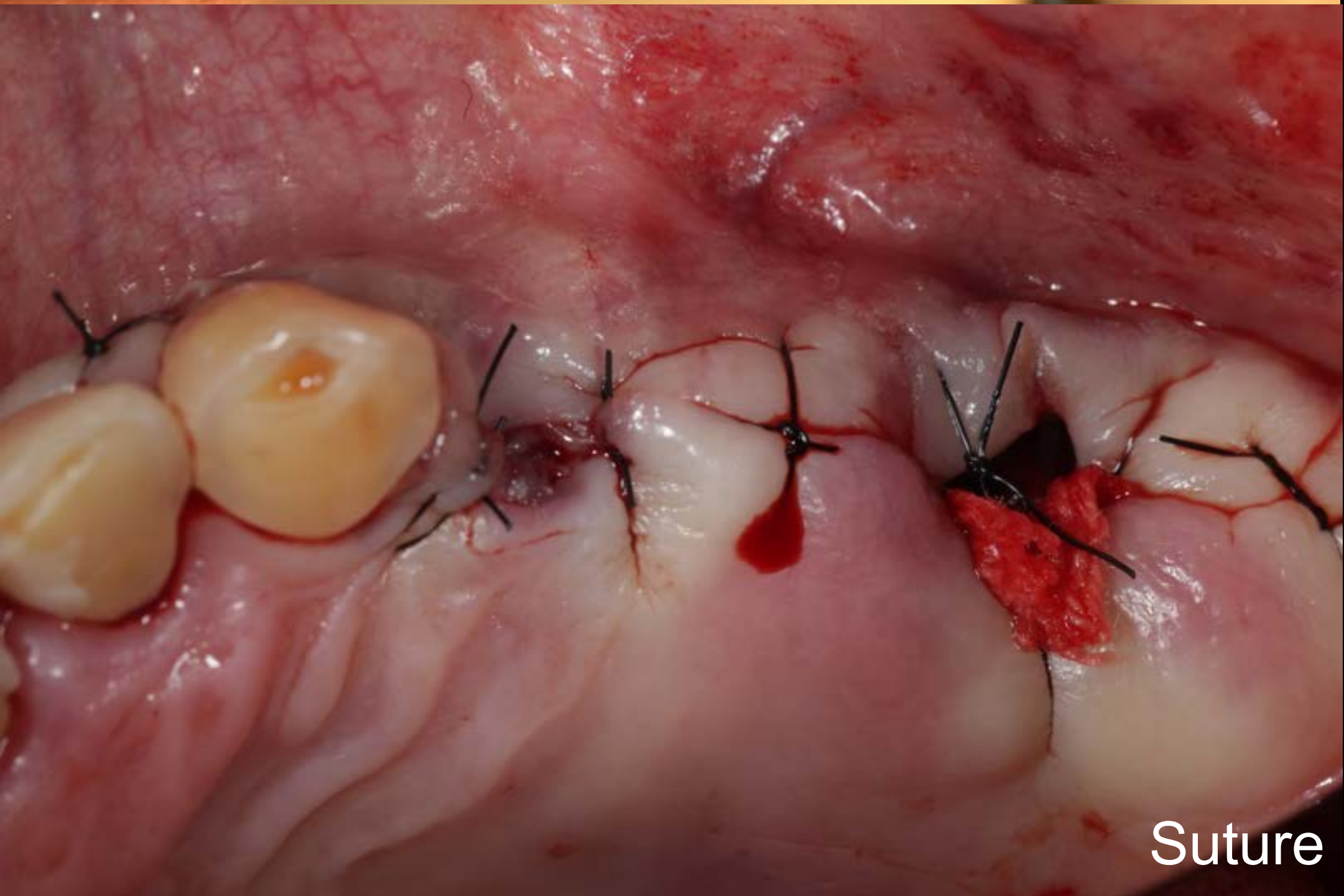
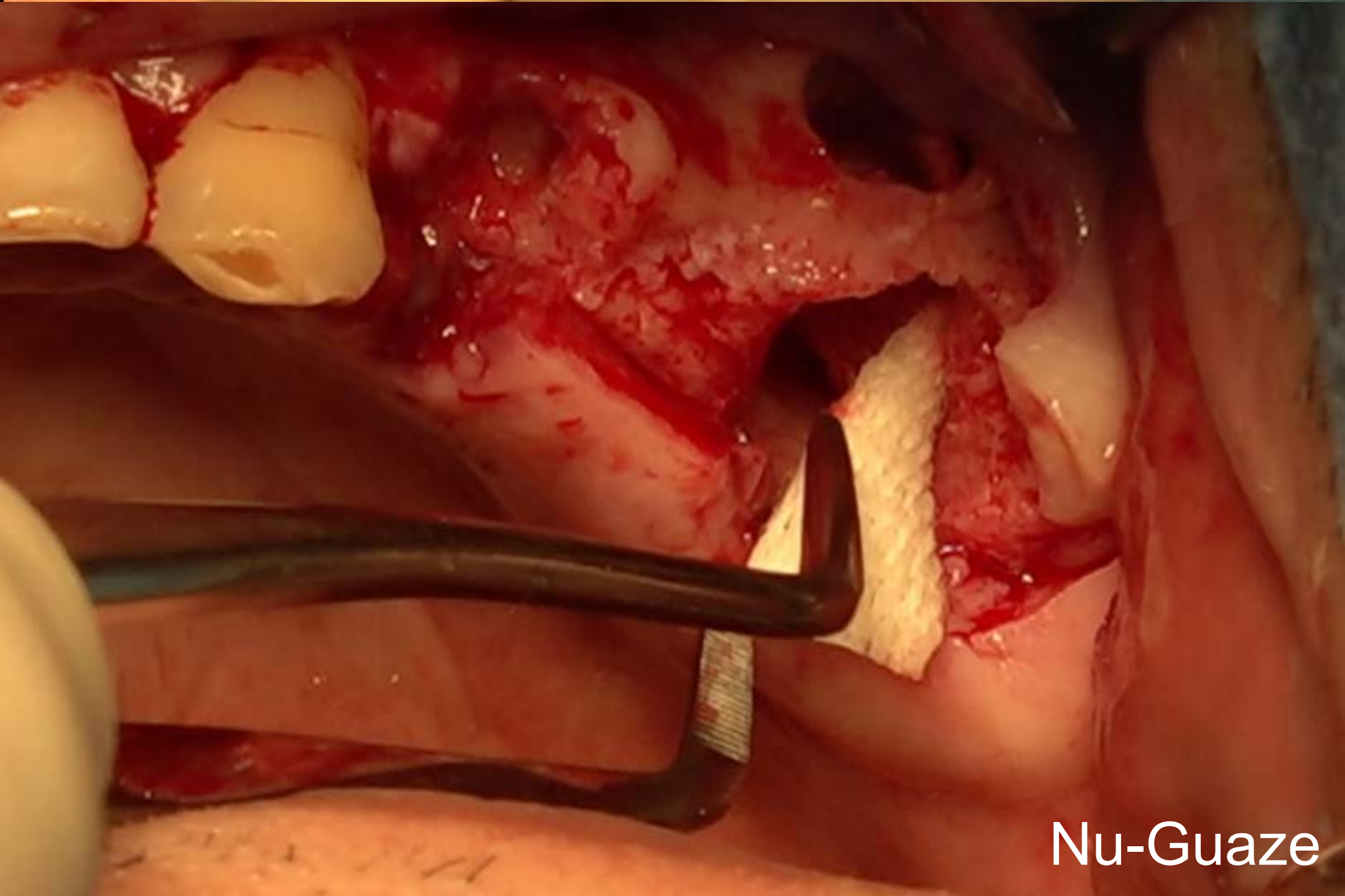
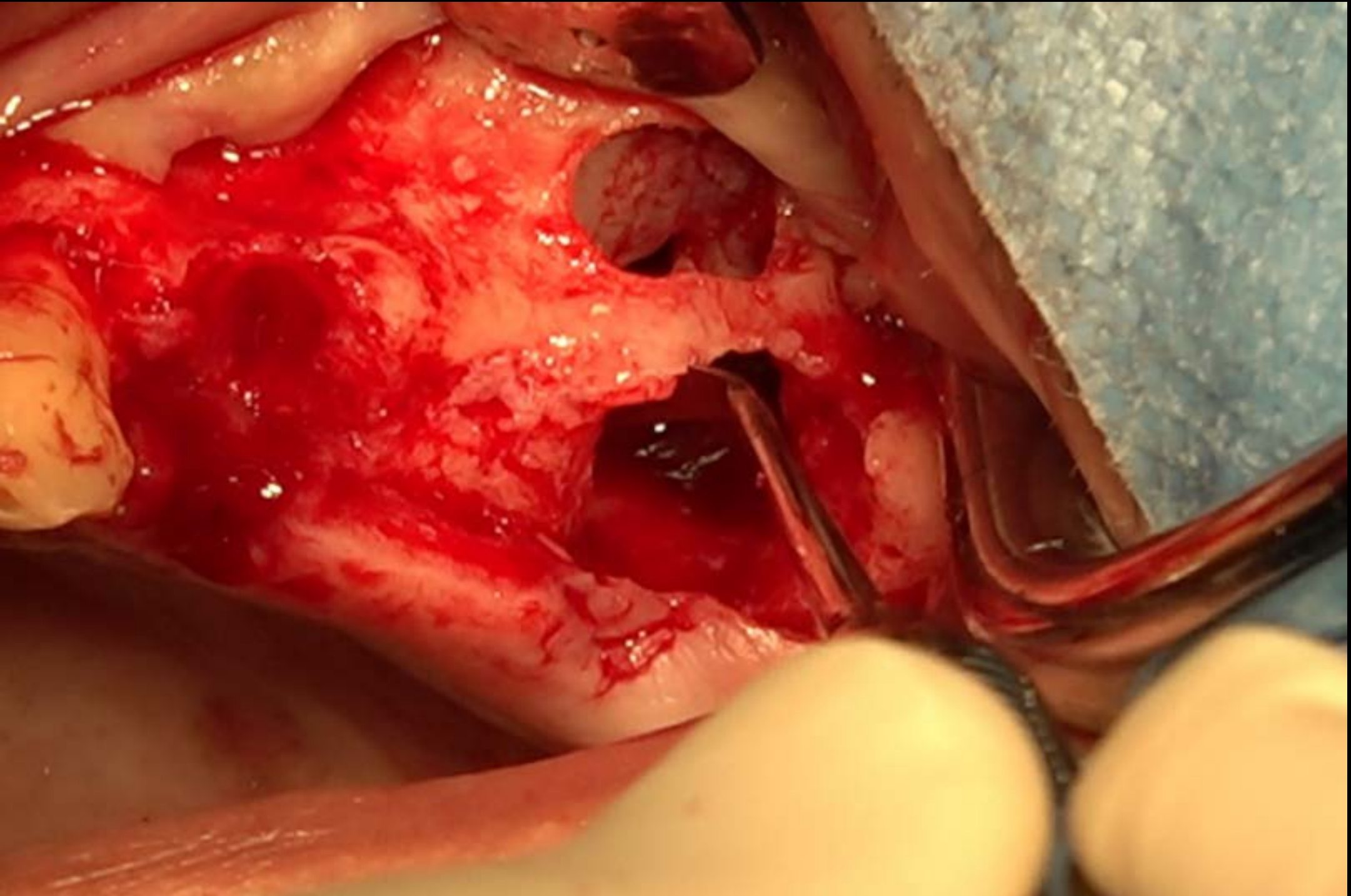
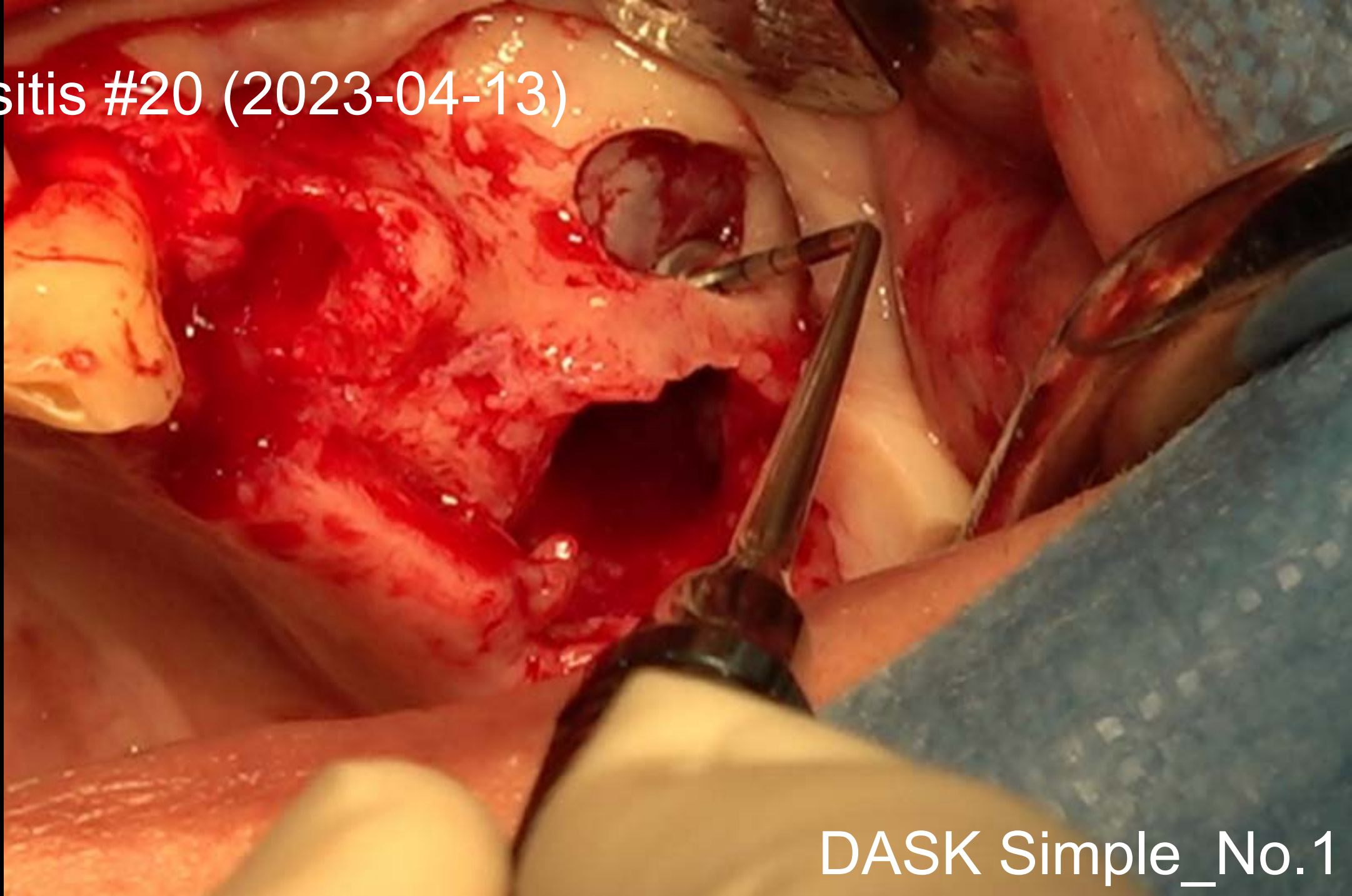


Pre-op (2023-04-13)





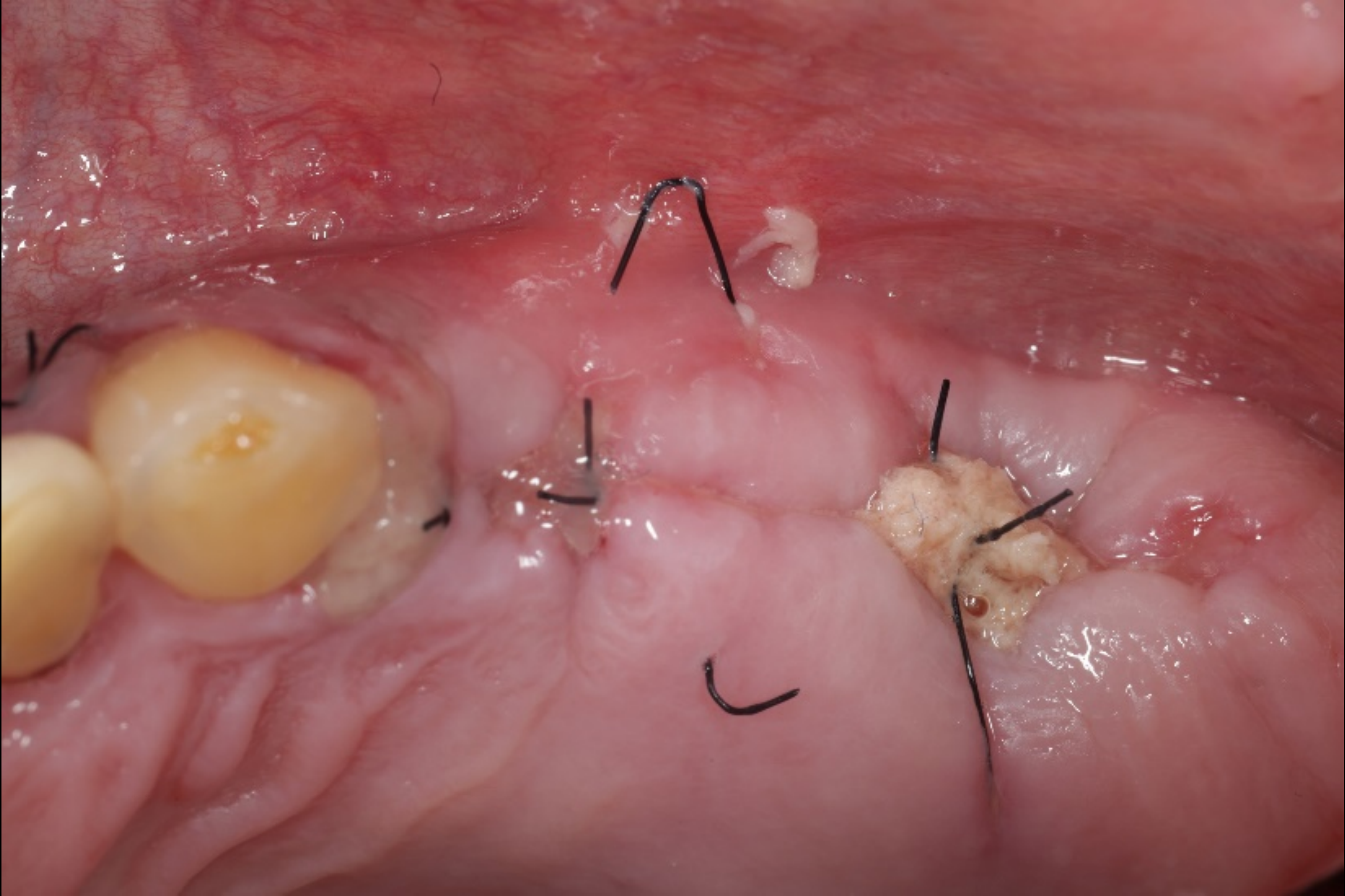
Sinusitis #20 (2023-04-13)



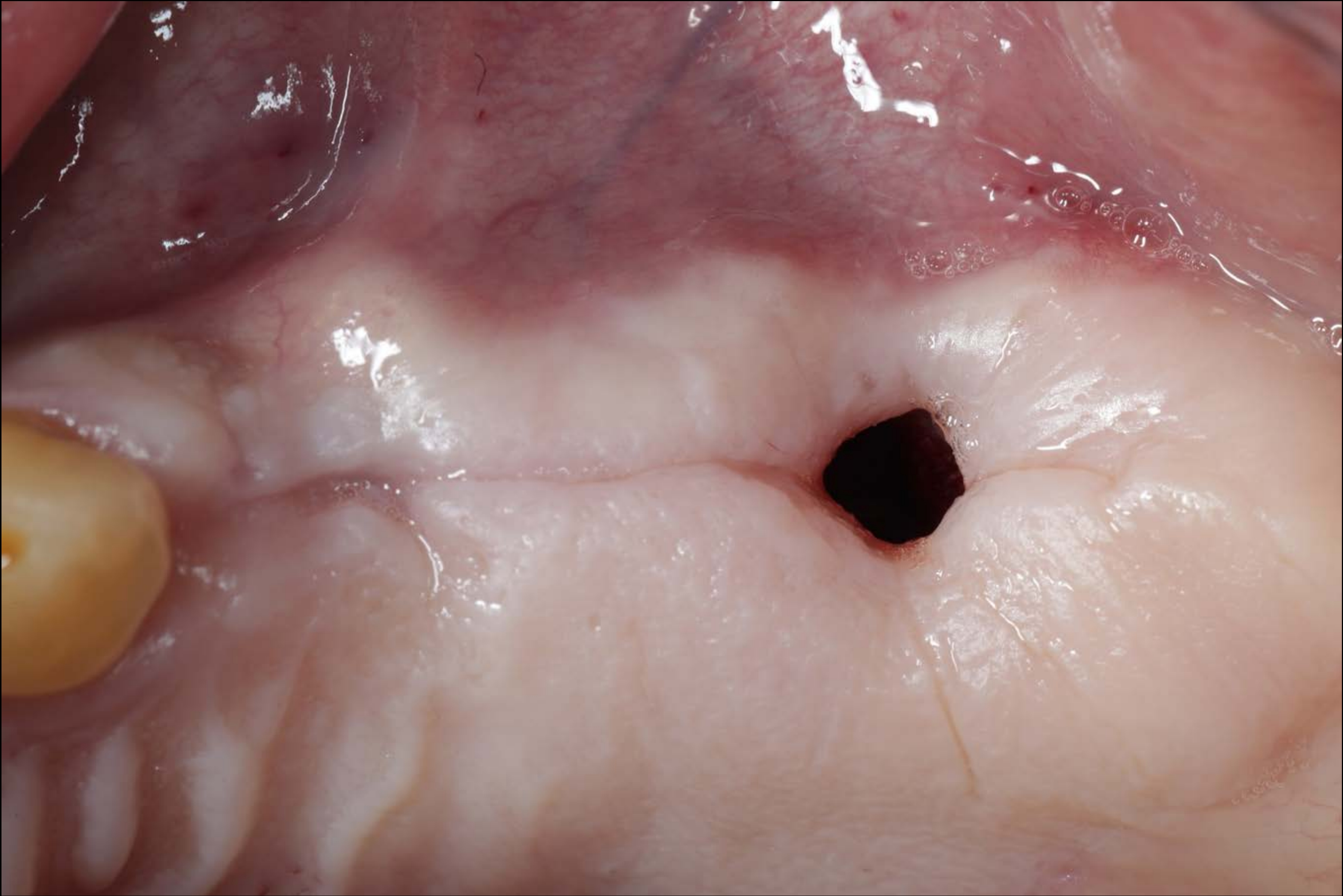
Nu-Guaze

Suture

Healing : 1 week after drain (2023-04-17)



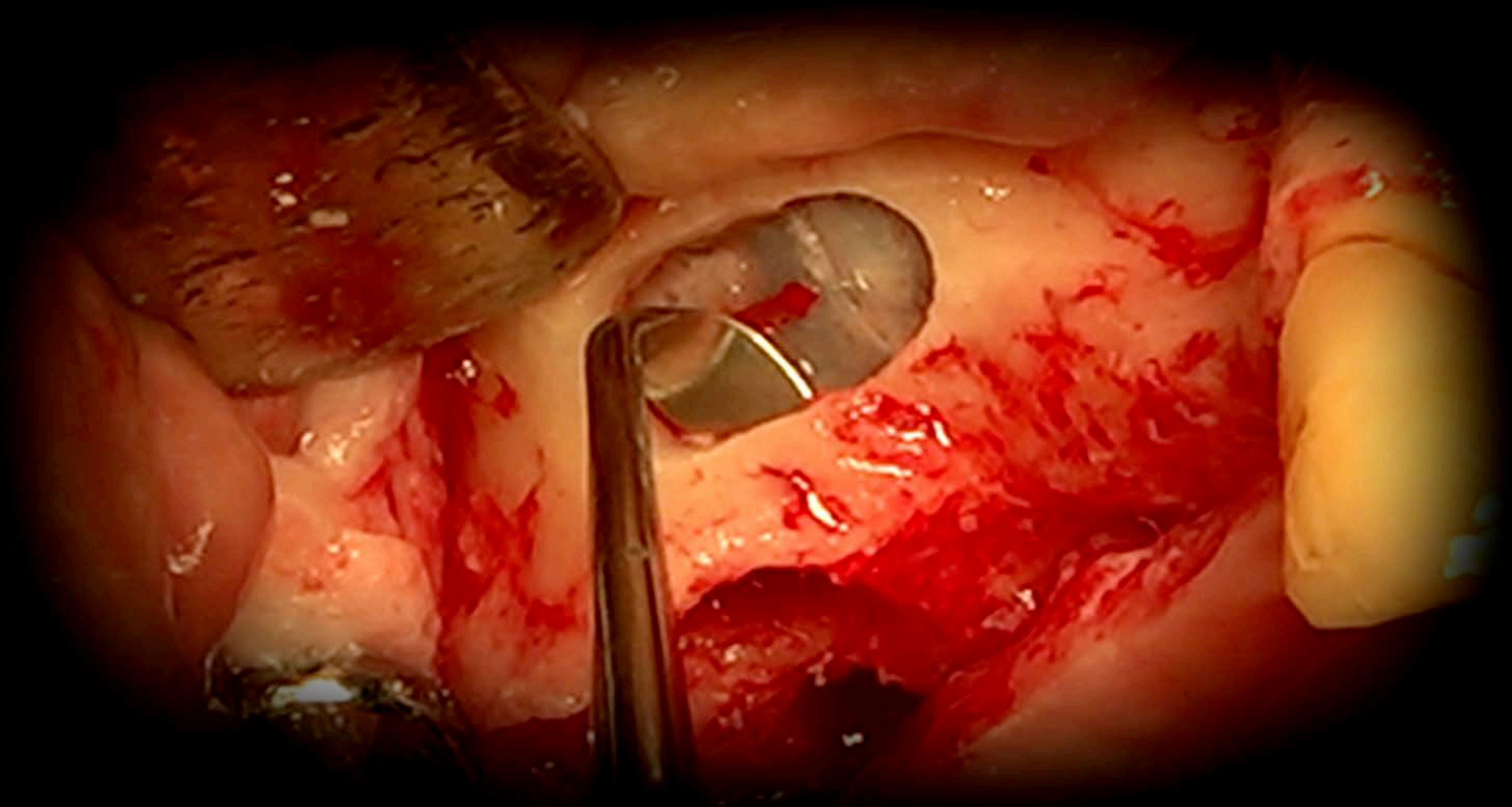
Healing : 1 month after drain (2023-05-04)



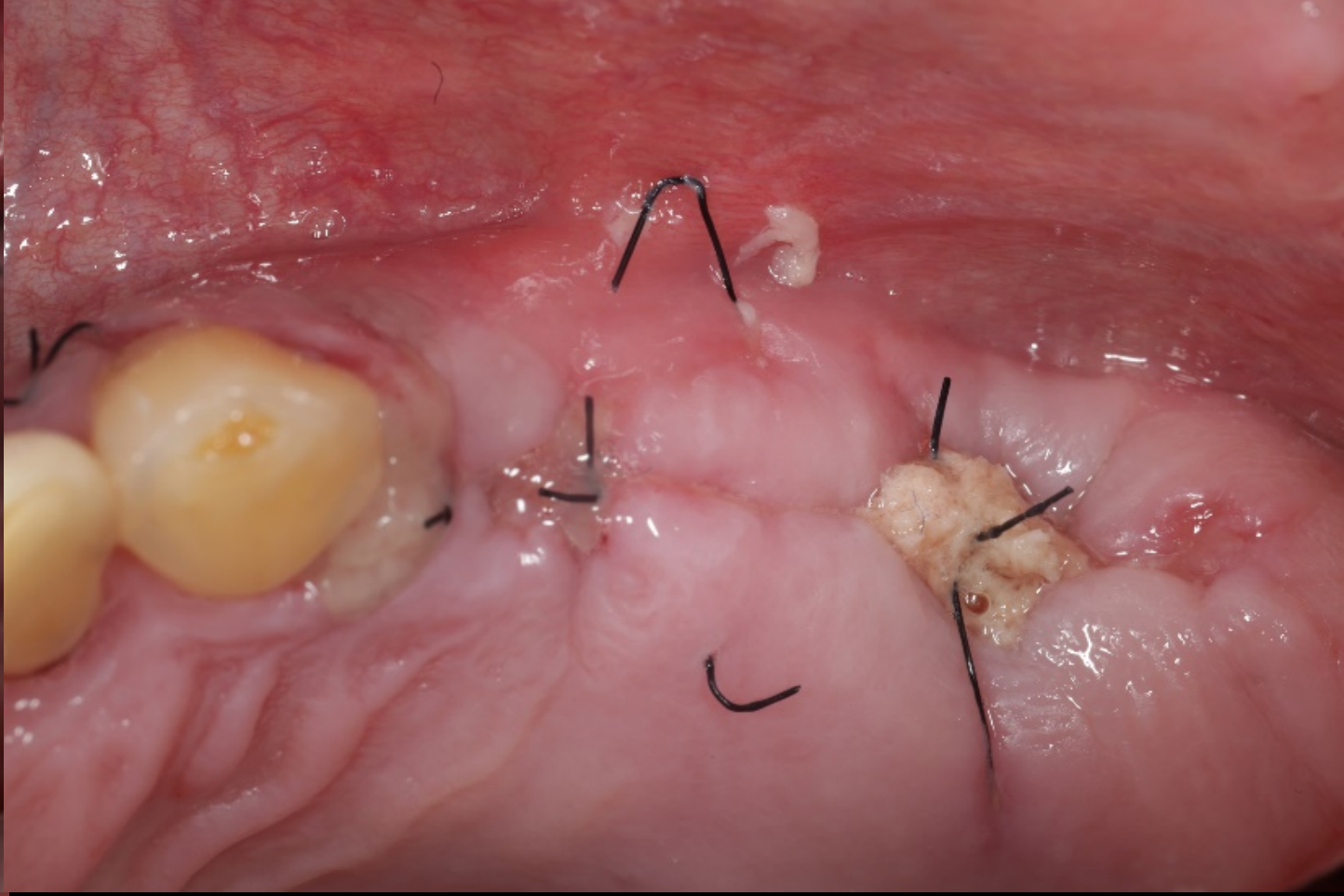
Full mouth reconstruction

Part 3.

Narrow but Strong Implant for narrow alveolor ridge

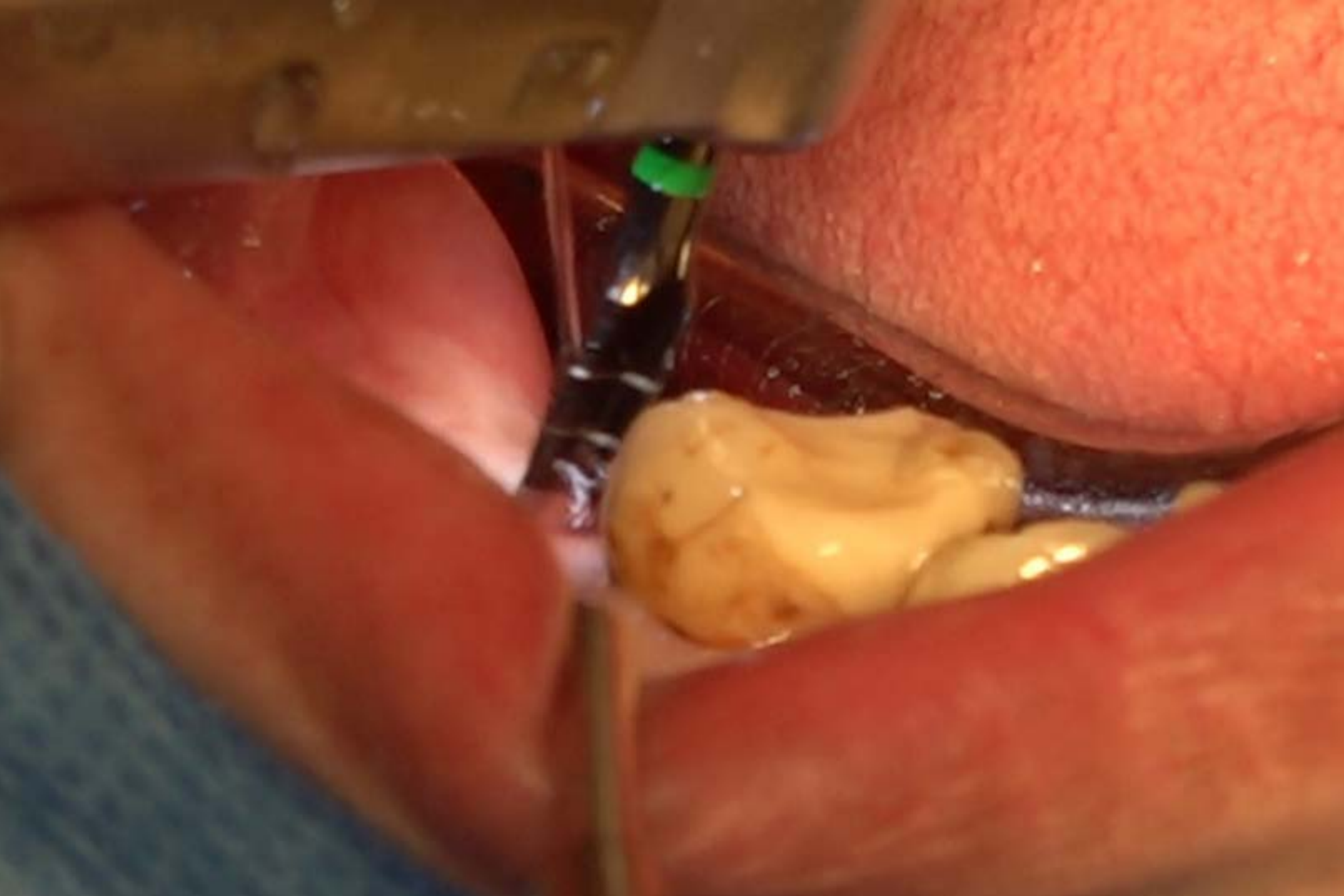


Pre-op (2023-04-17)





Guide drill

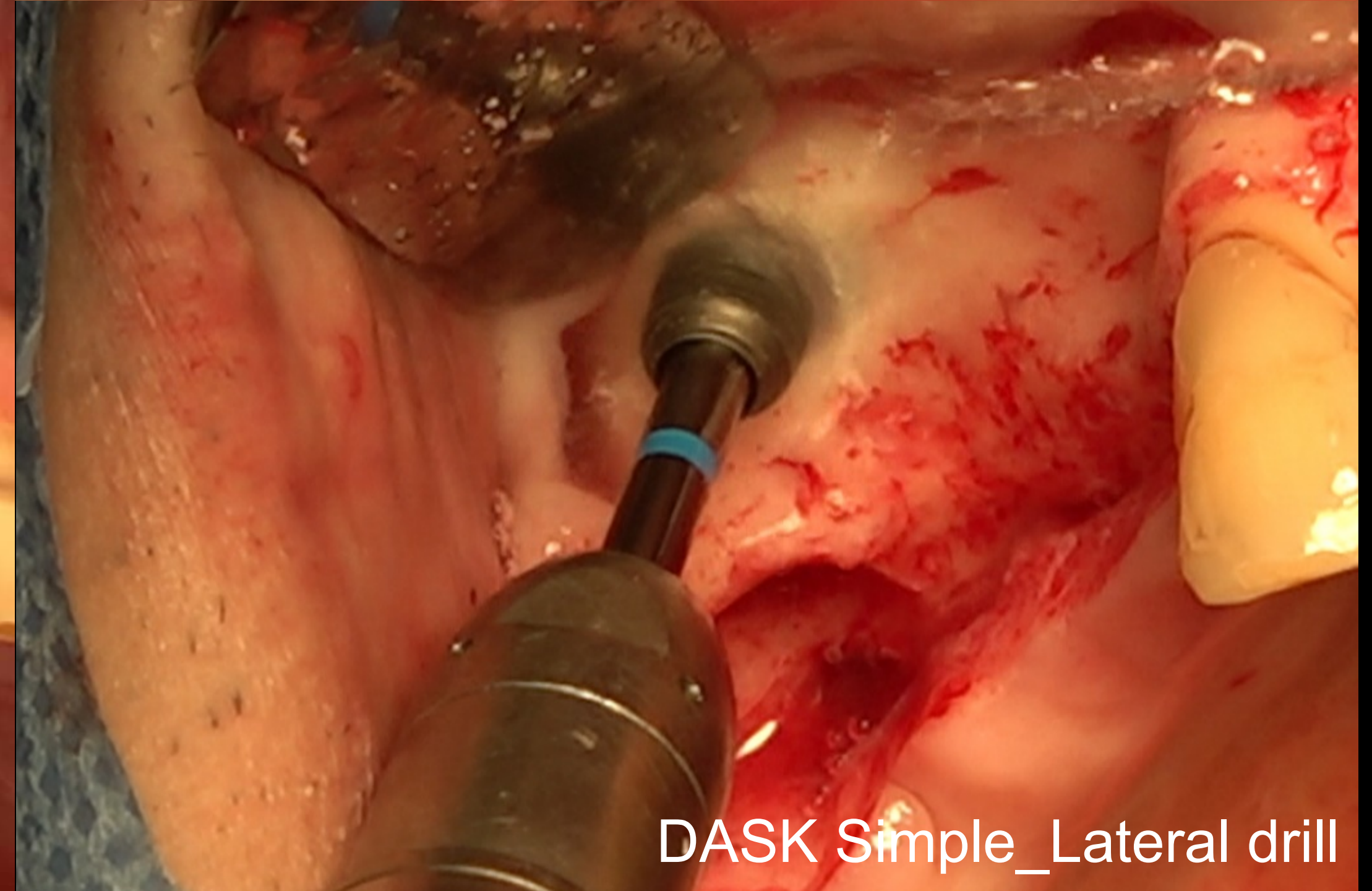
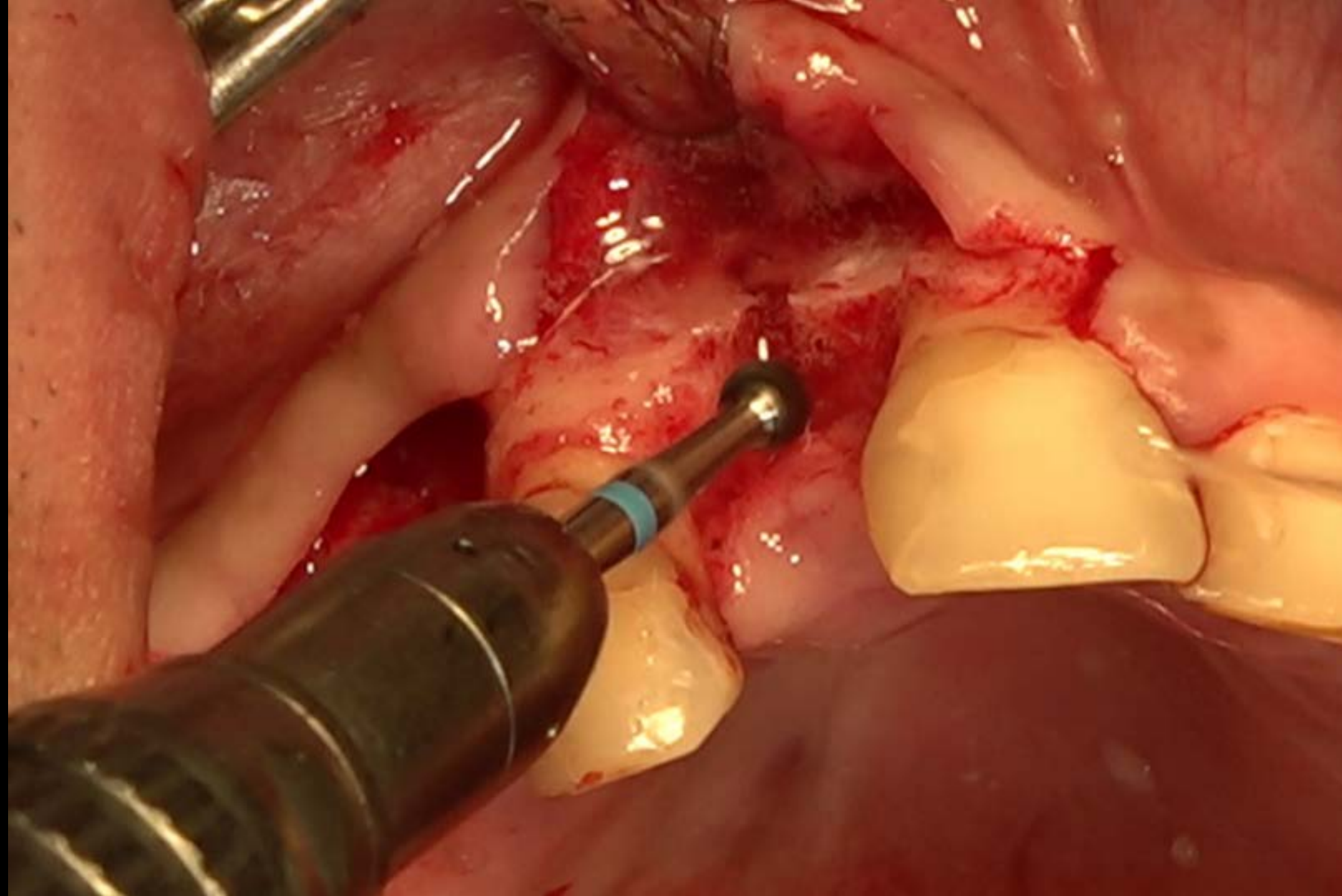
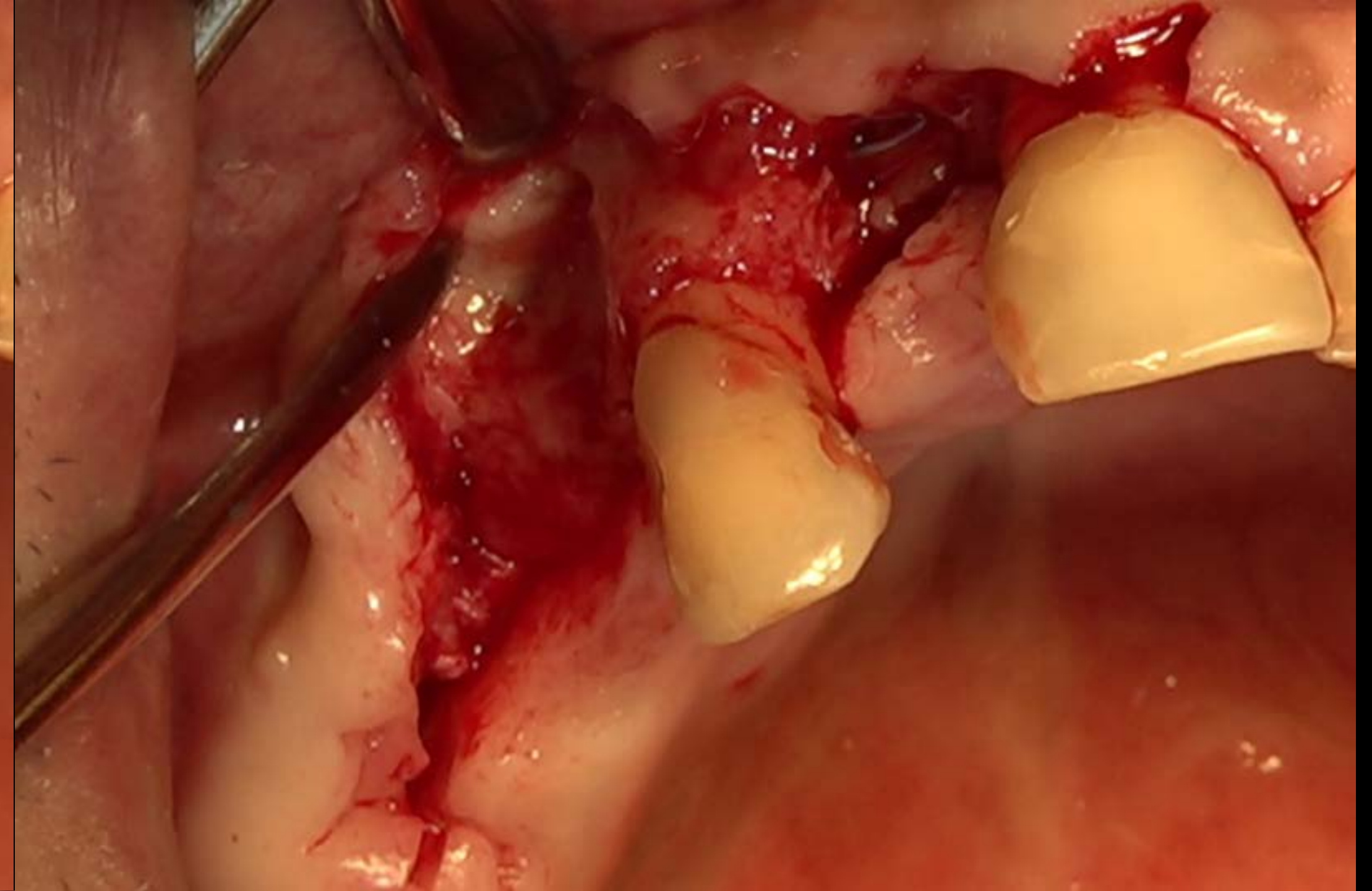
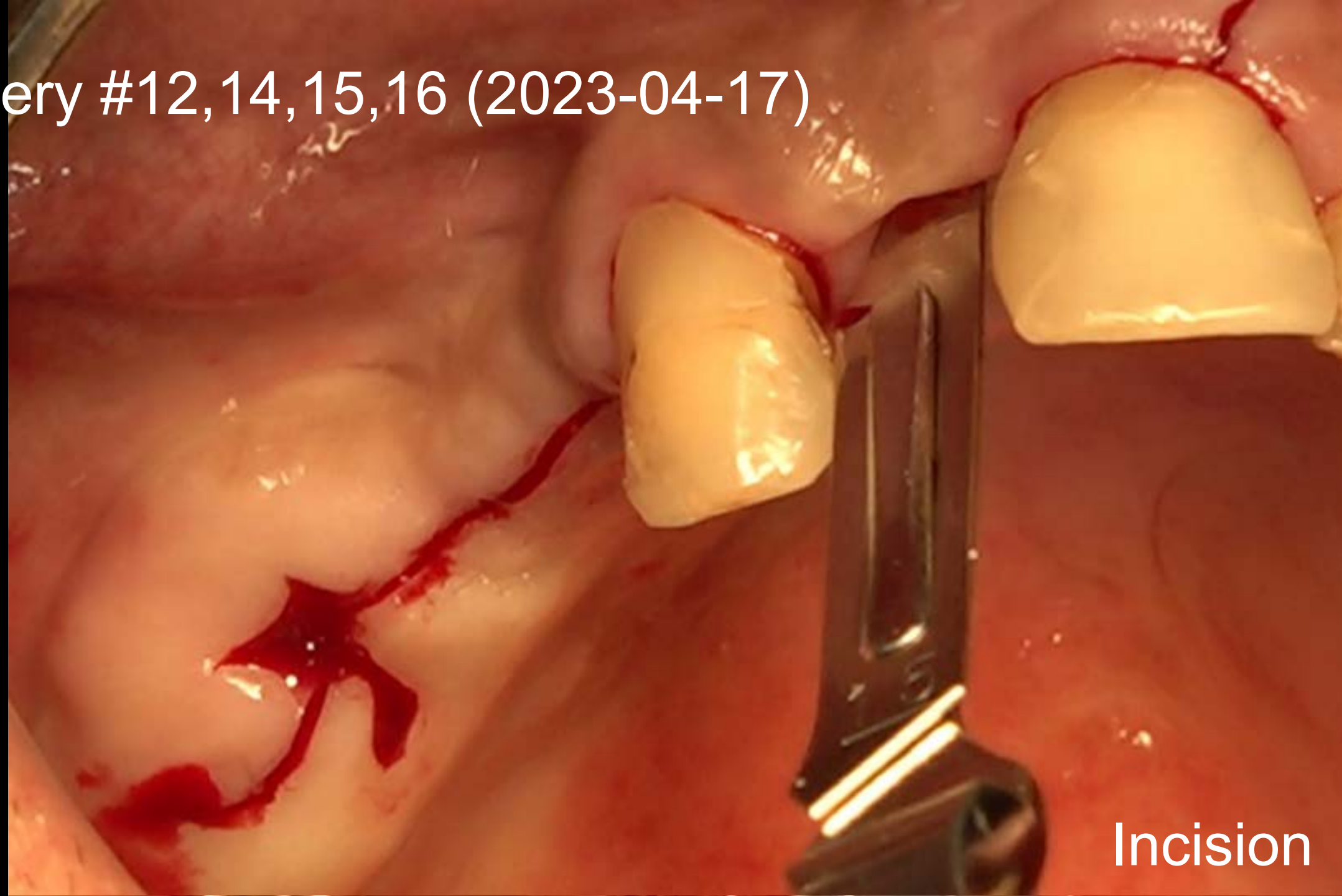


bright TL (Ø4.5 X 7.0)



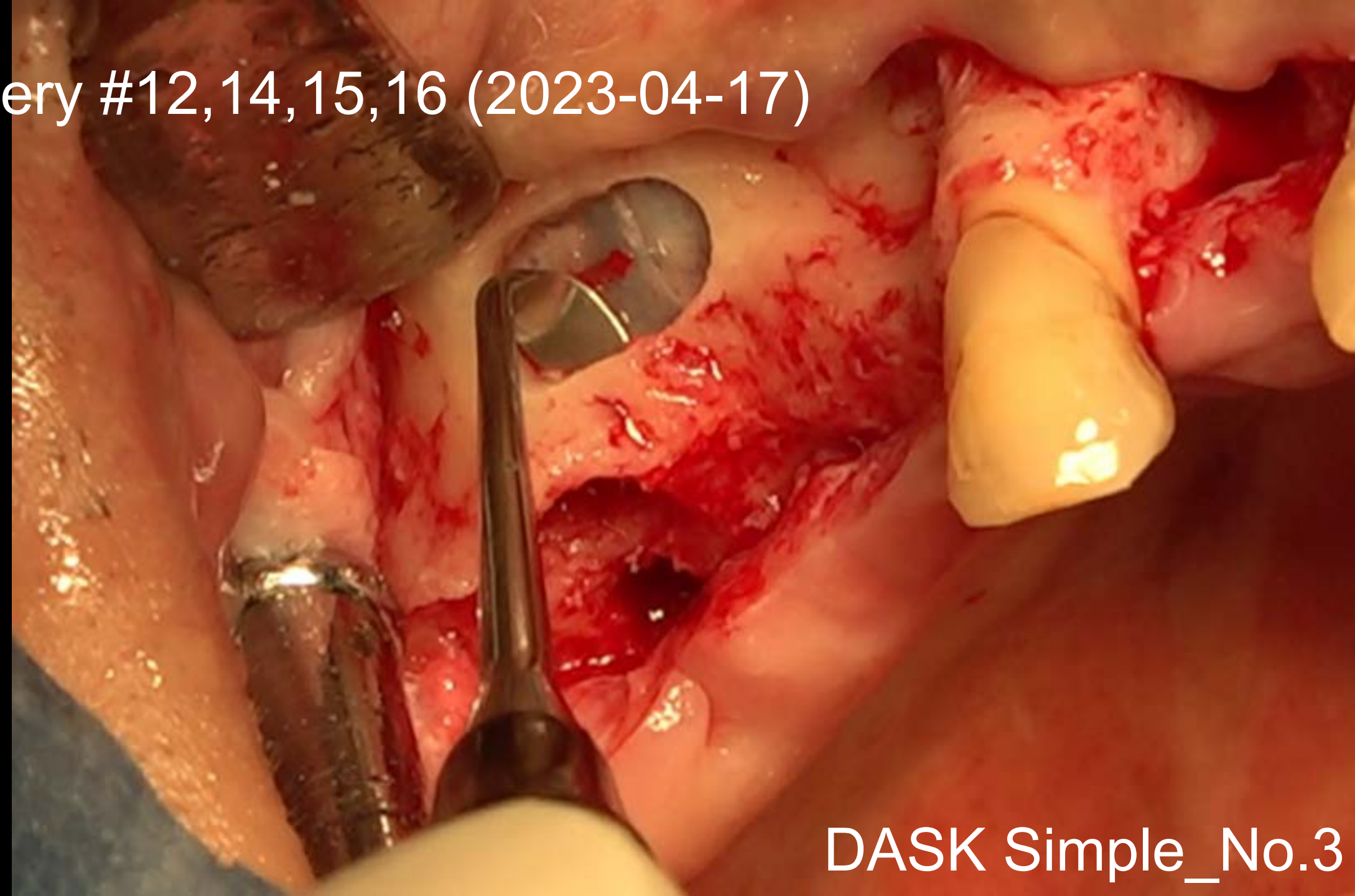
Scan Comfort Cap

Surgery #12,14,15,16 (2023-04-17)

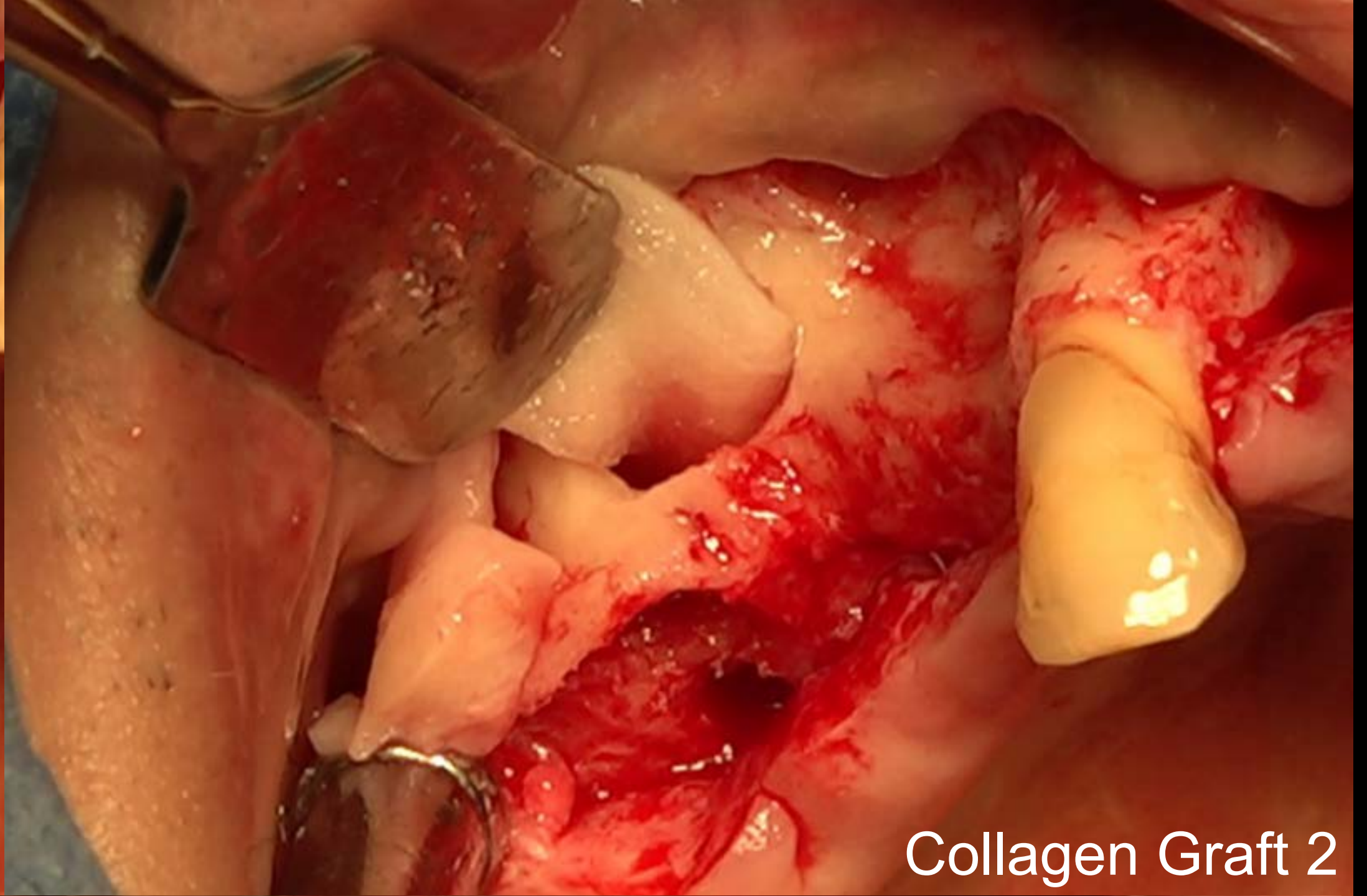


DASK Simple_Lateral drill

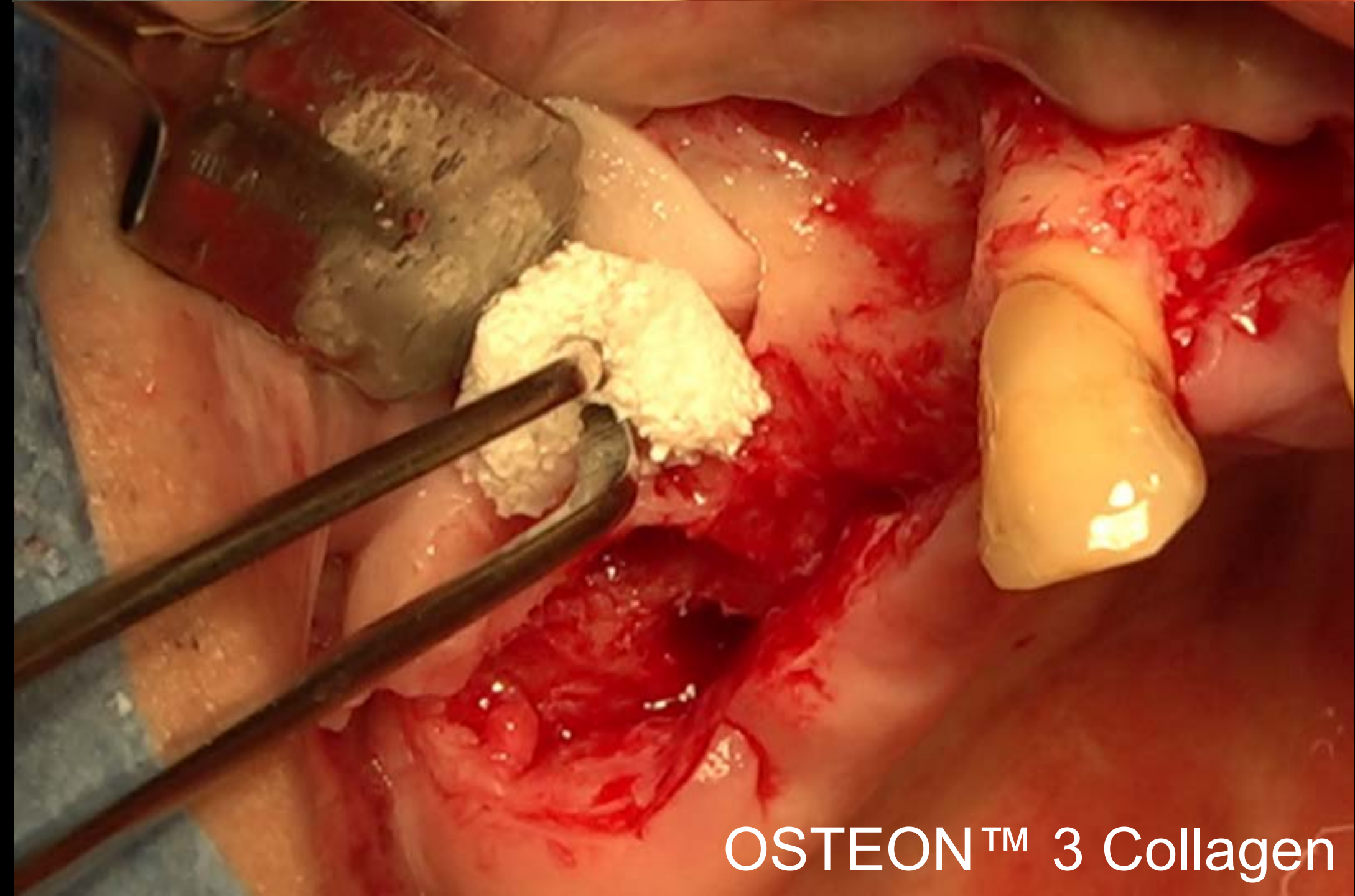
Surgery #12,14,15,16 (2023-04-17)



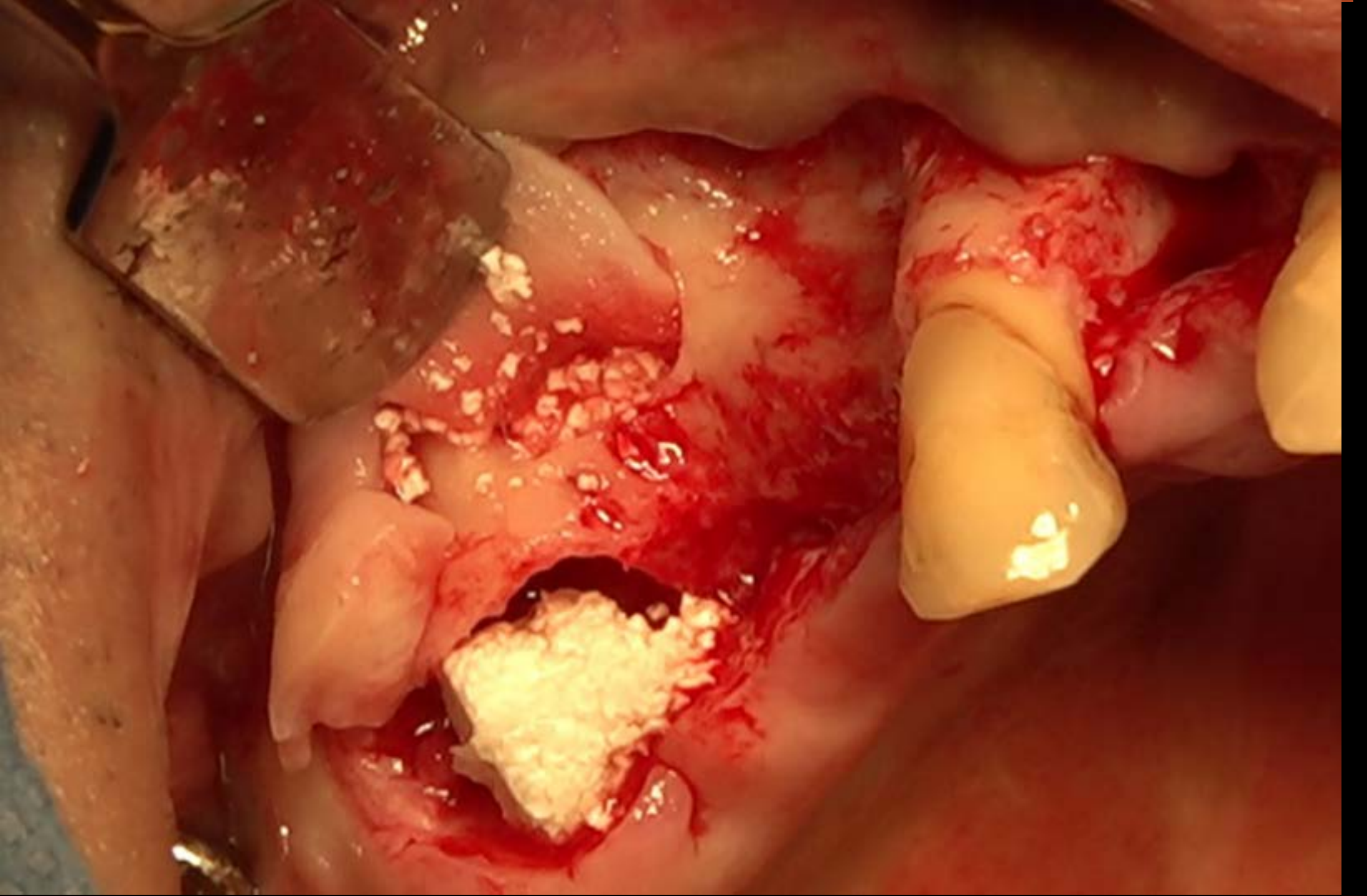
DASK Simple_No.3



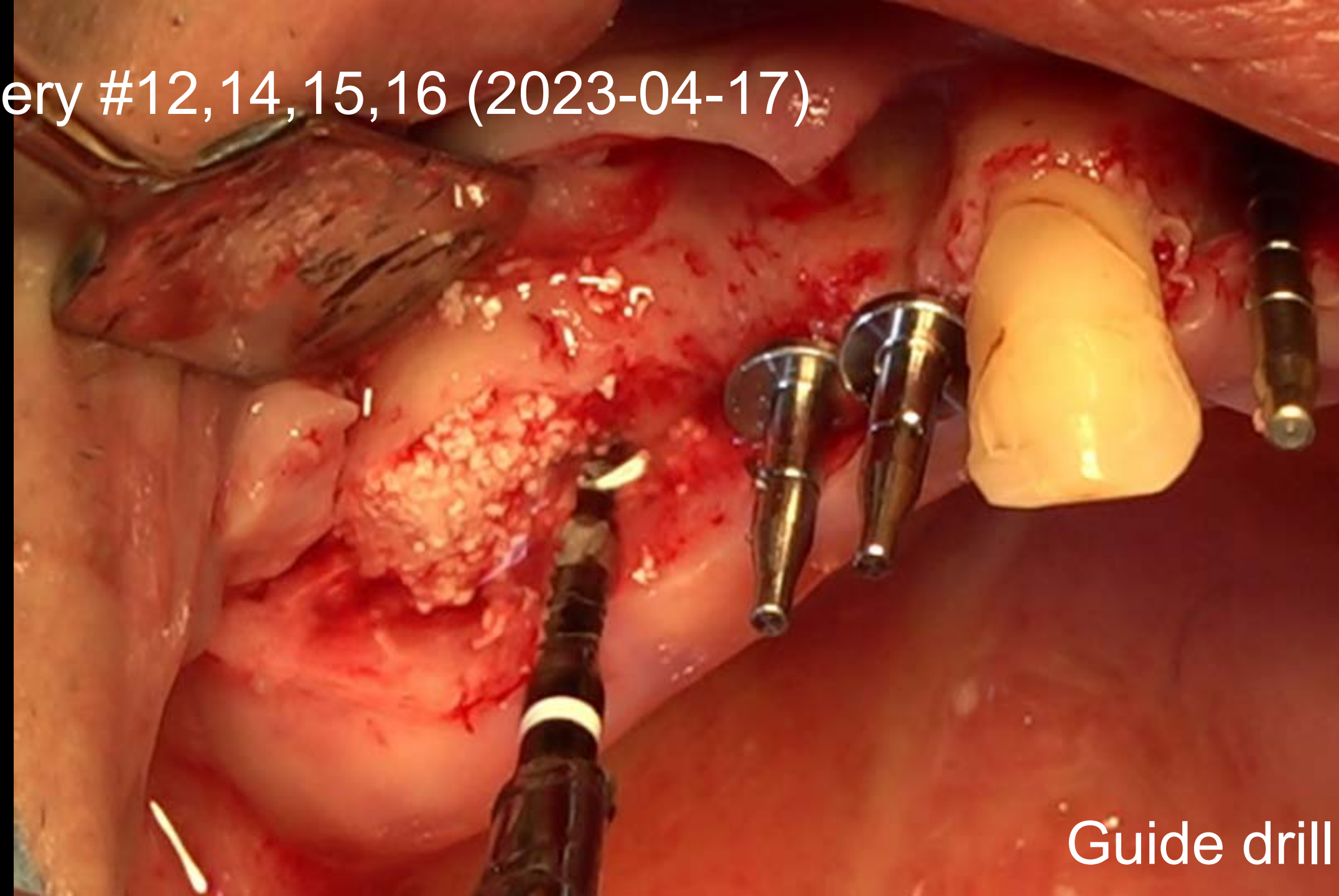
Collagen Graft 2



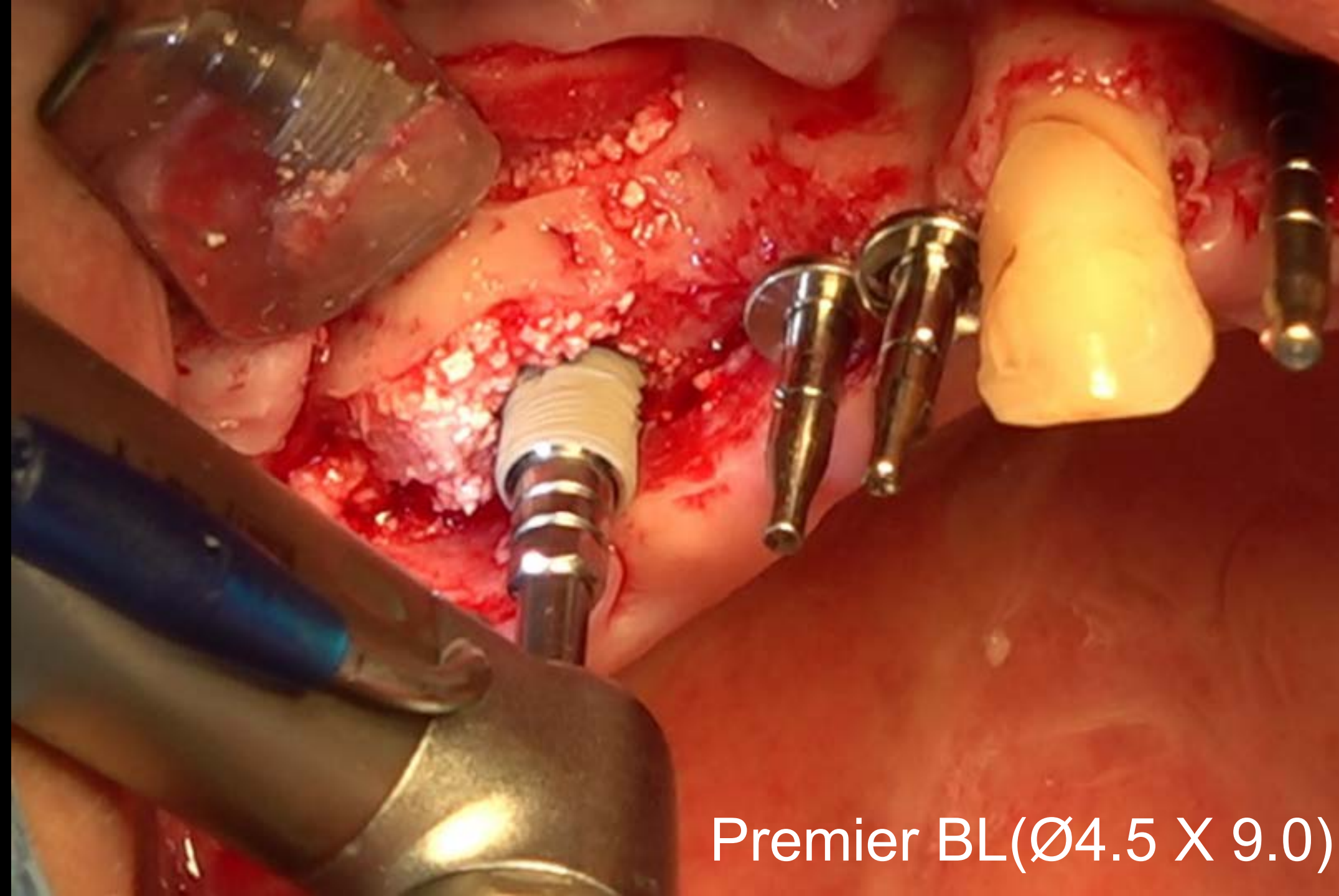
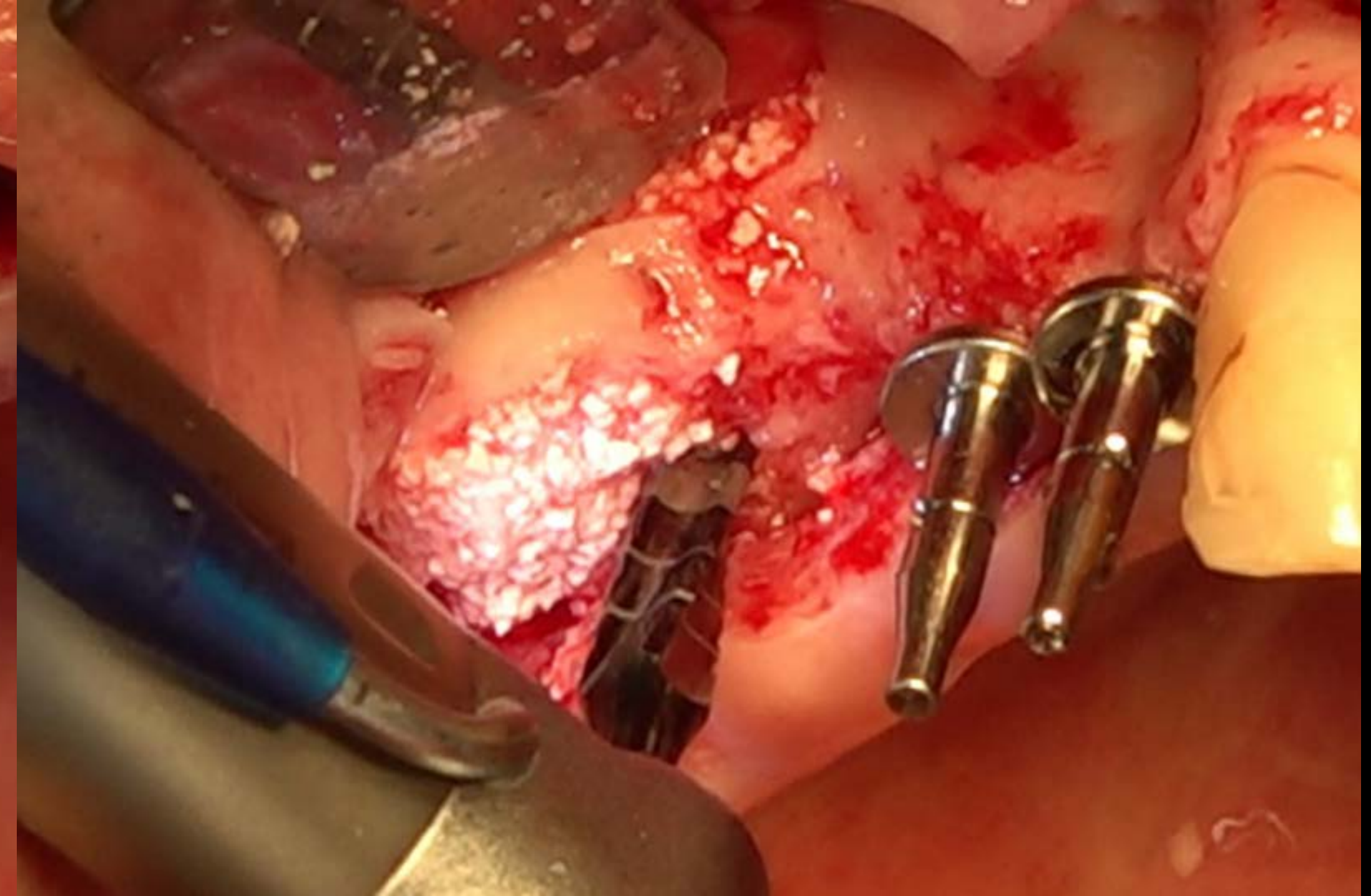
OSTEON™ 3 Collagen



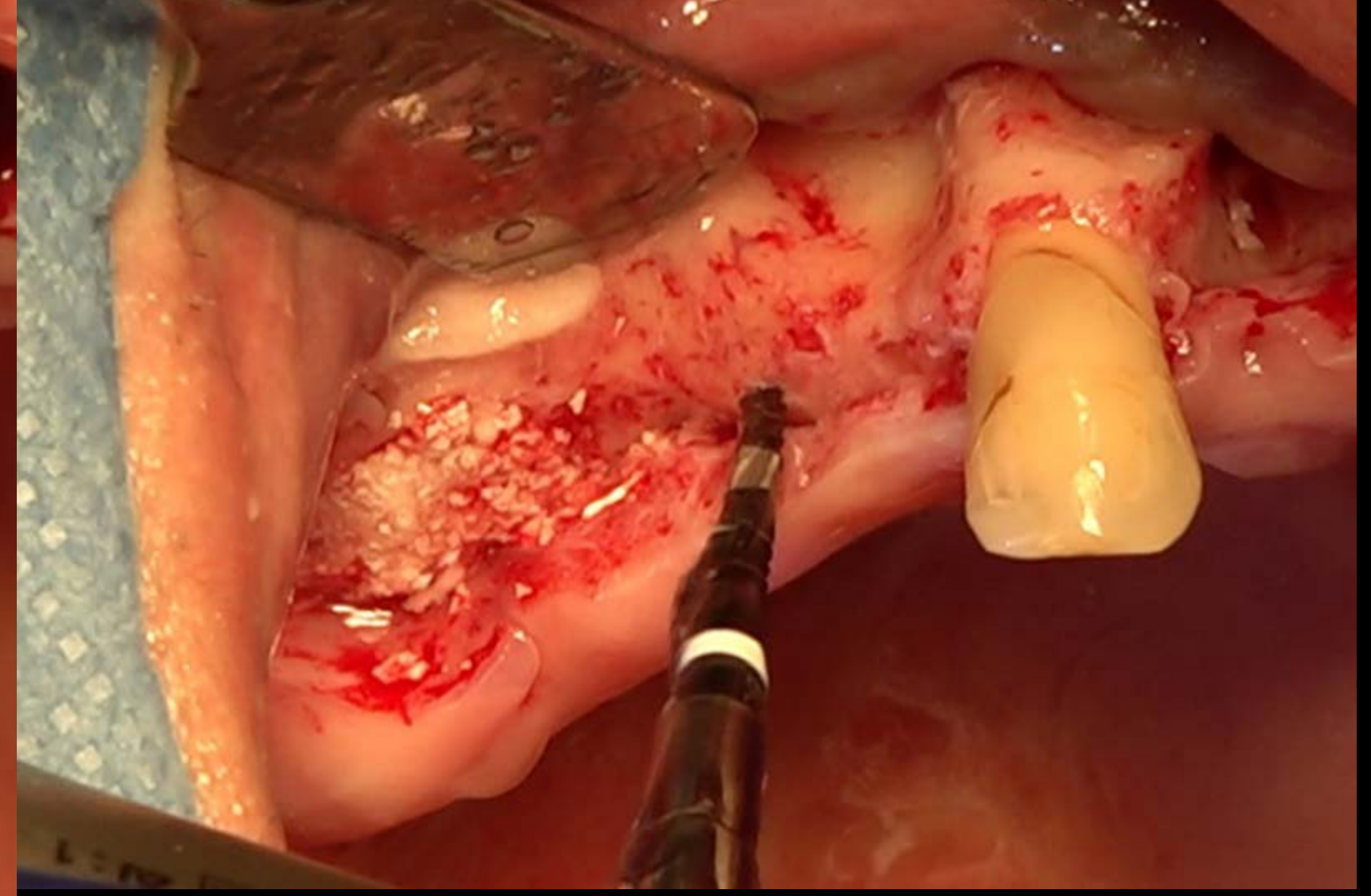
Surgery #12,14,15,16 (2023-04-17)



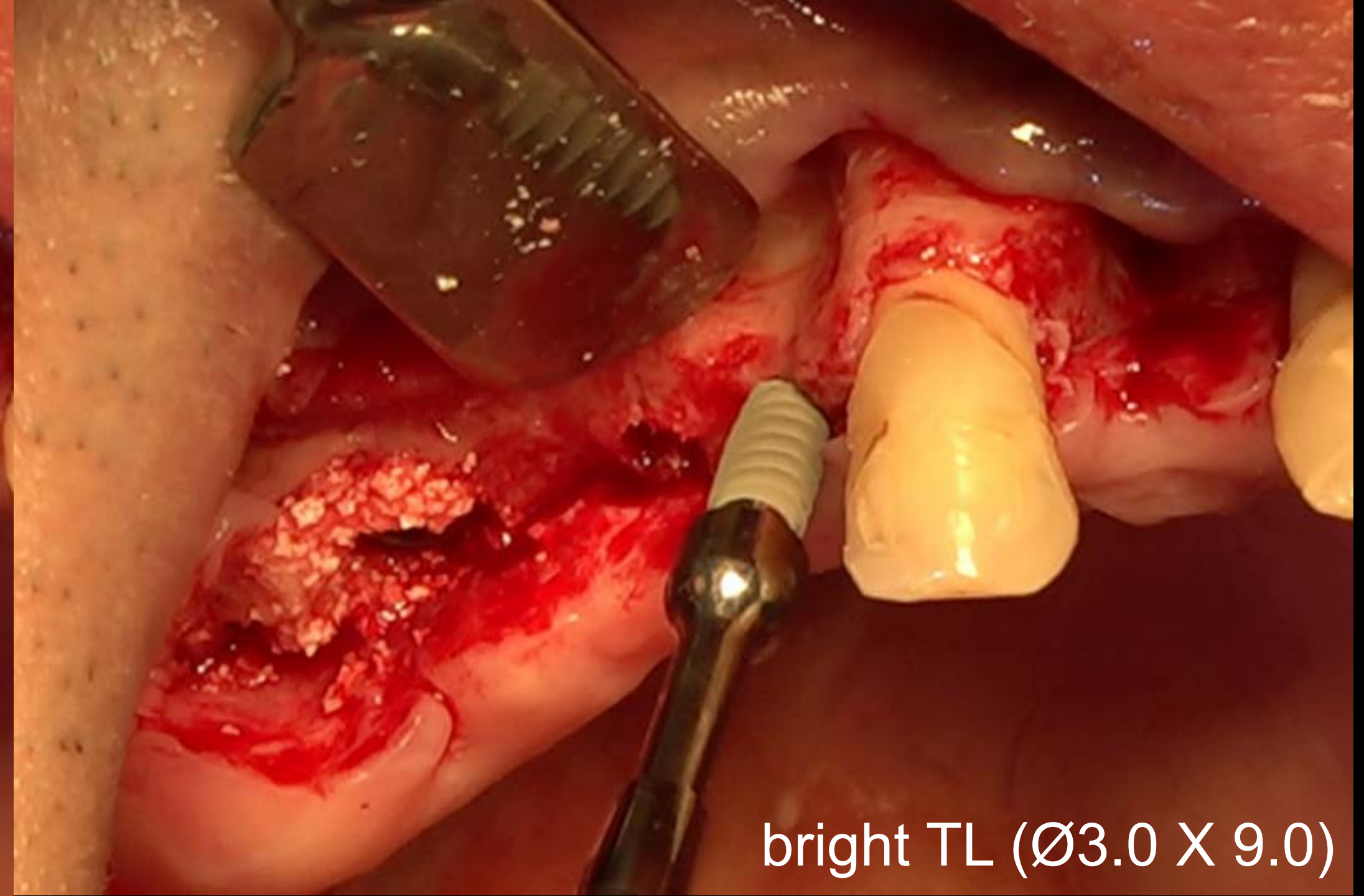
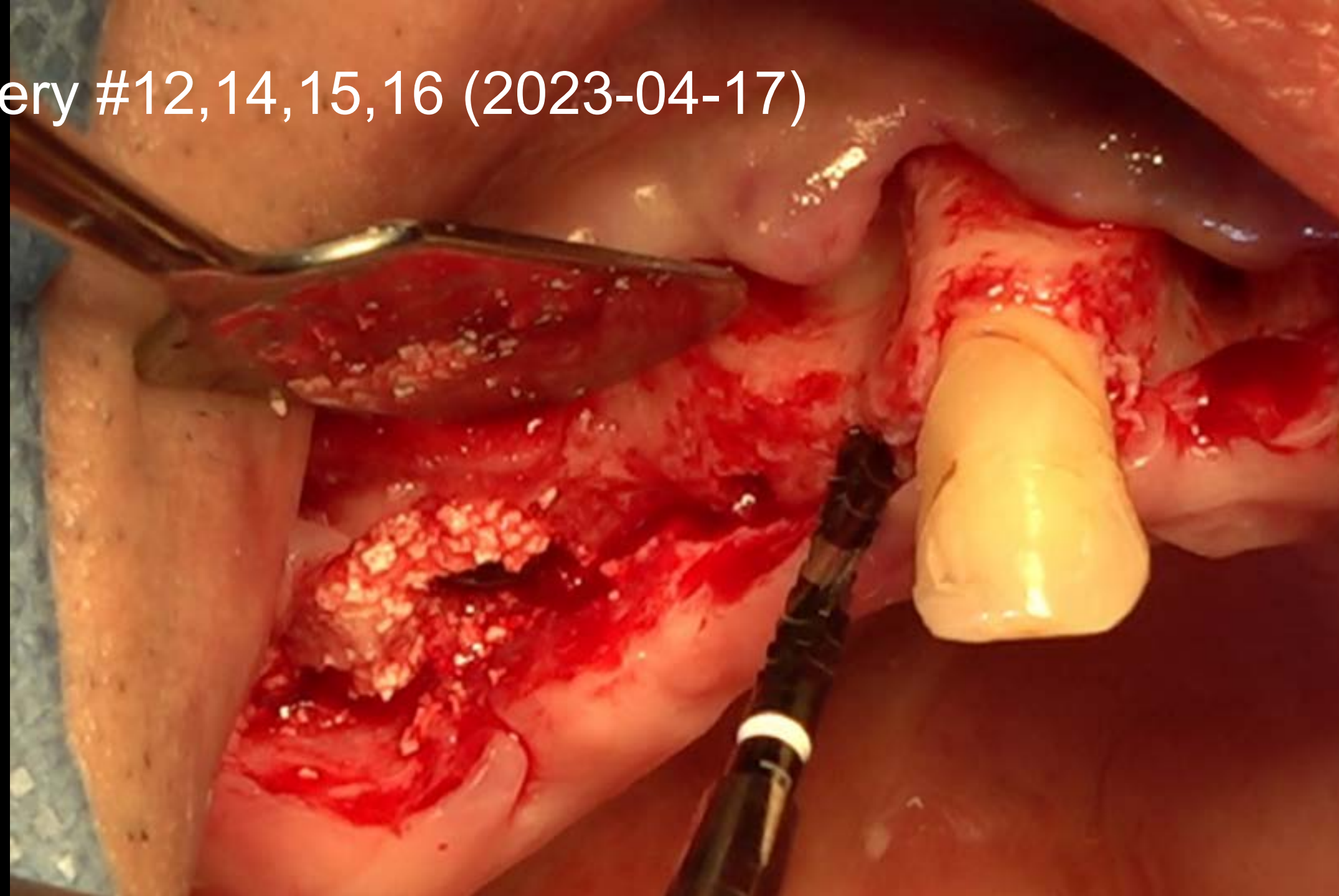
Guide drill



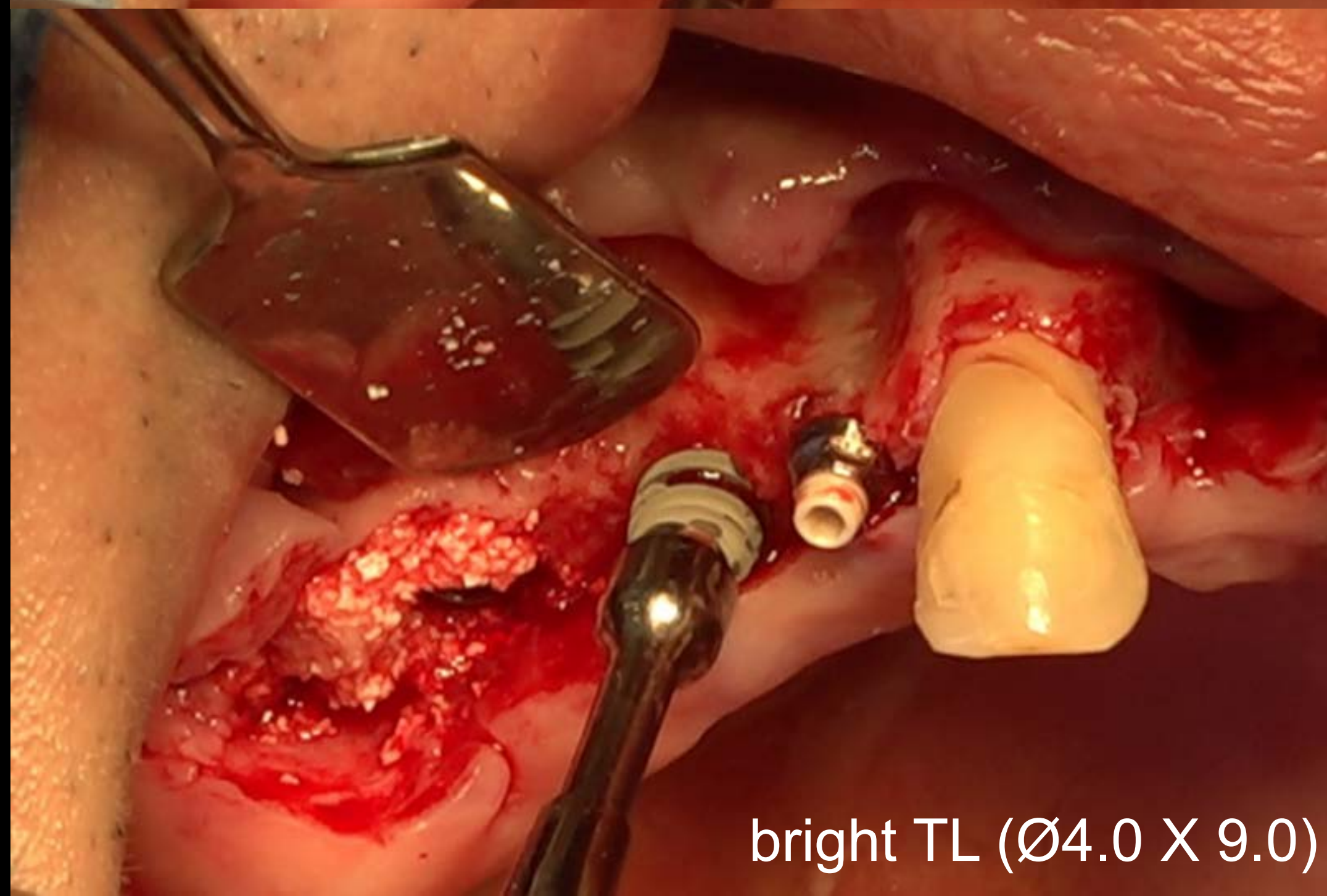
Premier BL(Ø4.5 X 9.0)



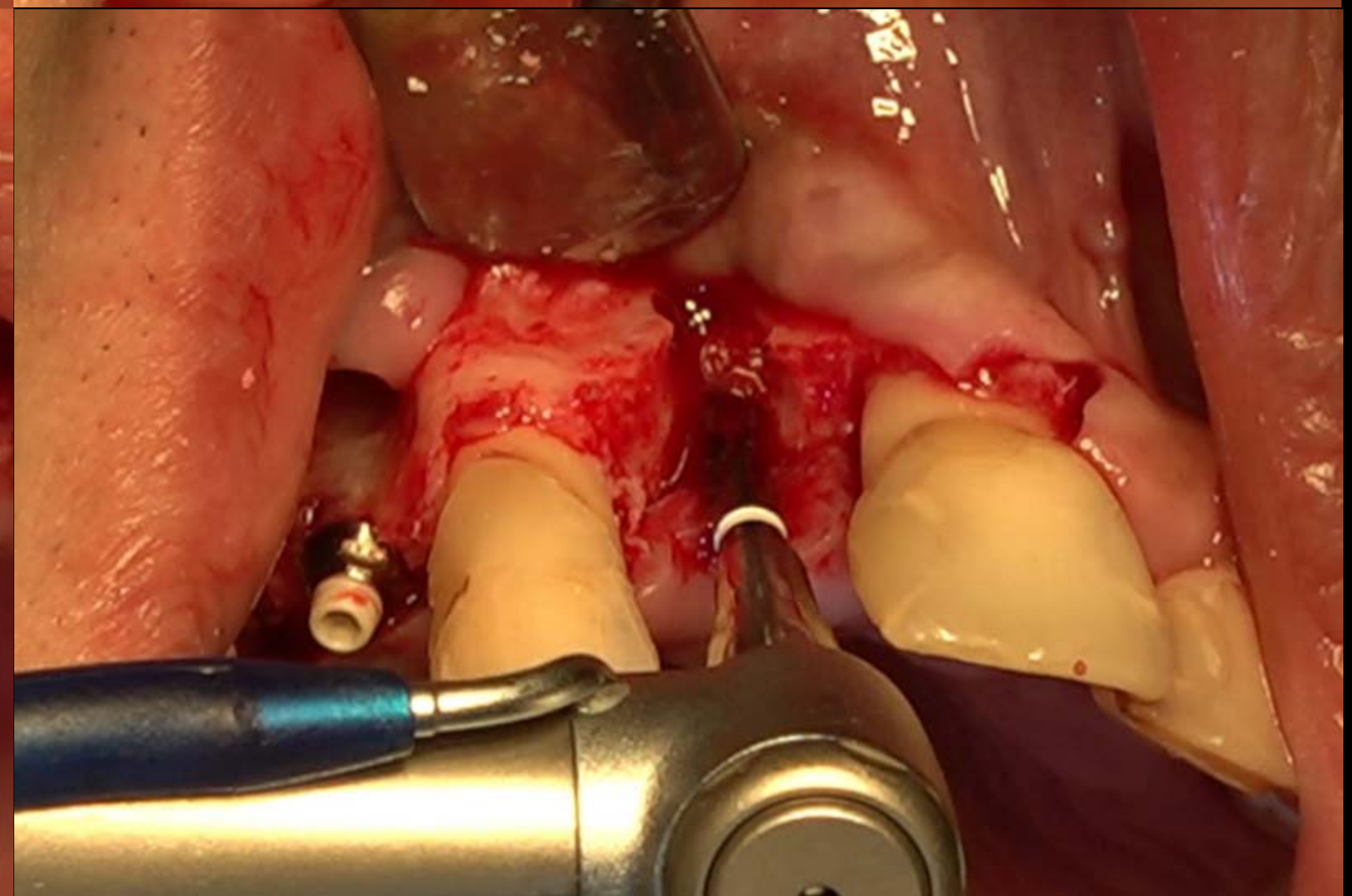
Surgery #12,14,15,16 (2023-04-17)



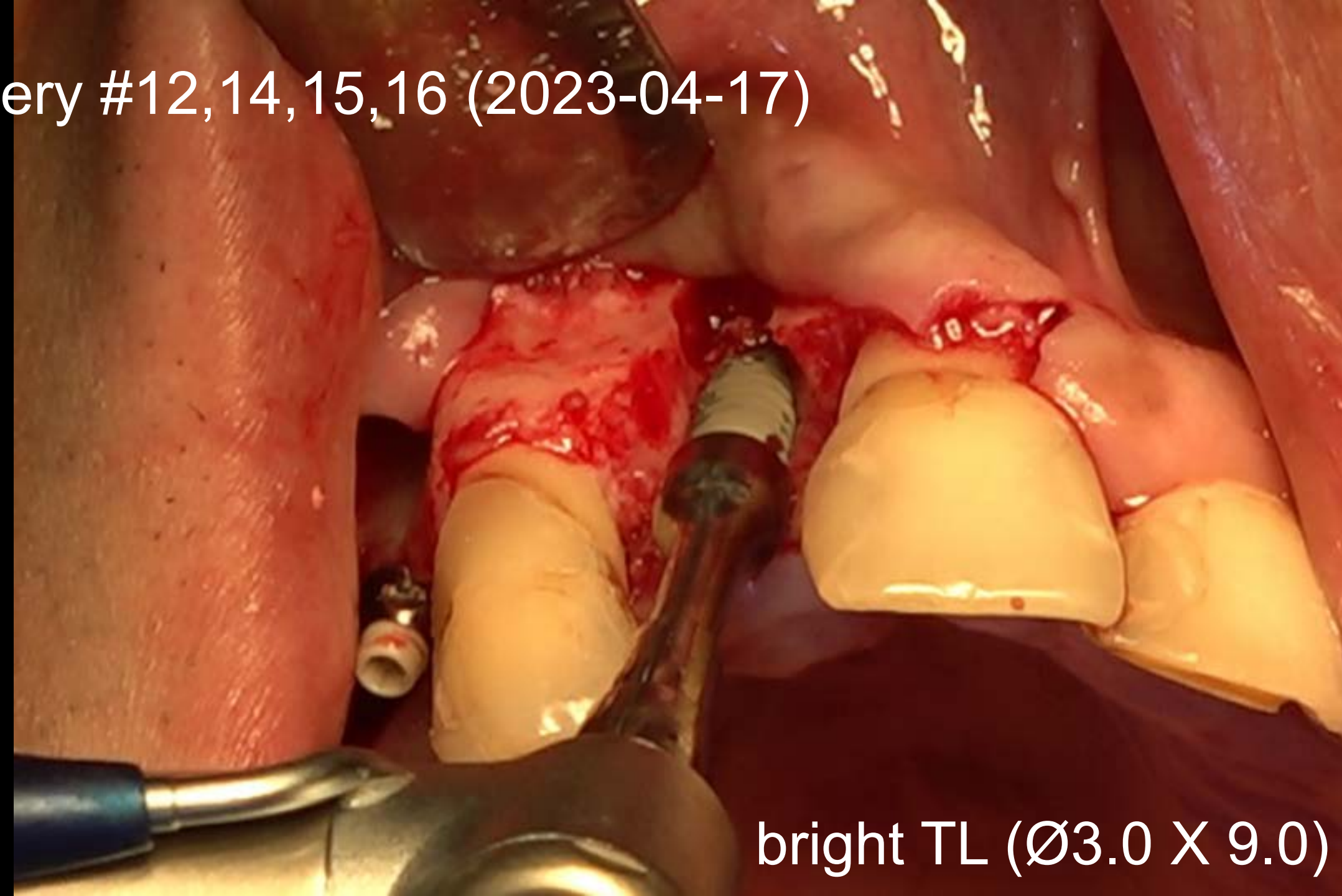
bright TL (Ø3.0 X 9.0)



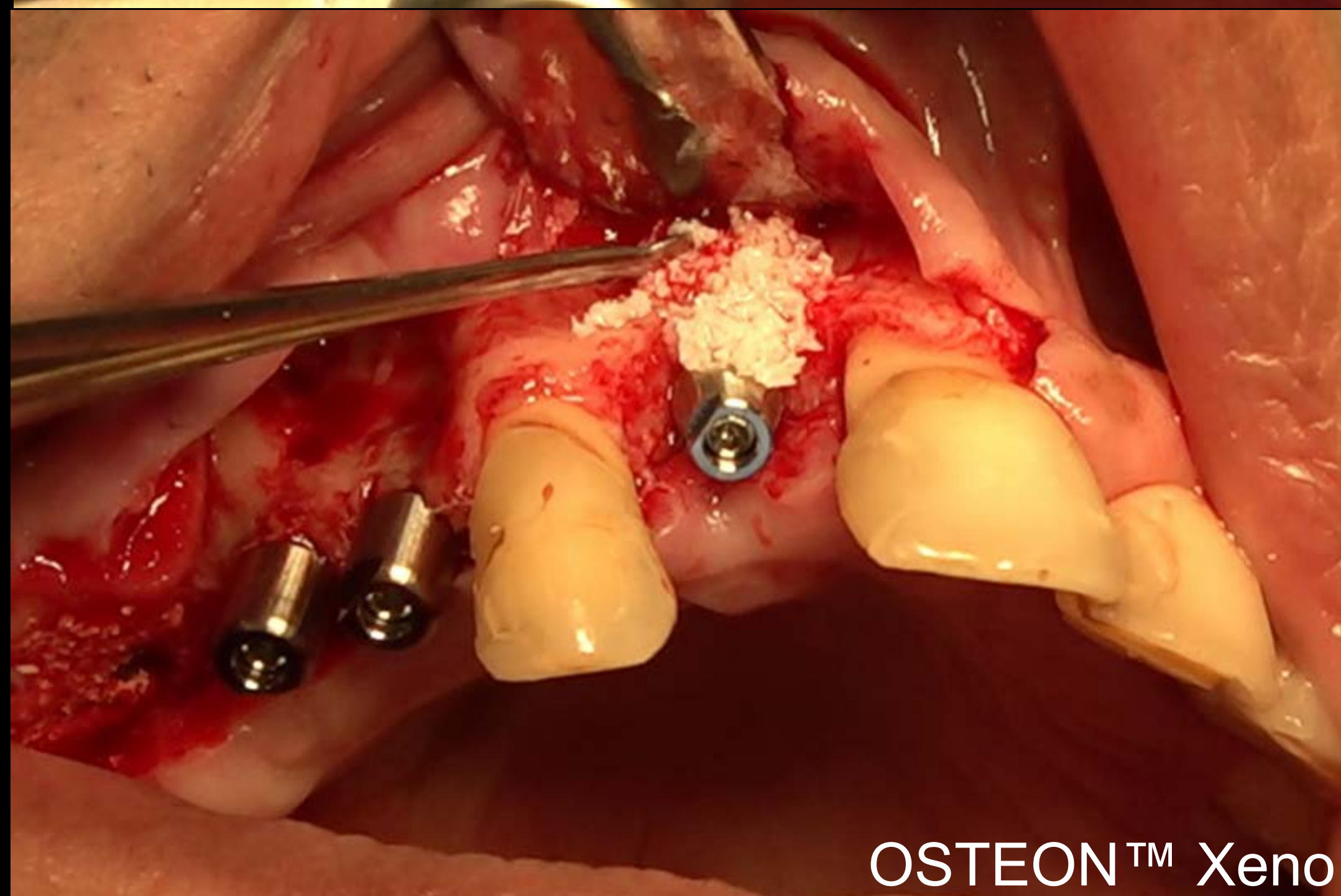
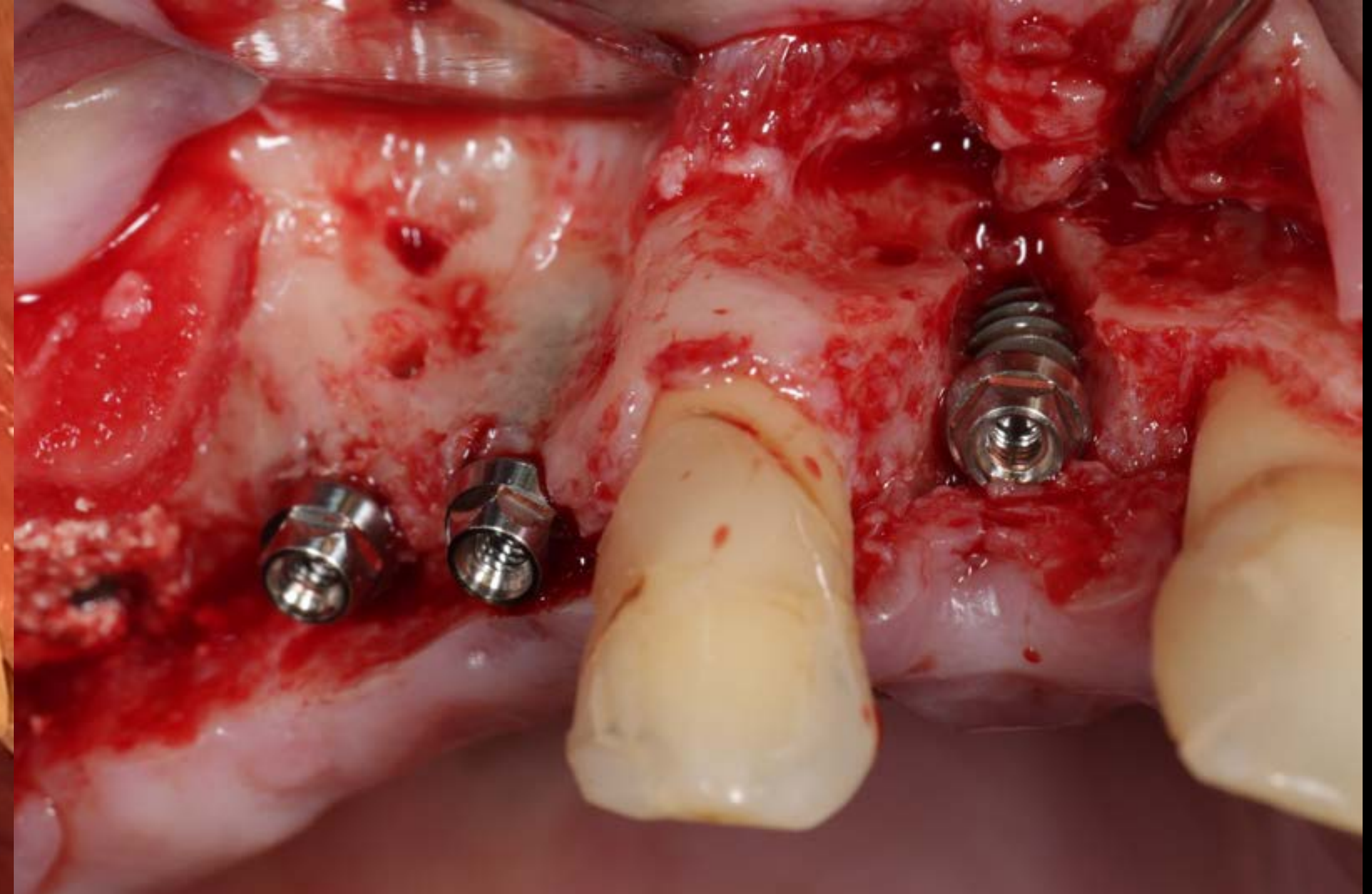
bright TL (Ø4.0 X 9.0)



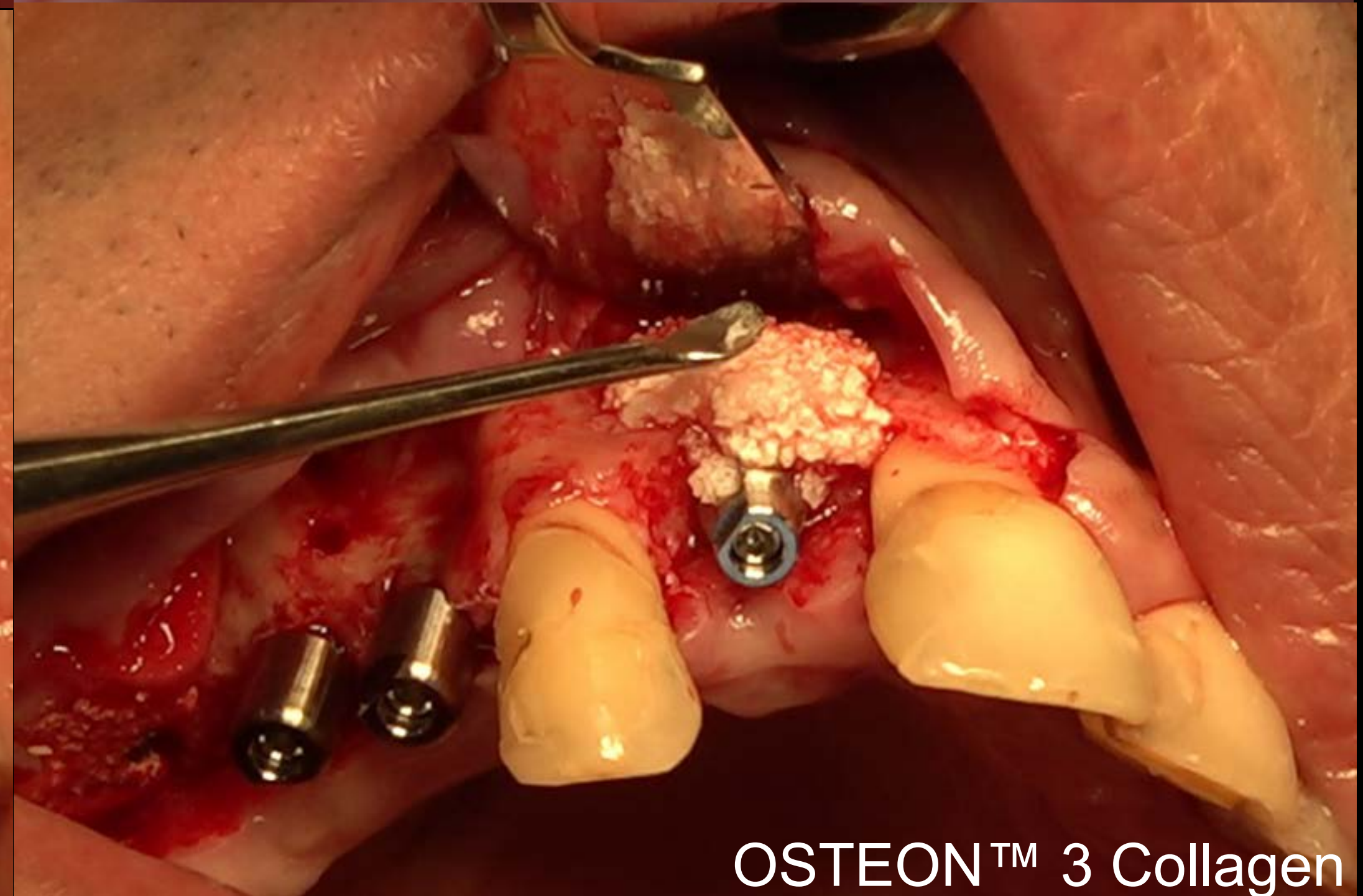
Surgery #12,14,15,16 (2023-04-17)



bright TL (Ø3.0 X 9.0)

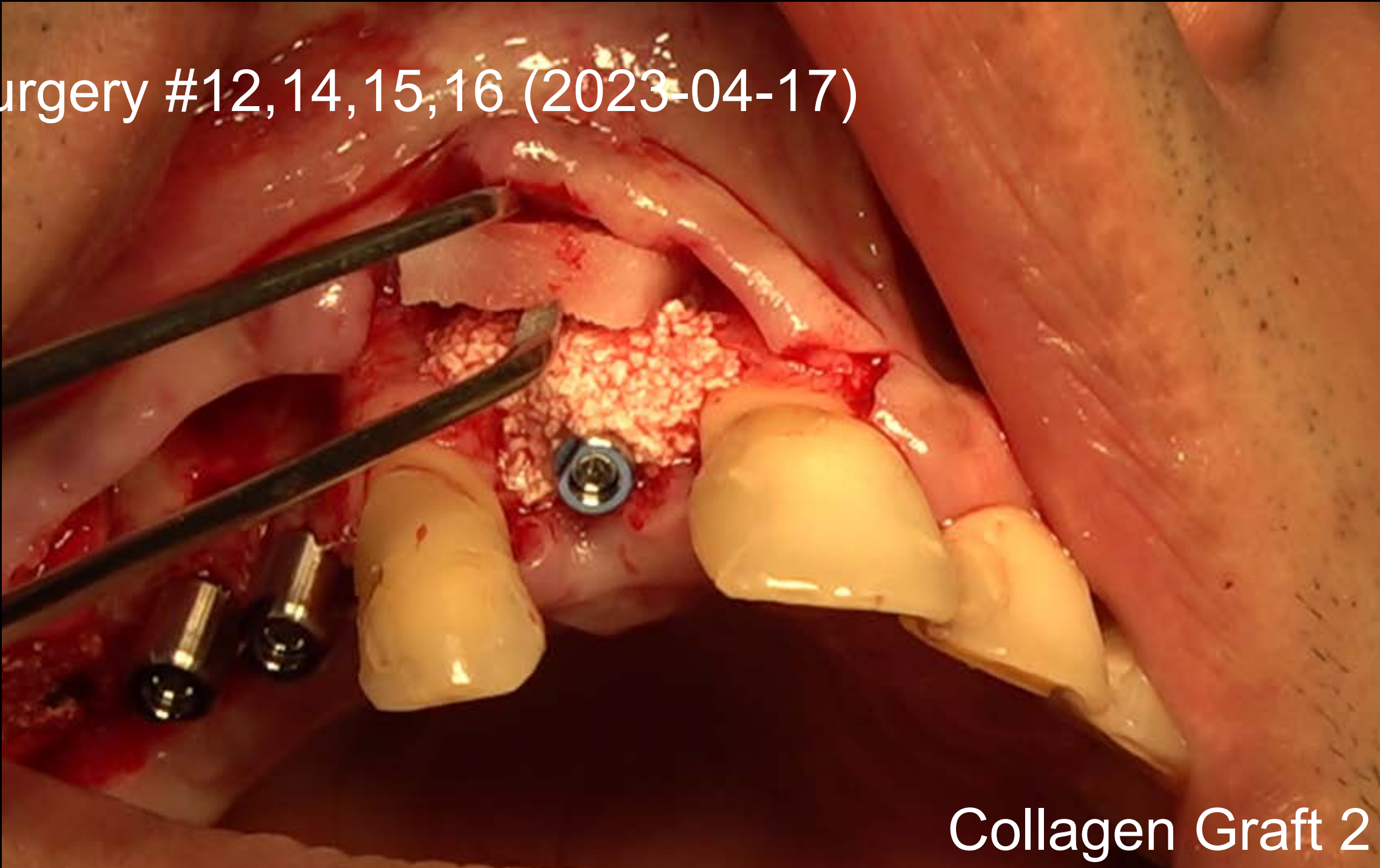


OSTEON™ Xeno

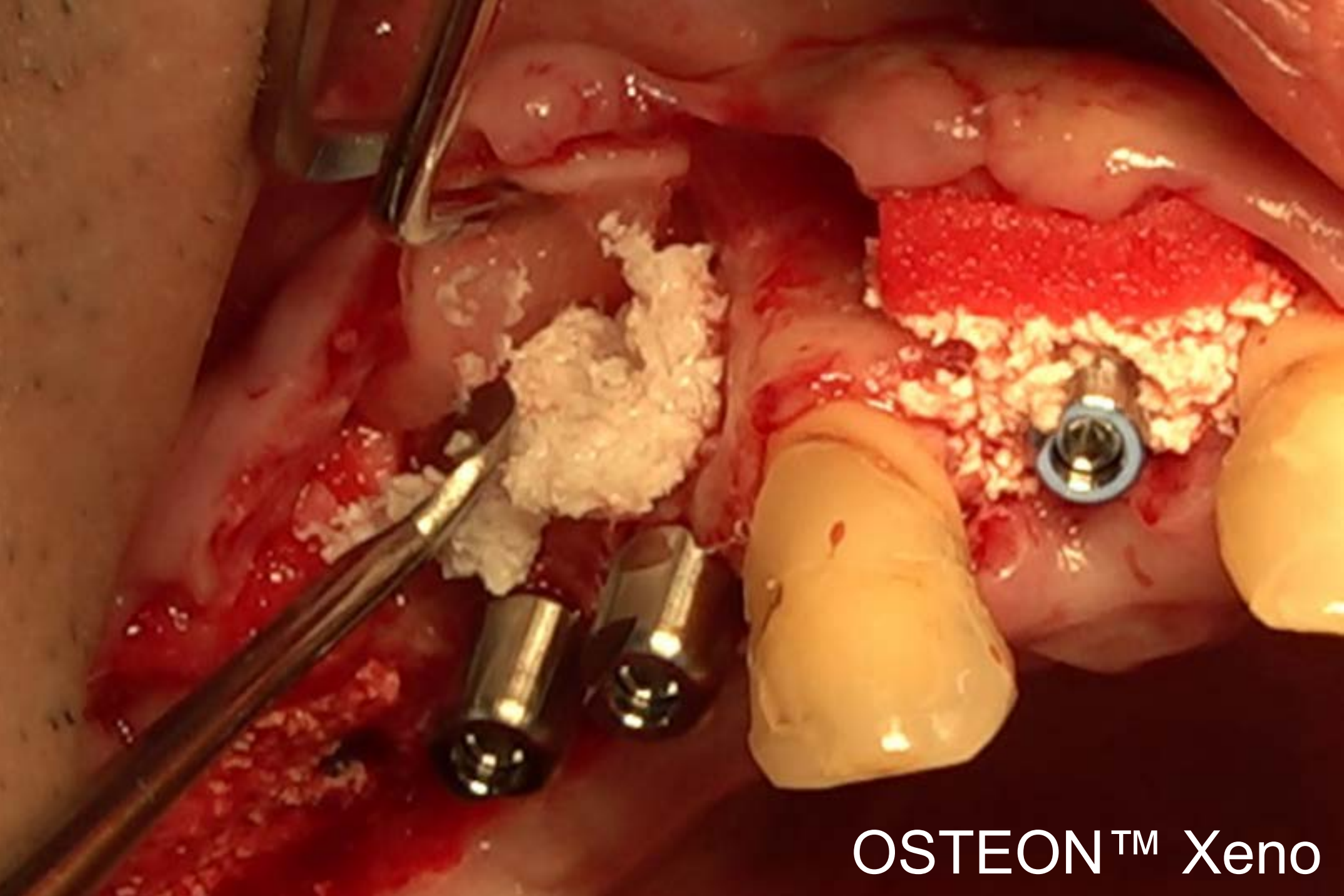


OSTEON™ 3 Collagen

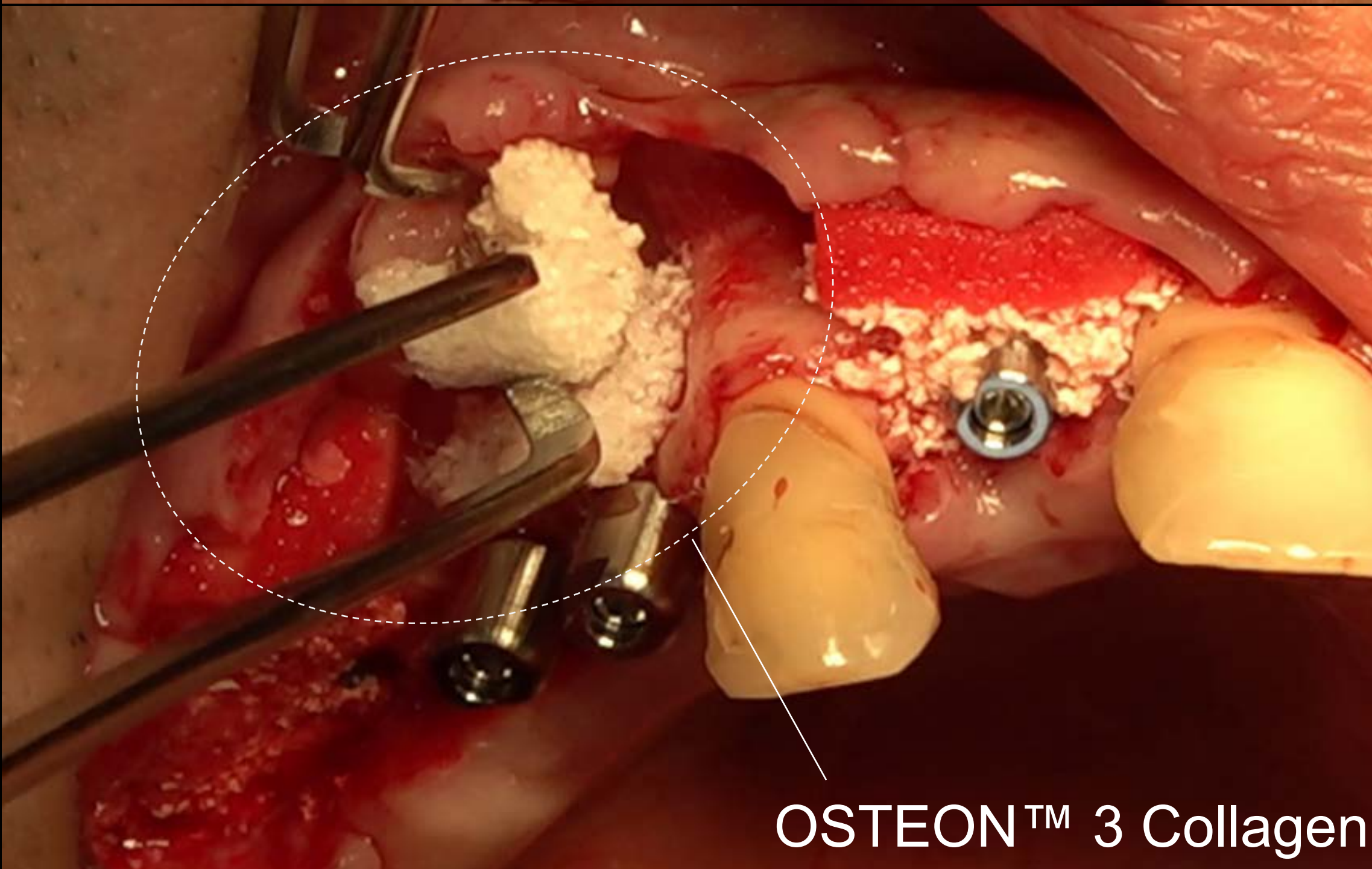
Surgery #12,14,15,16 (2023-04-17)



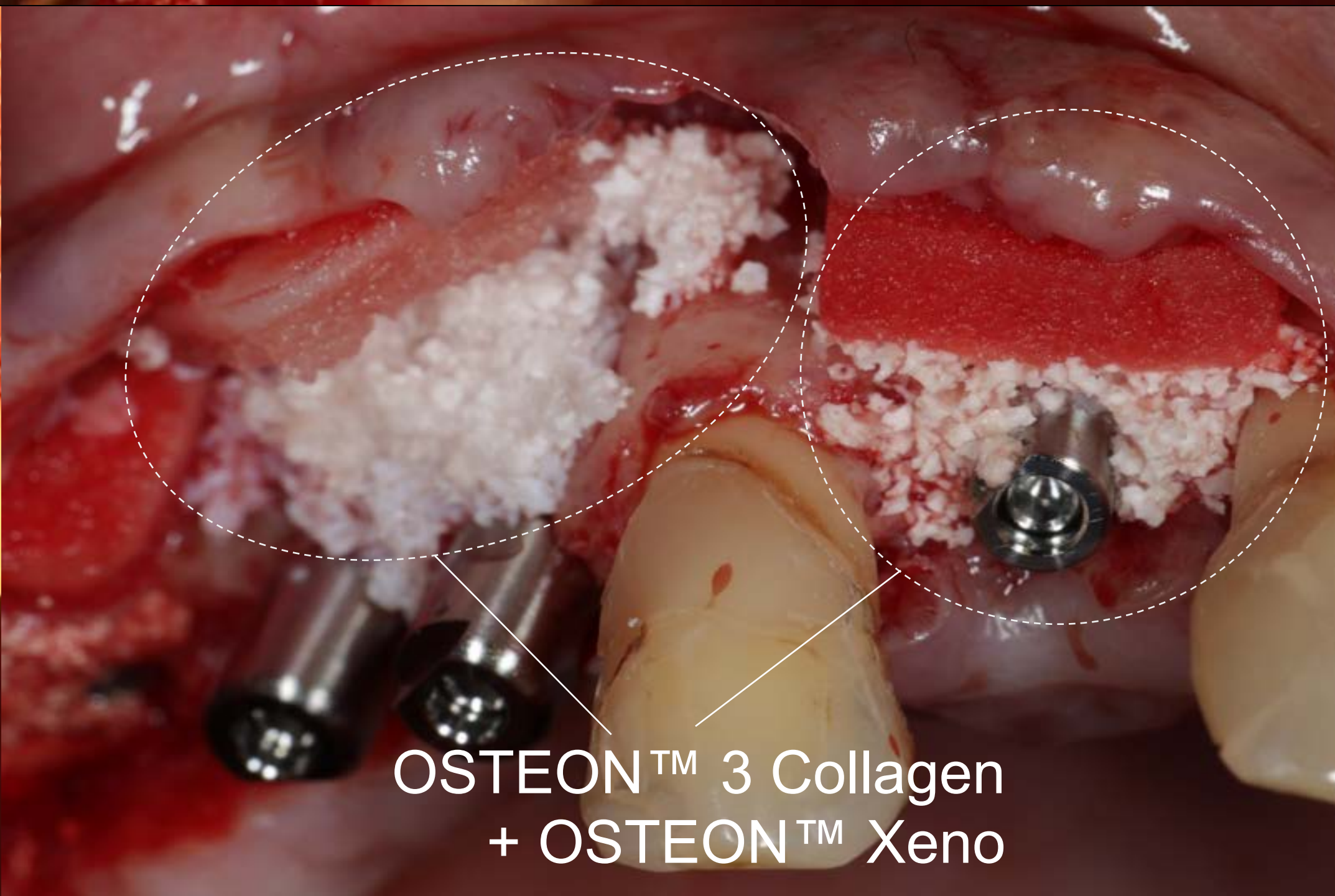
Collagen Graft 2



OSTEON™ Xeno



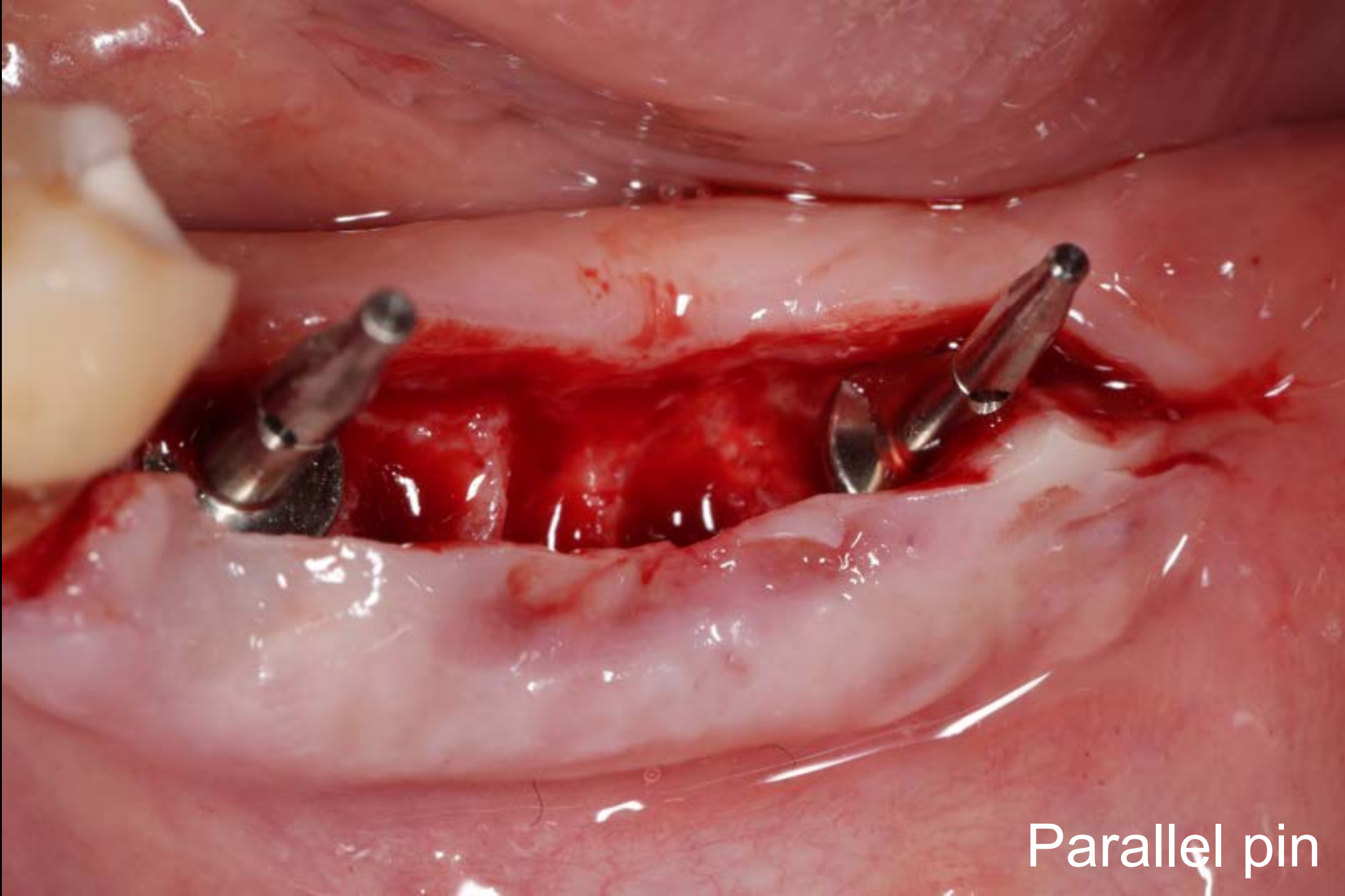
OSTEON™ 3 Collagen



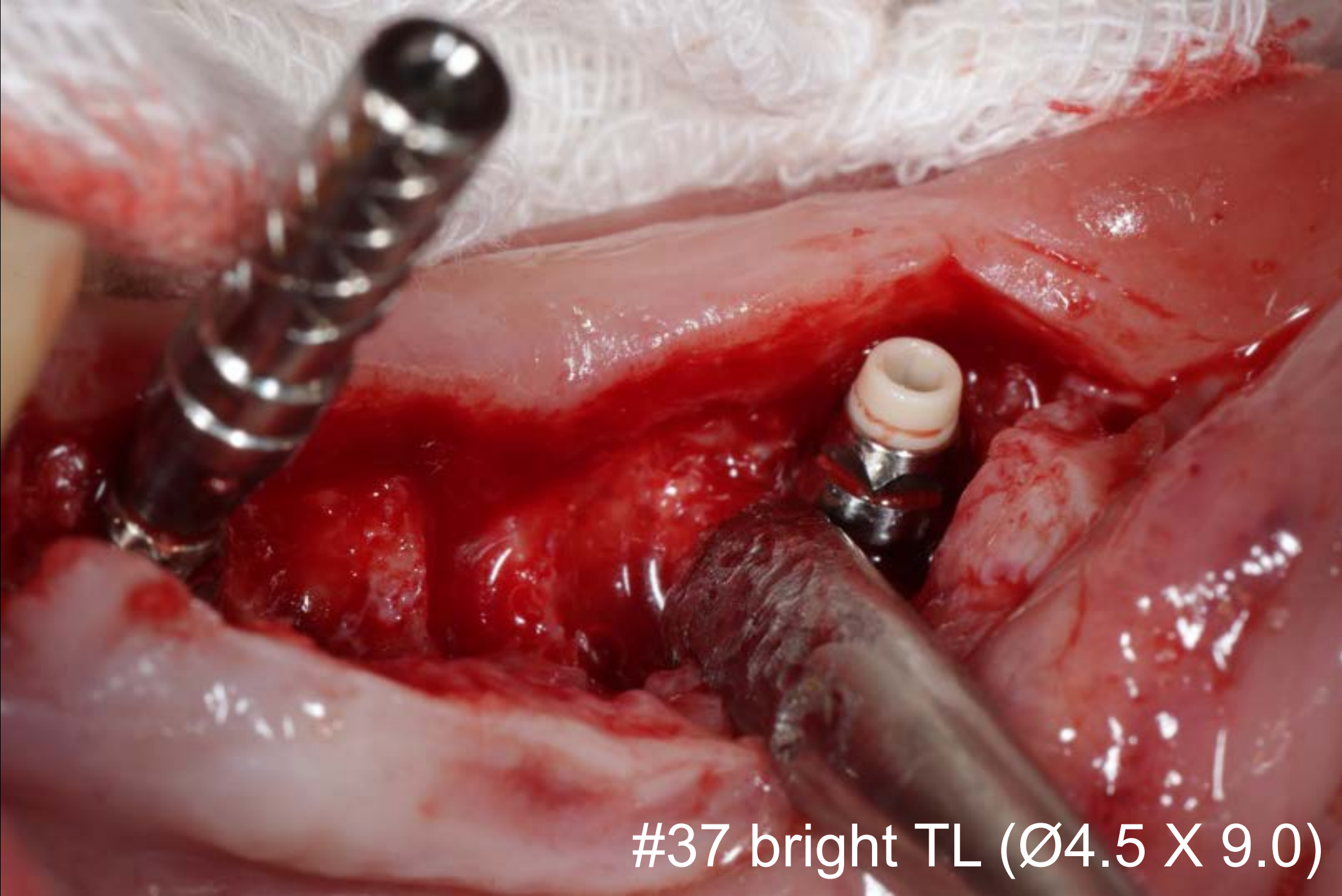
OSTEON™ 3 Collagen
+ OSTEON™ Xeno



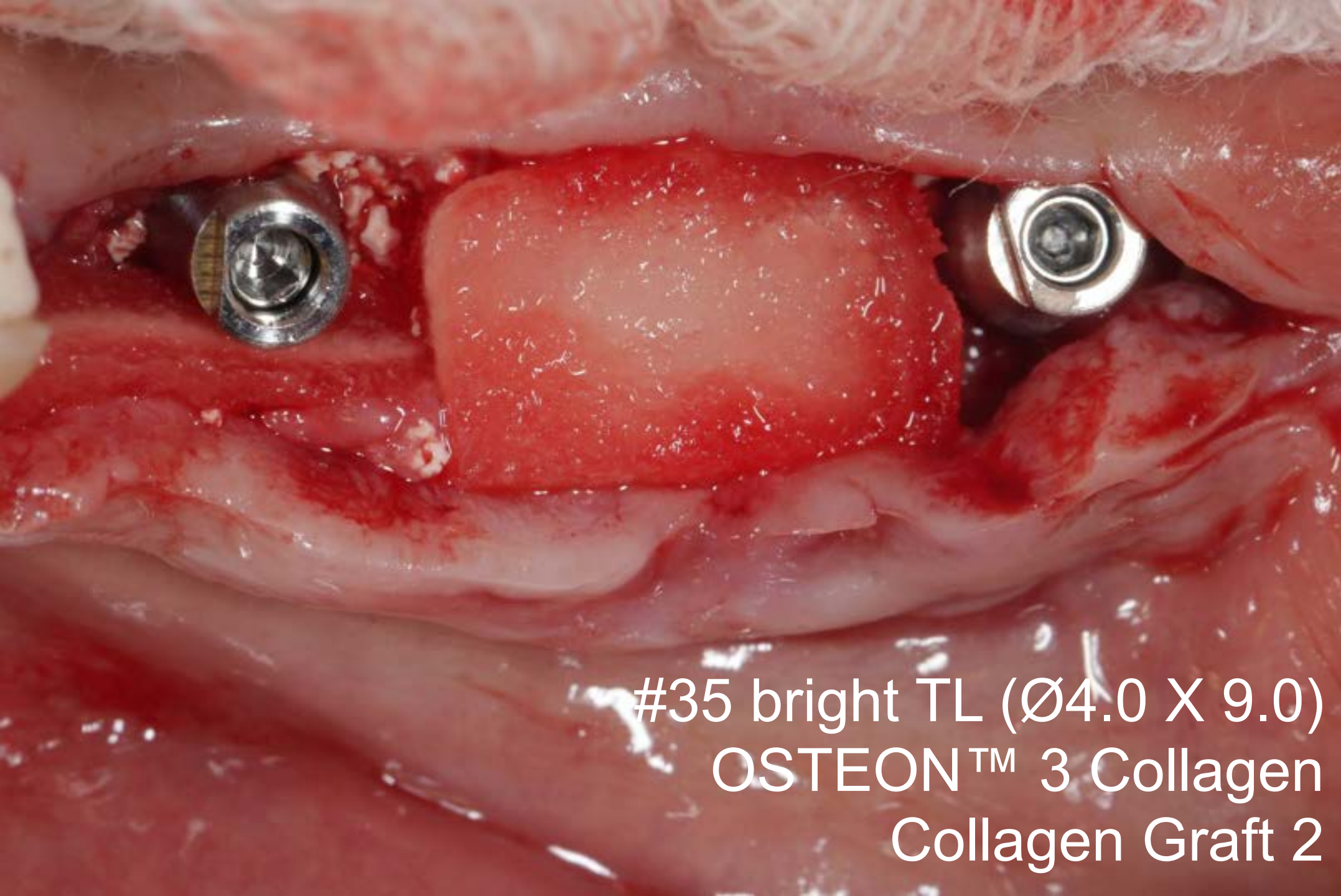
Surgery #35,37 (2023-04-19)



Parallel pin



#37 bright TL (Ø4.5 X 9.0)



#35 bright TL (Ø4.0 X 9.0)
OSTEON™ 3 Collagen
Collagen Graft 2

Mandibular DBS (2023-04-20)



Orthodontic check : 3 weeks (2023-05-10)



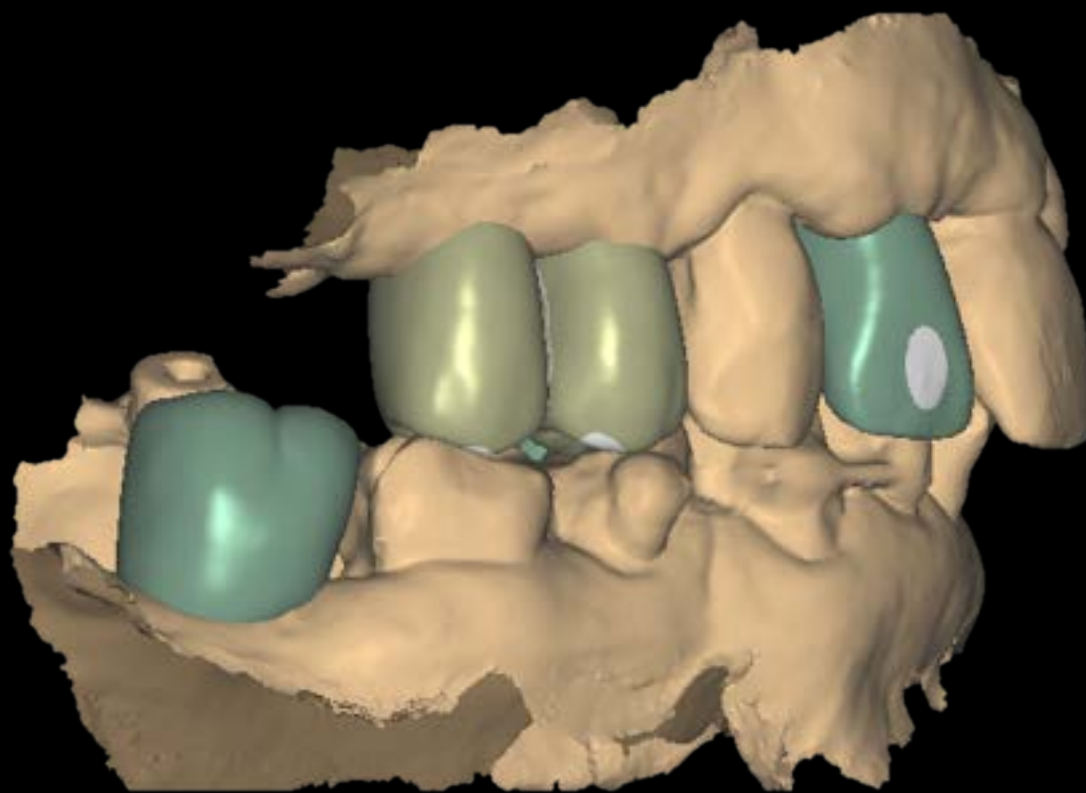
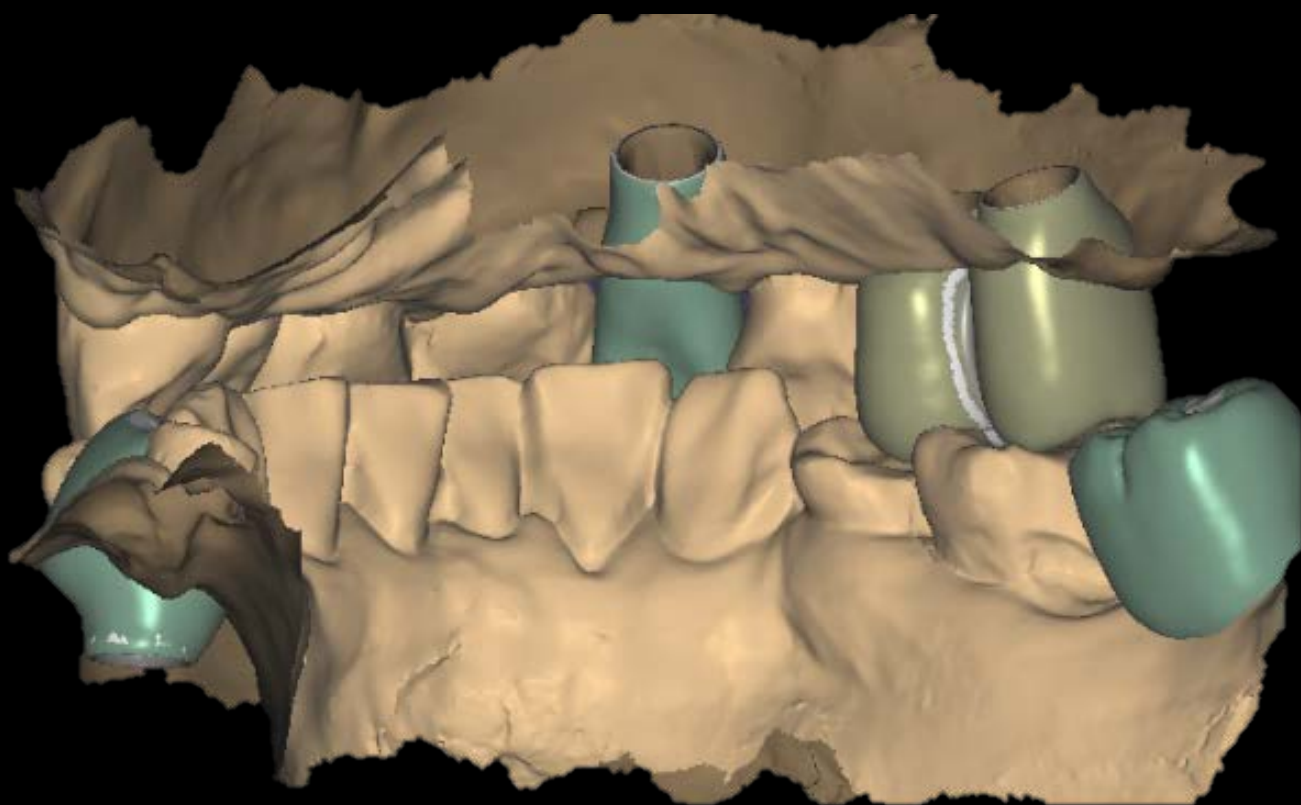
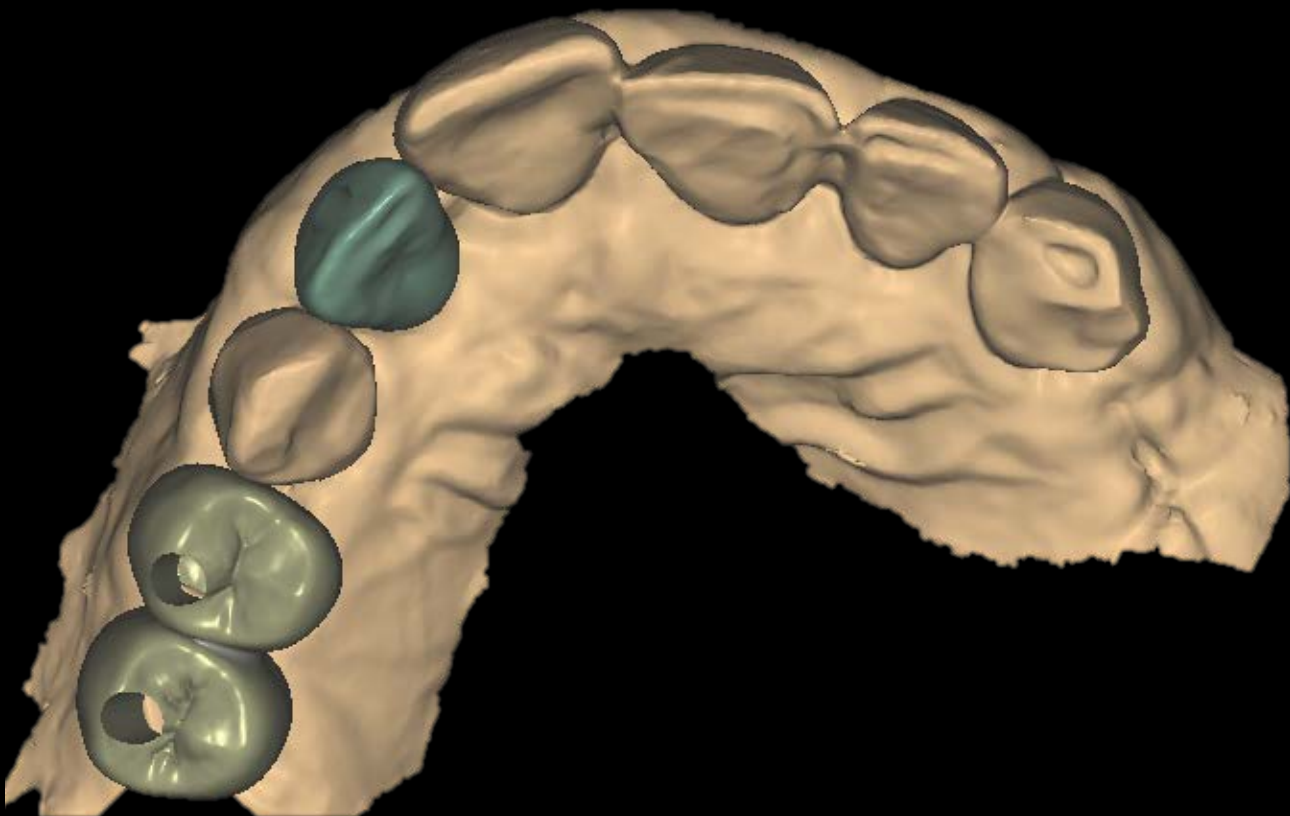
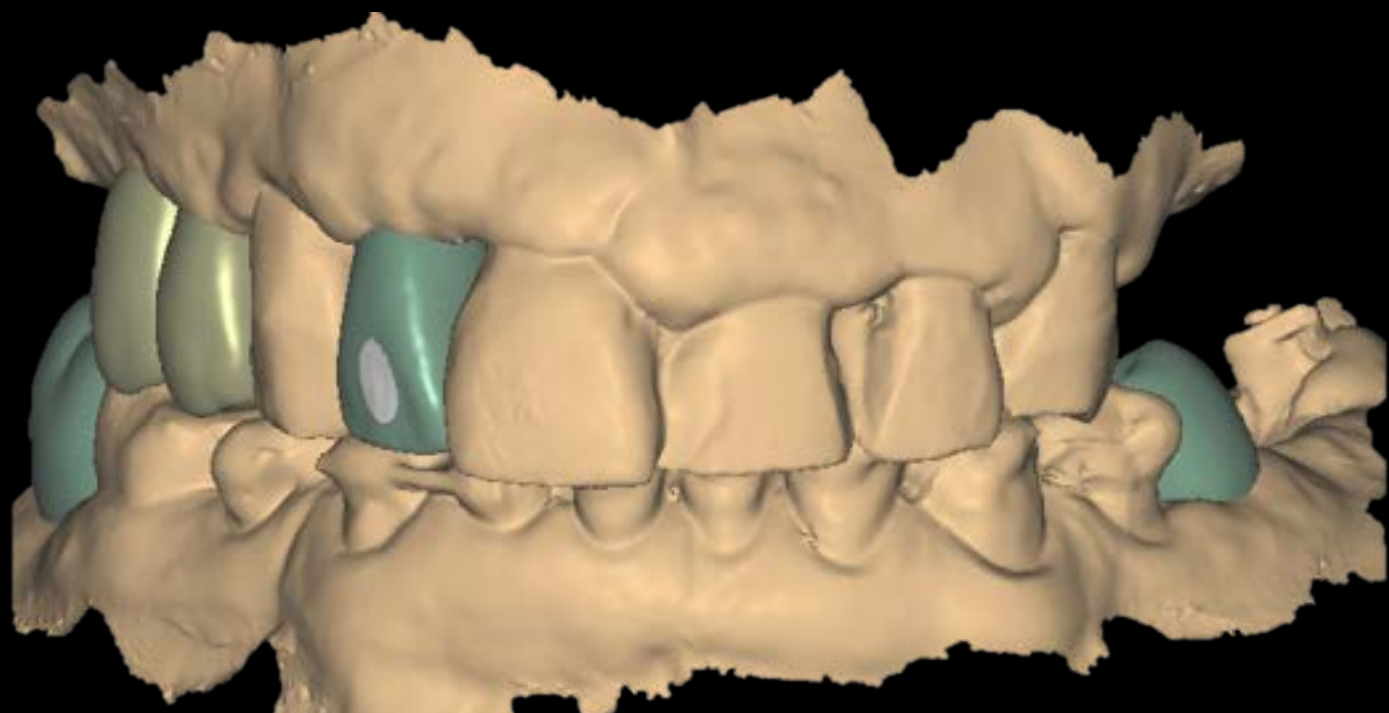
Mandibular DBN (2023-06-05)



Healing : 2 weeks #35, 37 (2023-05-04)



CAD (Temporary)



Provisional restoration #12 (2023-05-04)



Provisional restoration #14,15 (2023-05-04)

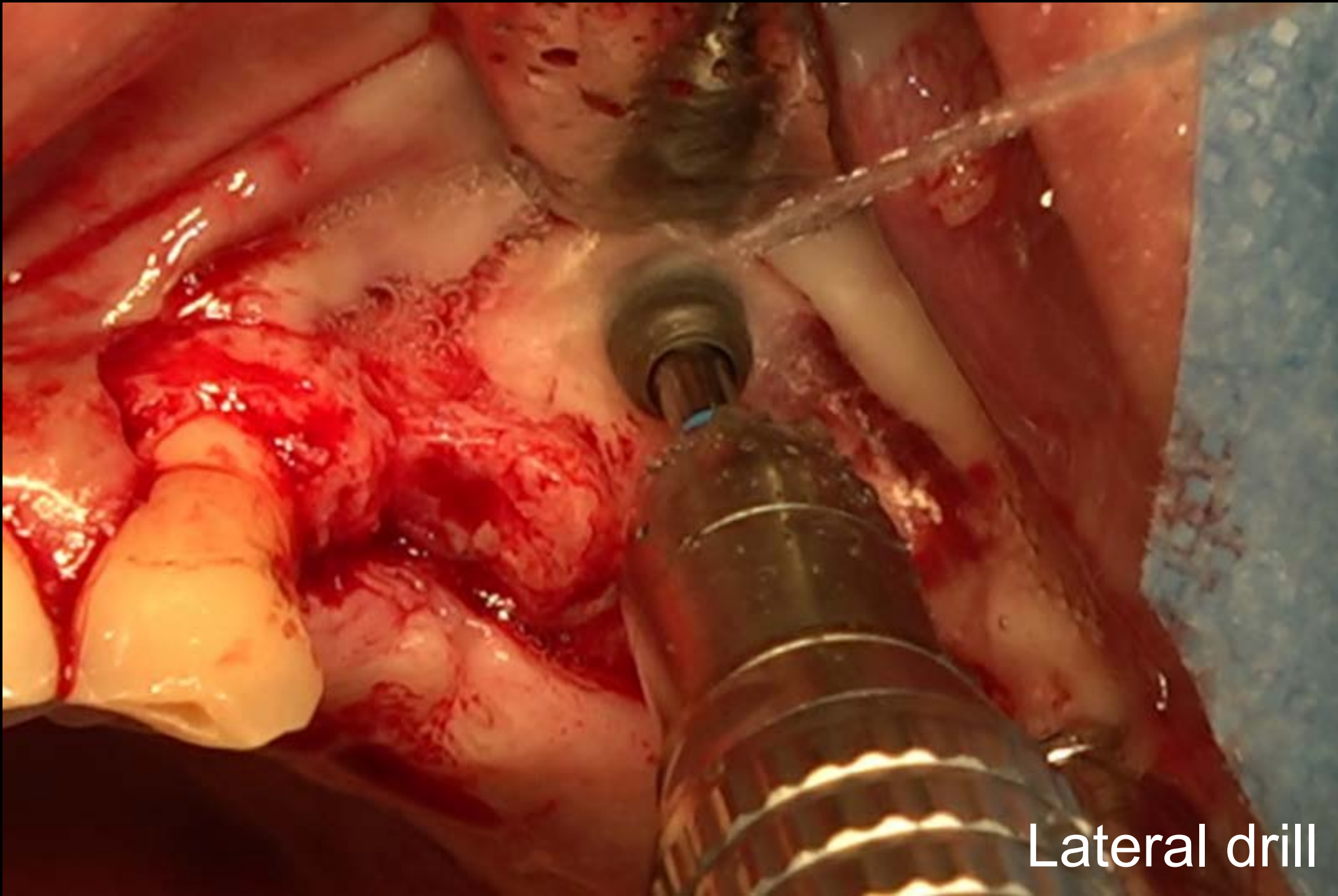


Provisional restoration #47 (2023-05-04)

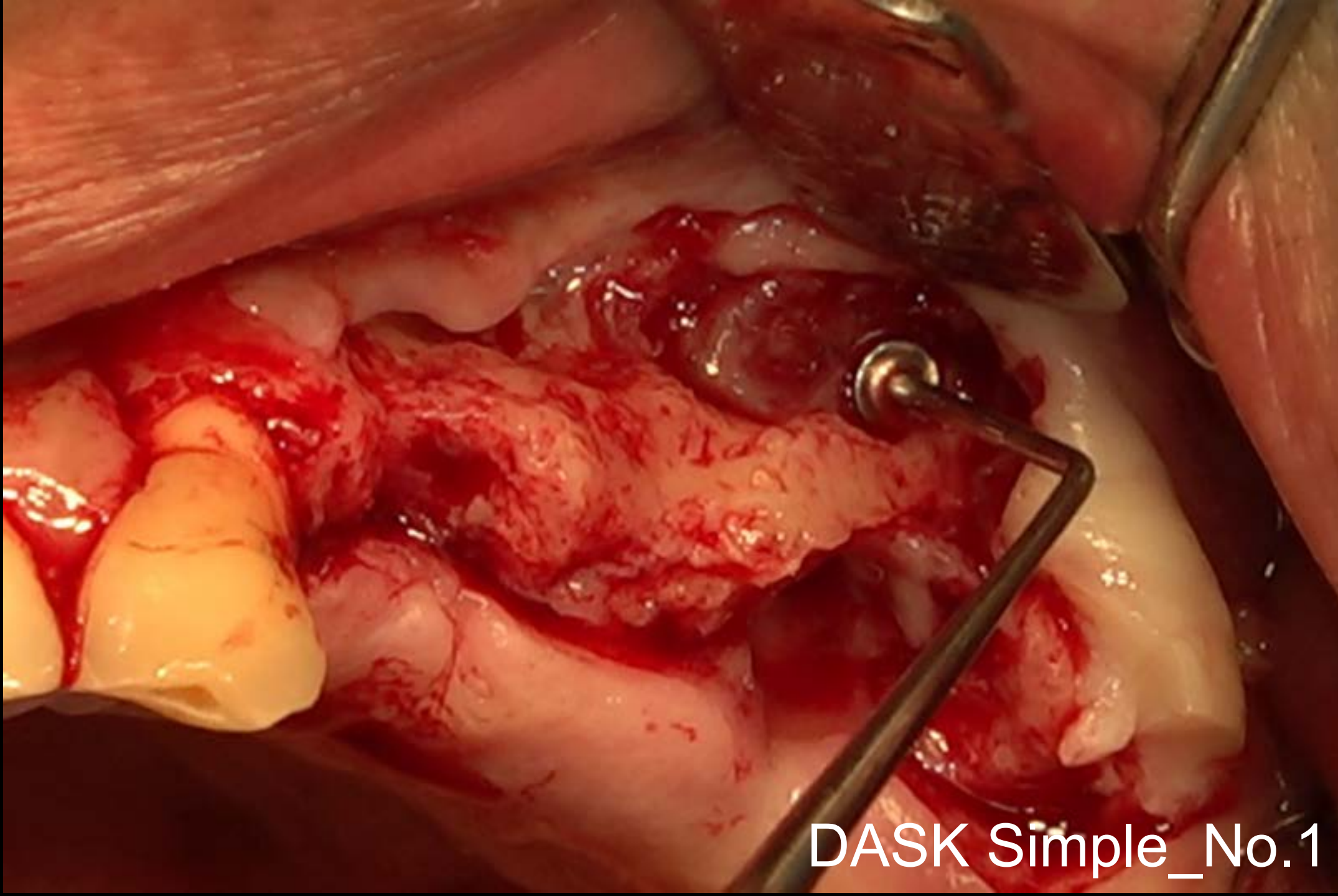




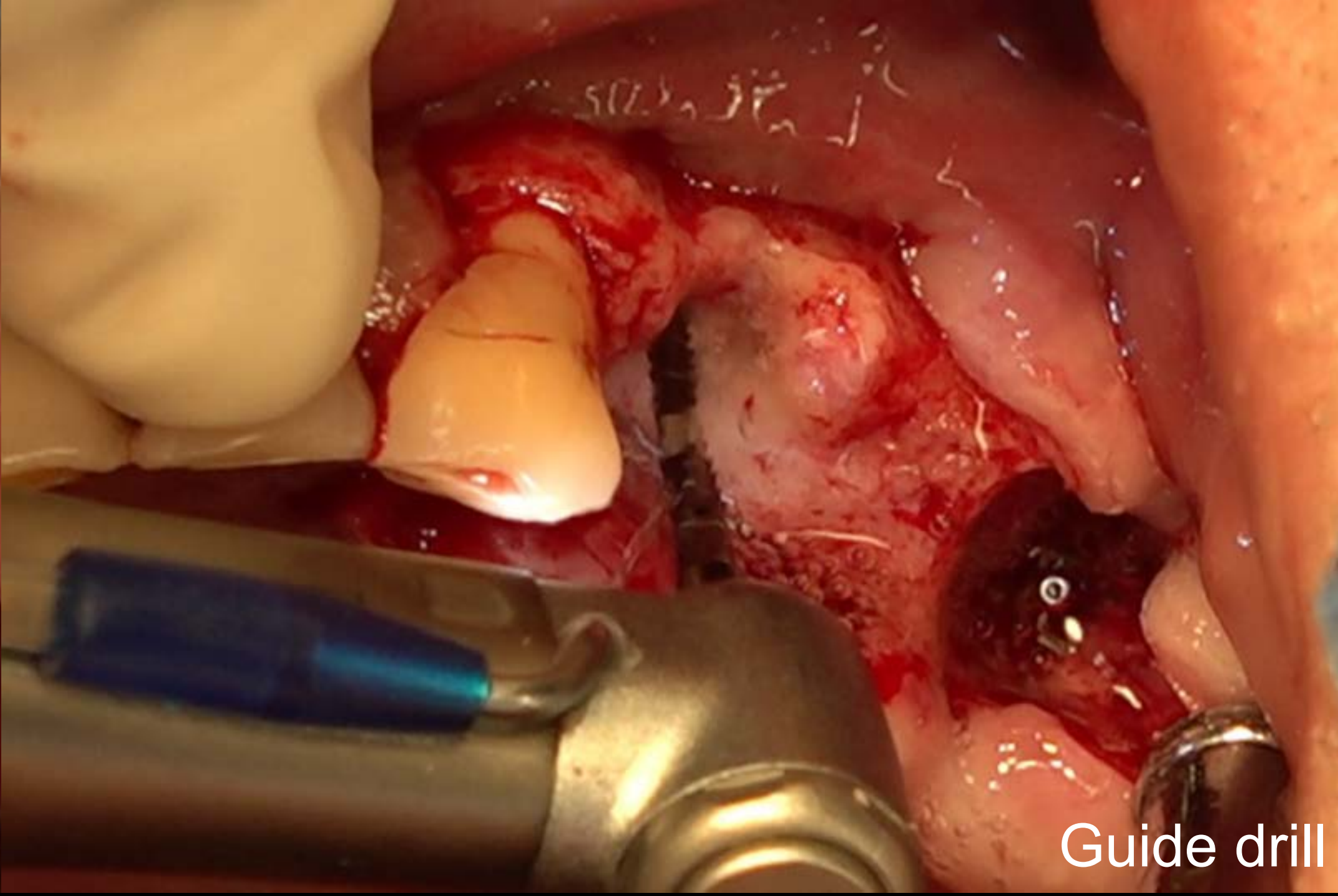
Incision



Lateral drill

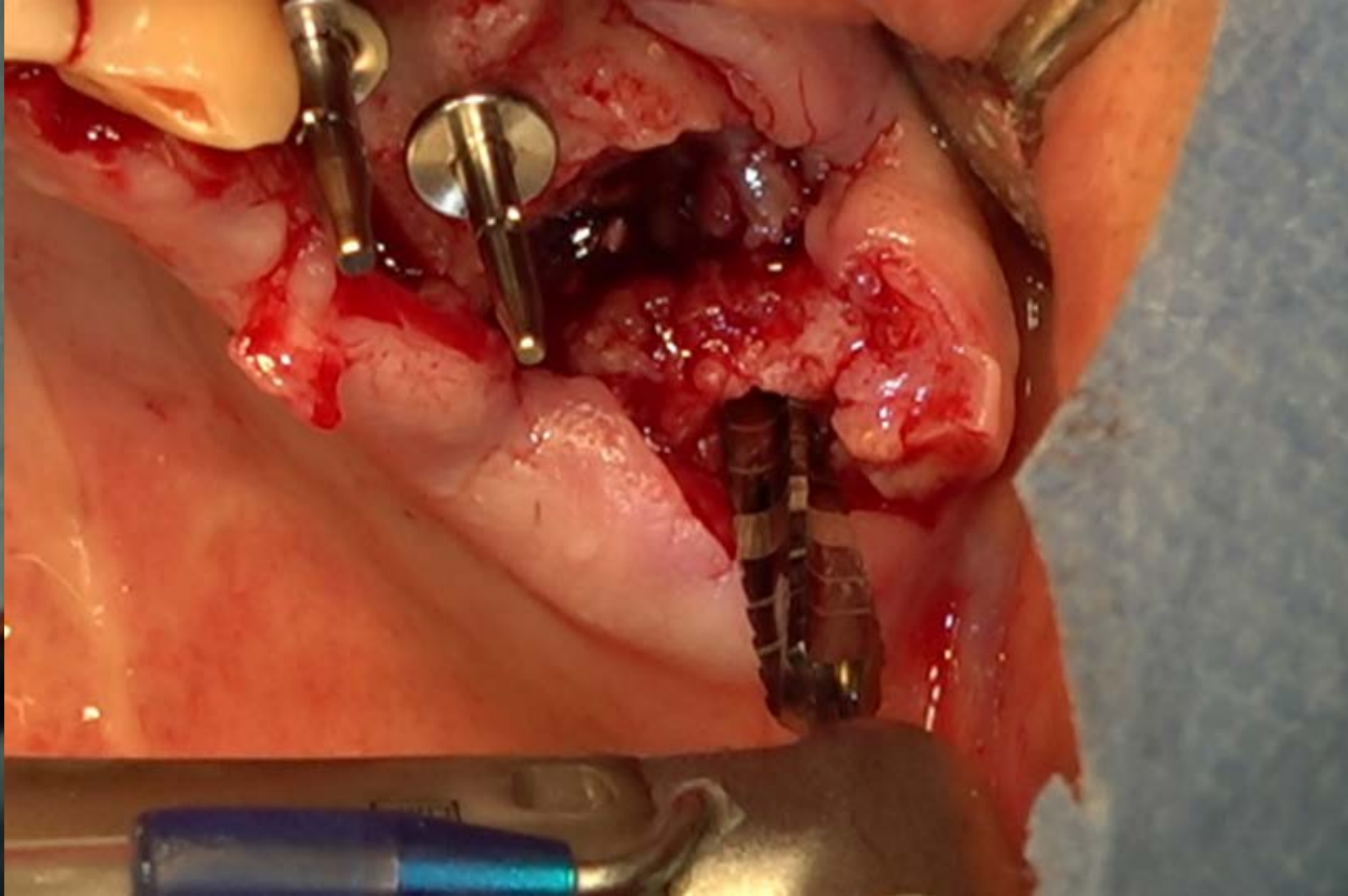
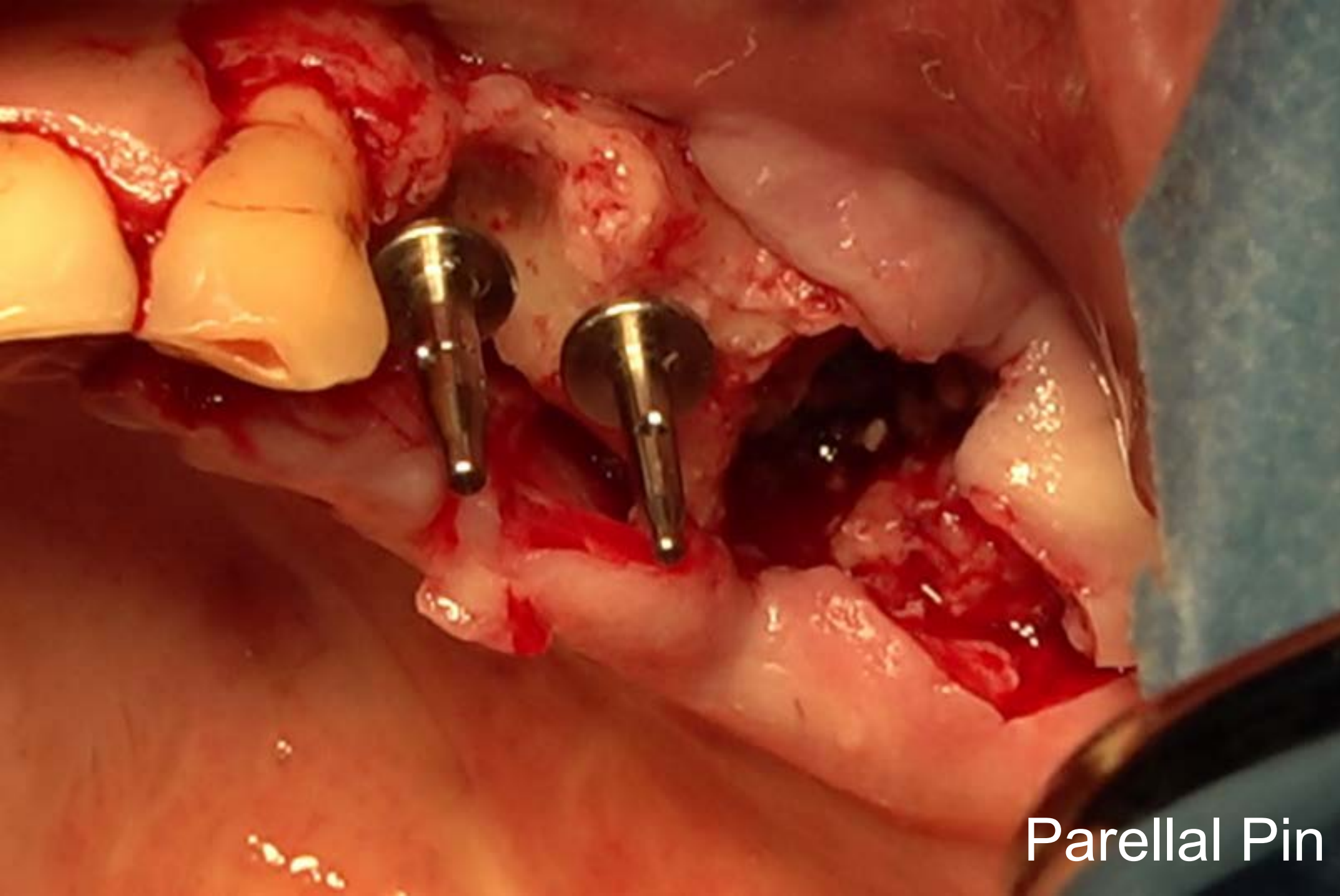
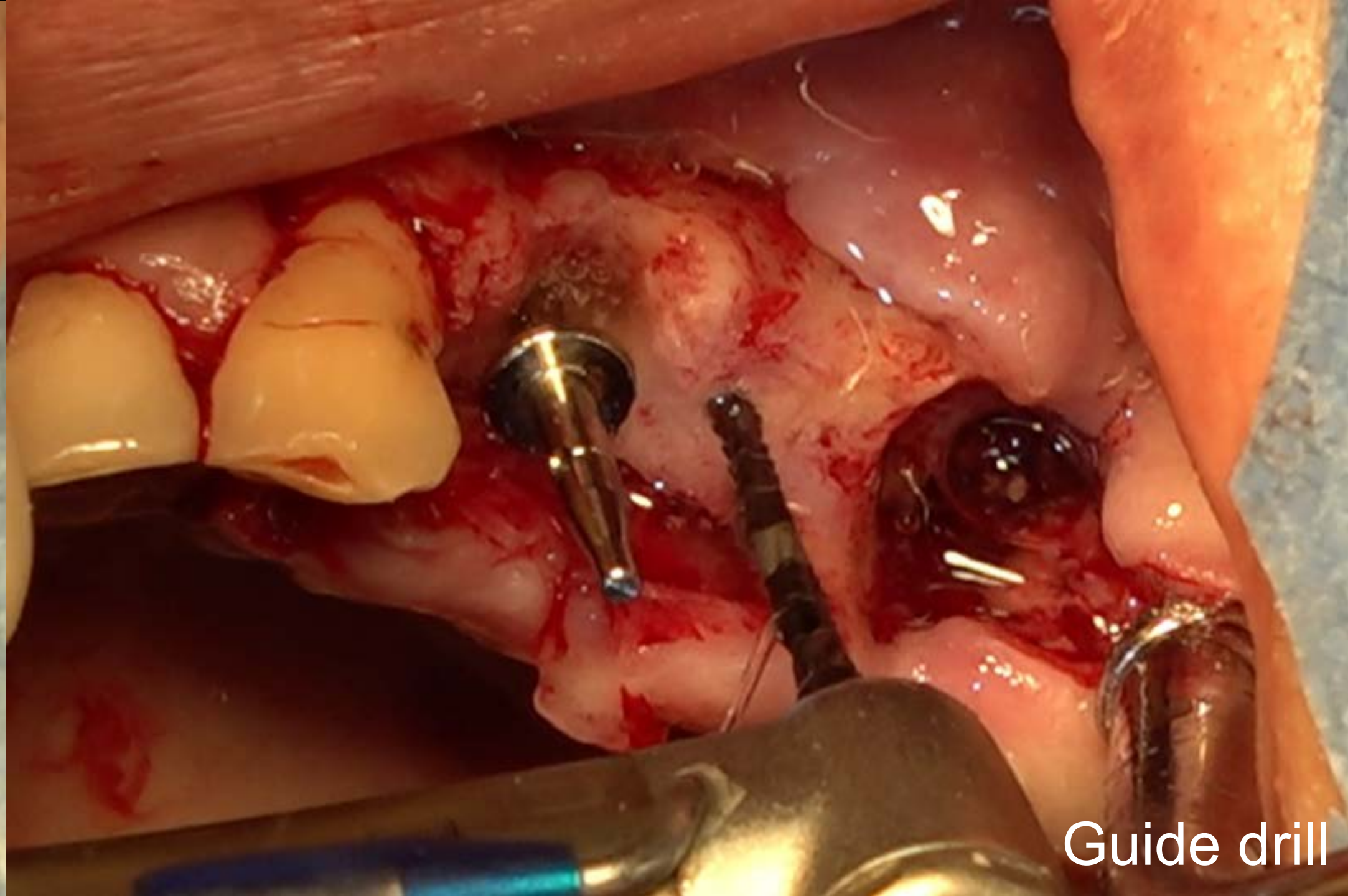
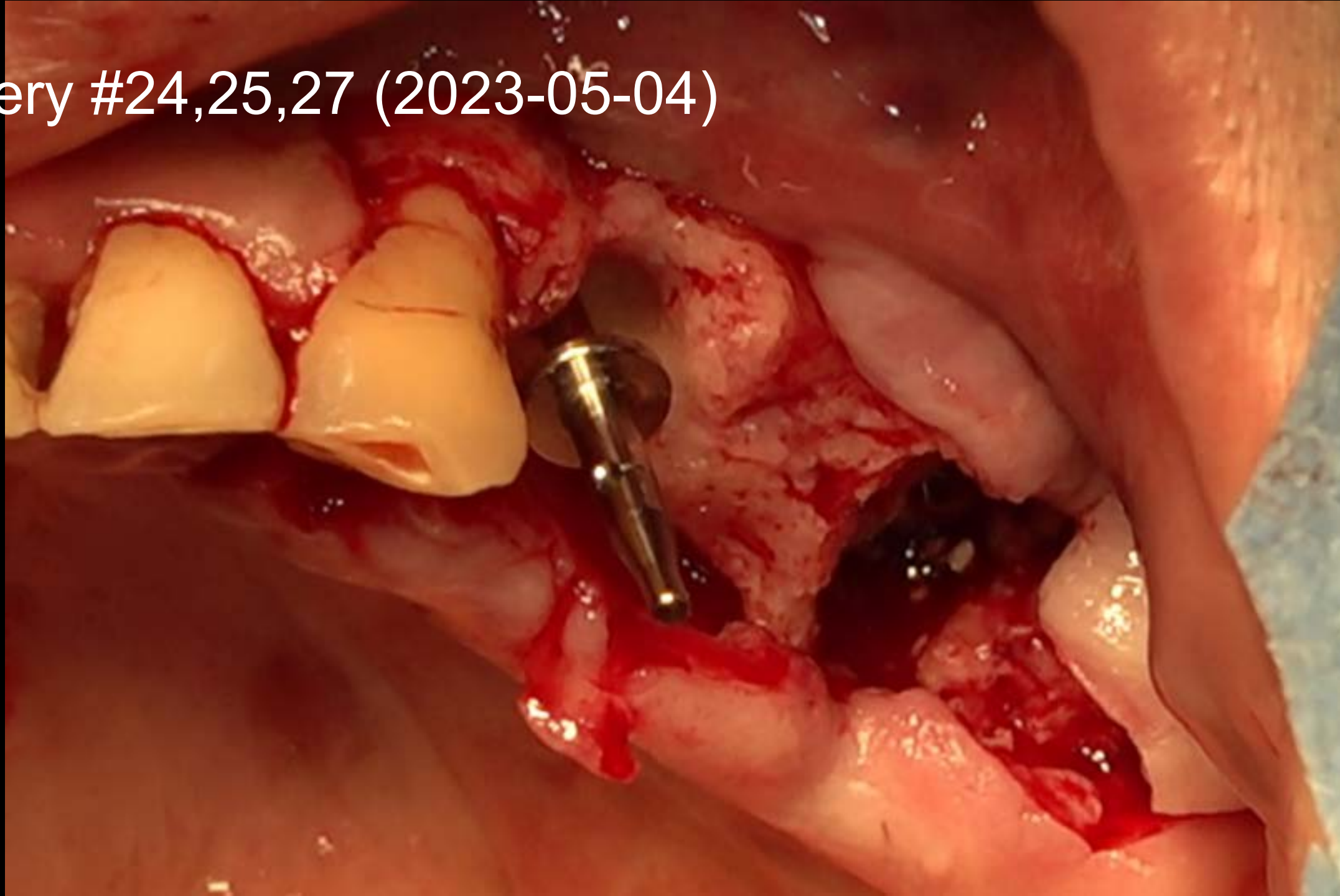


DASK Simple_No.1

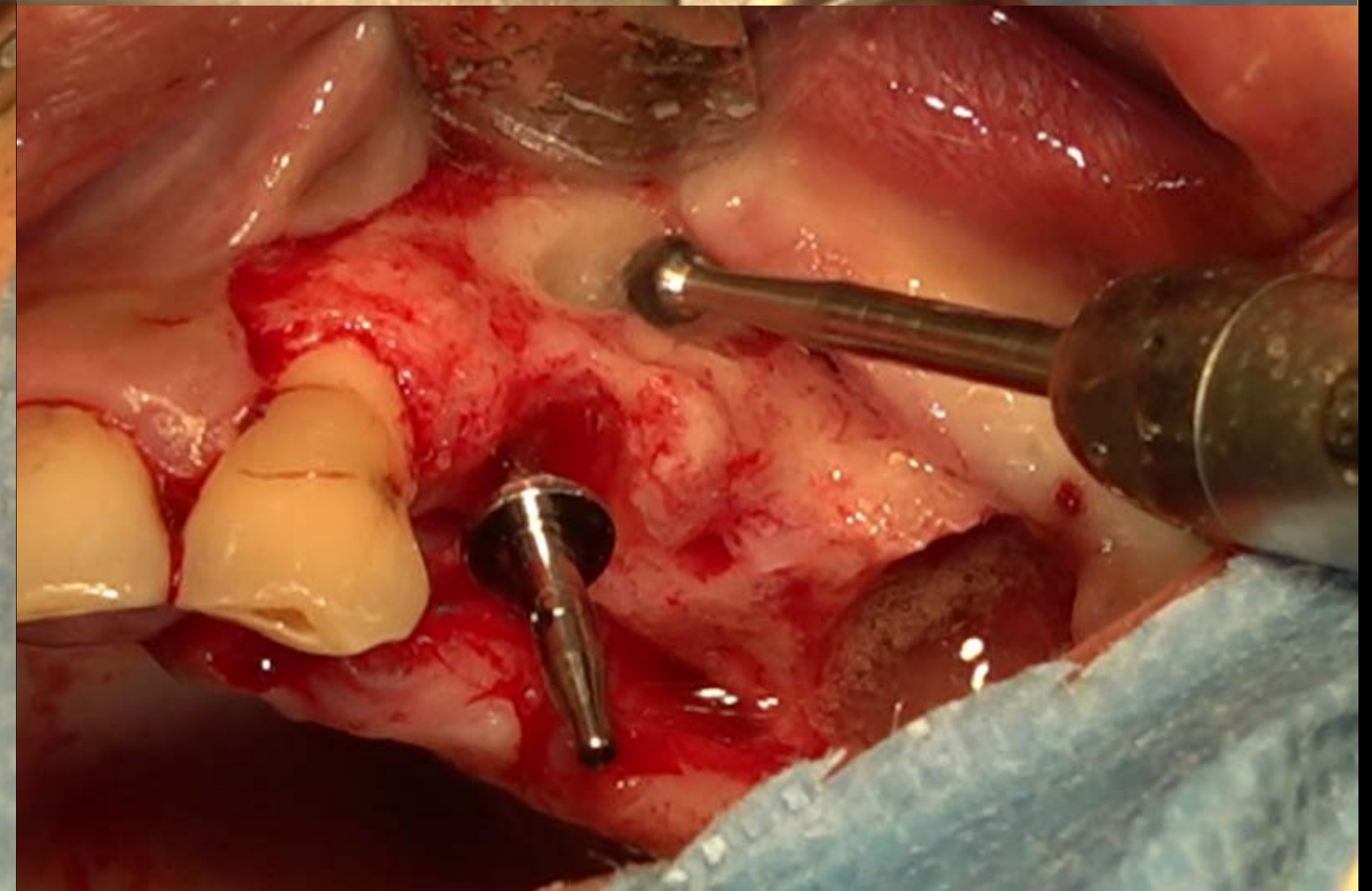
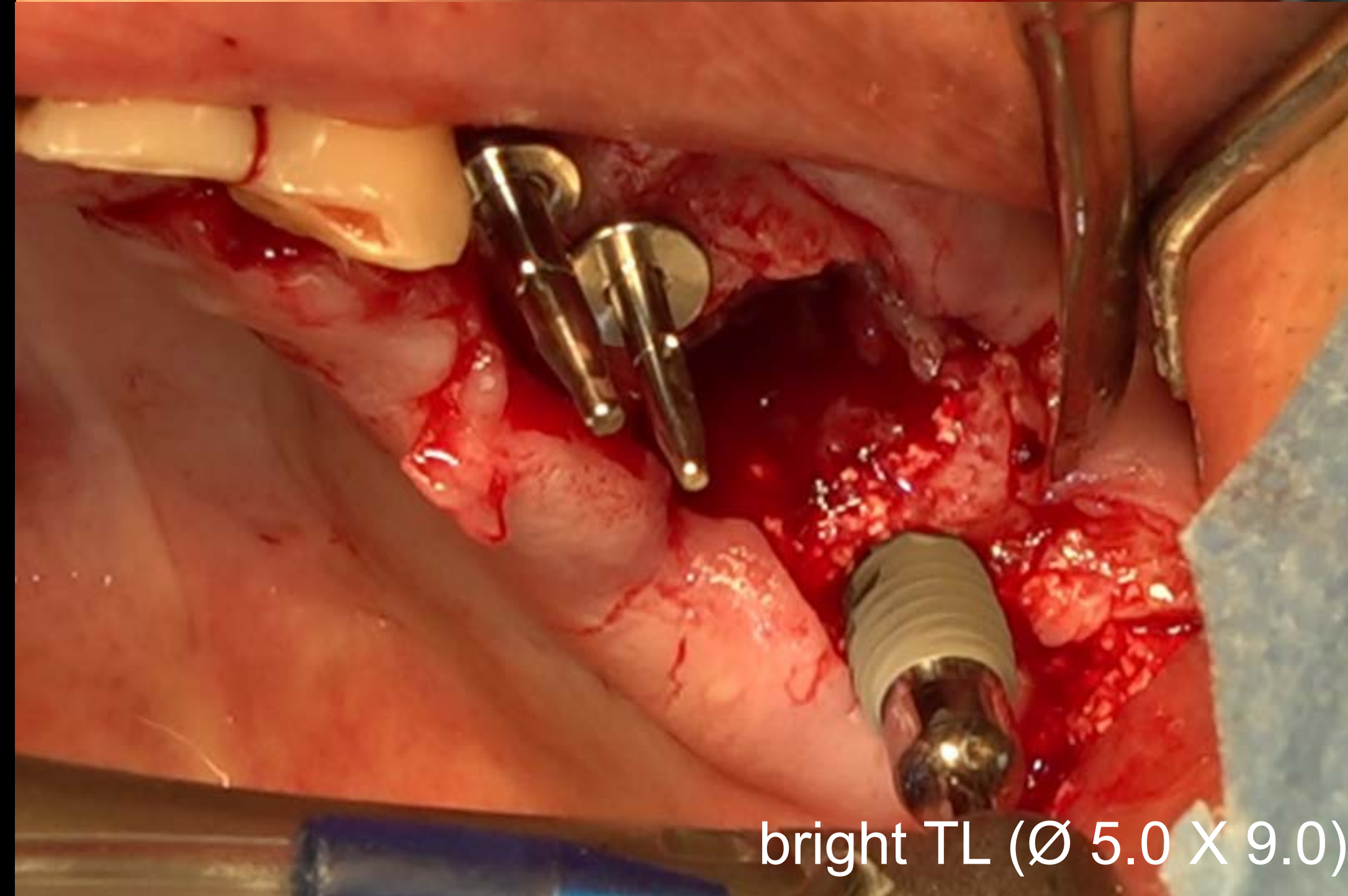
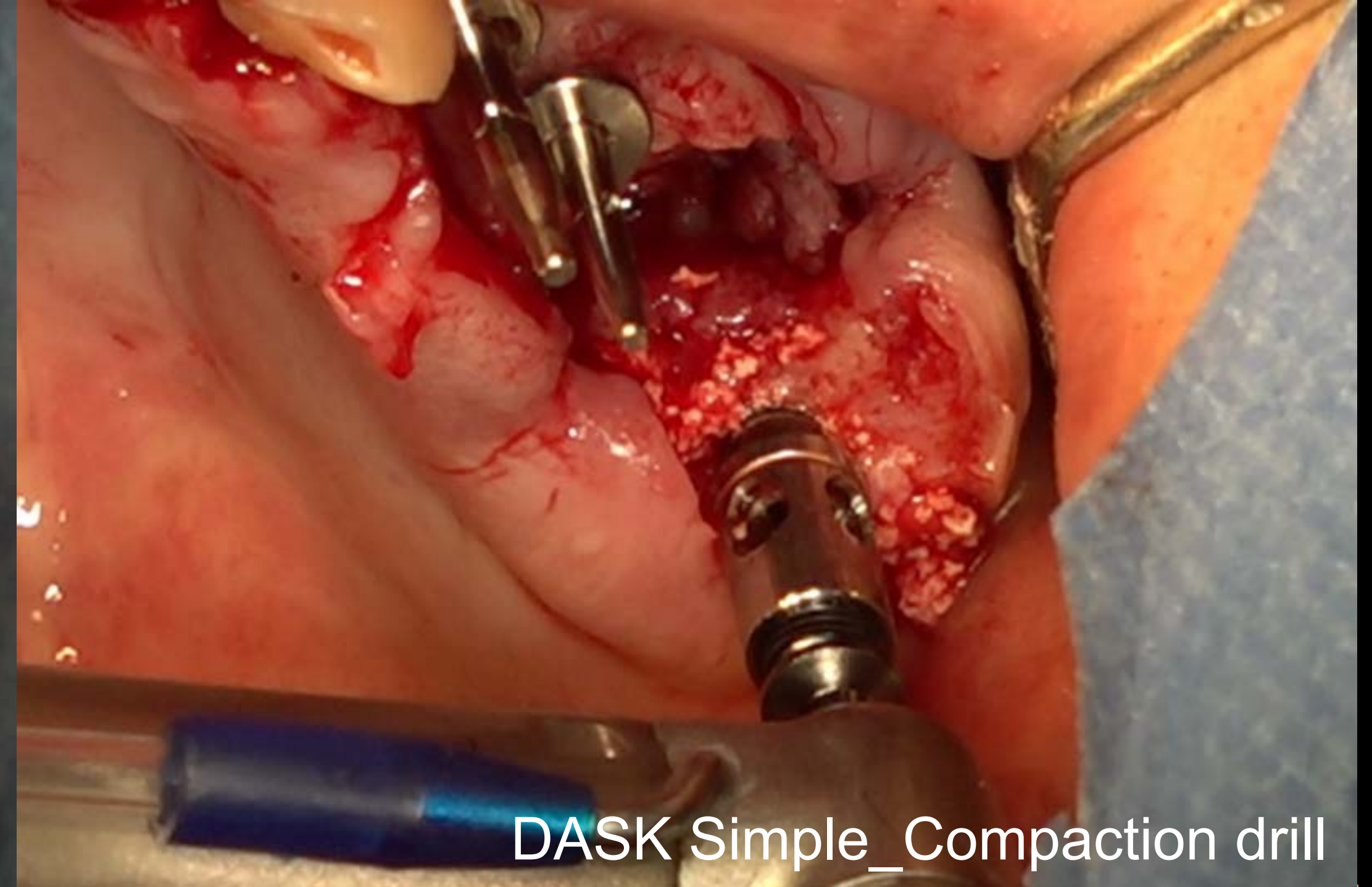
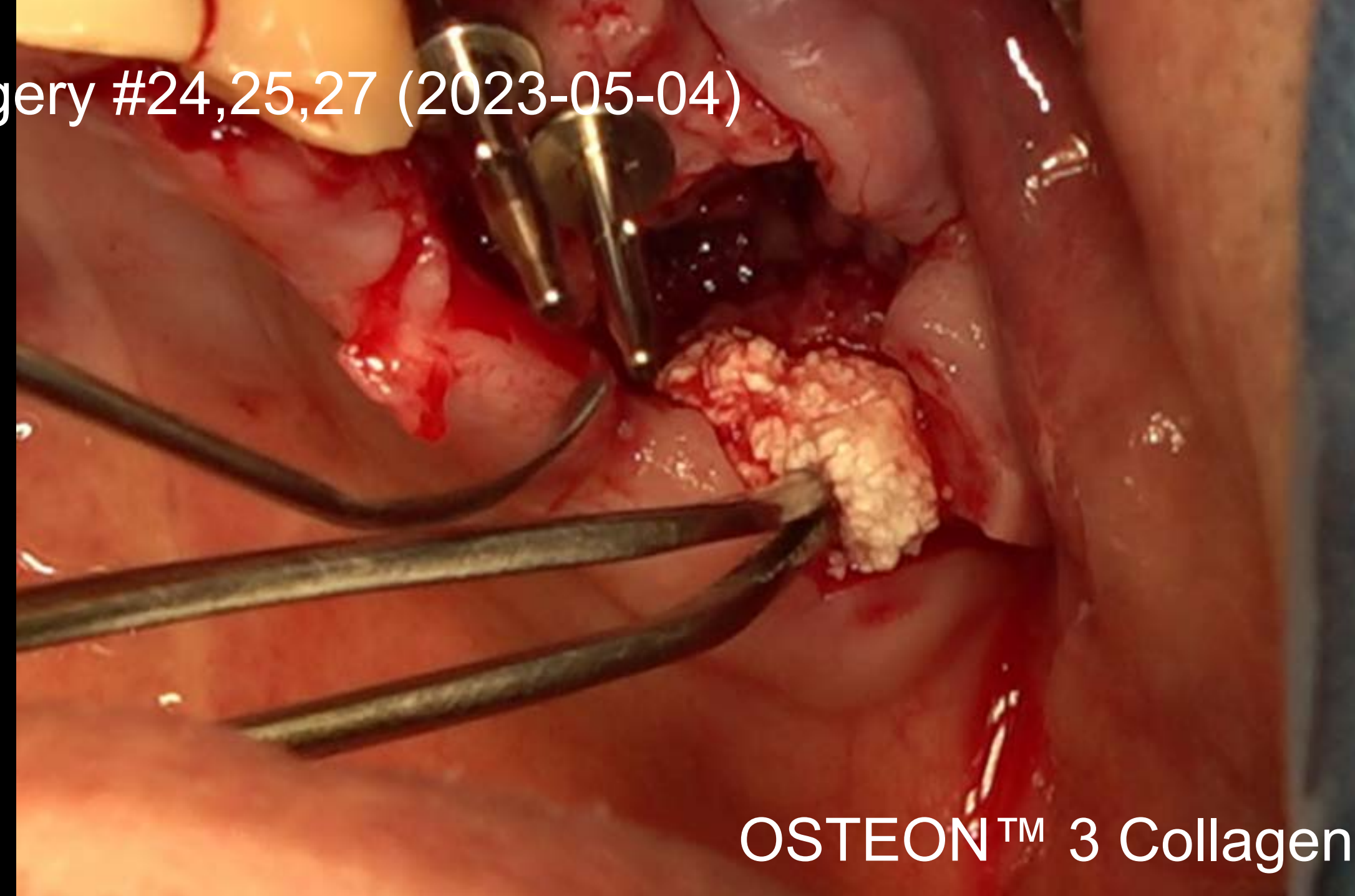


Guide drill

Surgery #24,25,27 (2023-05-04)



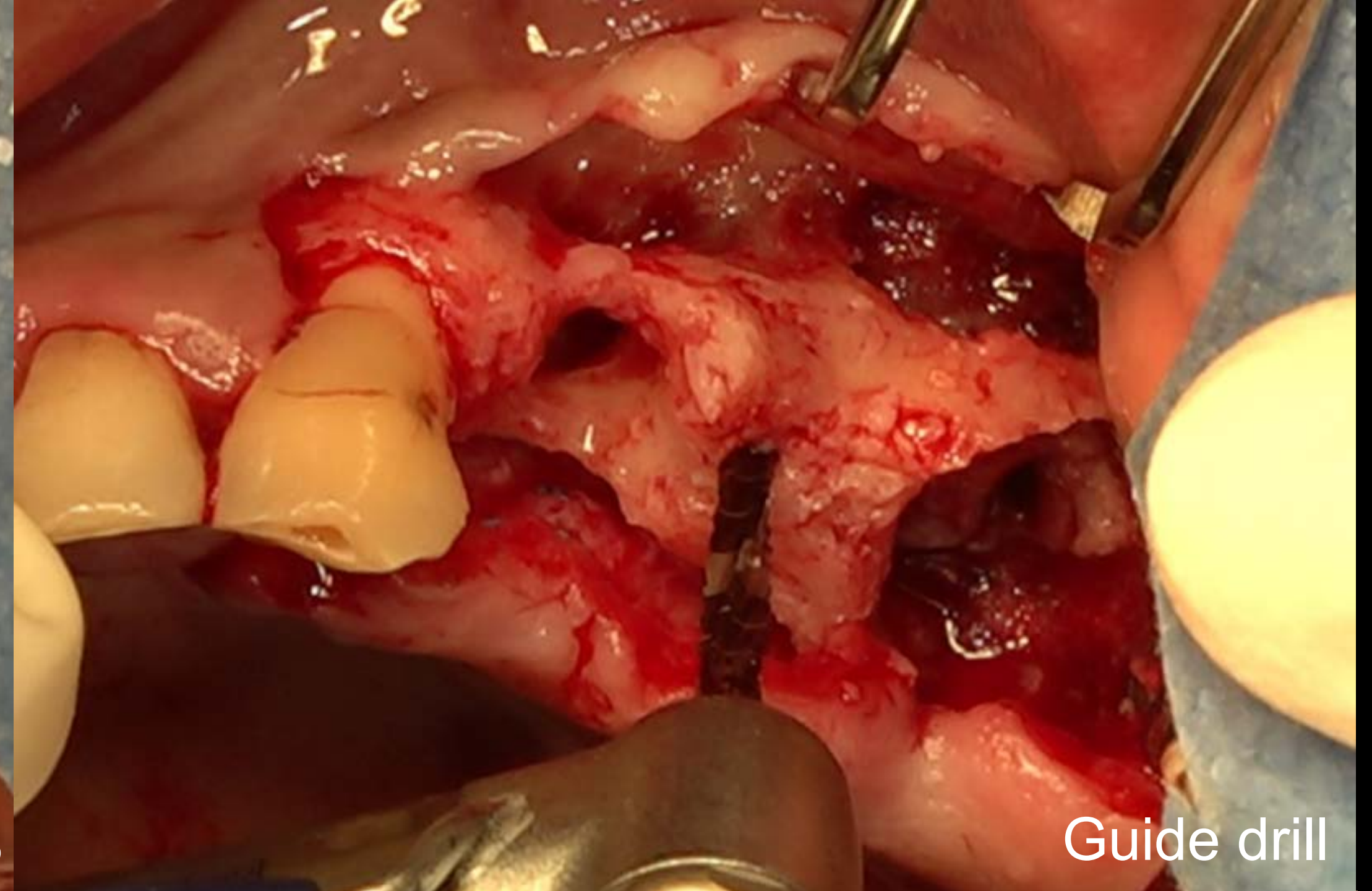
Surgery #24,25,27 (2023-05-04)



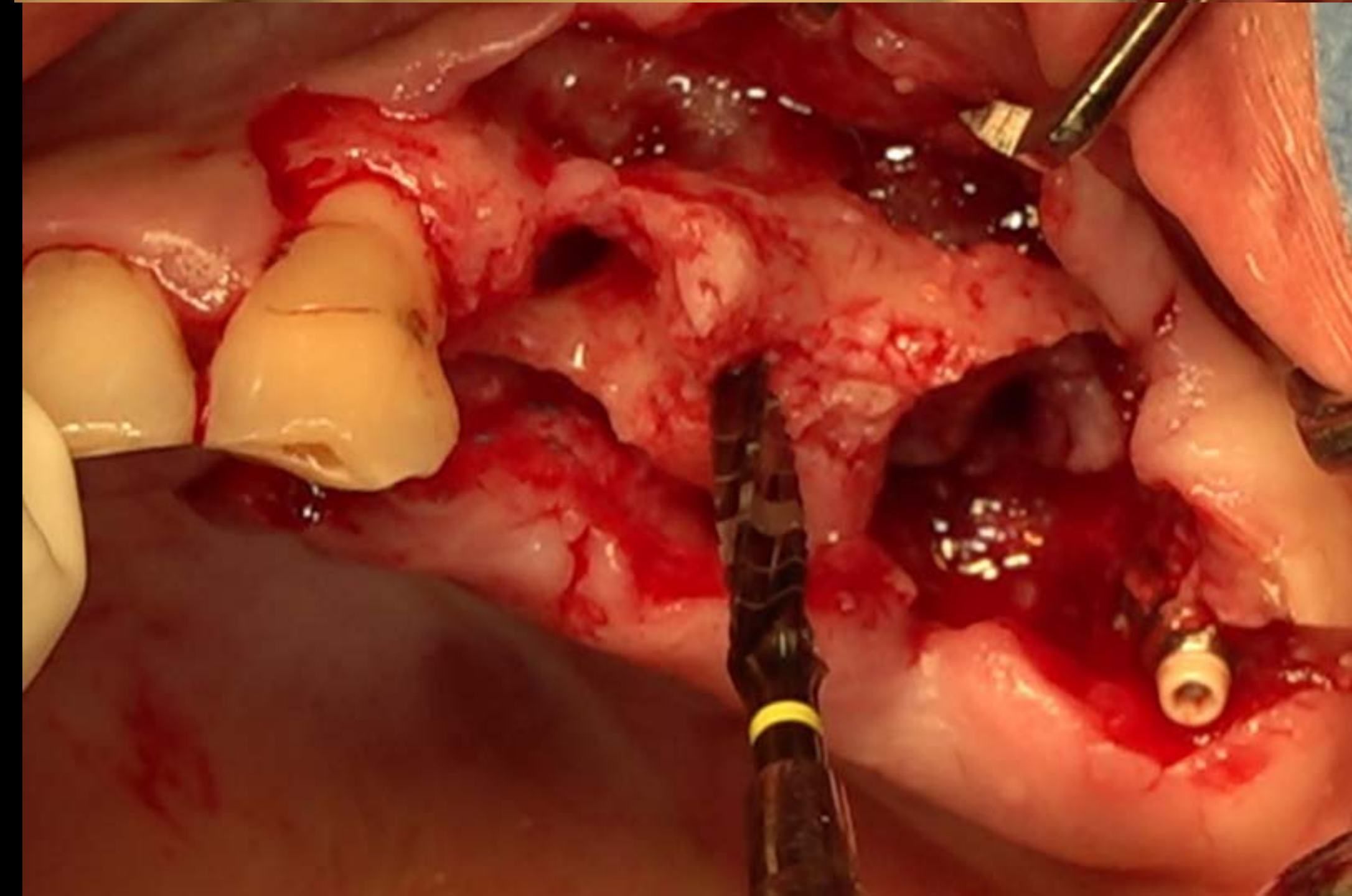
Surgery #24,25,27 (2023-05-04)



DASK Simple_No.3

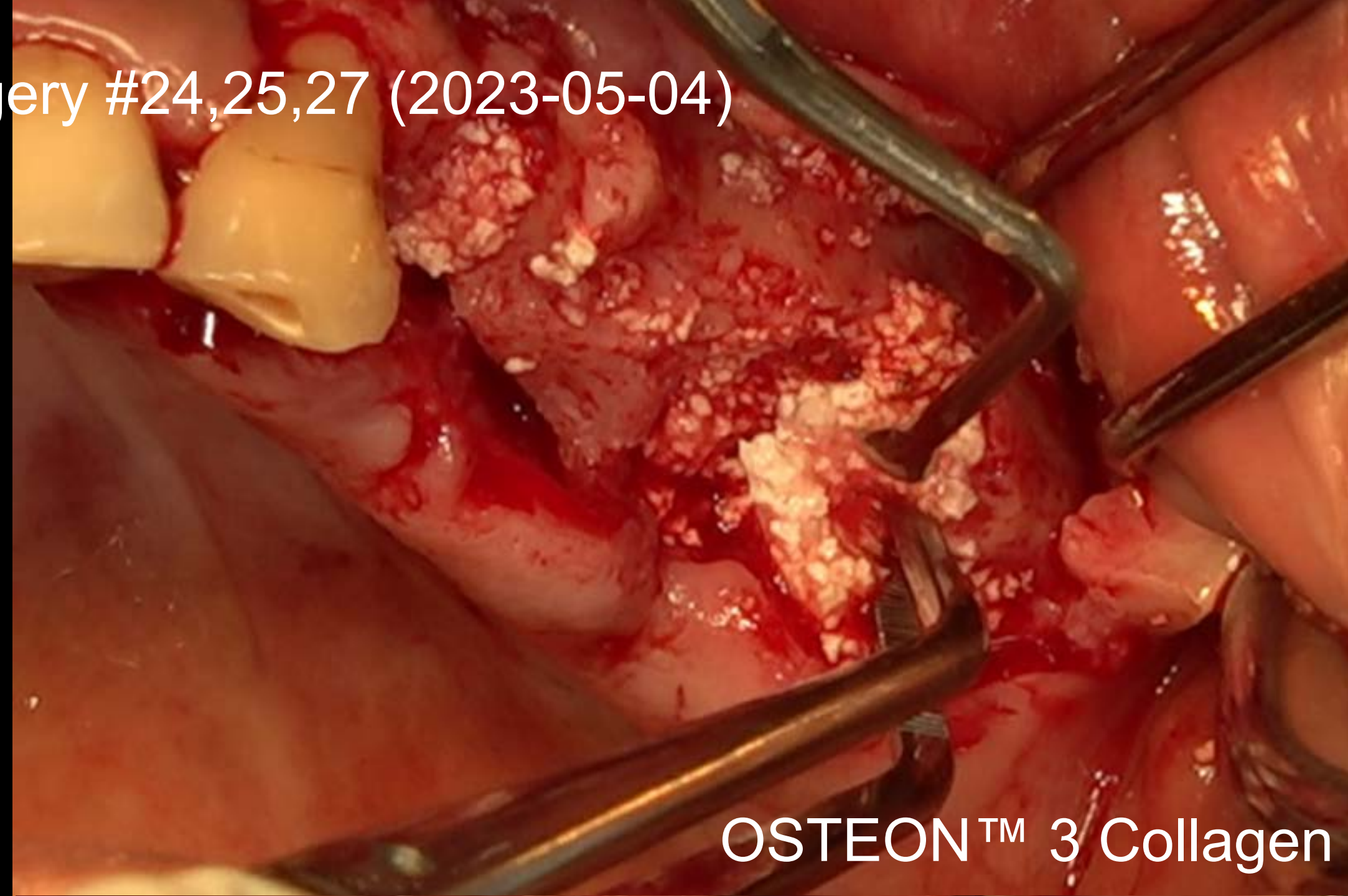


Guide drill

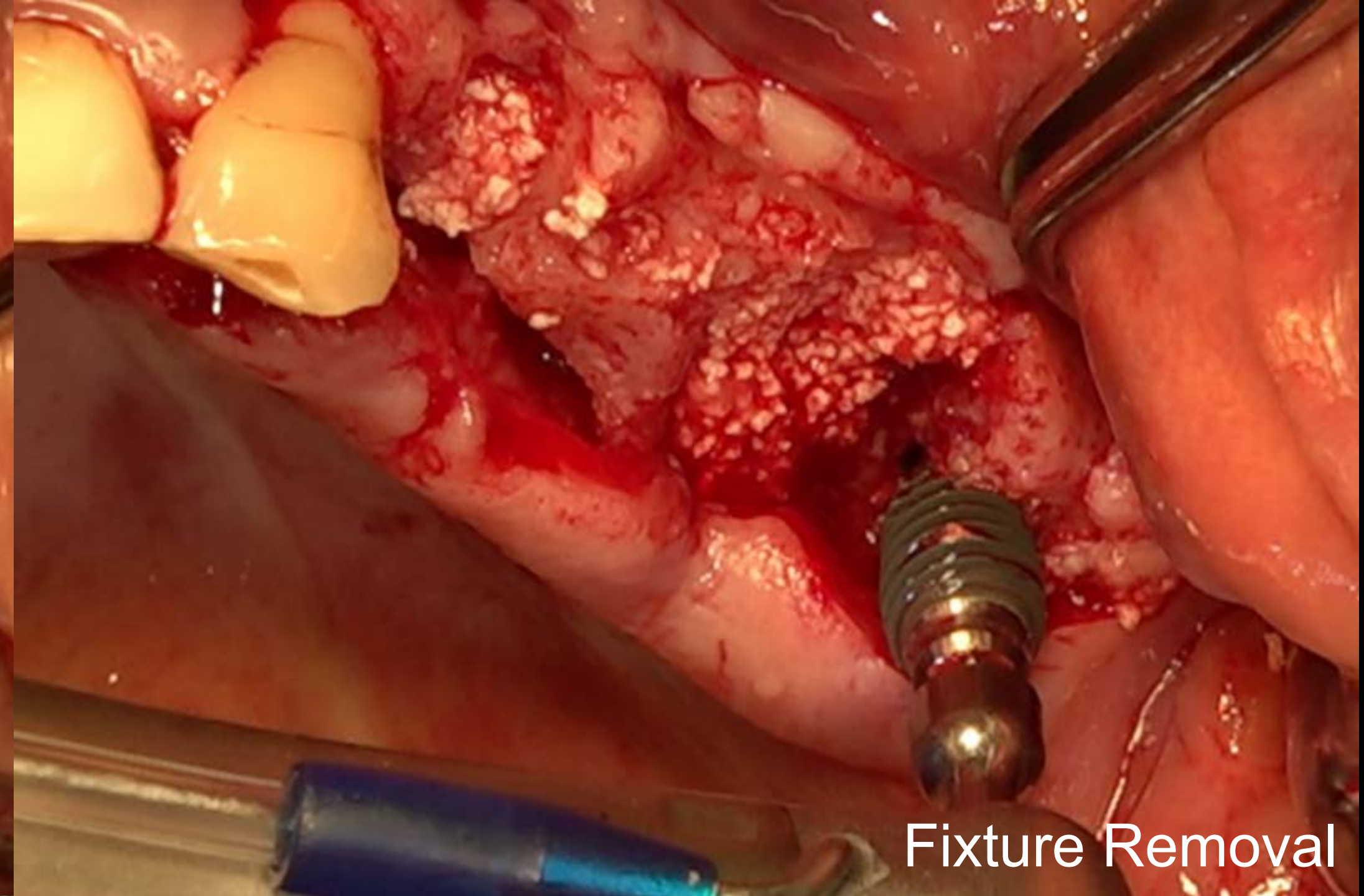


OSTEON™ 3 Collagen

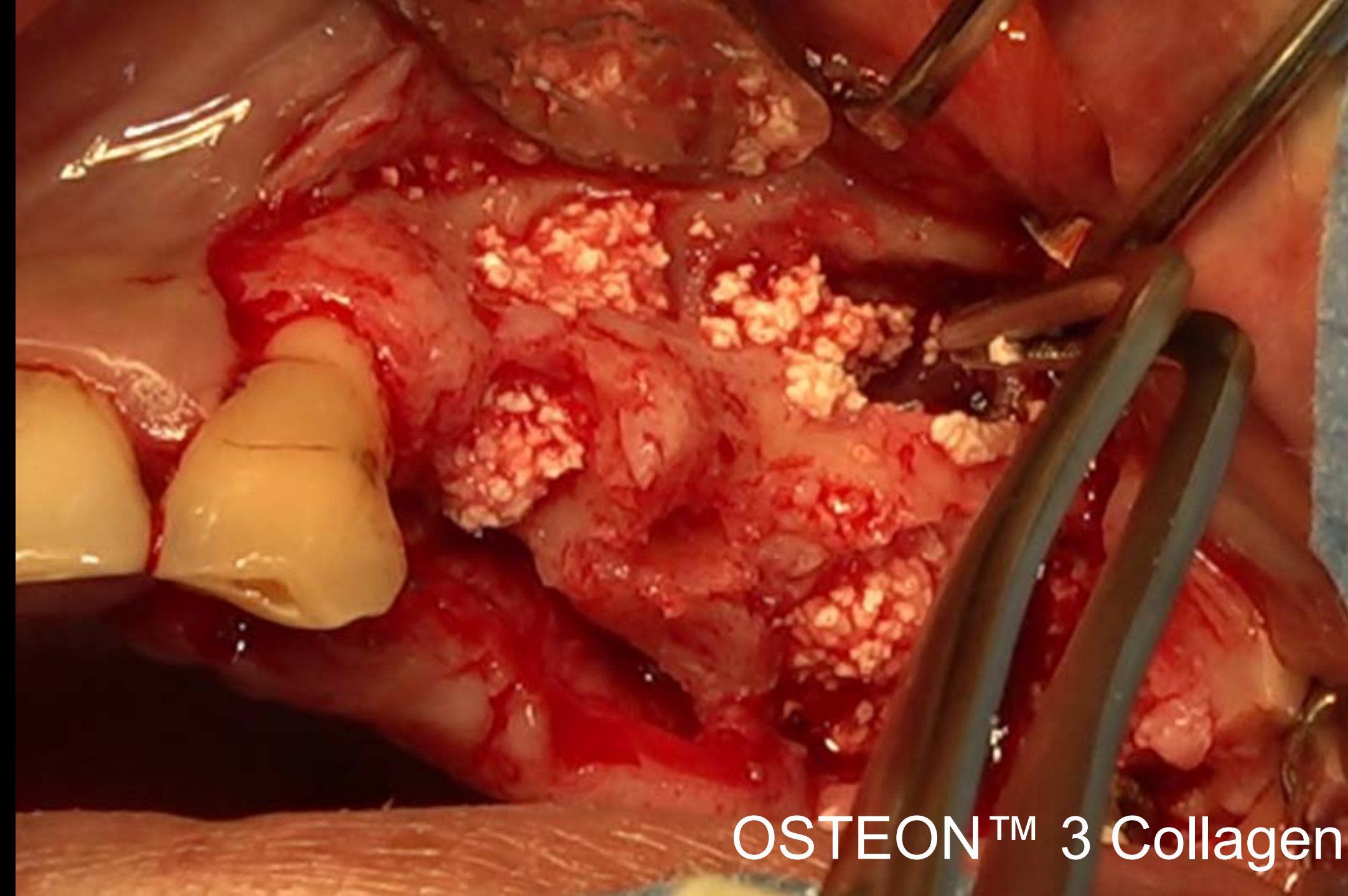
Surgery #24,25,27 (2023-05-04)



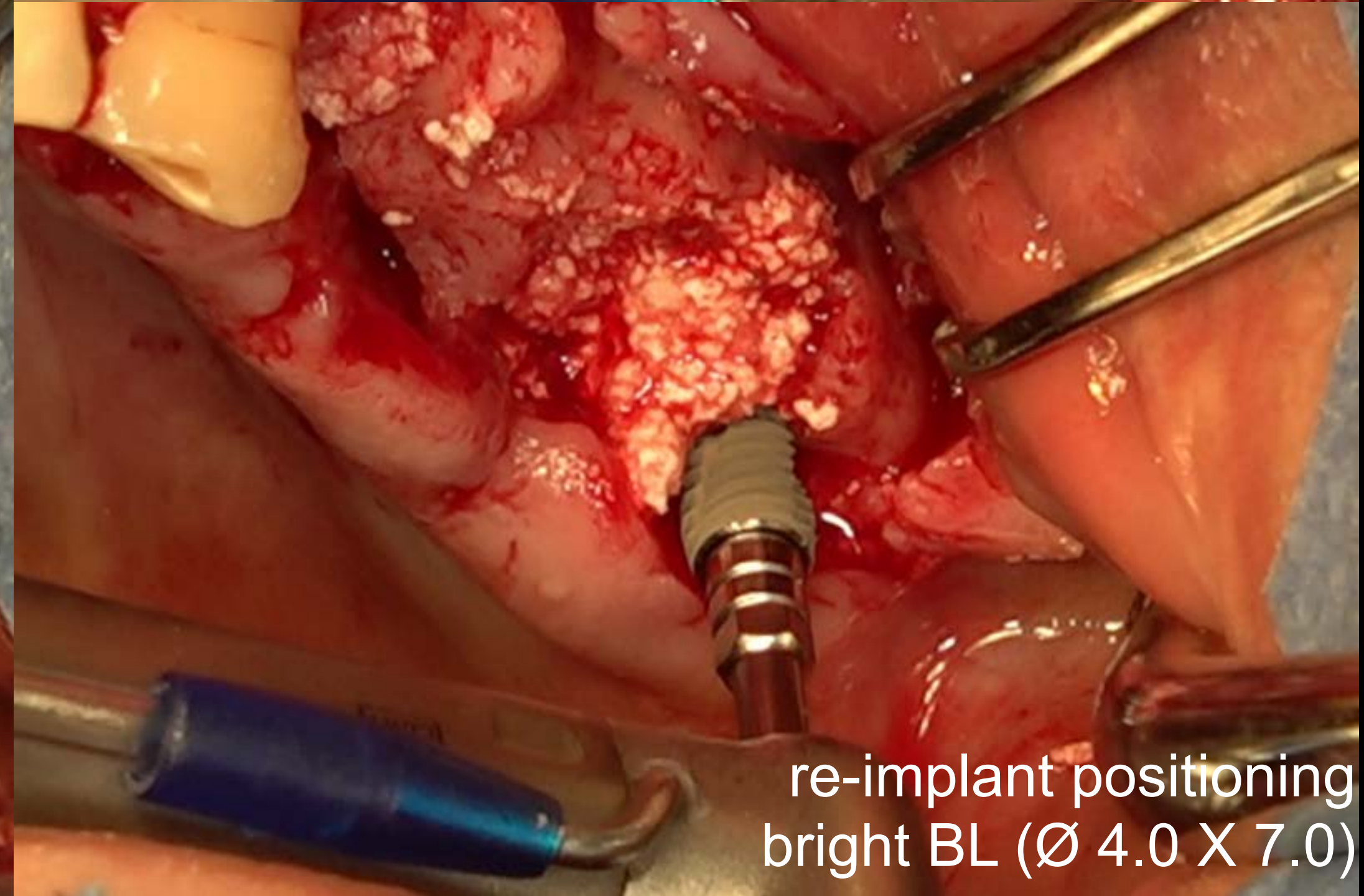
OSTEON™ 3 Collagen



Fixture Removal

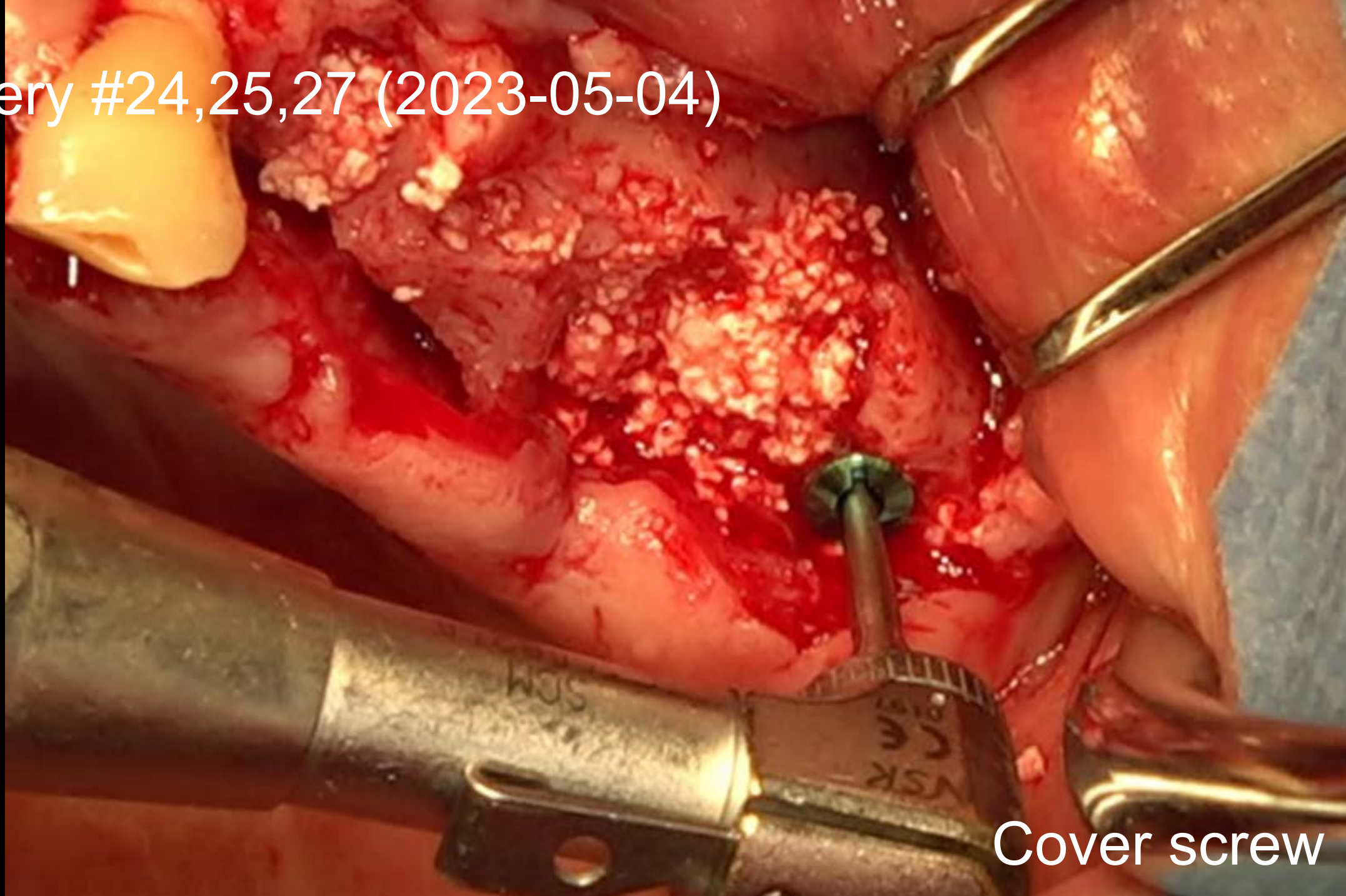


OSTEON™ 3 Collagen

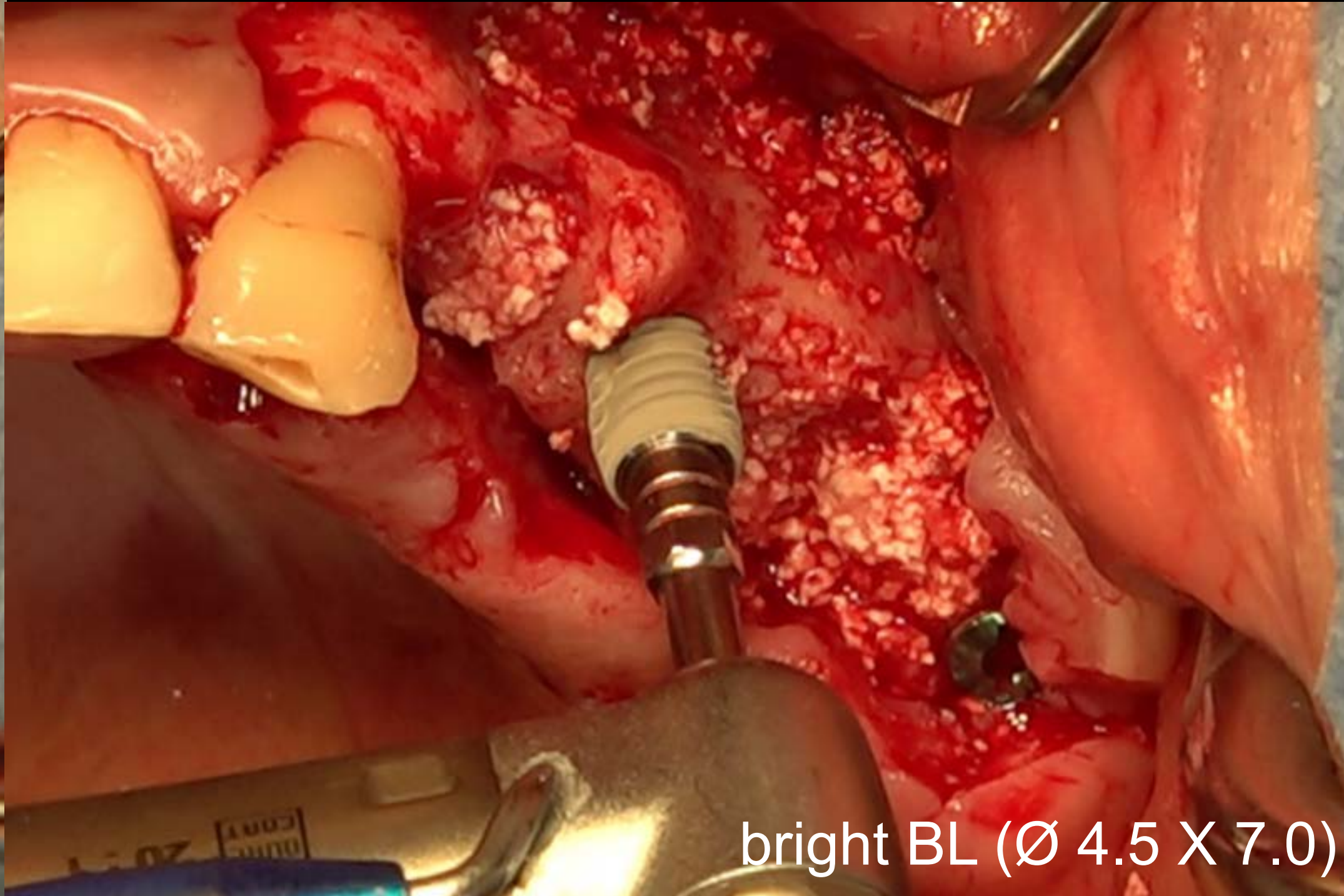


re-implant positioning
bright BL (Ø 4.0 X 7.0)

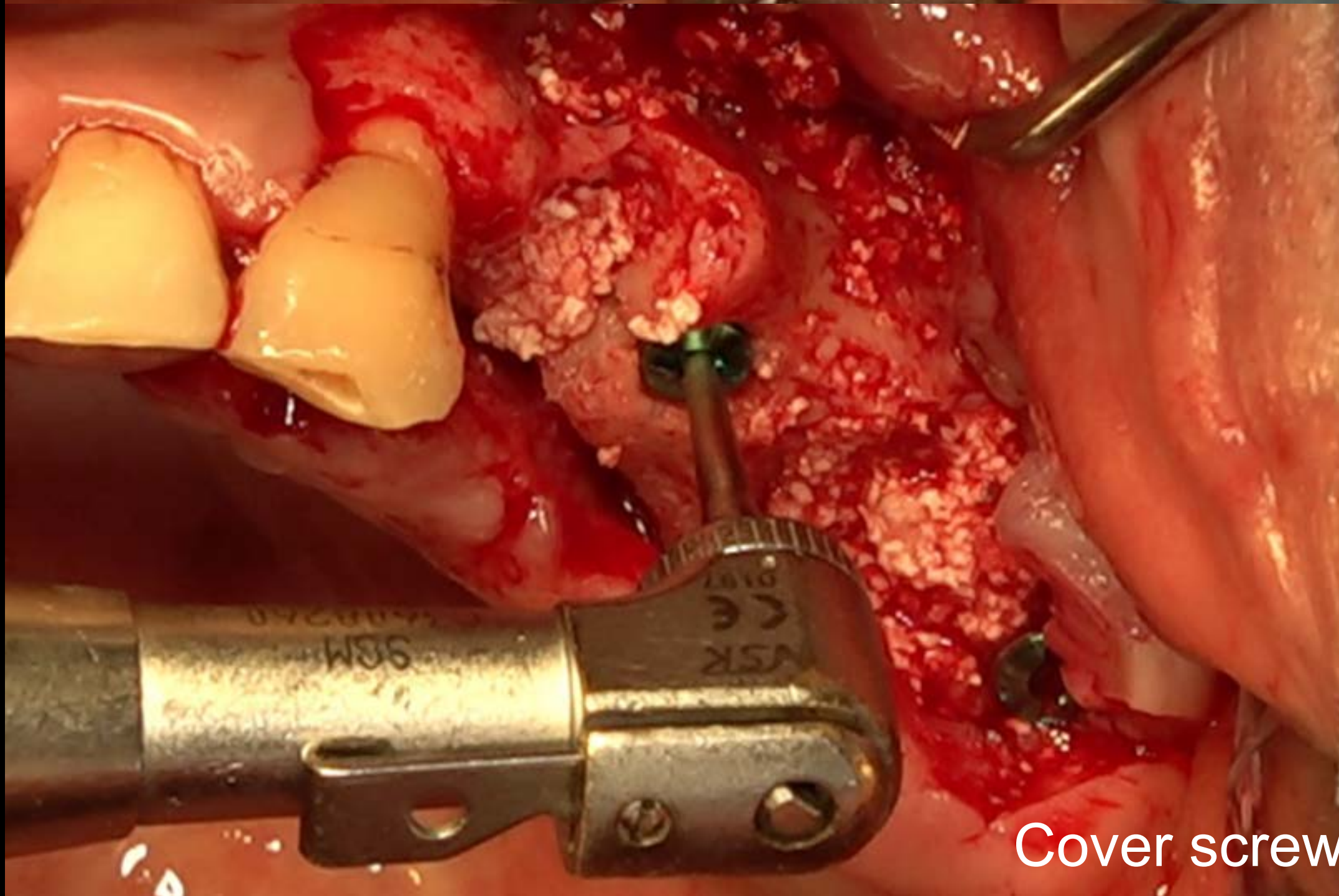
Surgery #24,25,27 (2023-05-04)



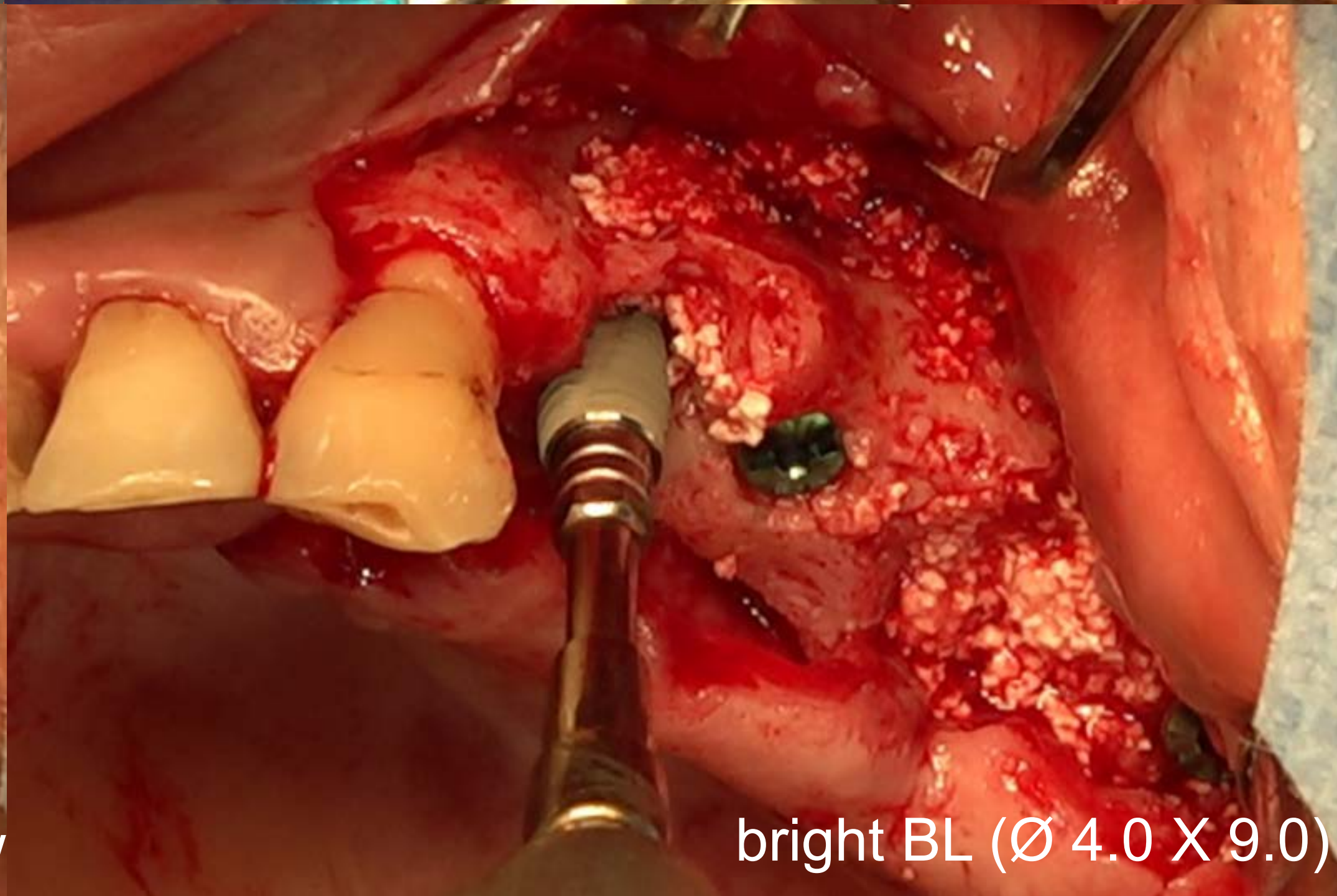
Cover screw



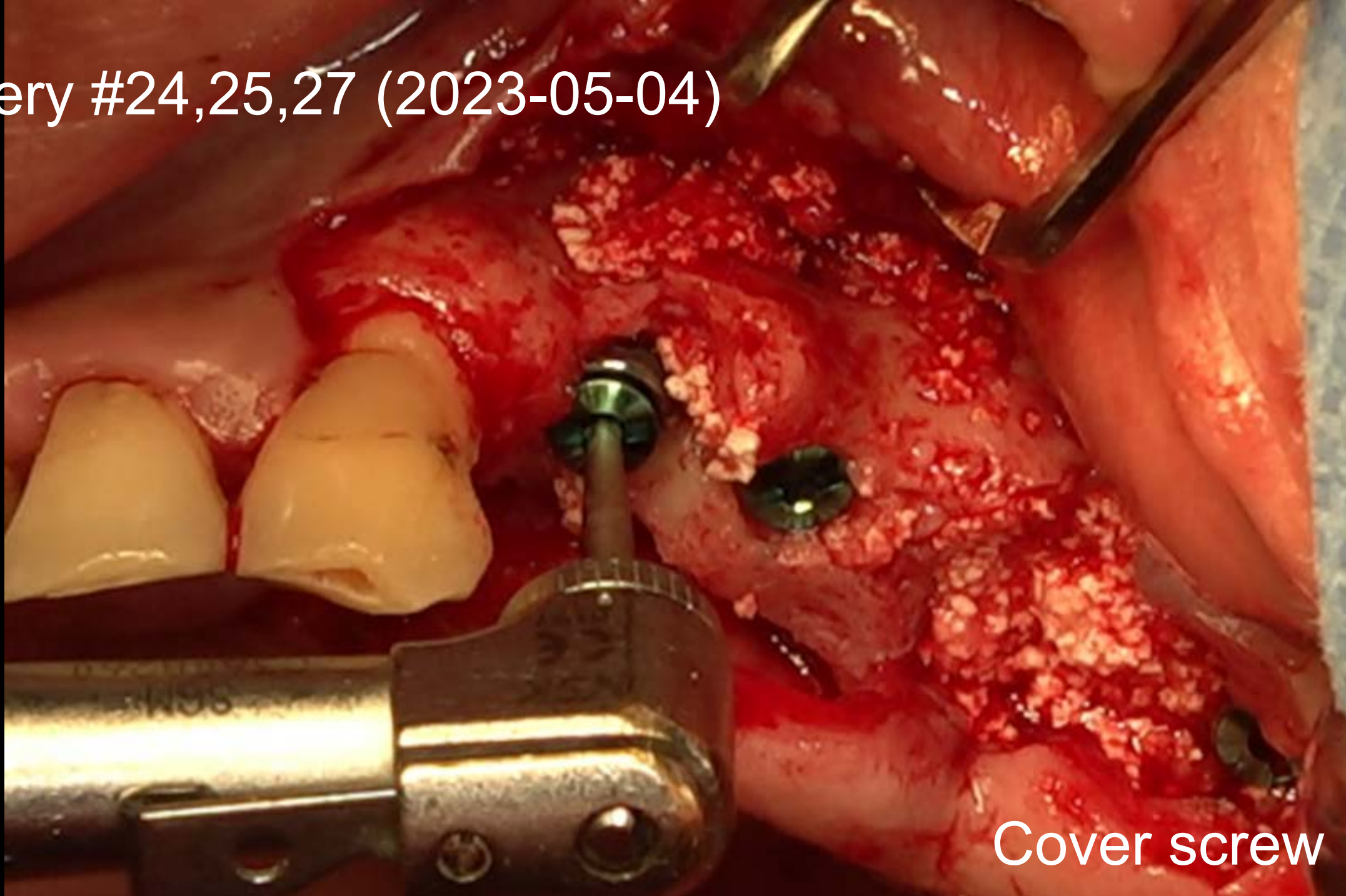
bright BL (Ø 4.5 X 7.0)



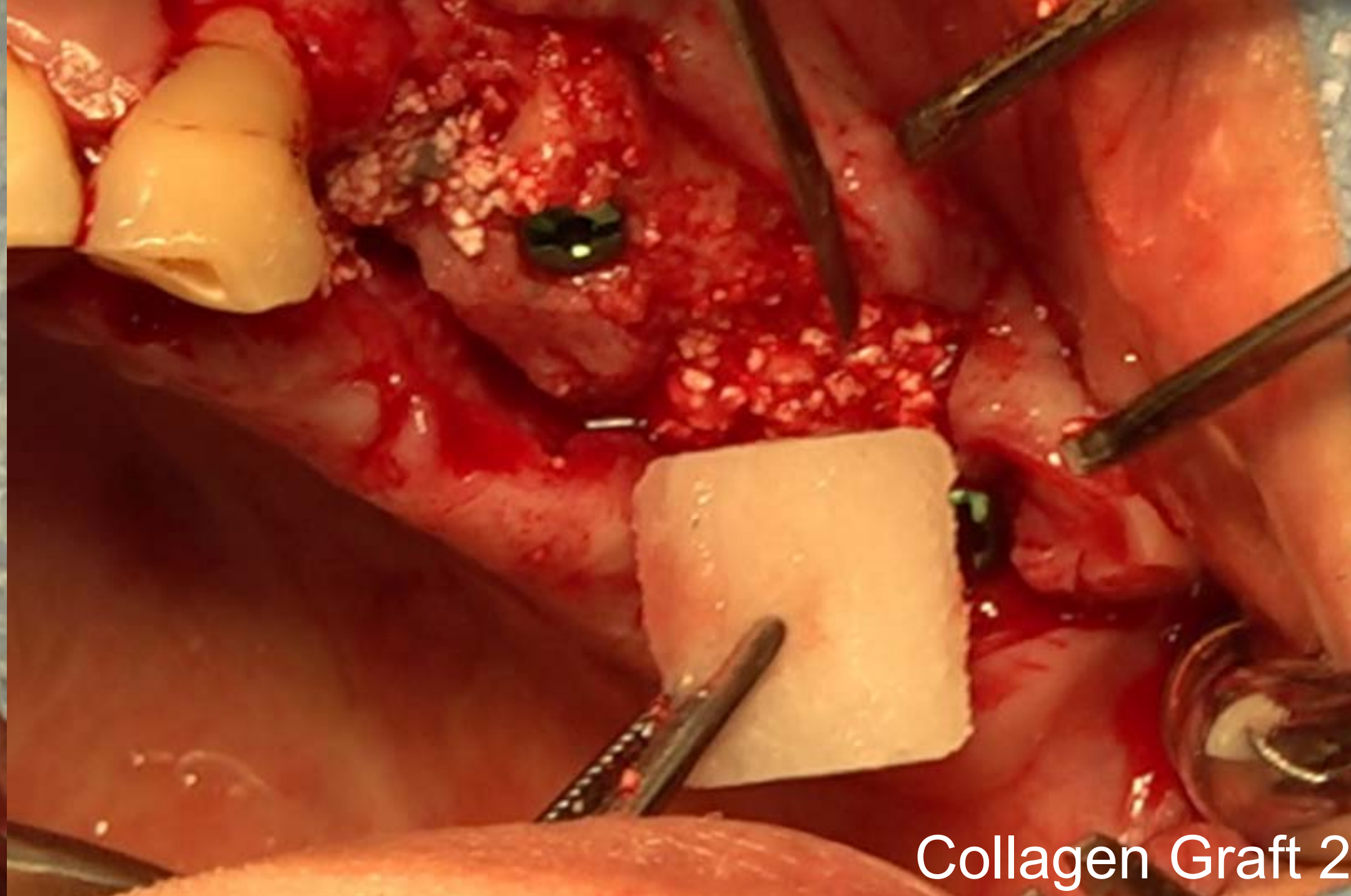
Cover screw



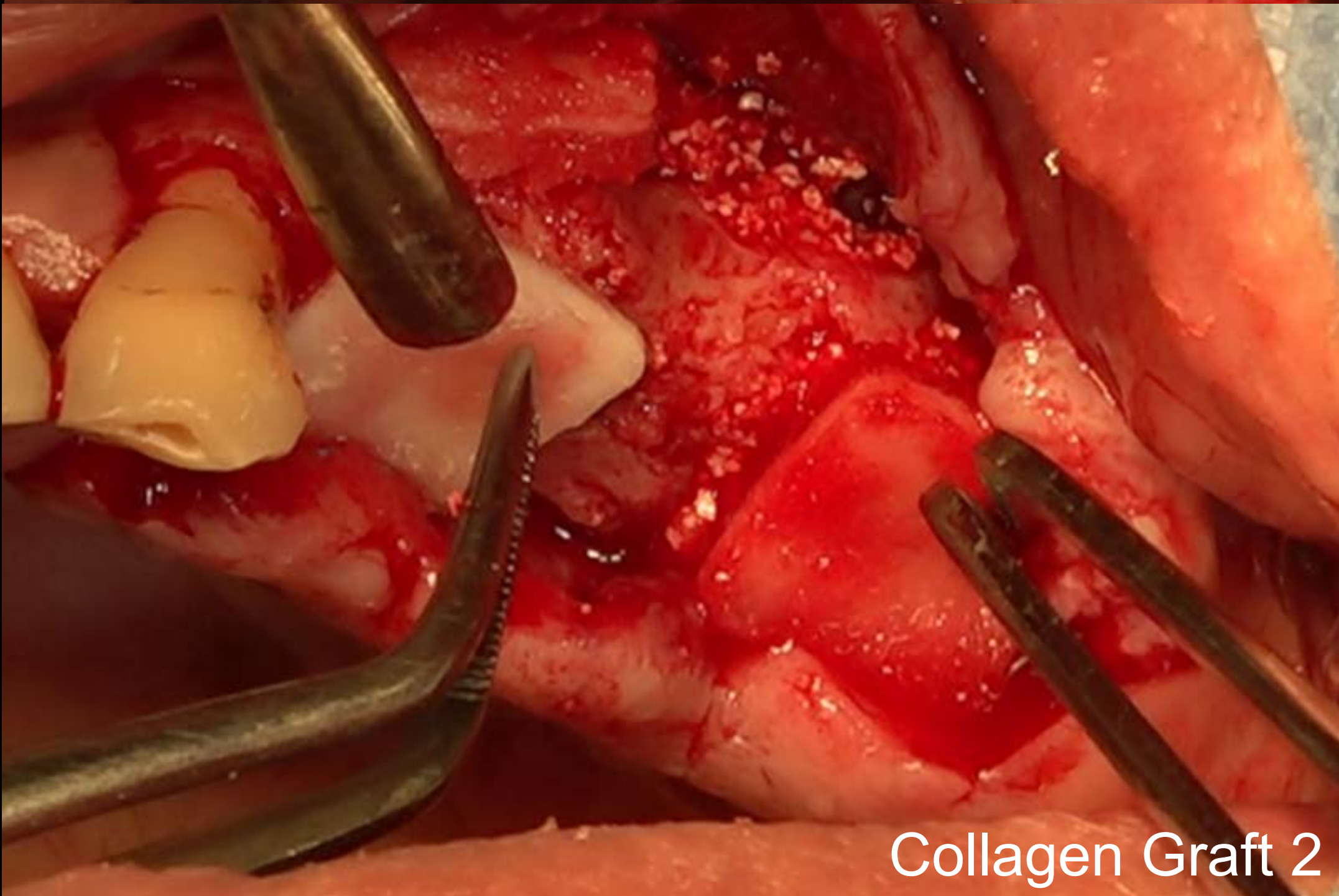
bright BL (Ø 4.0 X 9.0)



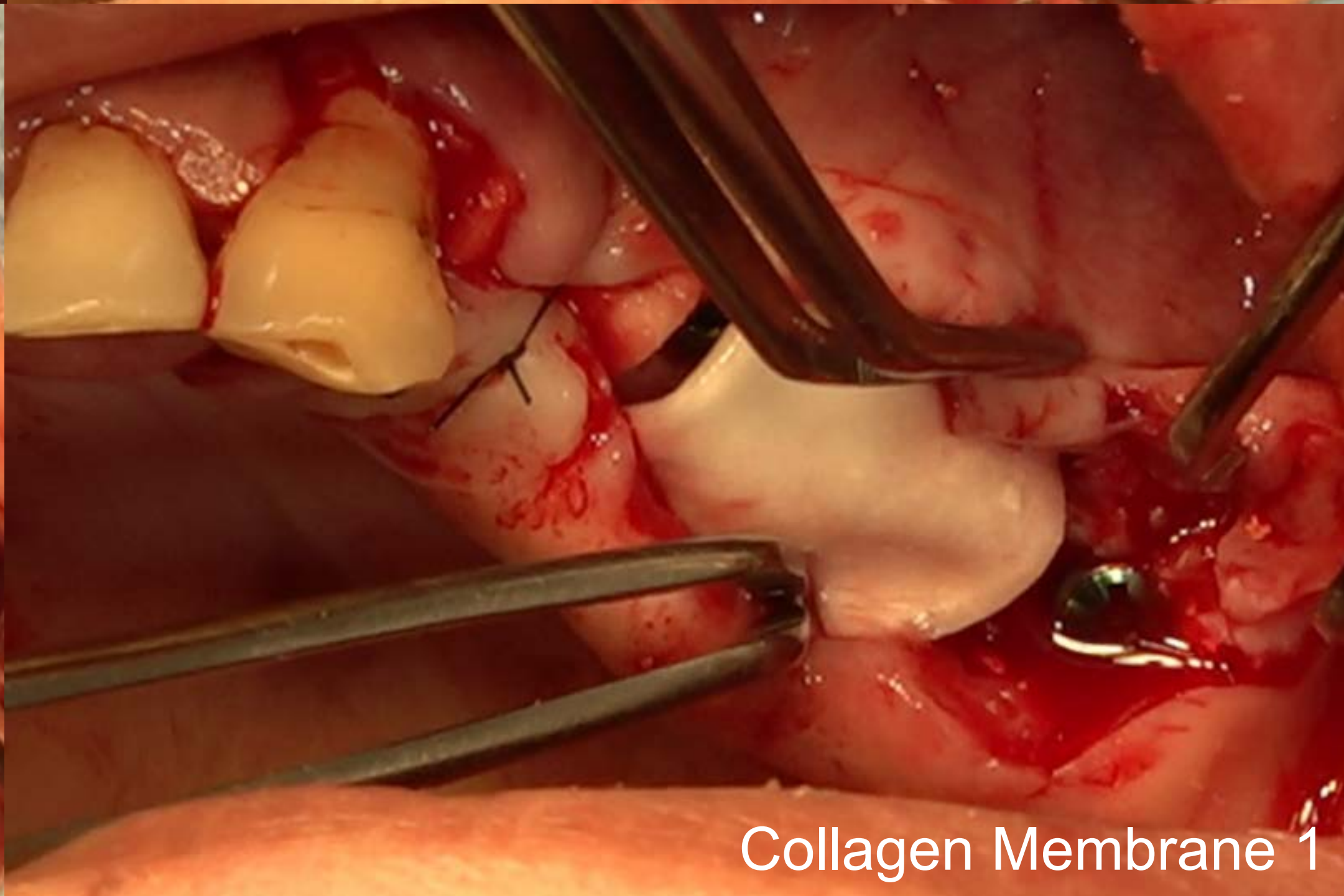
Cover screw



Collagen Graft 2

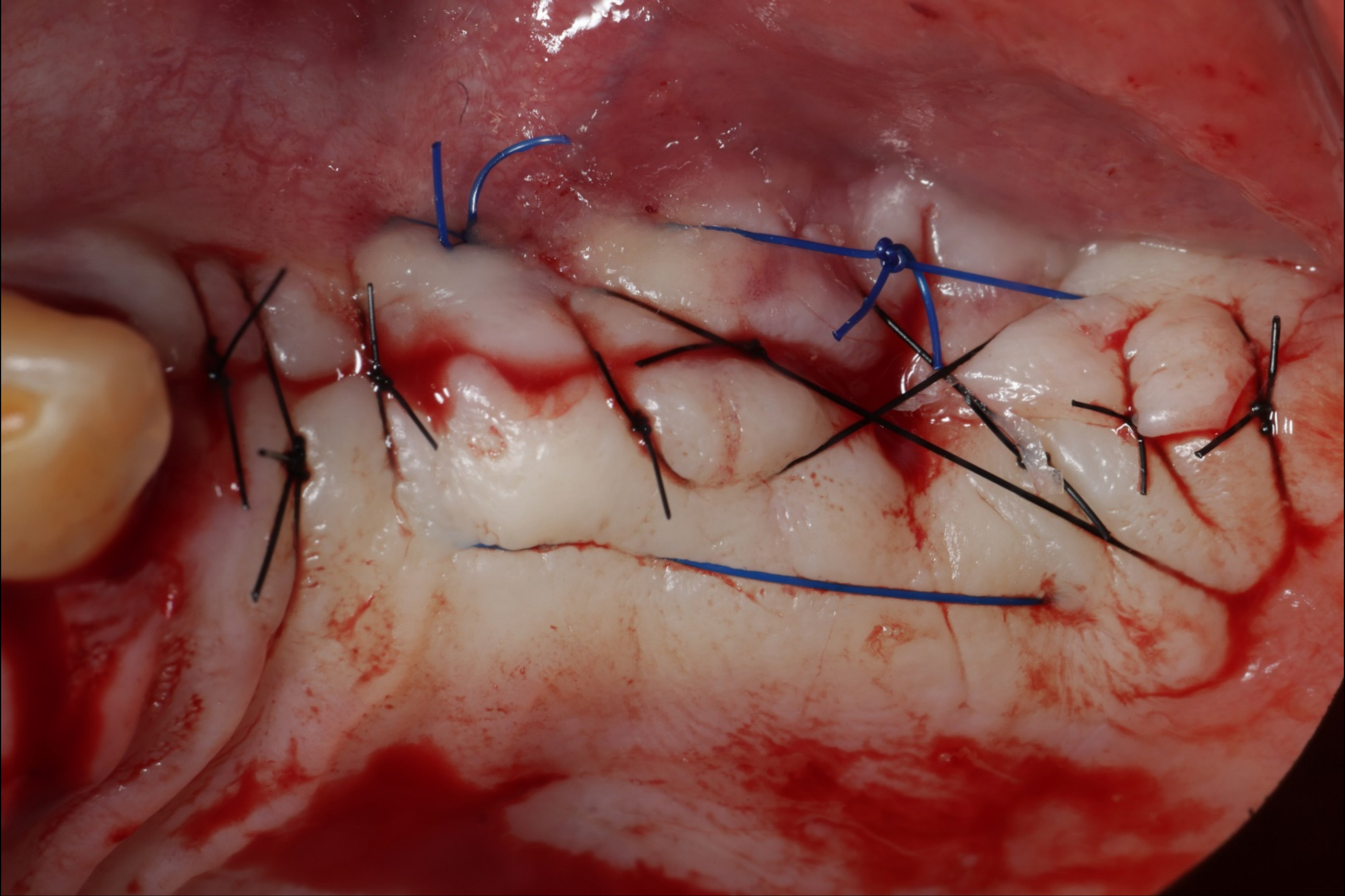


Collagen Graft 2

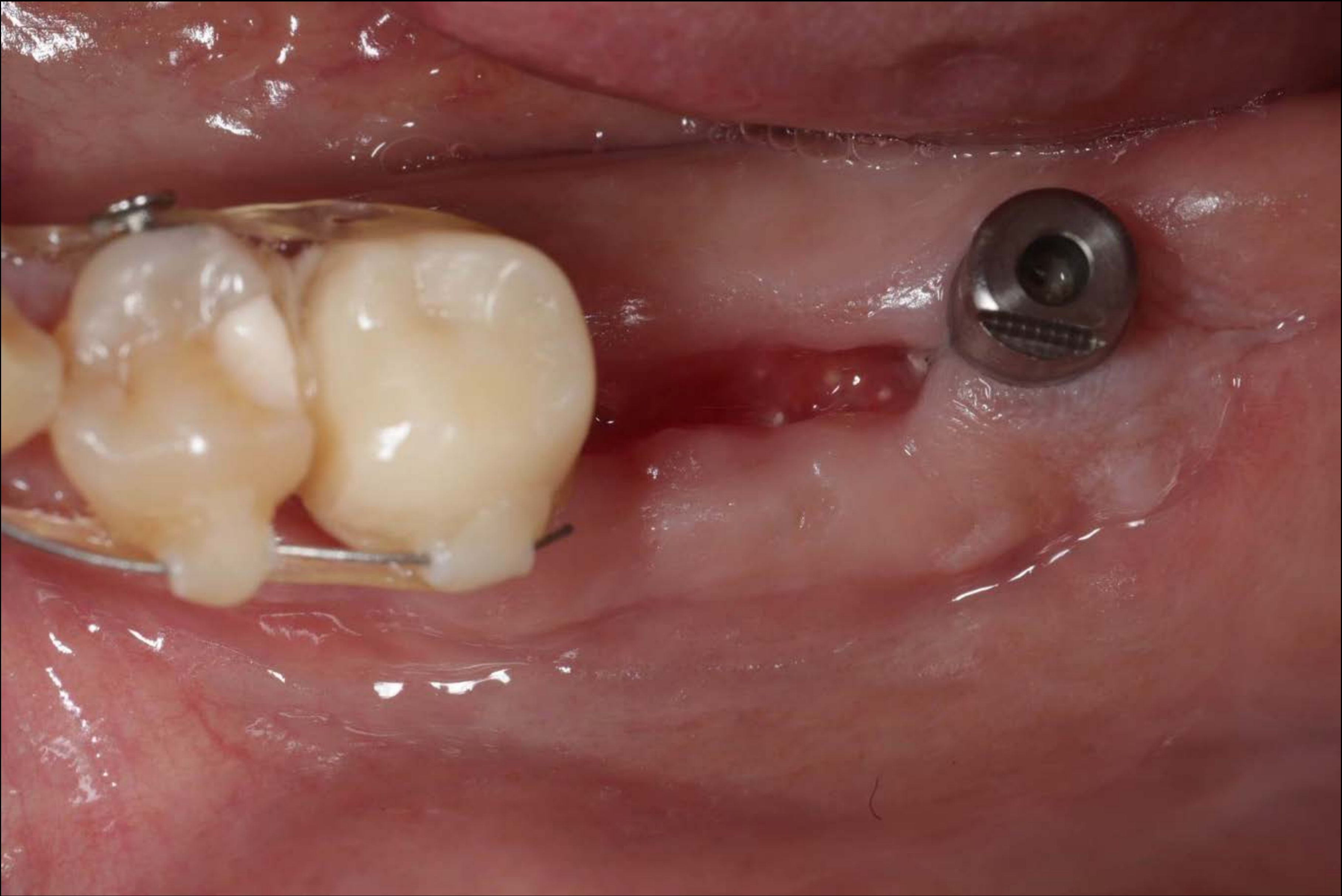


Collagen Membrane 1

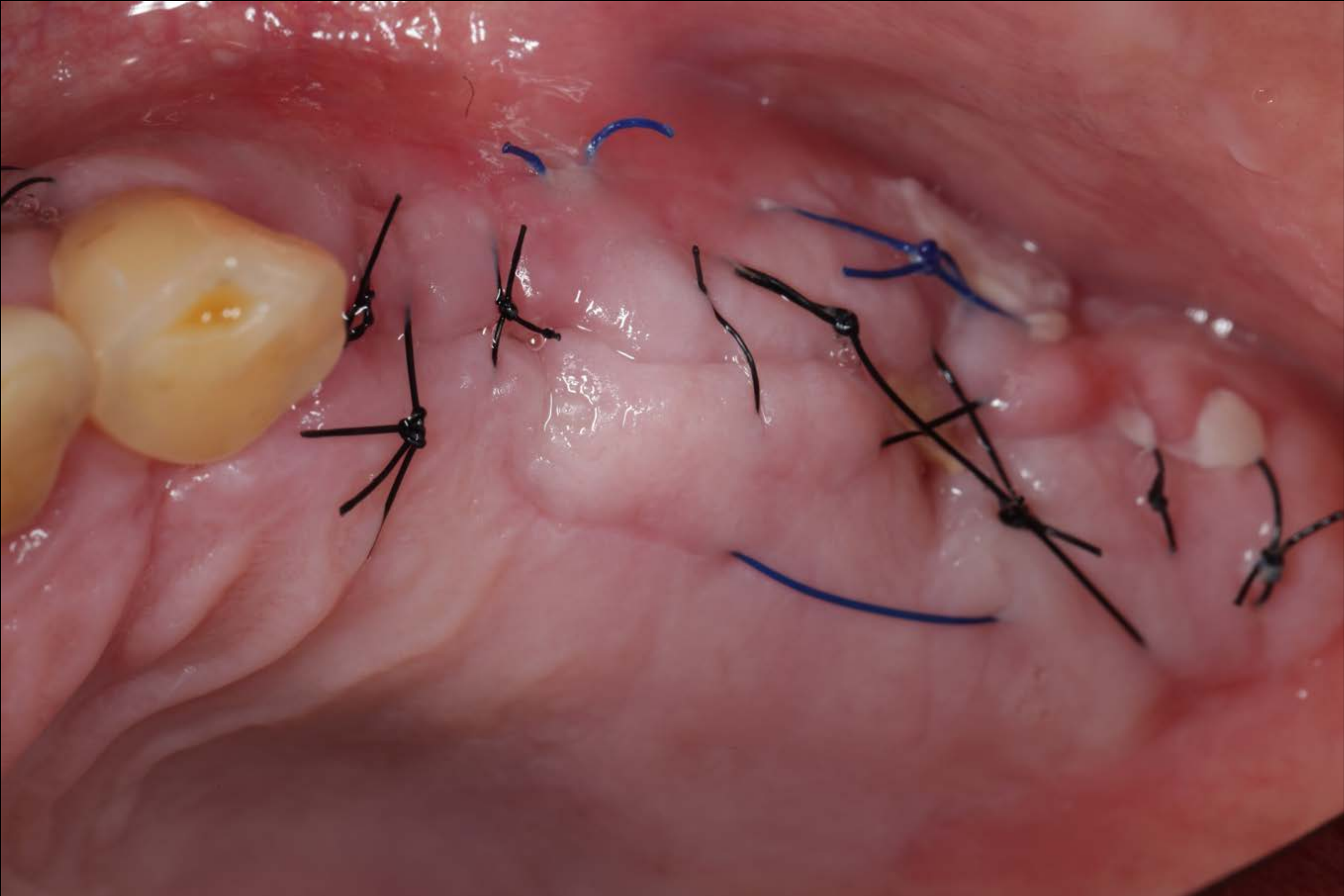
Post-op (2023-05-04)



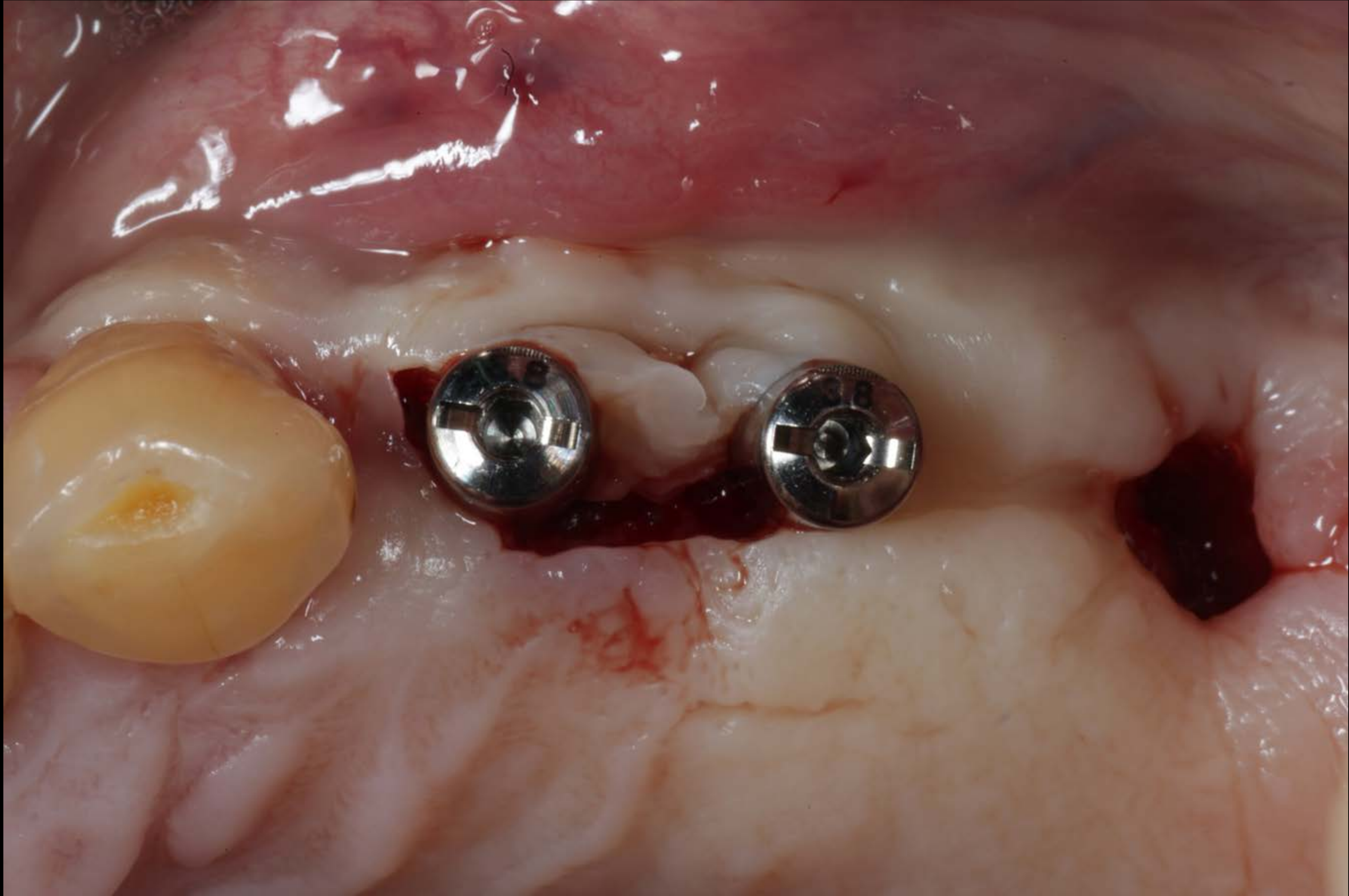
Healing : 3 weeks #35,37 (2023-05-10)



Healing : 1 week #24,25,27 (2023-05-10)



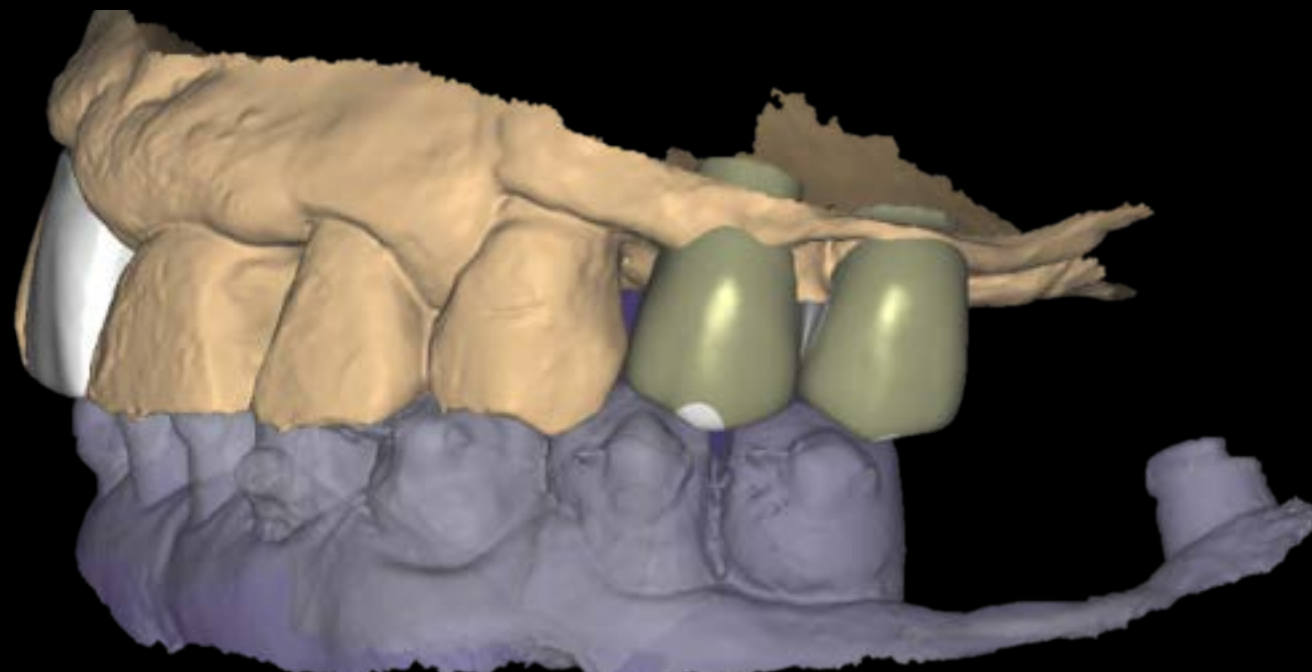
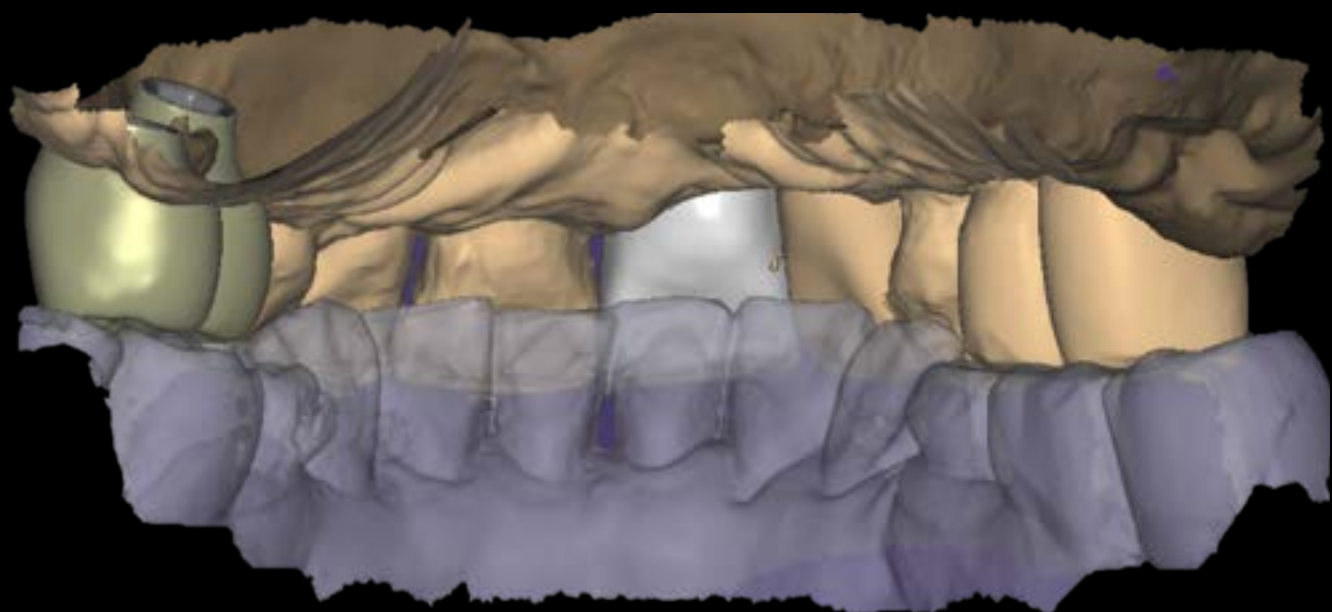
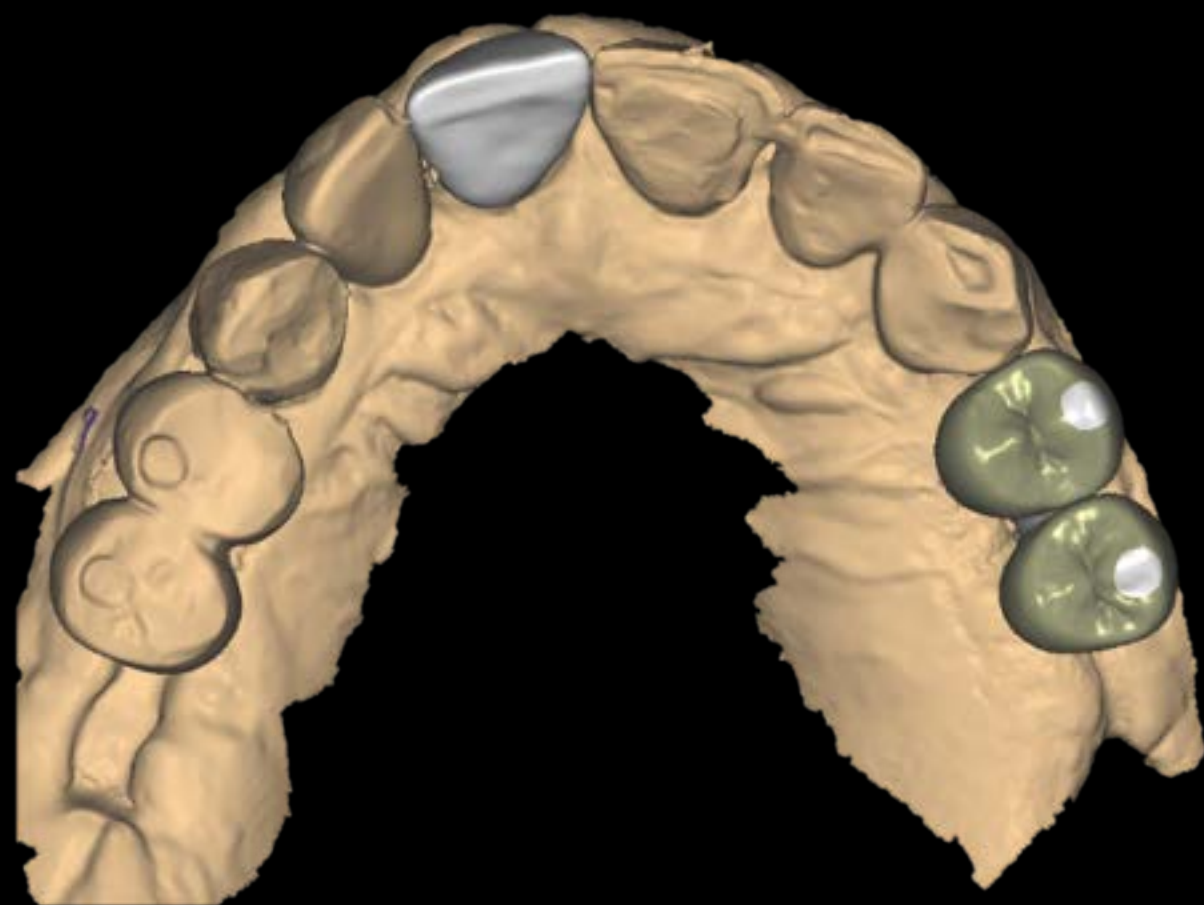
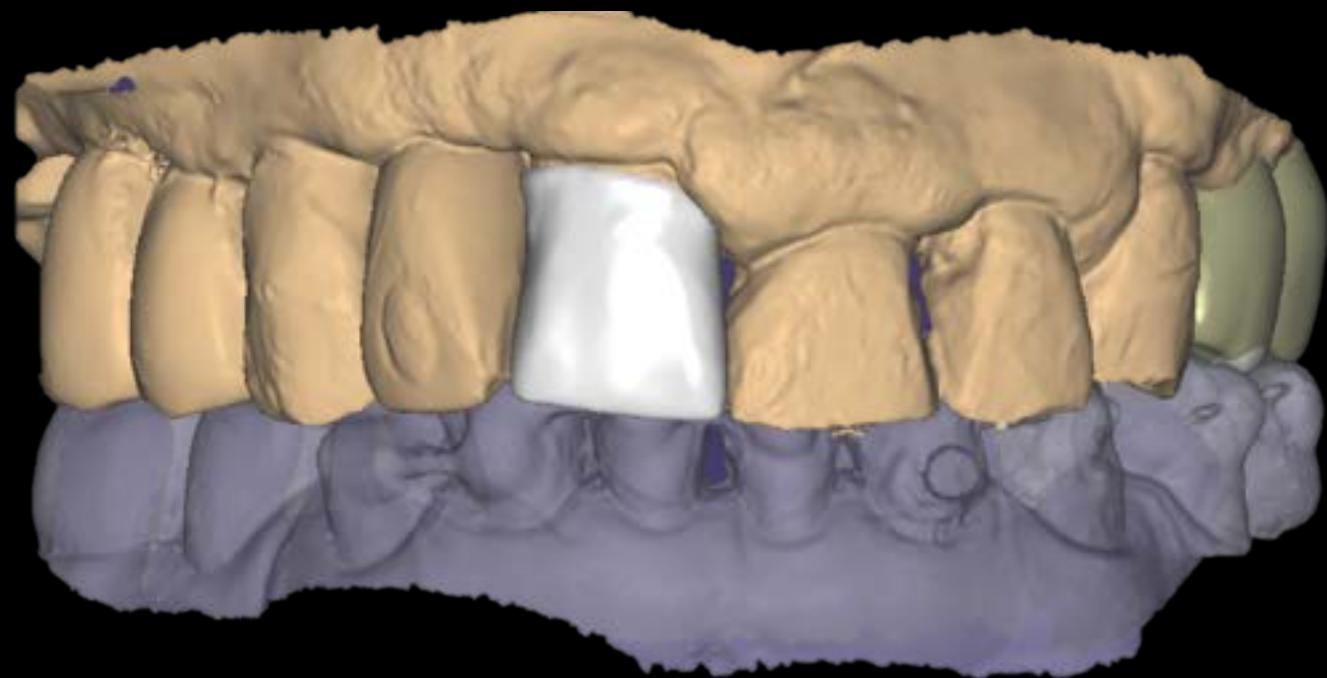
2nd Surgery #24,25 (2023-05-29)



Healing : 1 month #47 (2023-06-05)



CAD (Temporary)



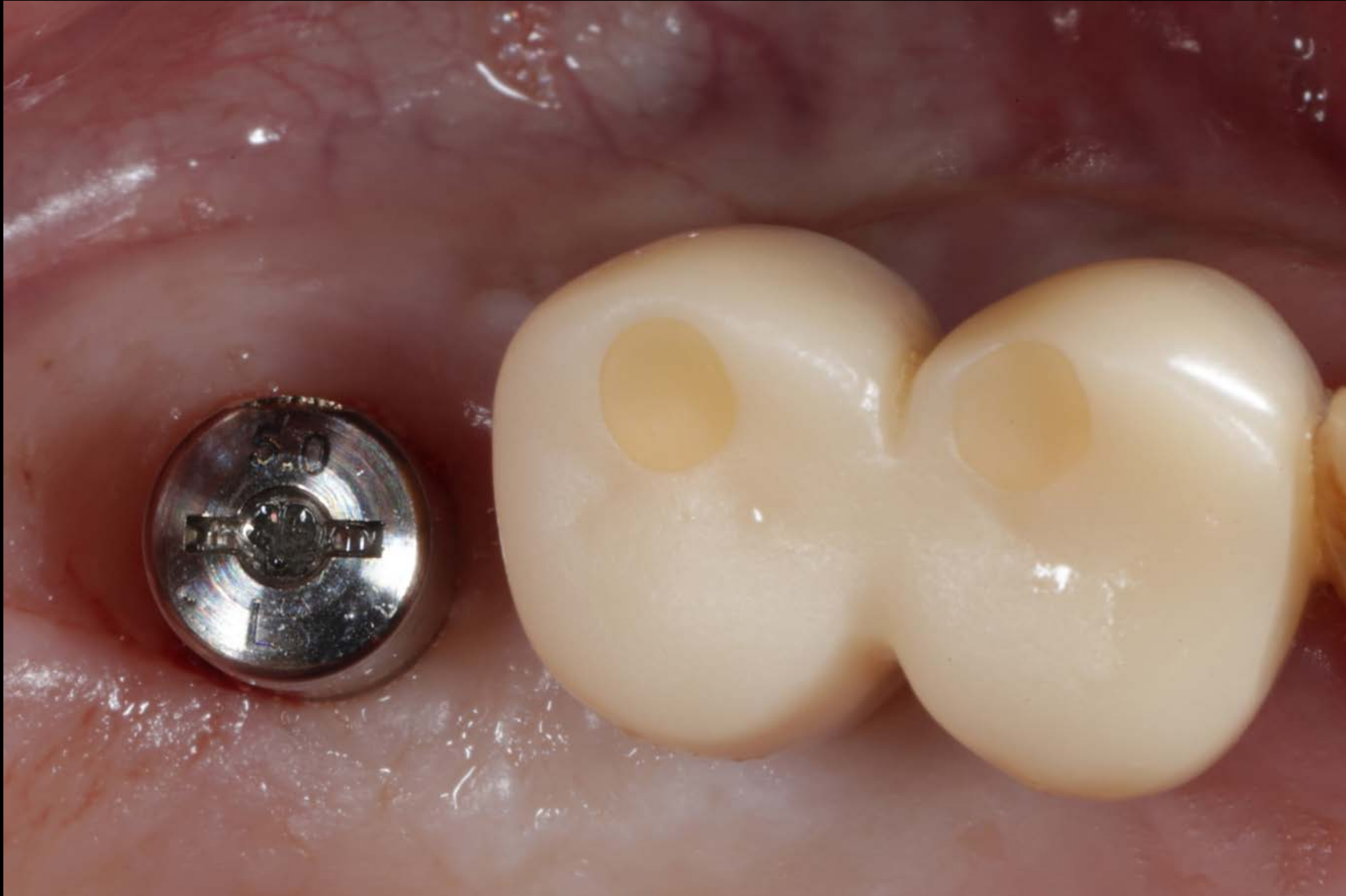
Provisional restoration #24,25 (2023-06-05)



2nd Surgery #27 (2023-10-24)



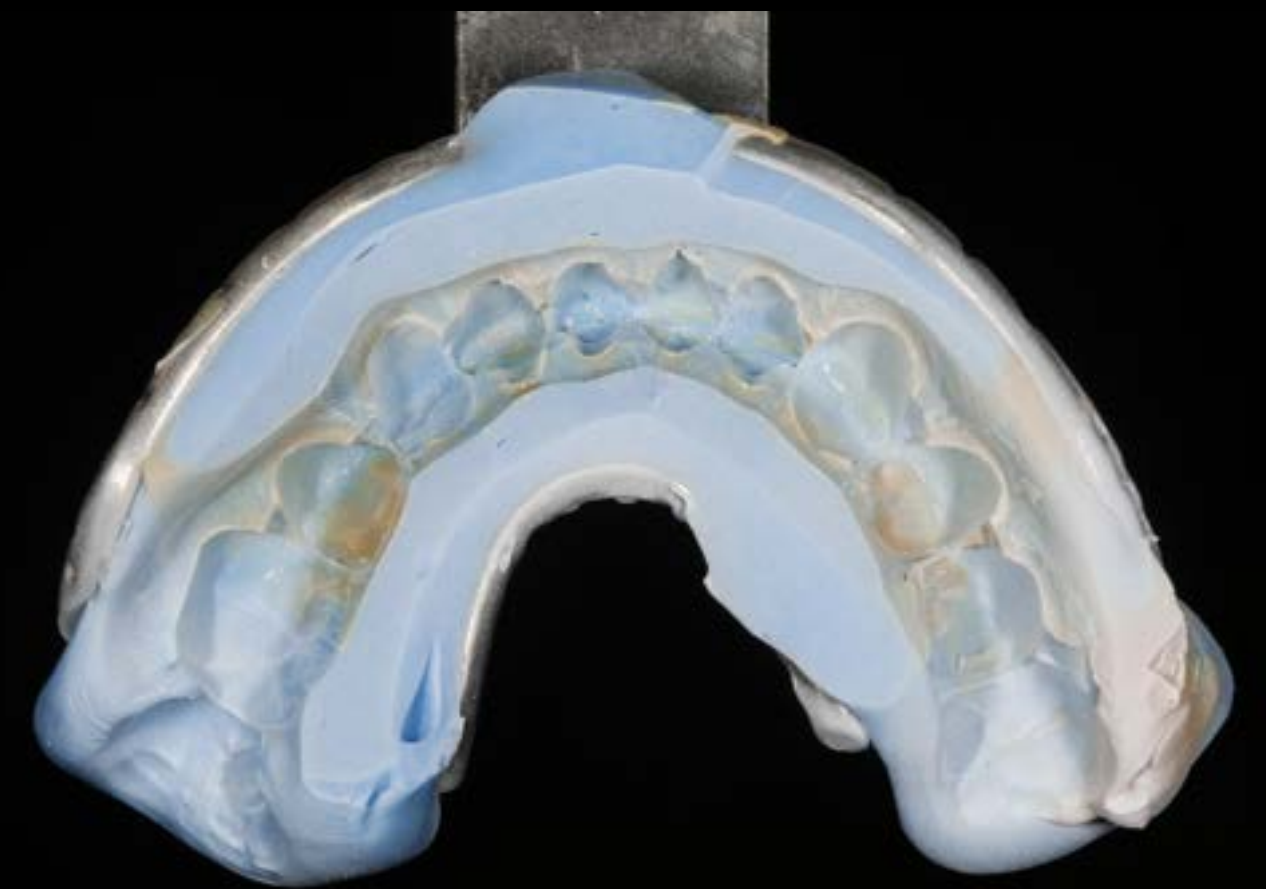
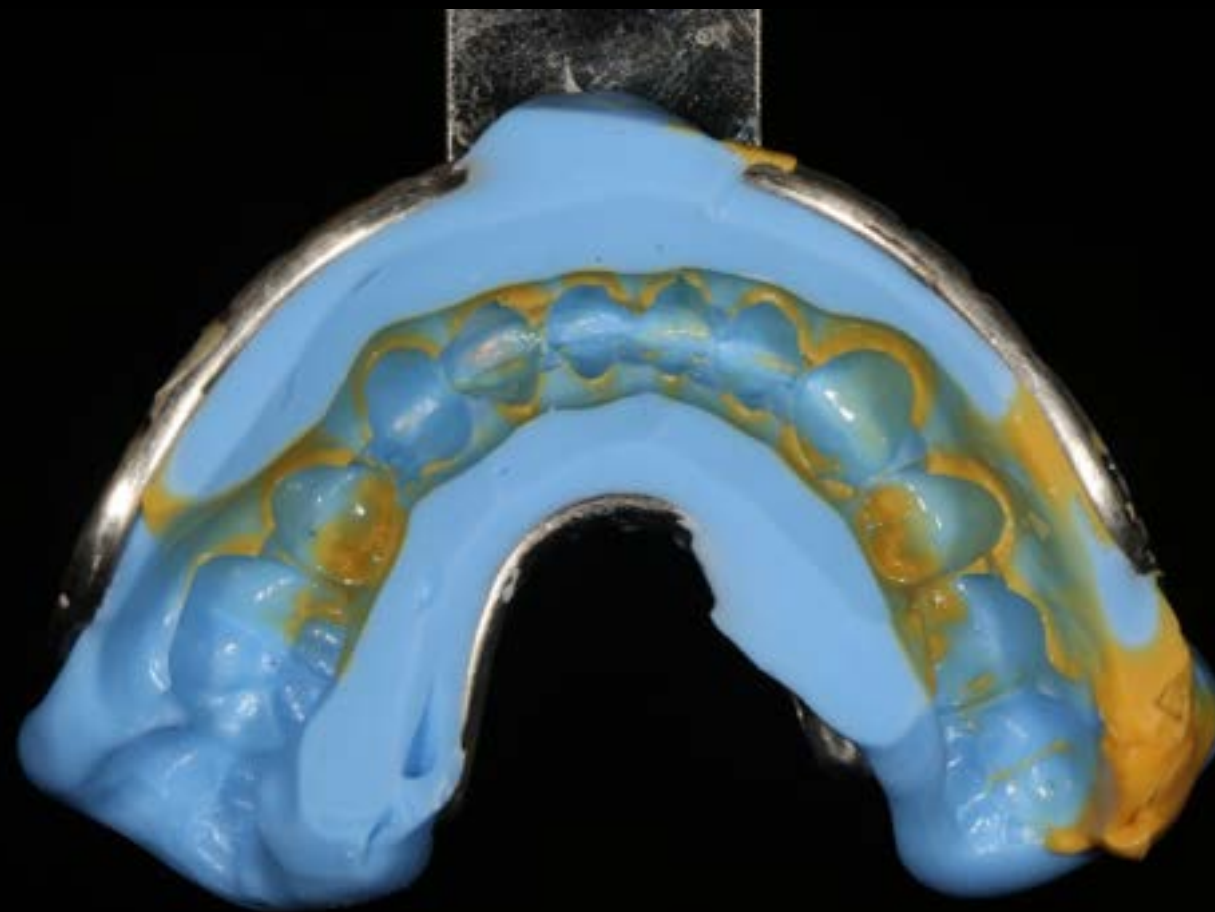
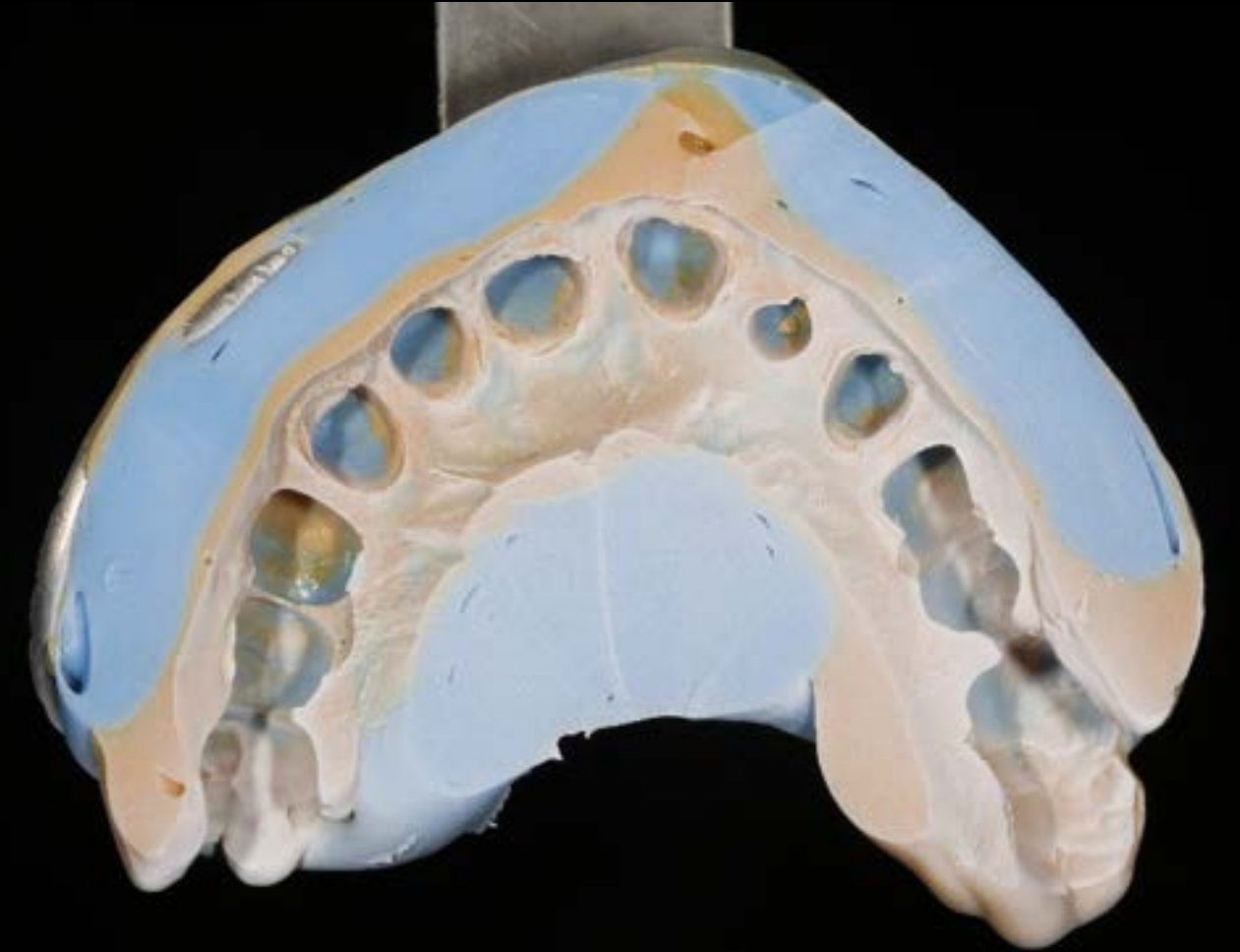
2nd Surgery #16 (2023-10-24)



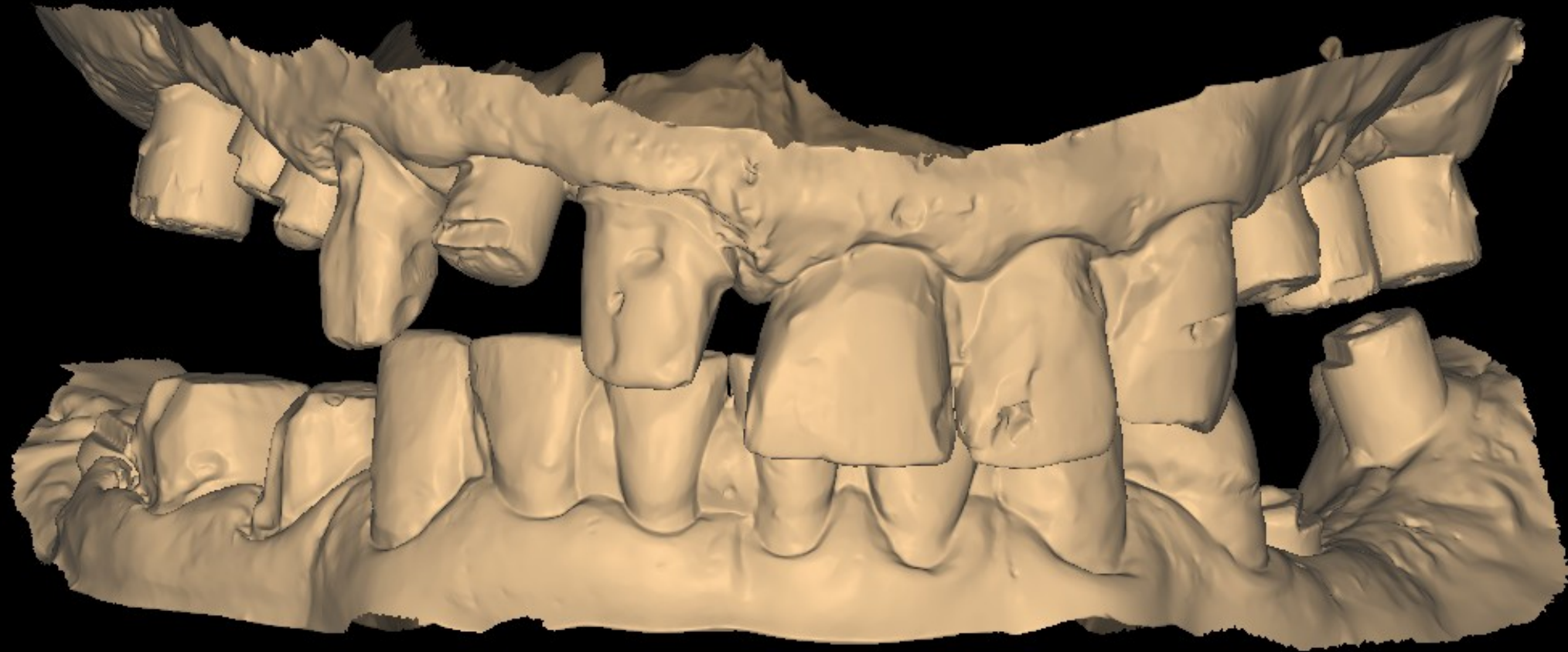
Final Impression (2023-10-28)



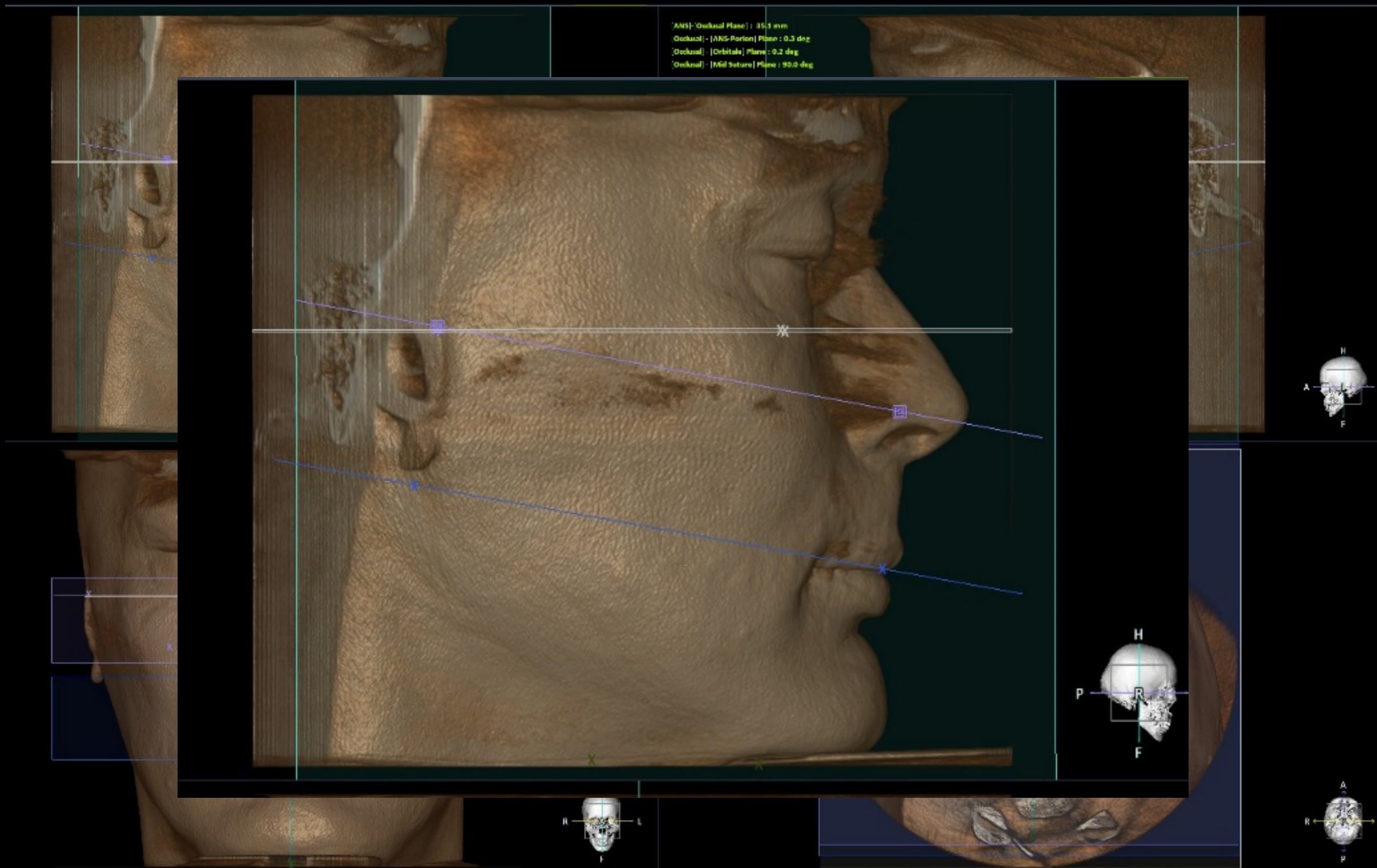
Impression / Trimming / Scan spray



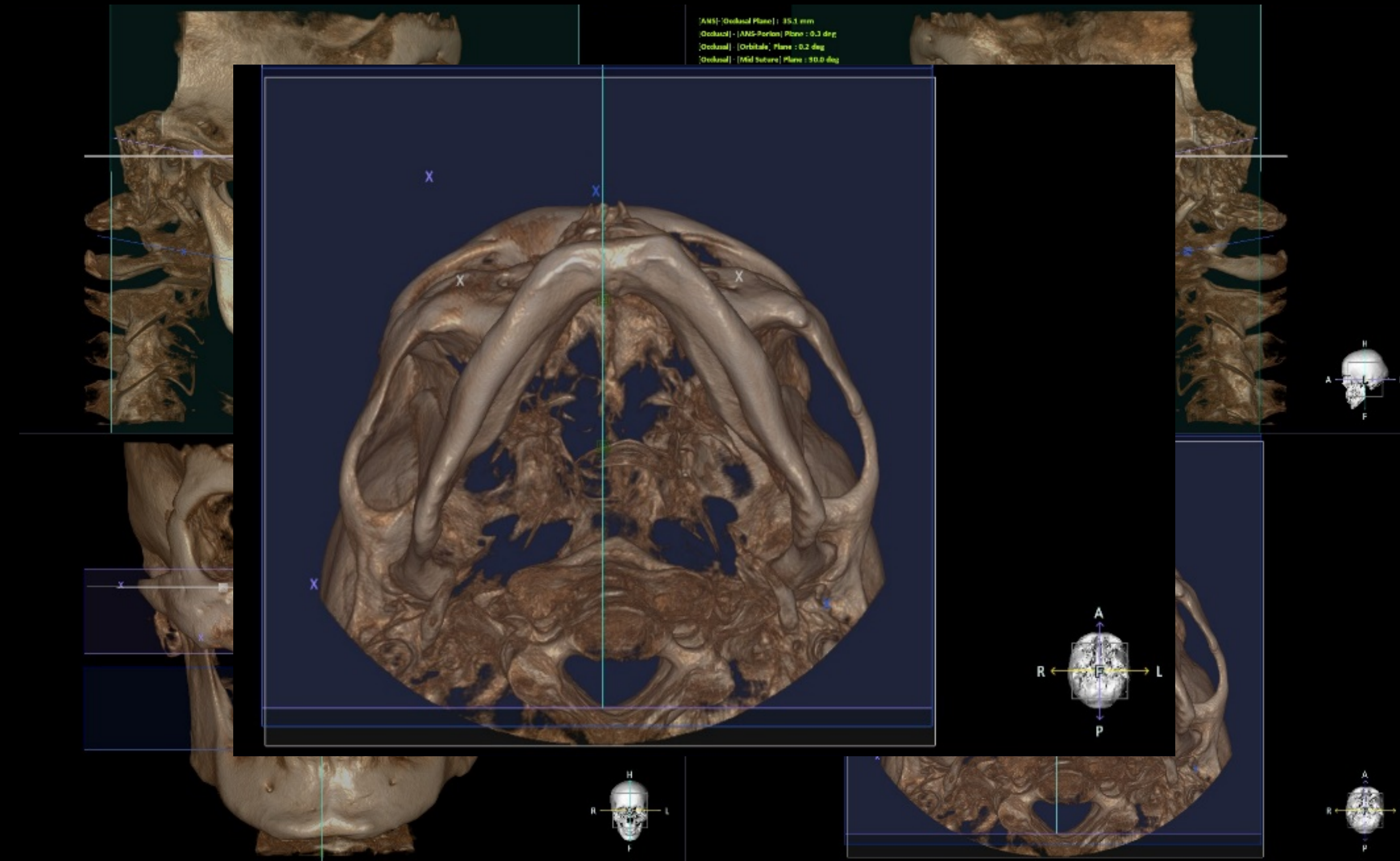
Working Model



Cad Design

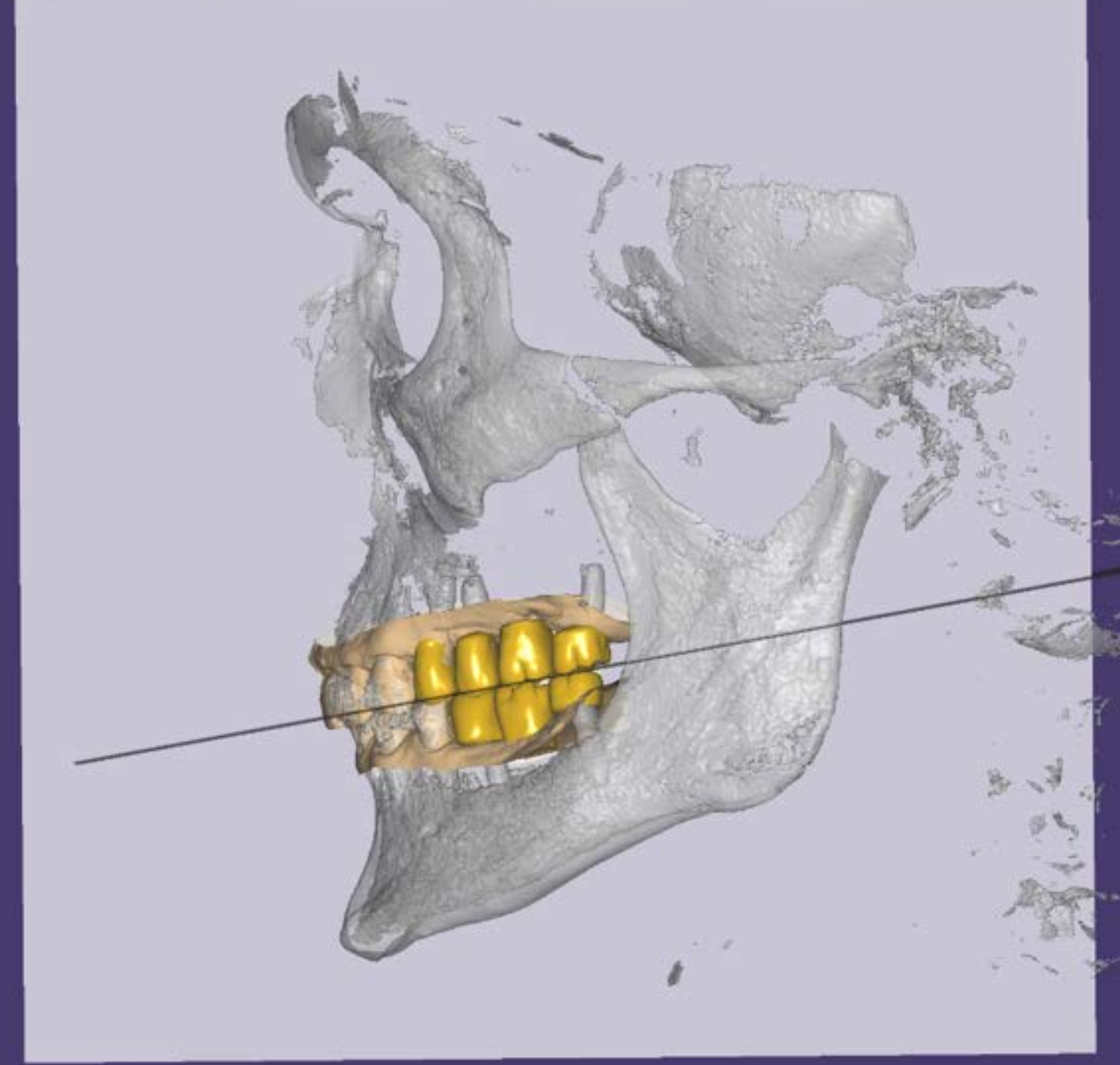
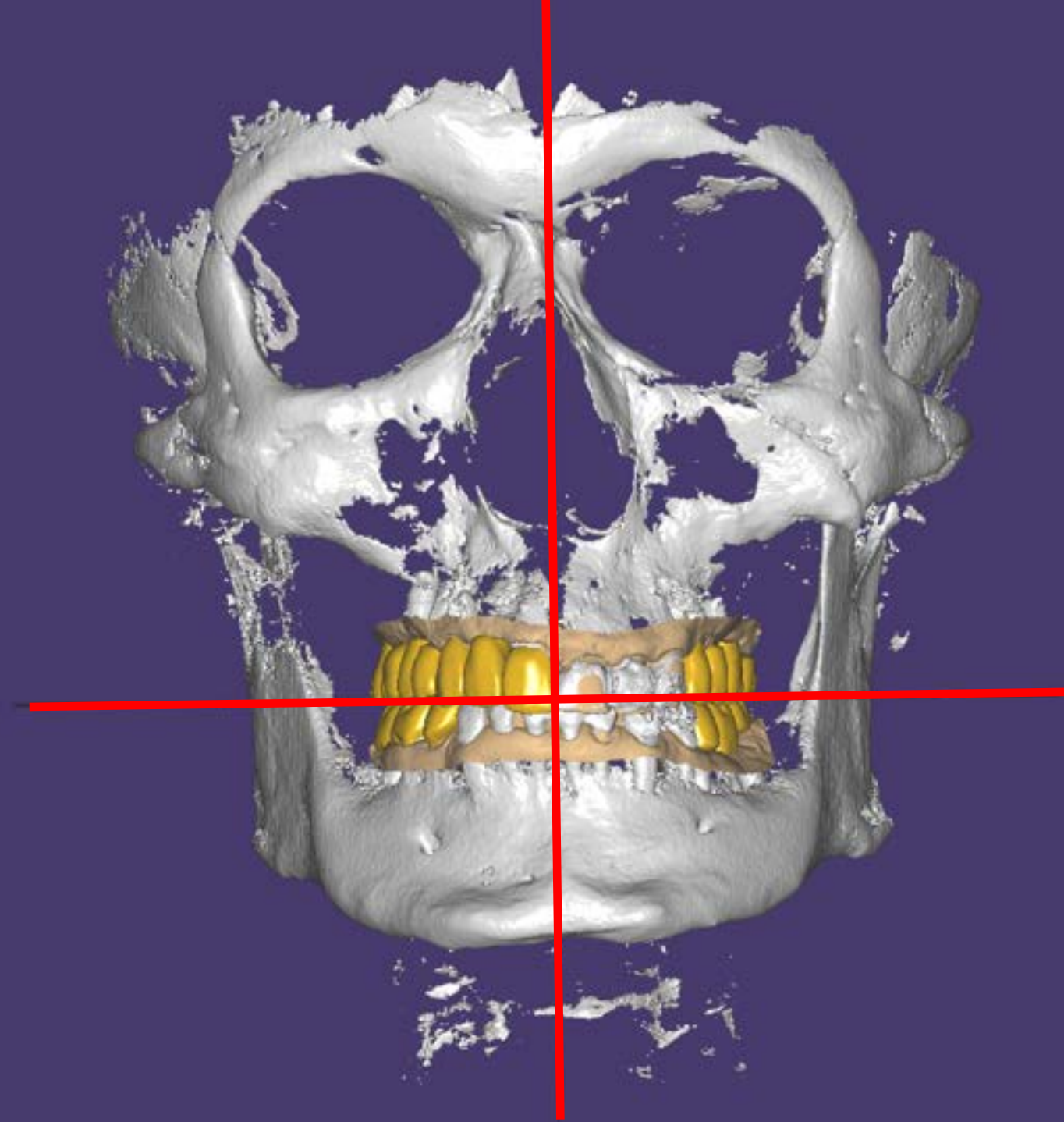
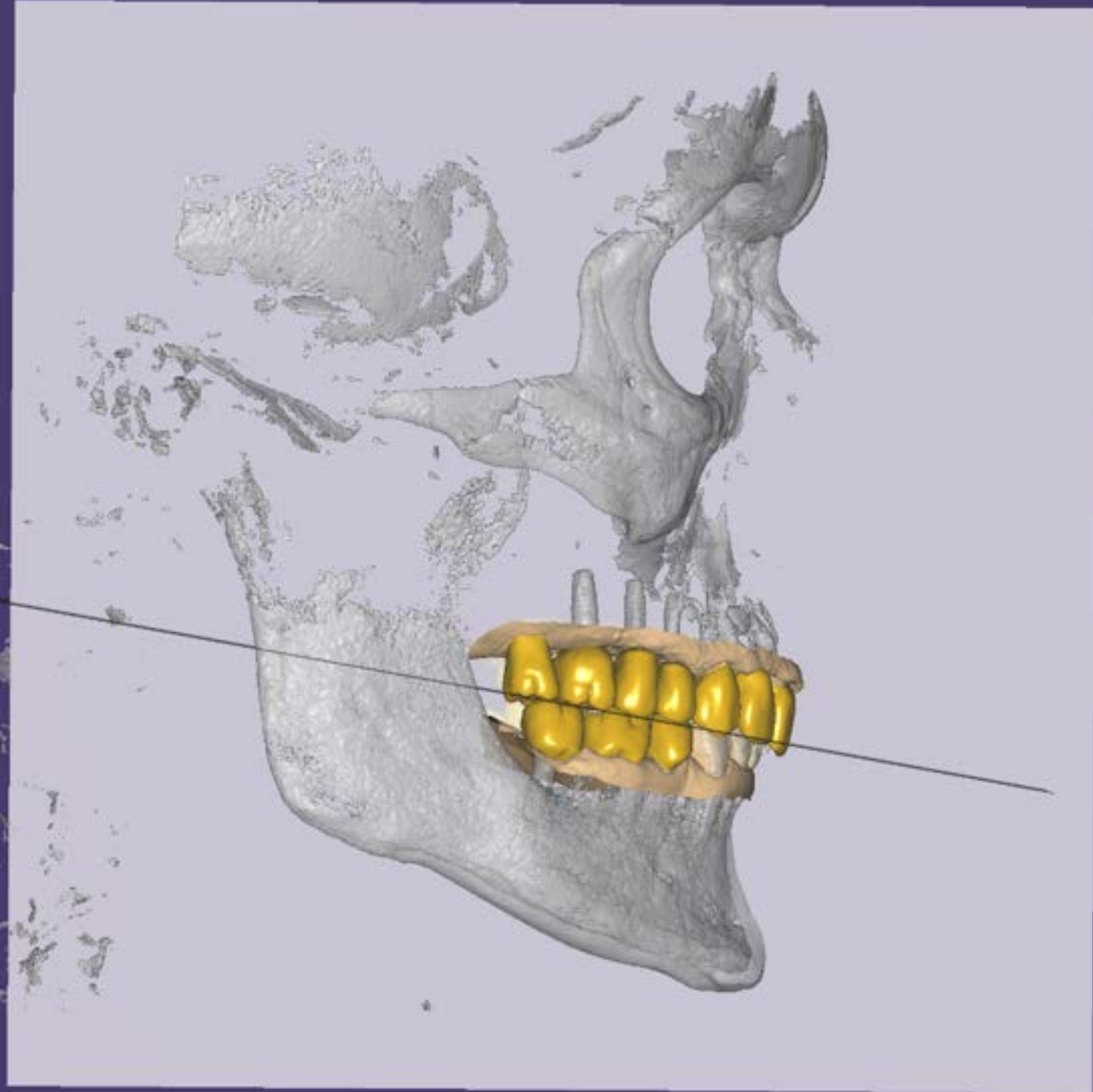


Soft Tissue

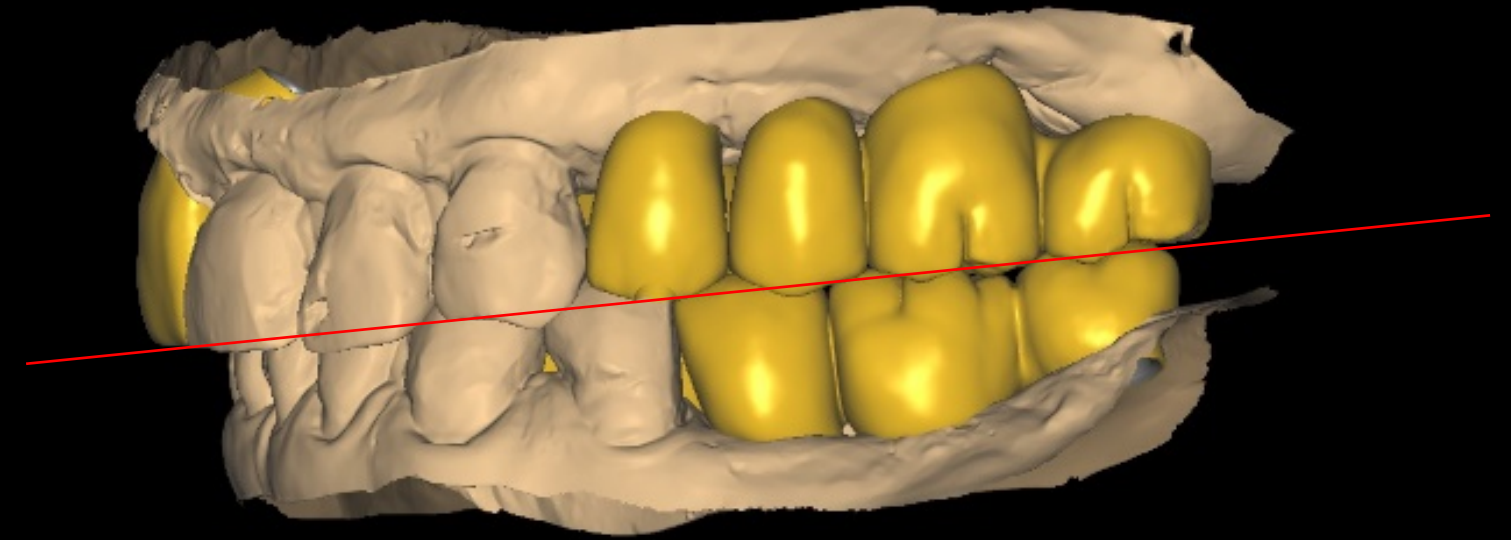
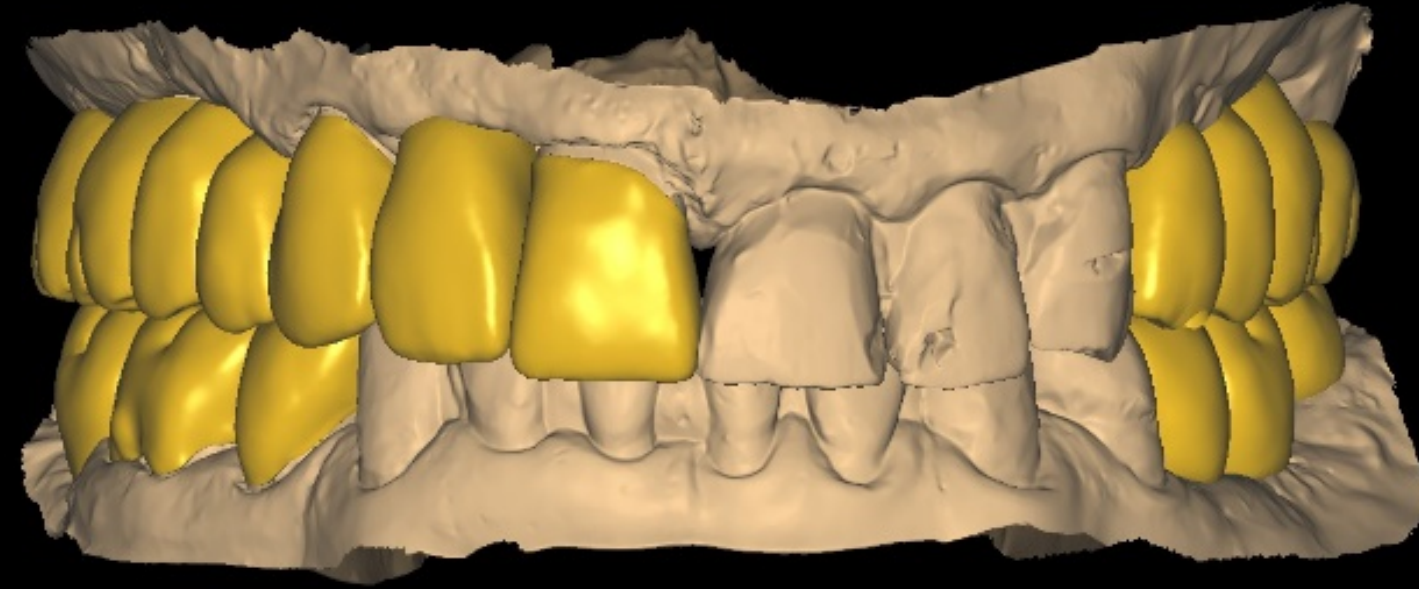
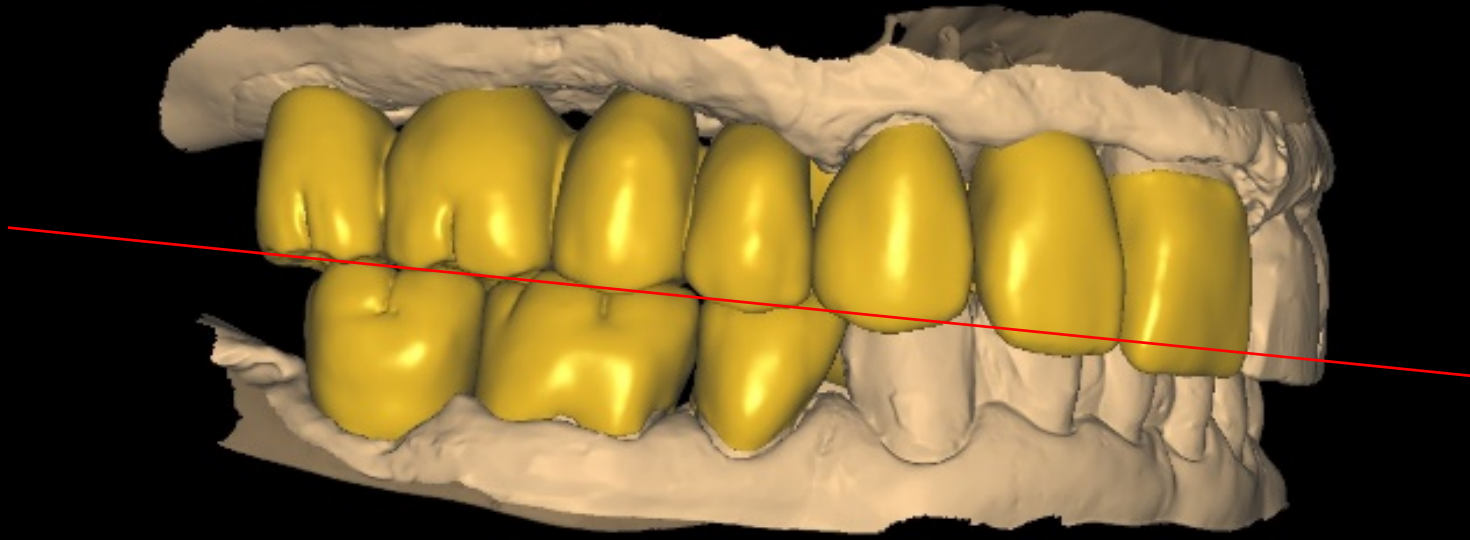


Hard Bone

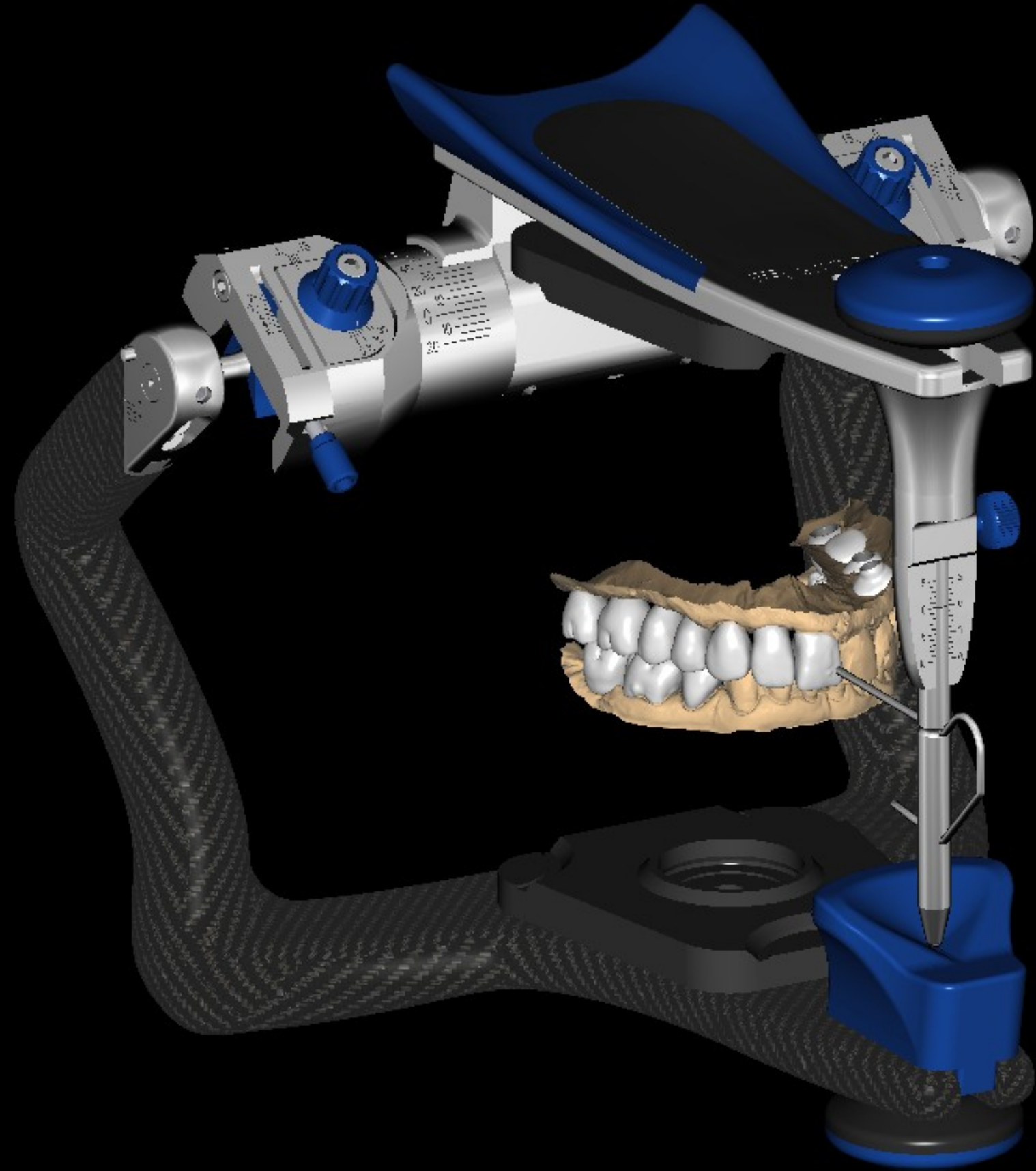
CAD (Final)



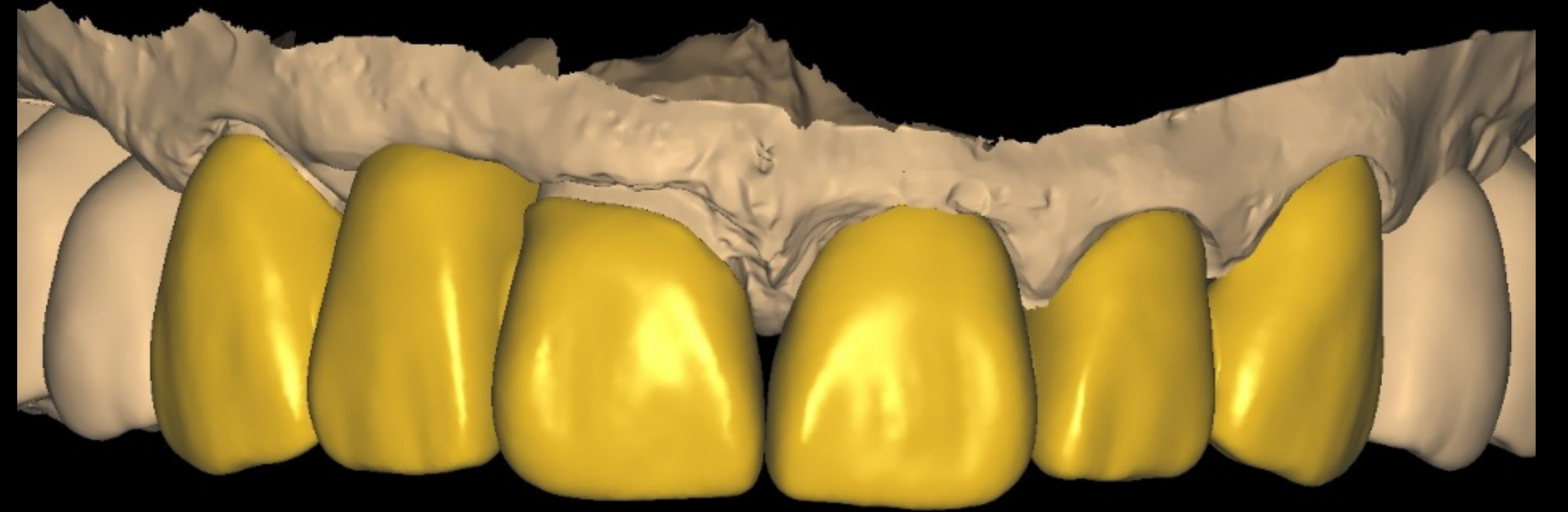
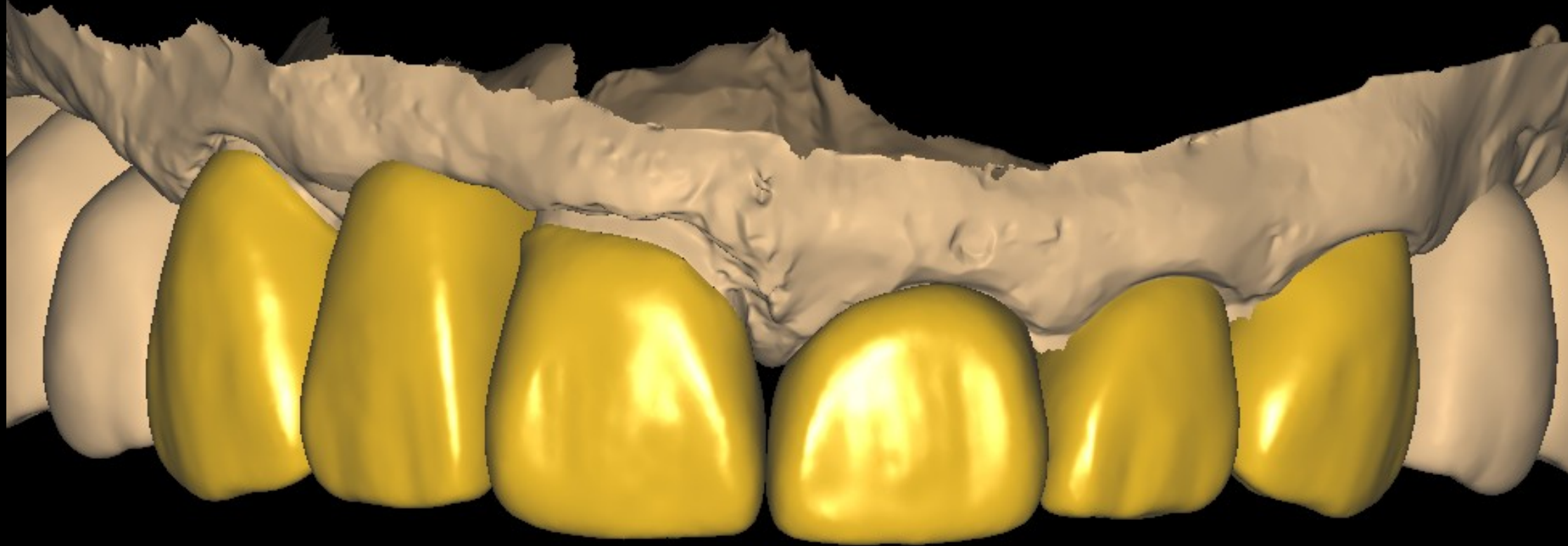
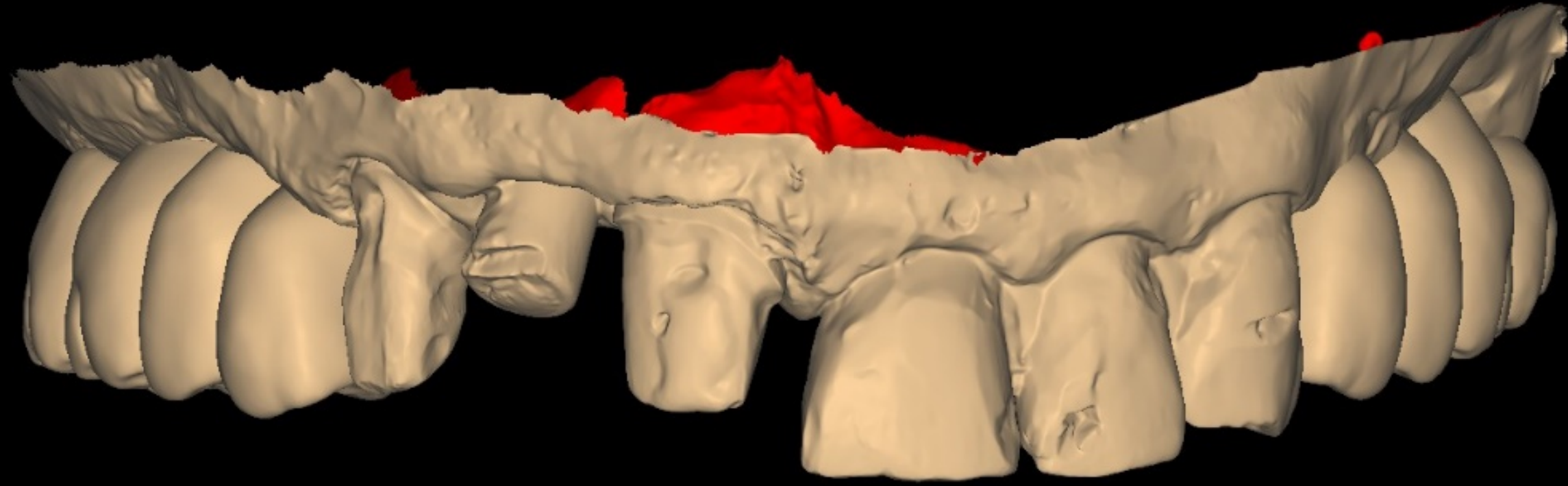
Cad Design



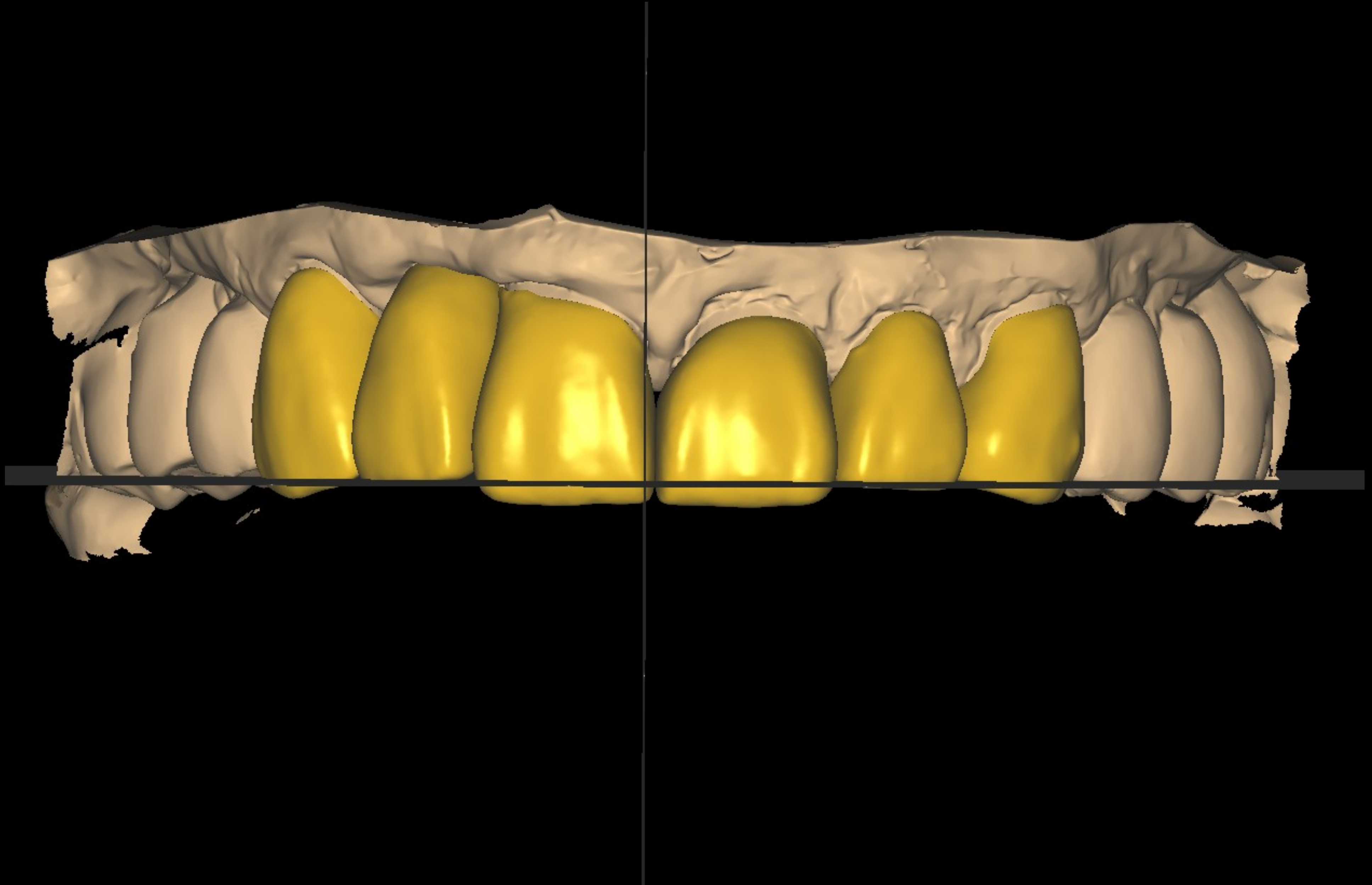
Cad Design



Cad Design



Cad Design



Shade taking



Milling / Finishing



Milling / Finishing



Final prosthesis (2023-11-16)





Final prosthesis #10+40 (2023-11-16)



Final prosthesis #20+30 (2023-11-16)



Final prosthesis (2023-11-16)



have a plan to whiten one's teeth

Final prosthesis (2023-11-16)



Content

Introduction

Short and narrow implant

- change in sinus guideline and bone graft

Digital application based on CT and AI

Contents

Implant

Short and narrow

Digital

BTS or IOS

Zirconia

CT bite check through sticking

Face driven

Final prosthesis (2023-03-11)



5-Lengths

5.0

7.0

9.0

11.0

13.0

1.5

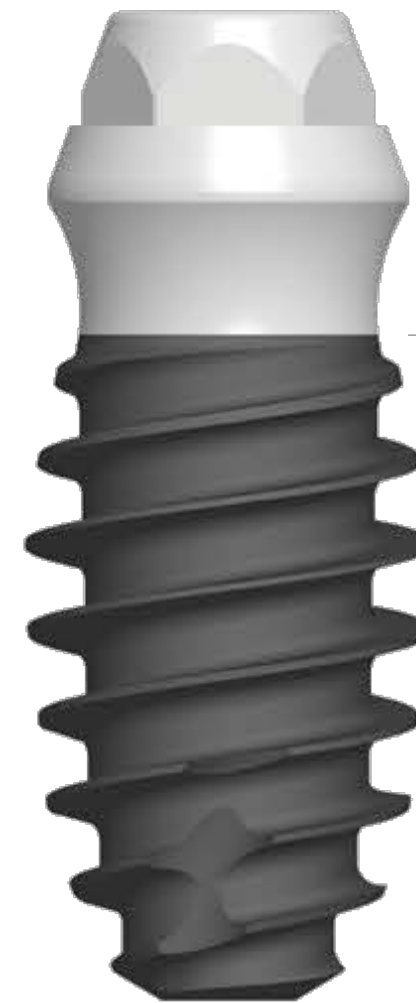
5.0

7.0

9.0

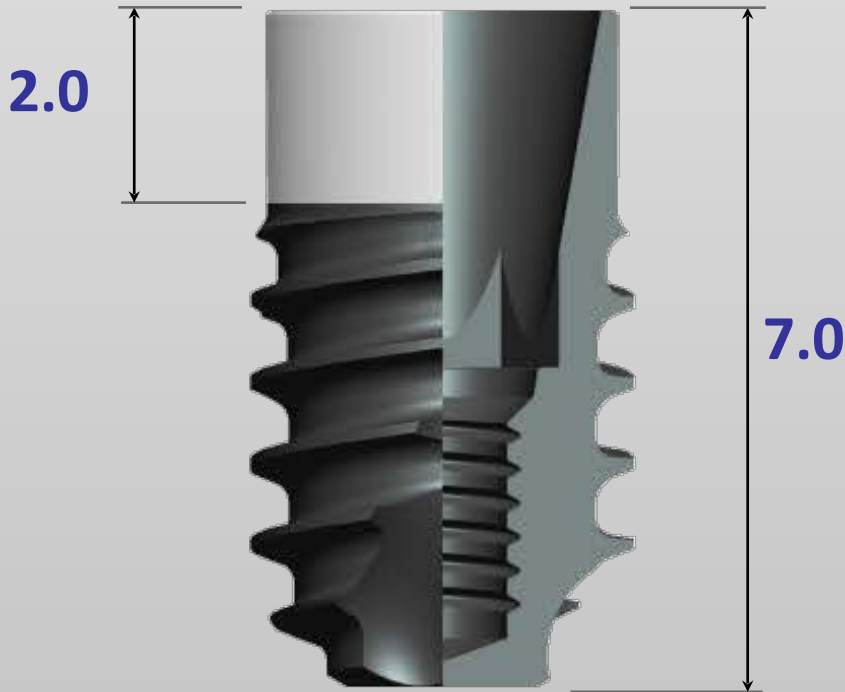
11.0

13.0

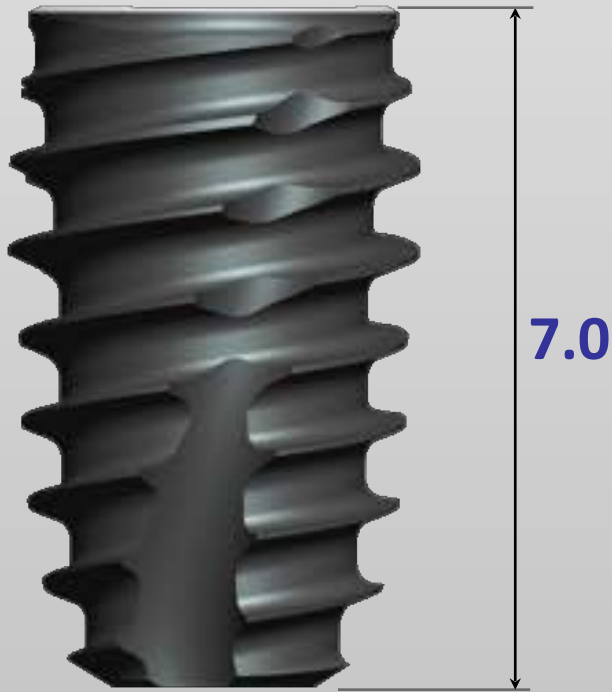


5-Lengths

7.0 BS



7.0



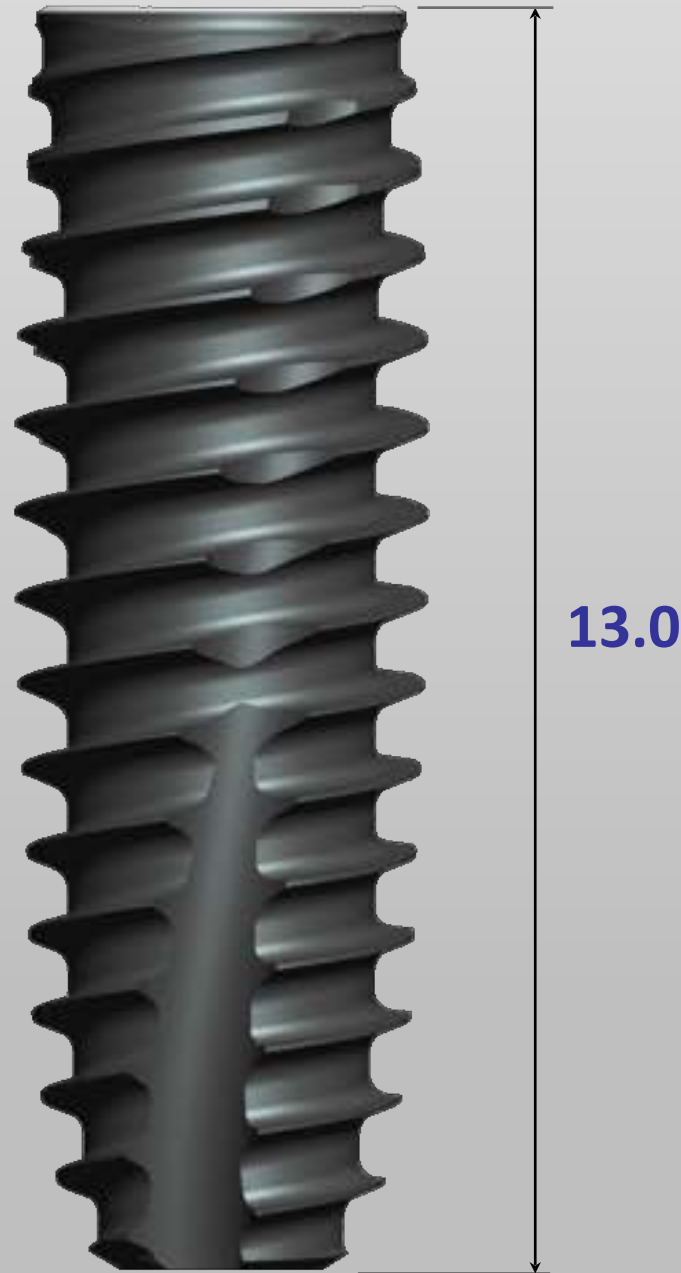
9.0



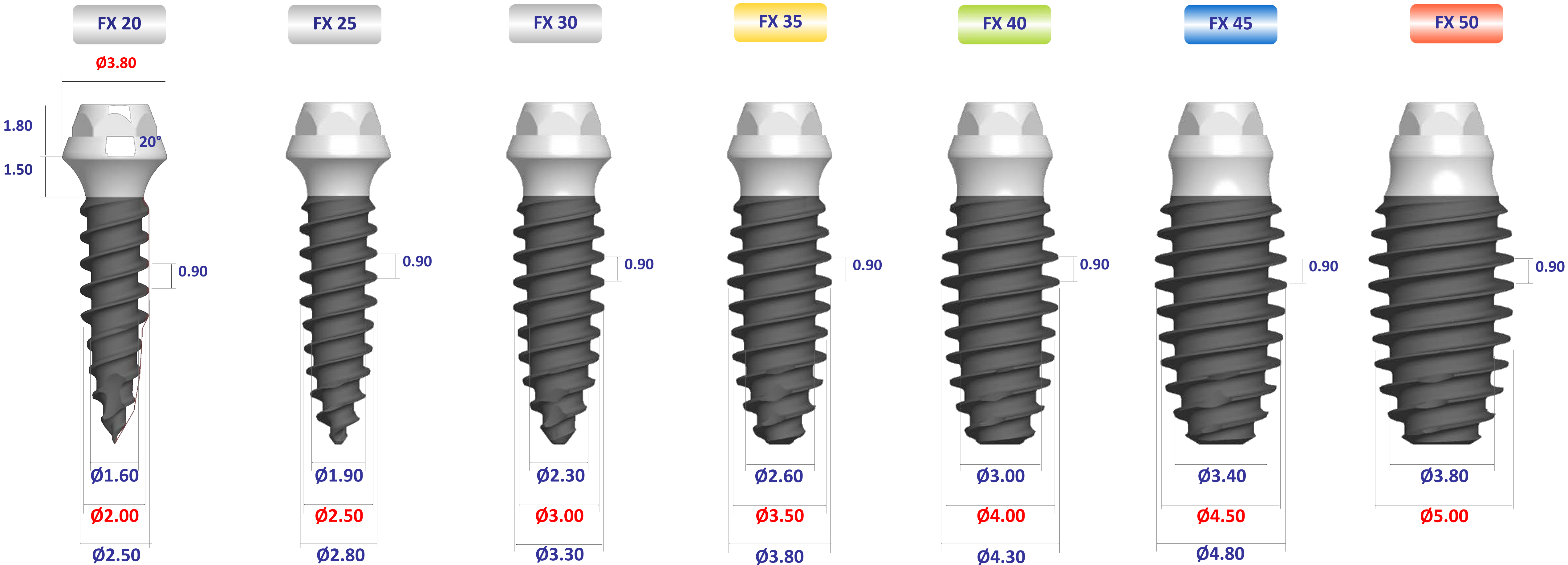
11.0



13



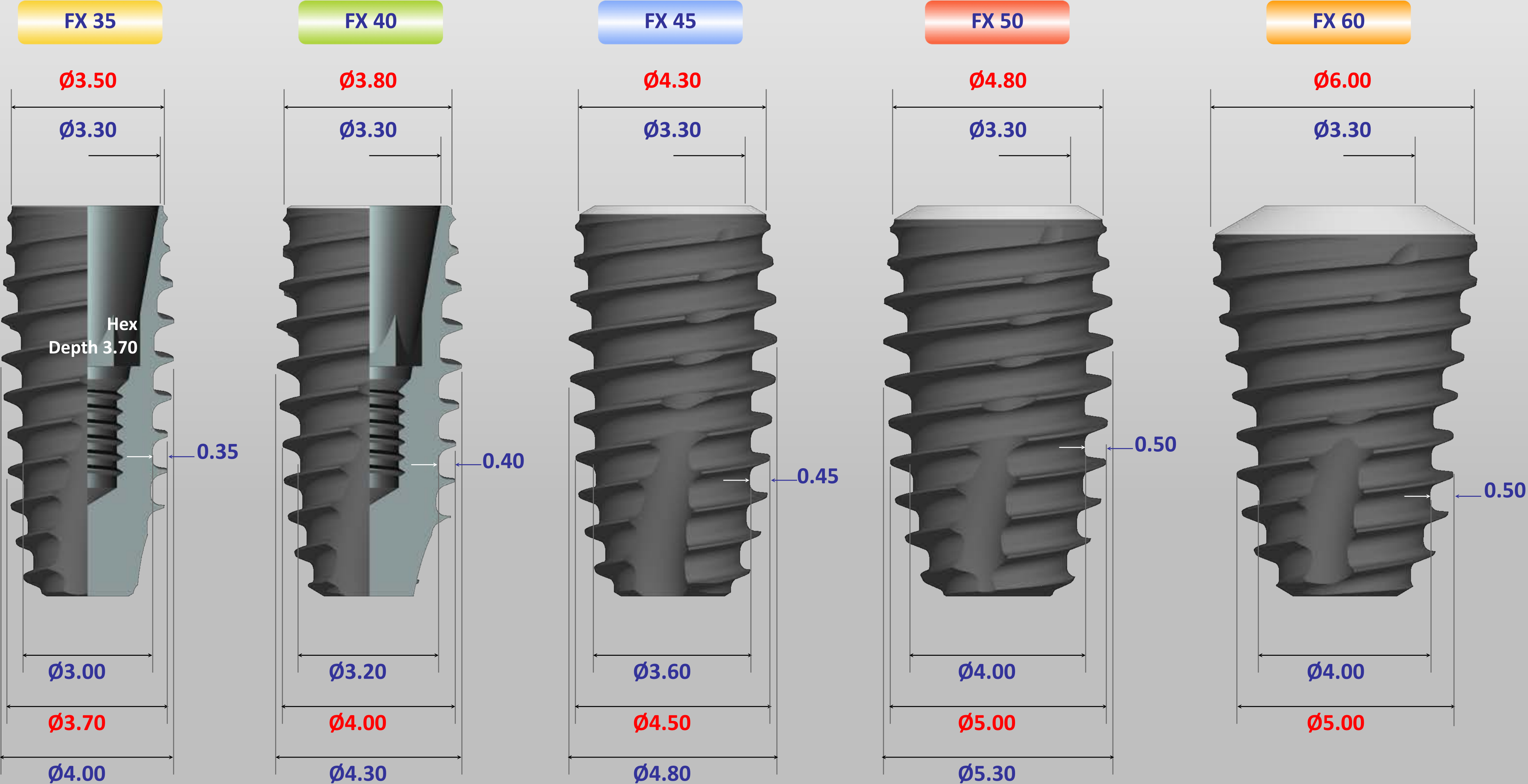
Indication



Incisor / Canine / Premolar

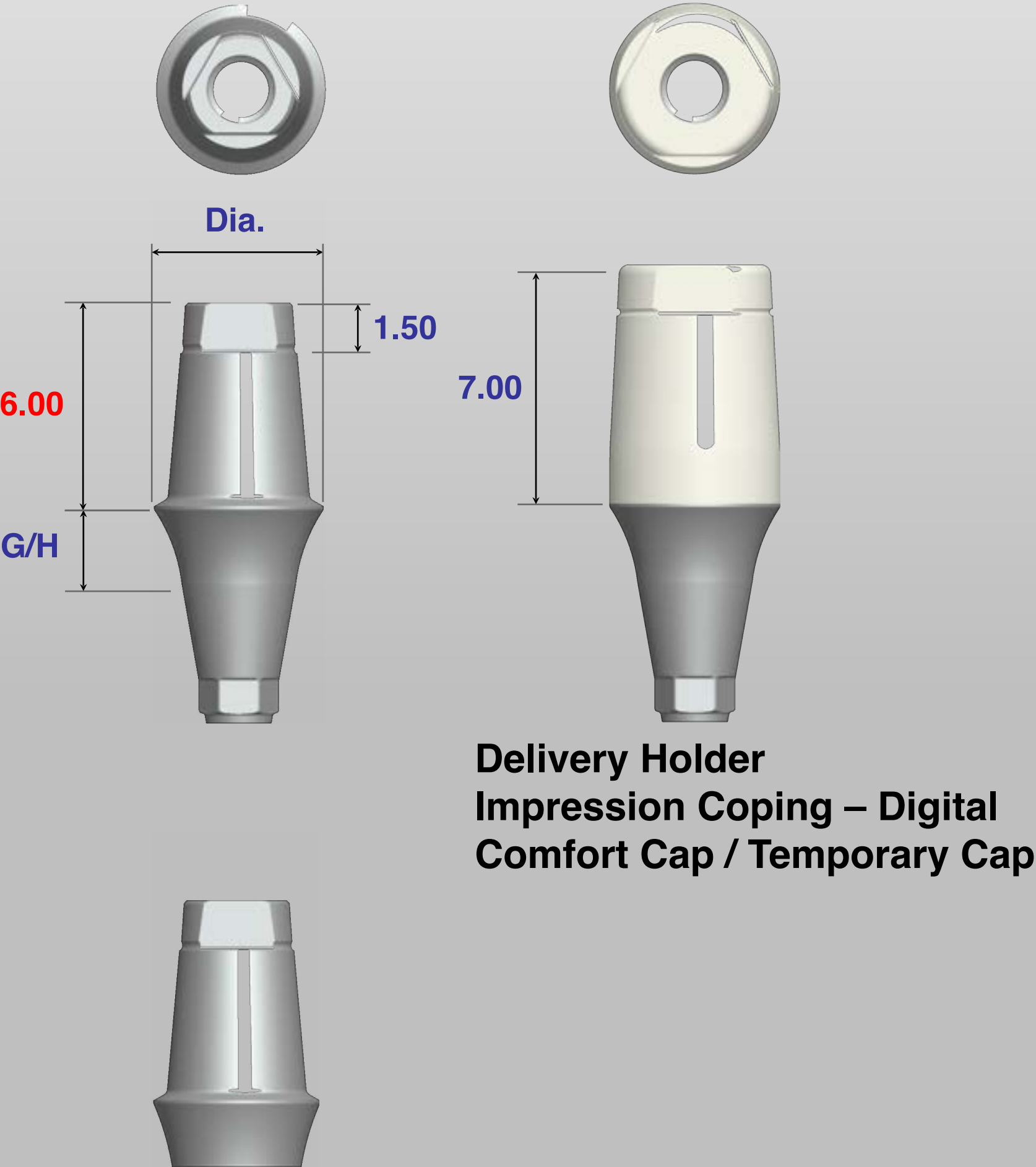
Premolar / Molar

5-Diameters



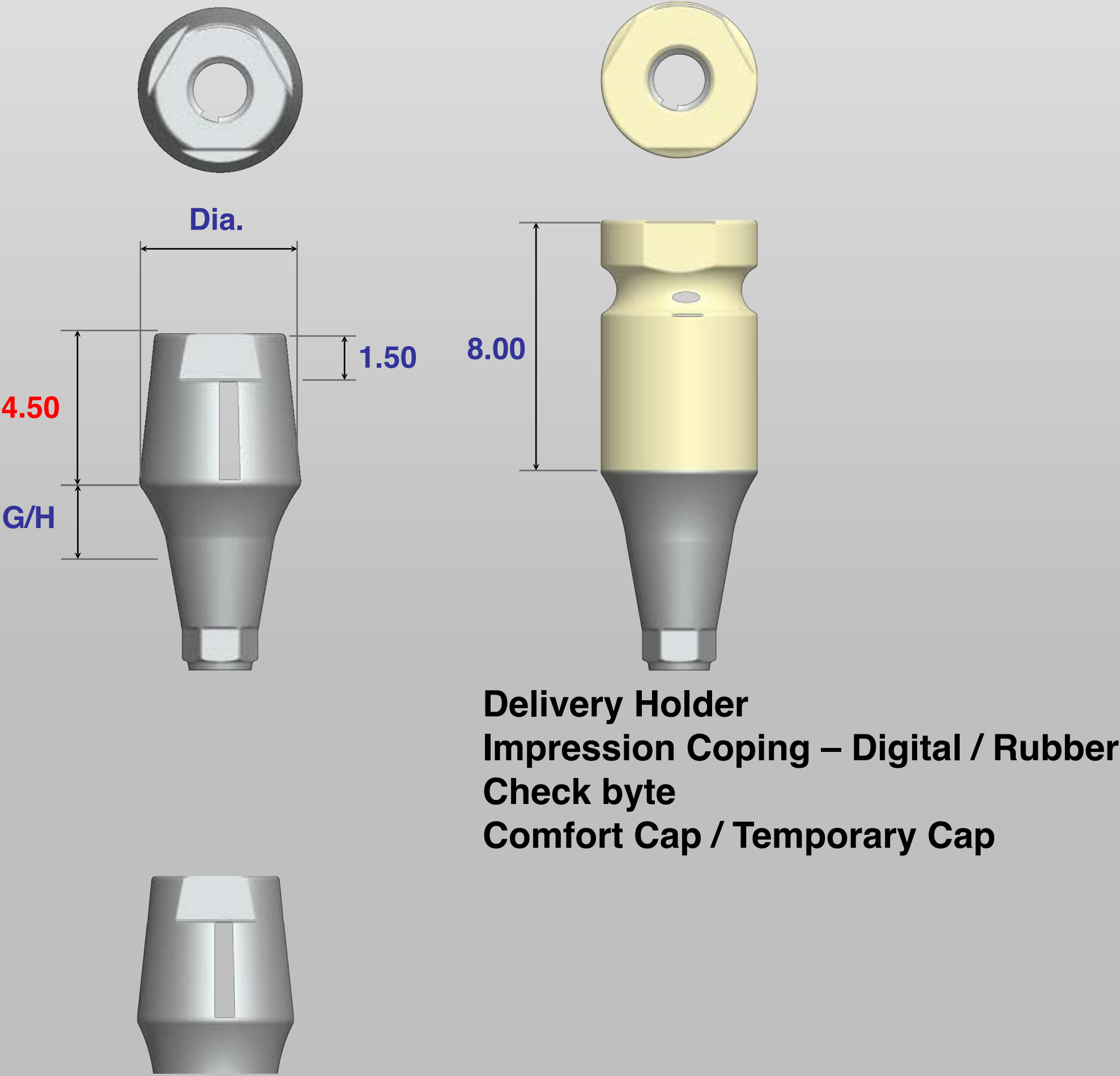
✓ Simple Digital Prosthetic

Digital MetalLink



Scan Abutment

Margin-less Abutment
Healing Abutment



Re definition of implant treatment

High cost

Difficult

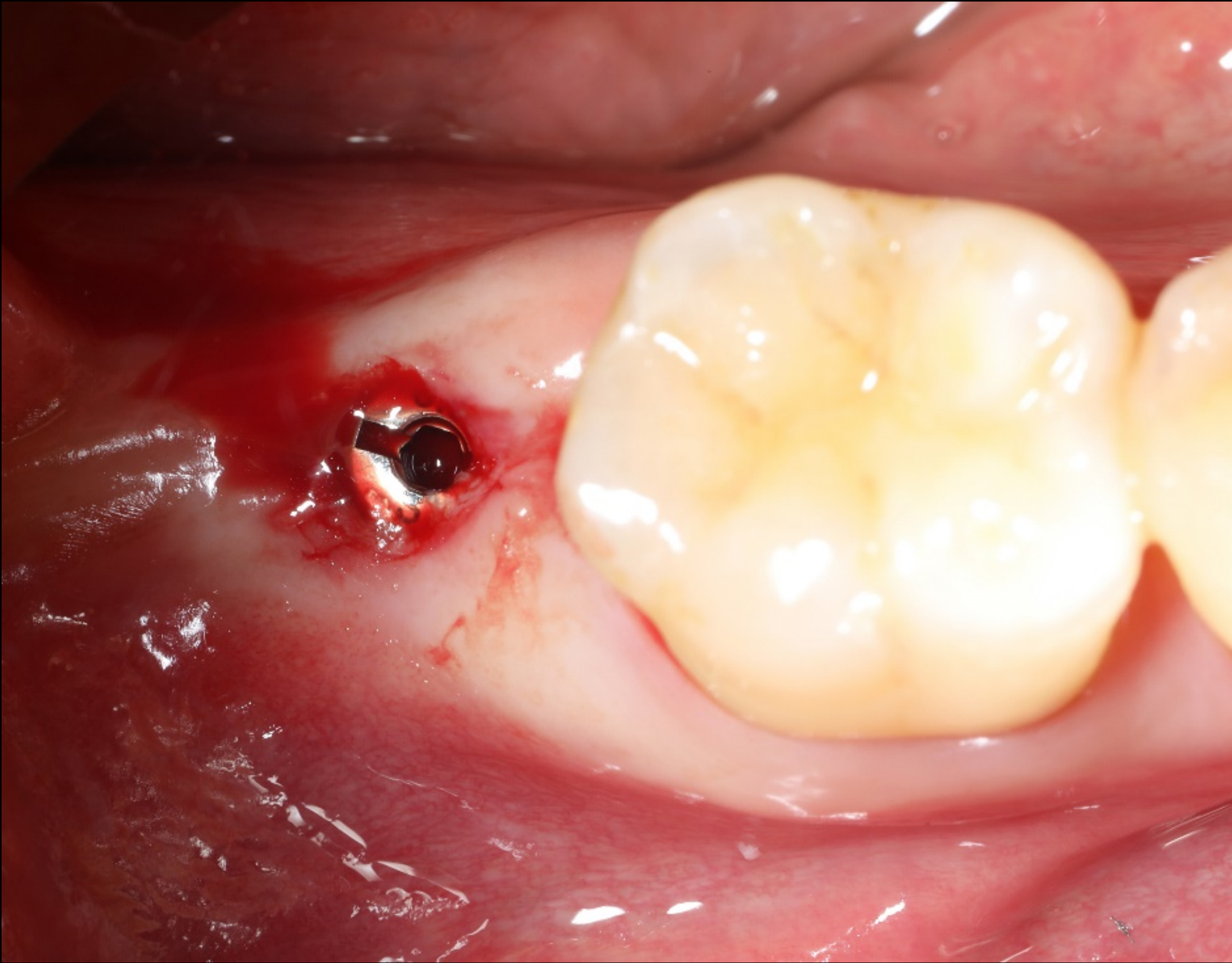
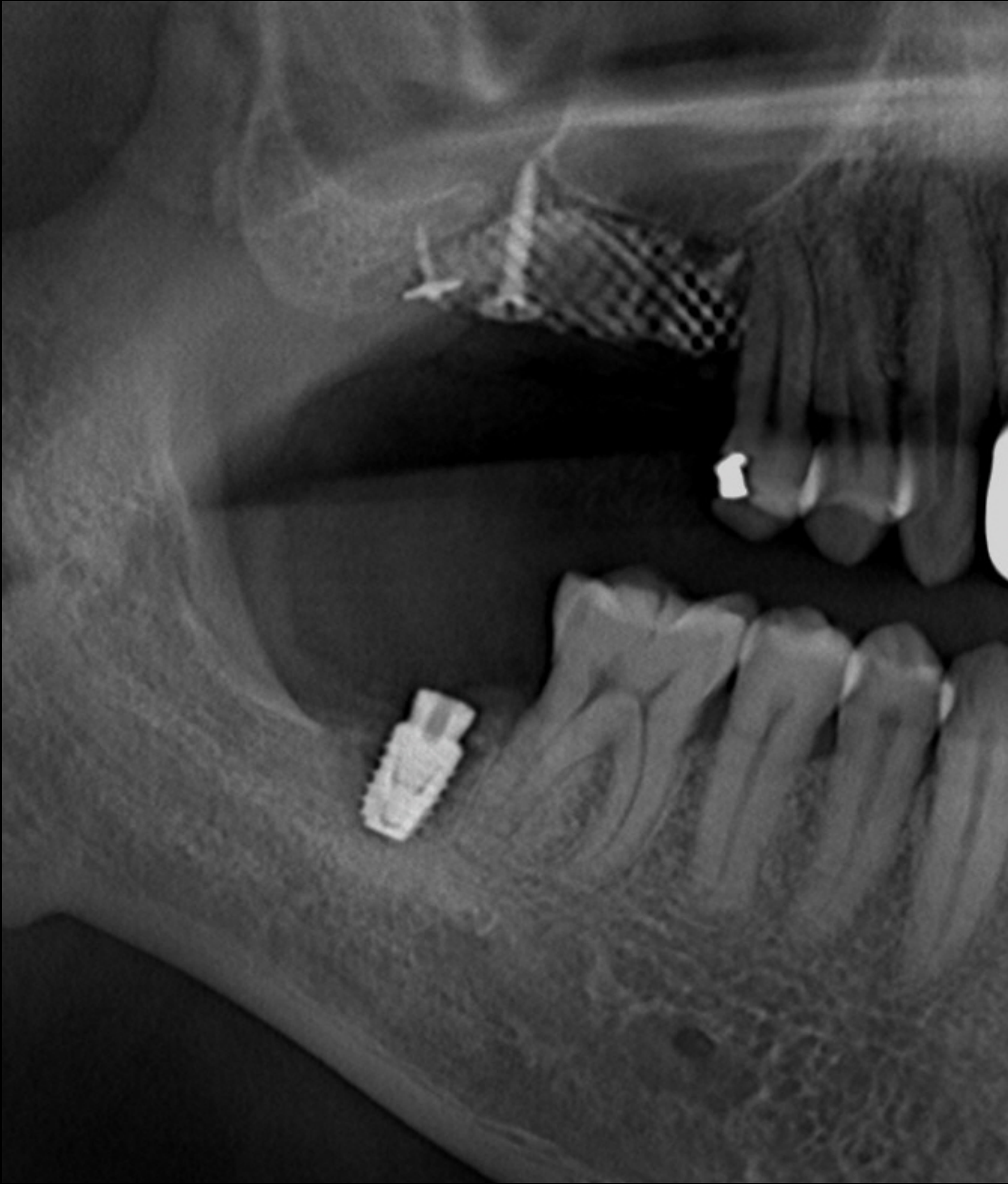
Risky

low cost

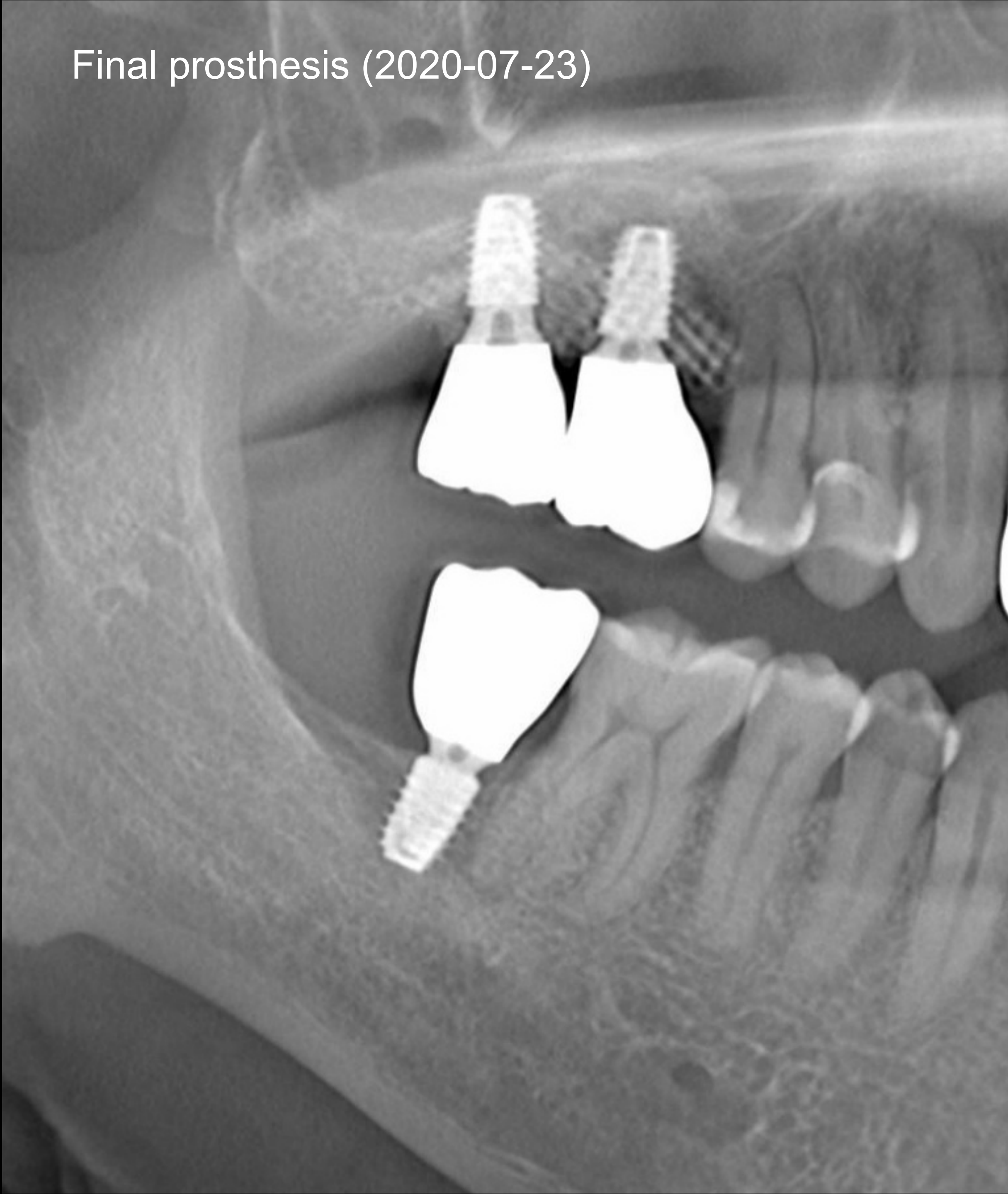
simple Easy

Safe

Post-op (2018-11-19)



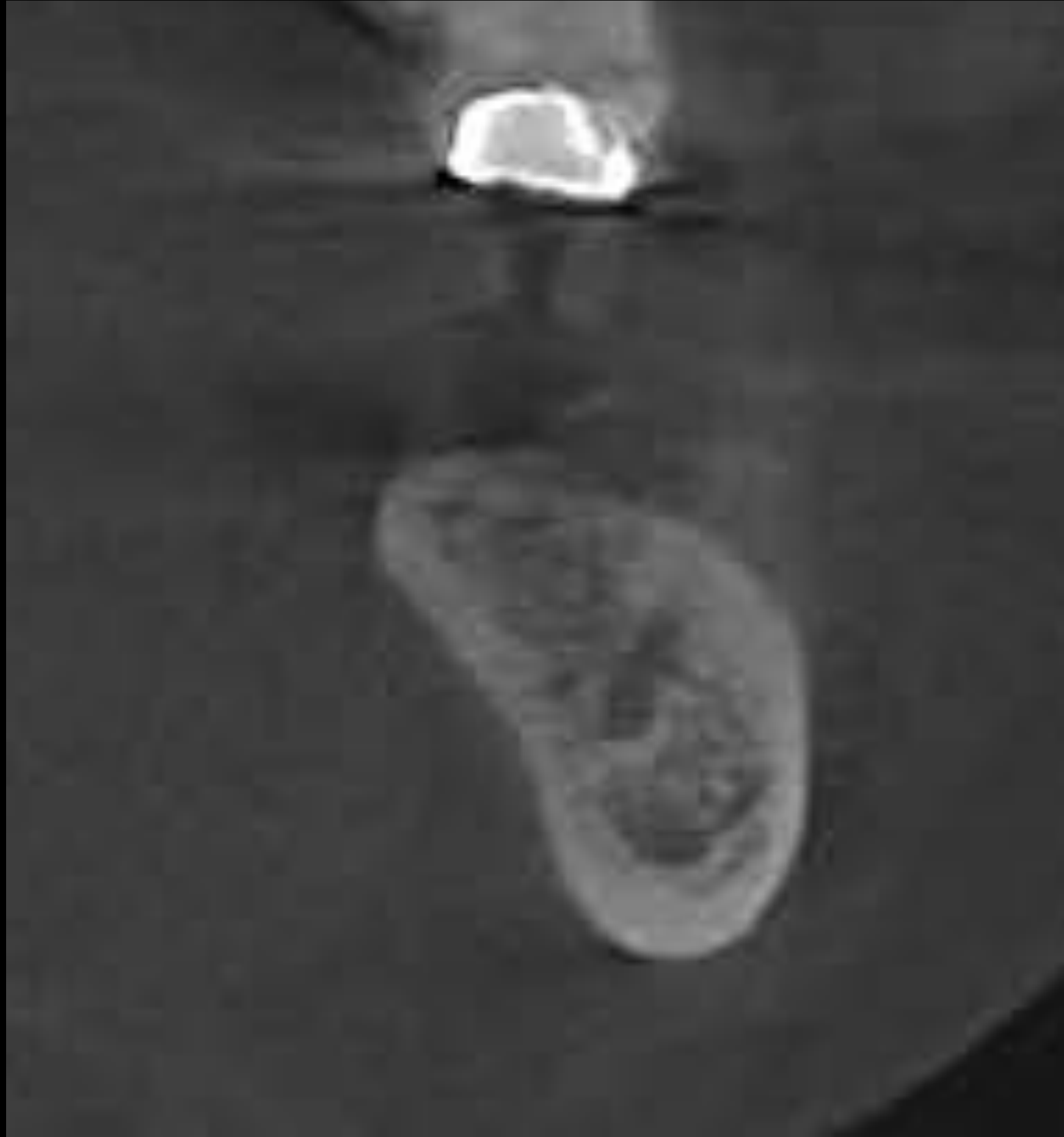
Final prosthesis (2020-07-23)



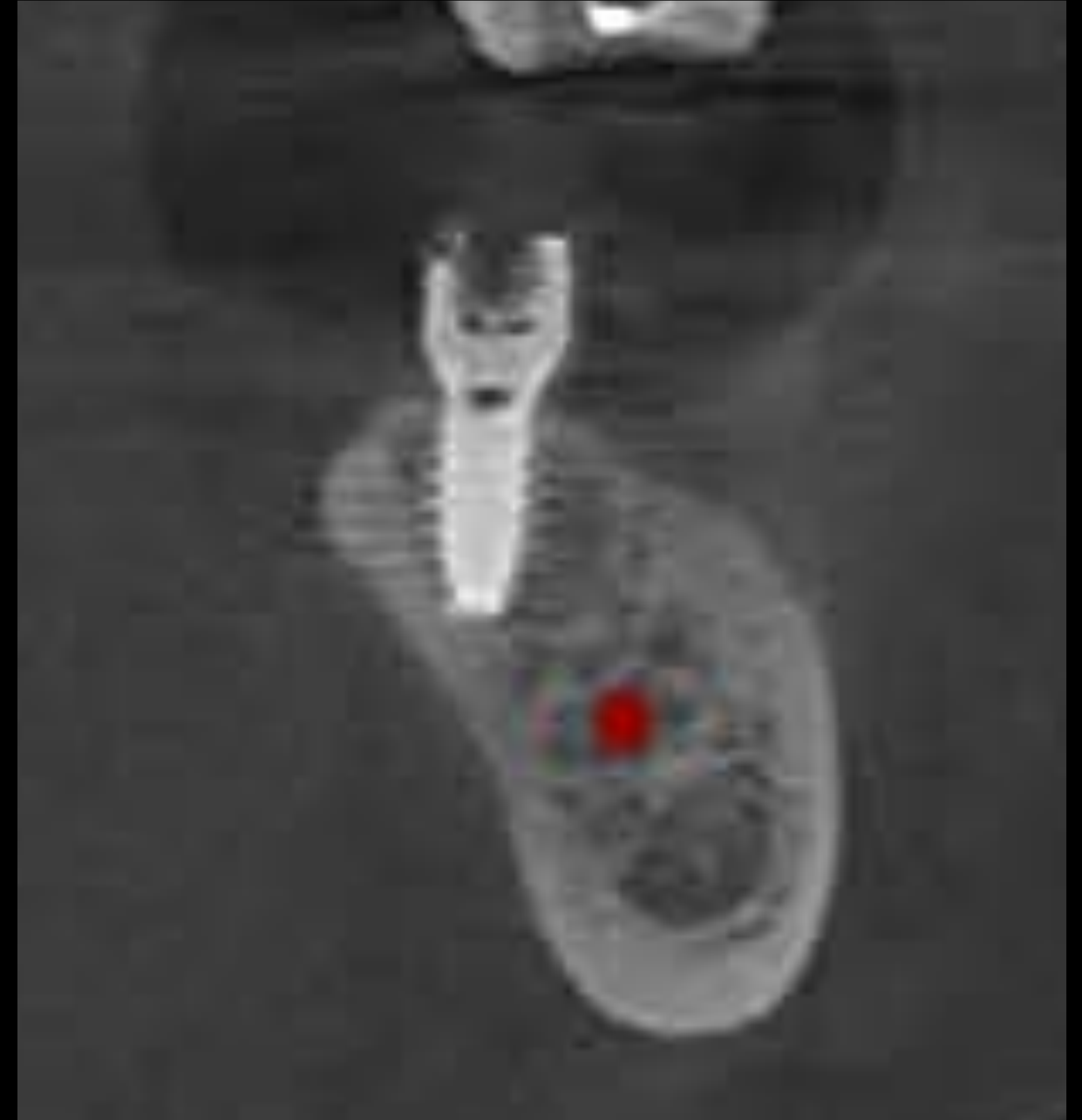
Oral exam (2022-01-19)



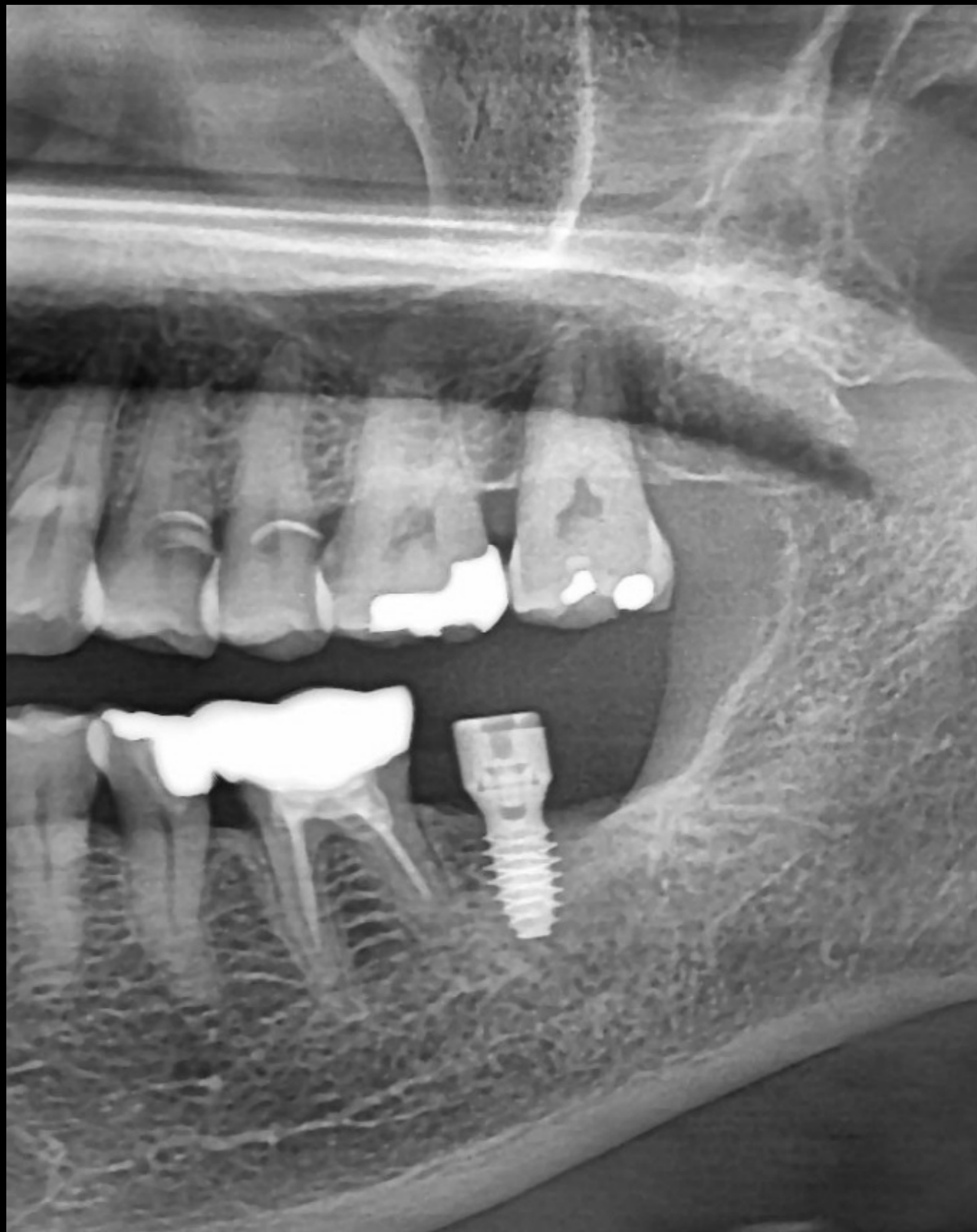
Pre-op (2022-02-24)



Post-op (2022-02-24)



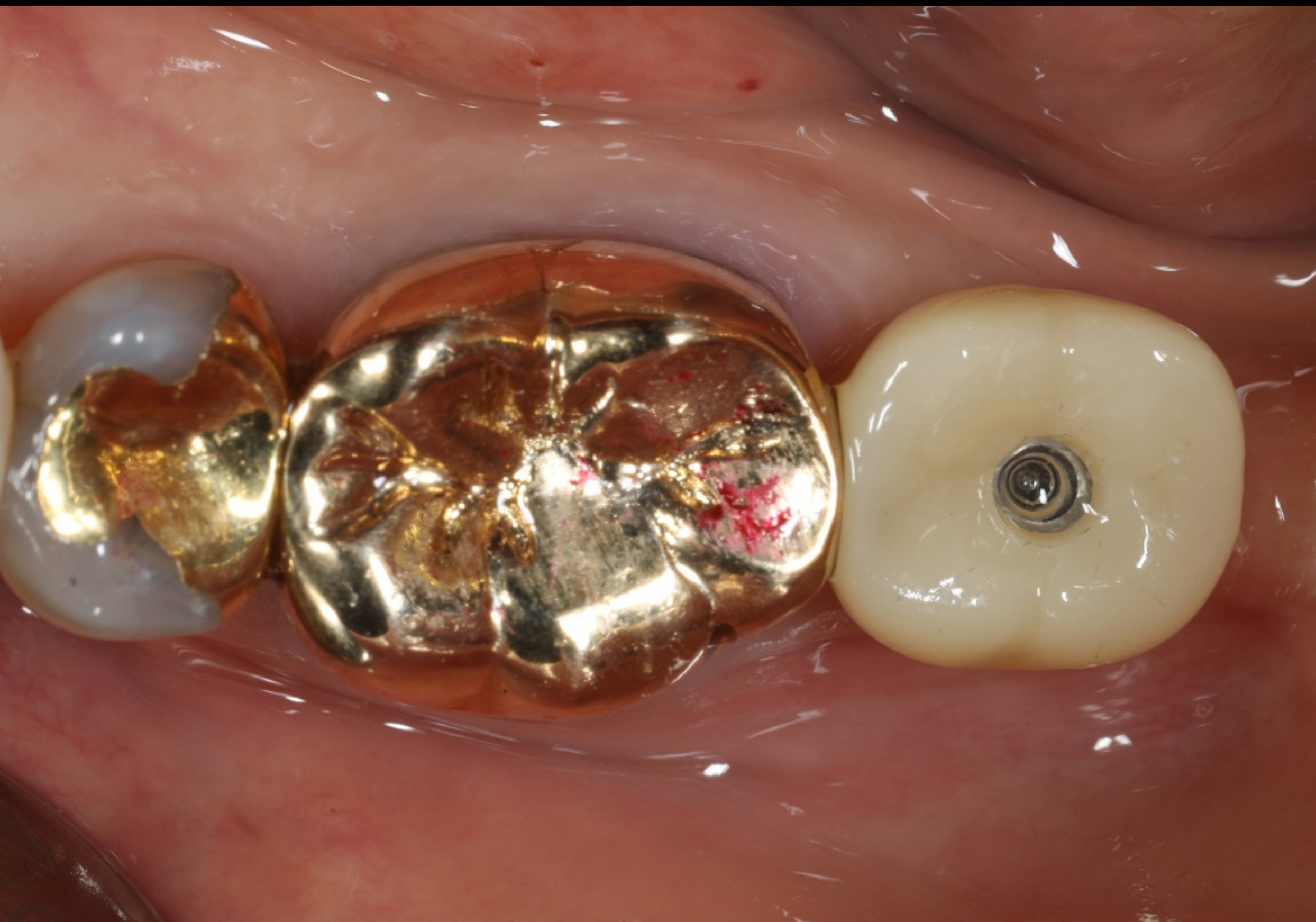
Healing : 2 weeks (2022-03-10)

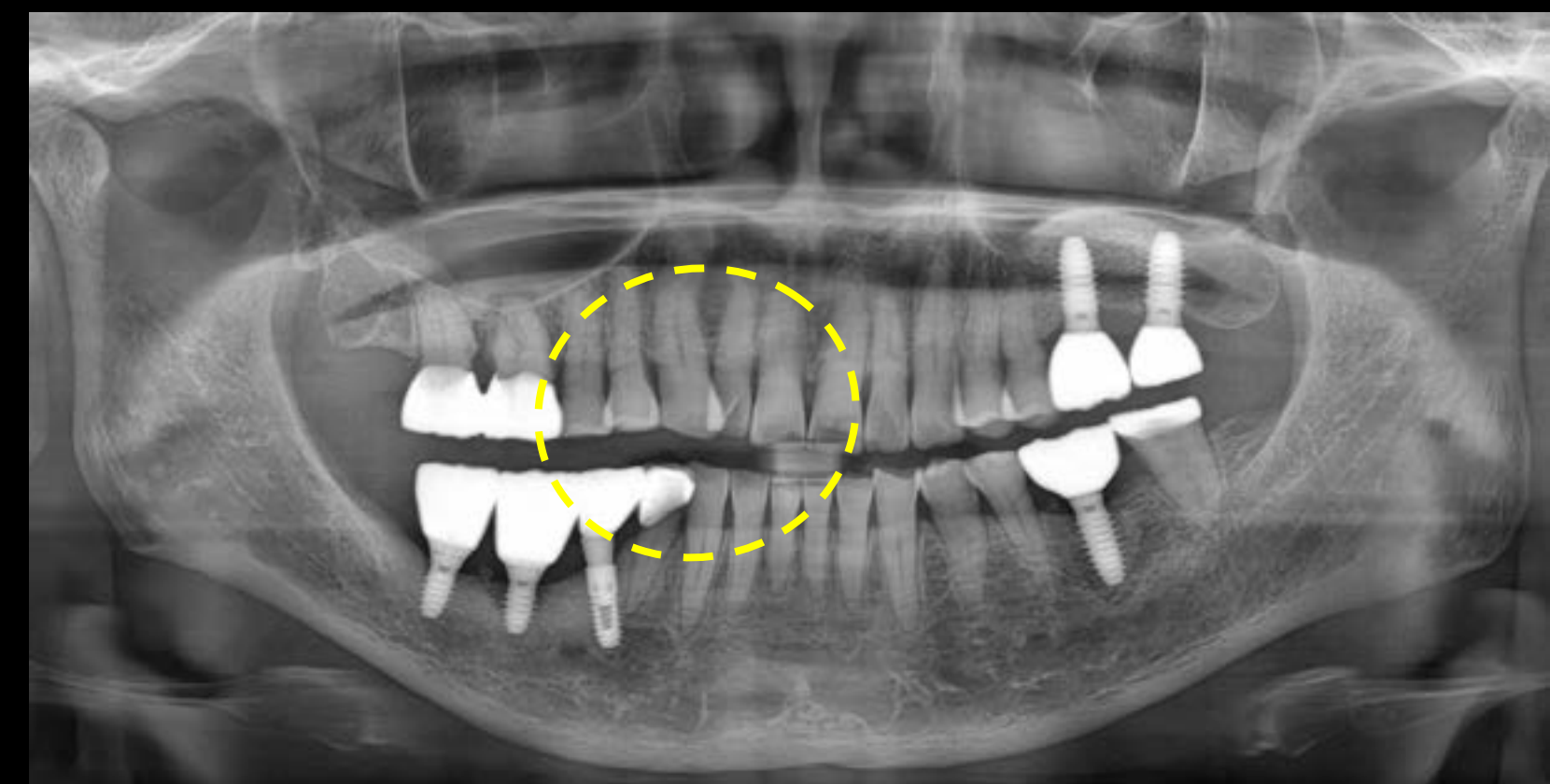
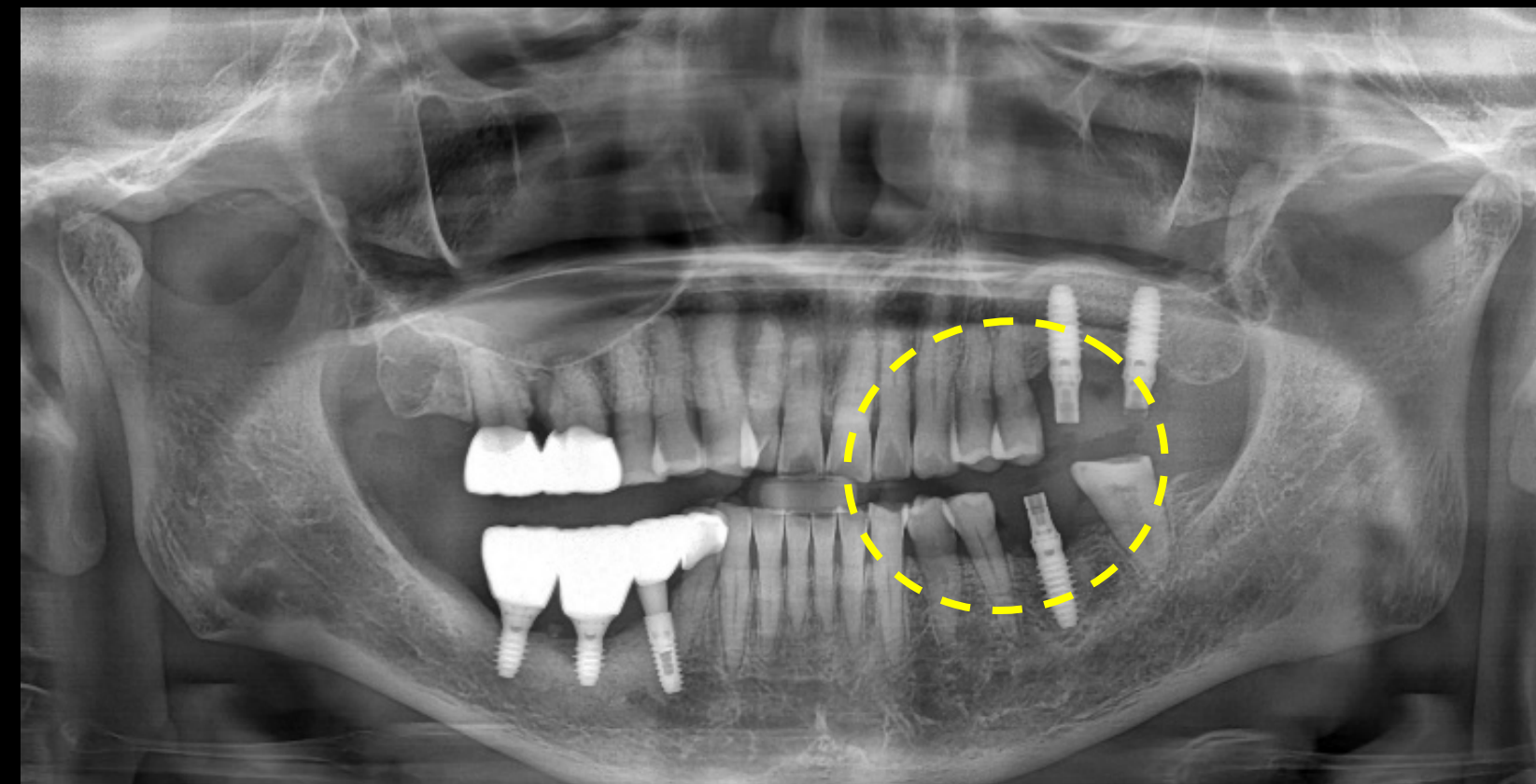


Final prosthesis (2022-07-04)



Final prosthesis (2022-07-04)

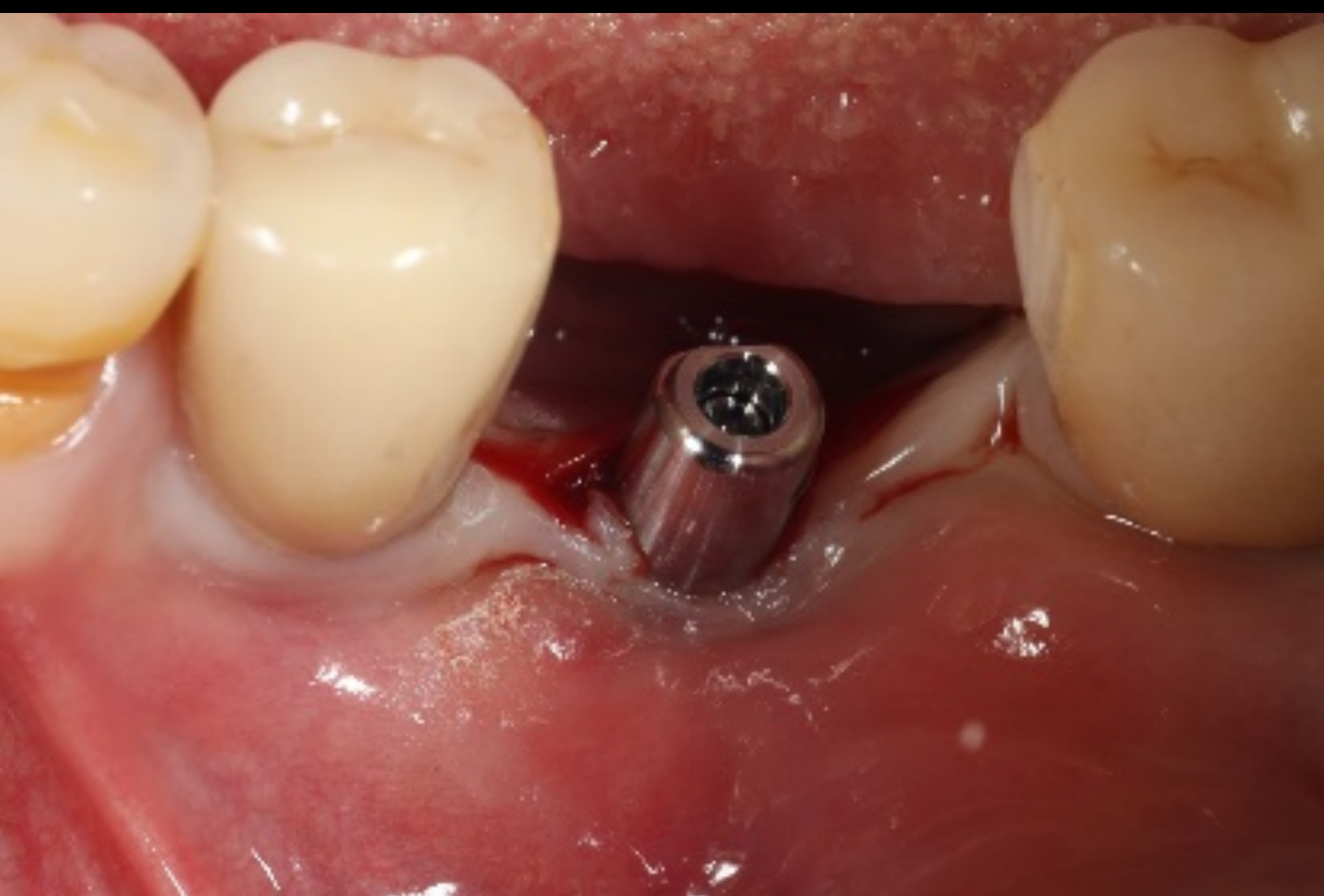




Post-op

Provisional restoration

Final prosthesis



Post-op

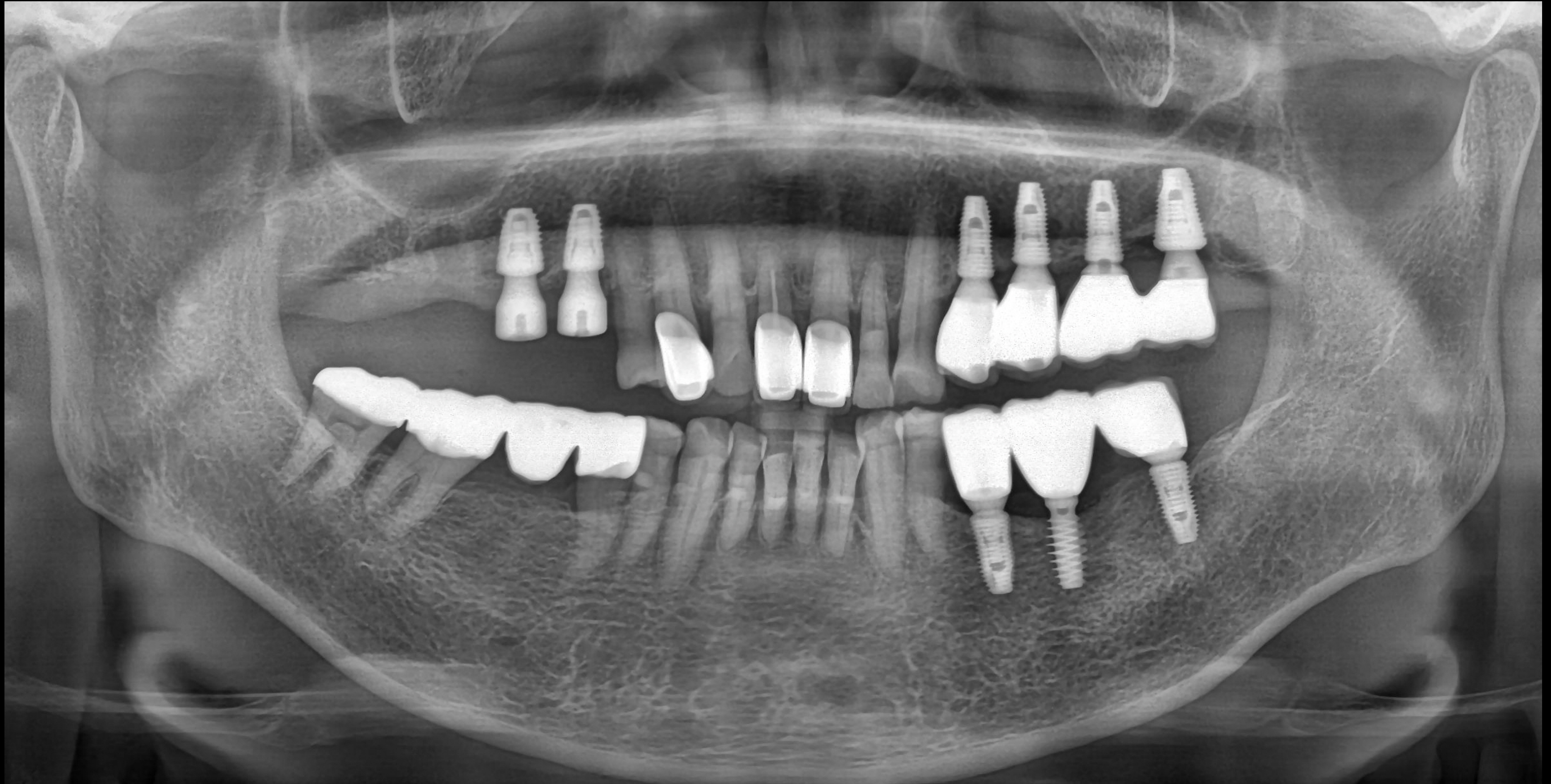


Final prosthesis



FU 2Y 4M

Follow up 2 years 10 months (2023-03-06)

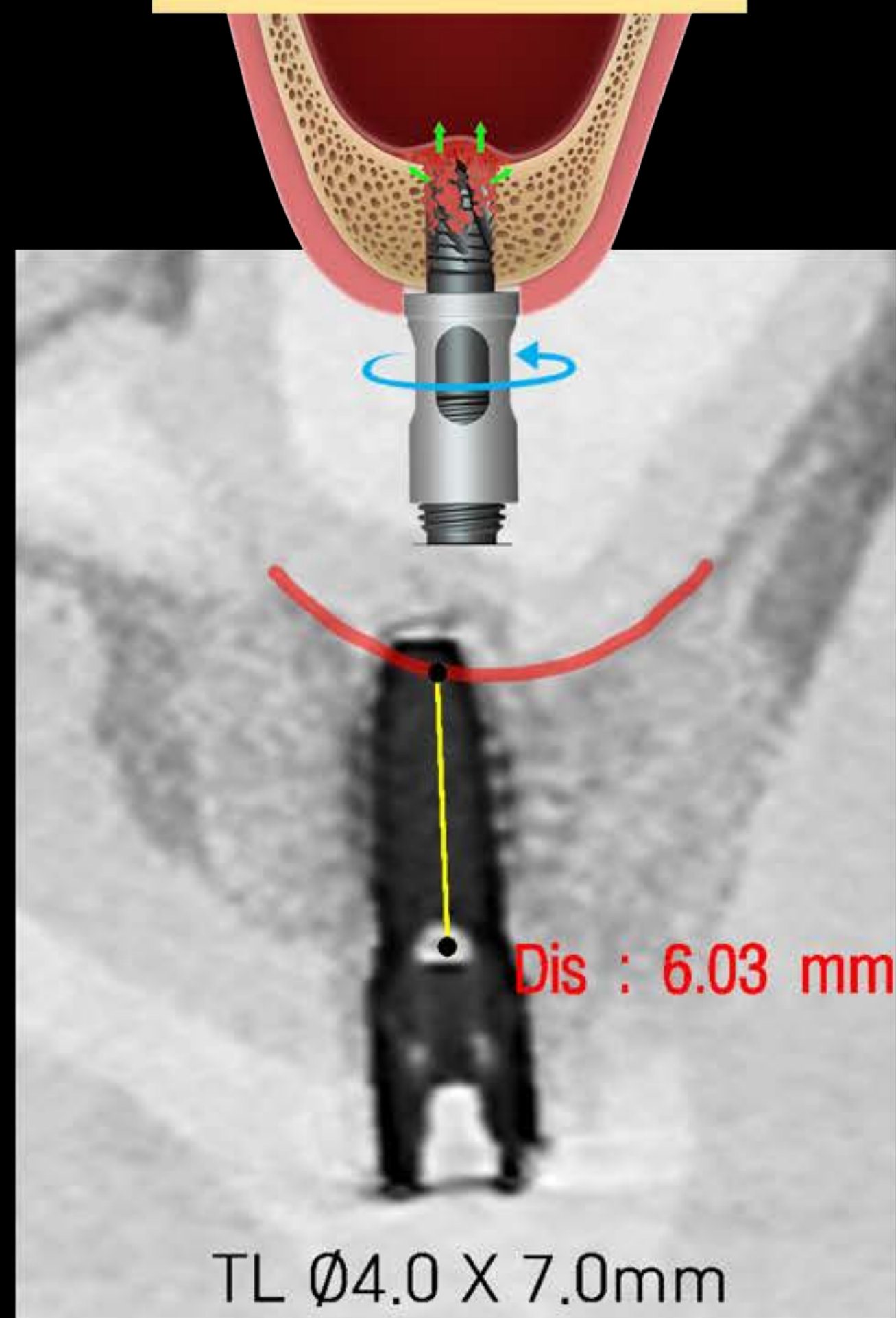


Follow up : 2 years 4 months (2022-09-28)

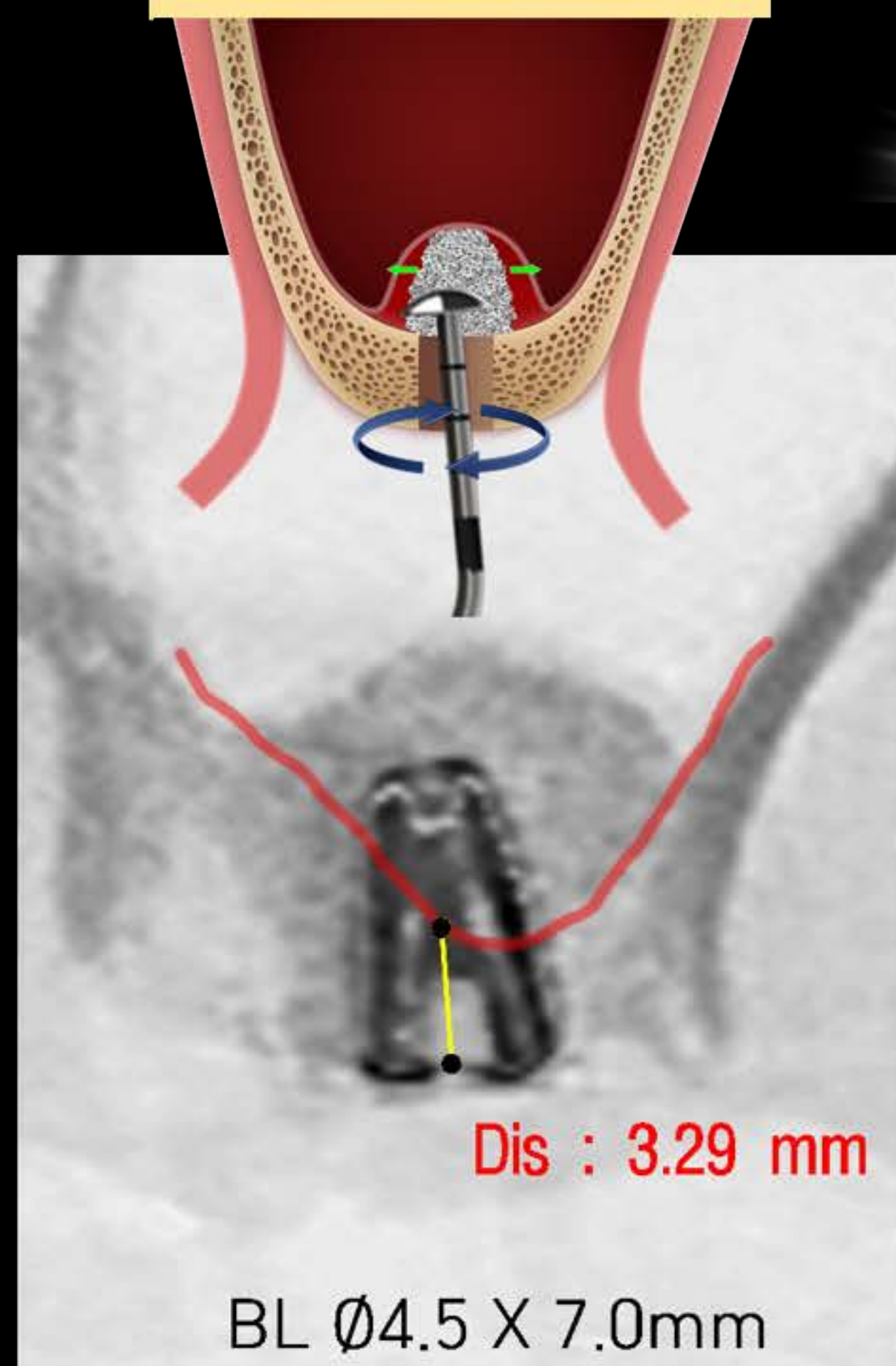


Sinus Minimalism Concept

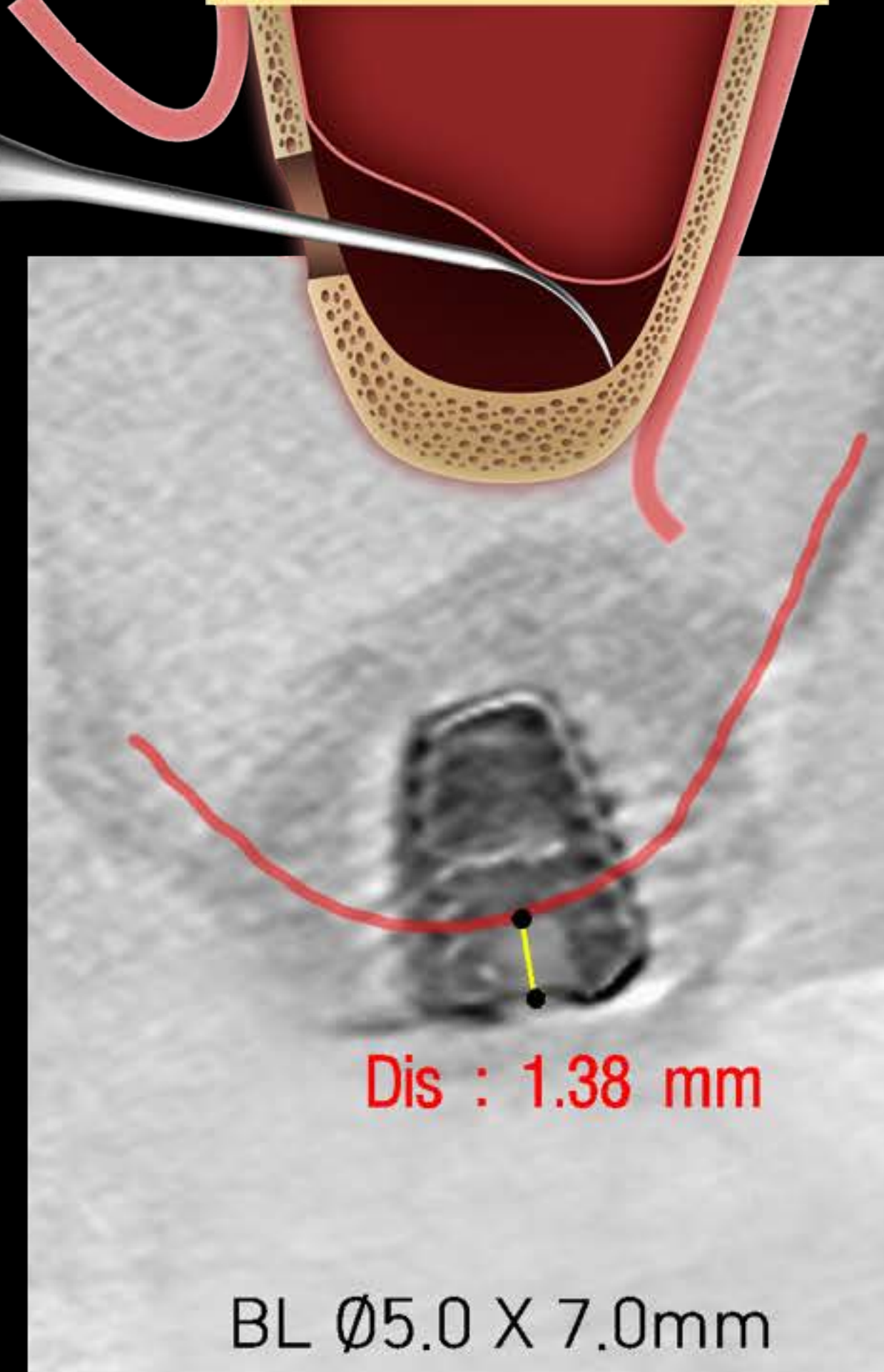
Bicortical fixation



Crestal approach



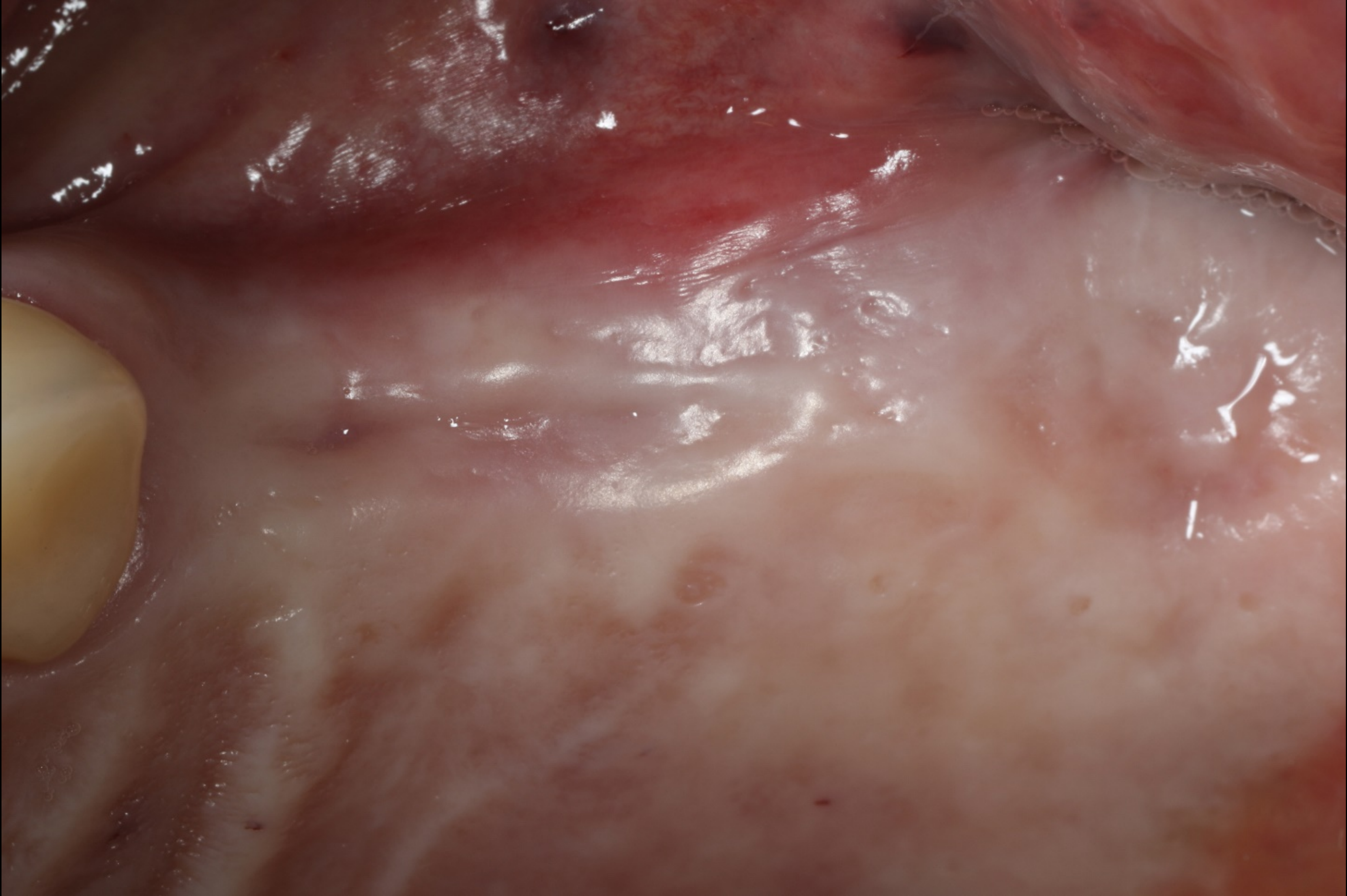
Lateral approach



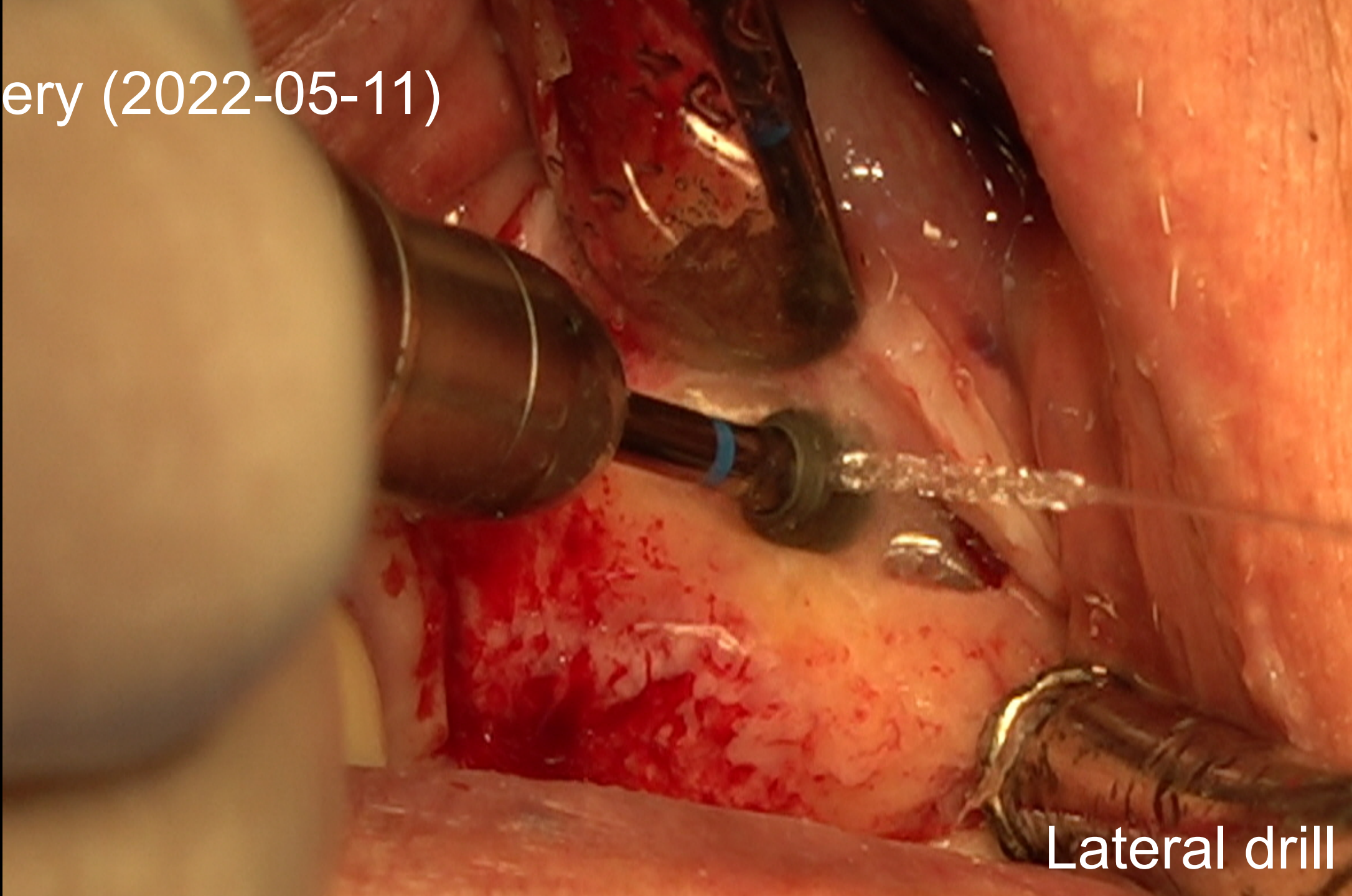
Final prosthesis (2023-03-11)



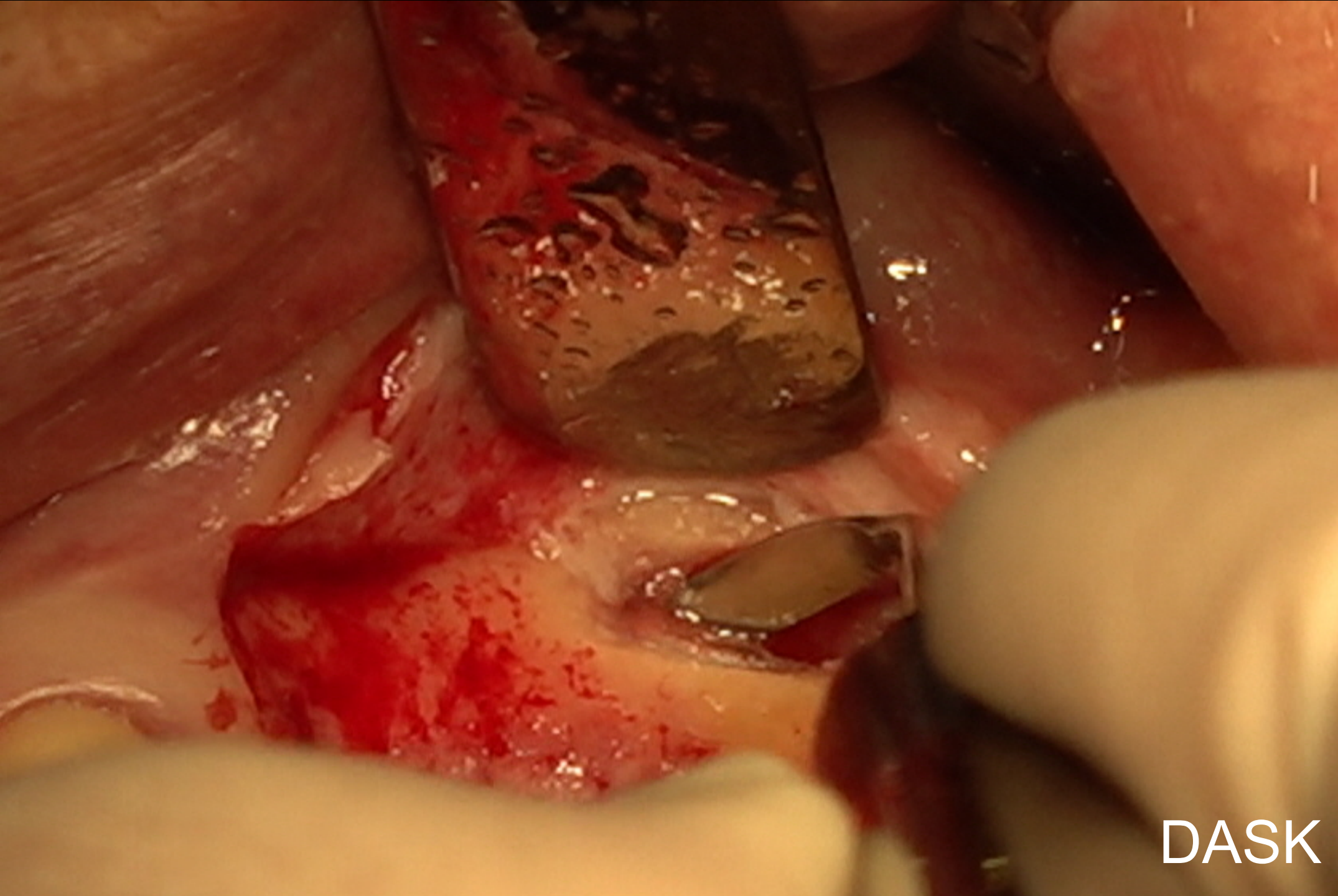
Pre-op (2022-05-11)



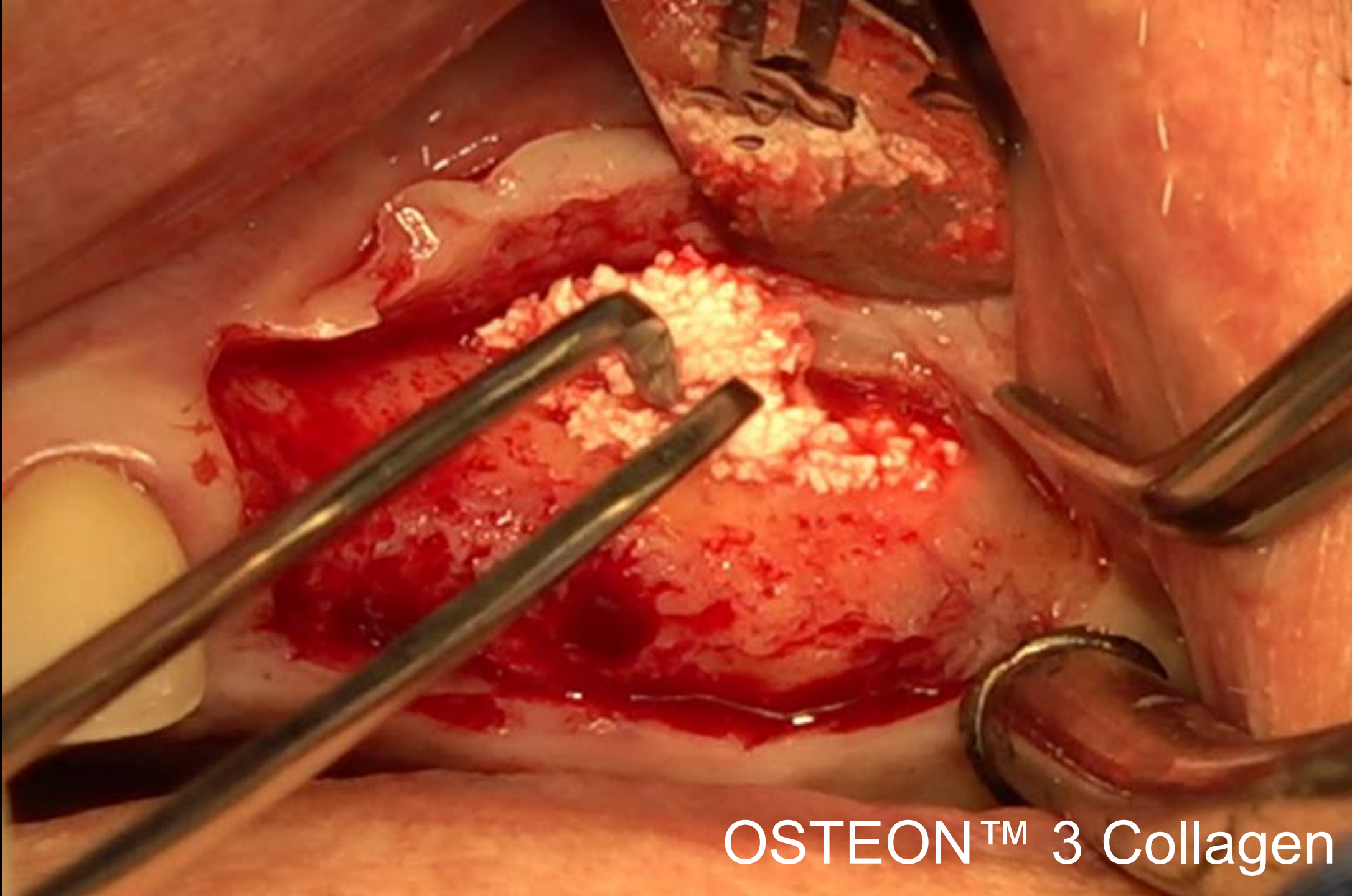
Surgery (2022-05-11)



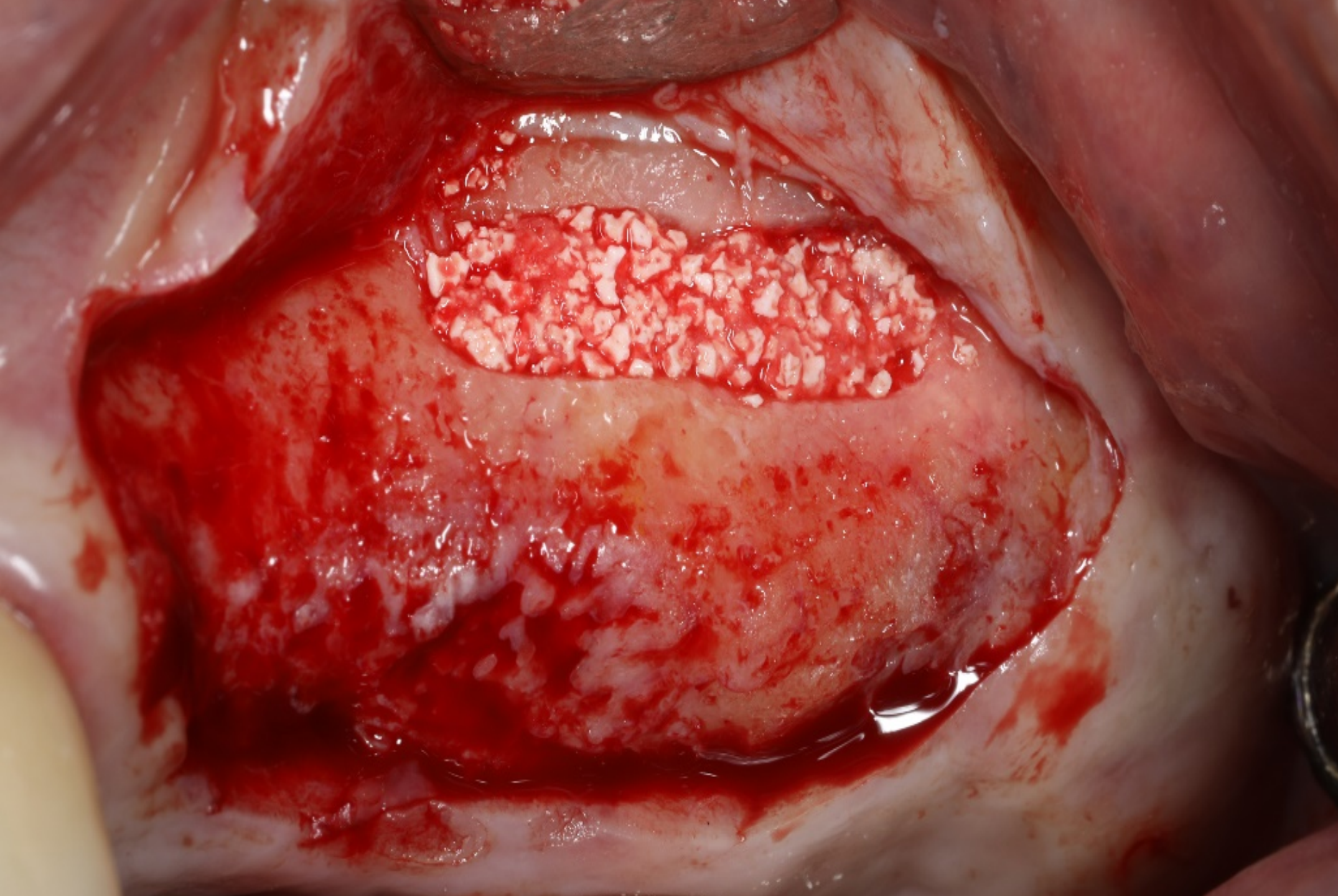
Lateral drill

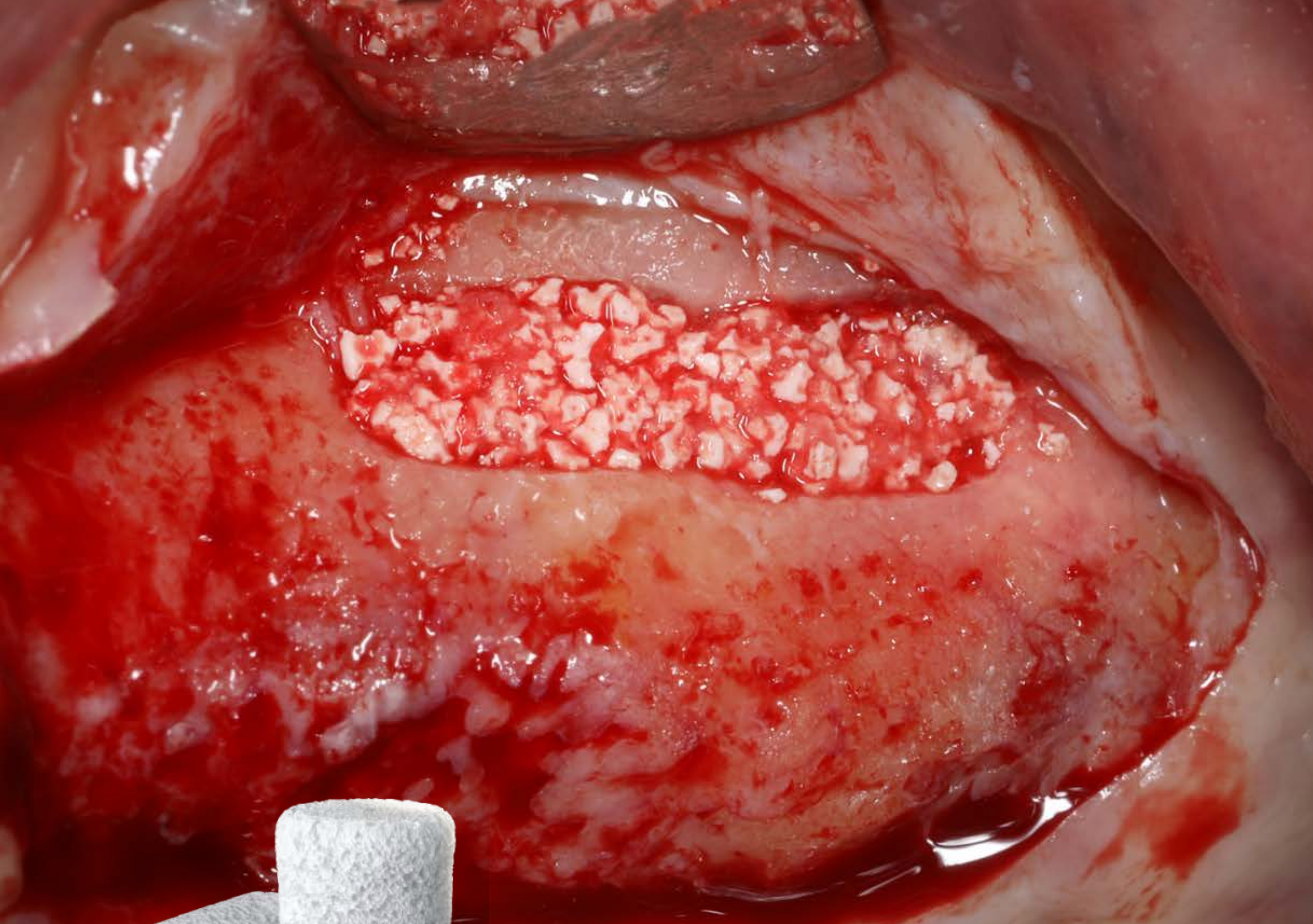


DASK



OSTEON™ 3 Collagen

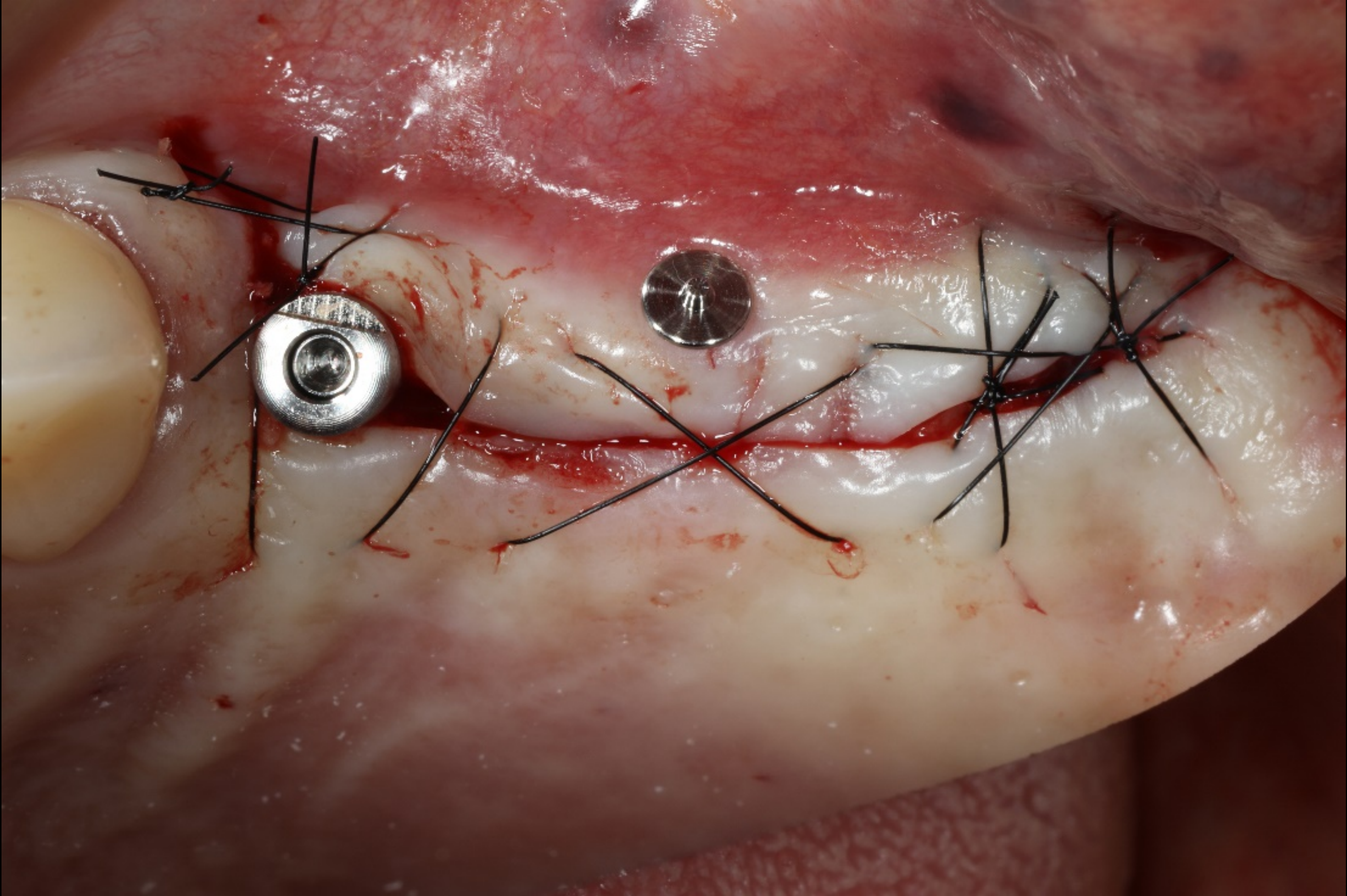




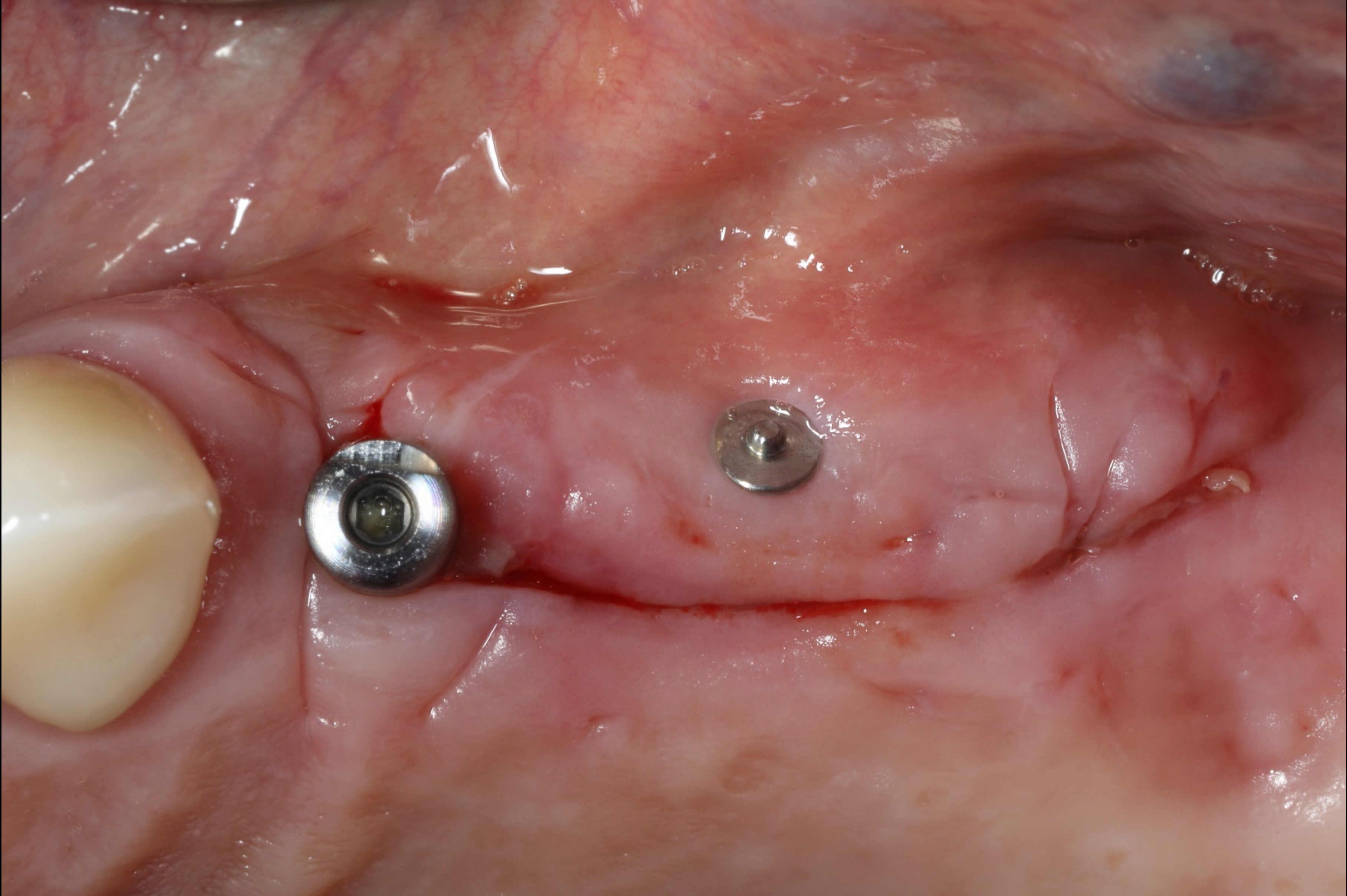
Osteon 3 collagen

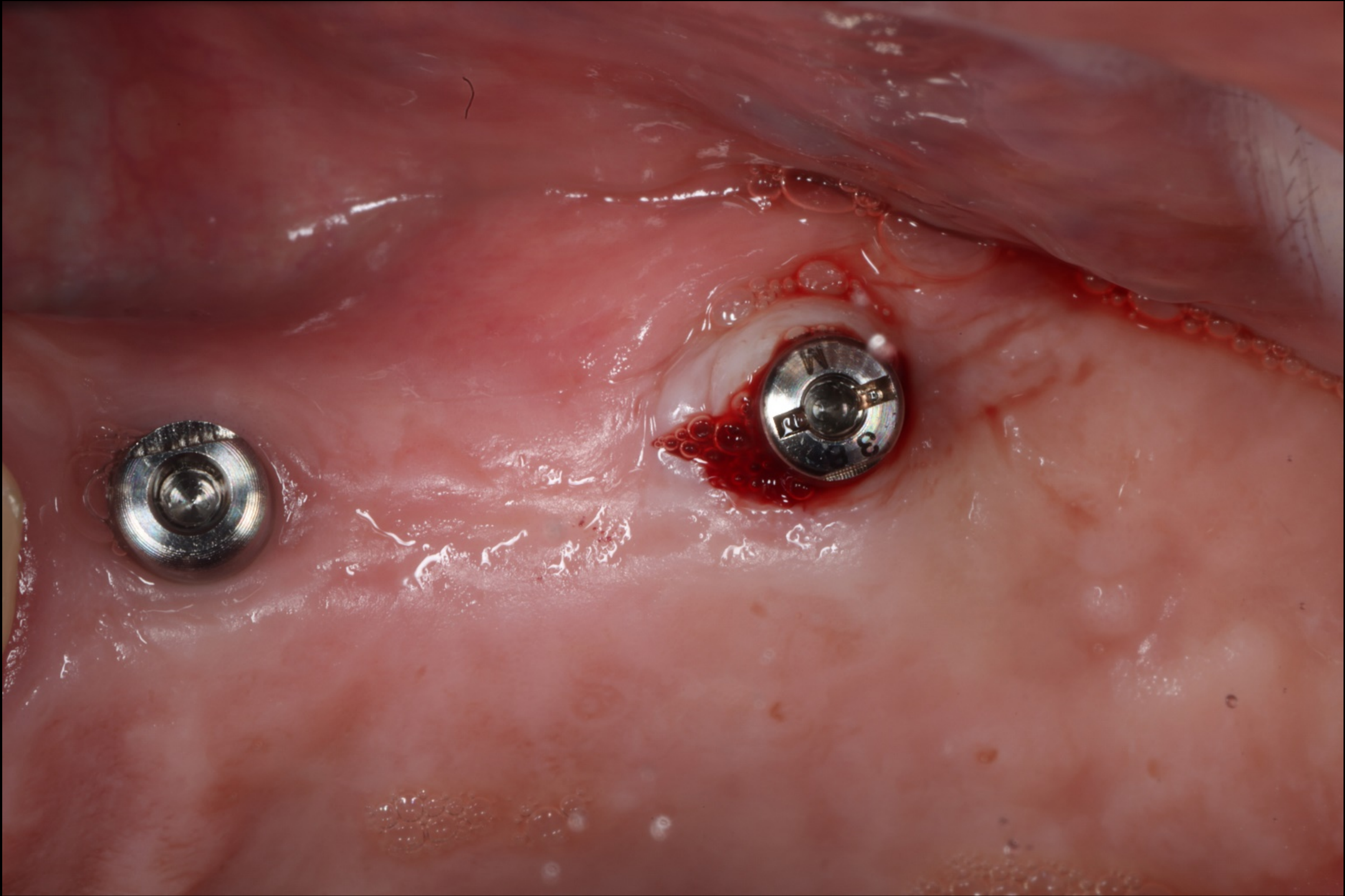


Post-op (2022-05-11)



Healing : 1 week (2022-05-18)

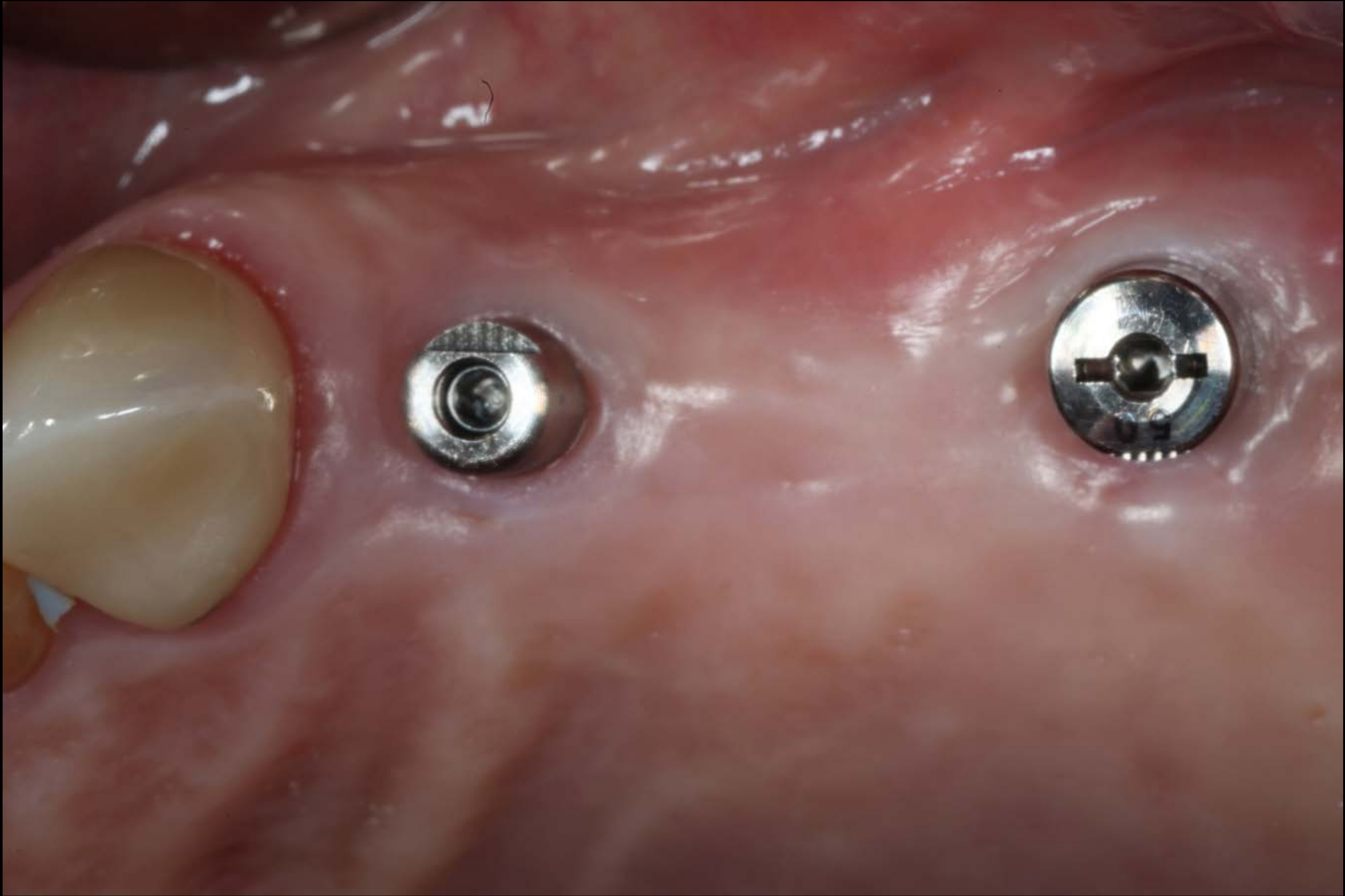




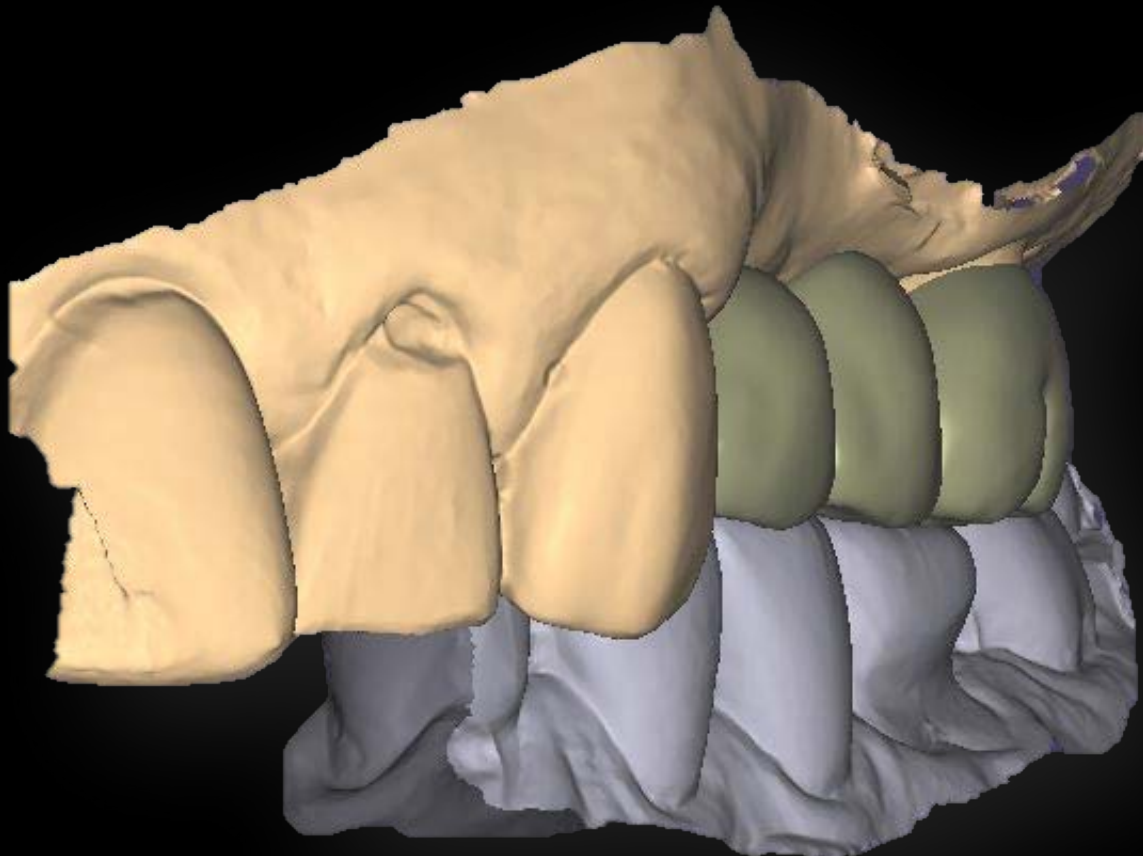
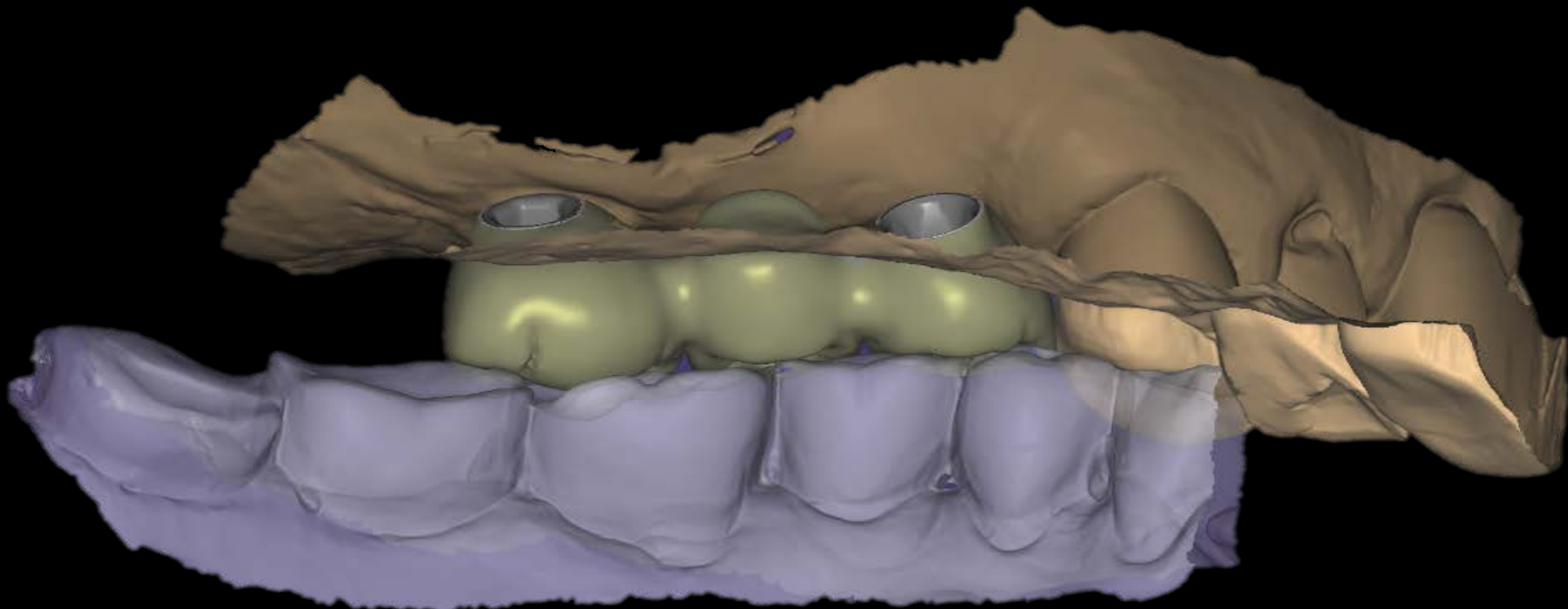
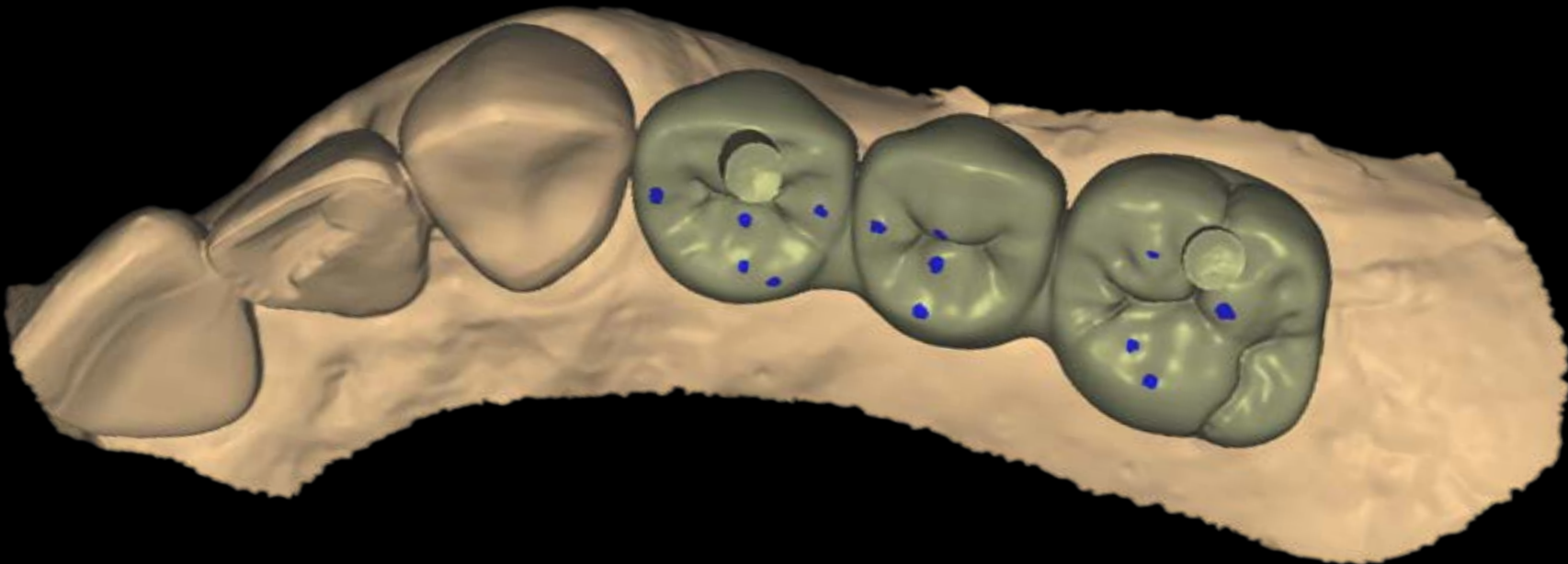
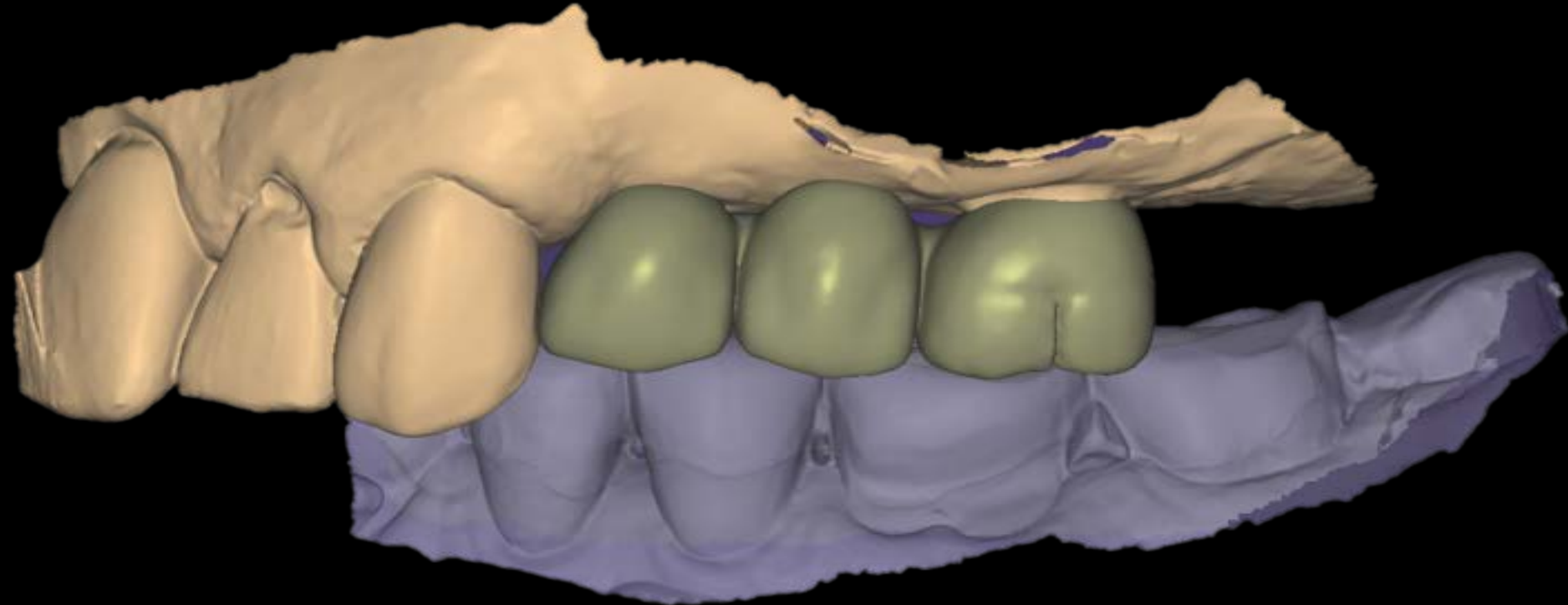
Intra-oral scanning



Final impression (2023-02-02)



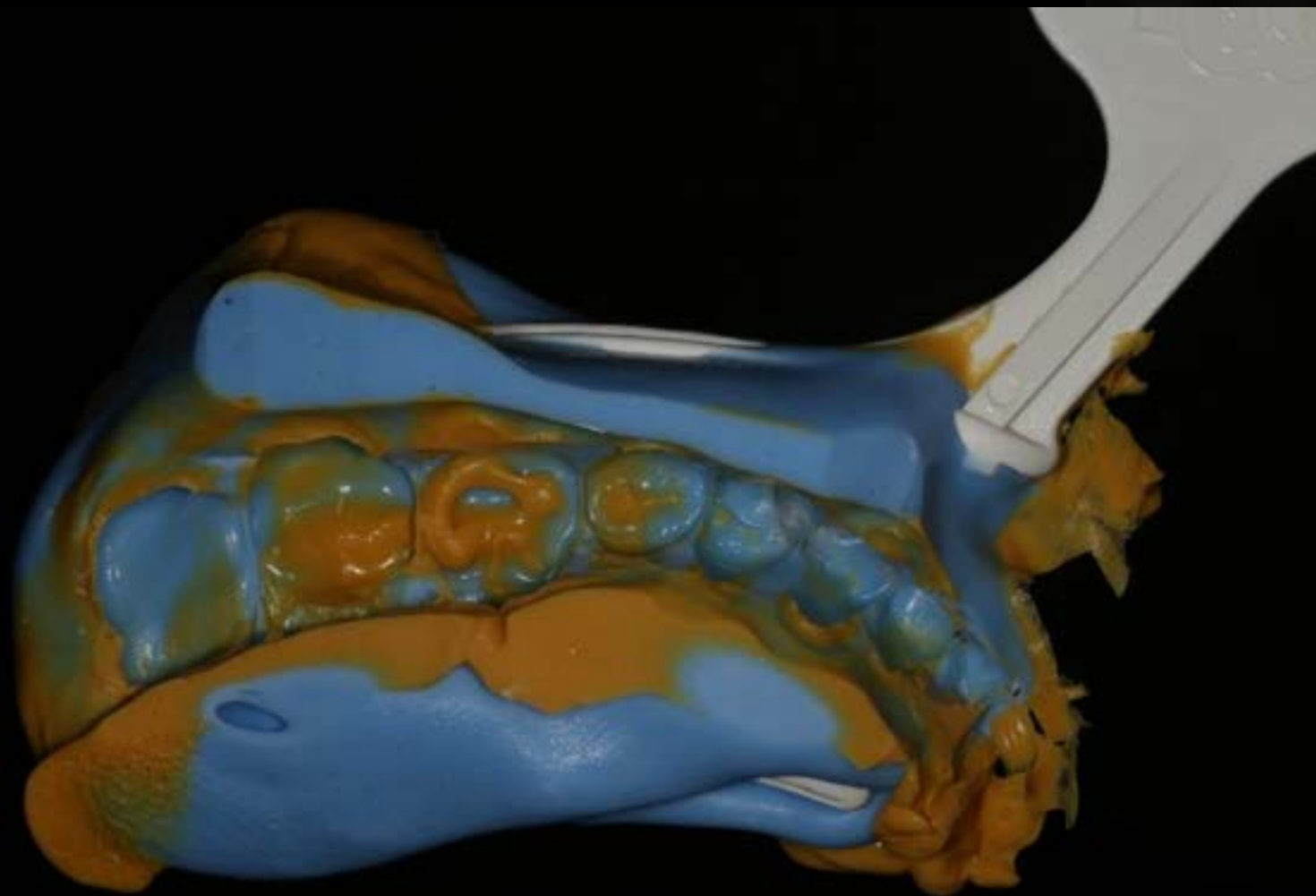
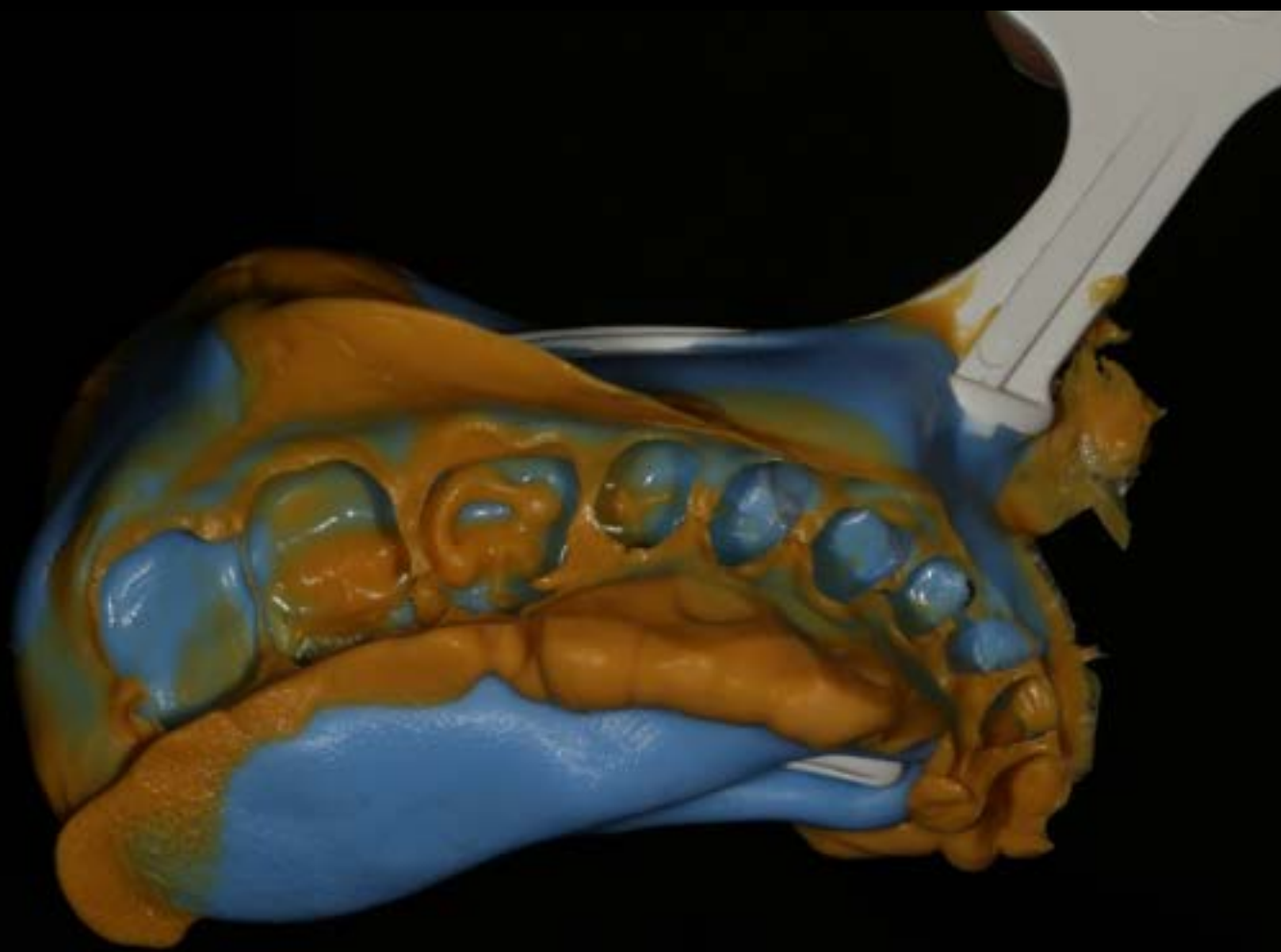
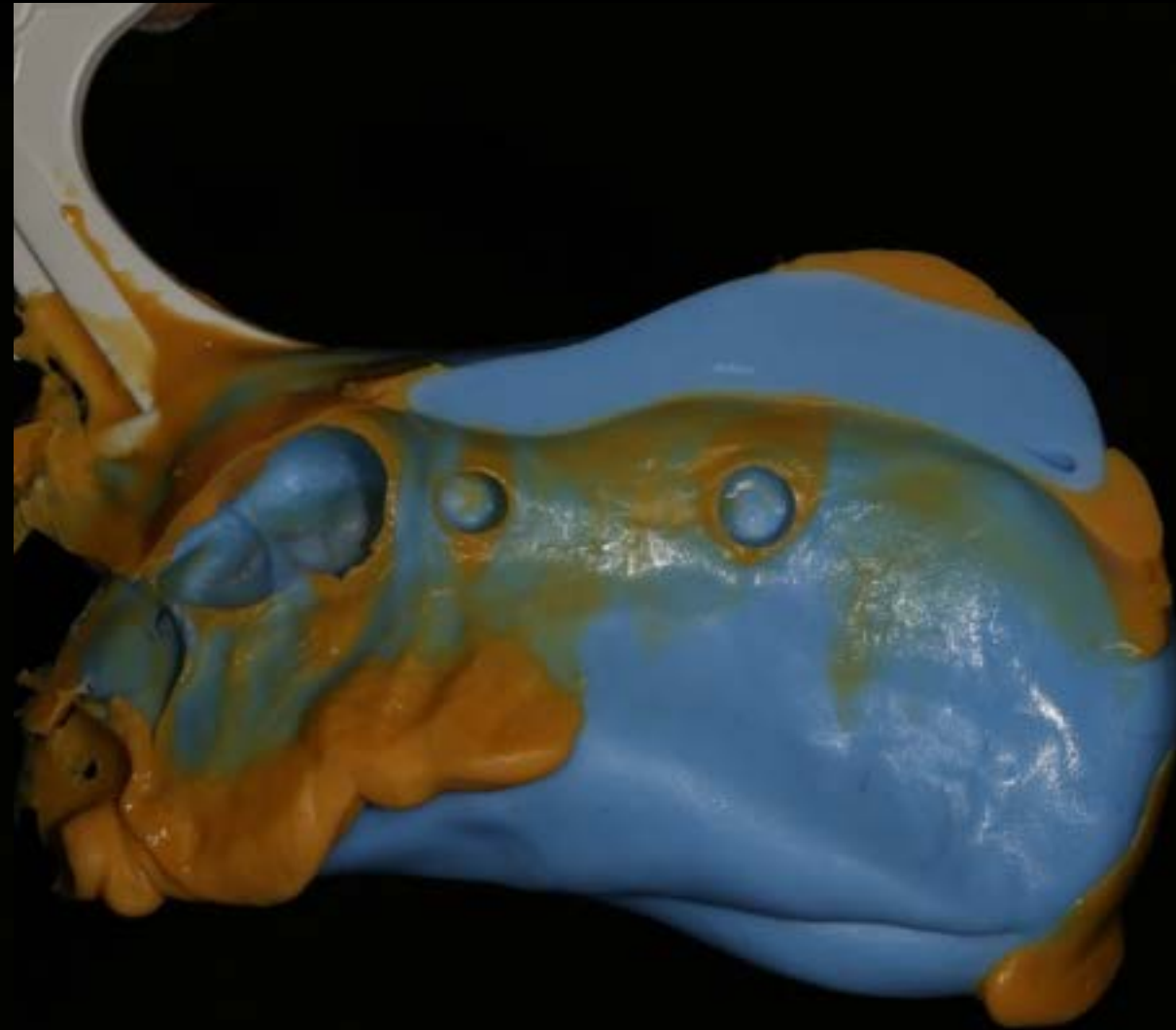
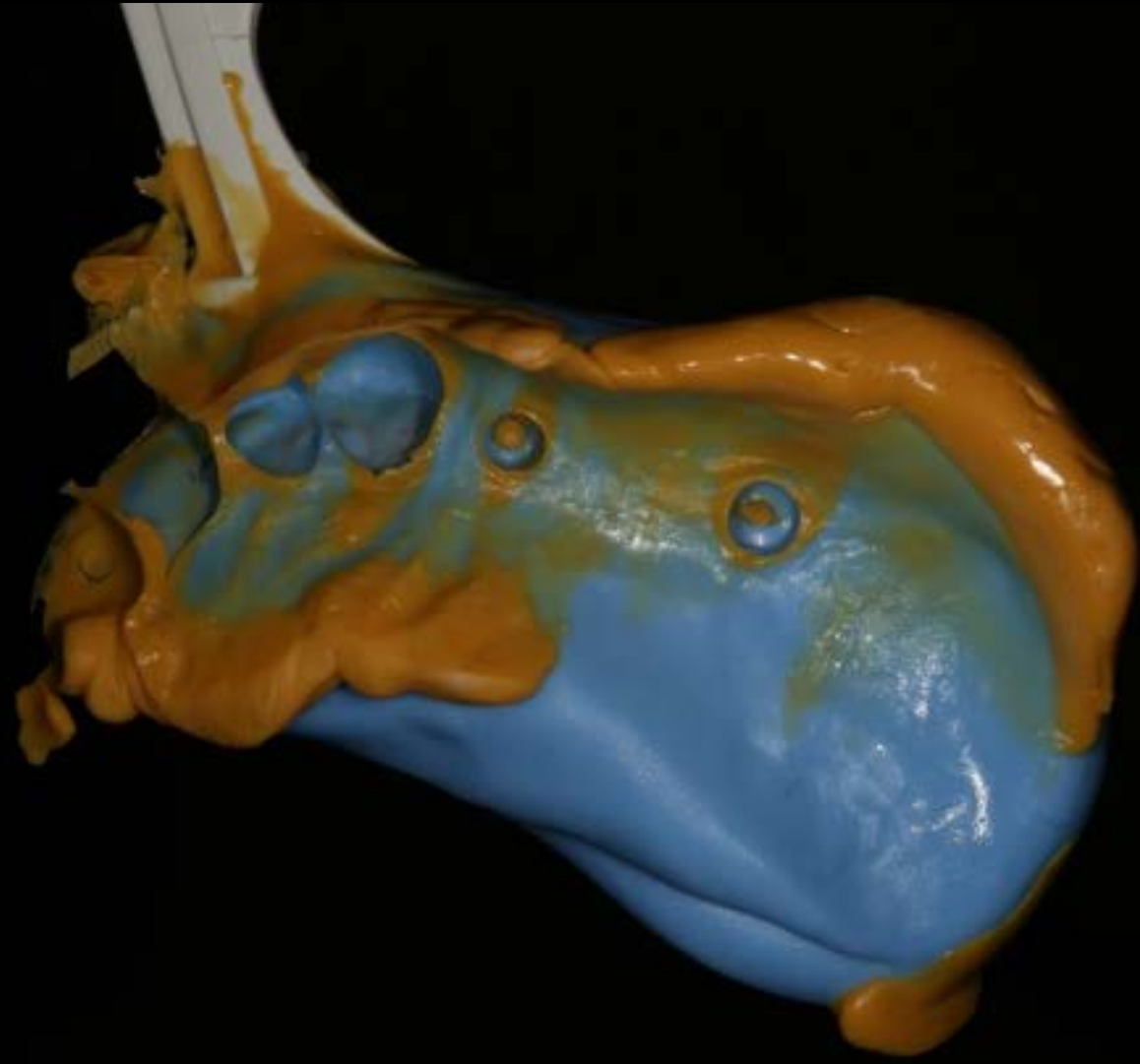
CAD (Temporary)



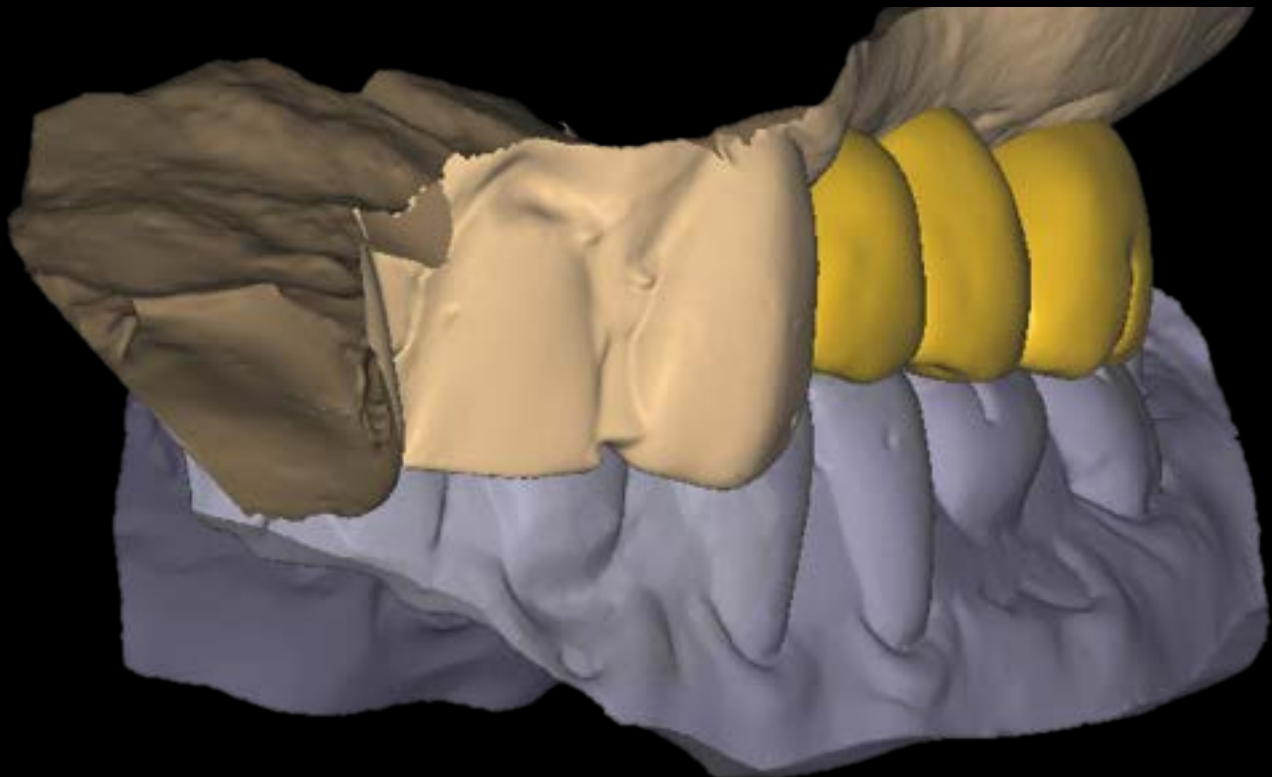
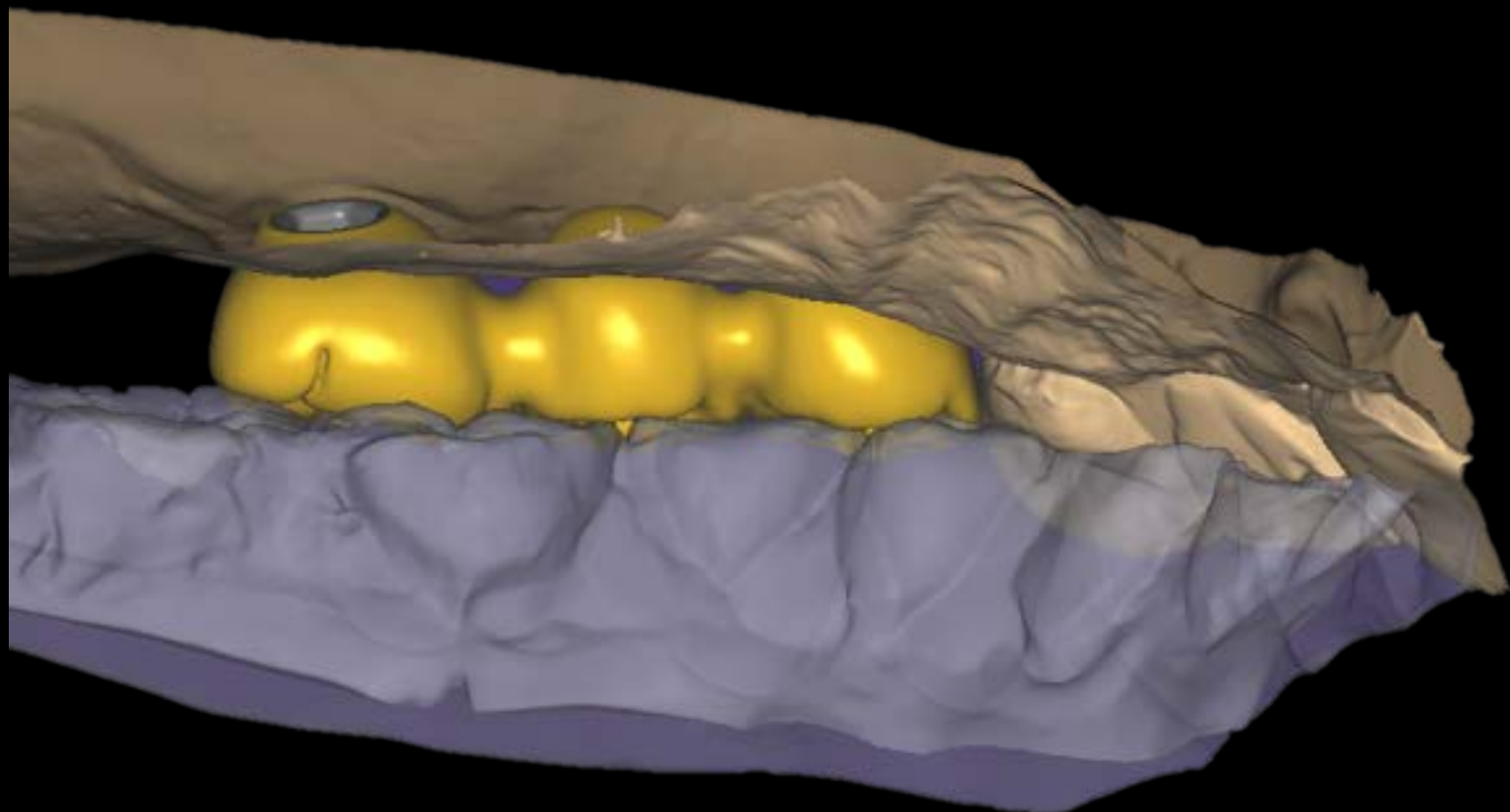
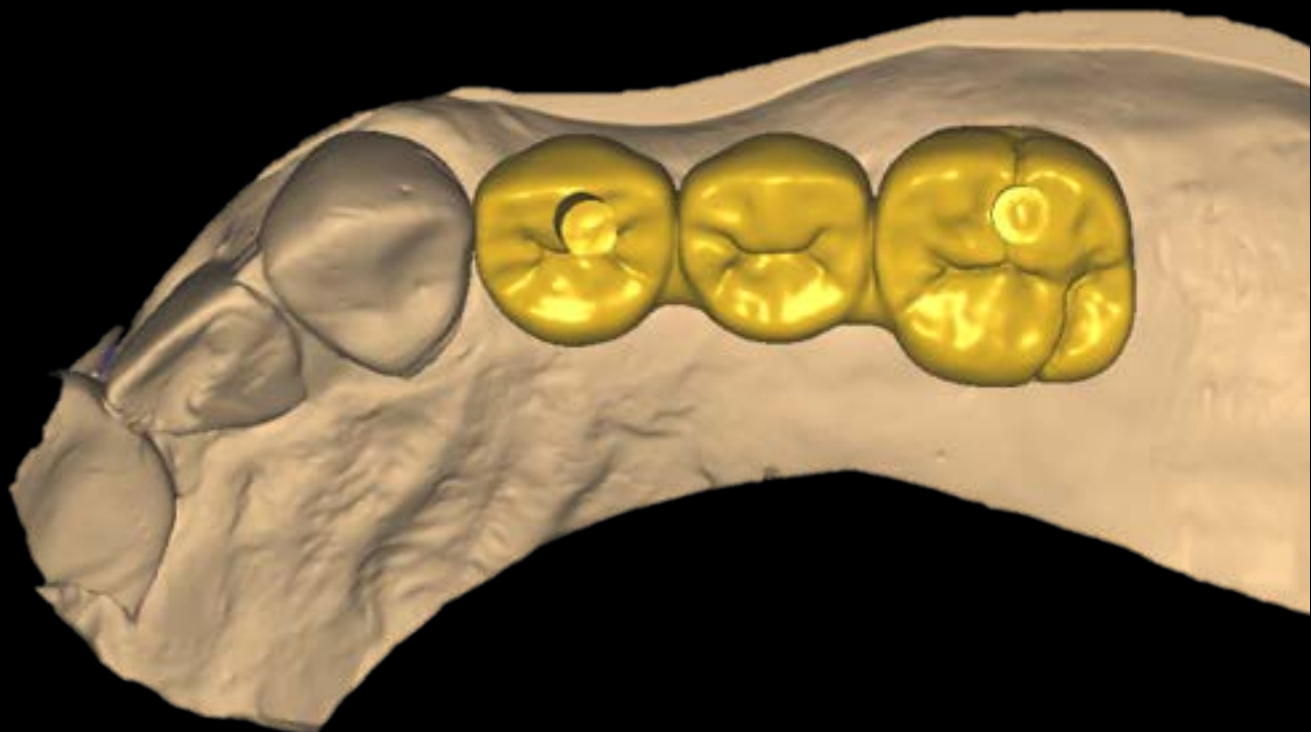
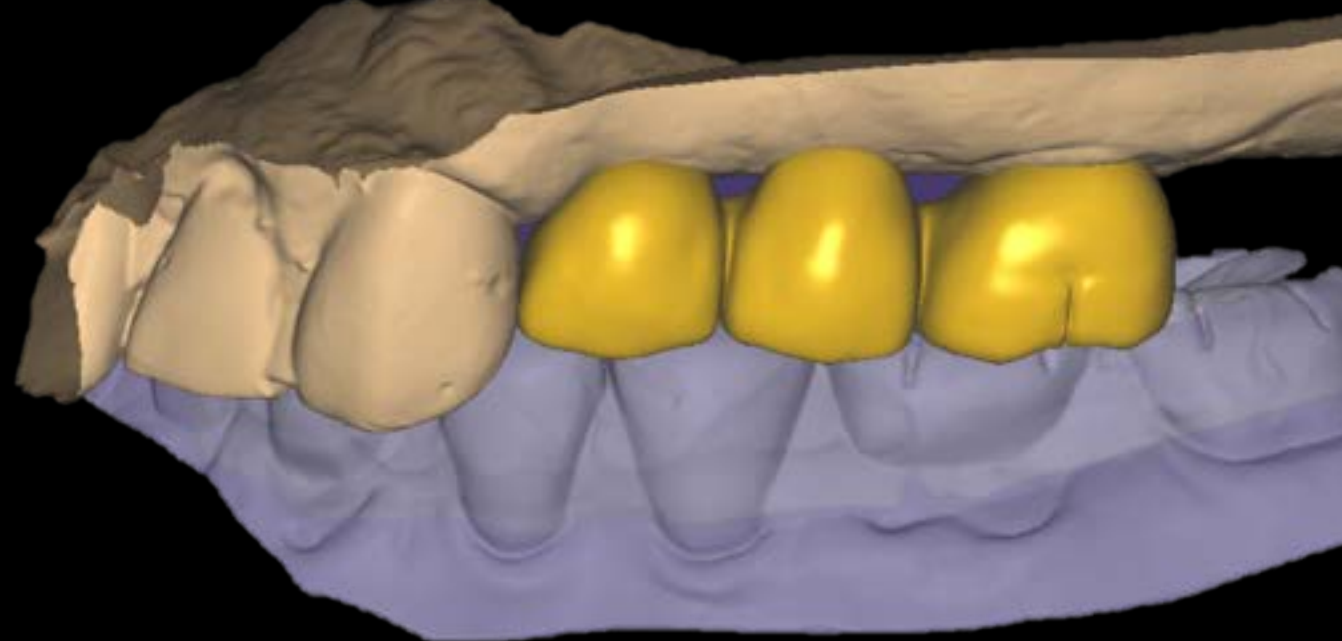
Provisional restoration (2022-12-01)



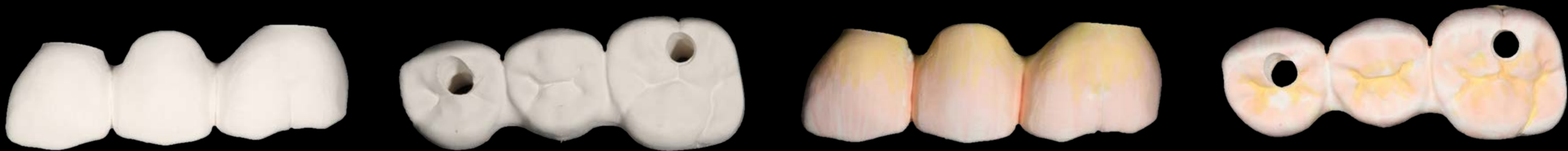
Impression / Trimming / Scan spray



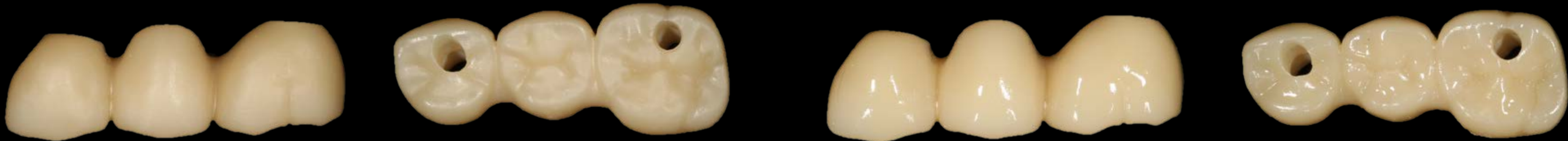
CAD (Final)



Milling / Brushing / Sintering / Finishing

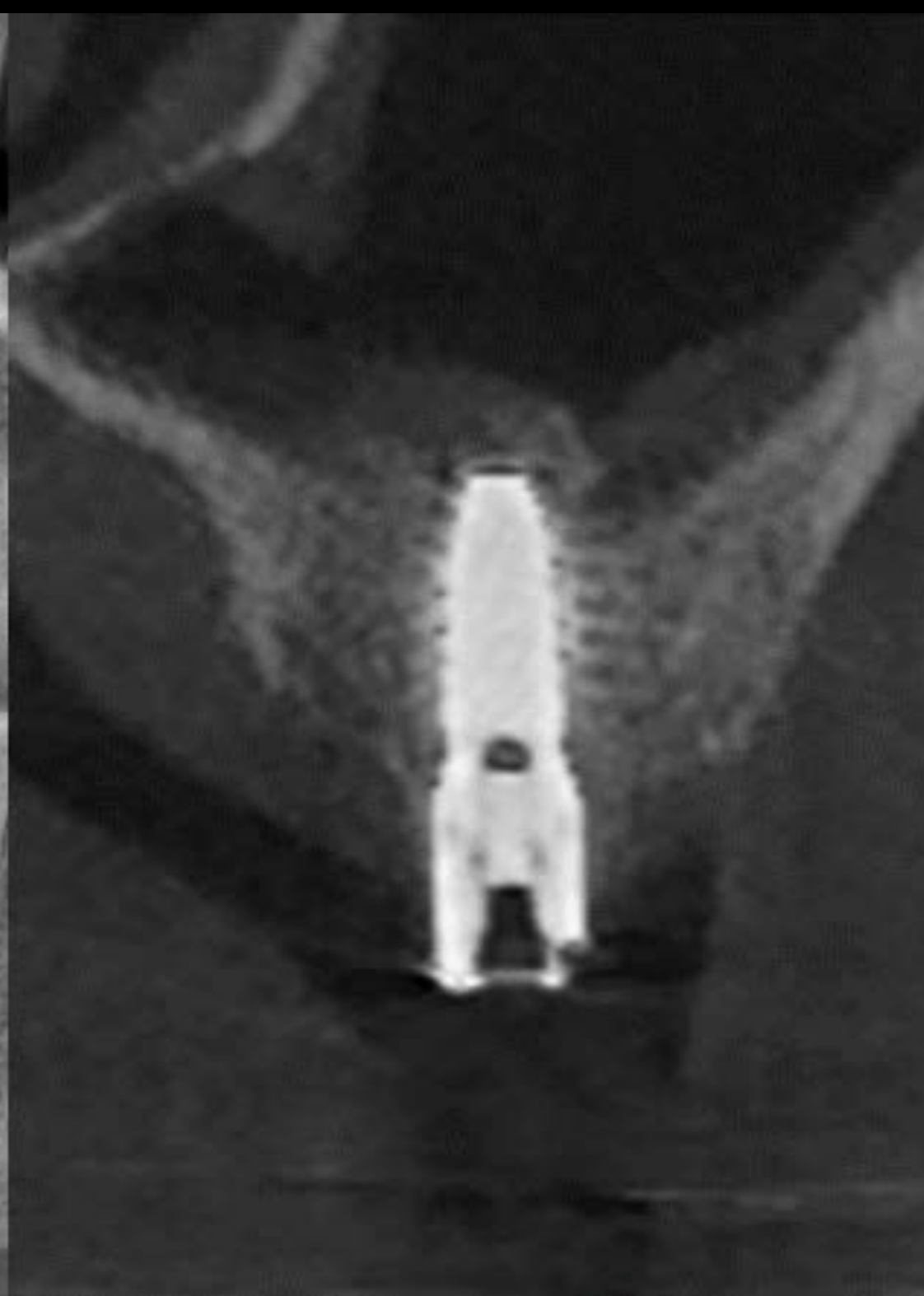
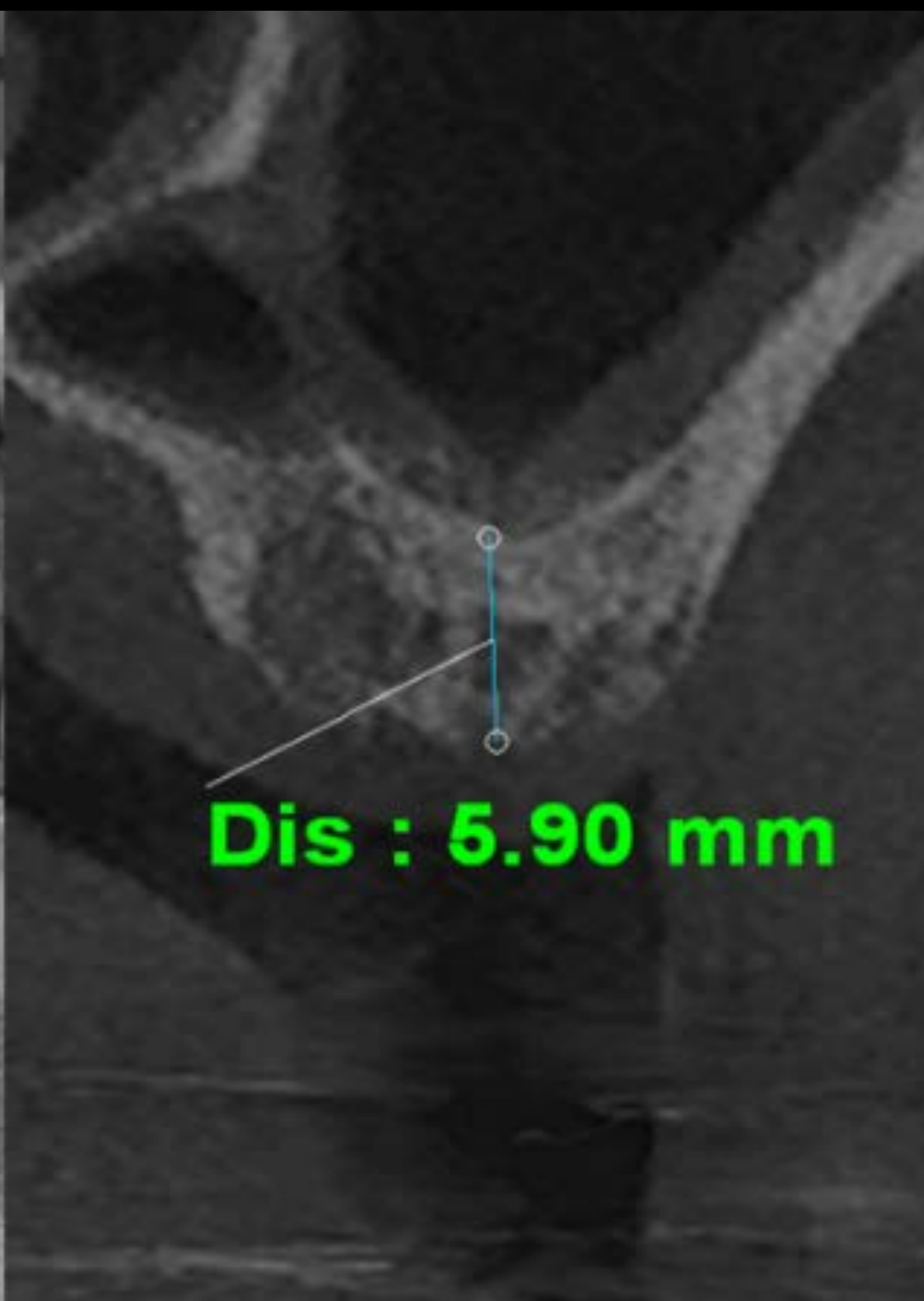


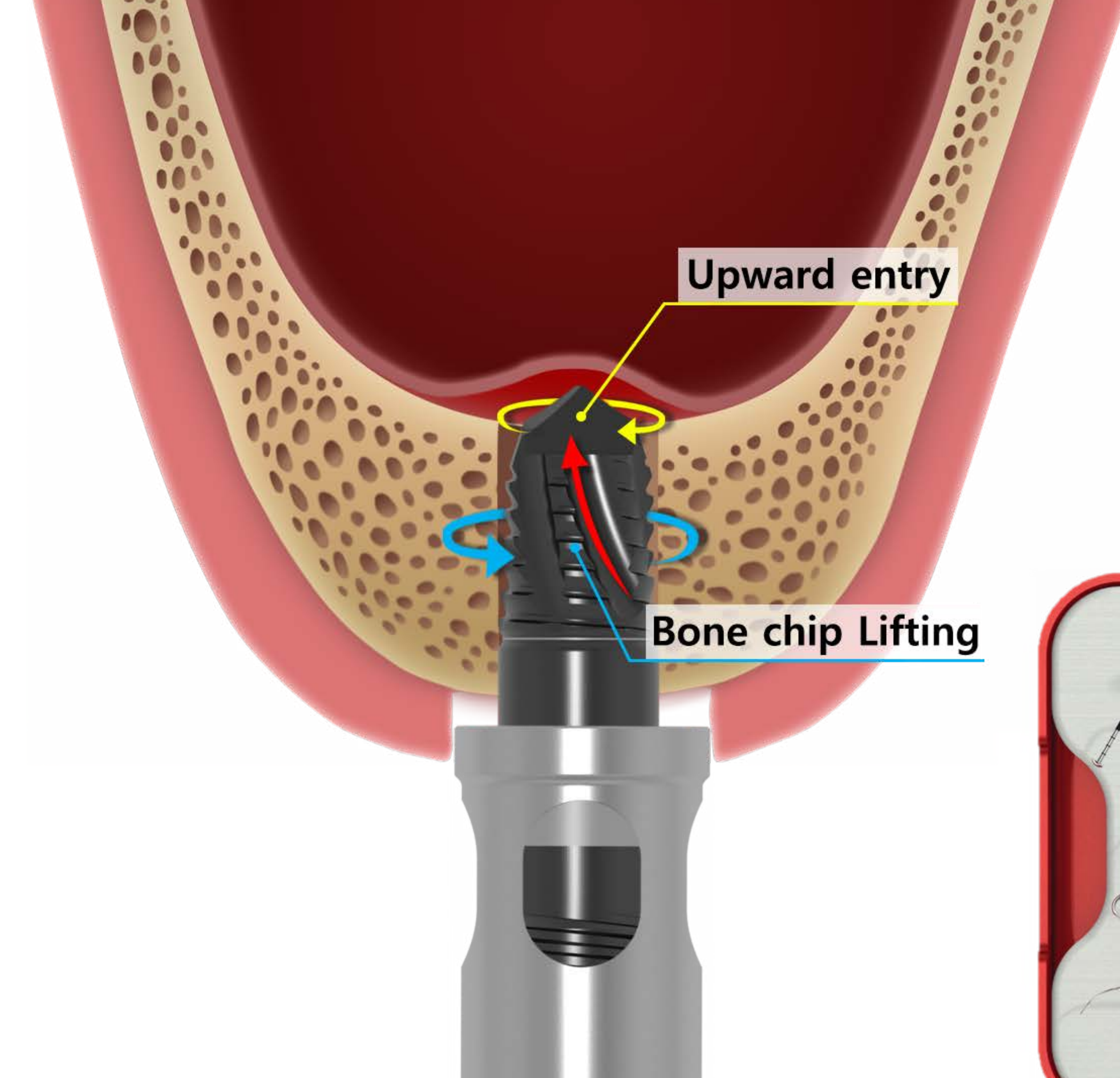
2 hour fast sintered Zr



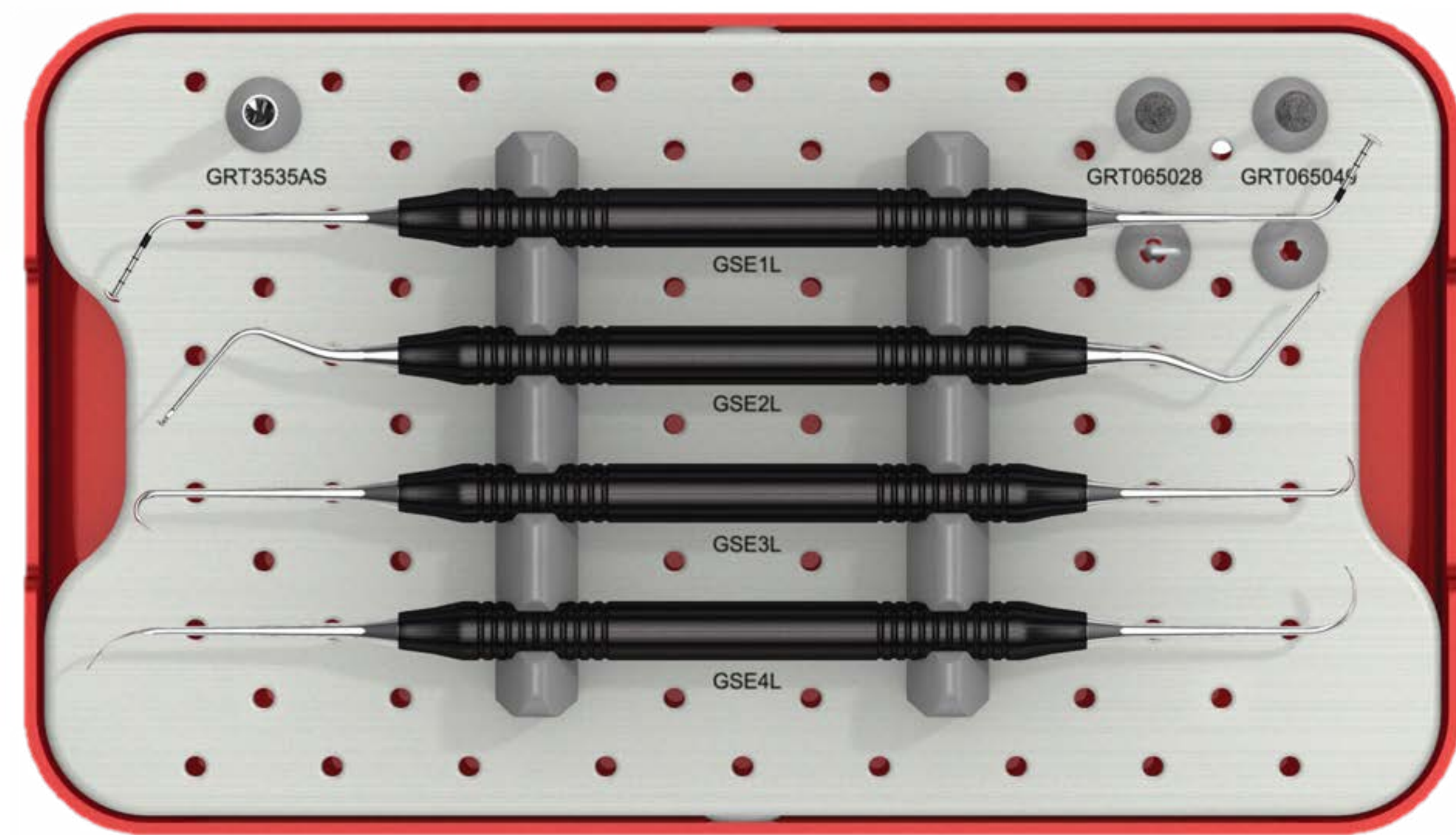
Final prosthesis (2023-02-16)





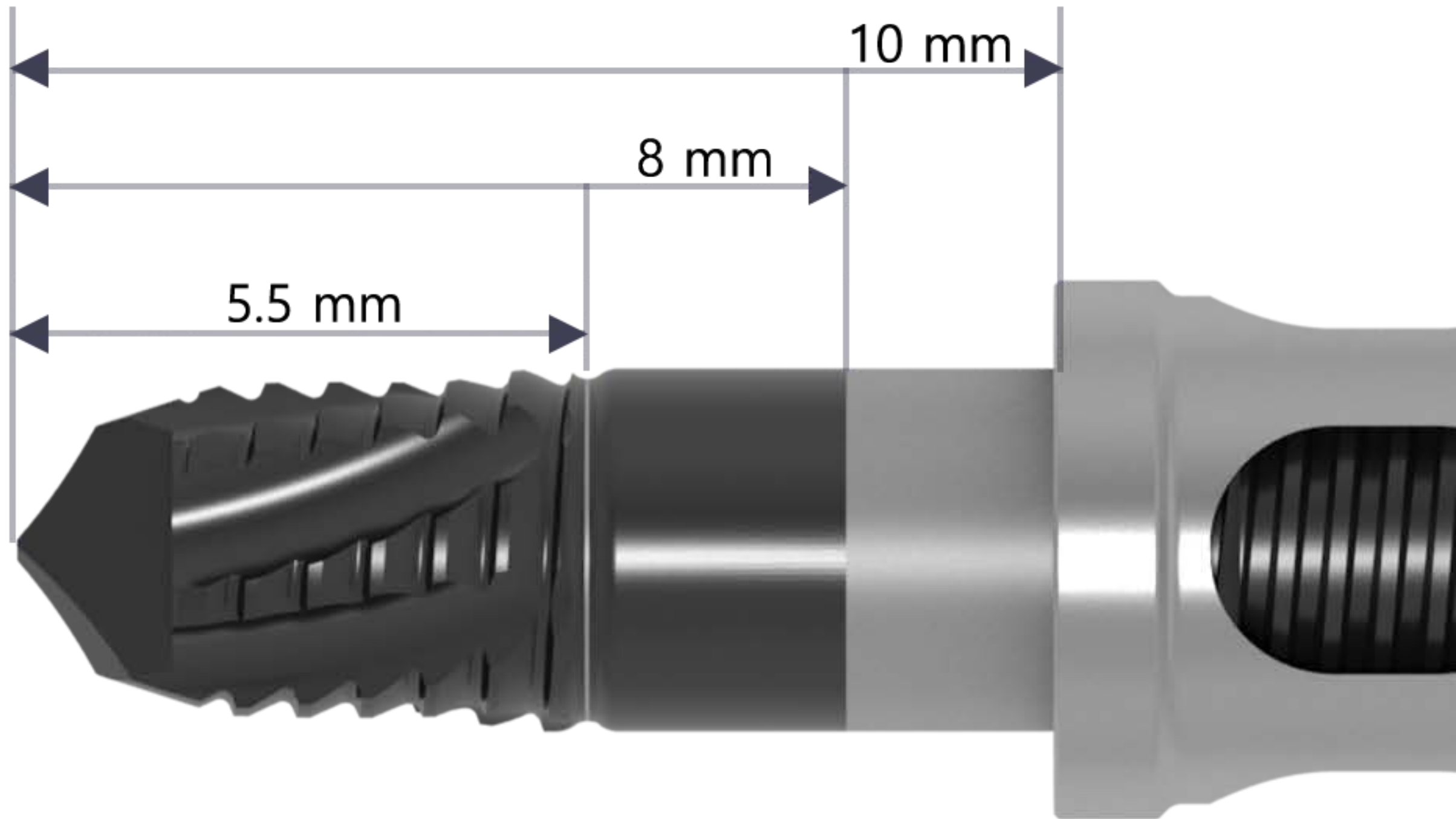
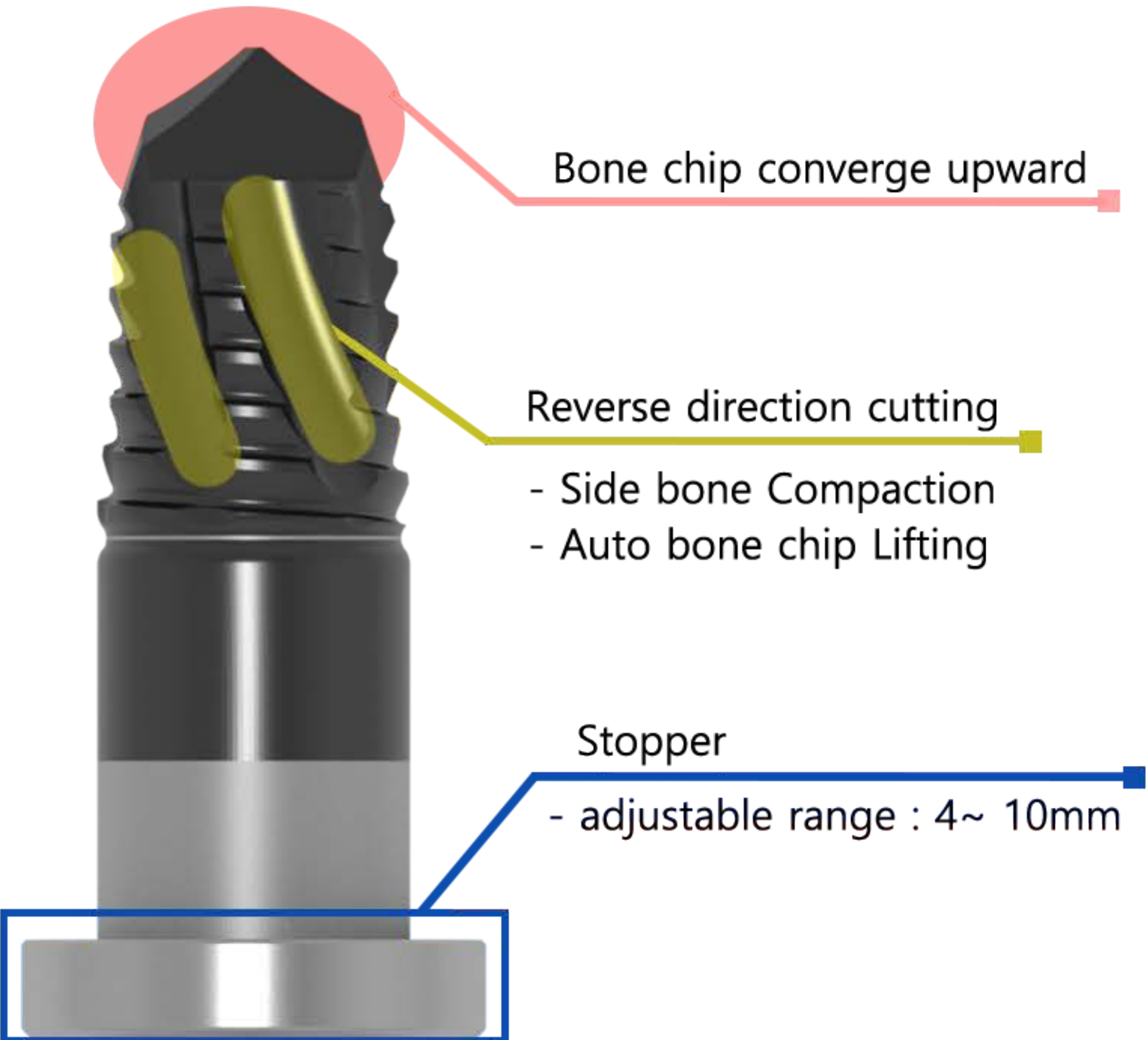
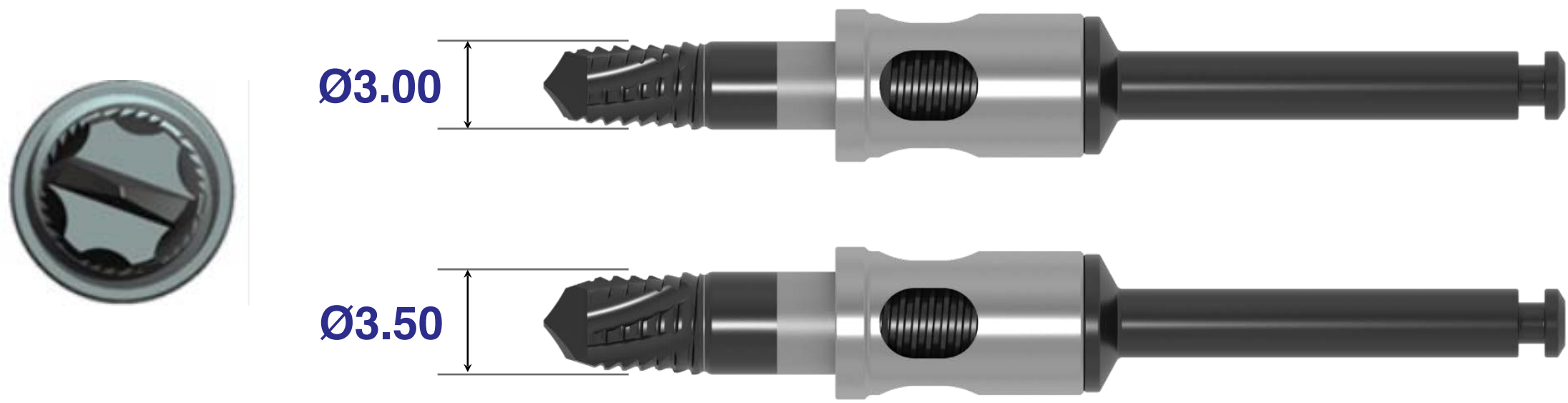


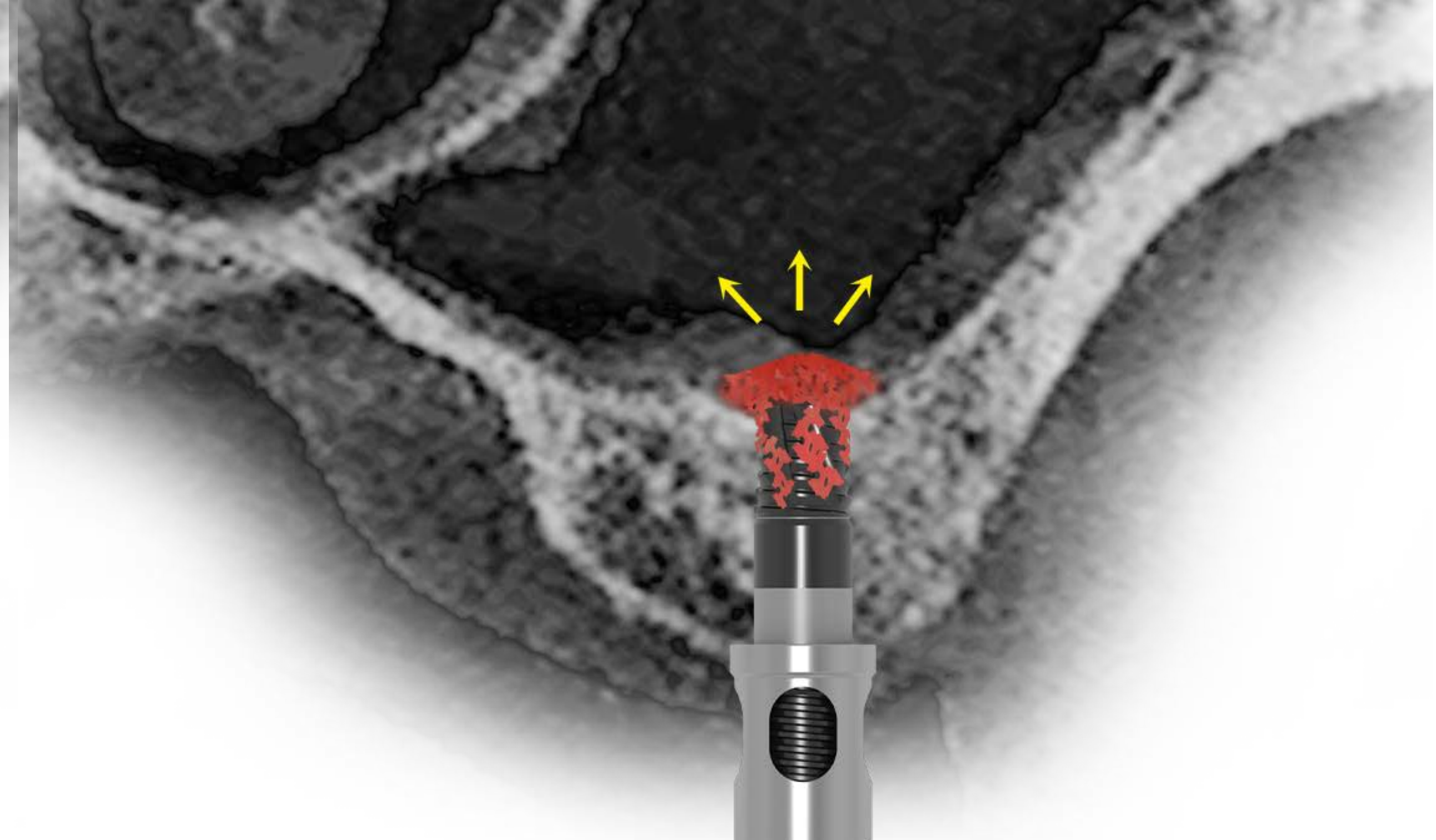
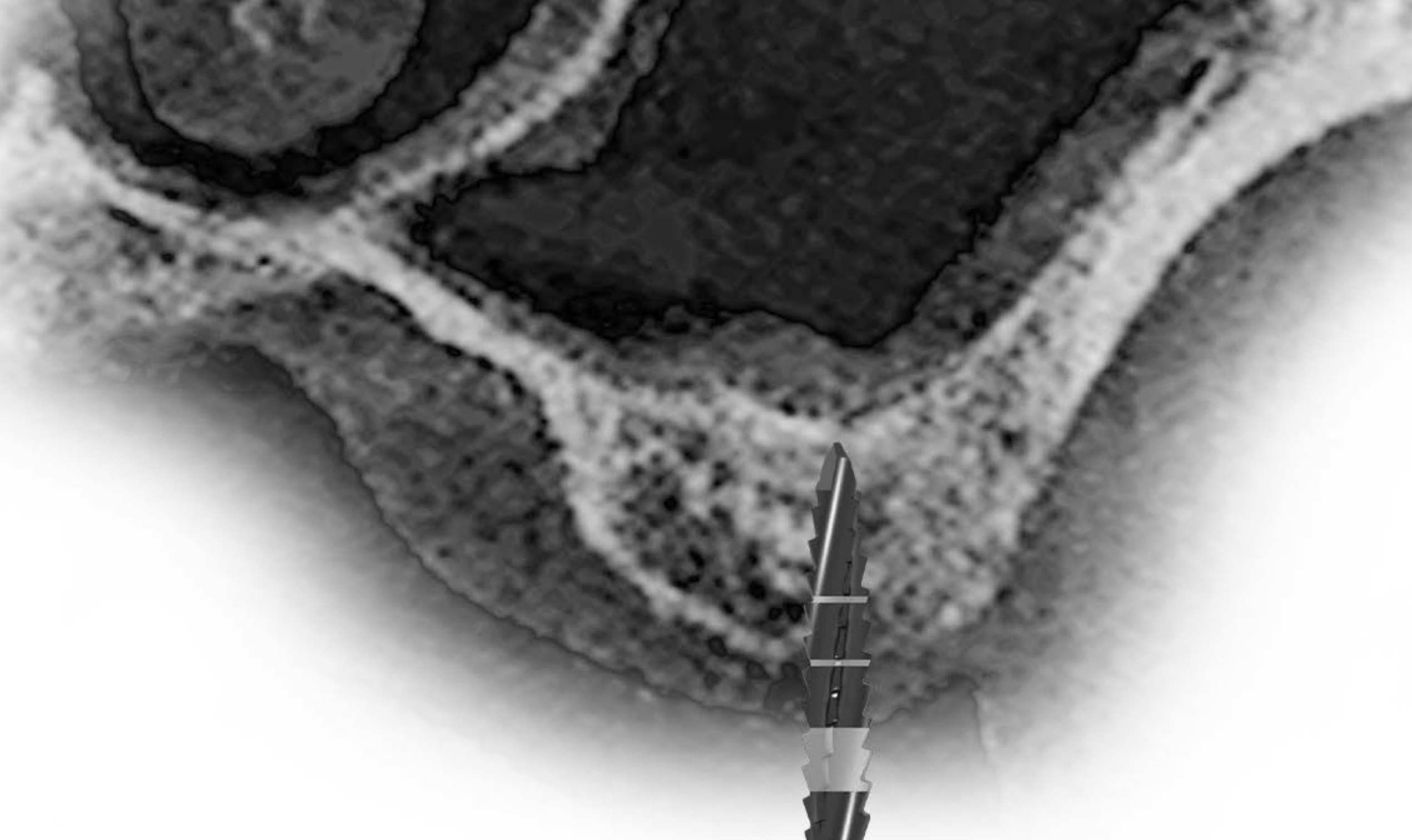
Bicortical fixation
Crestal elevation

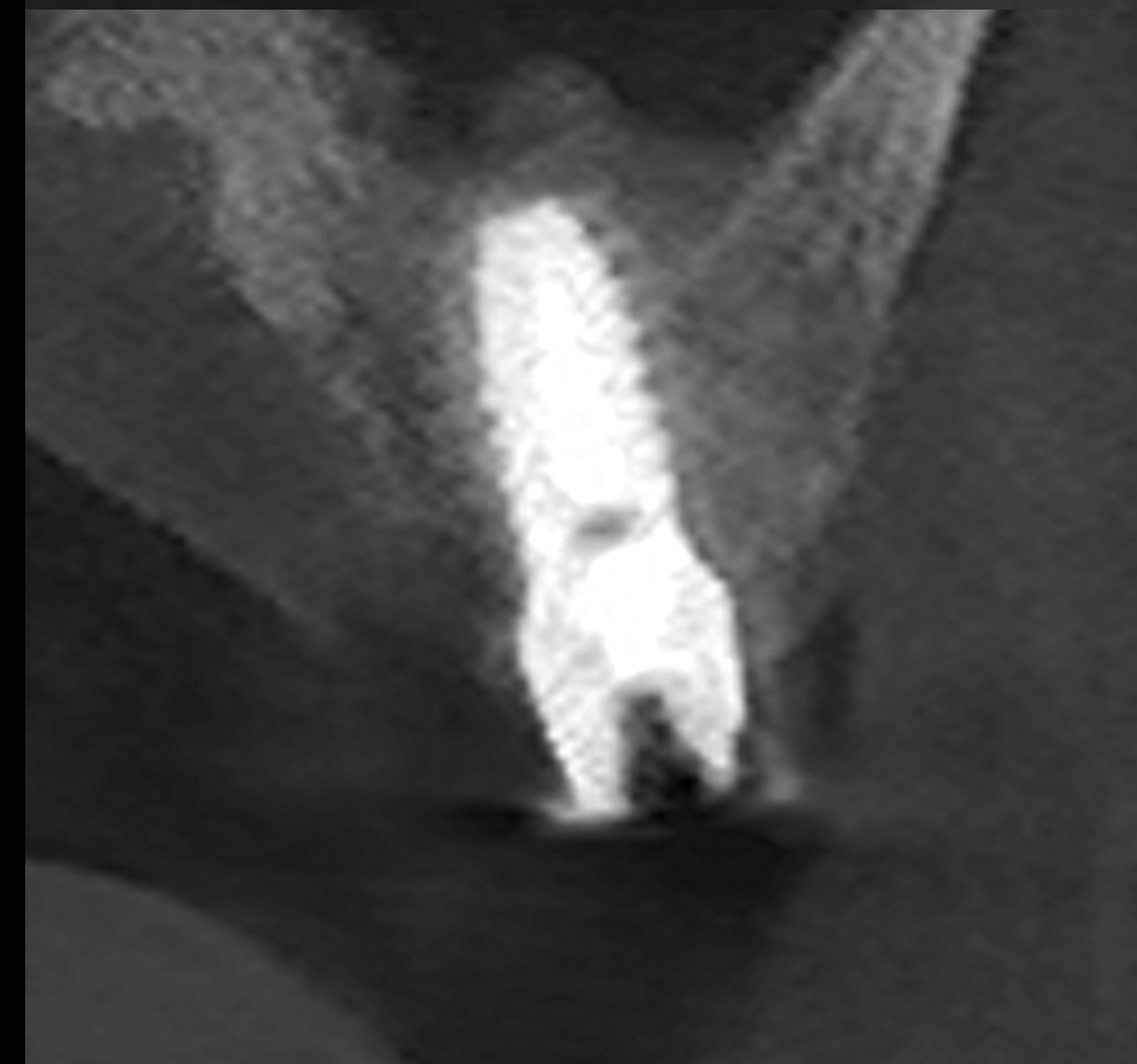
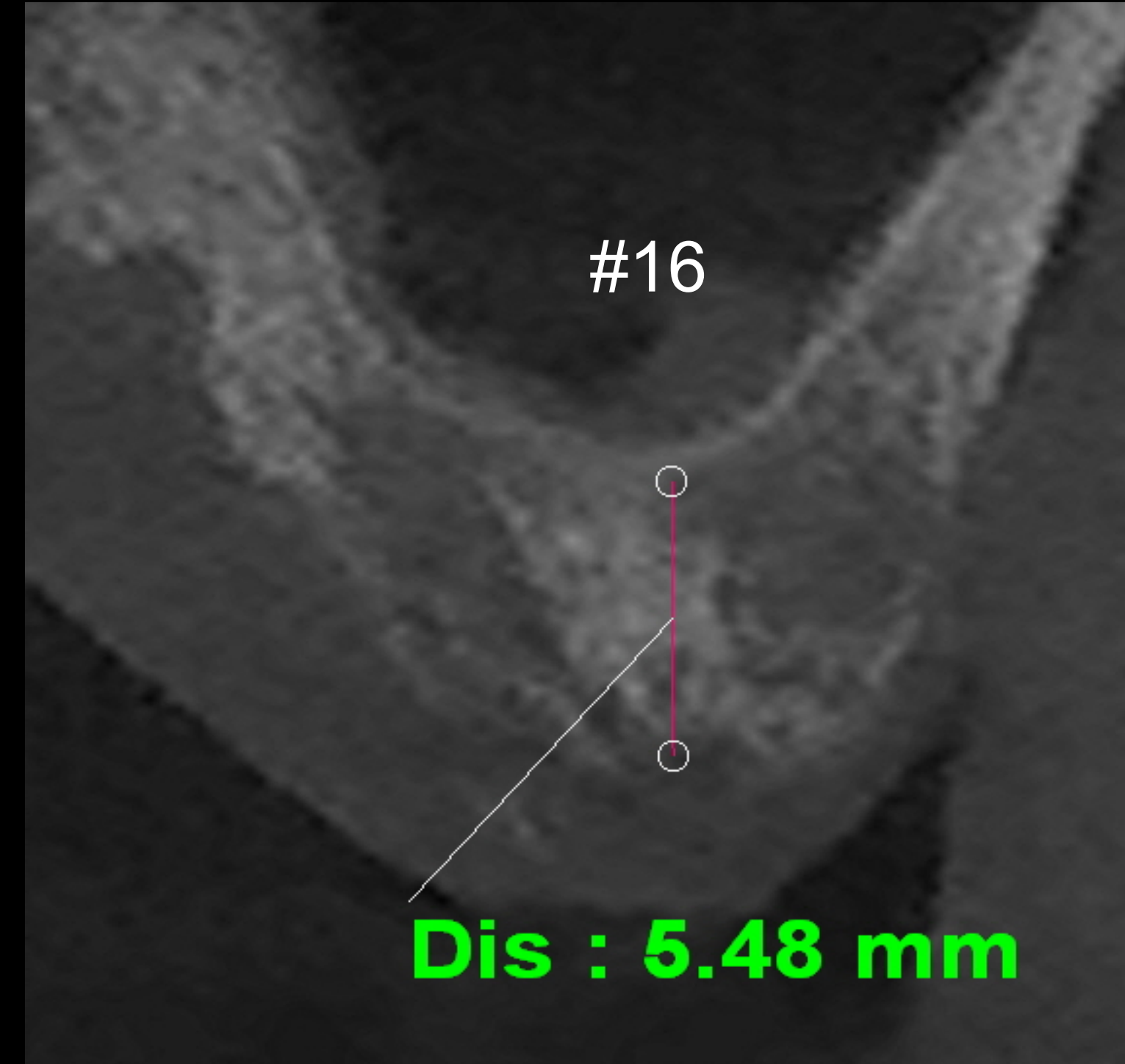
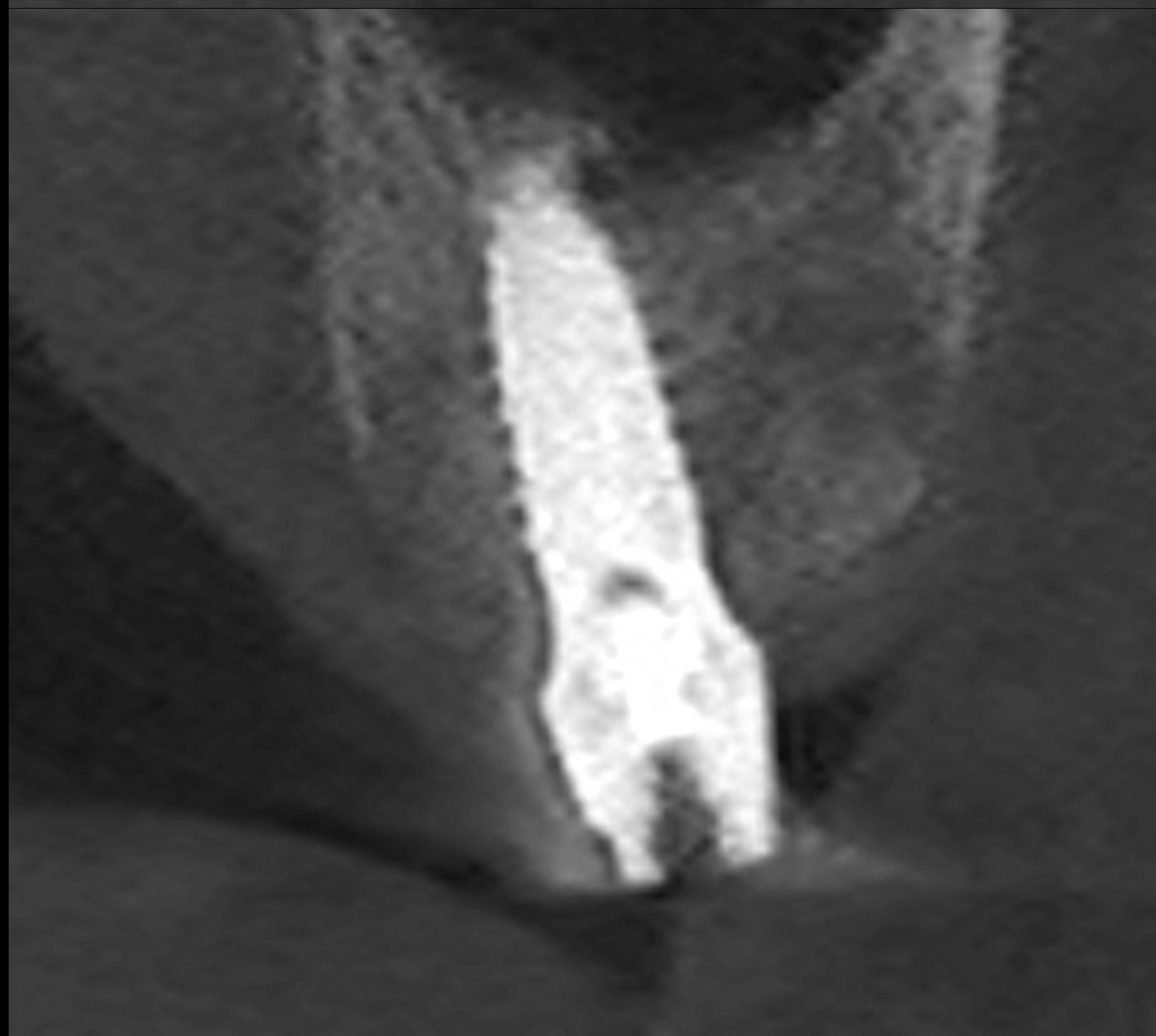
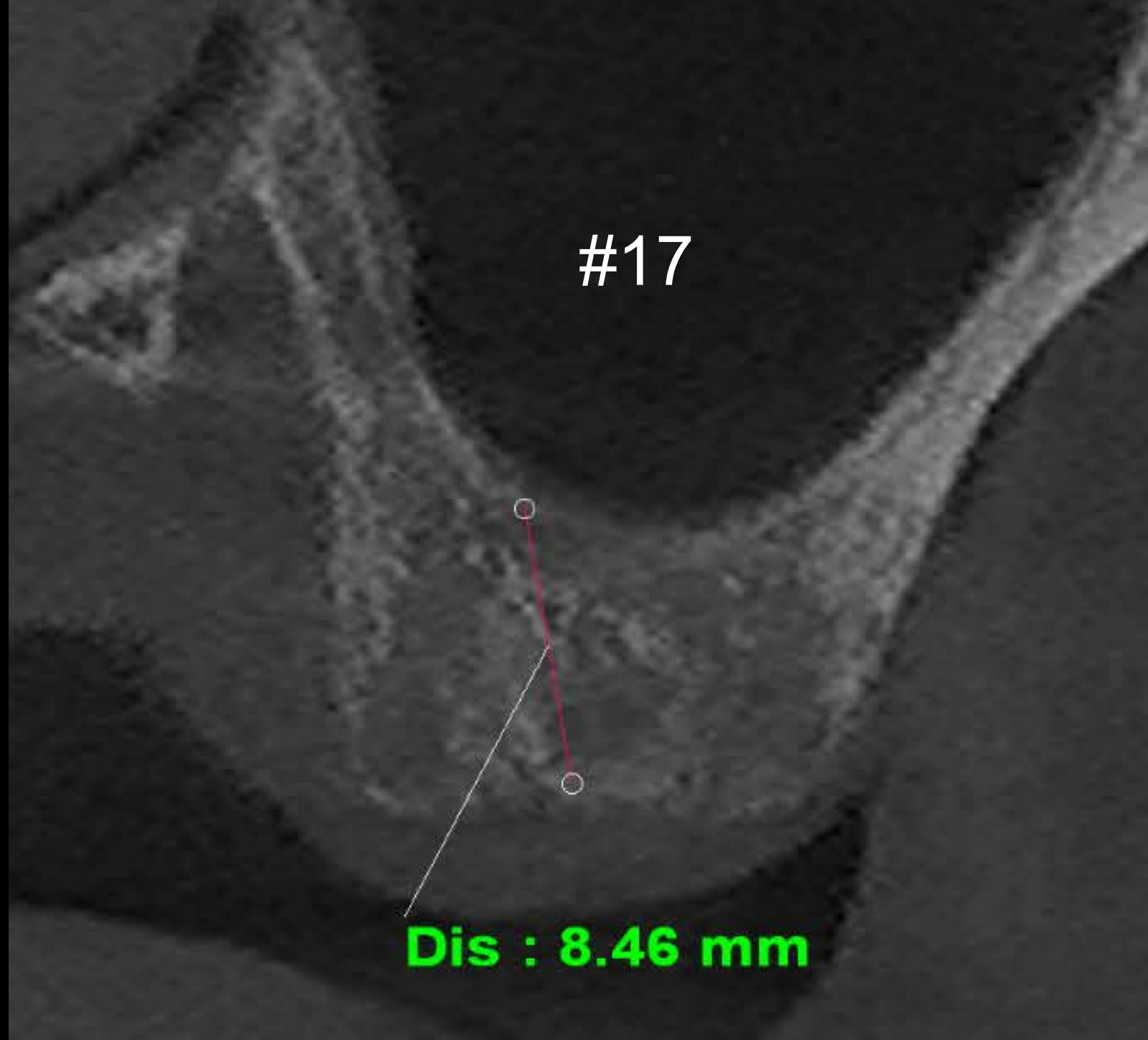


Crestal Drill

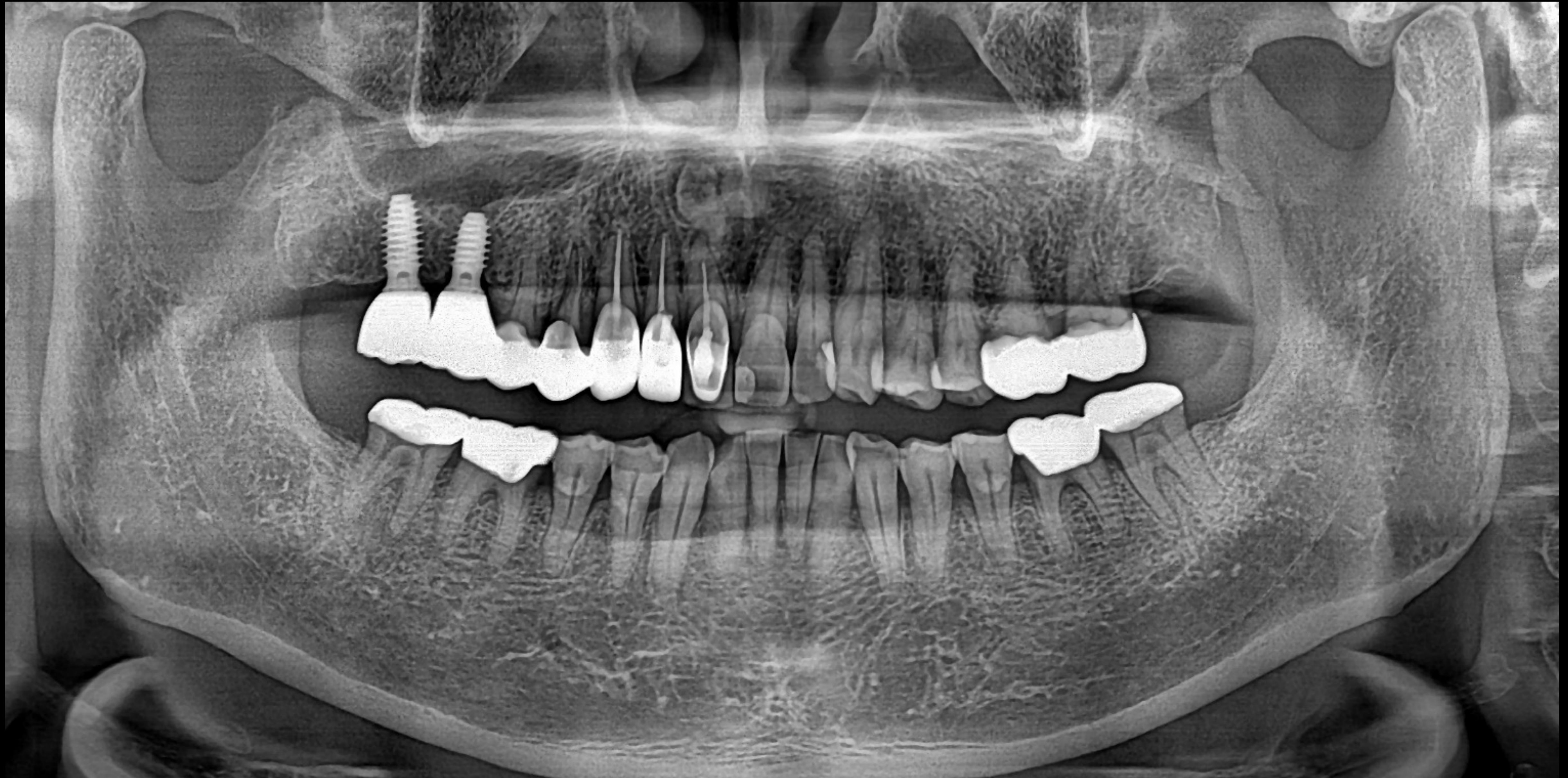
Diameter	L	Art. No.
Ø3.00	35.0	SRT3035AS
Ø3.50	35.0	SRT3535AS

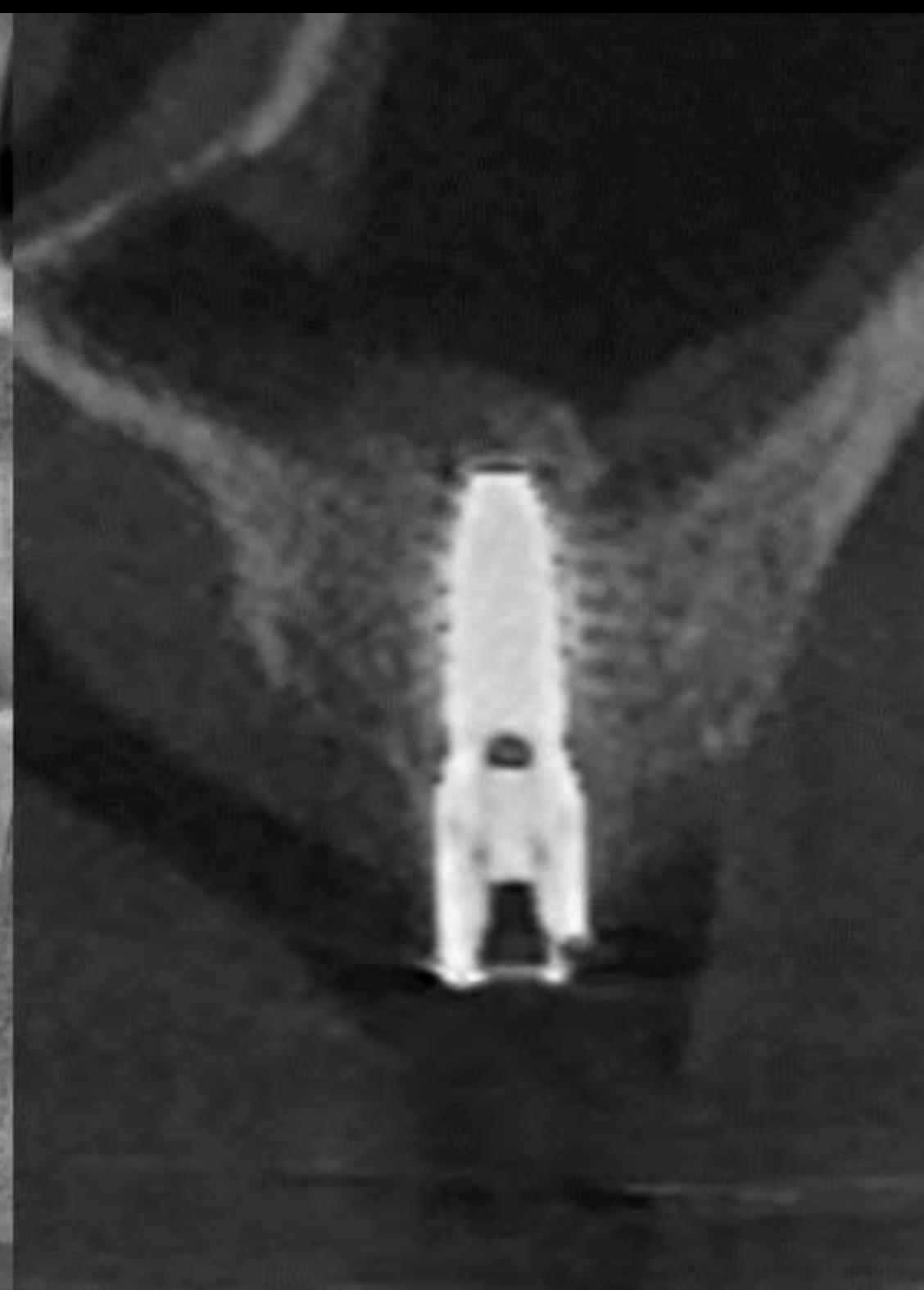
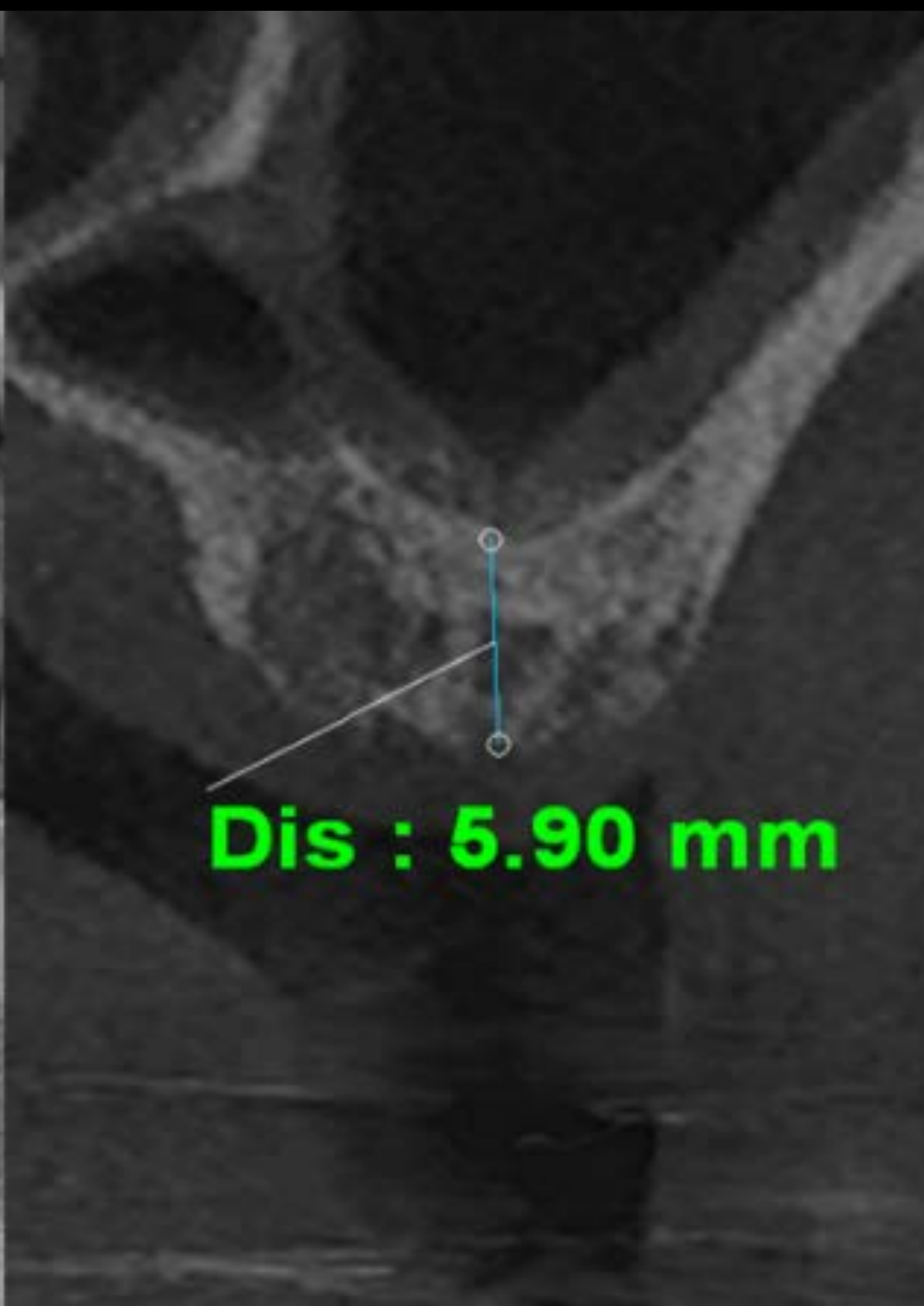






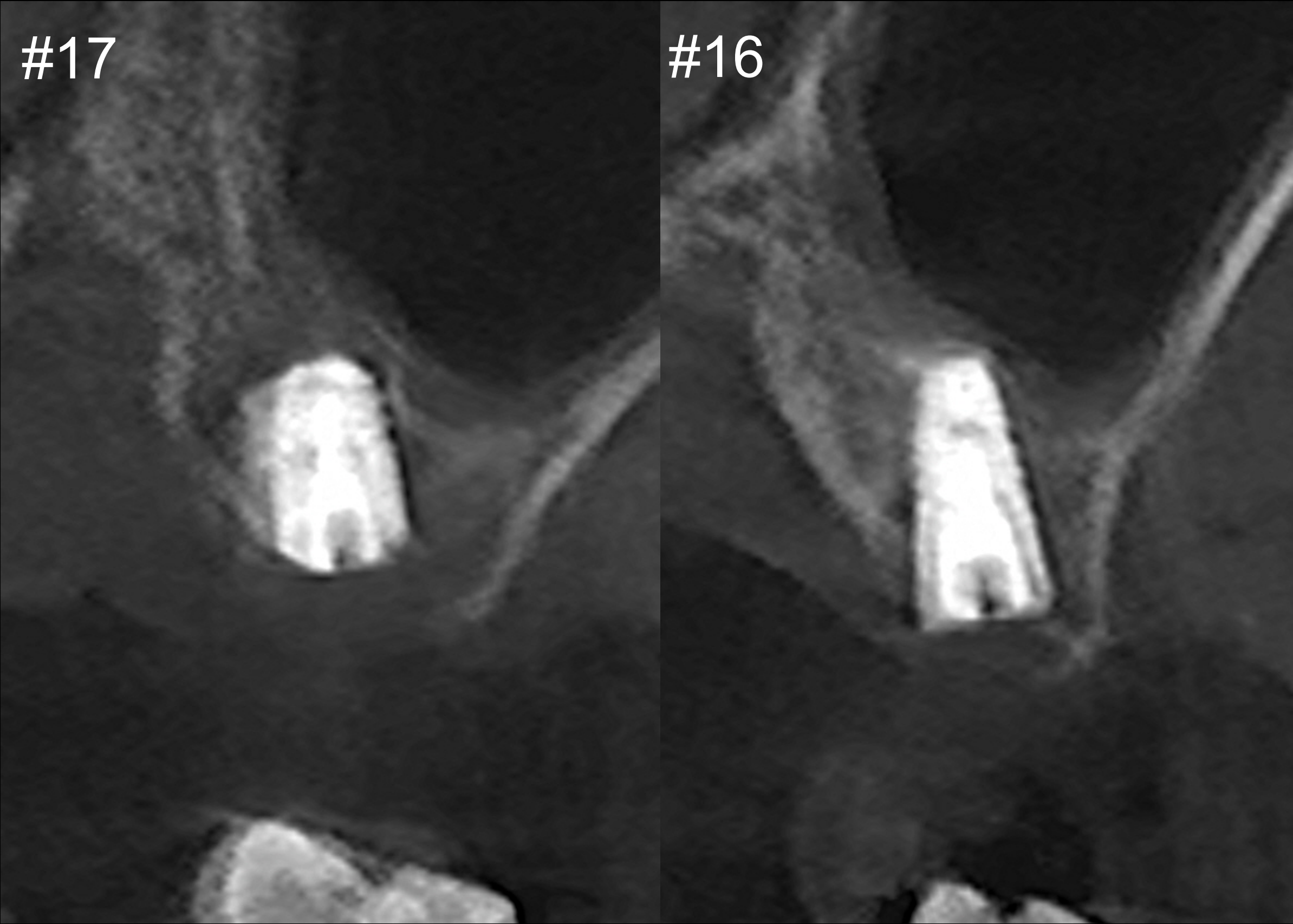
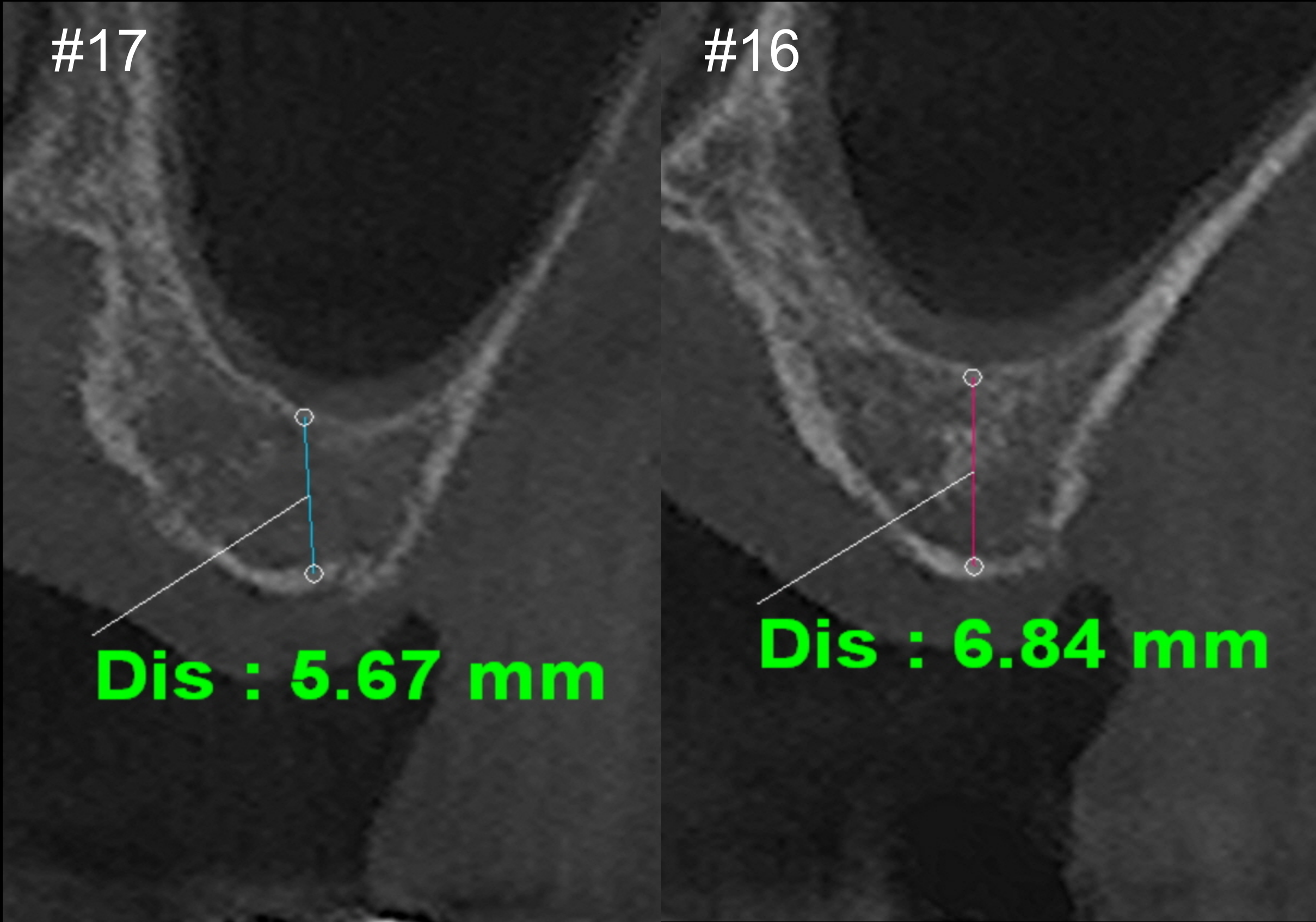
Final prosthesis (2023-07-12)





Pre-op (2022-03-20)

Post-op (2022-03-20)



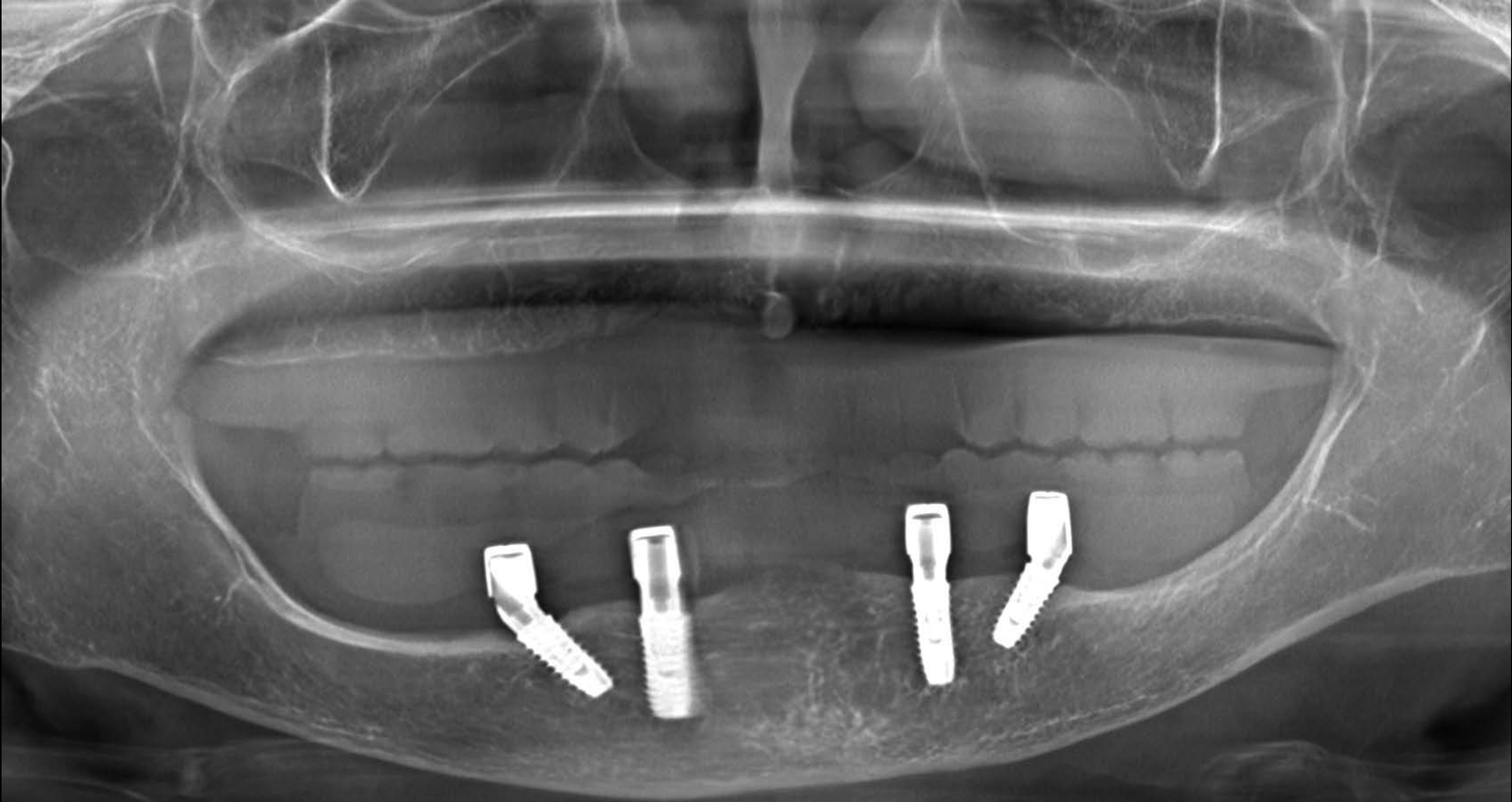
bright BL2 (Ø5.0 X 7.0)

bright BL2 (Ø4.0 X 9.0)

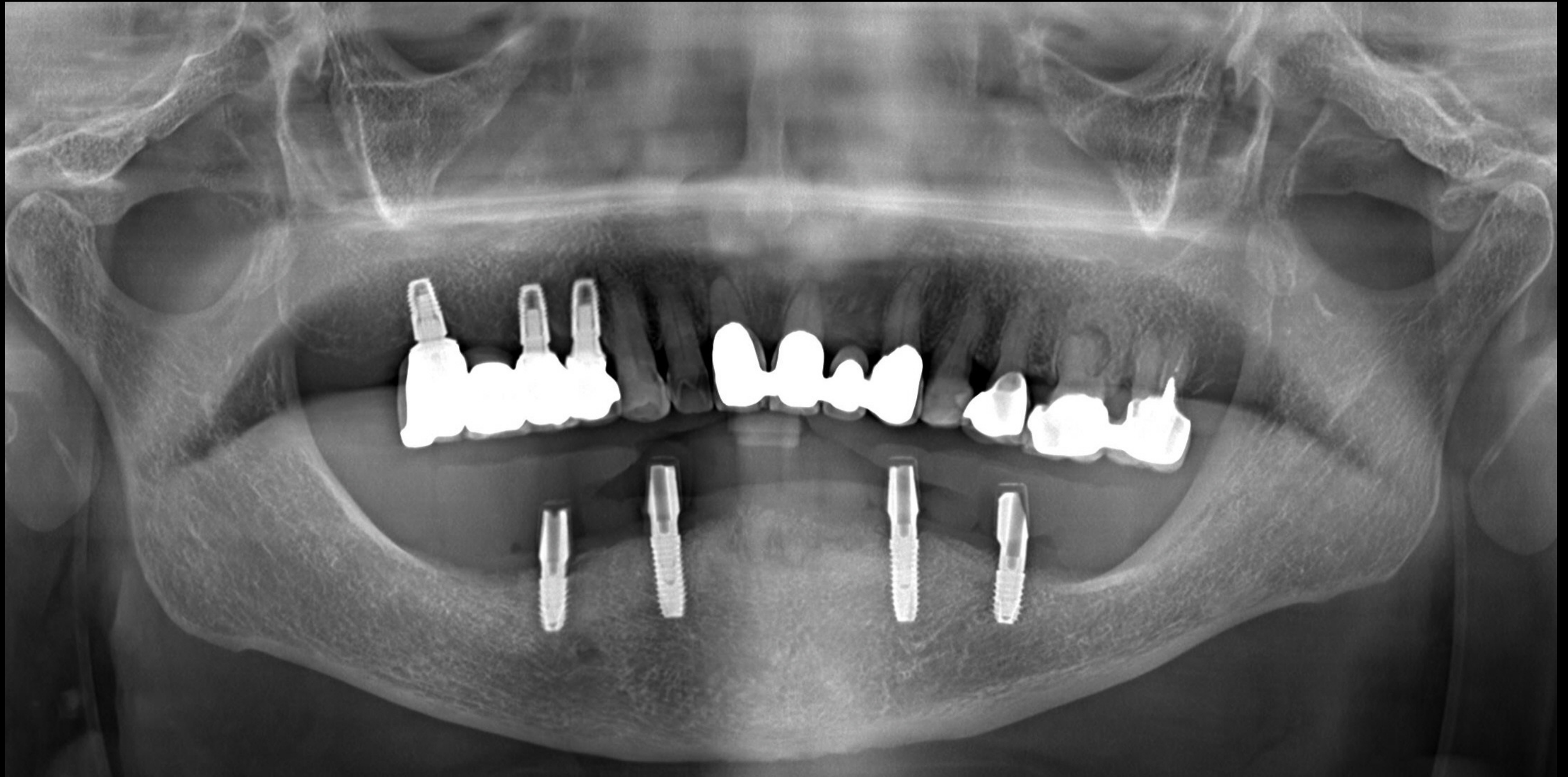
Final Denture (2018-10-17)



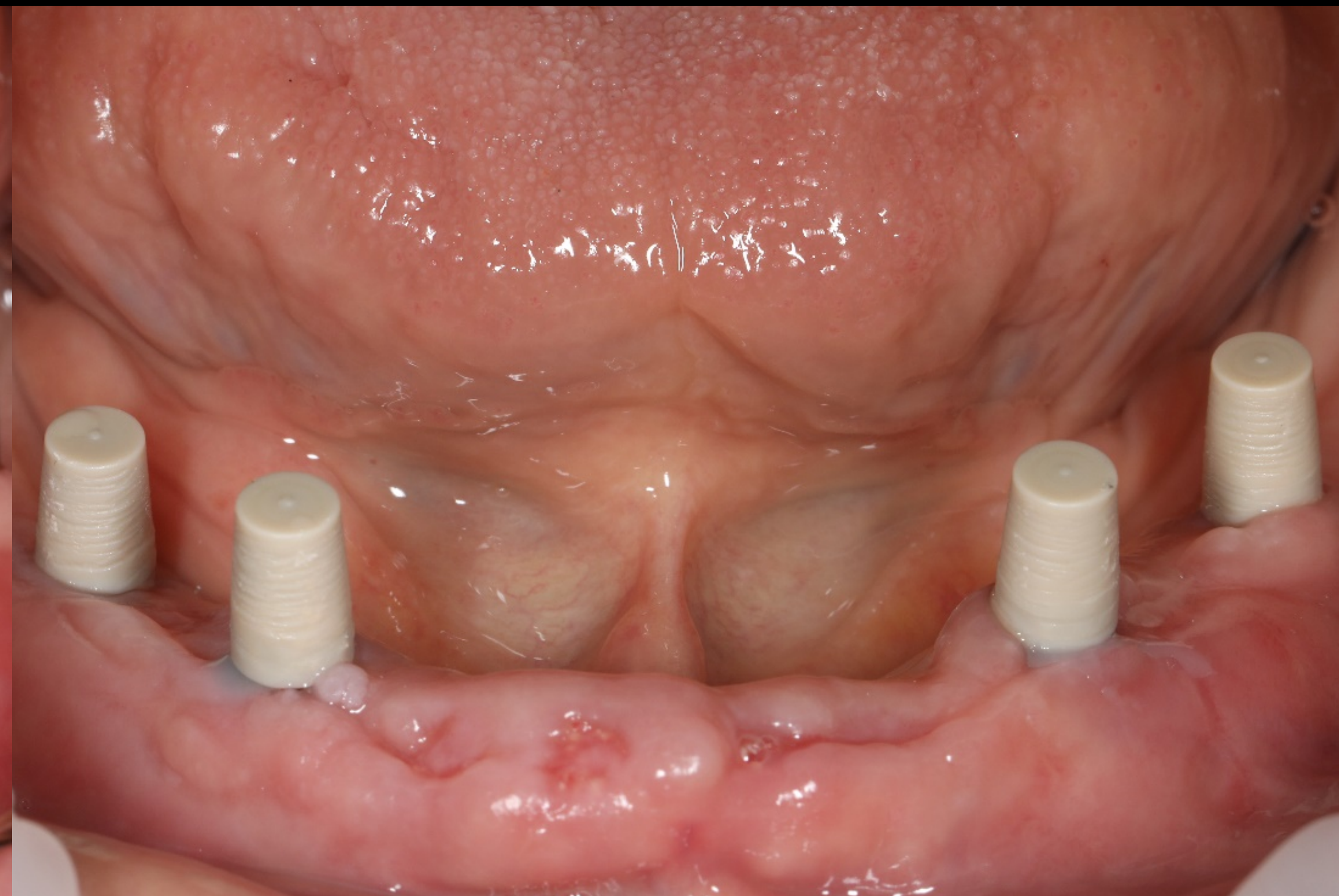
Pre-op (2020-01-28)



Provisional restoration : 2 months (2019-08-14)



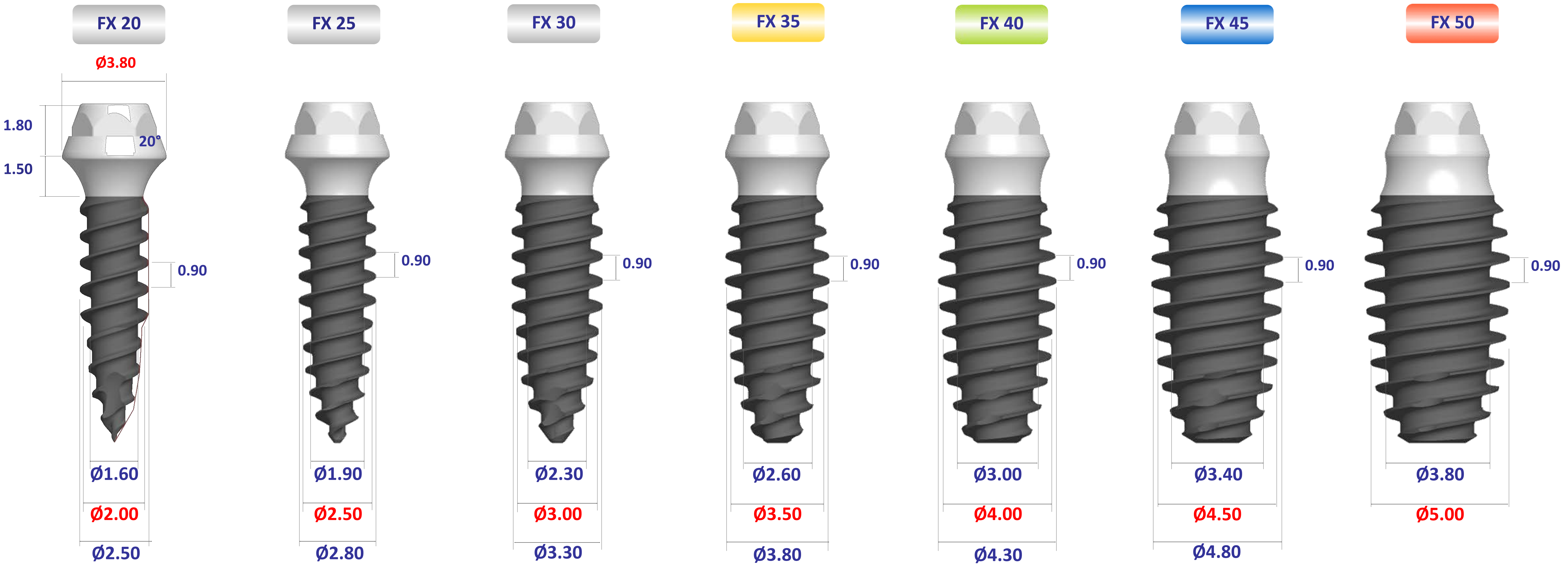
Abutment / Pekkton cap adaptation (2019-06-27)



Final prosthesis (2020-01-17)



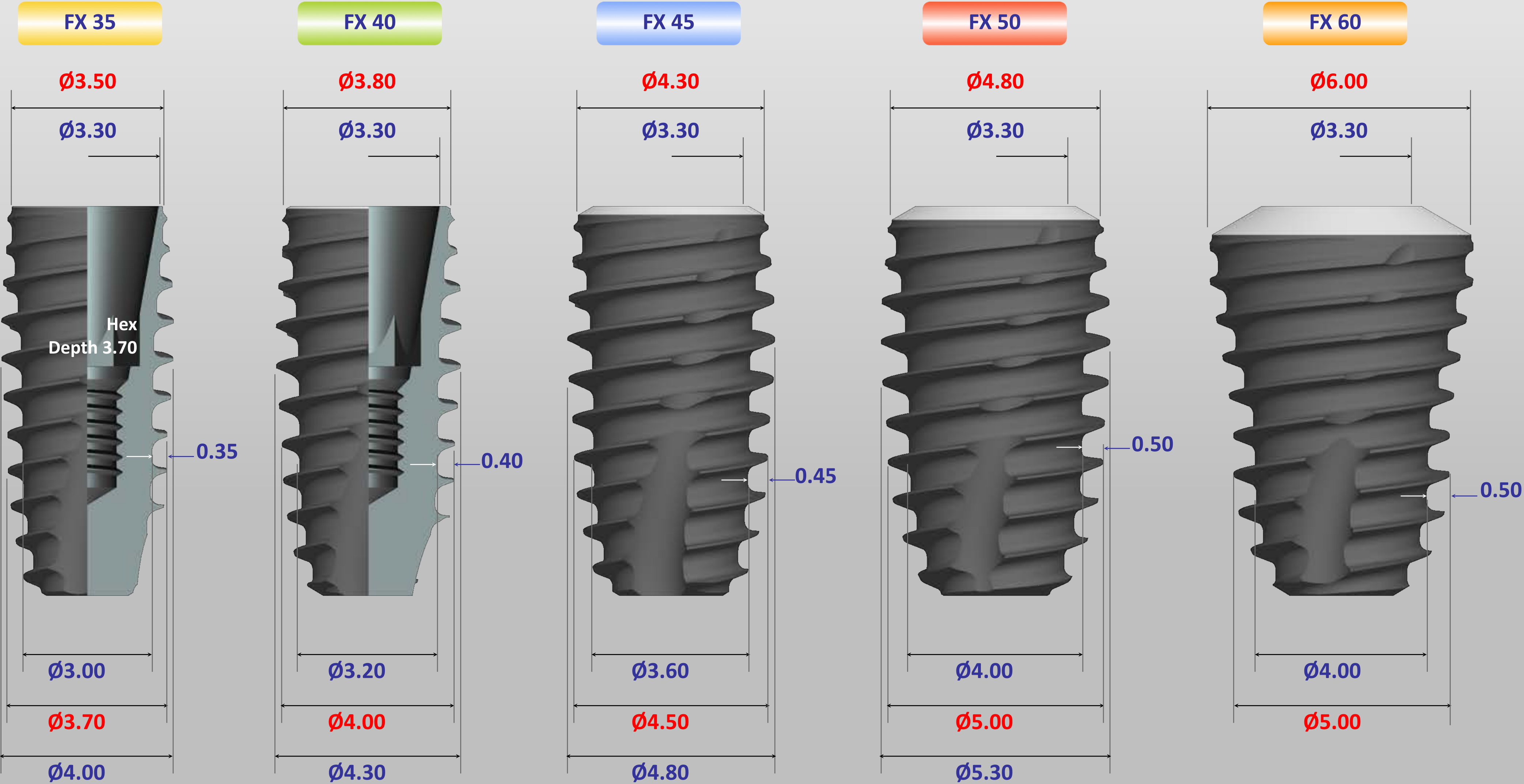
Indication



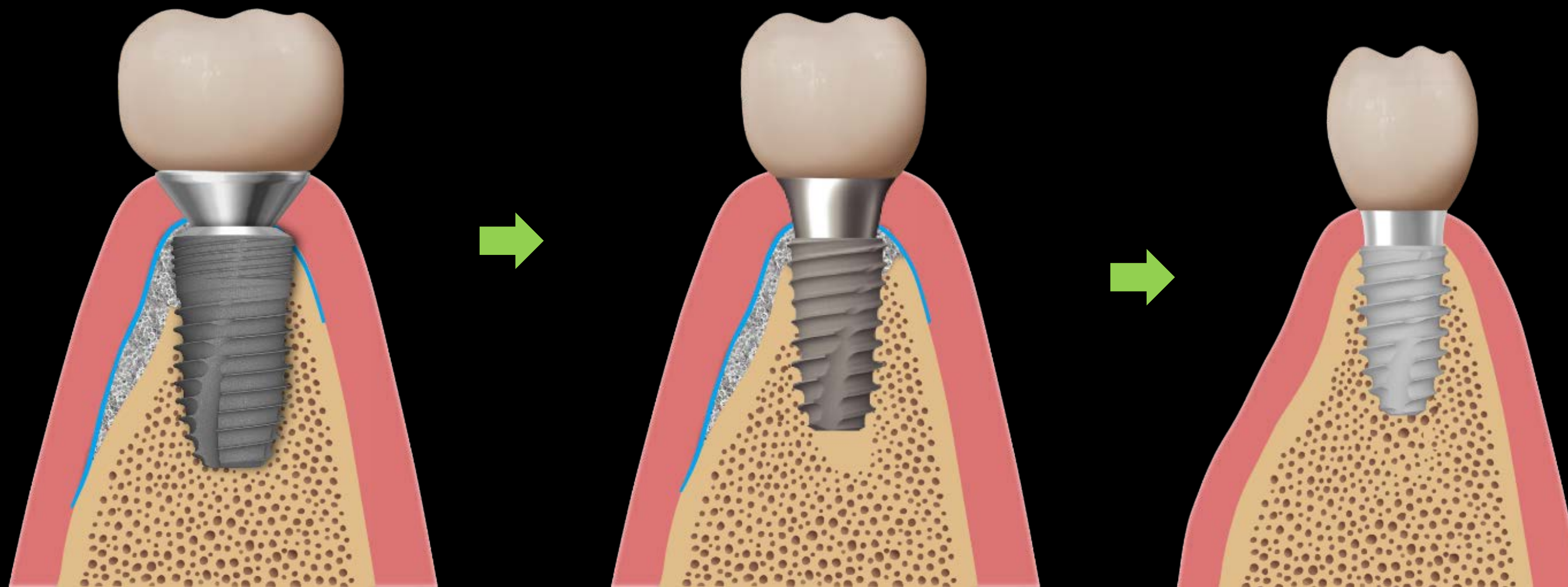
Incisor / Canine / Premolar

Premolar / Molar

5-Diameters

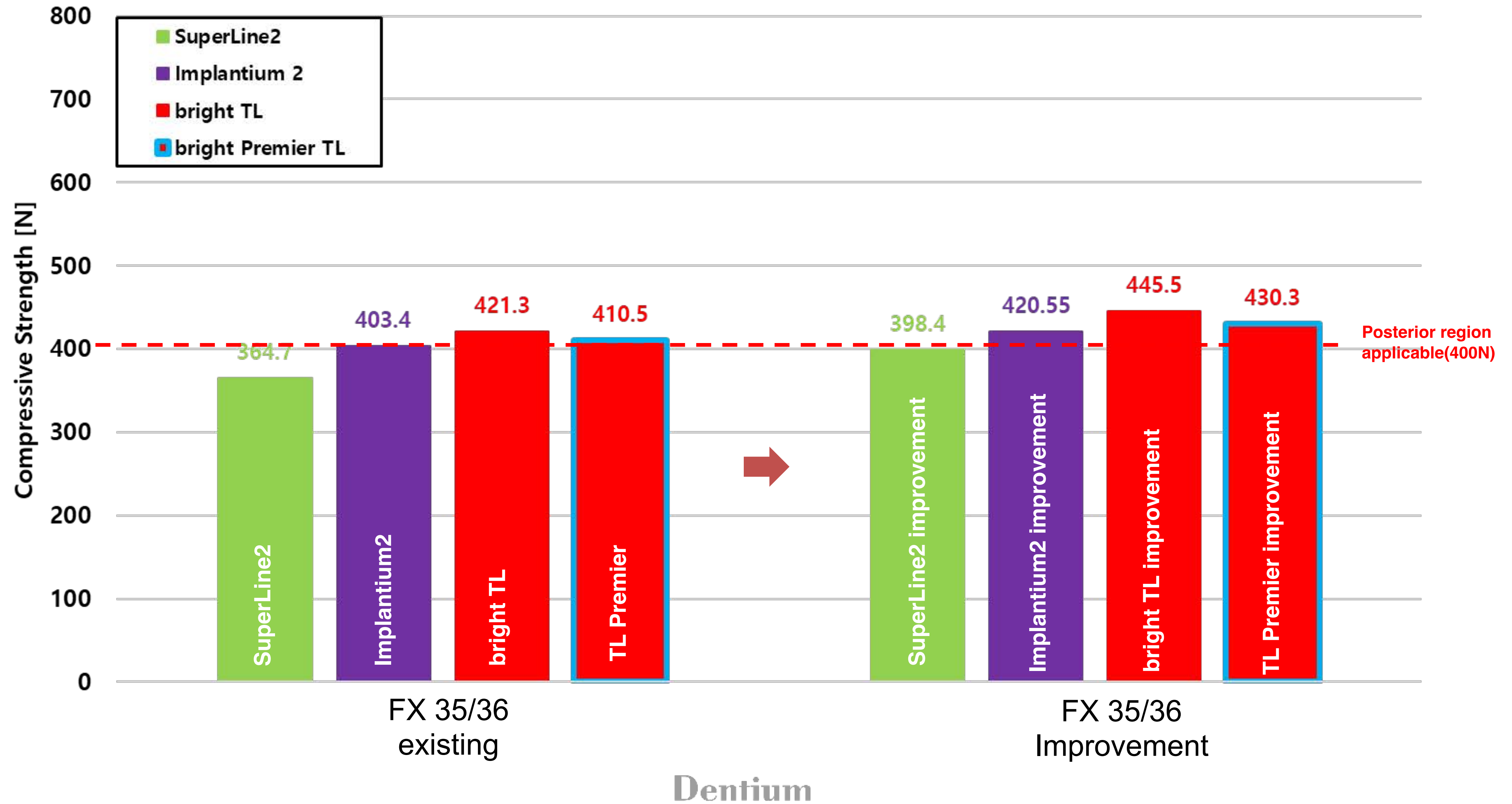


Narrow & GBR



Minimization of GBR
Narrow implantation

Fixture improvement in strength



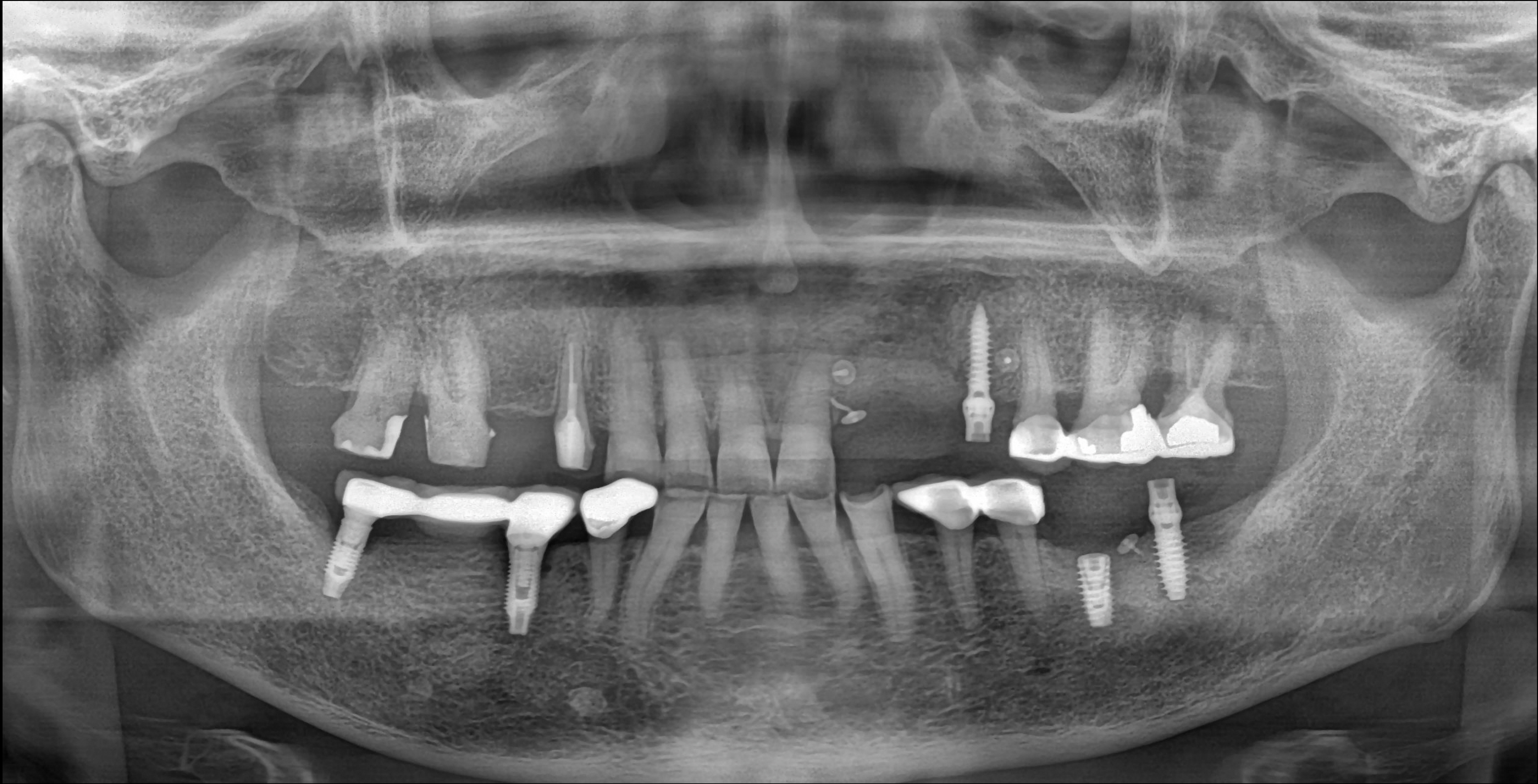
Oral exam (2022-10-05)



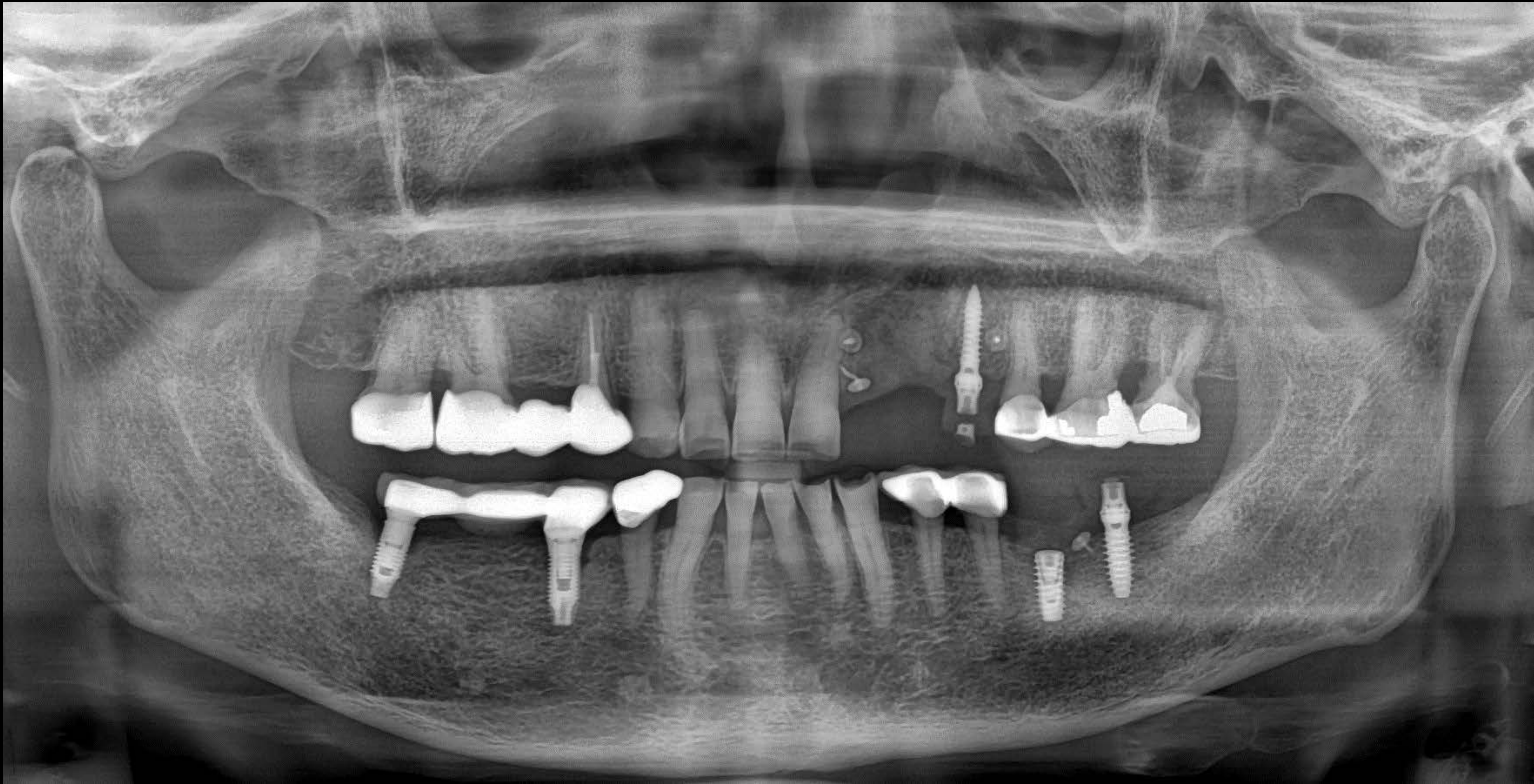
#24, 36, 37 Pre-op (2022-11-16)



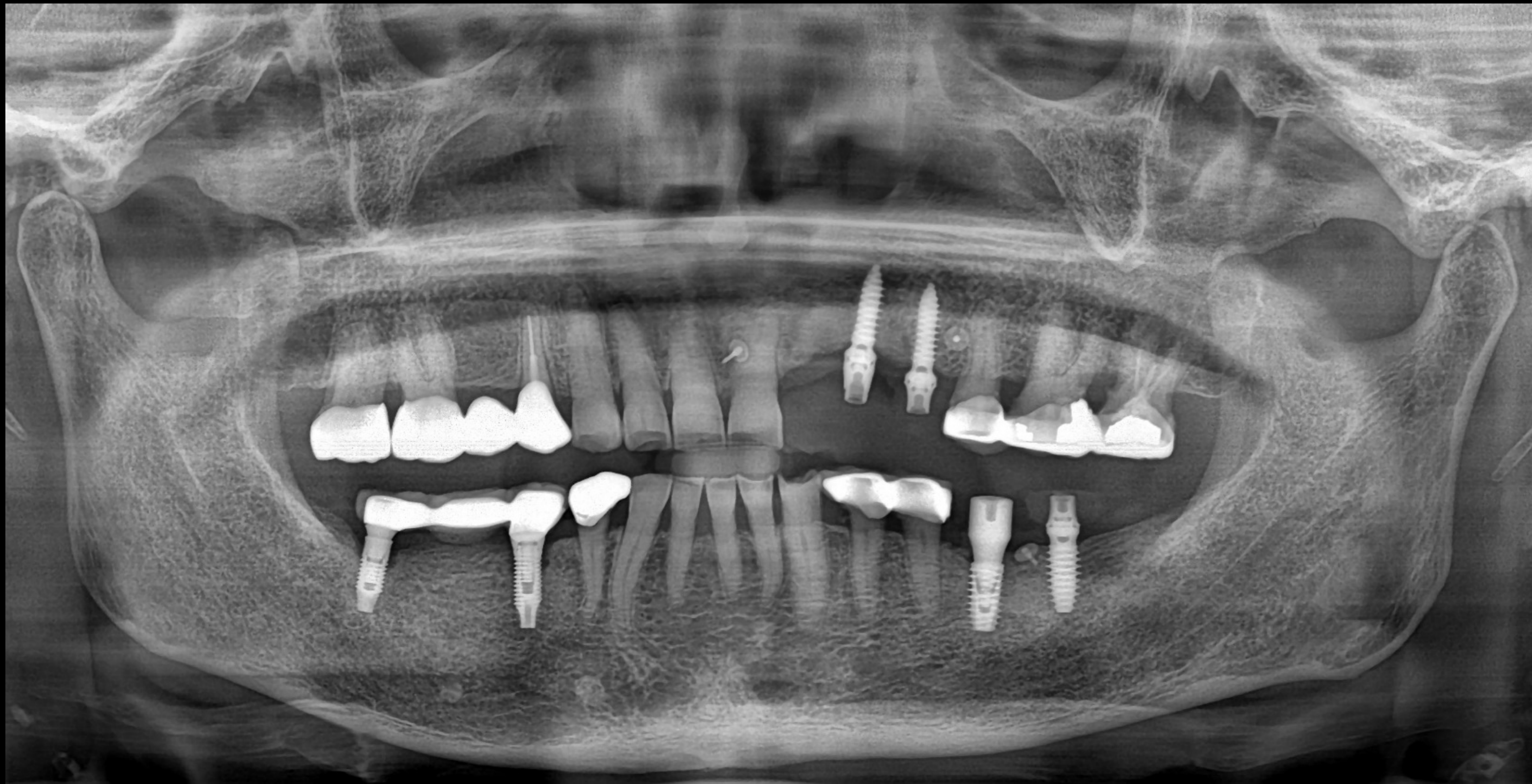
#24, 36, 37 Post-op (2022-12-15)



#23 Pre-op (2023-01-13)

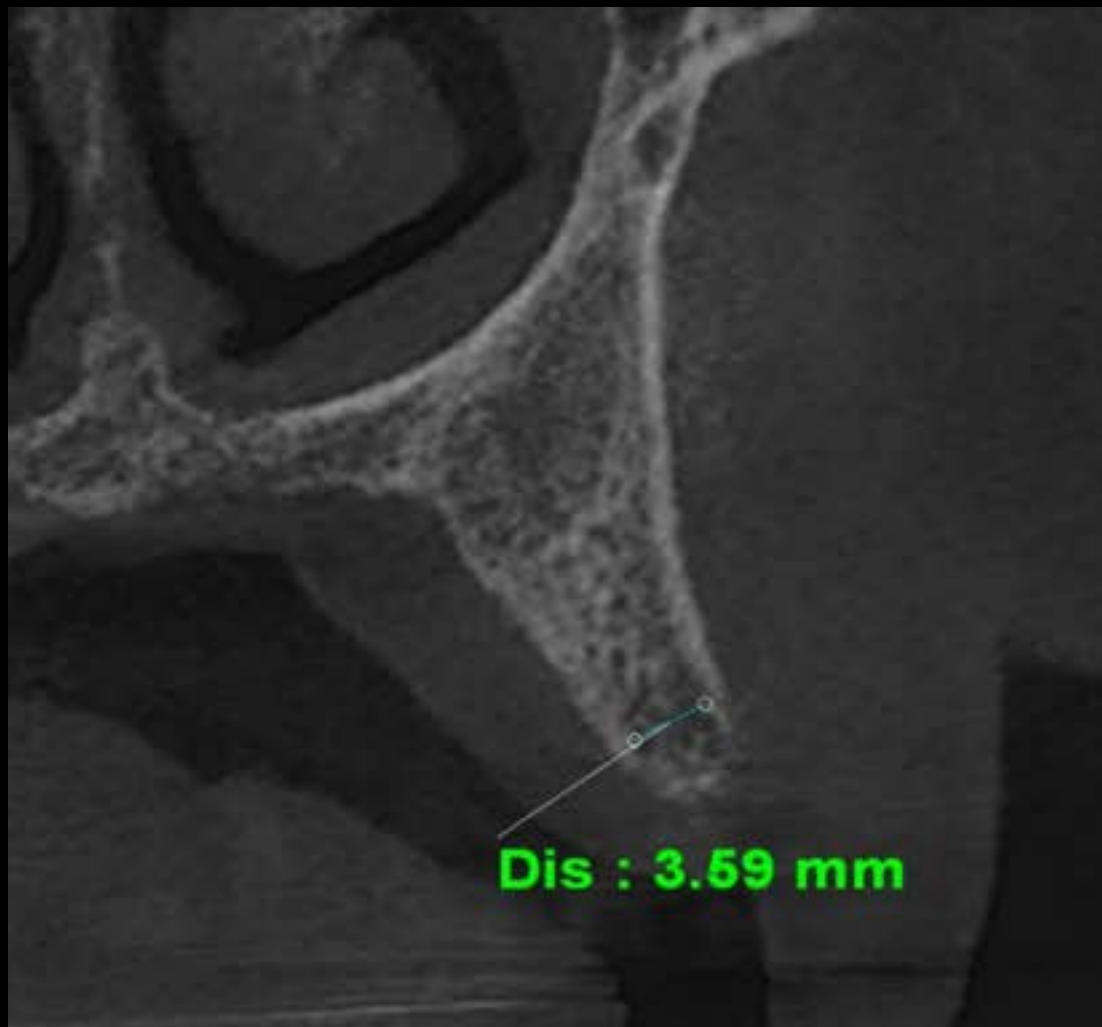


#23 Post-op (2023-06-28)

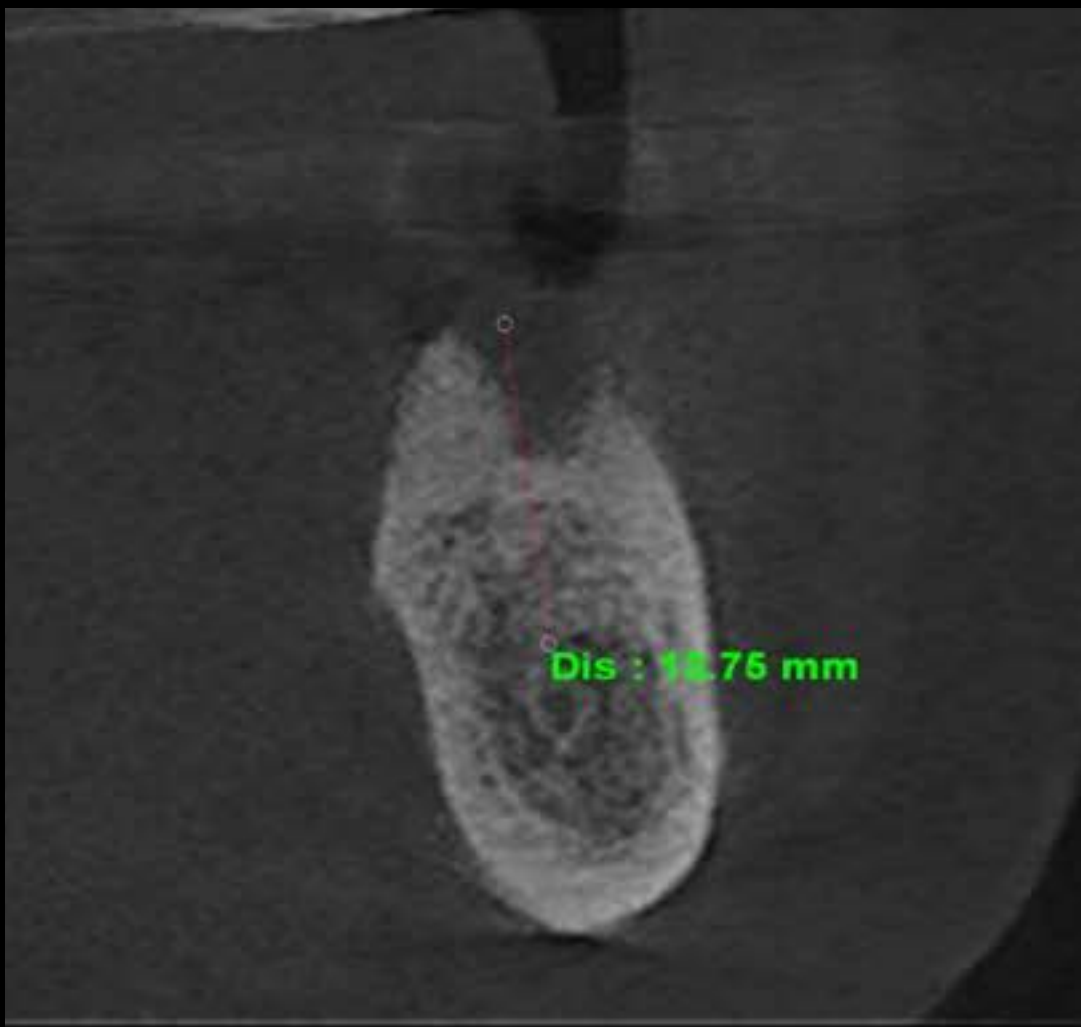


Final prosthesis (2023-09-15)

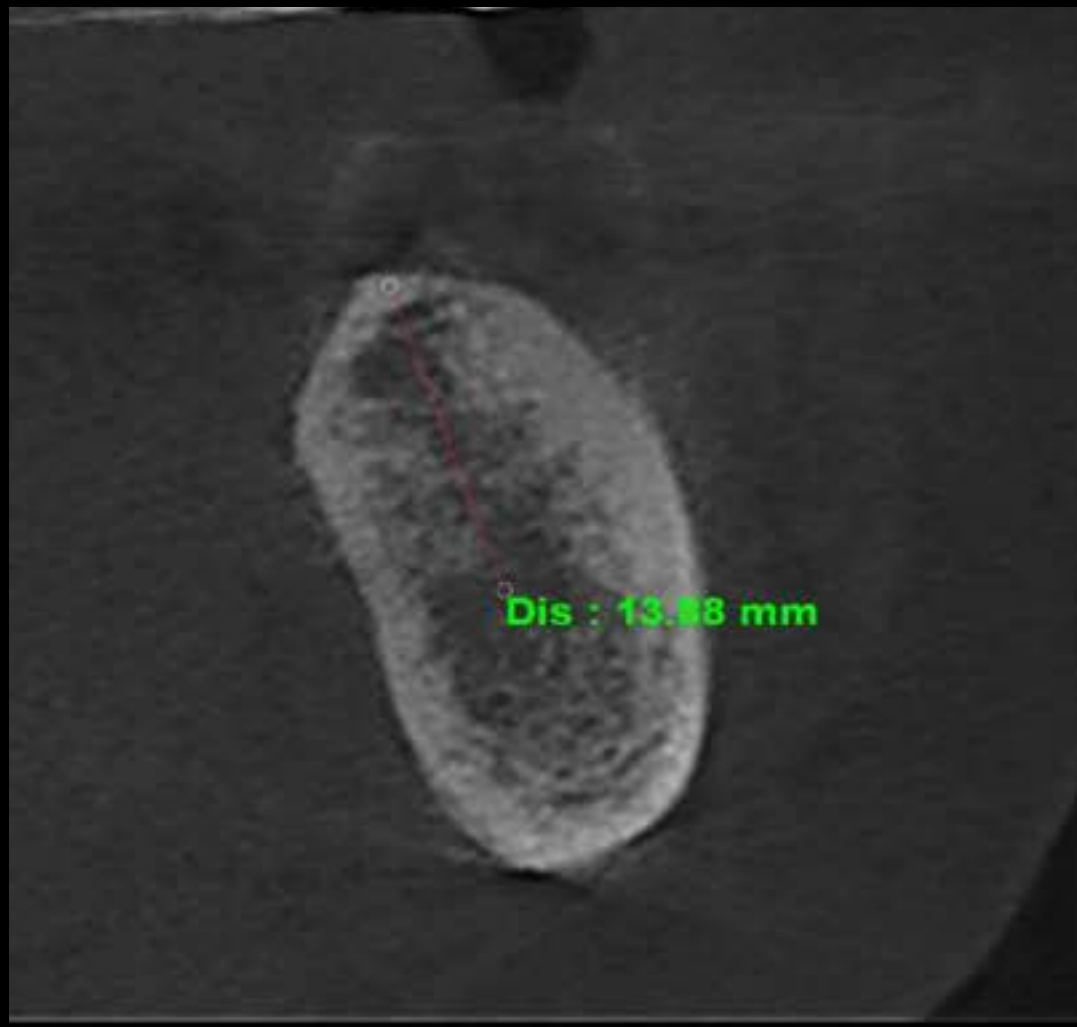




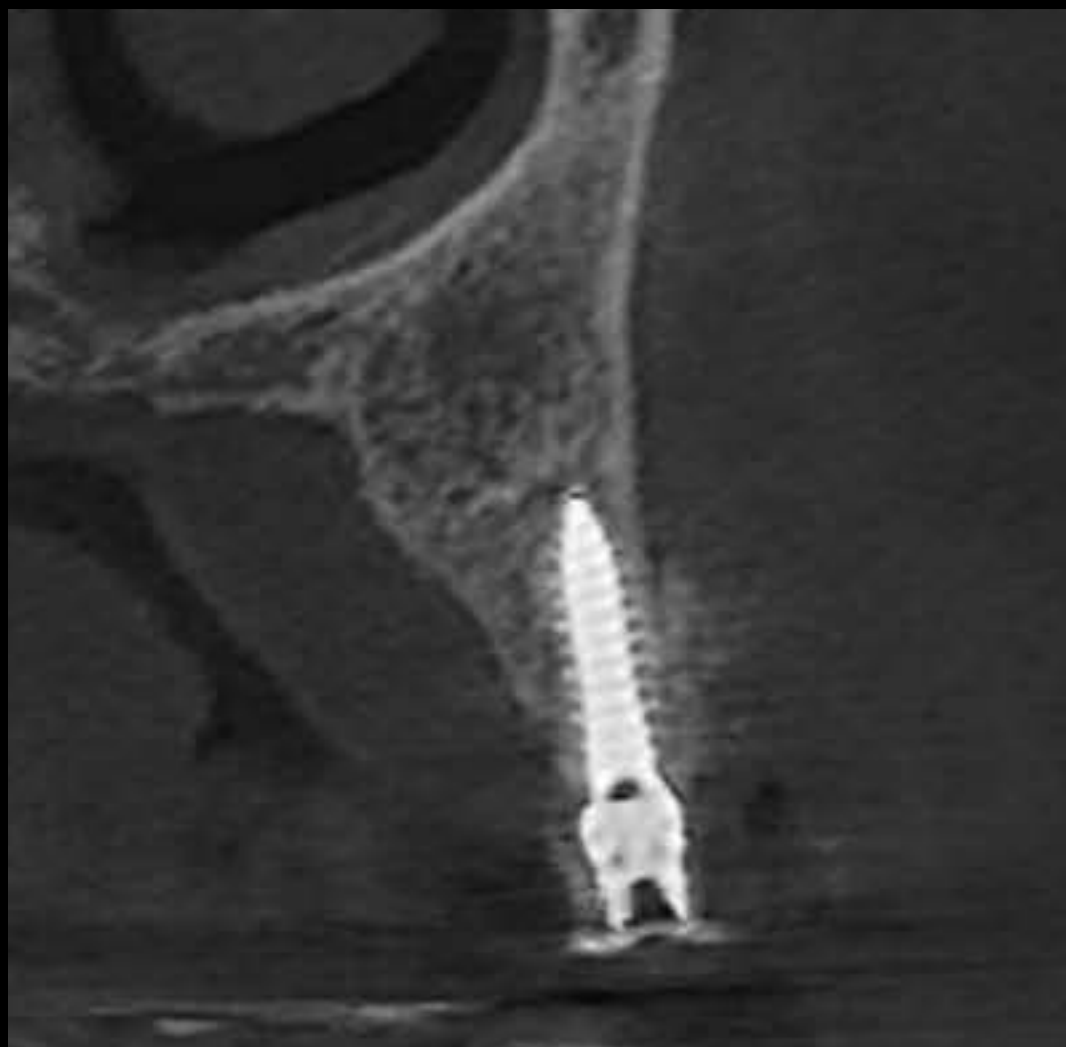
#24



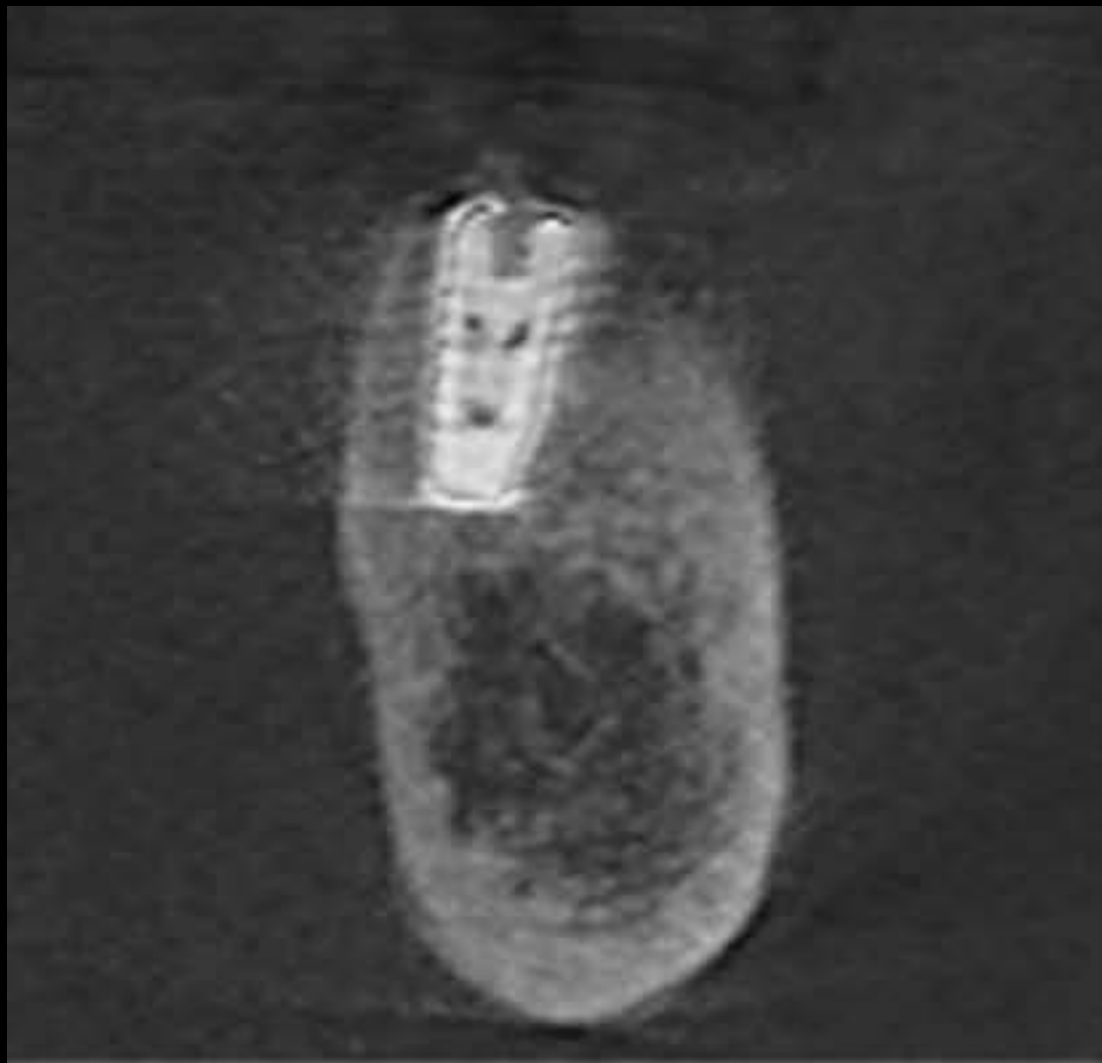
#36



#37



#24

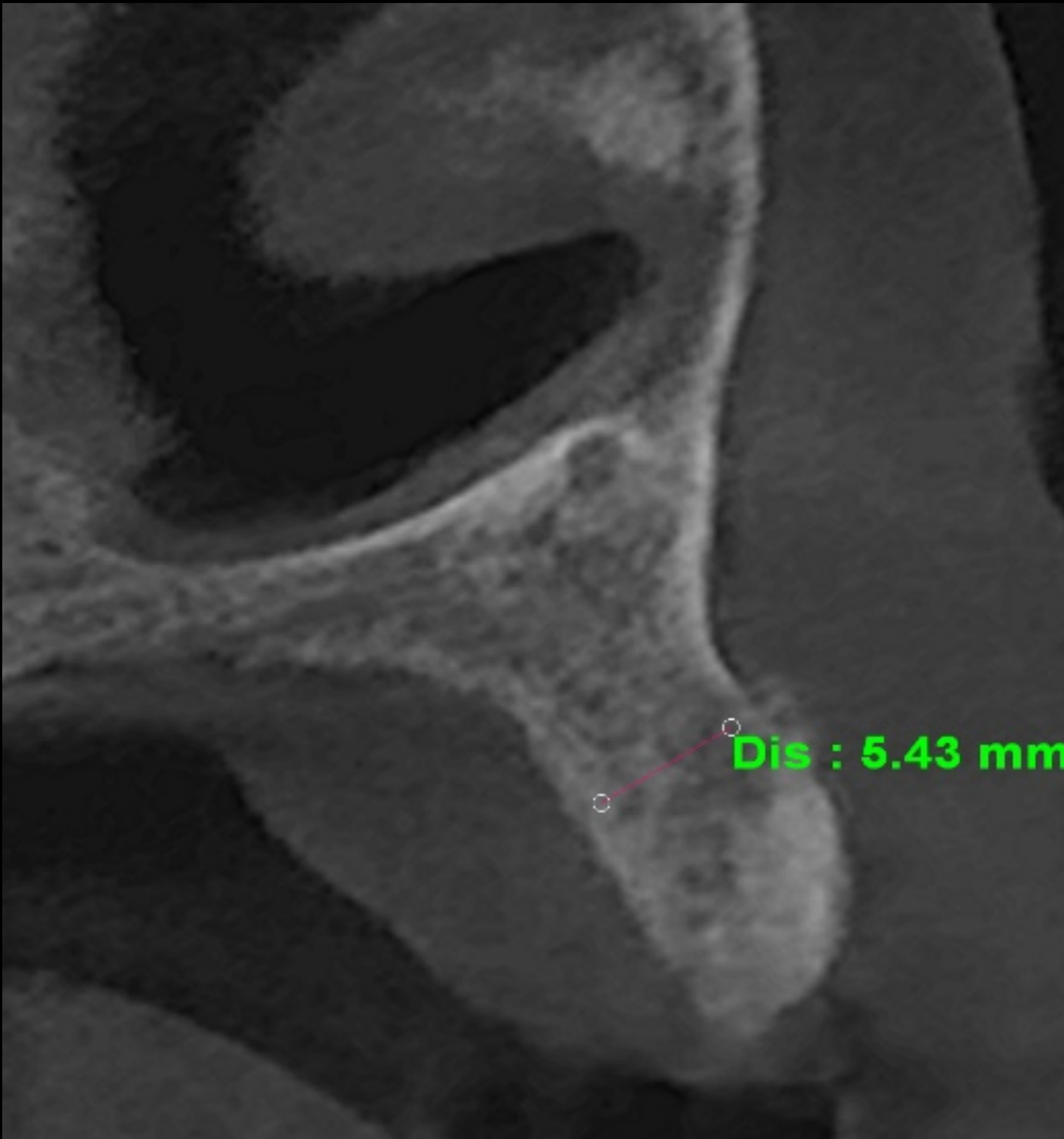


#36



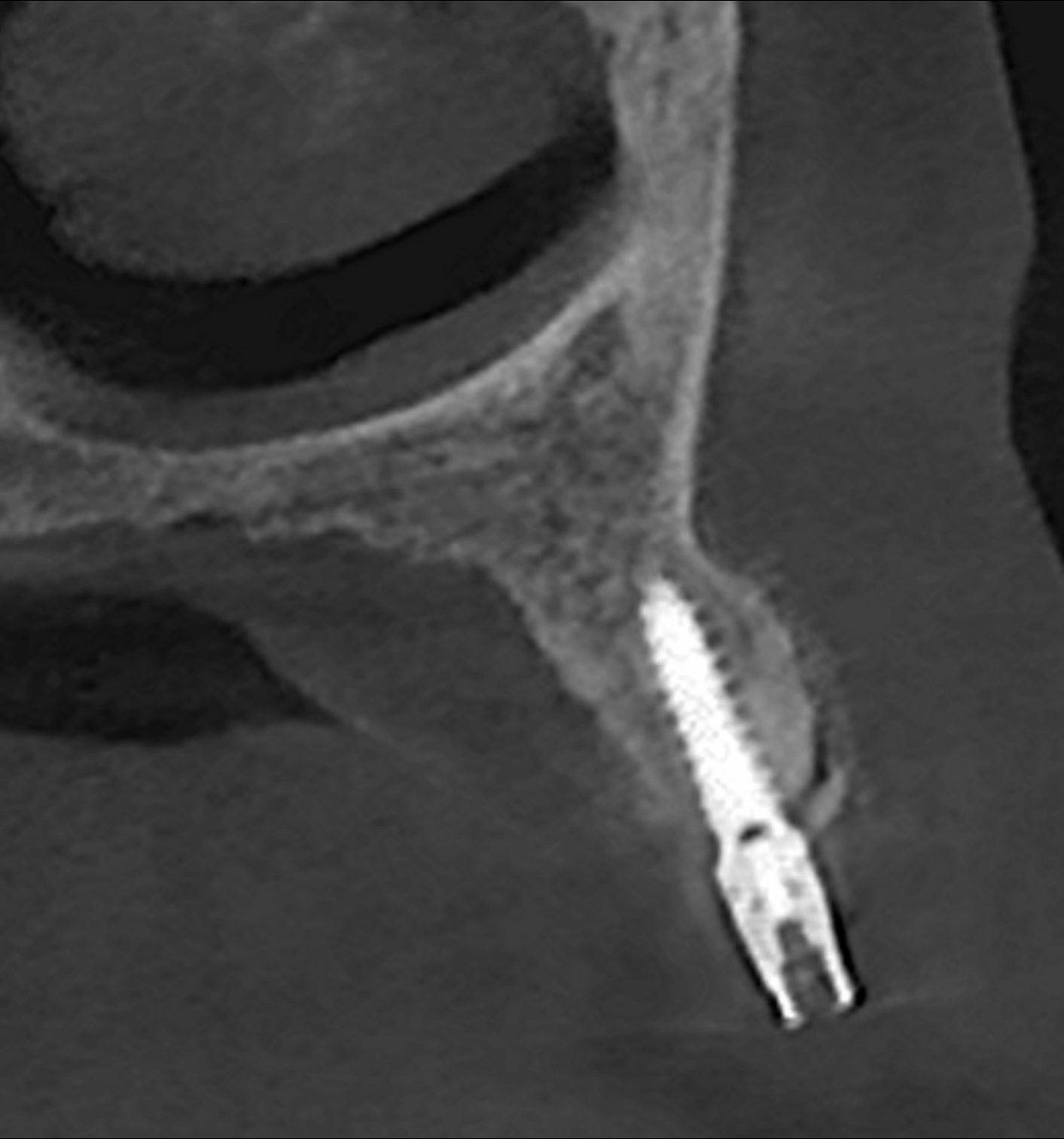
#37

Pre-op CT (2023-06-28)



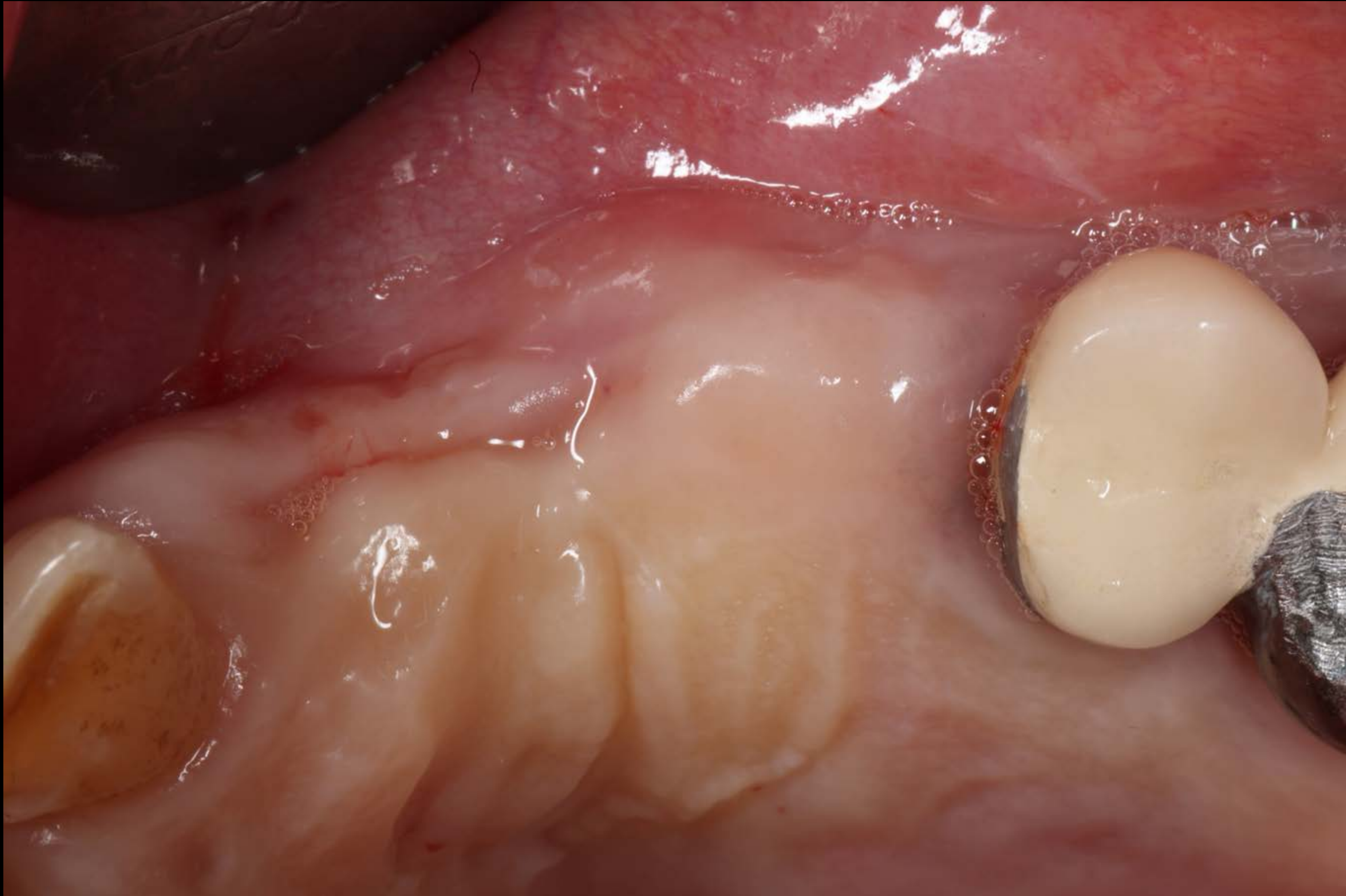
#23

Post-op CT (2023-06-28)



#23

#24 Pre-op (2022-12-15)



#36,37 Pre-op (2022-12-15)



Flipper



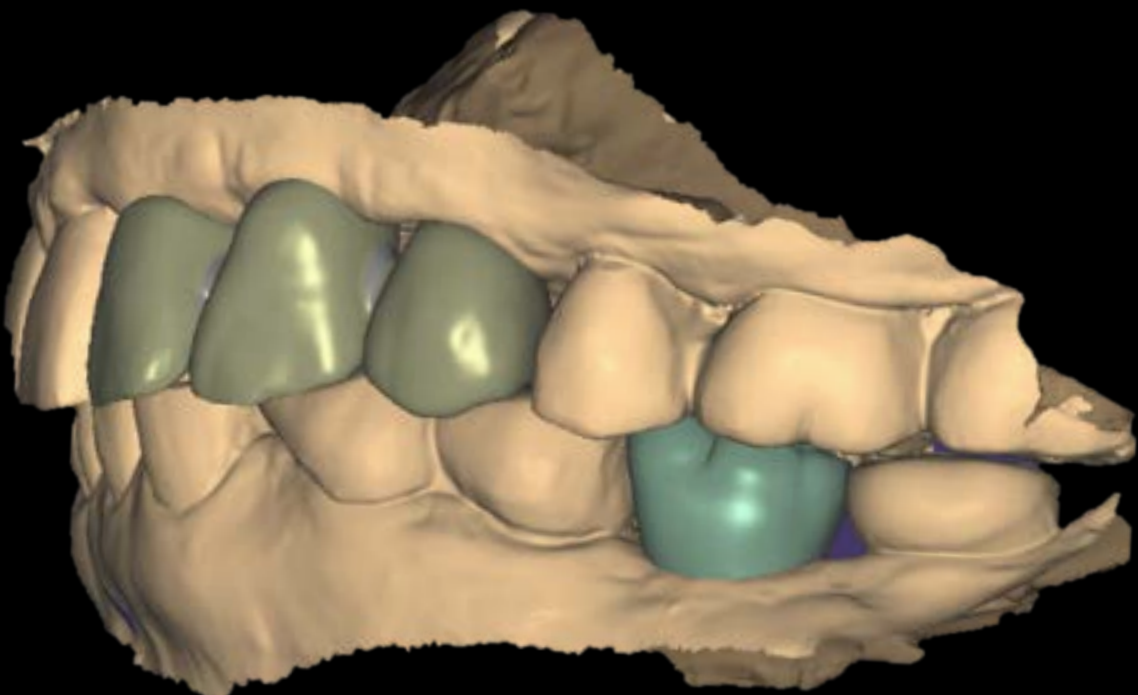
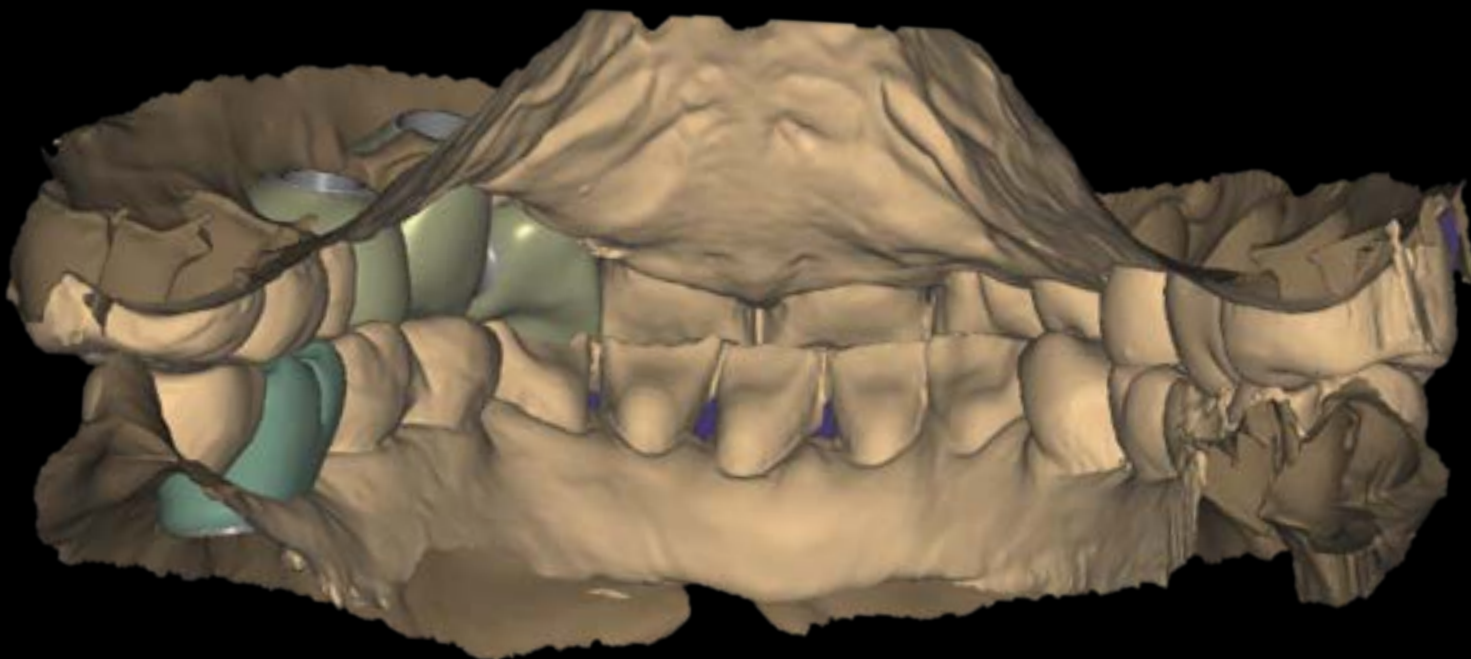
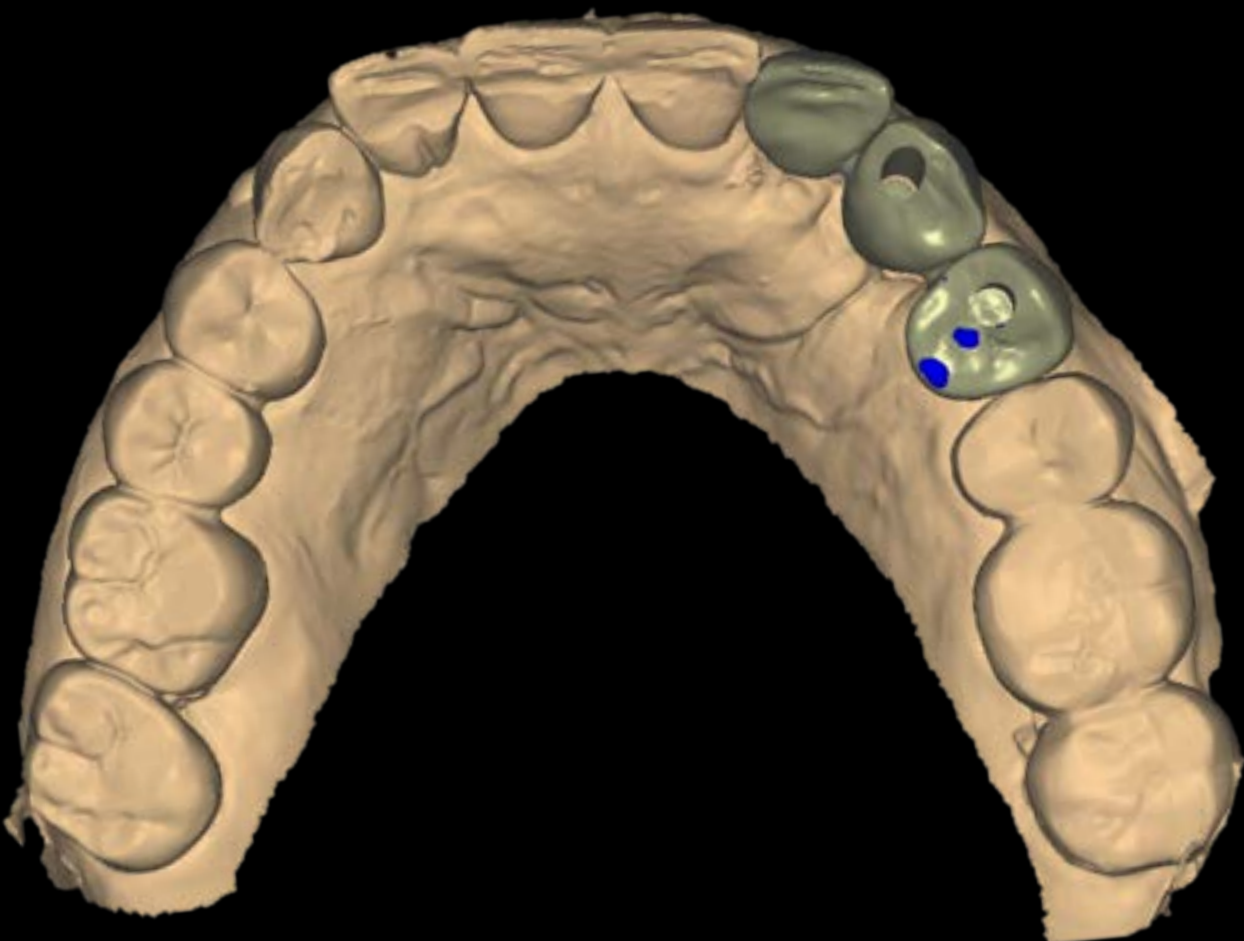
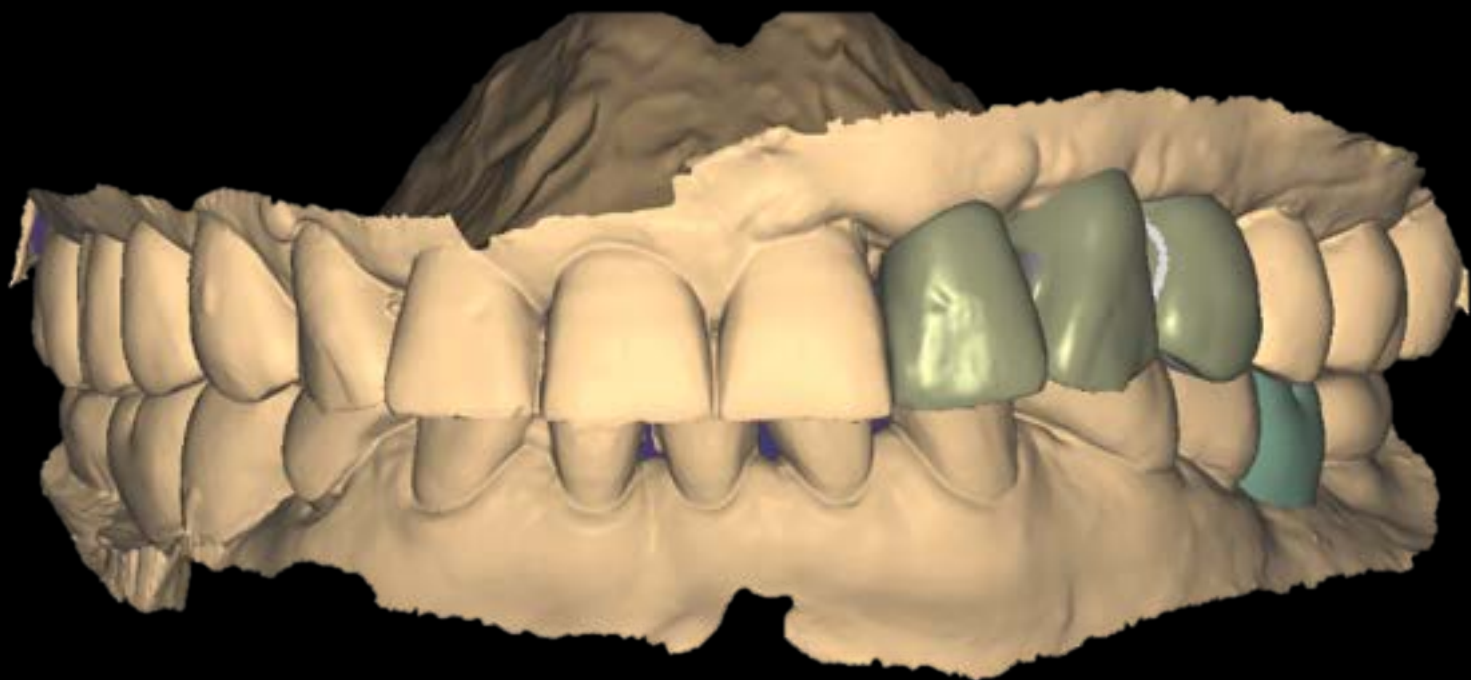
Flipper del (2023-04-26)



Intra-oral scanning (Temporary)



CAD (Temporary)



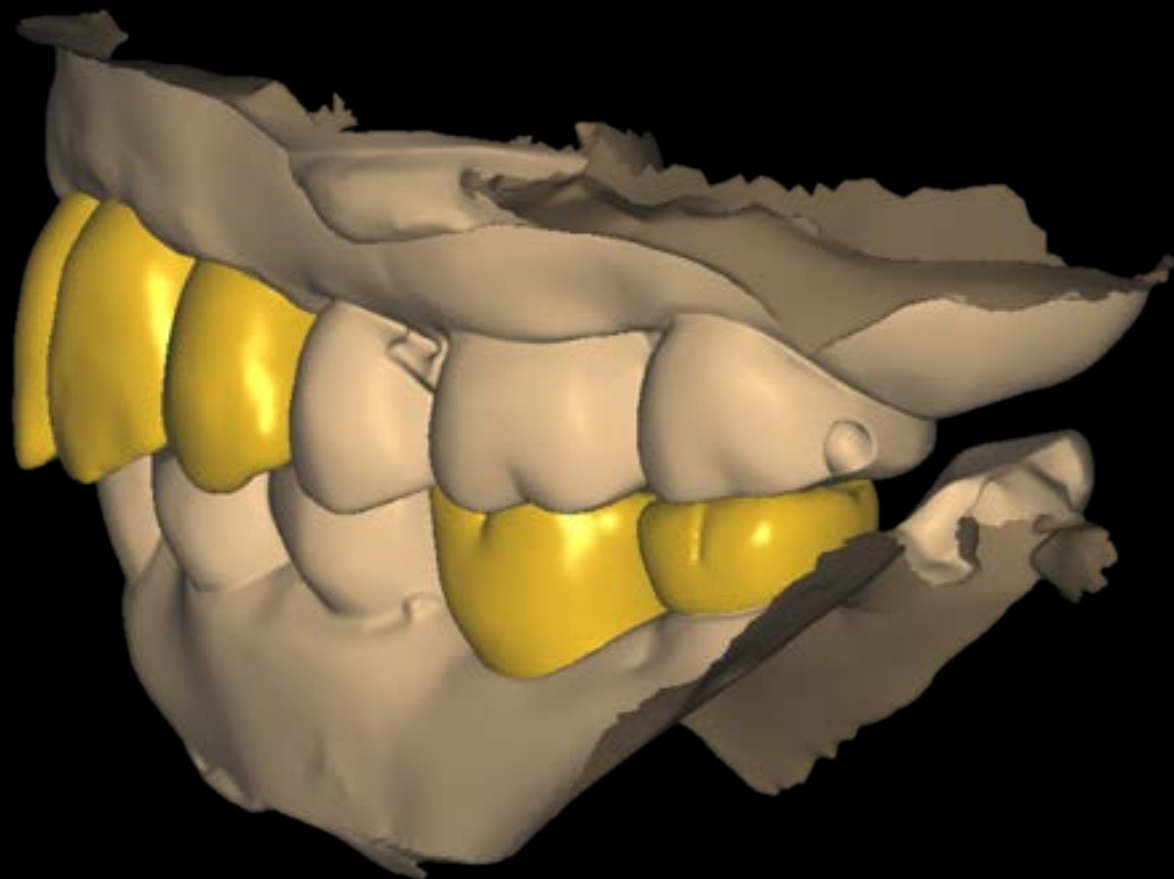
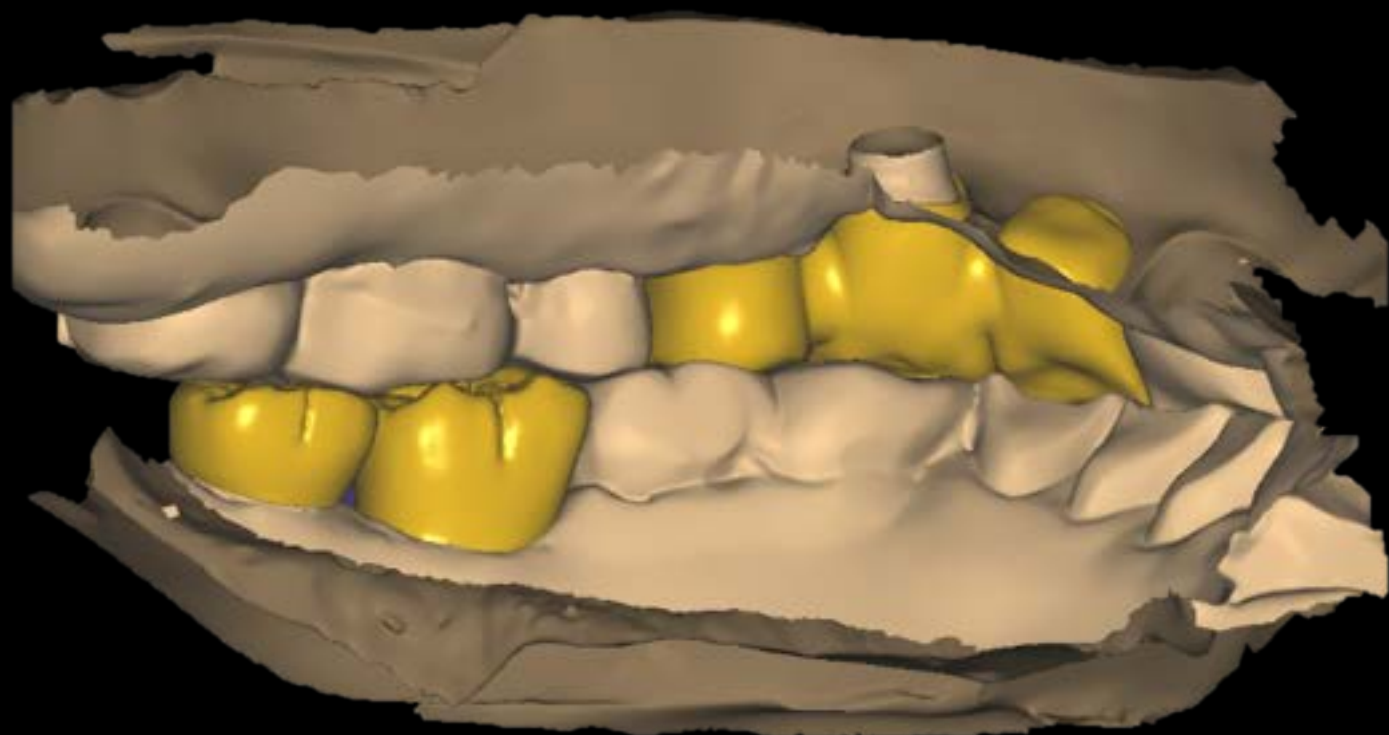
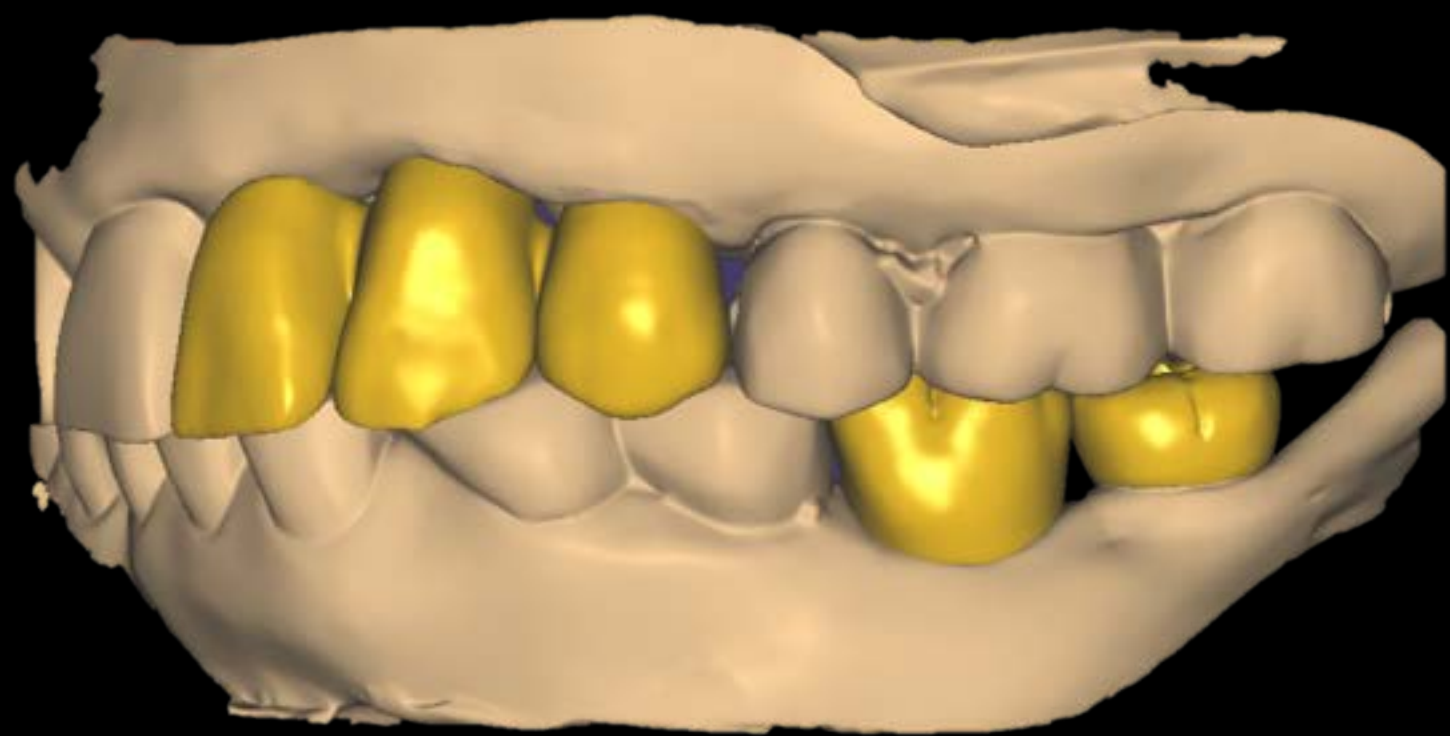
Temporary crown



#23, 24, 36, 37 Provisional restoration (2023-07-21)



CAD (Final prosthesis)



Milling



Final prosthesis (2023-09-15)



Final prosthesis (2023-09-15)



Ideal or Practical in Narrow Ridge



Pin Guide *Simple*

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



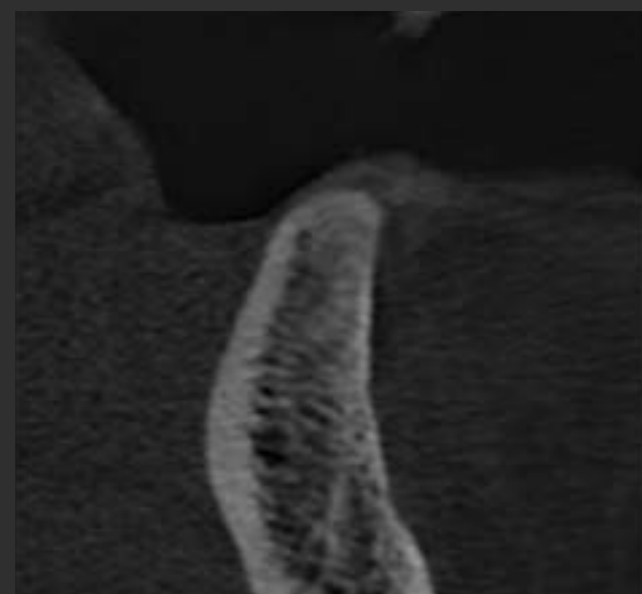
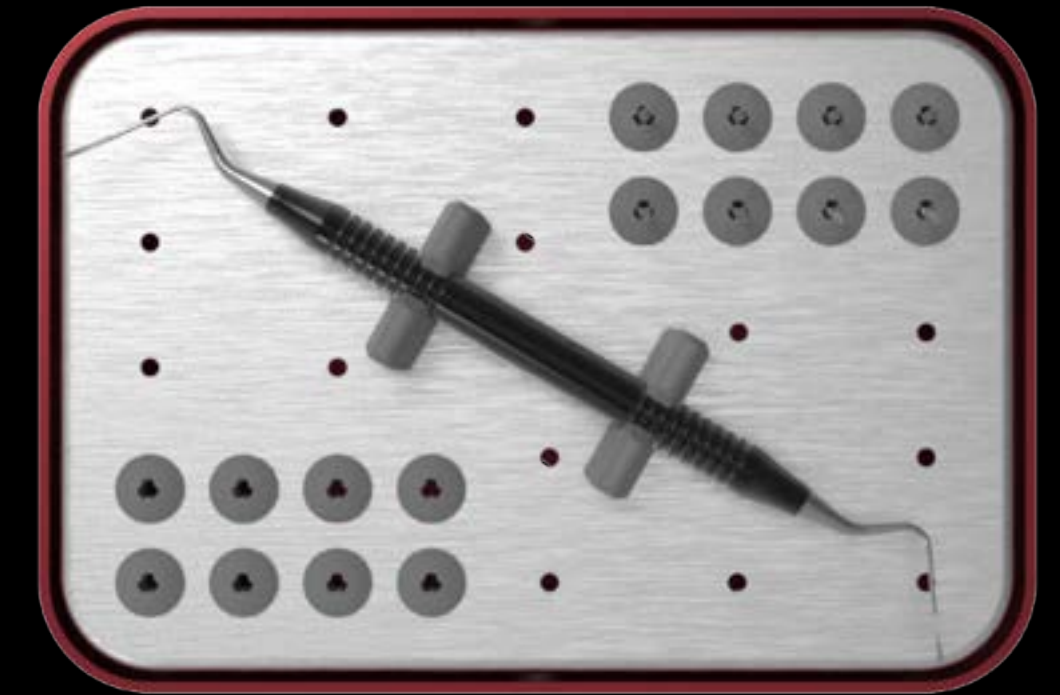
Straight

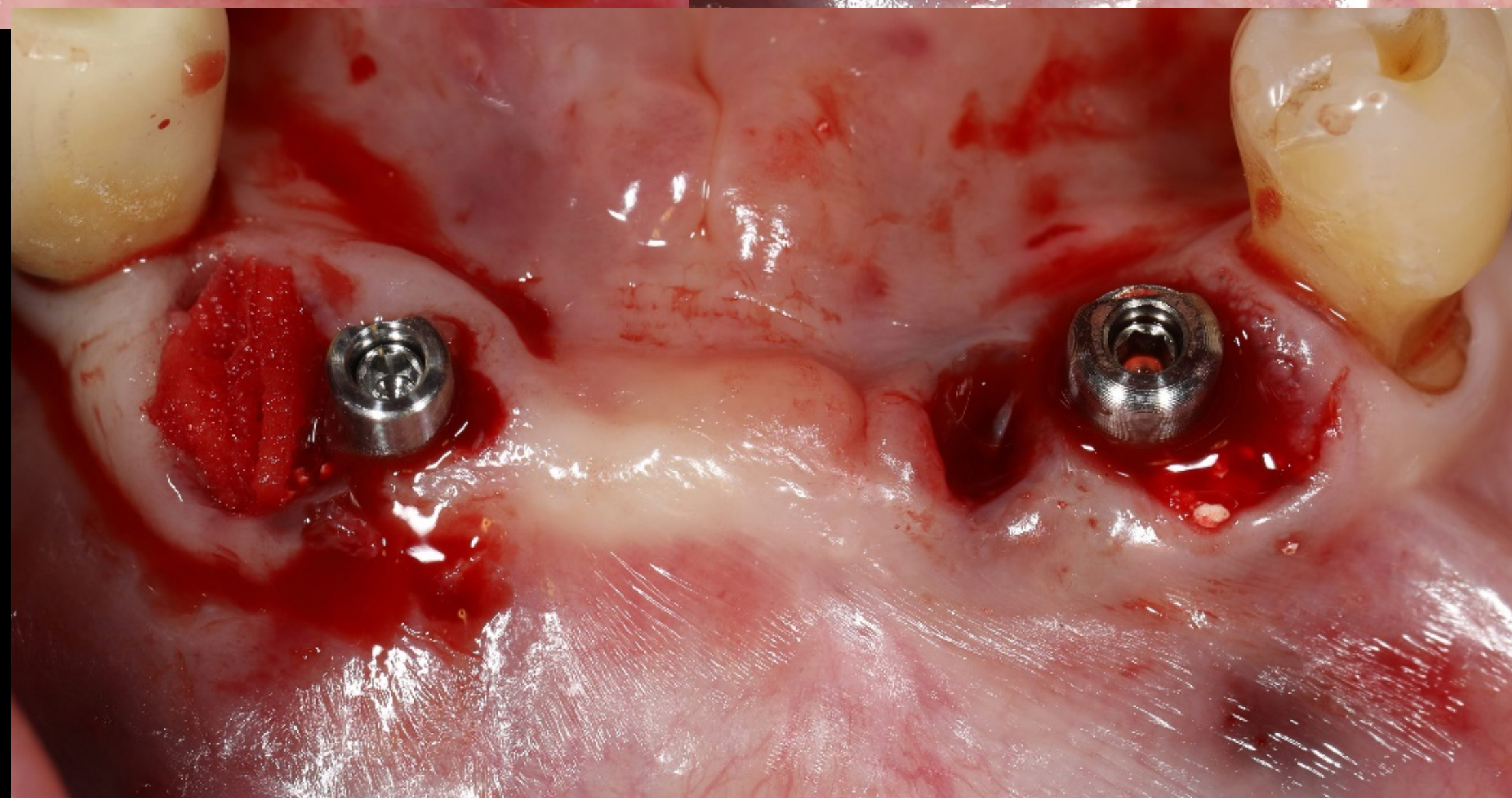
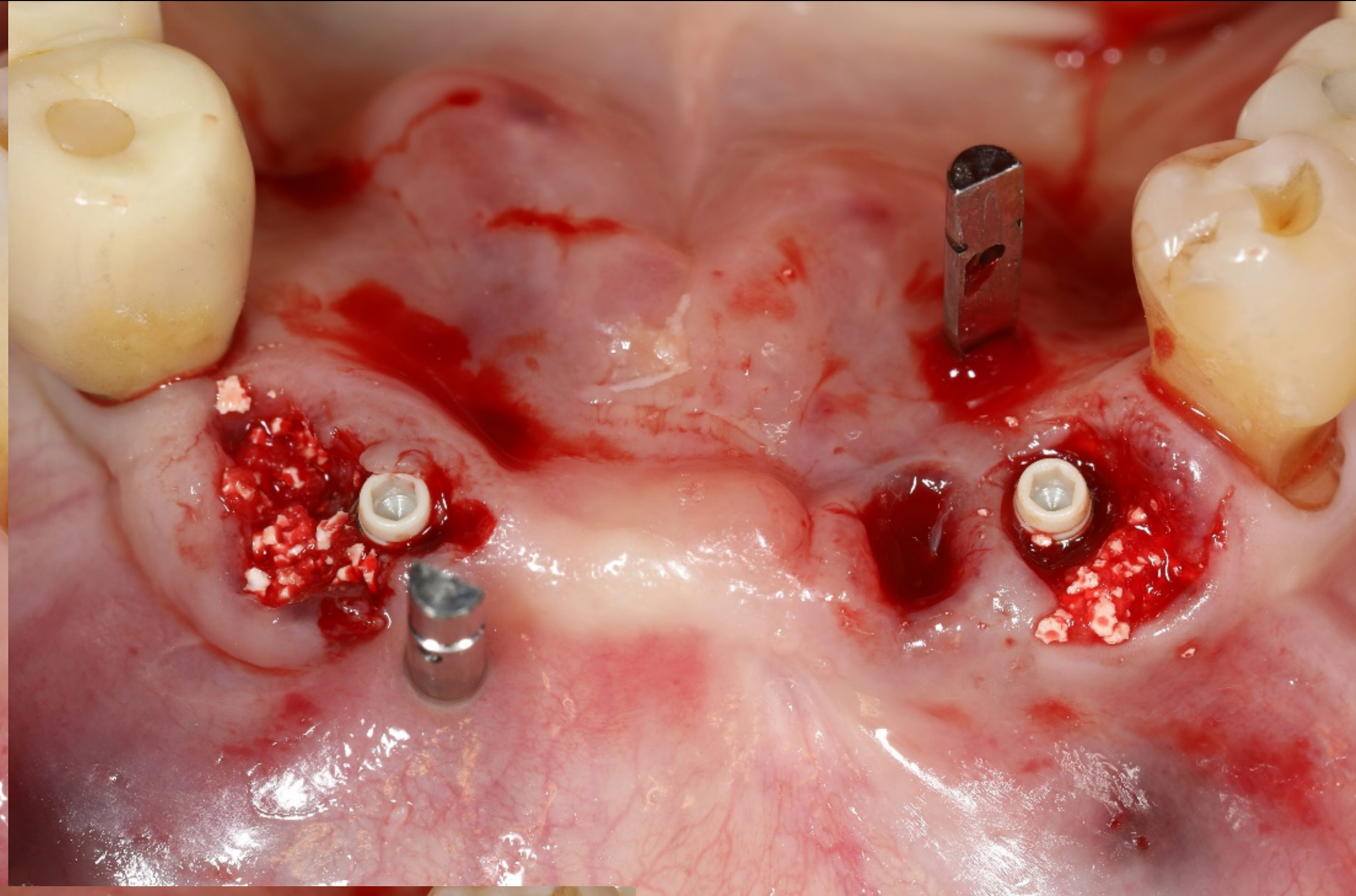
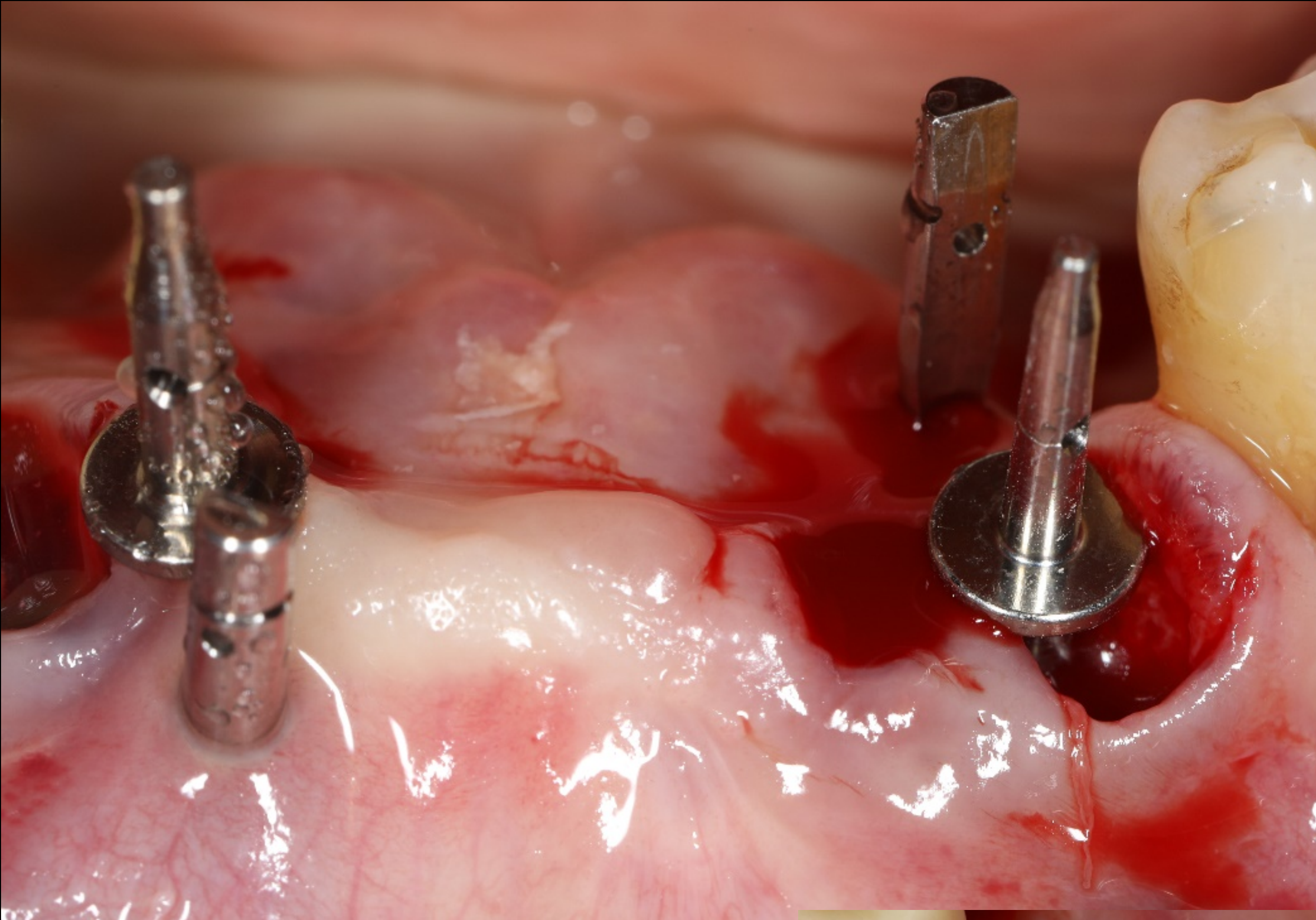


15°



25°





Pre-op (2022-10-05)



Pre-op (2023-05-18)

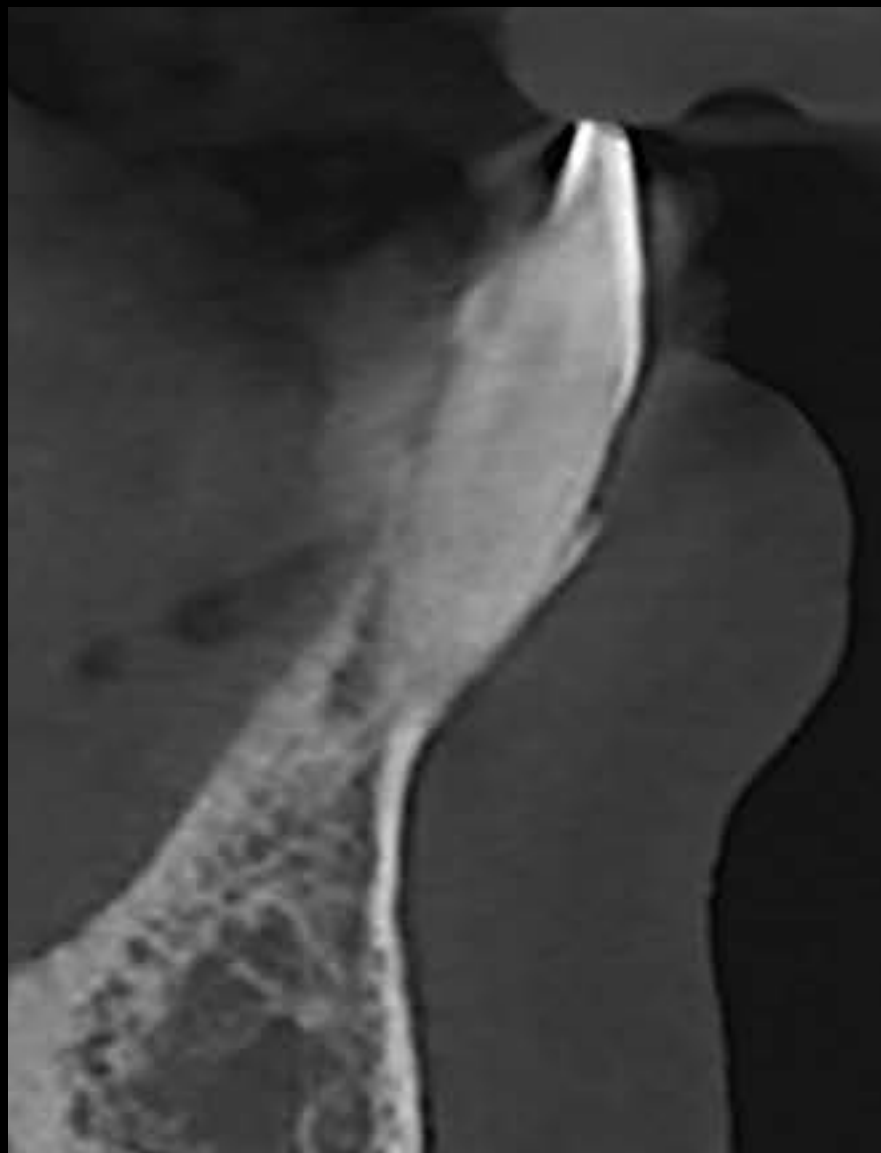


Post-op (2023-05-18)



Pre-op CT (2023-05-18)

Post-op CT (2023-05-18)



#42



#32

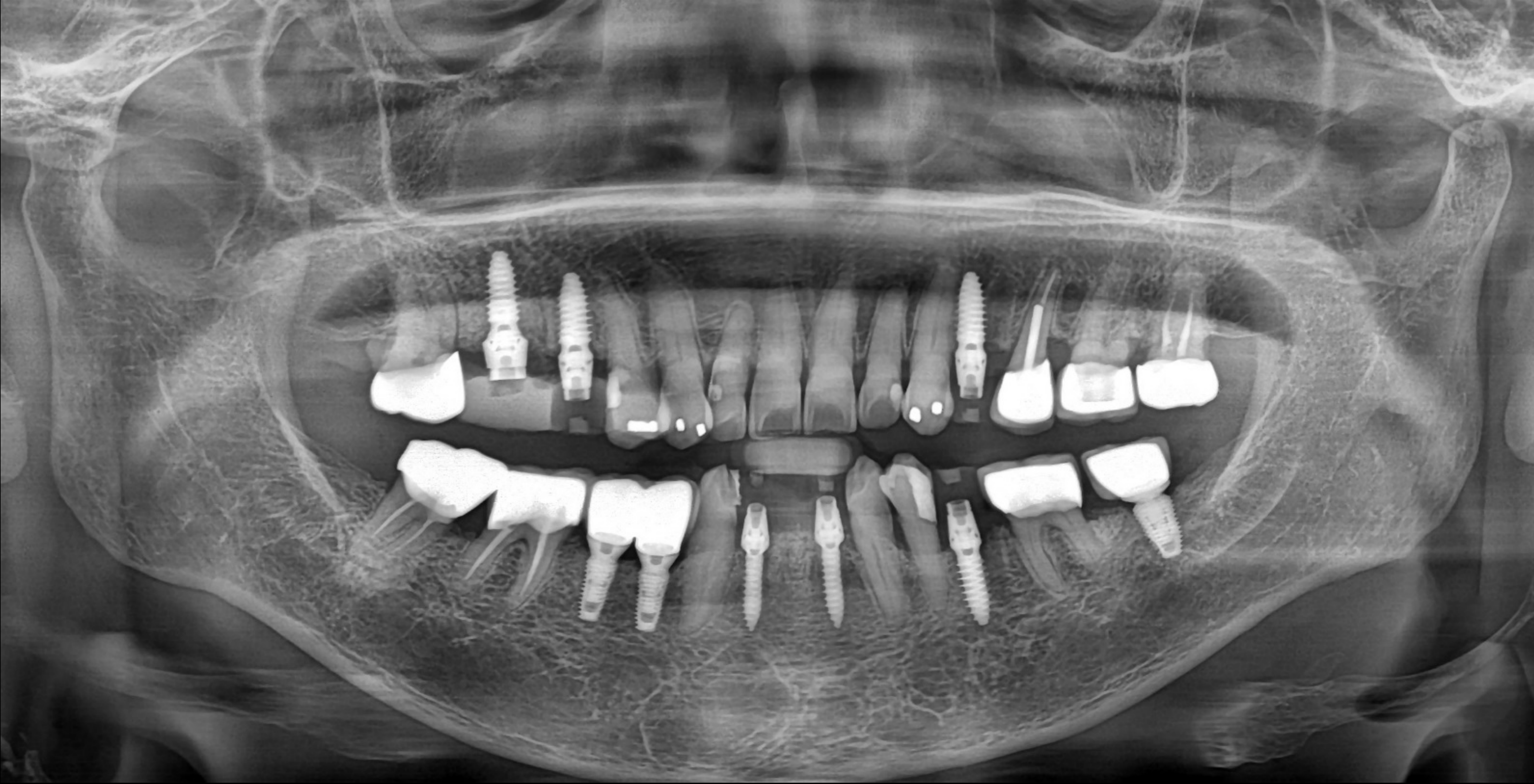


#42



#32

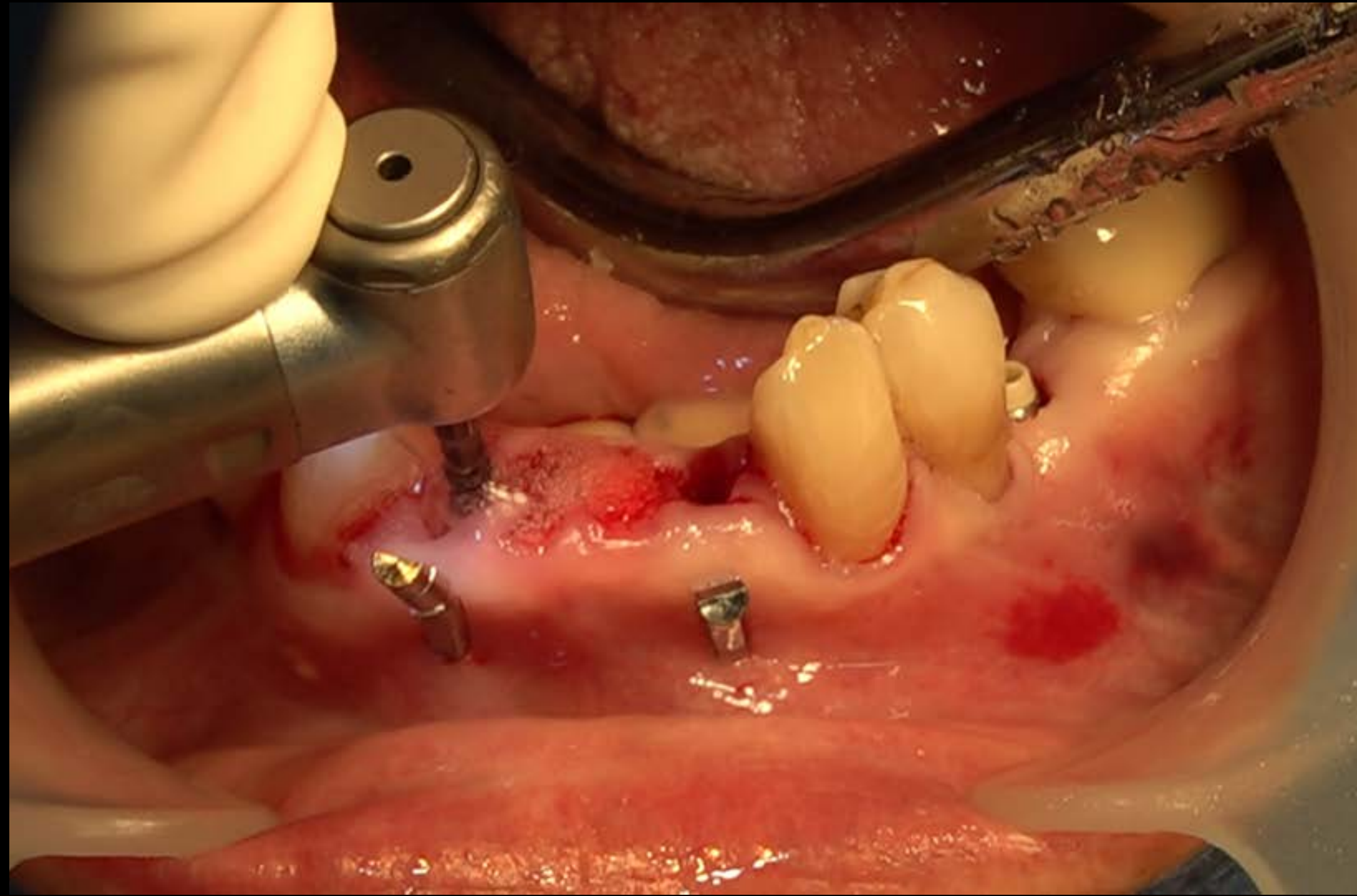
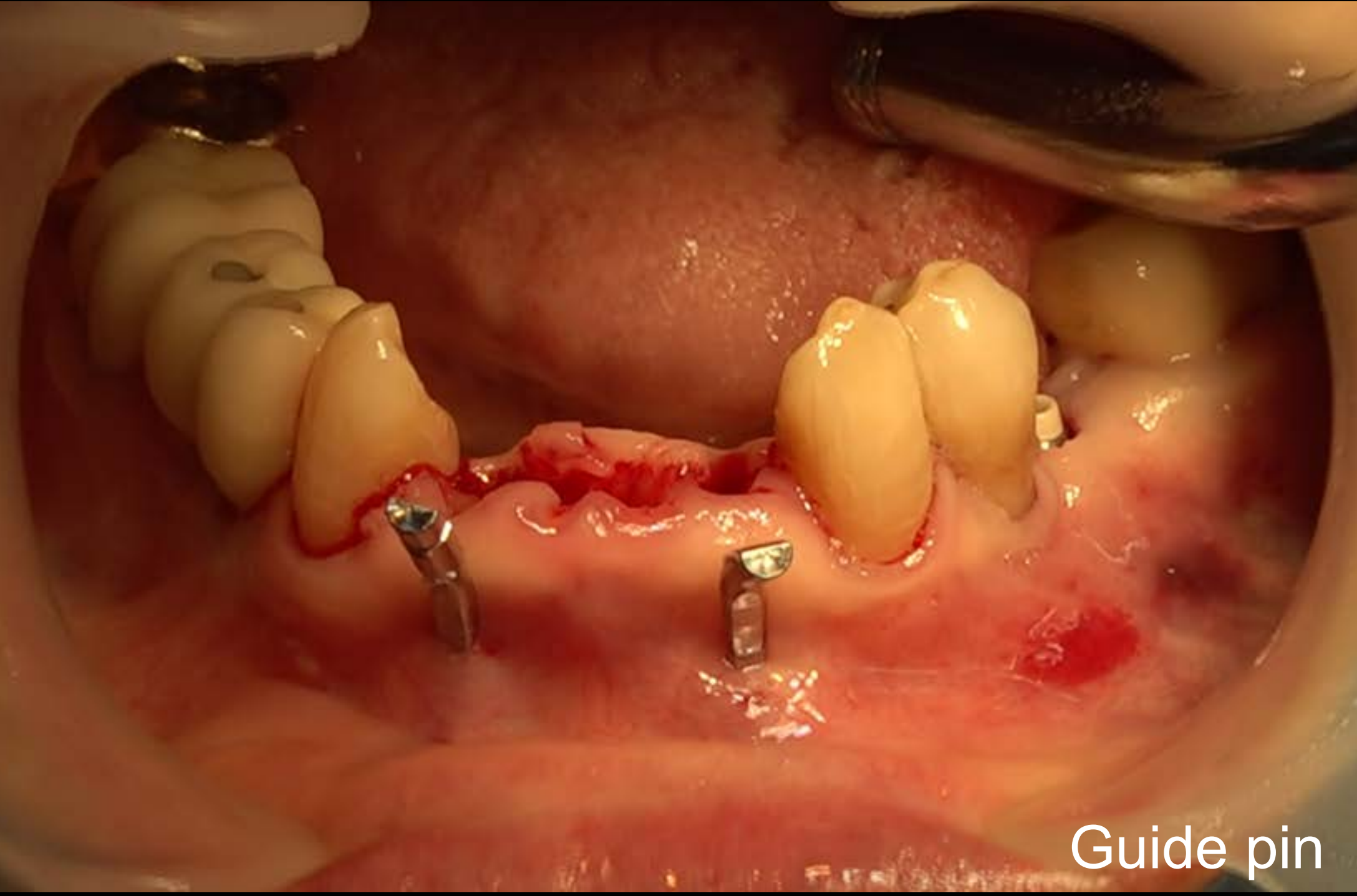
Healing 1 month (2023-06-22)



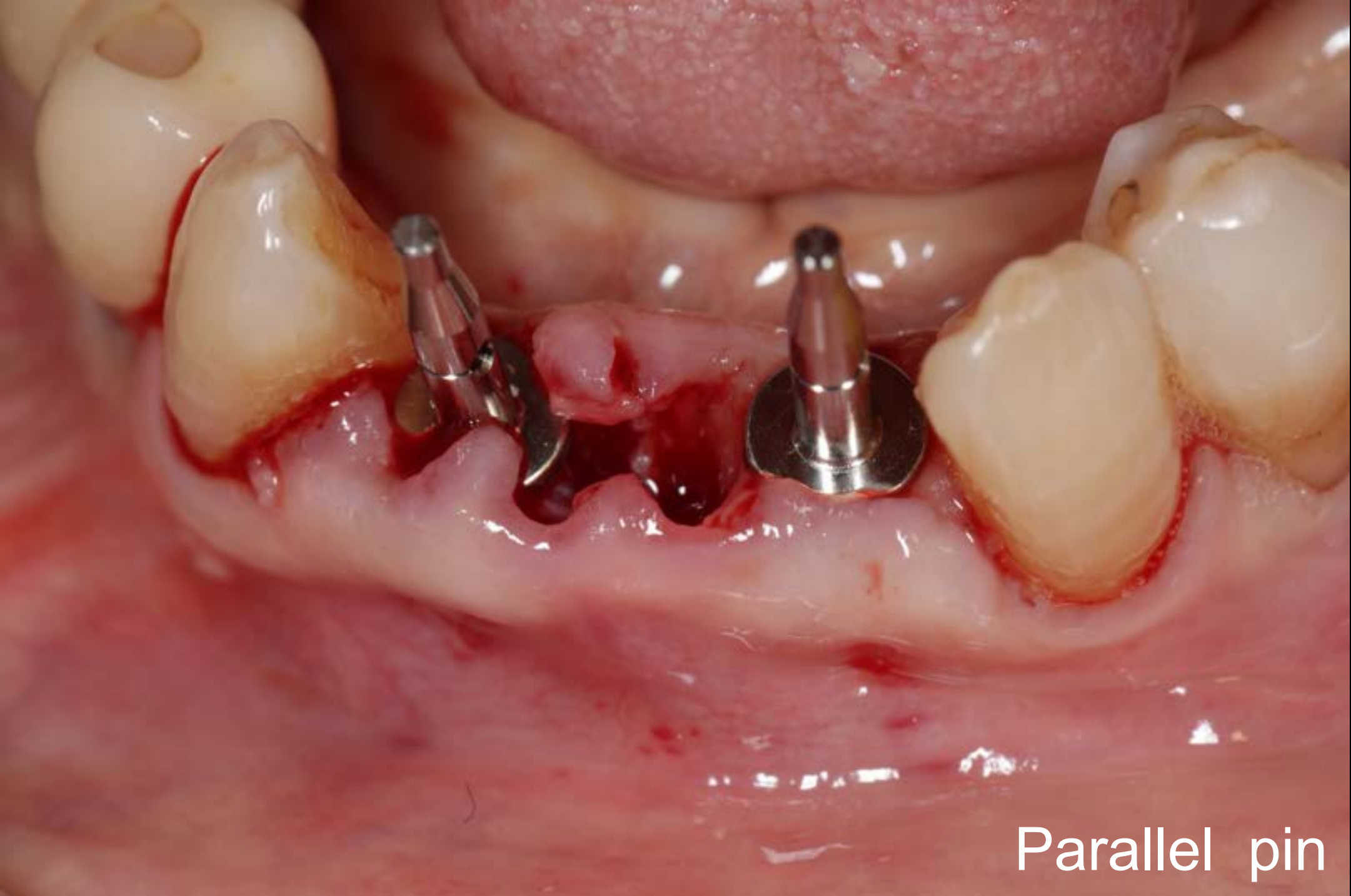
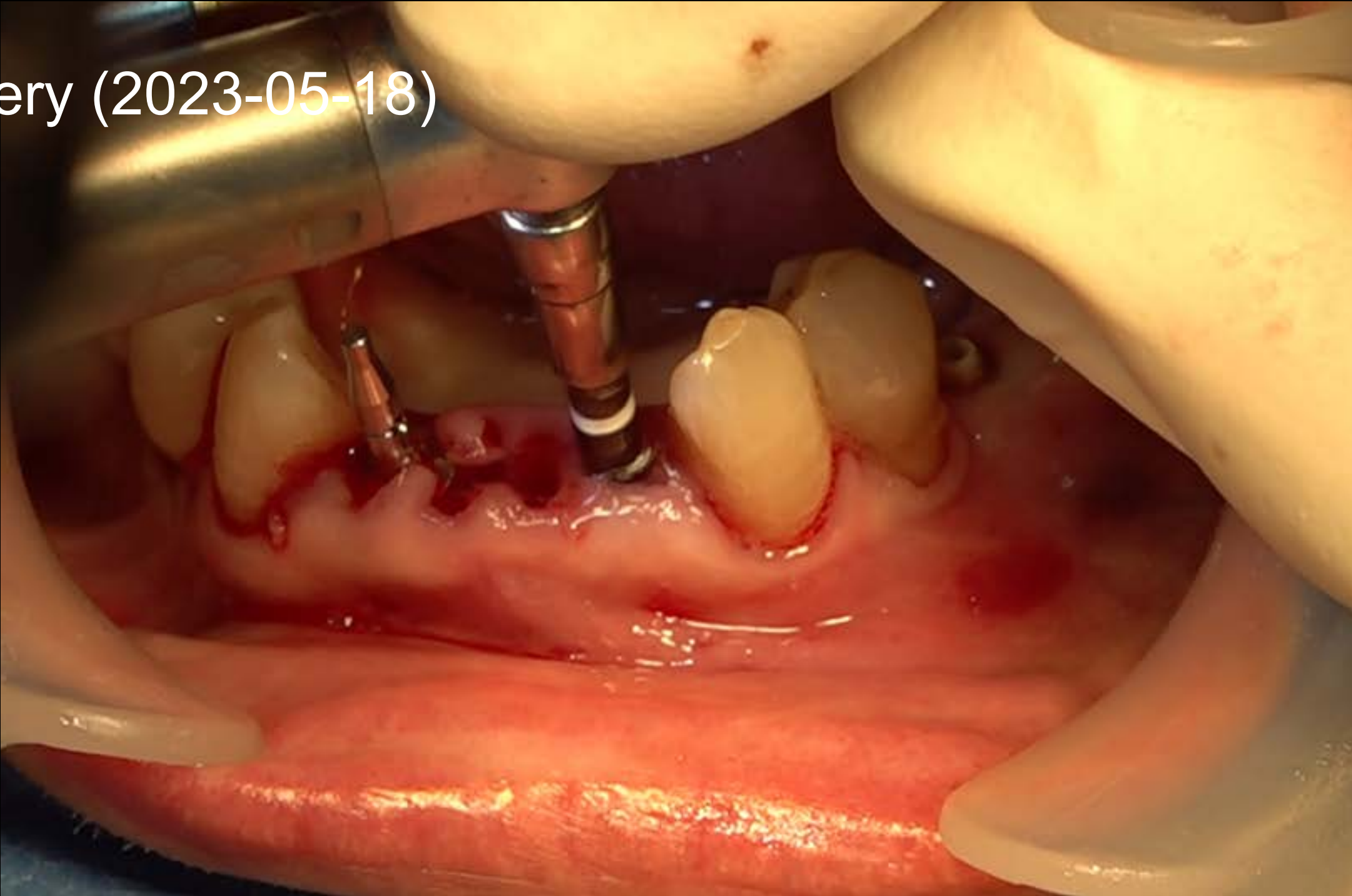
Final prosthesis (2023-08-31)



Surgery (2023-05-18)



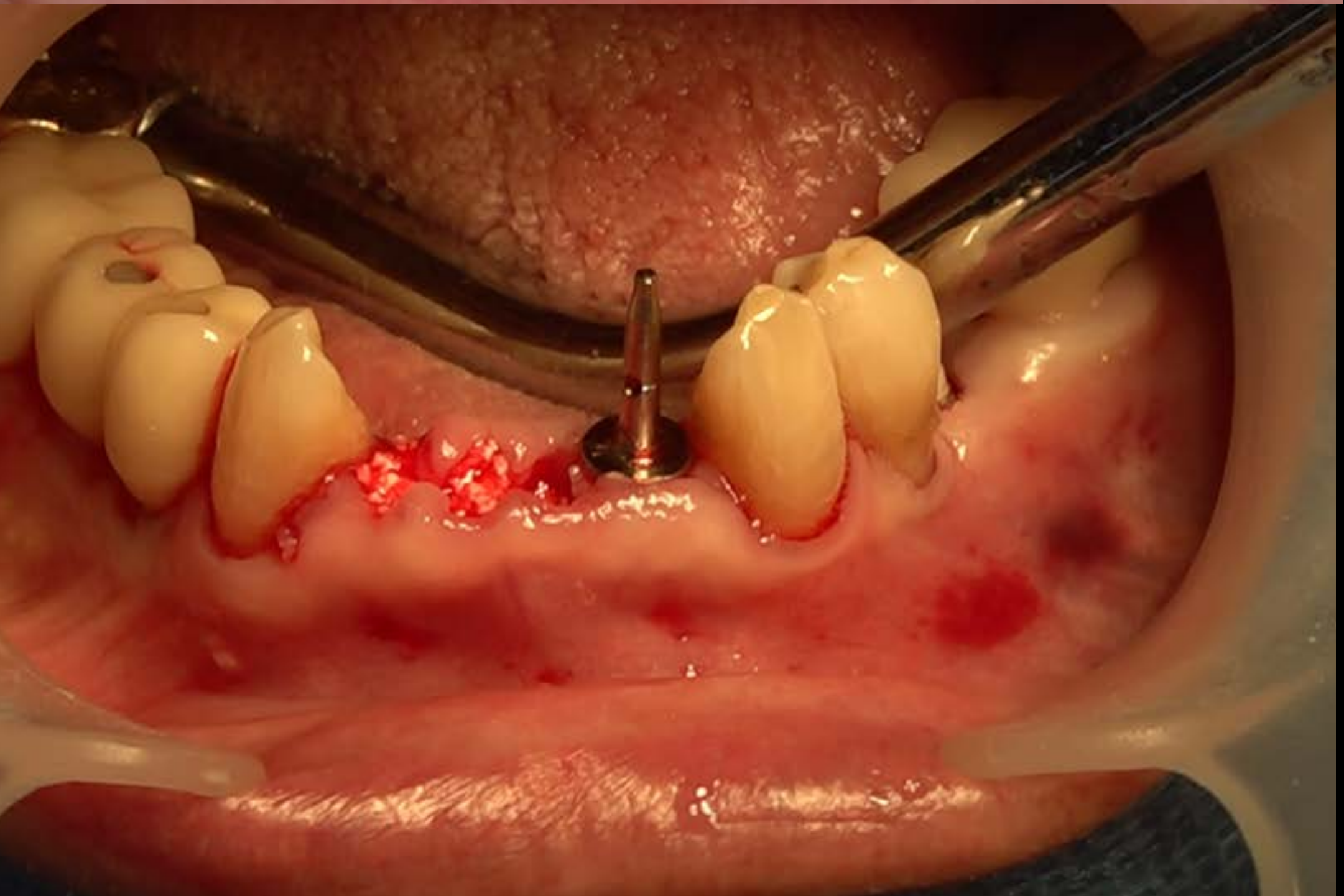
Surgery (2023-05-18)



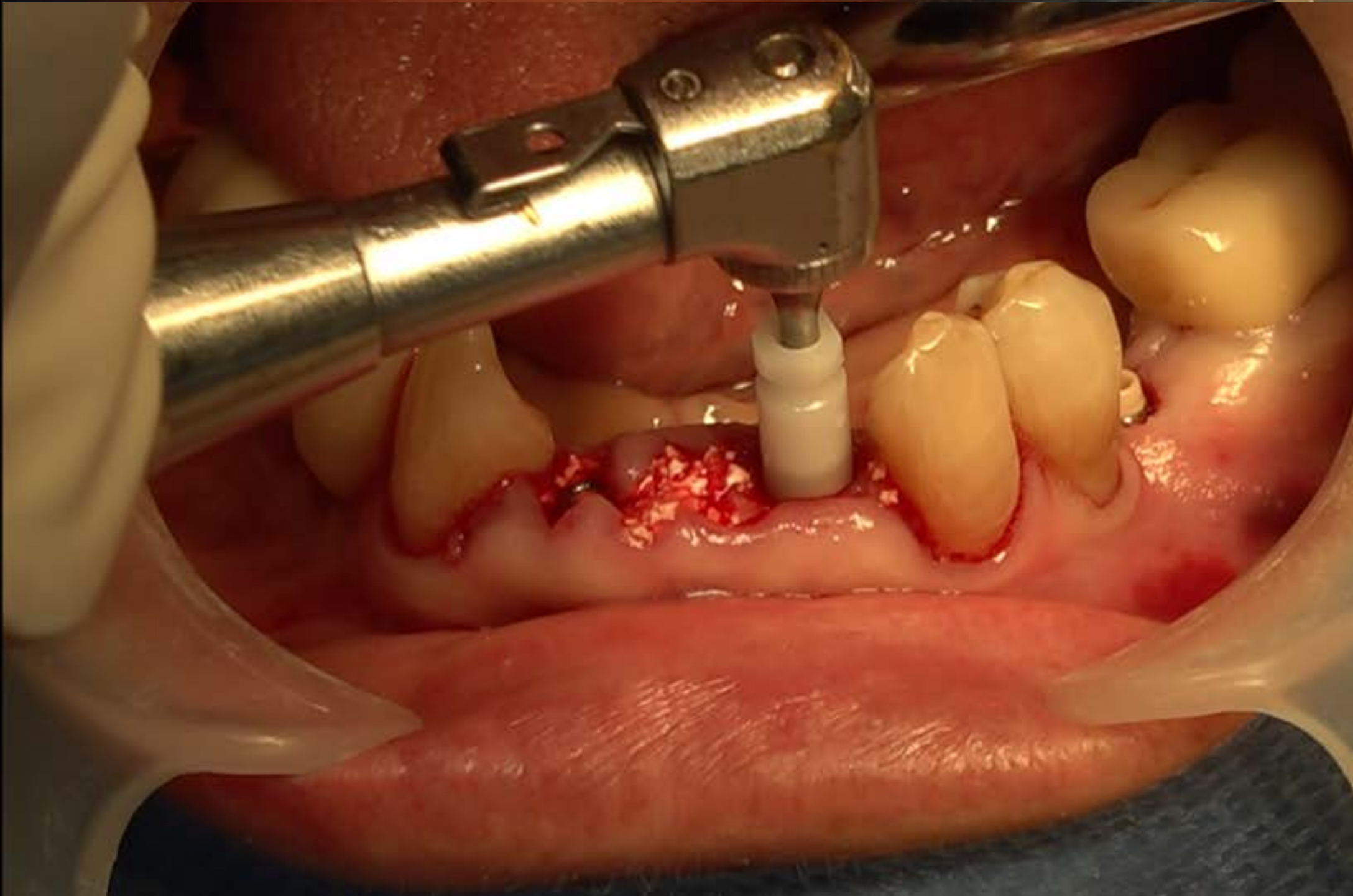
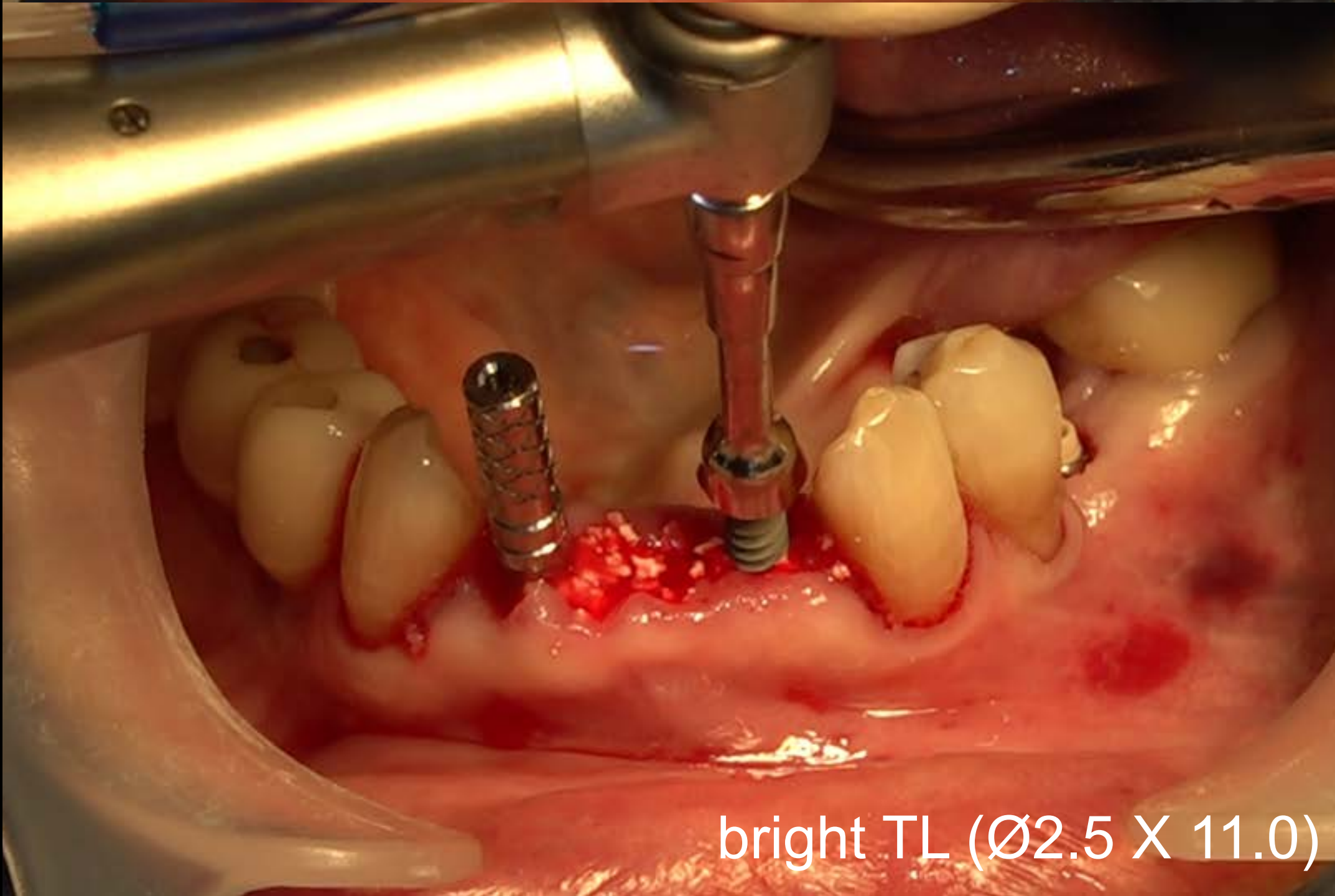
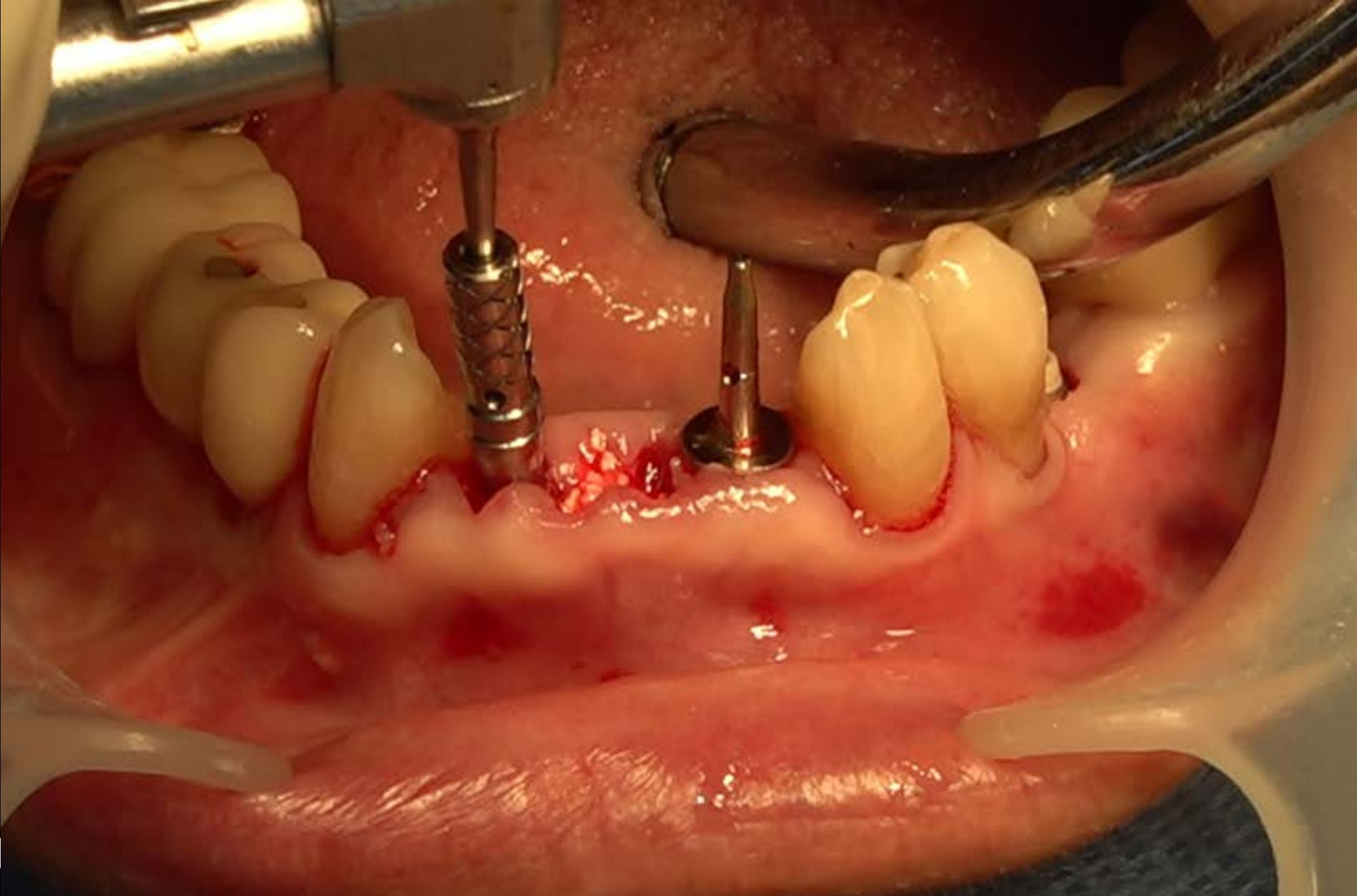
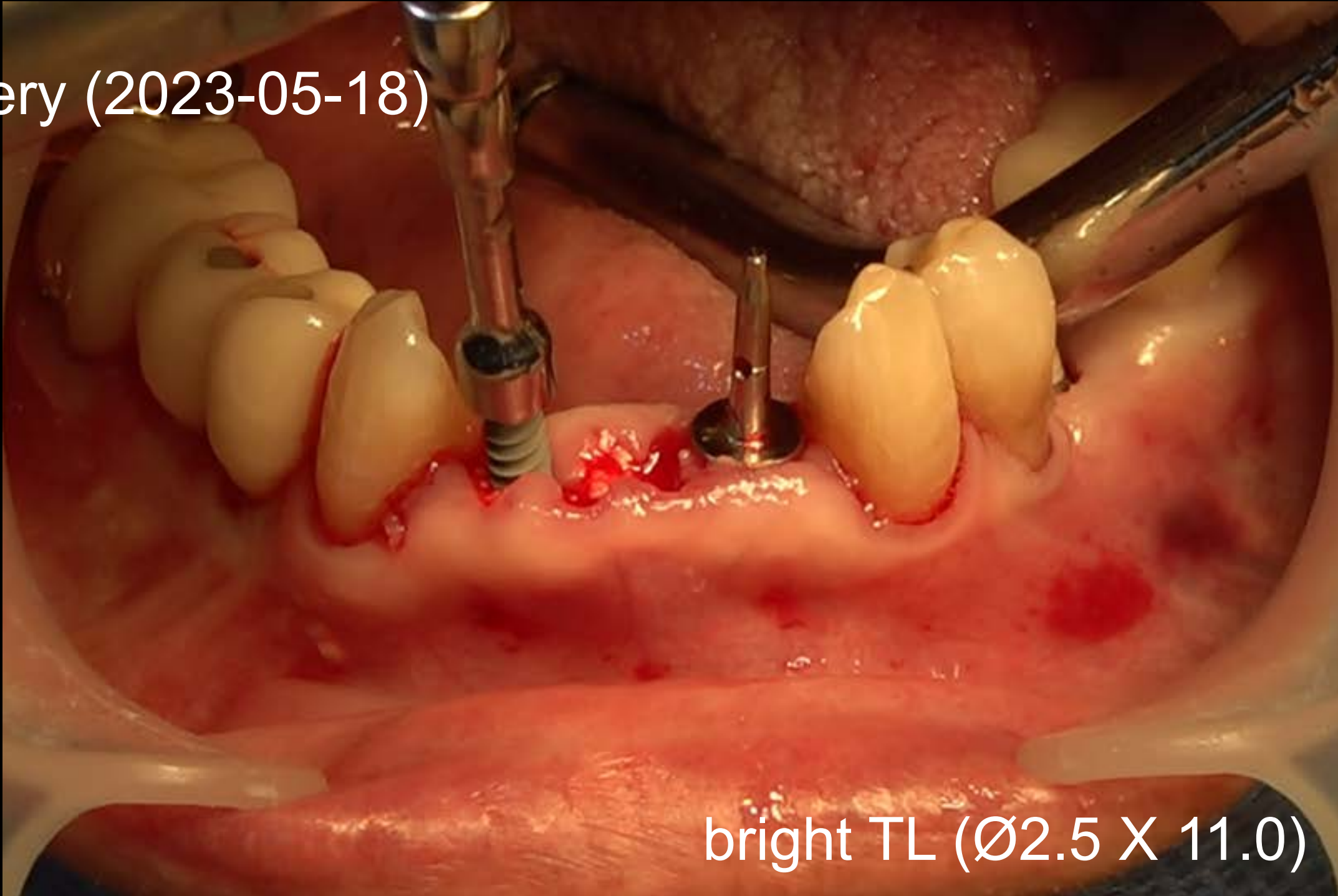
Parallel pin



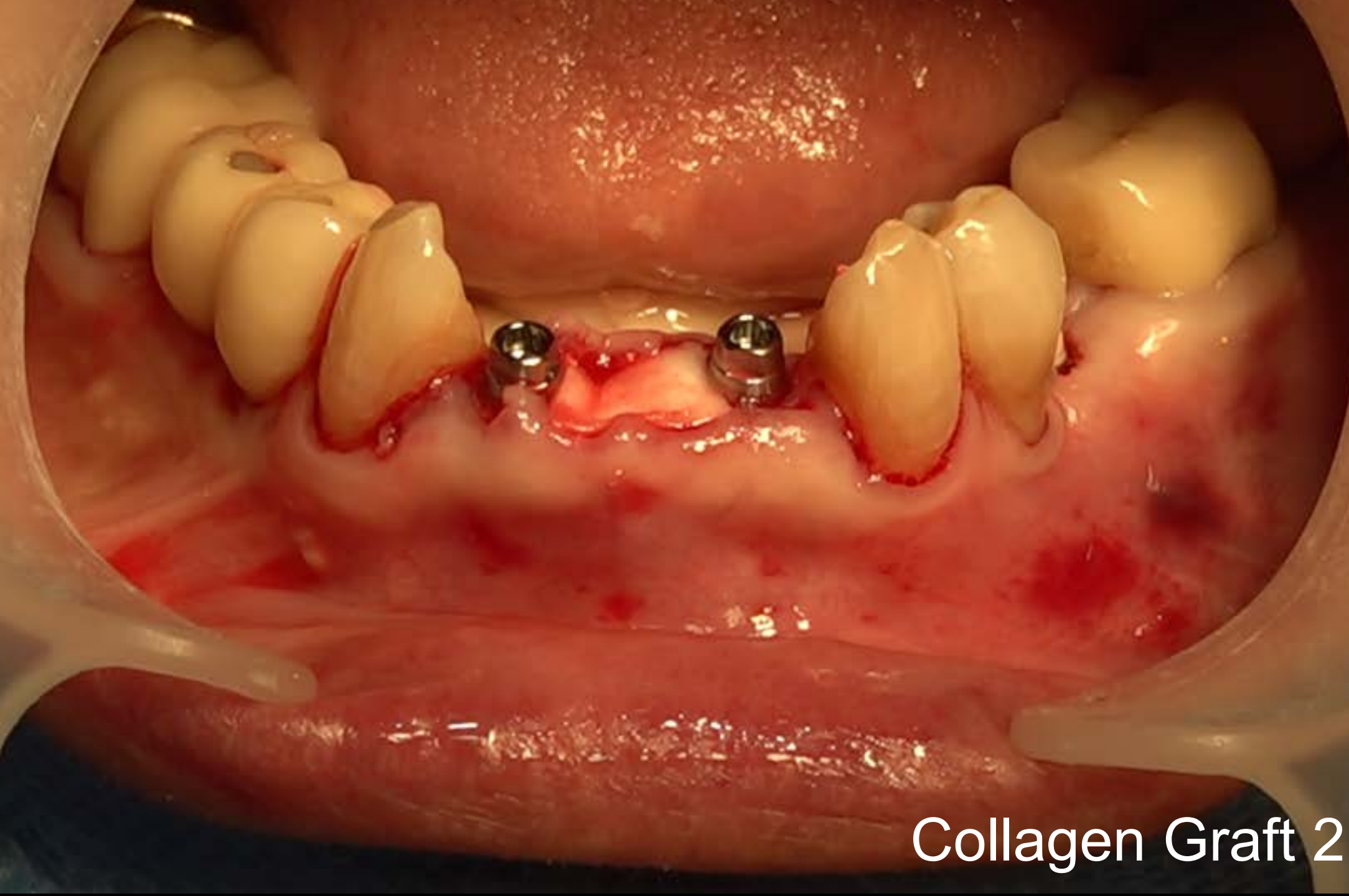
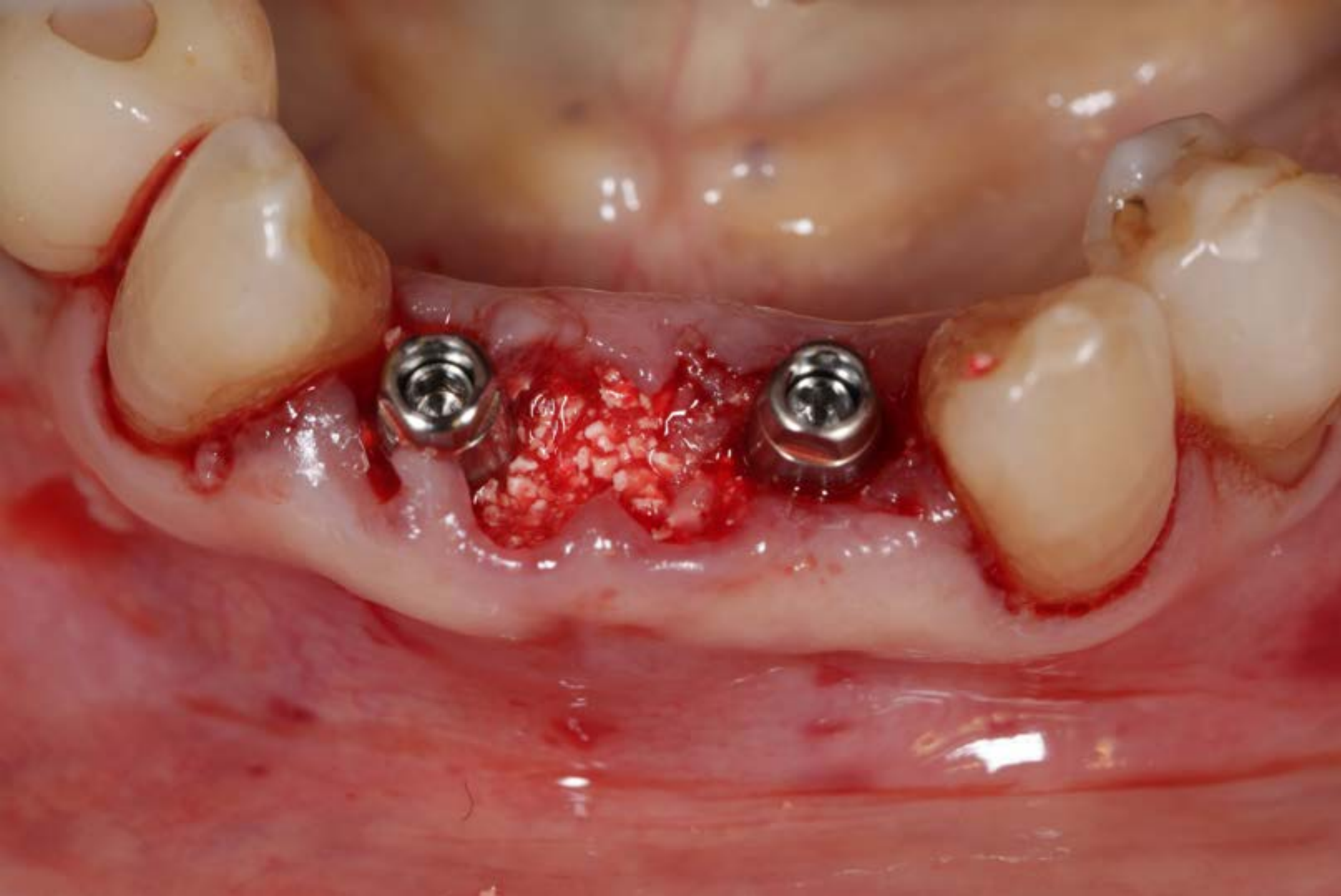
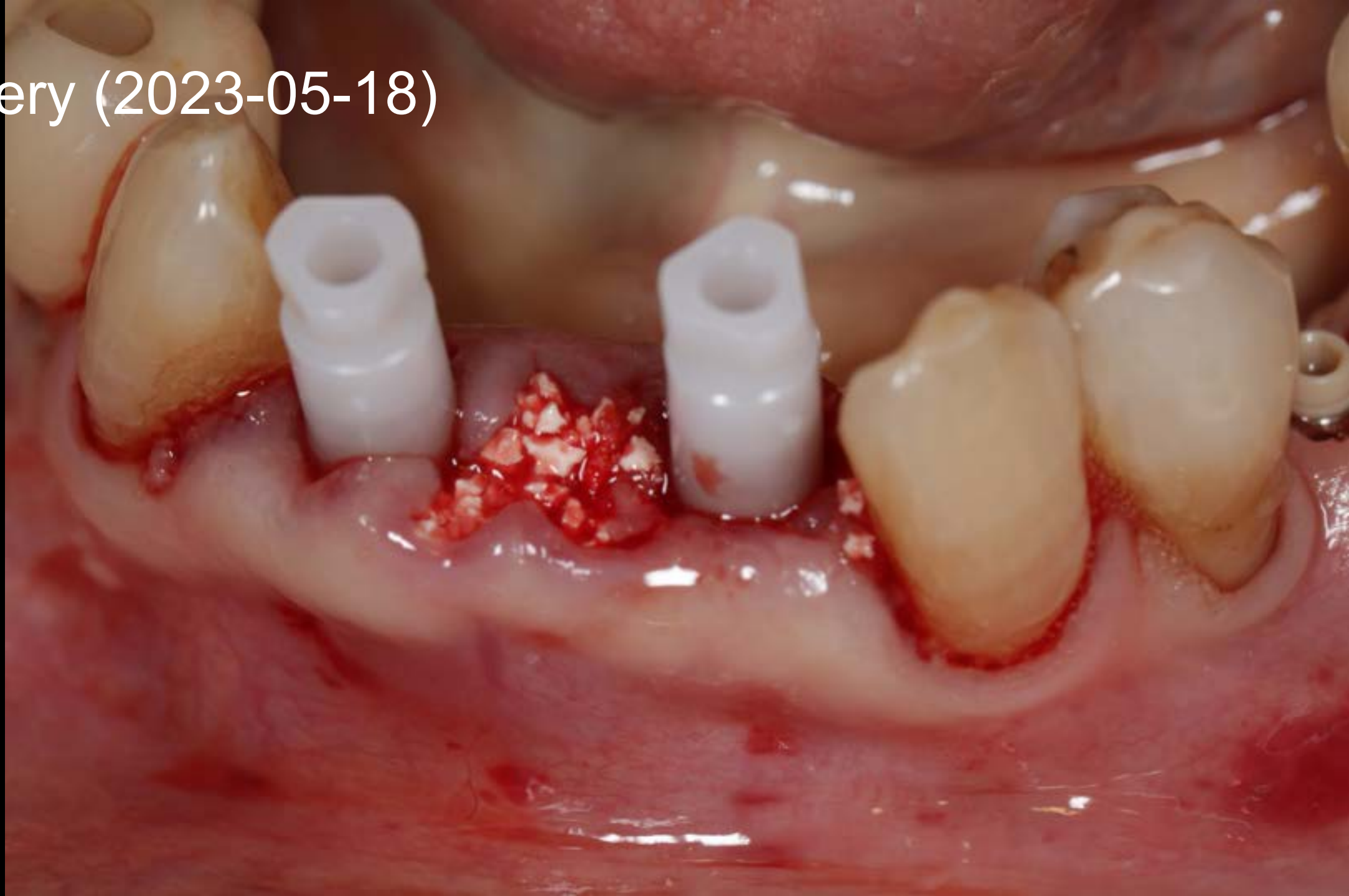
OSTEON™ 3 Collagen



Surgery (2023-05-18)

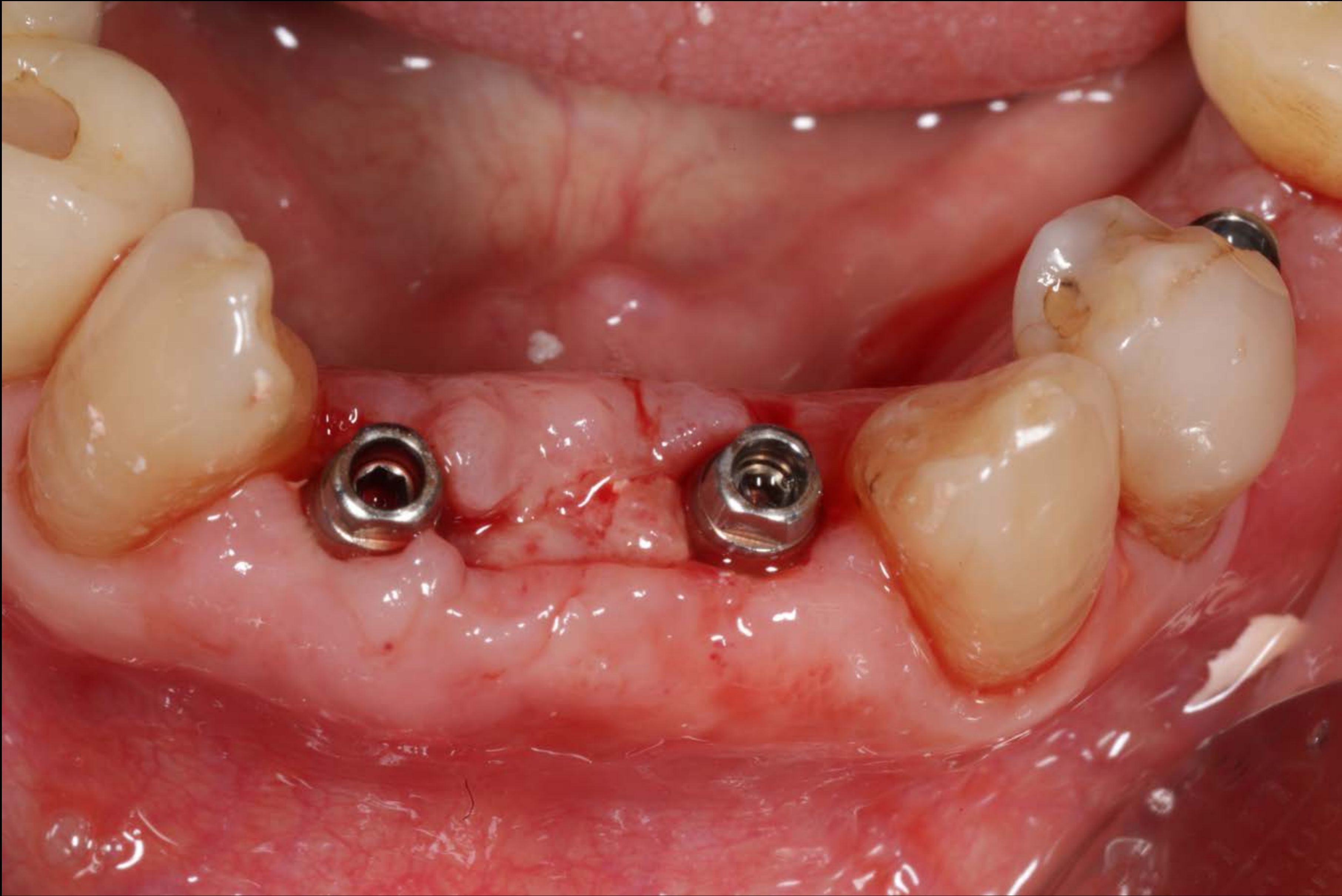


Surgery (2023-05-18)



Collagen Graft 2

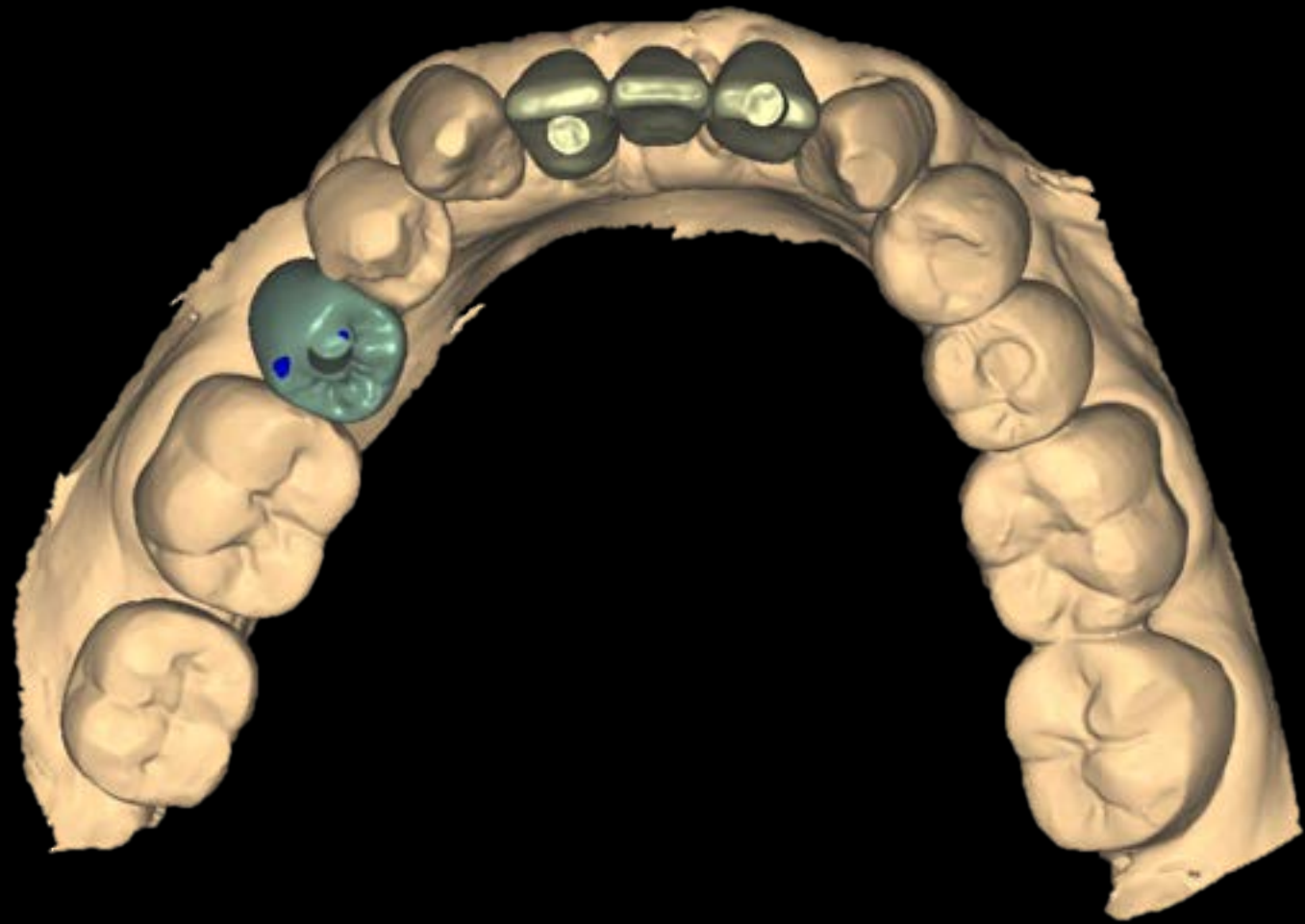
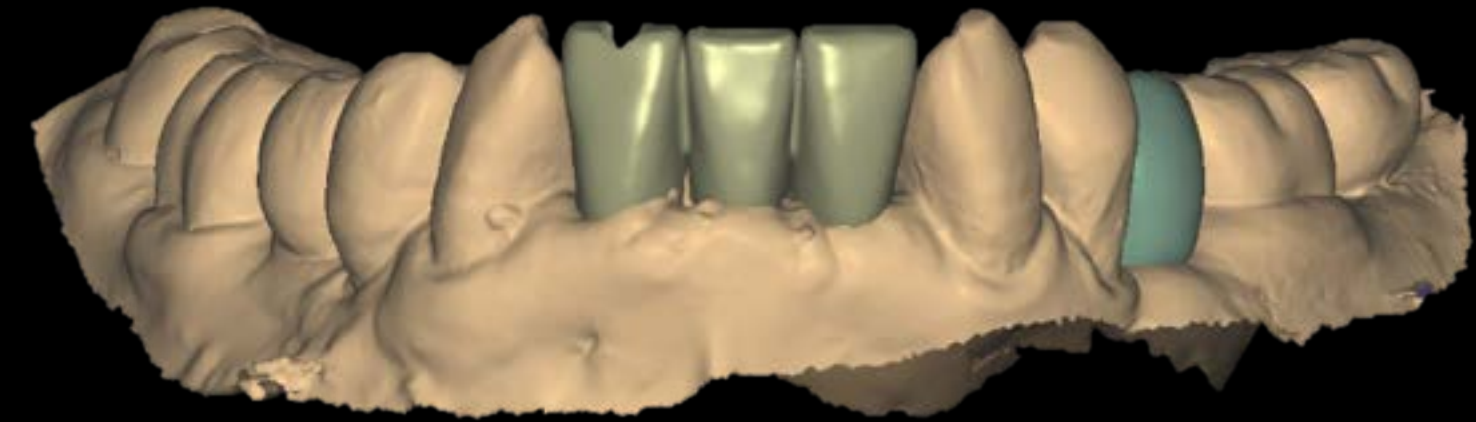
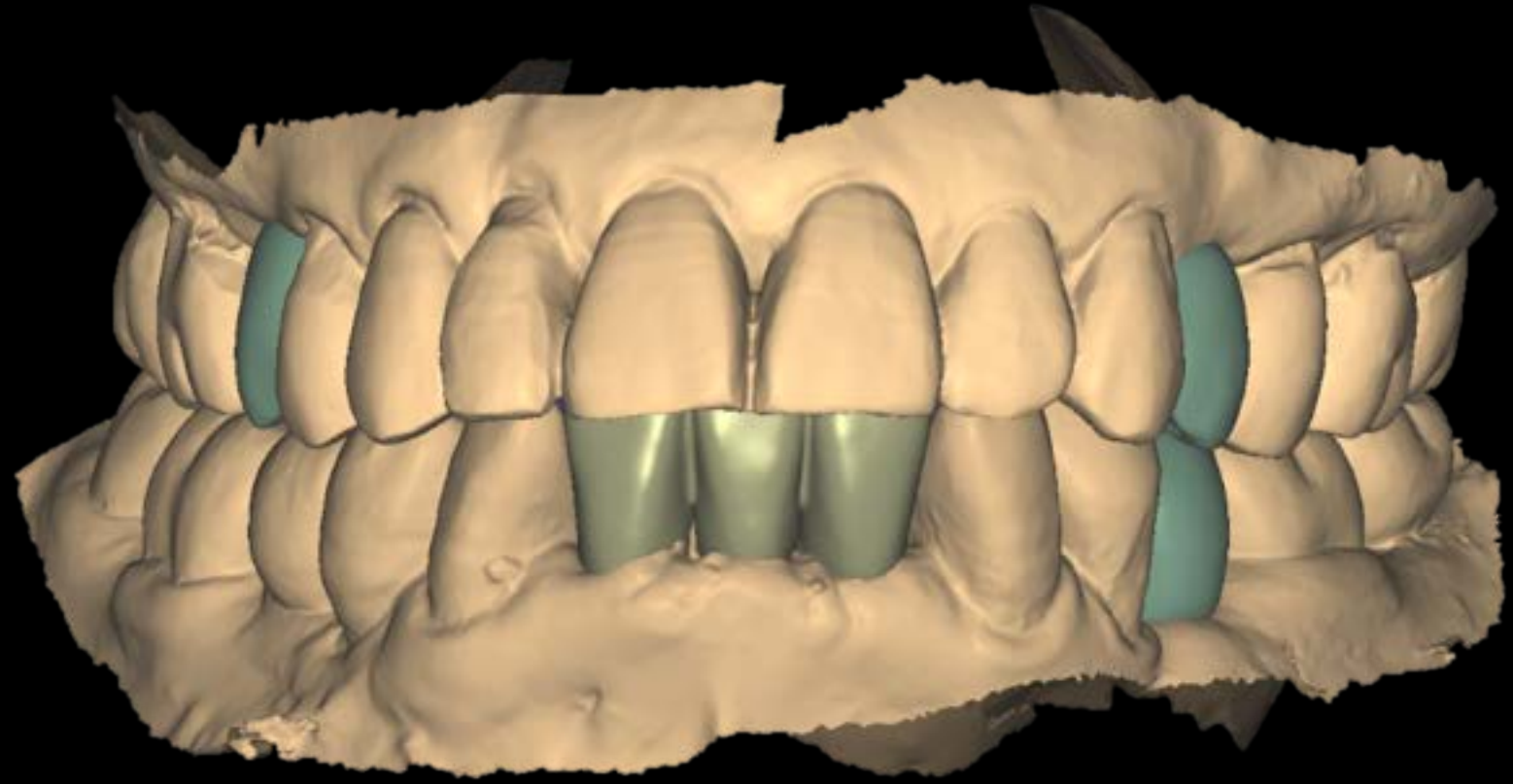
Healing : 1 week (2023-05-25)



Intra oral scanning



CAD (Provisional restoration)



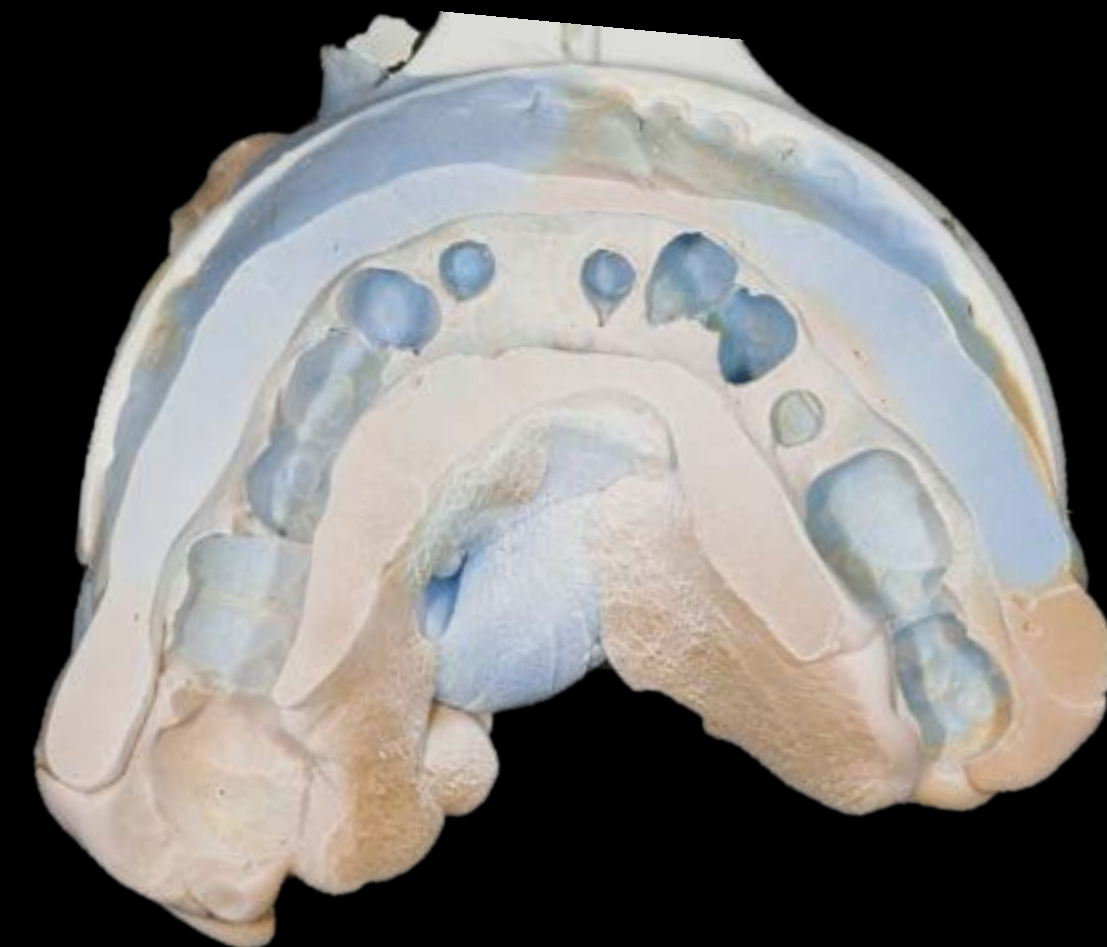
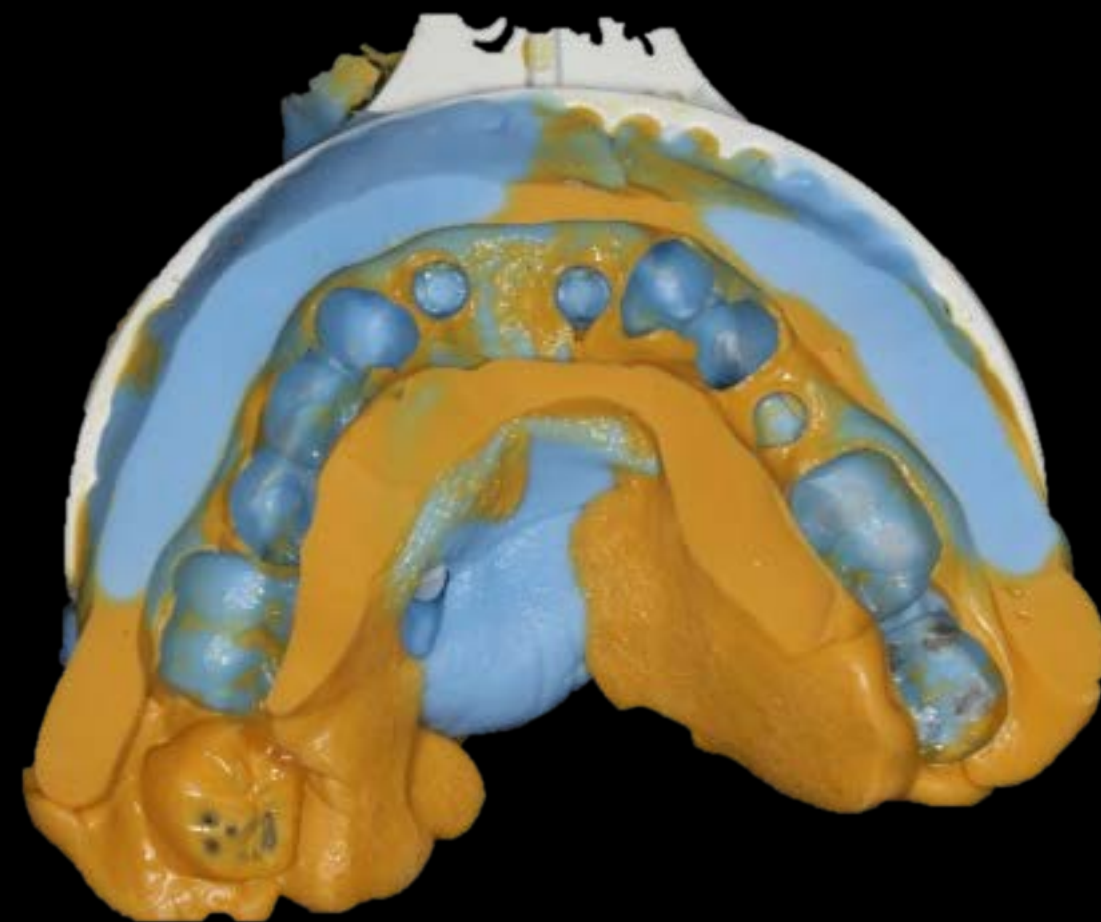
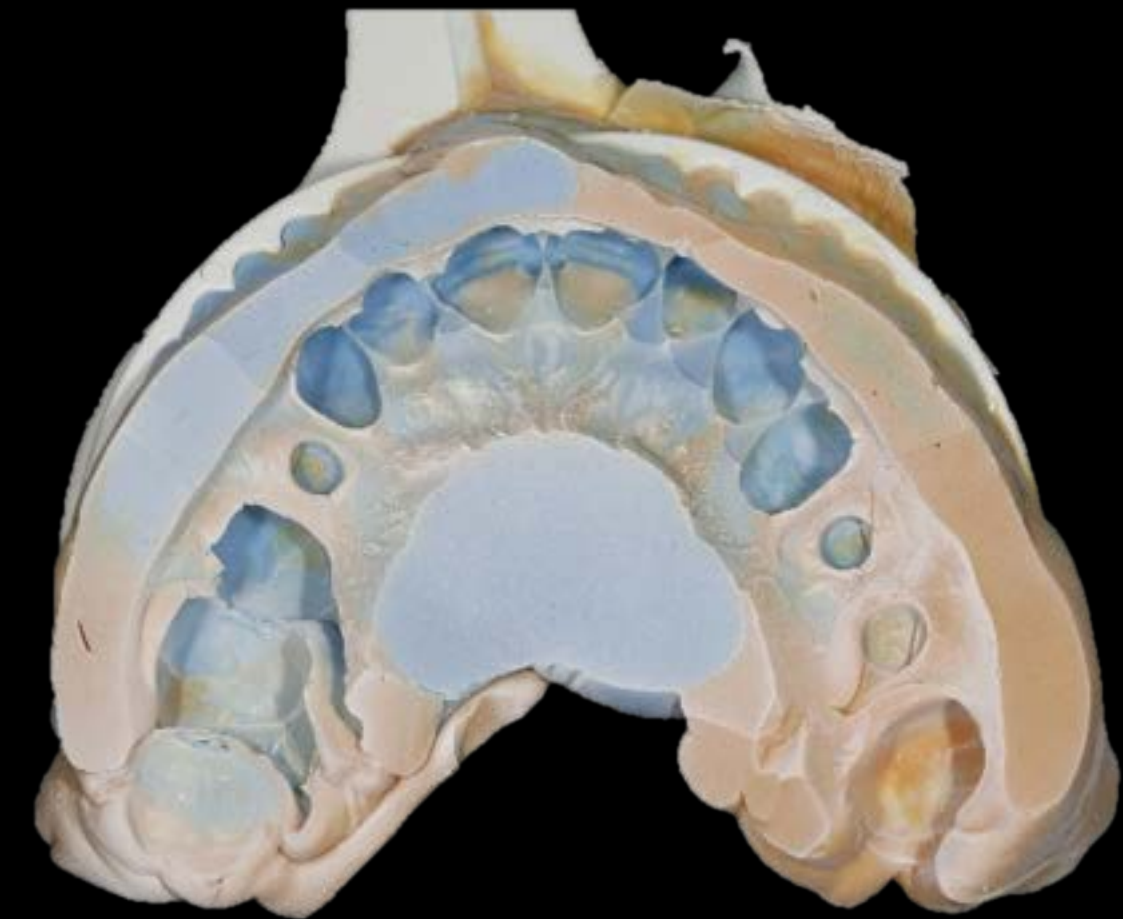
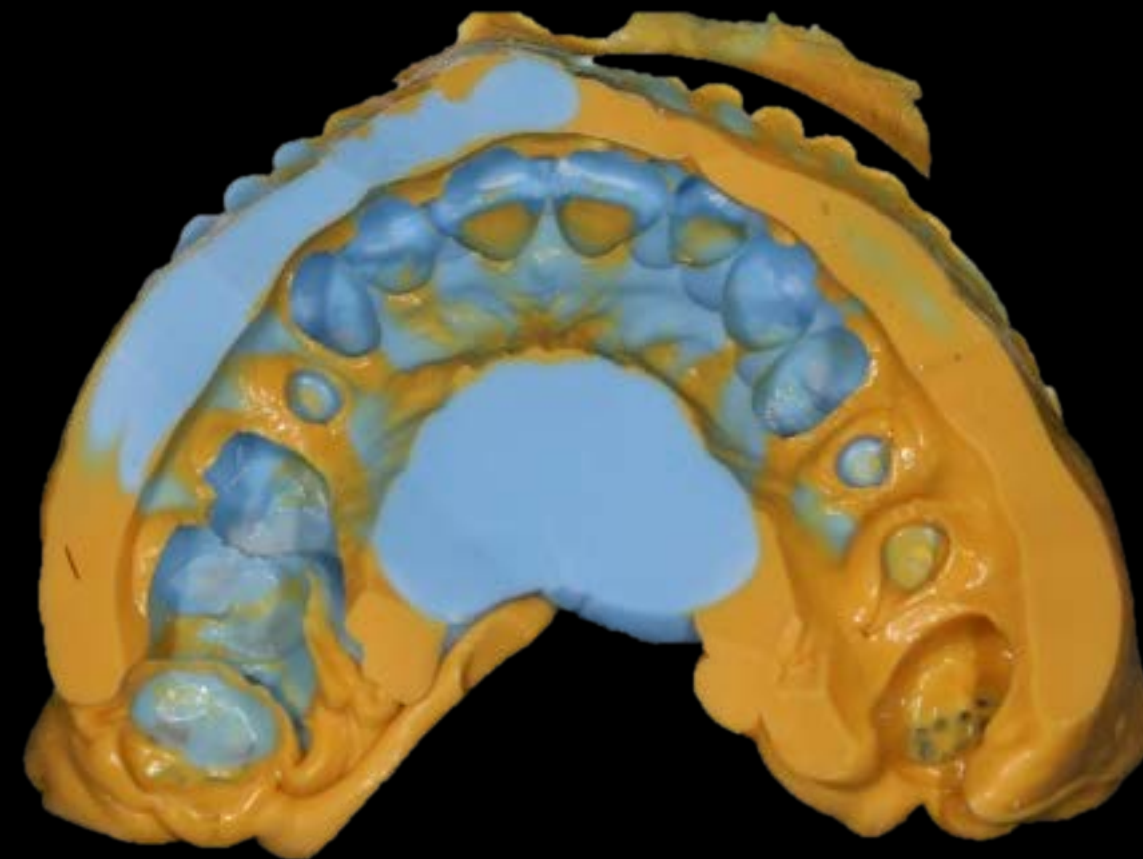
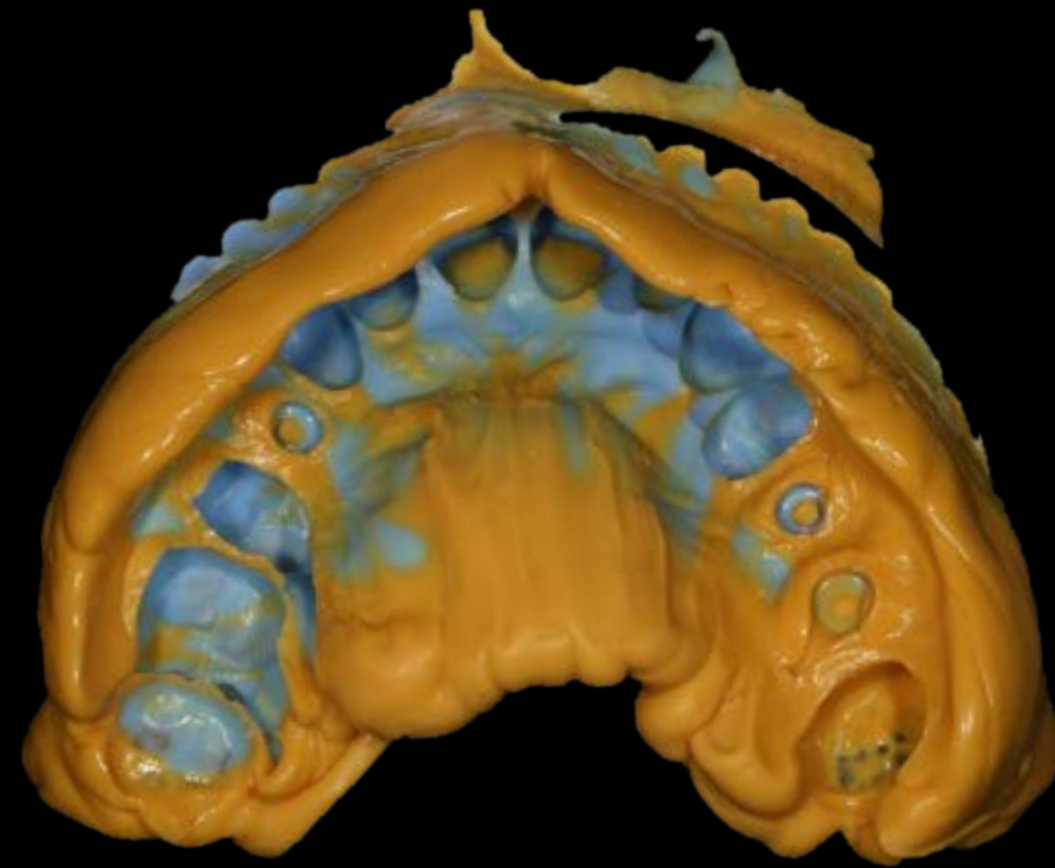
Provisional restoration (2023-05-25)



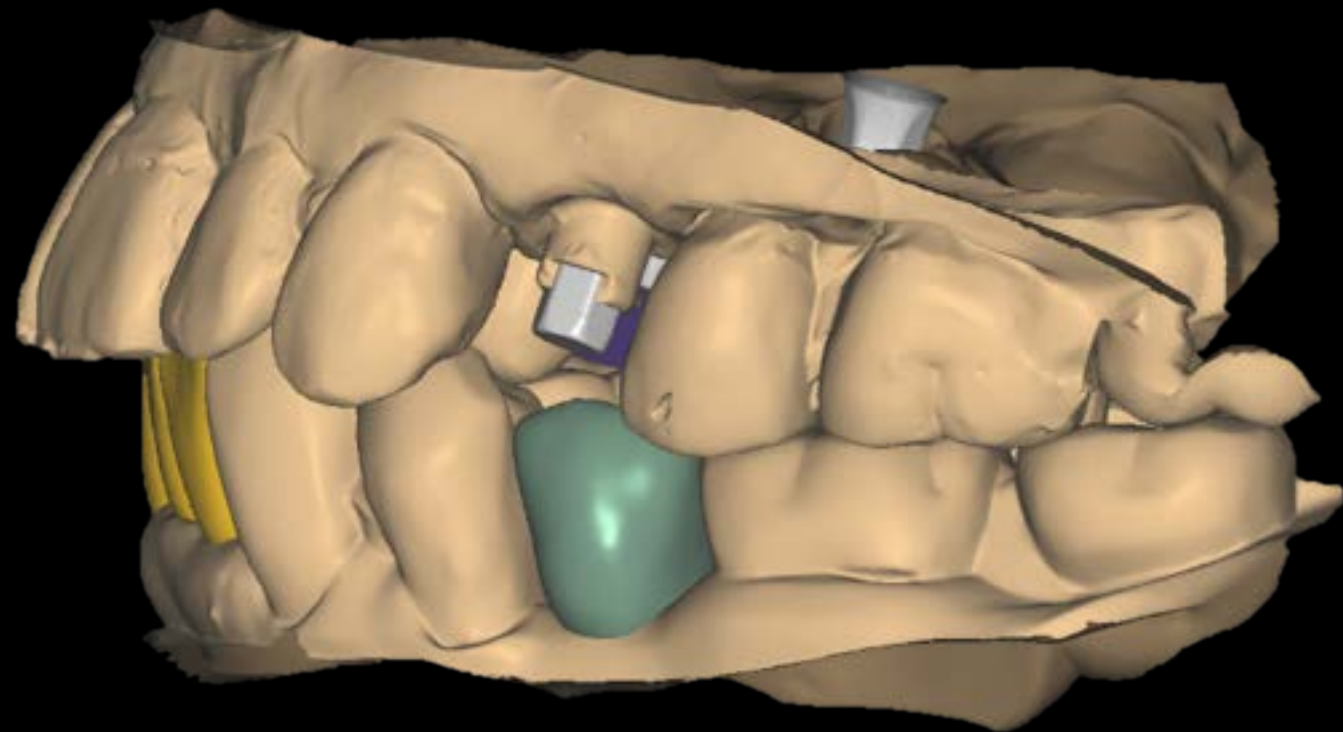
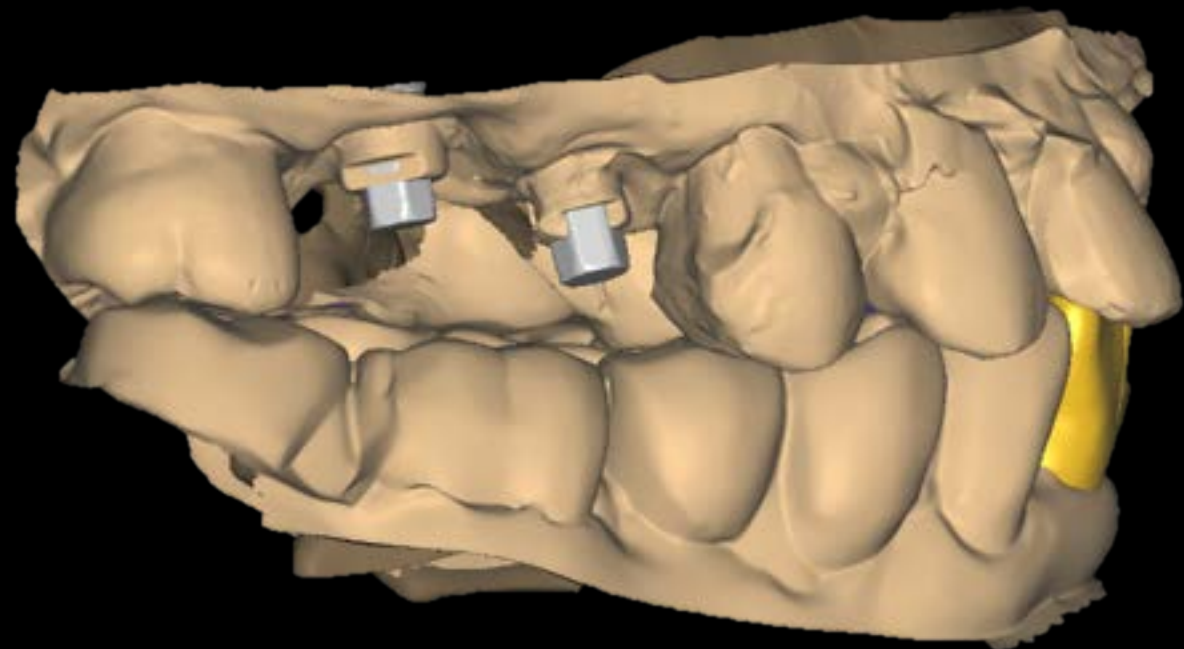
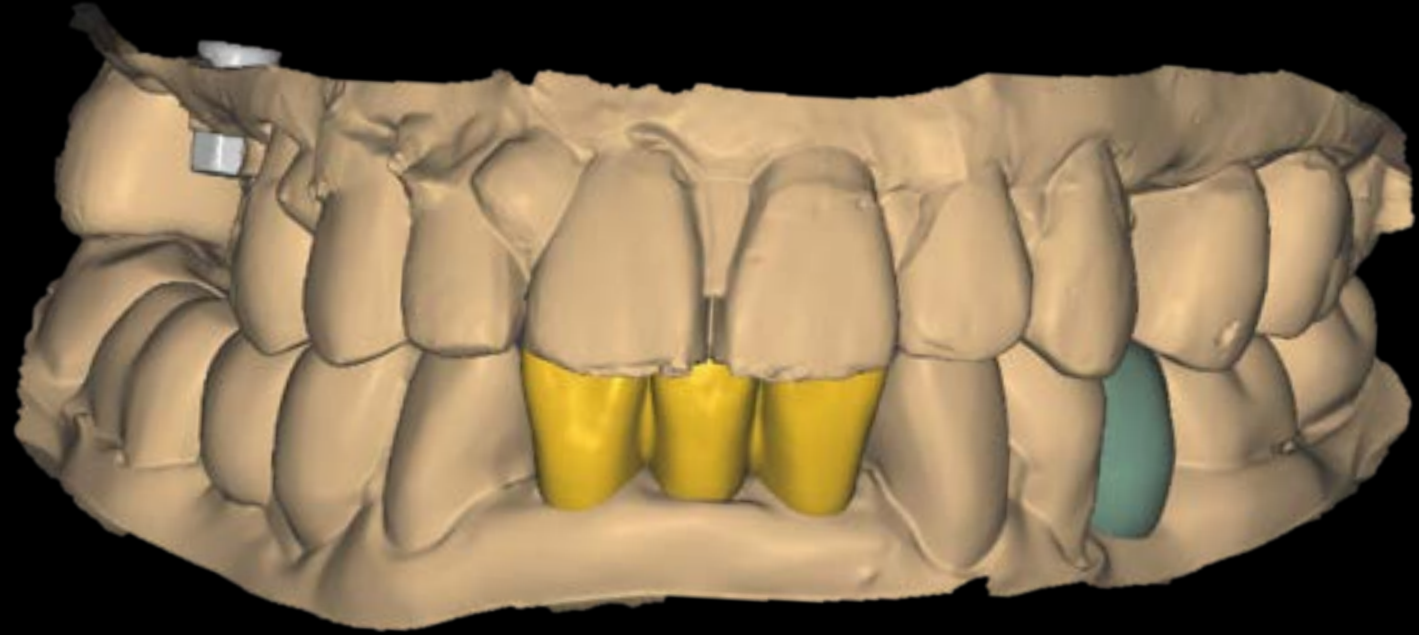
Shade taking



Impression / Trimming / Scan spray



CAD (Final prosthesis)

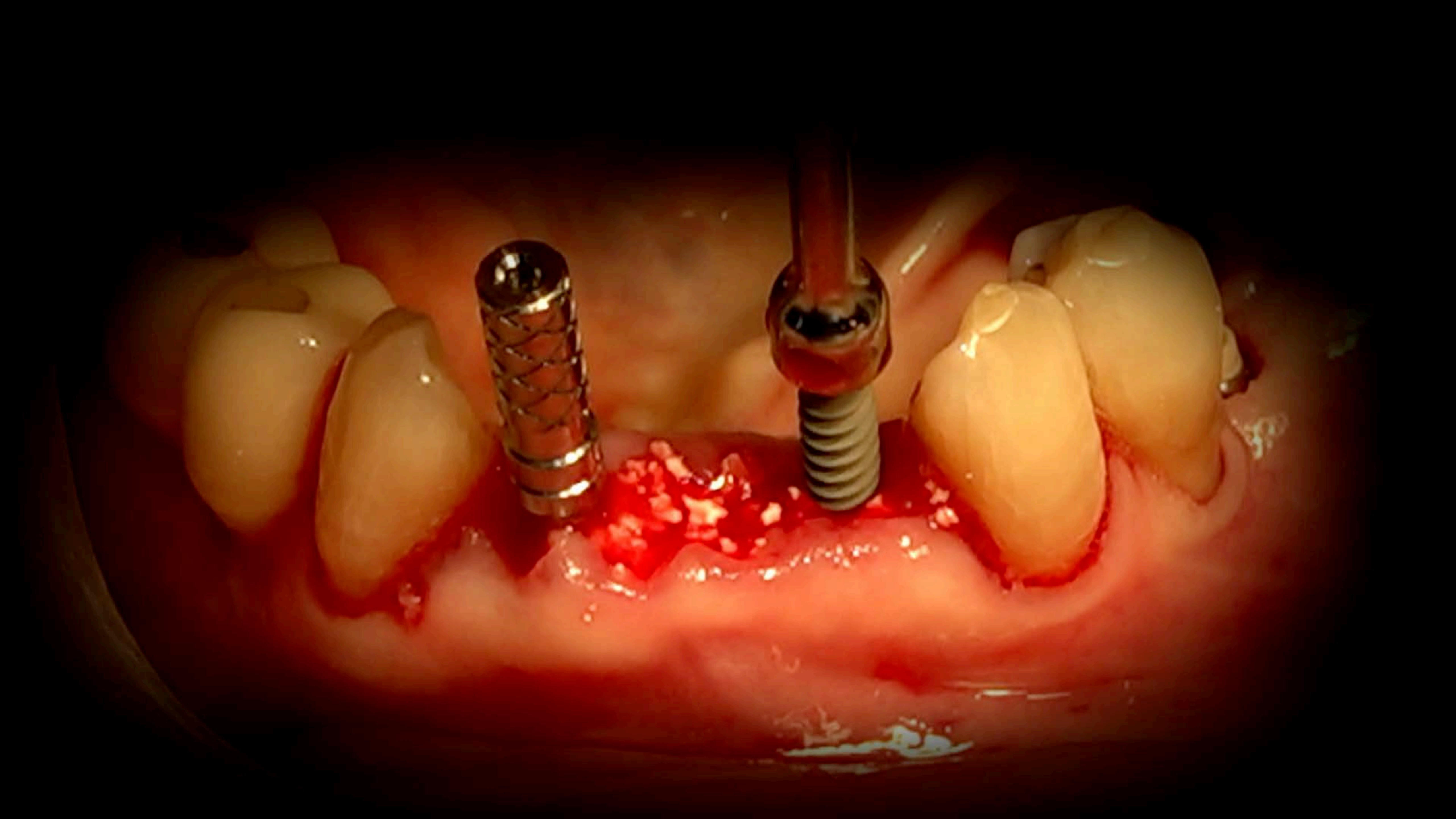


Milling / Sintering / Finishing



Final prosthesis (2023-09-01)

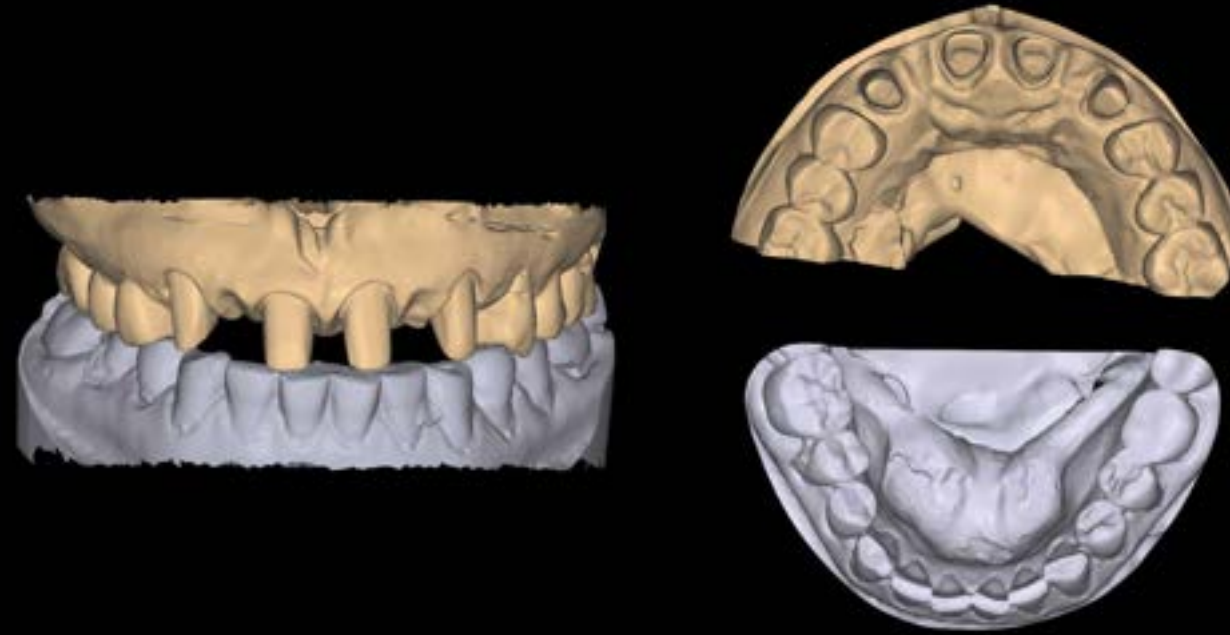




Work-Flow



Working Model



Sintering & Glazing

Simple & Easy



Coloring



내면 - White Opaque

Hyper Dent

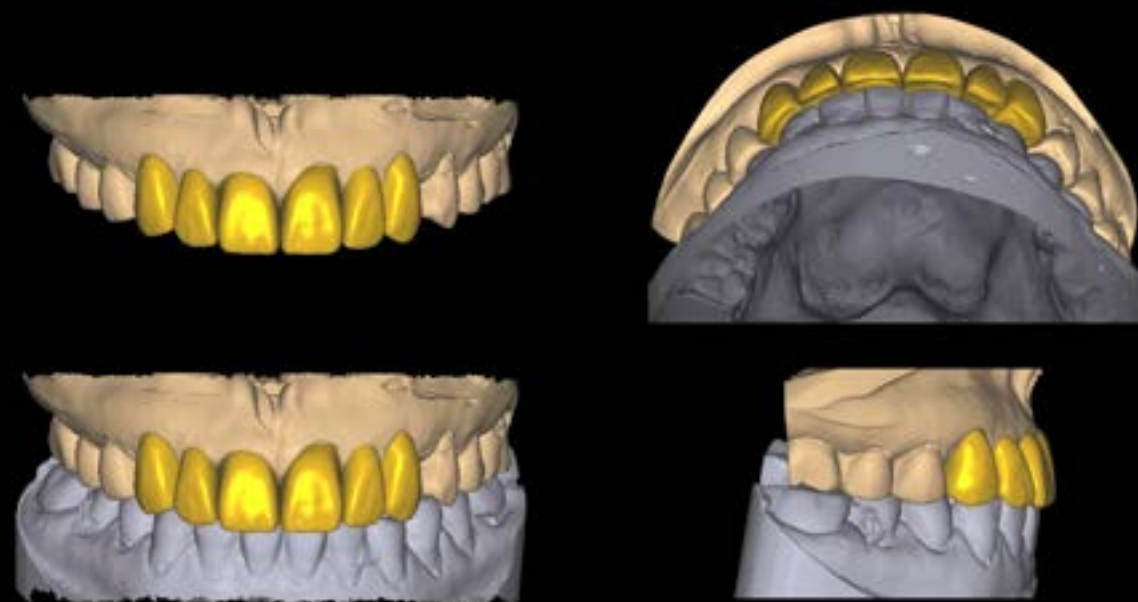


18T A3 Multi Layer Block

Shade Taking



Cad Design



Content

Introduction

Short and narrow implant

- change in sinus guideline and bone graft

Digital application based on CT and AI

FOR DENTISTS BY DENTISTS

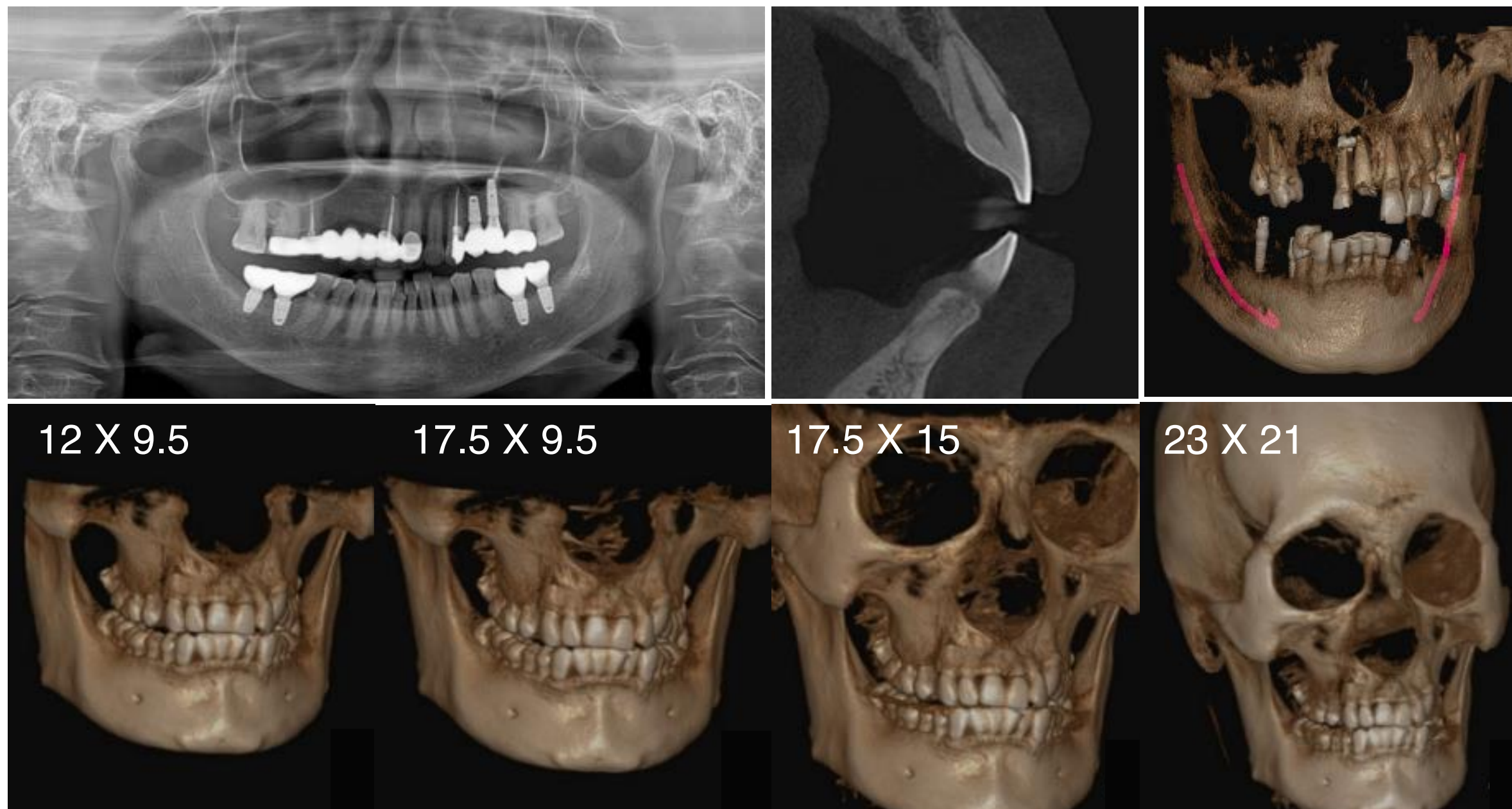
Dentium Digital Dentistry

Dentium ICT Digital Dentistry Product



- **Auto Focus** Panoramic Image
- **Low Noise Active Pixel** CMOS
- **Free FOV** Scan

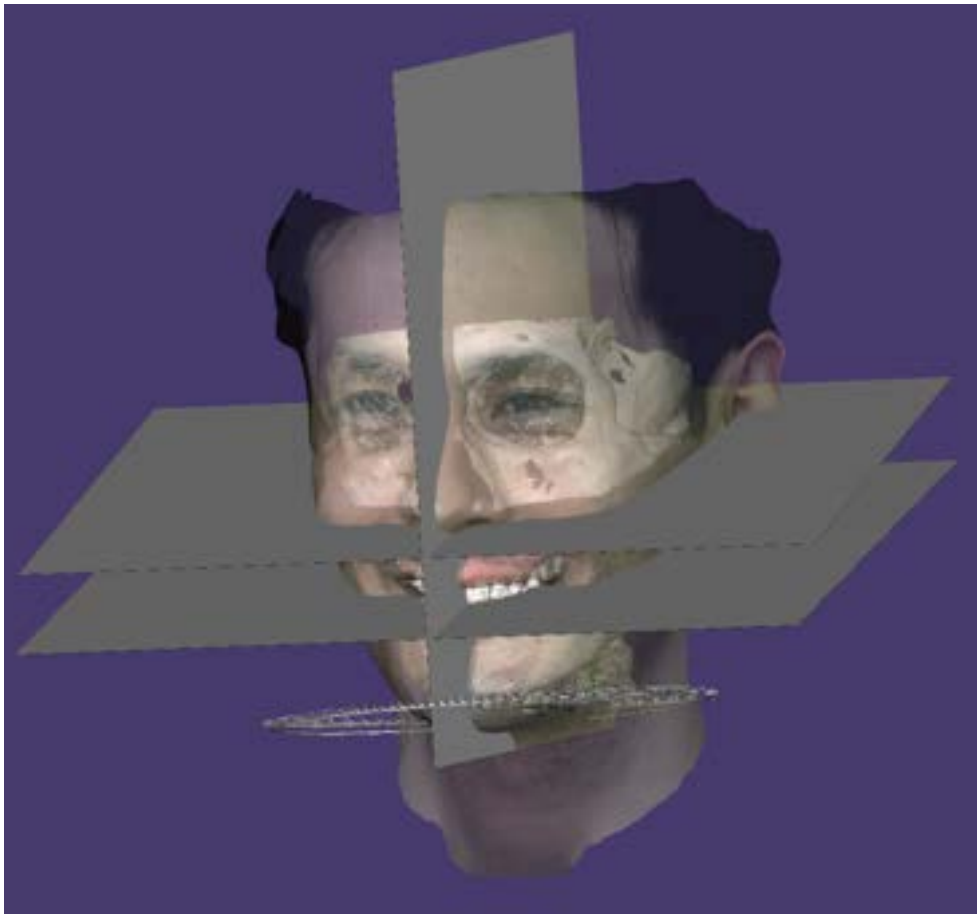
- **Low Dose** CT with Clear image
- **AI** Auto Diagnosis



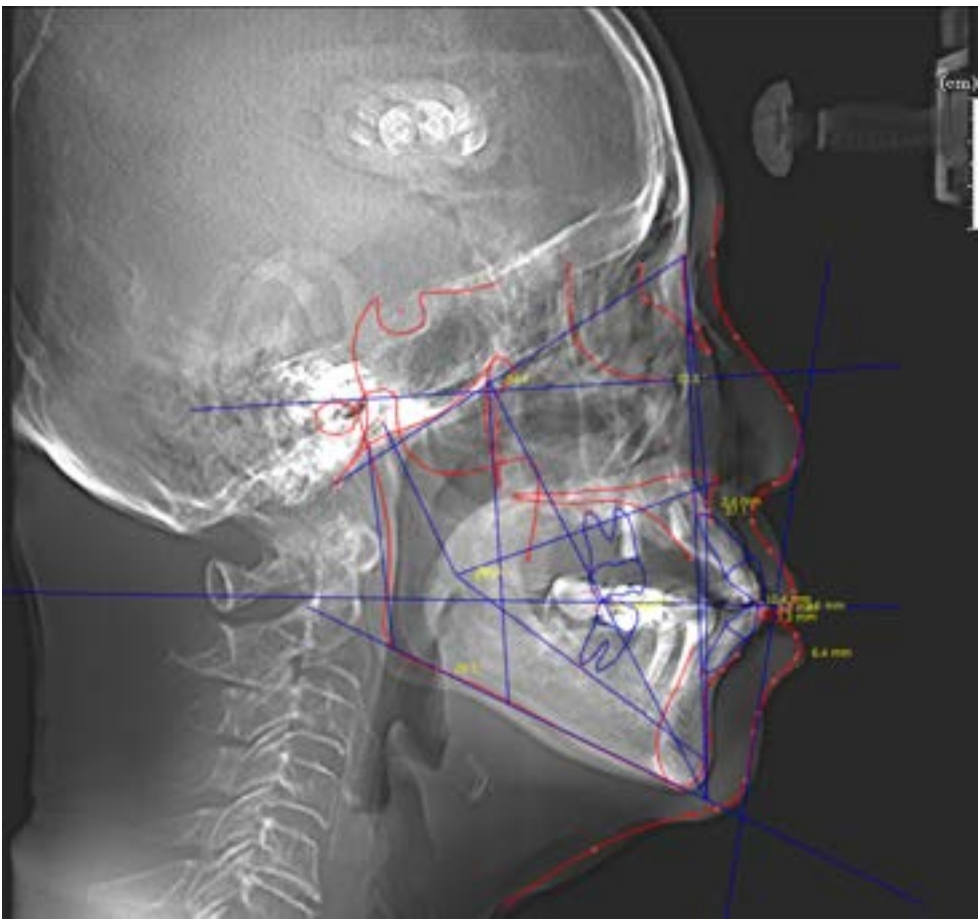
10% dose make it possible to full-mouth prosthetics by applying a large FOV.



	10%	20%	100% bright CT
IMAGE			
Contrast	27.4 (83%)	30.6 (93%)	32.7
Noise	21.3 (72%)	26.4 (89%)	29.5



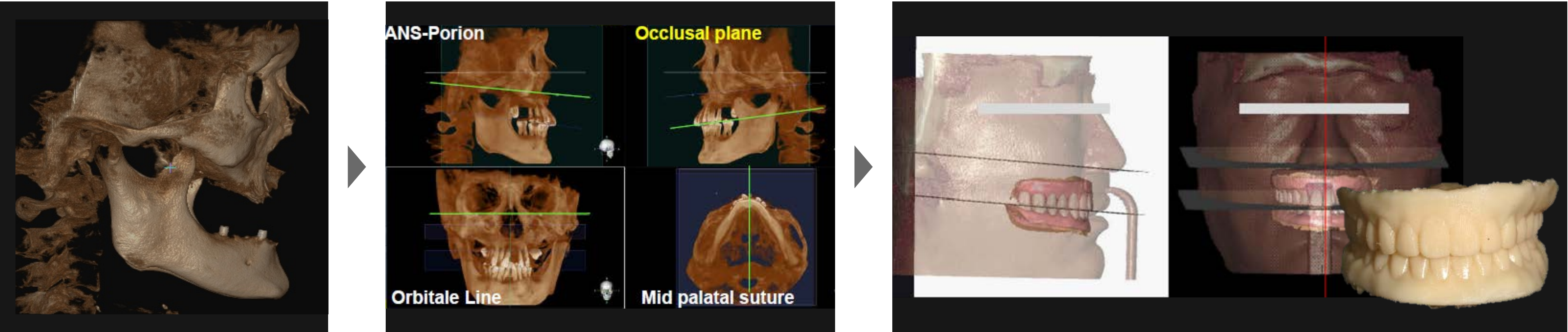
무치악 보철



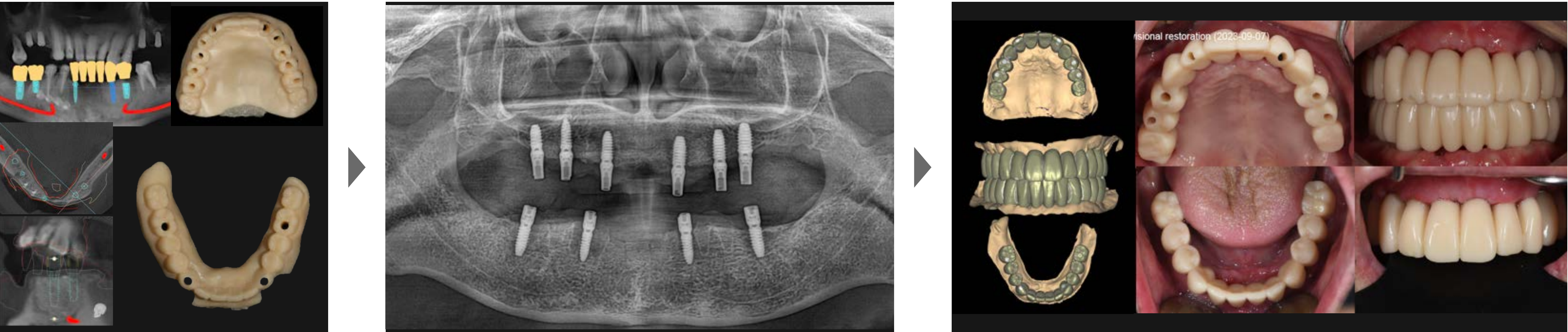
3D 교정

AI occlusal plane based on CT viewer

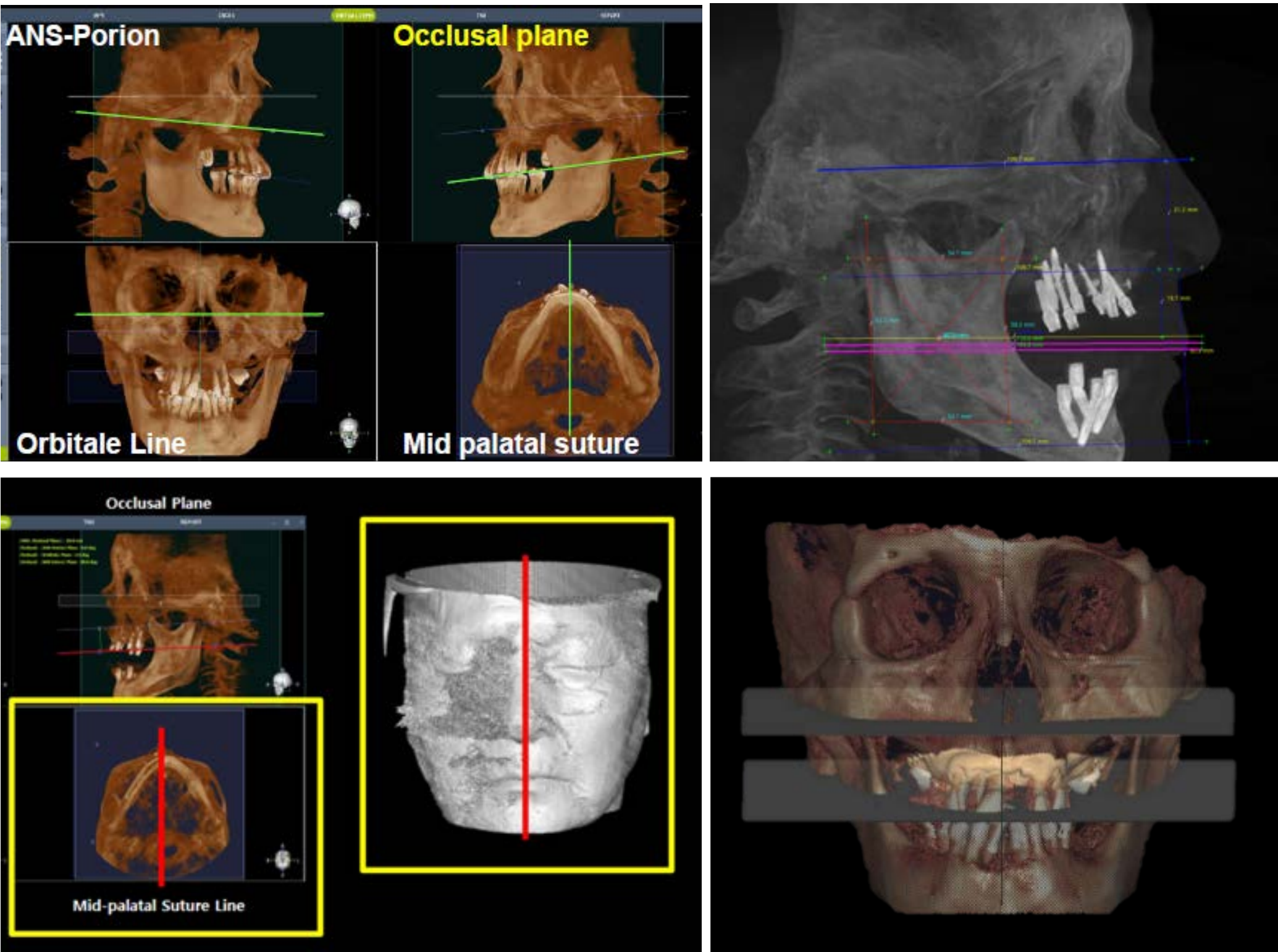
Dx Sticking virtual set up. Temporary denture printing



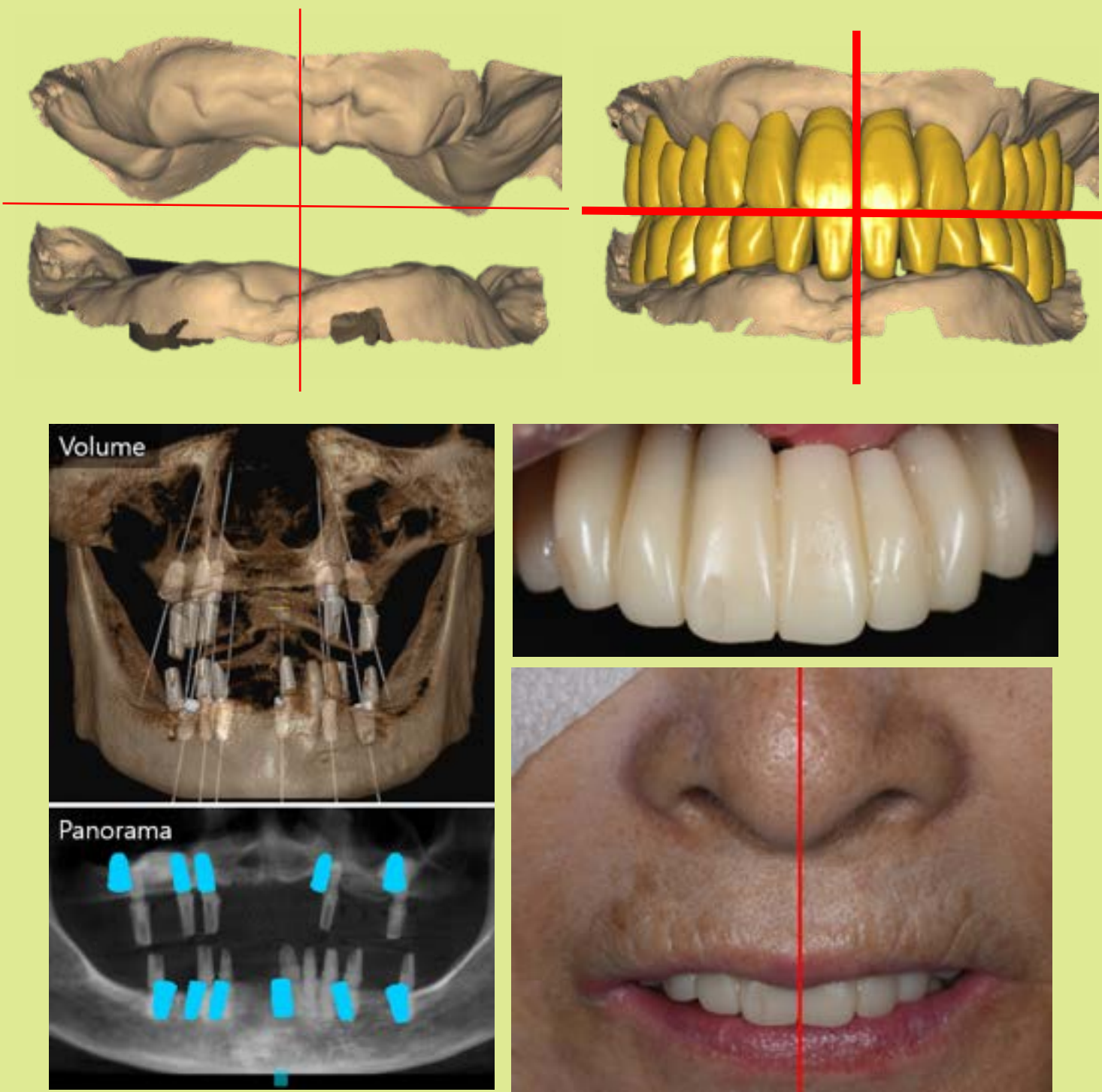
Implantation with temporary denture. Fixed temporary prosthesis with CT based check bite



AI occlusal plane, mid-line



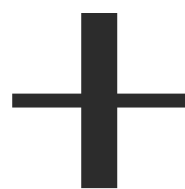
AI crown/fixture placement



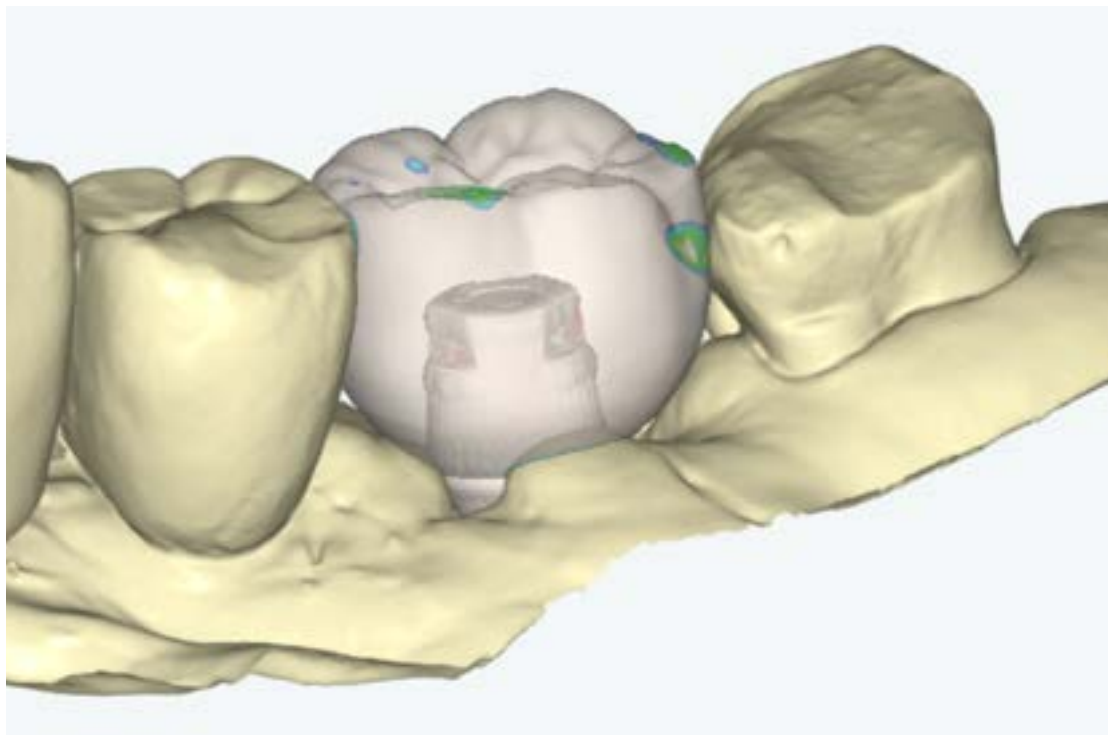
AI planning 임상검증



Surgical Guide

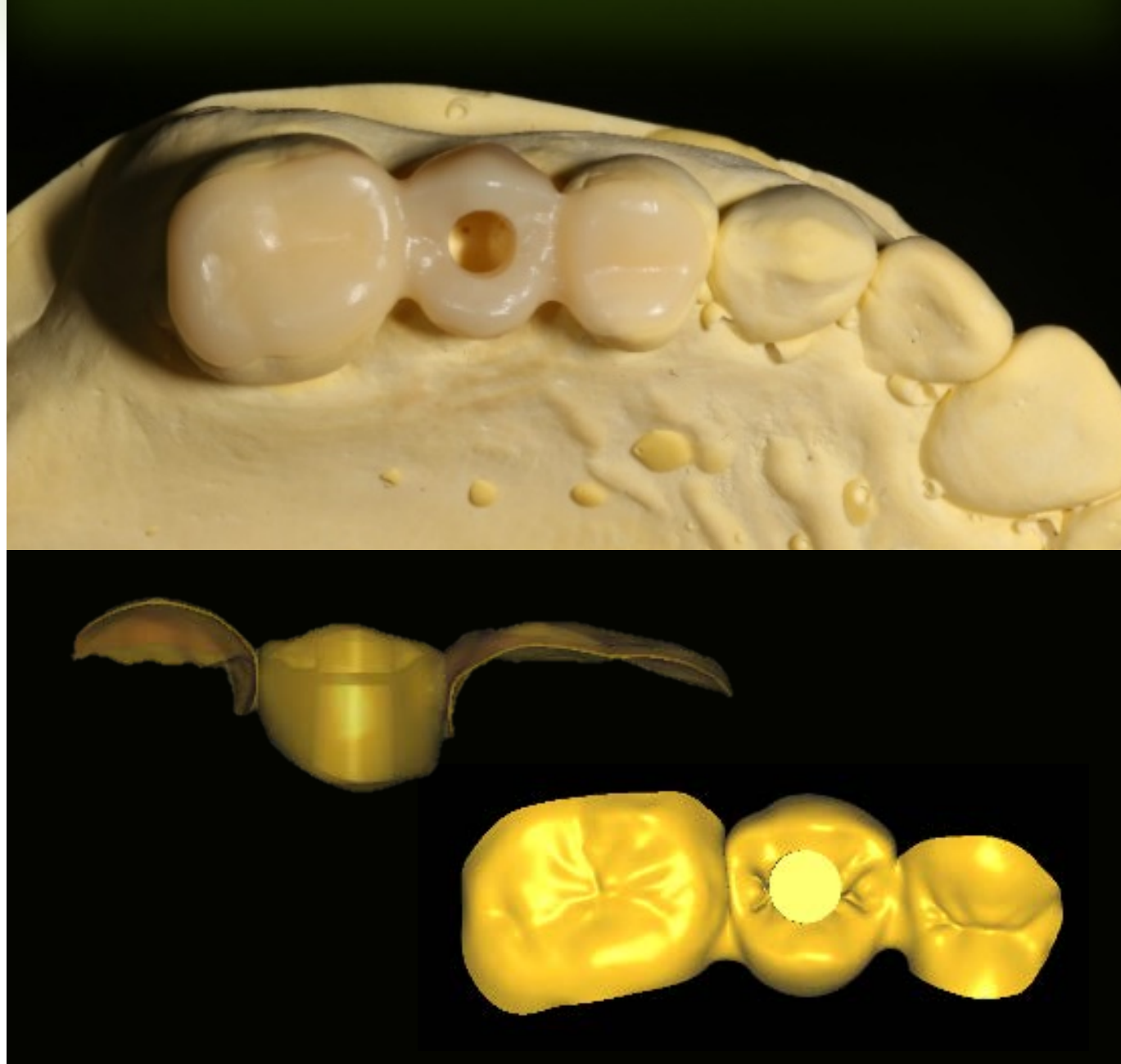


Crown



Crown Guide

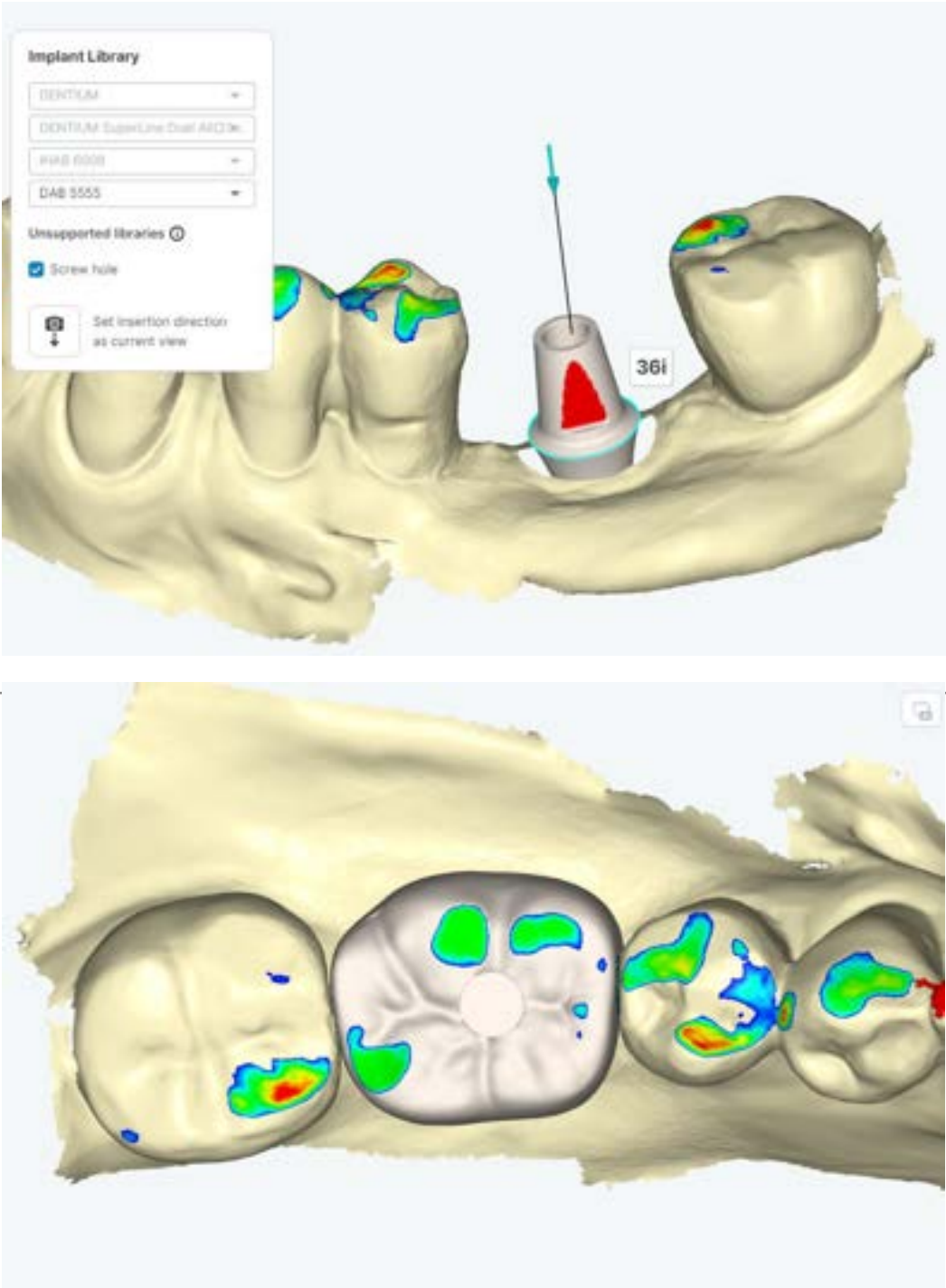
Crown guide and temporary crown



Natural teeth



Implant



AI Design

2024.03, Service open

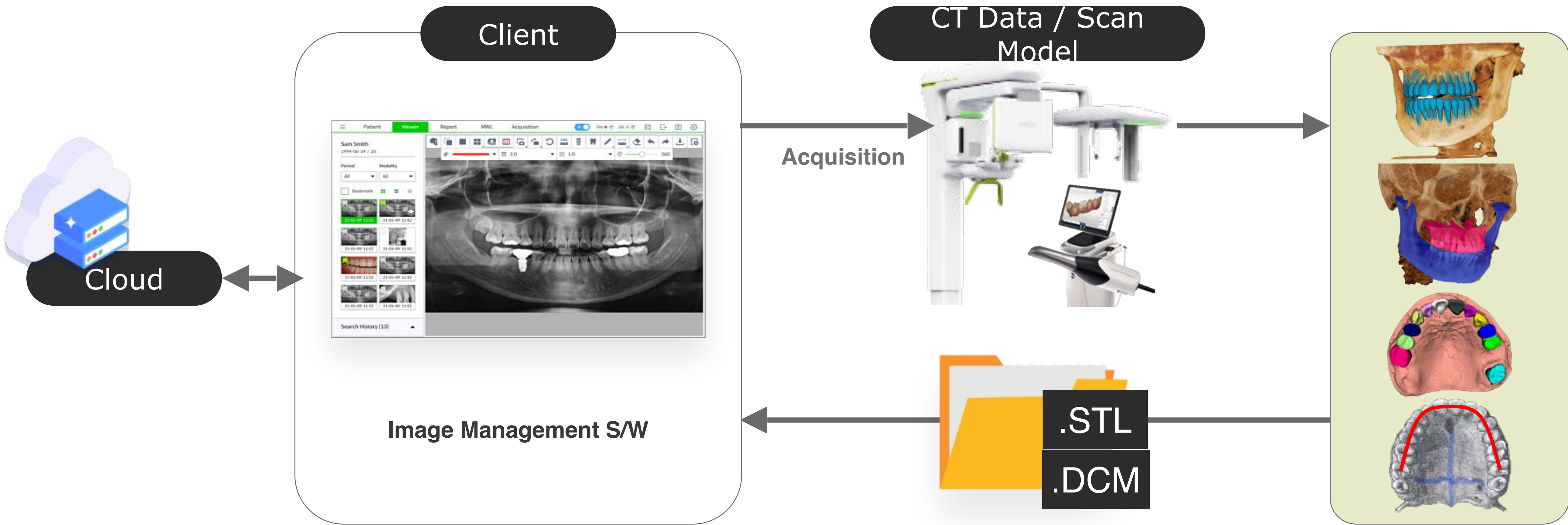


01

Platform for iOS. X ray and clinical information

02

Stiching and AI based support for consulting and treatment





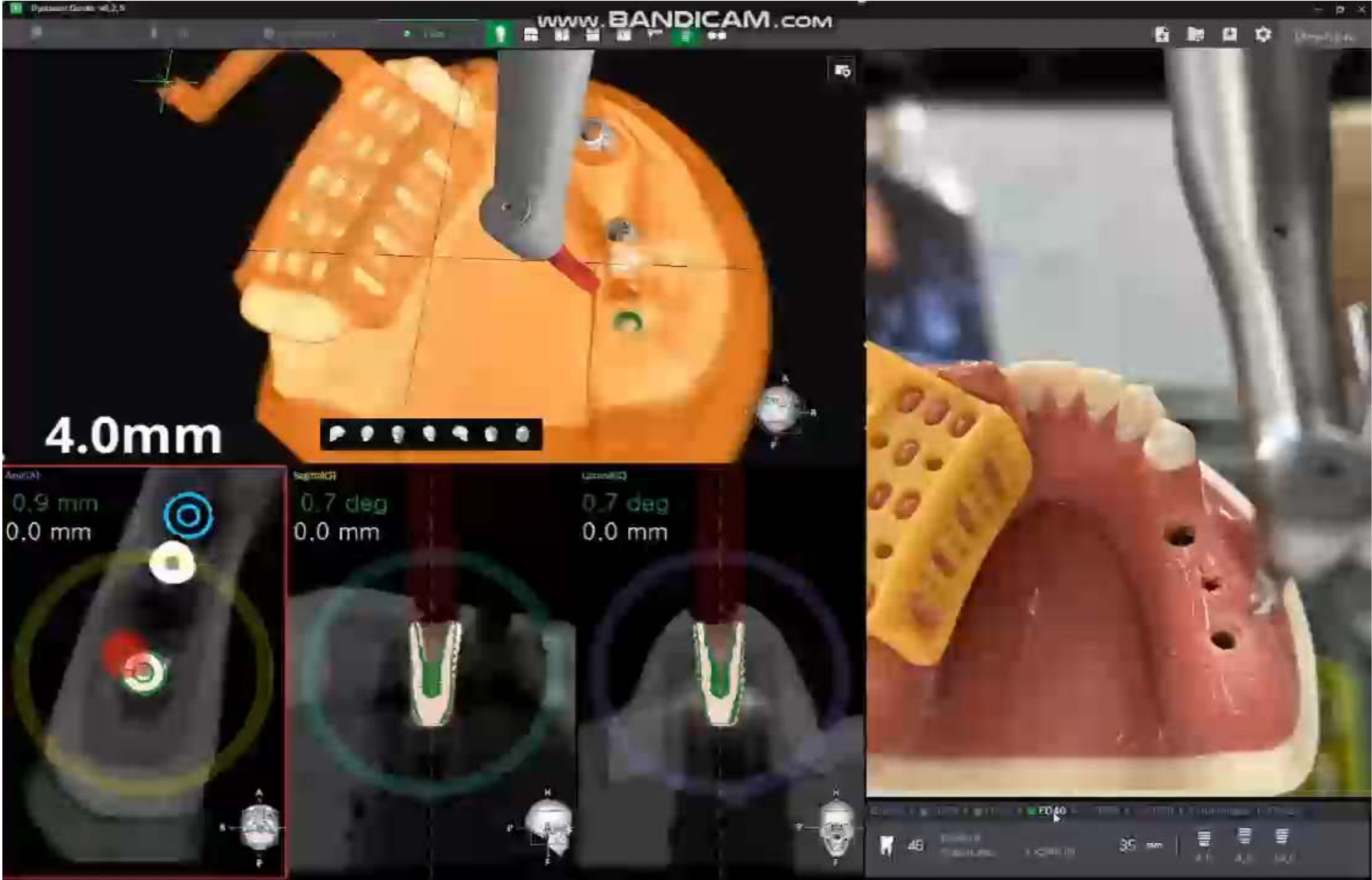
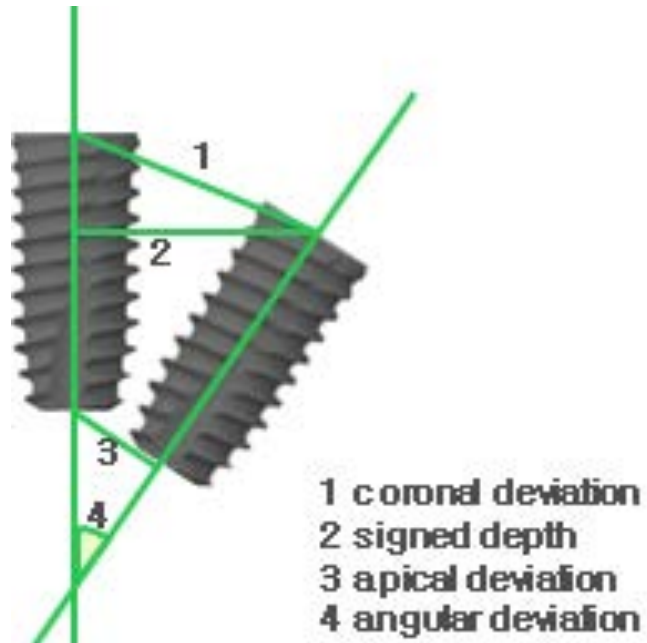


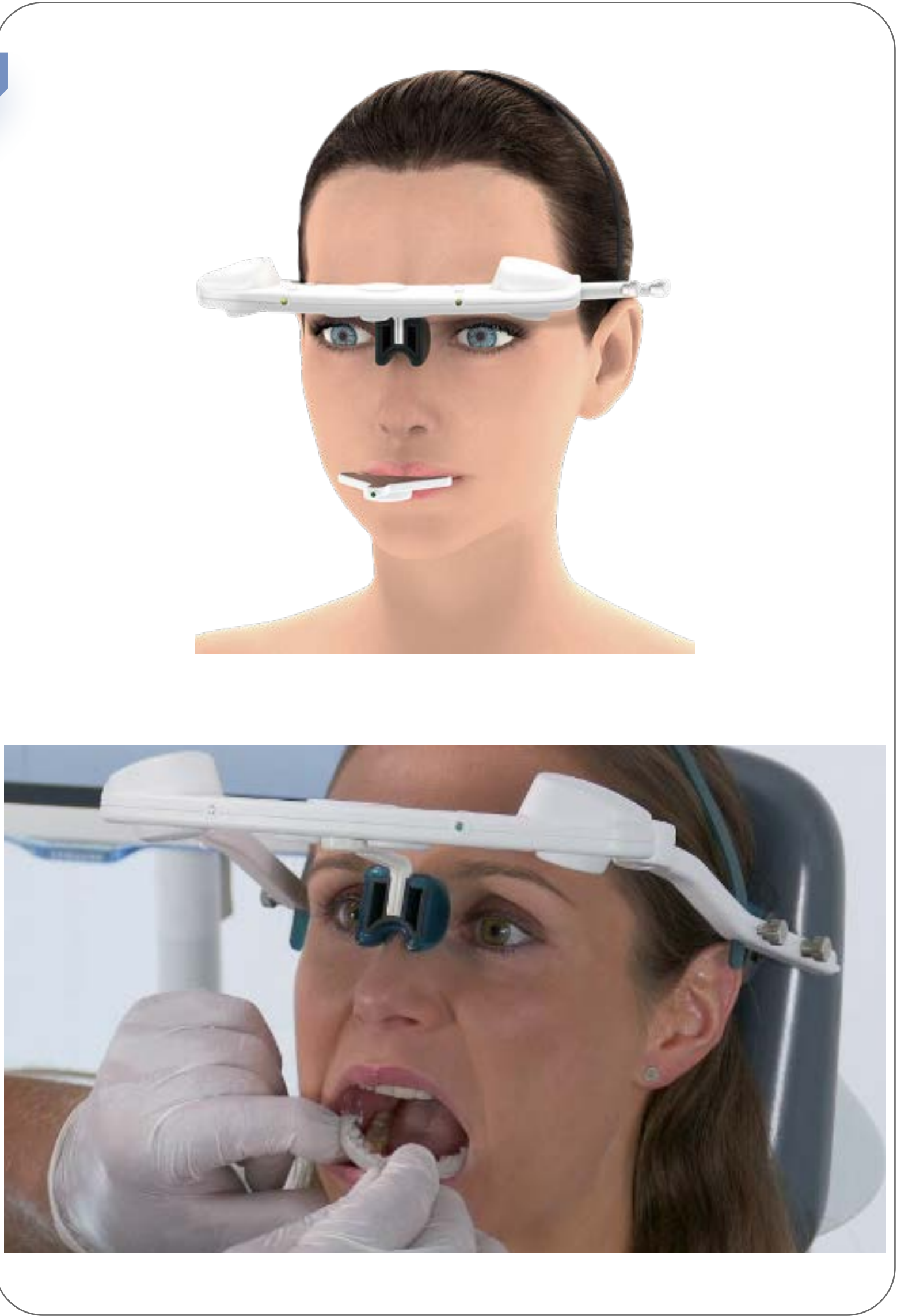
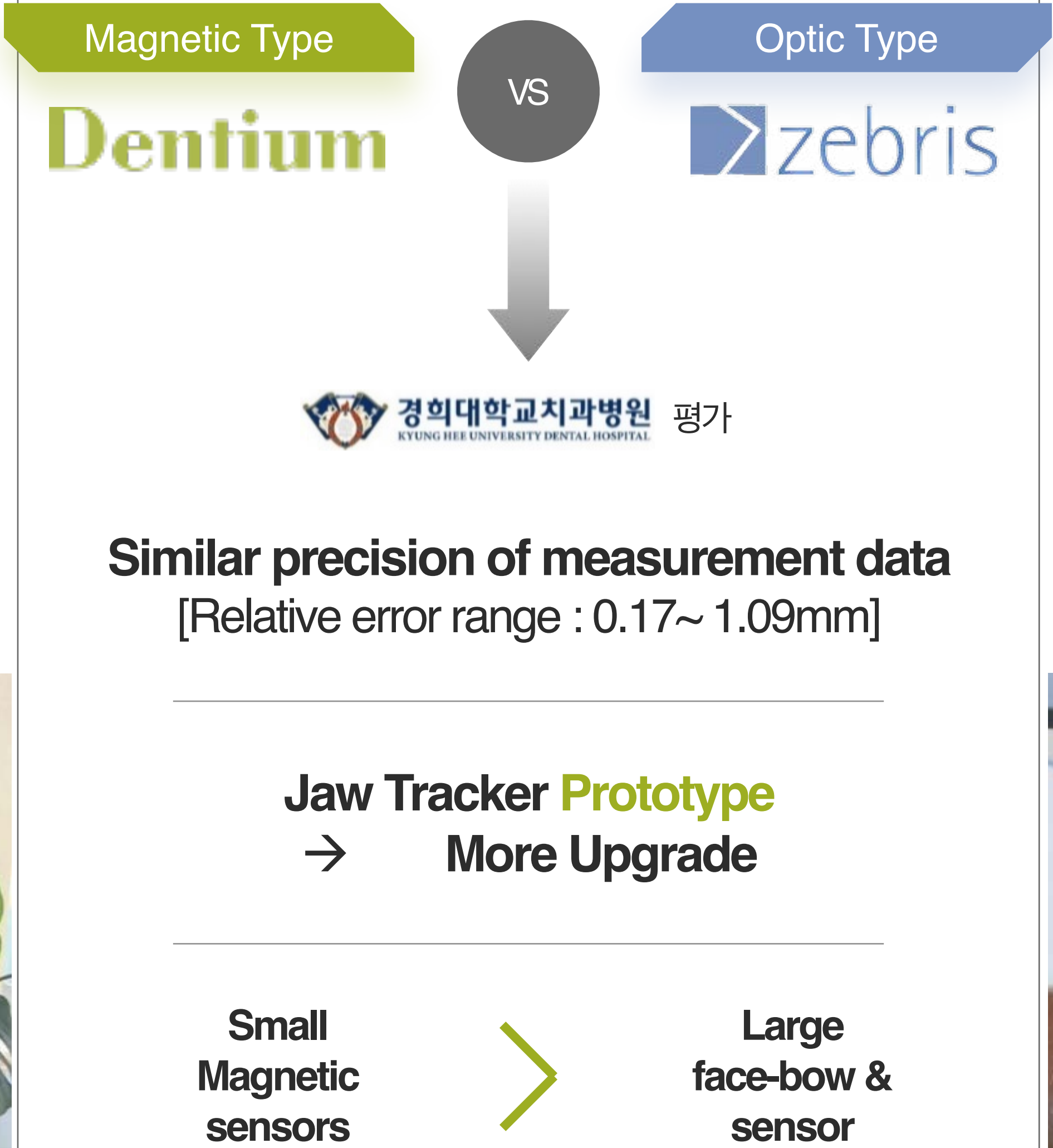
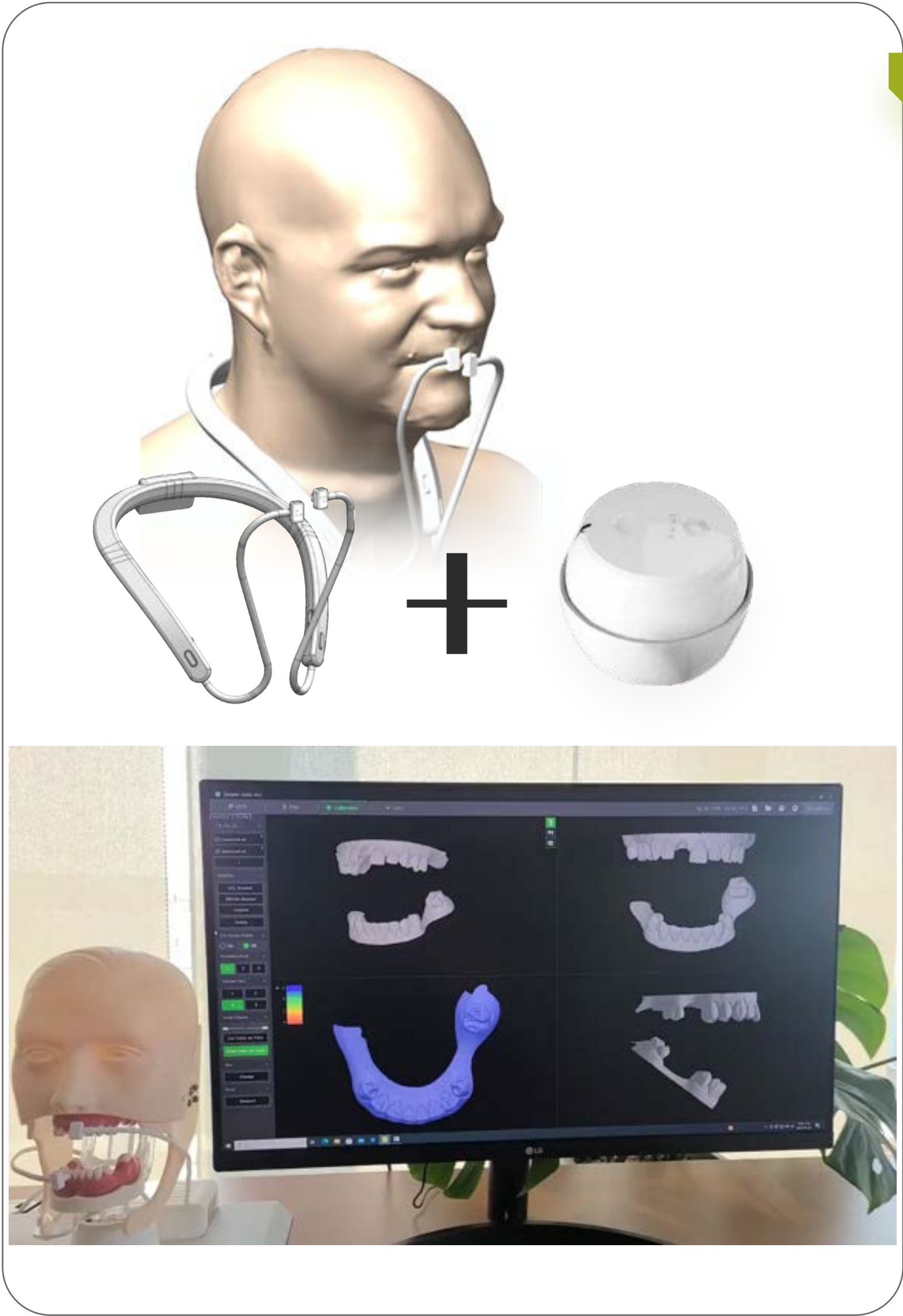
환자	번호	Axial distance	Coronal depths	Coronal Angle	Sagittal Depths	Sagittal Angle
67세 (여성)	15번 (FXS4010)	1.11mm	3.95mm	5.5°	4.05mm	8.4°
	16번 (FXS4510)	1.34mm	0.19mm	1.8°	0.22mm	11.3°
Avg.		1.23mm	2.07mm	3.65°	2.14mm	9.85°



Robotic Guide implantation simulation

사용자	Tester 1	Tester 2
Coronal Dev. (1)	1.24mm	1.41mm
Signed Depth (2)	0.09mm	0.16mm
Apical Dev. (3)	1.67mm	1.67mm
Angular Dev. (4)	3.30°	3.30°





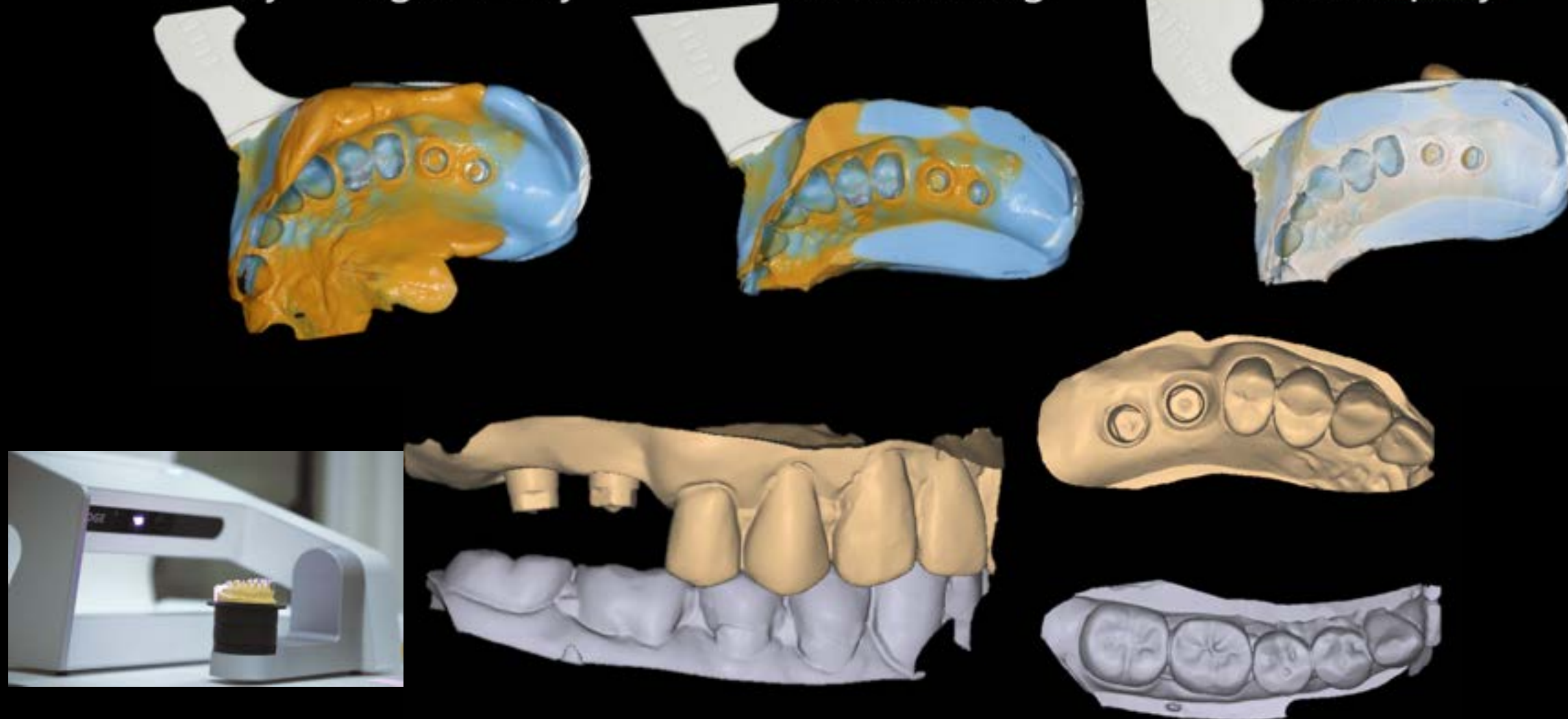
Overall working time

BTS (20 min)

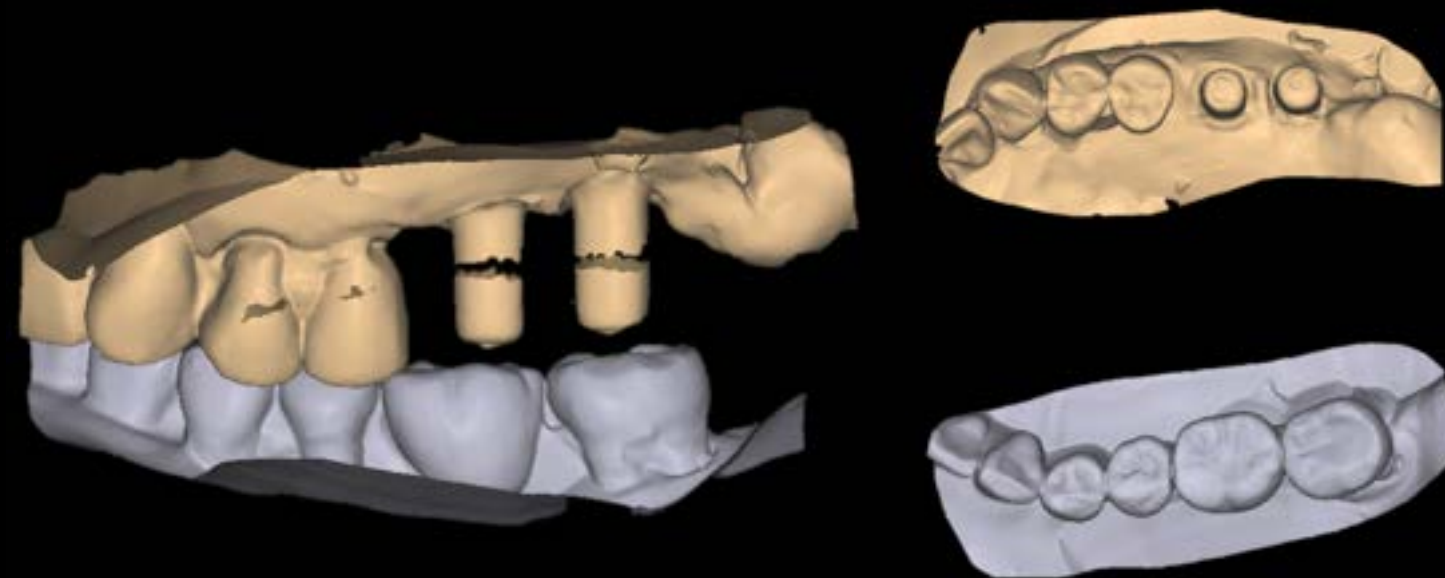
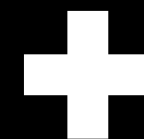
Putty + Light Body

Border Trimming

Scan spary



Impression + 1st scanning time : 9 min
(30s) (8 min 30 sec)



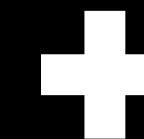
2nd scanning time : 8 min 30 sec

Adjustment time : 3 min ↓

IOS (15 min)



Scanning time : 5 min



Adjustment time : 10 min

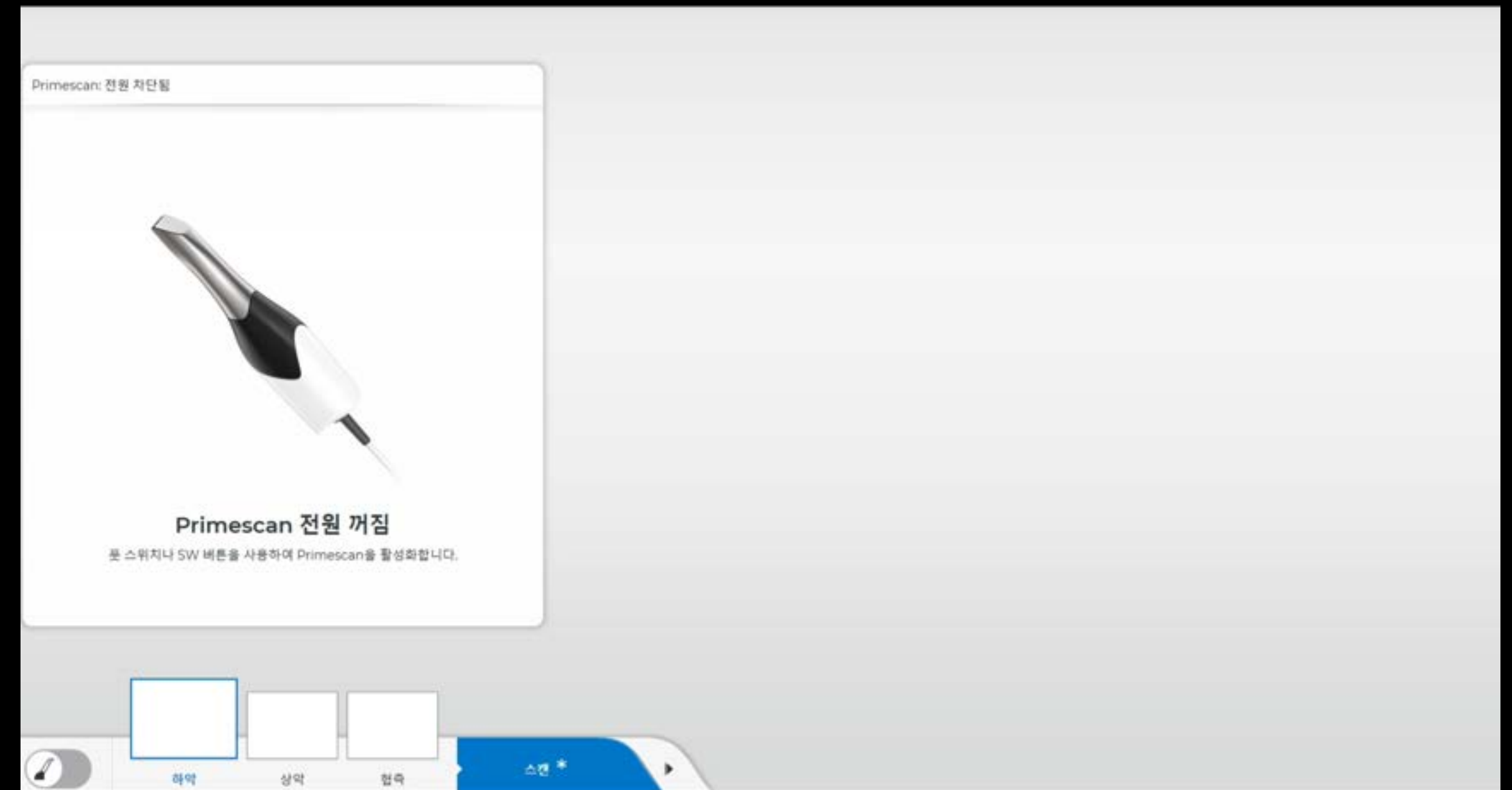
Impression taking

BTS



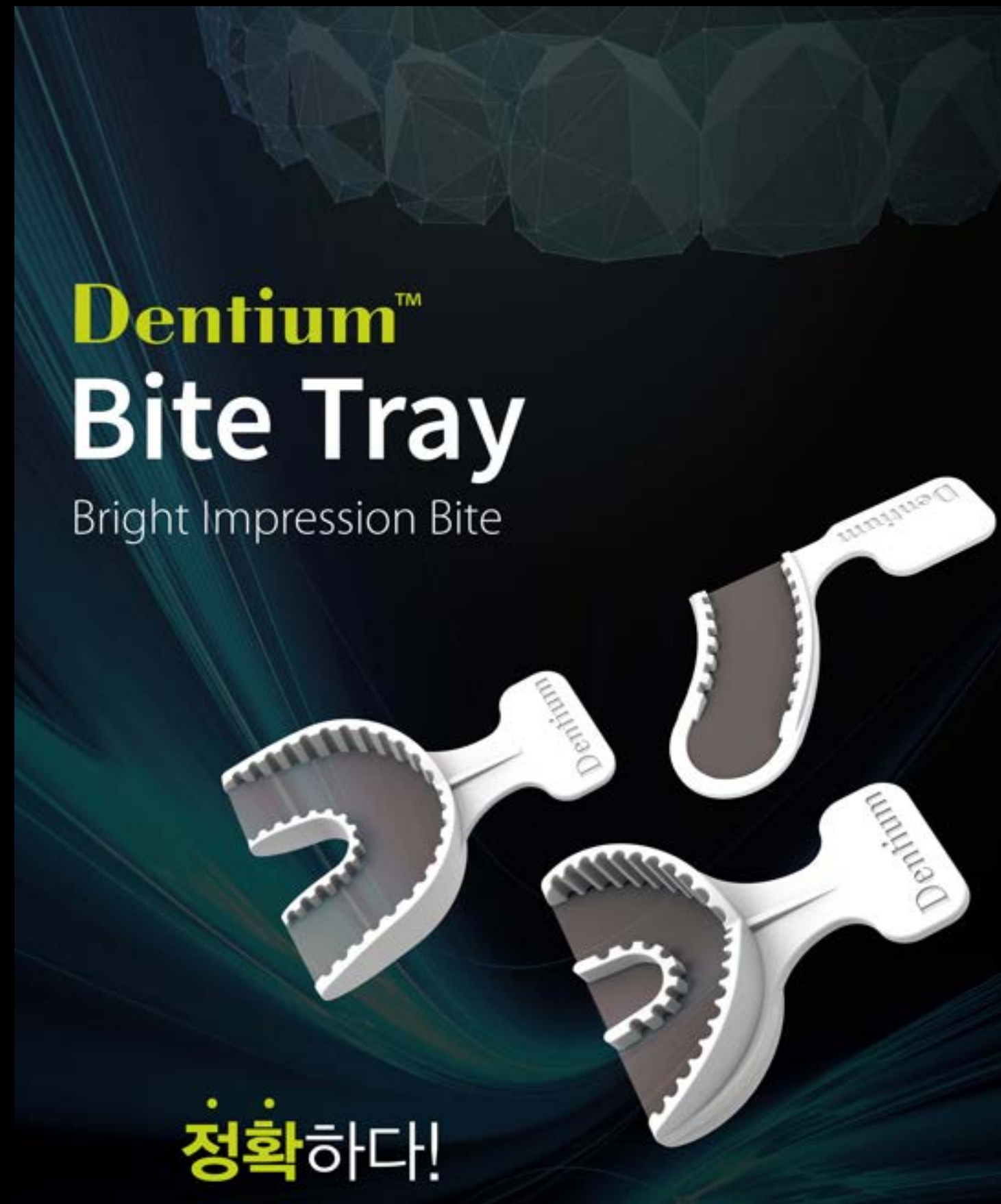
X 2배속

IOS



X 4배속

Bite Tray

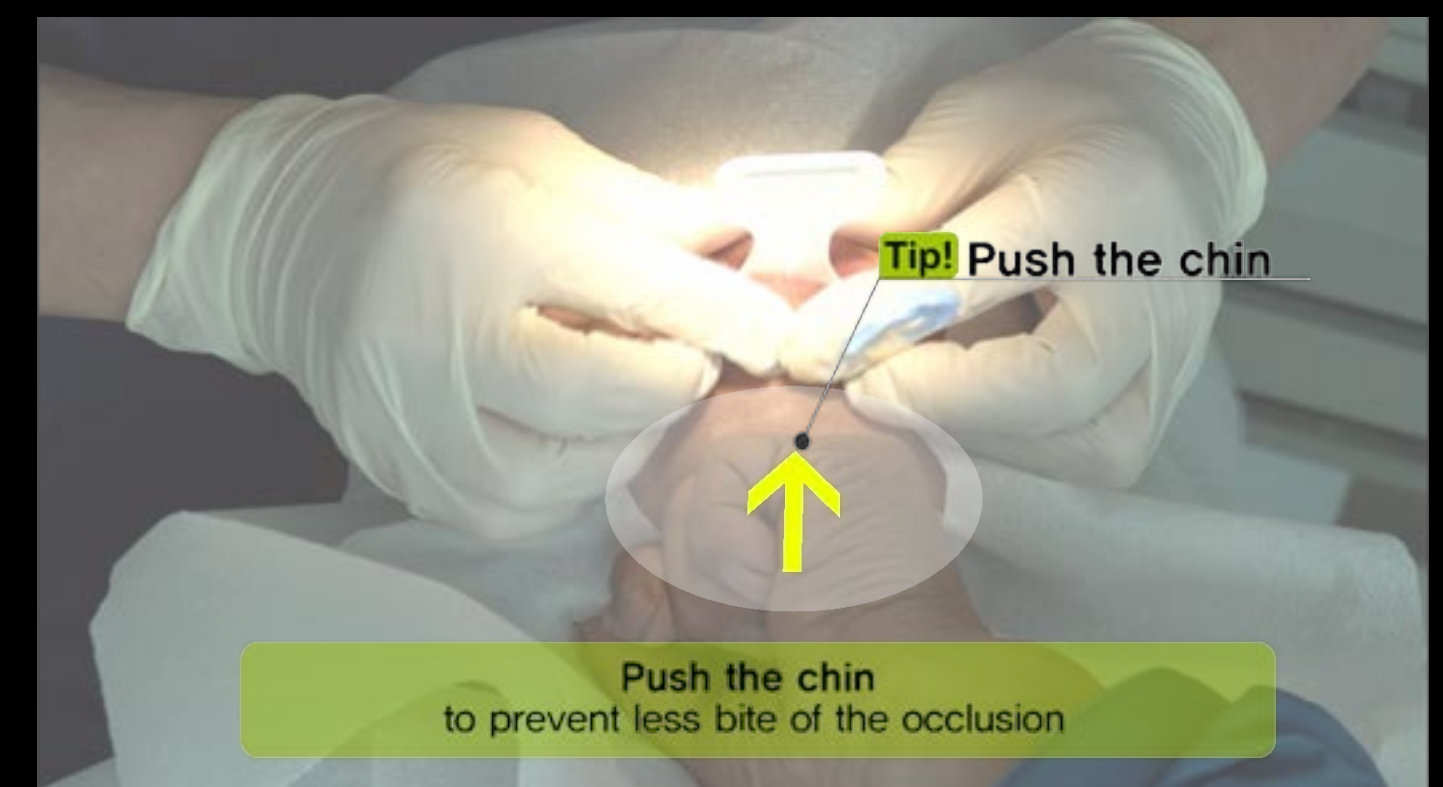
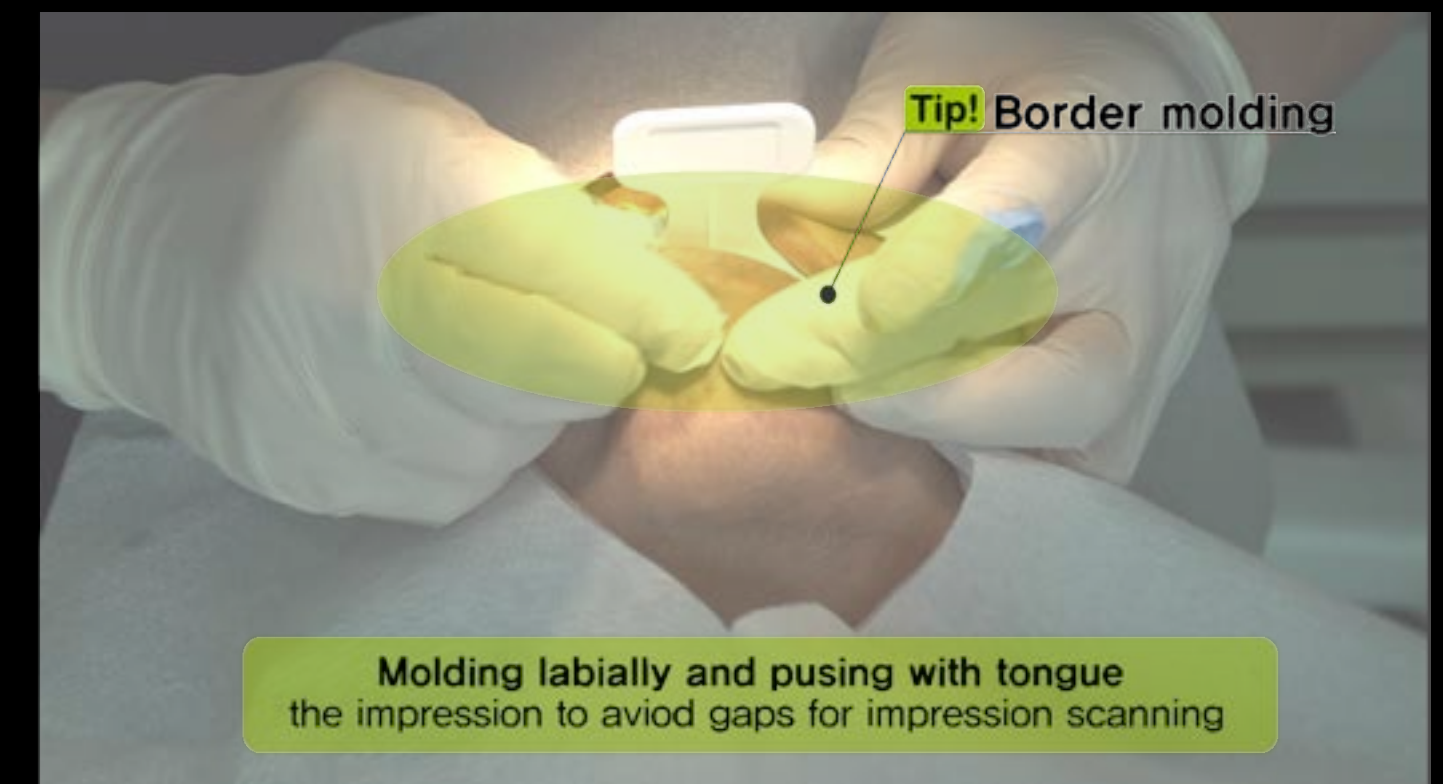


- 1) 정확한 인상채득
- 2) 뒤틀림 방지
- 3) 사용자 식별 스티커 부착
- 4) 의료기기(1등급)

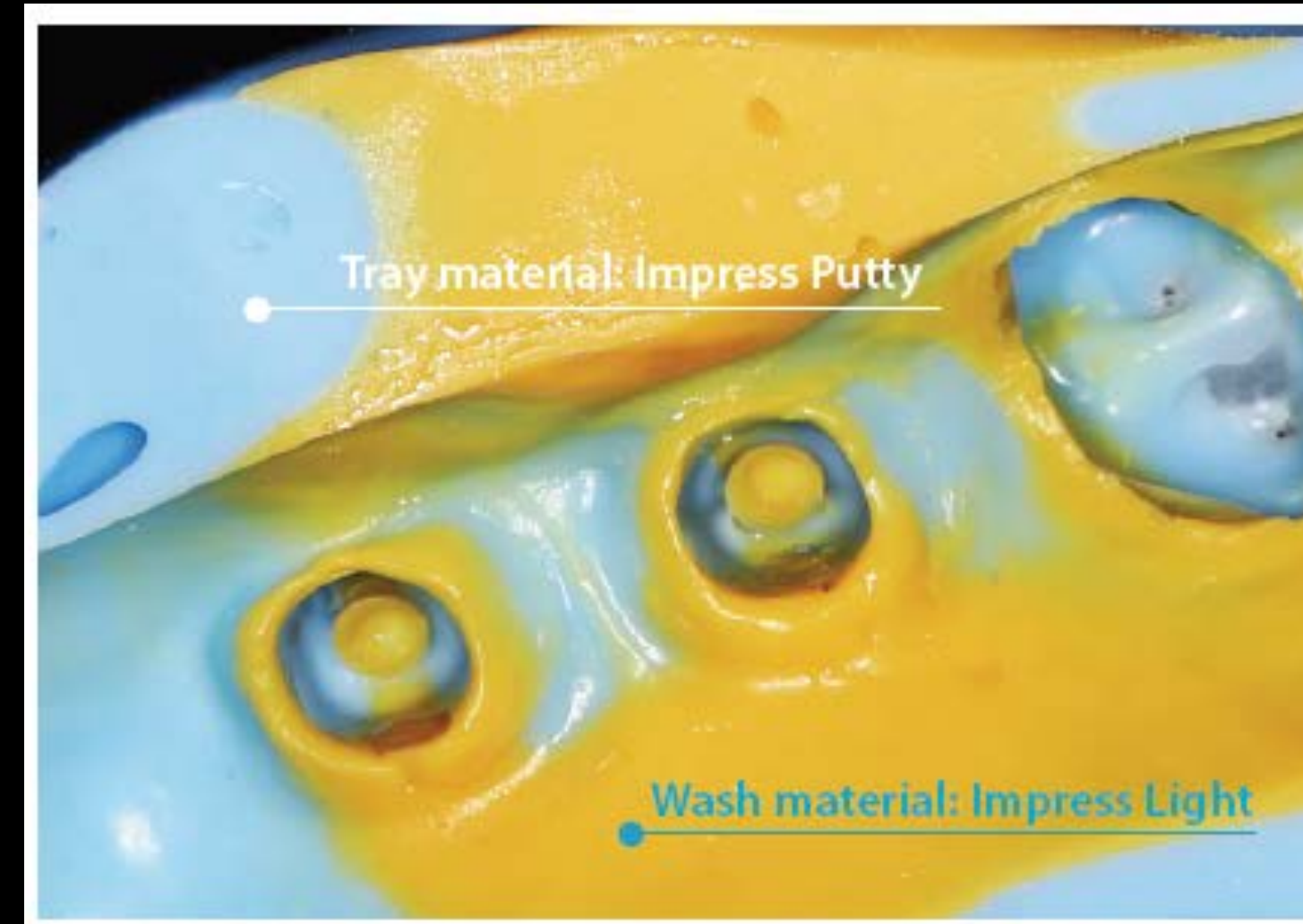
치과인상채득용트레이(일회용)



Bite Impression – Tip

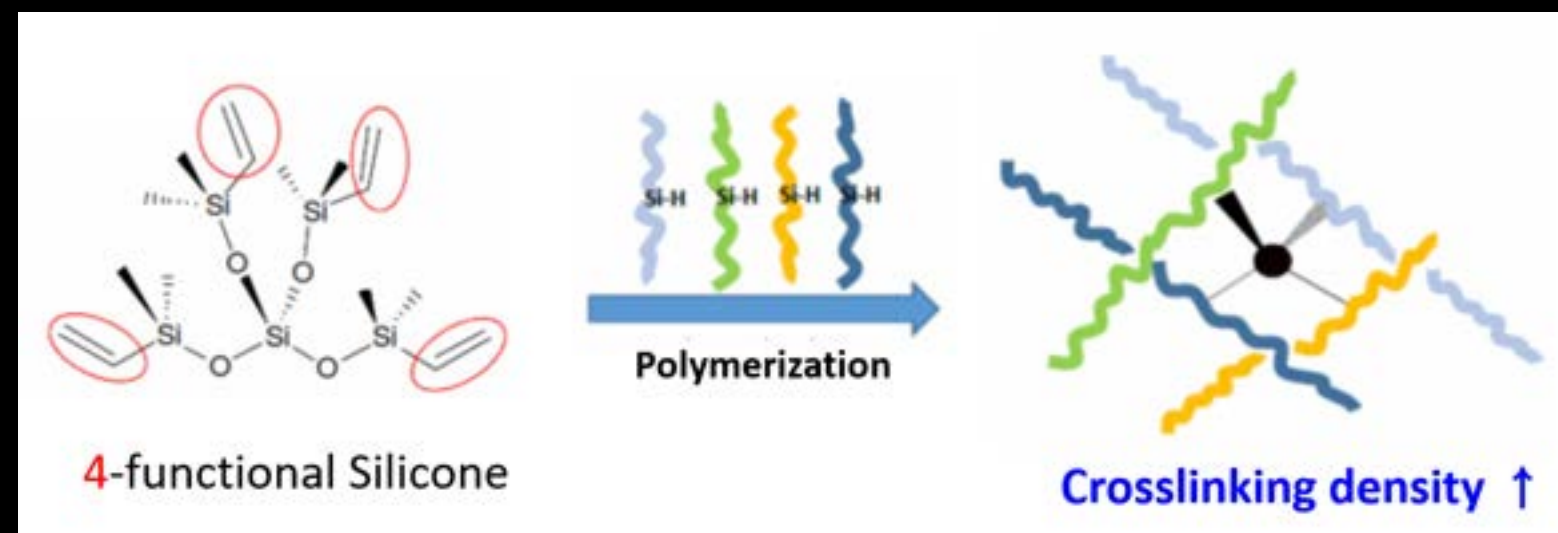


Impression : Putty + Light



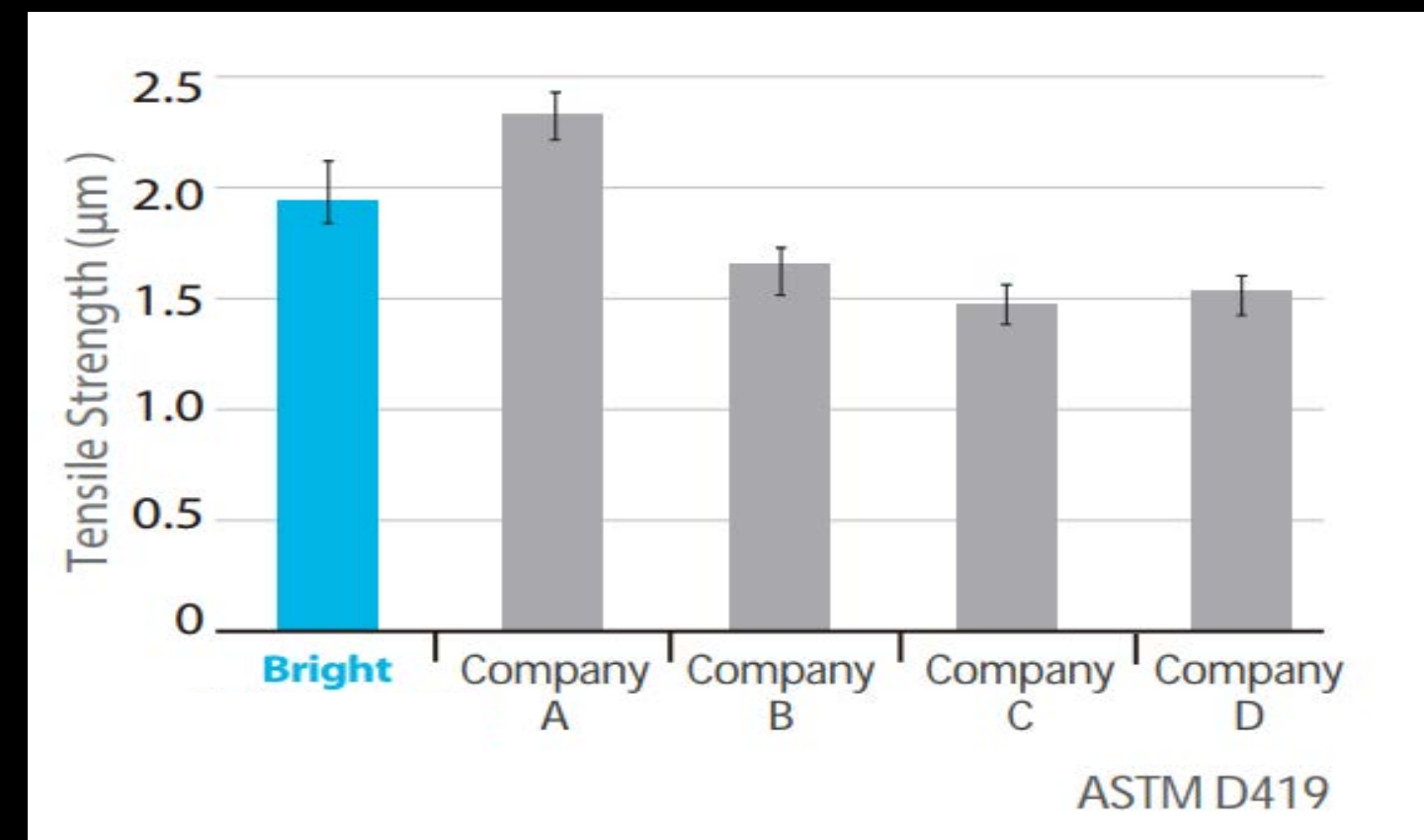
1) Complete Polymerization

→ Dimension stability



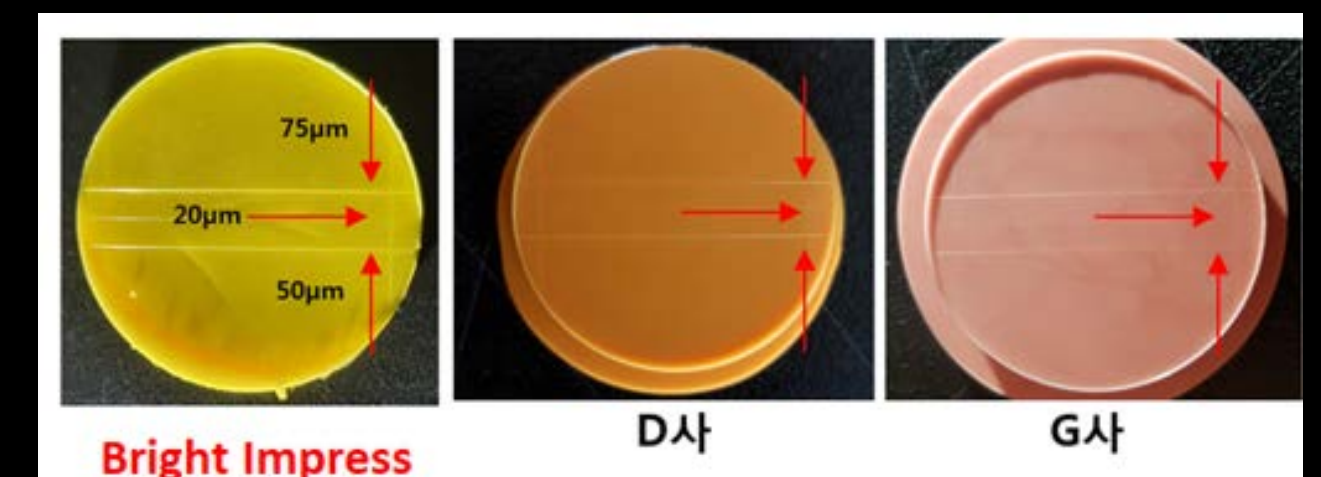
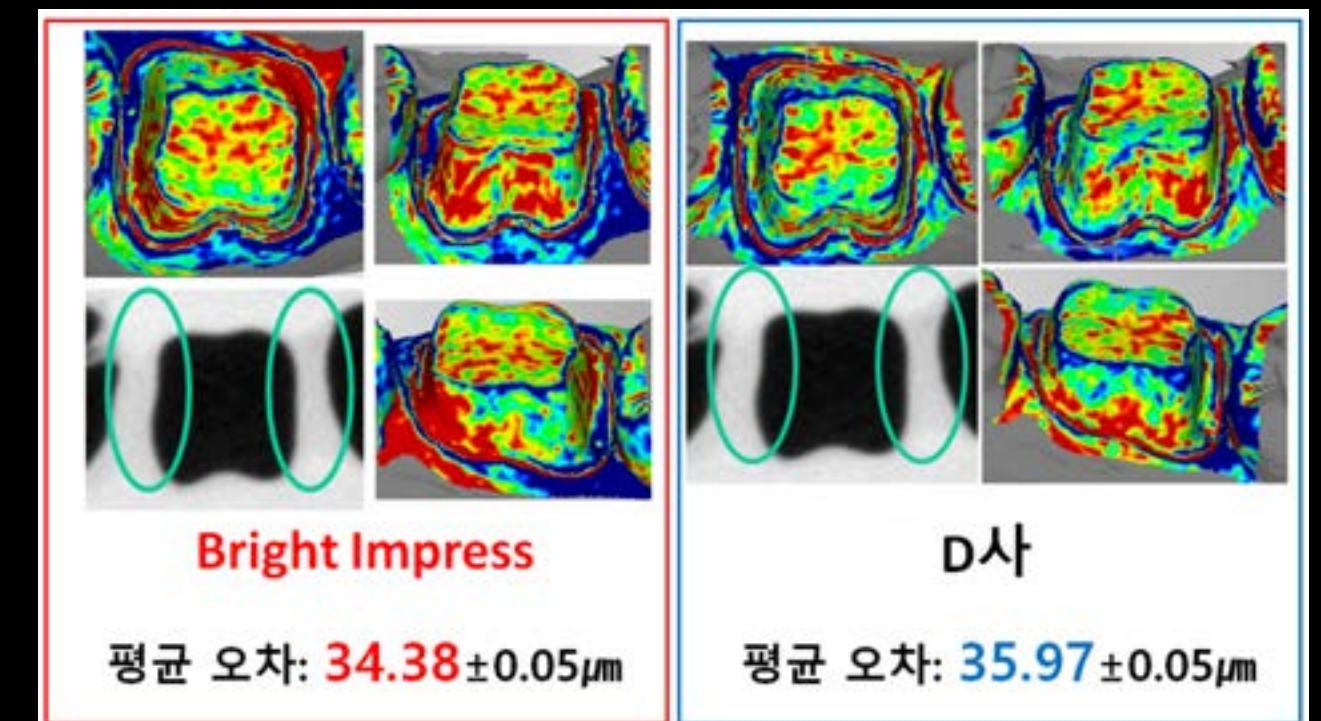
Elastic Recovery Rate $\geq$ 99.3%

2) Stable Strength



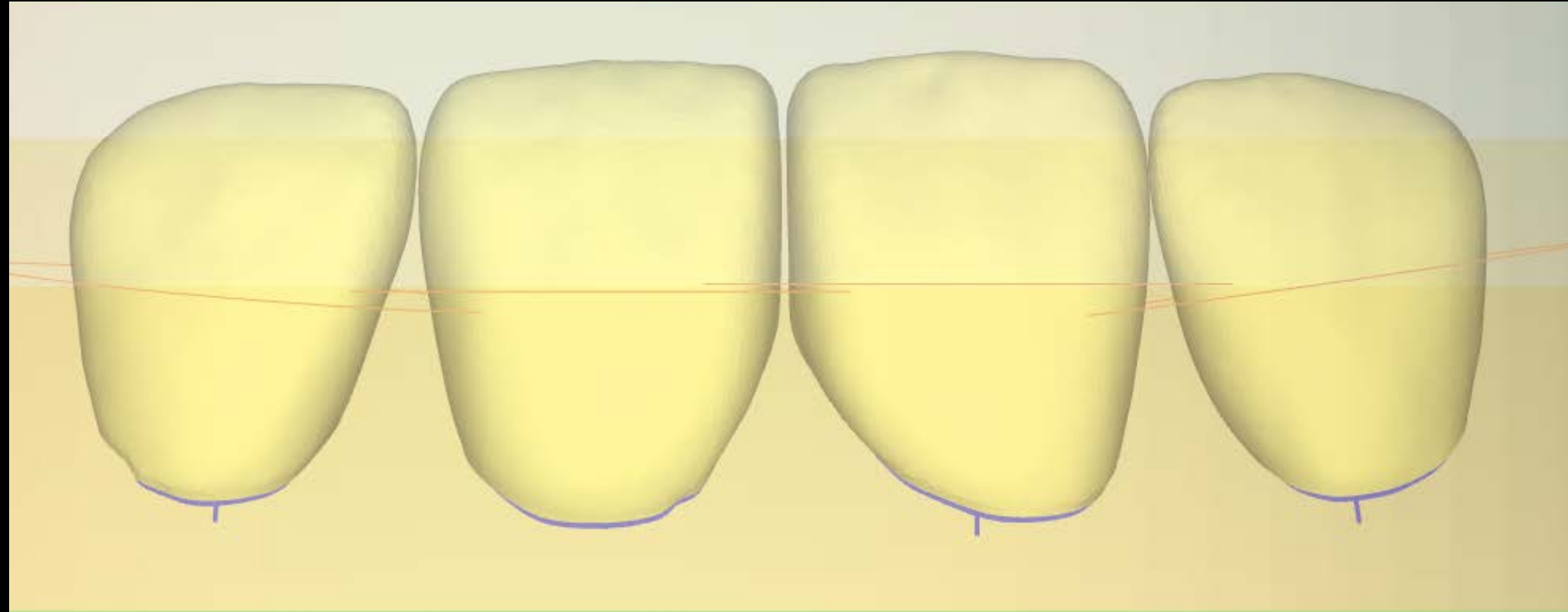
A (Dentsply), B (GC), C (Spident), D (Denkist)

3) Accuracy



bright Multi (3 layers)

Multi-layer 3 layer block positioning



Glazing



Milling



Glazing



Final Prosthesis





Pre-op



Provisional Crown



Final Prosthesis



Since 2017

Monolayer (4.5Y)

Shine T (4Y)

bright (4.5Y)



45%

1,100 MPa

Uniform Shrinkage
(Long-loved product)



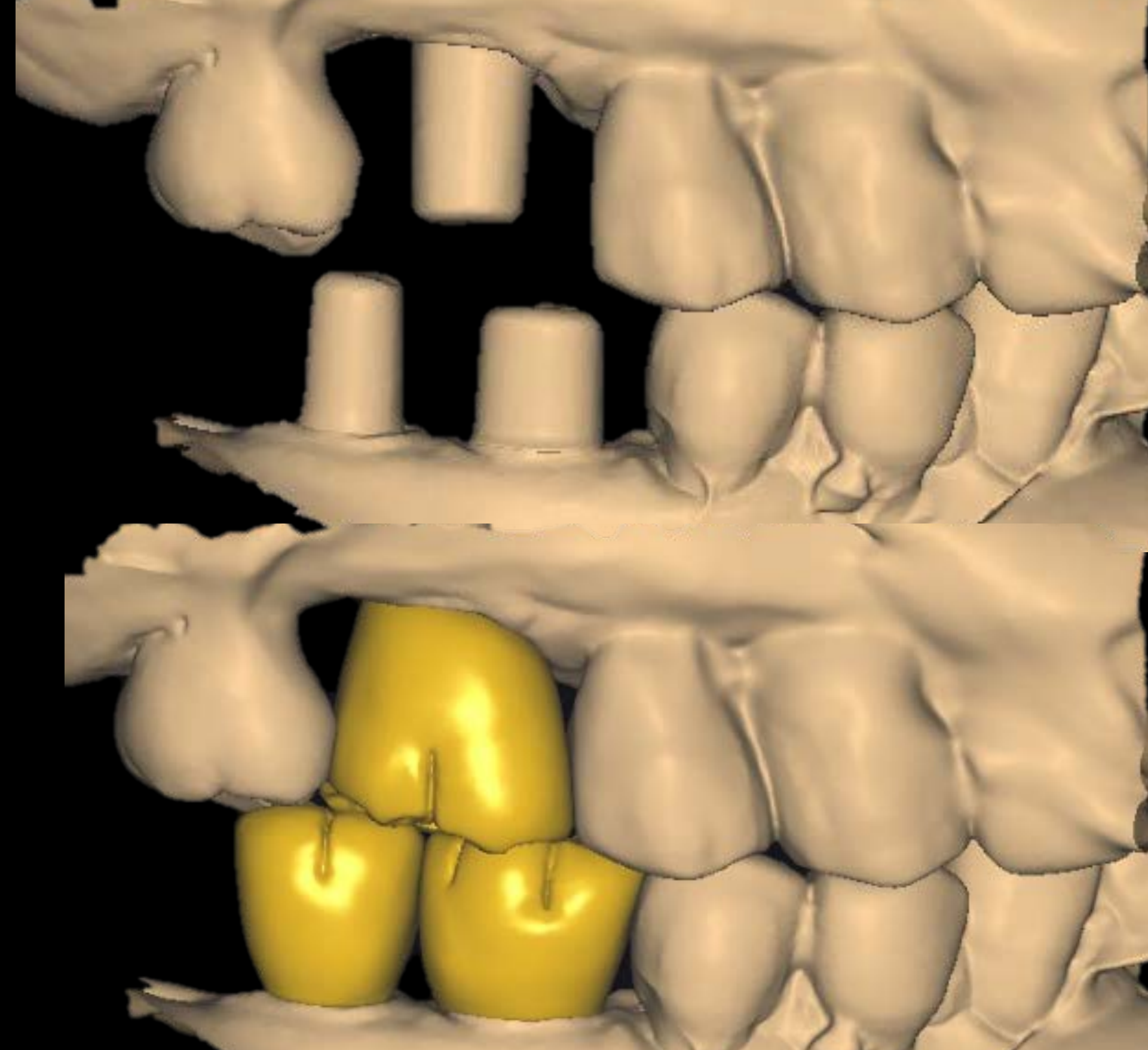
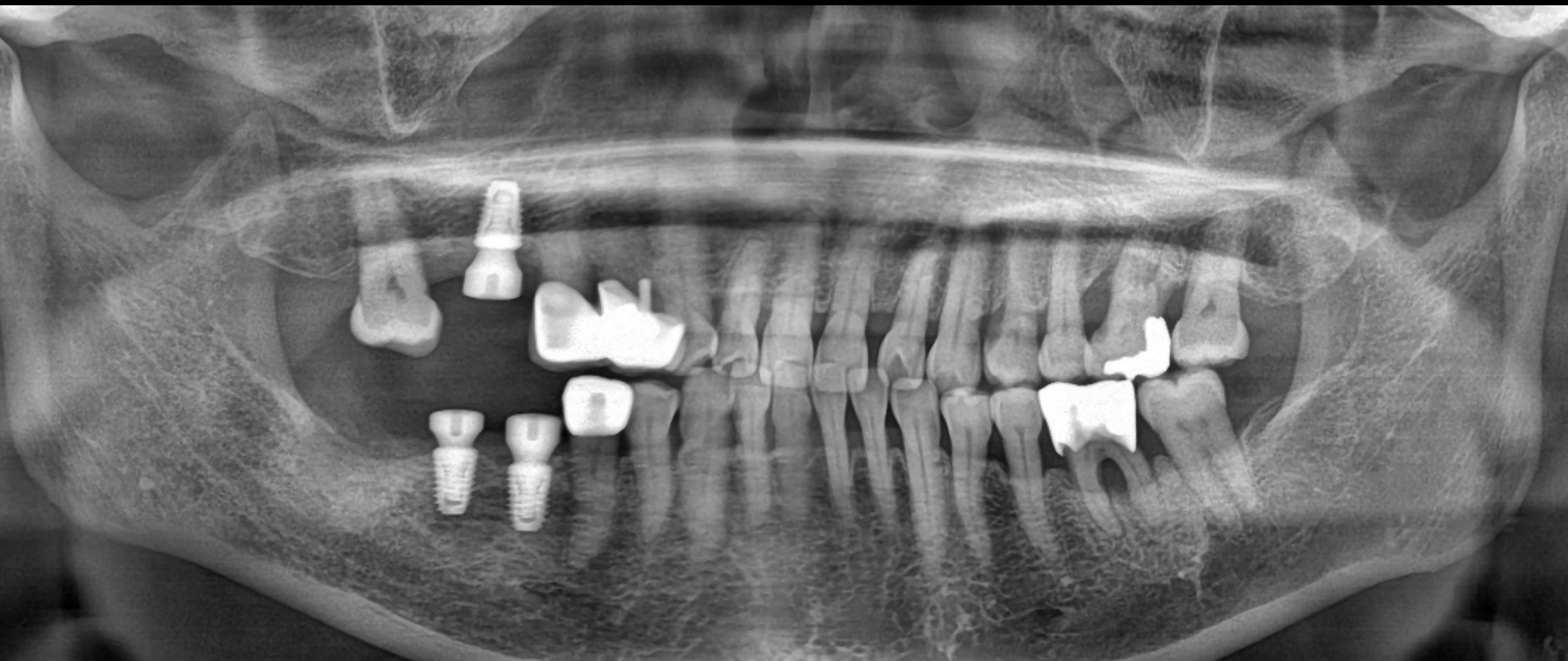
Rapid Sintering
& More Trans.



47%
850 MPa



4.7Y Zr fast sinter monoblock - 2 hr



Coloring

Inner – White Opaque
Occlusal – Trans violet



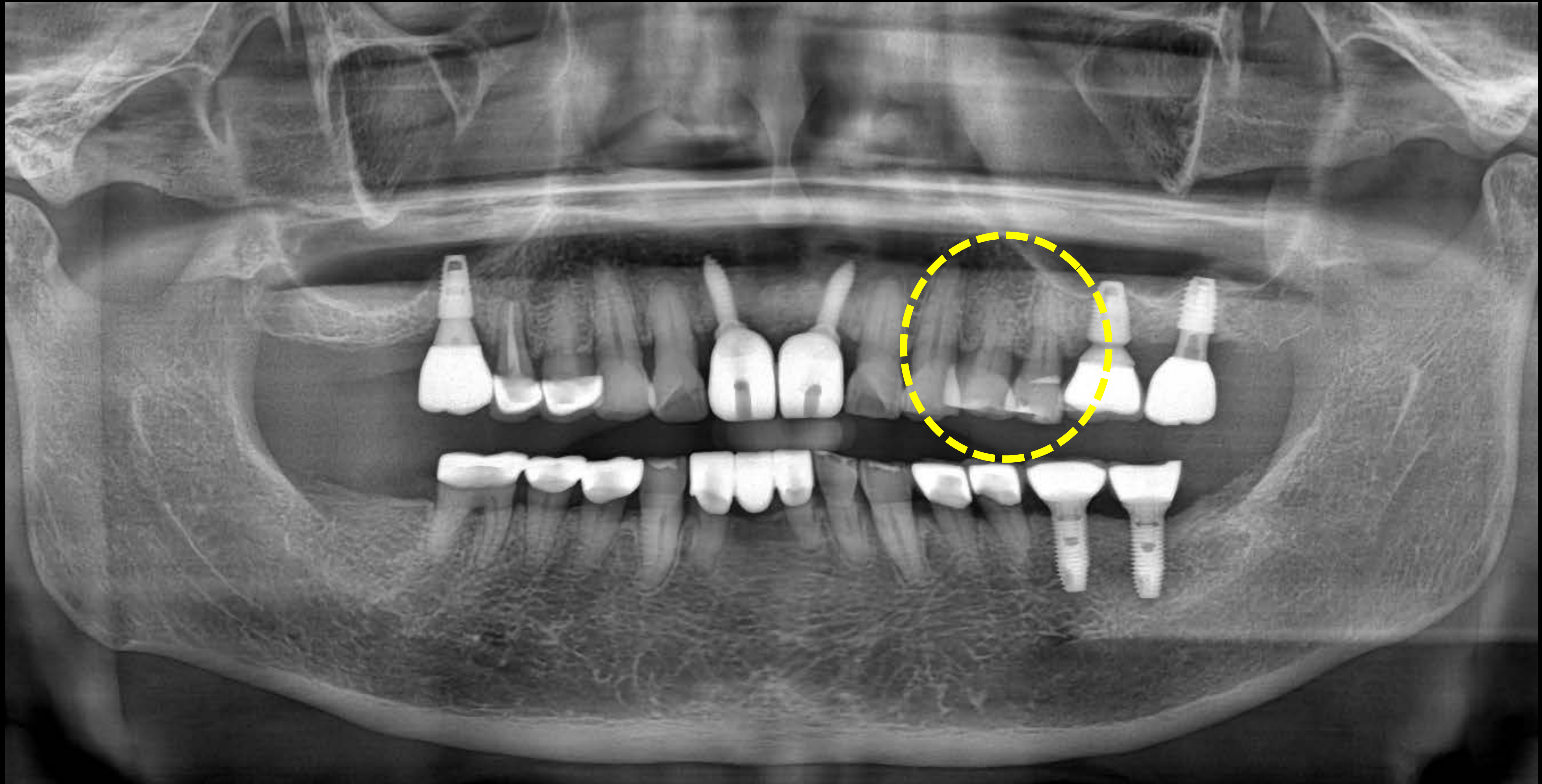
Glazing



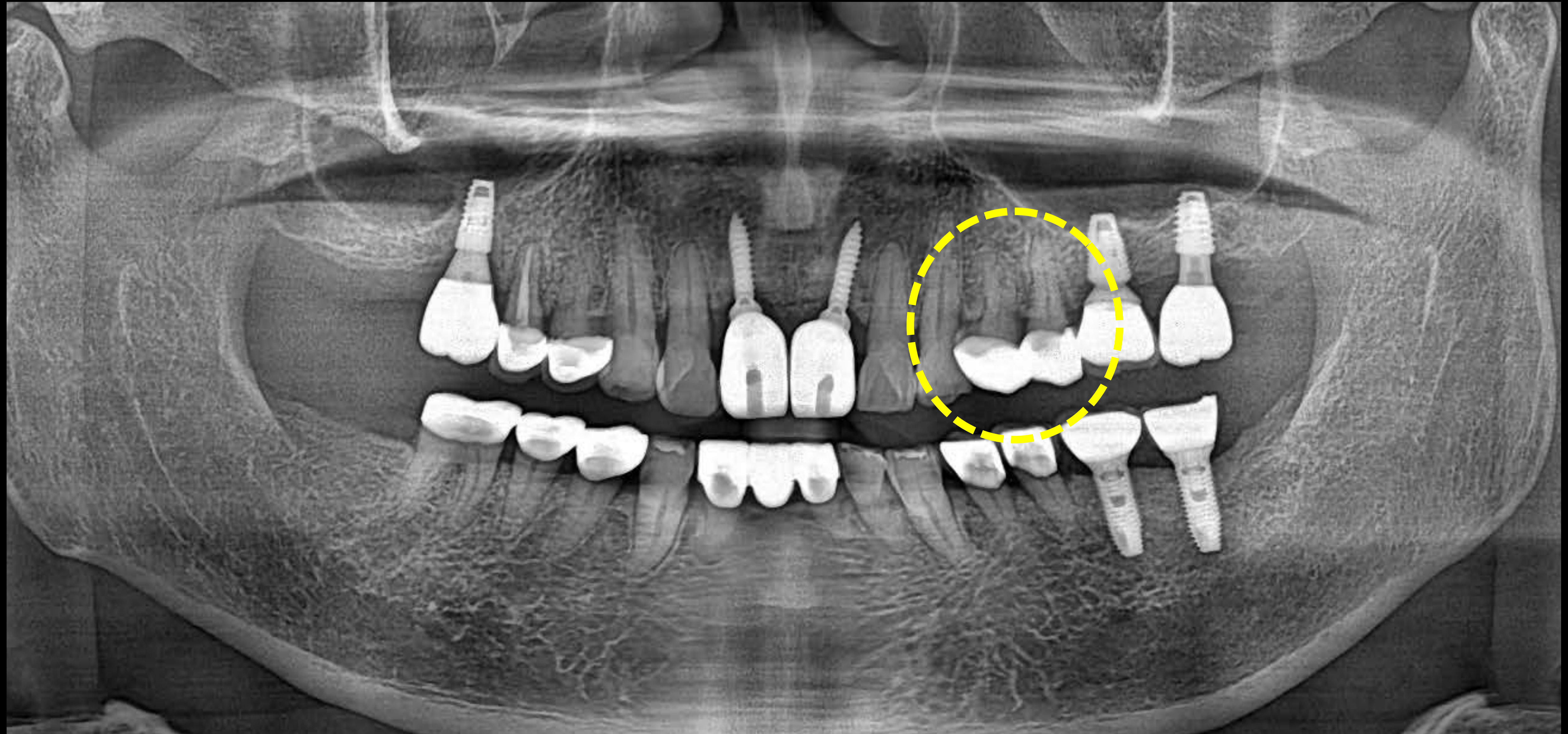
Final Prosthesis



Pre-op (2023-07-19)



Final prosthesis (2023-07-20)



Treatment (2023-07-19)



IOS



자연치



Implant



AI Design

Single to Bridge



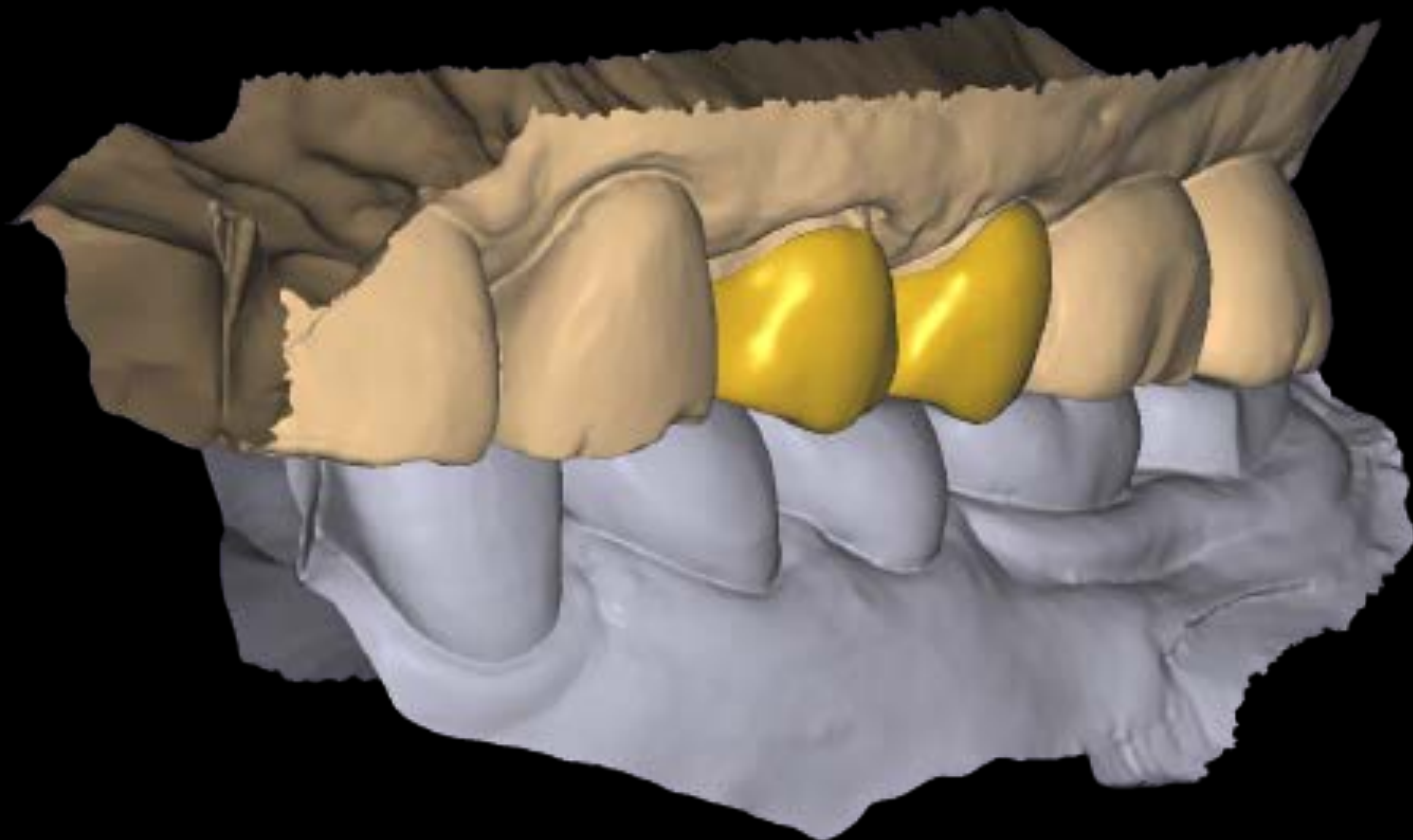
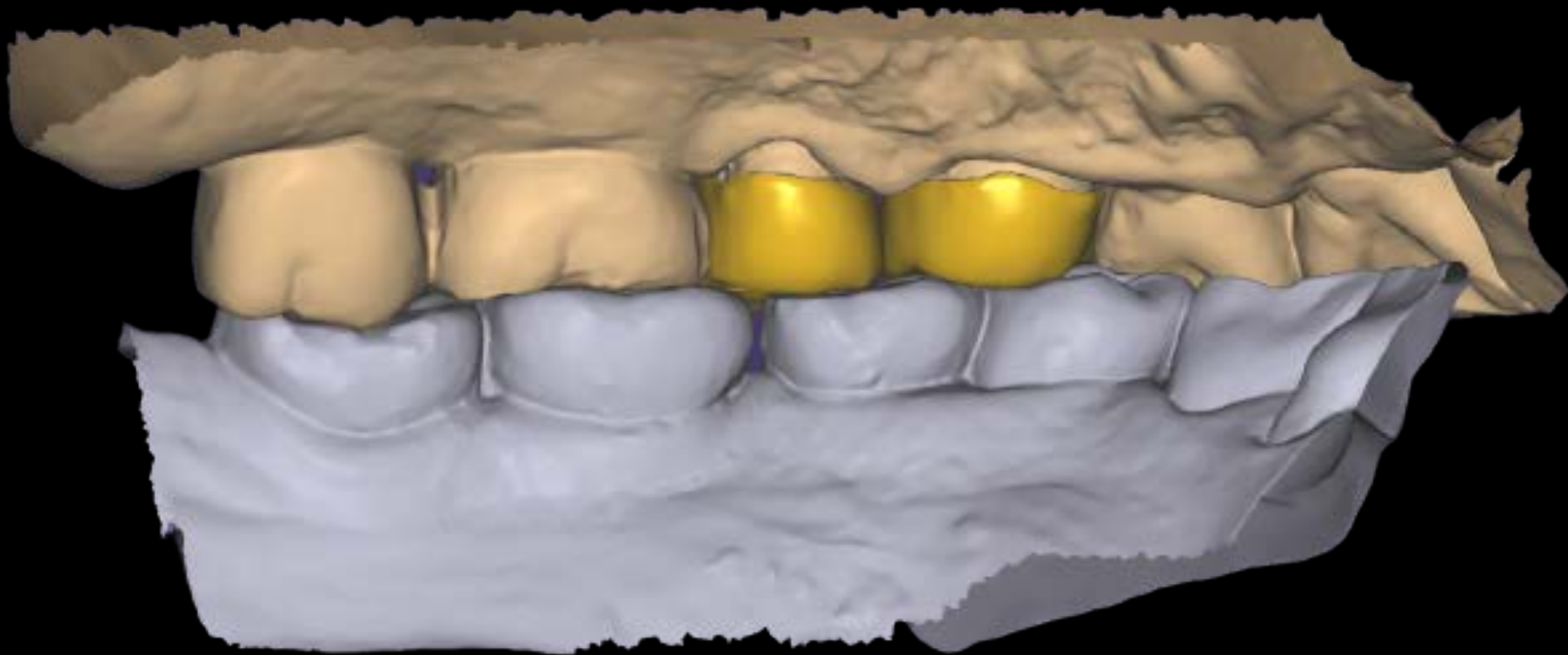
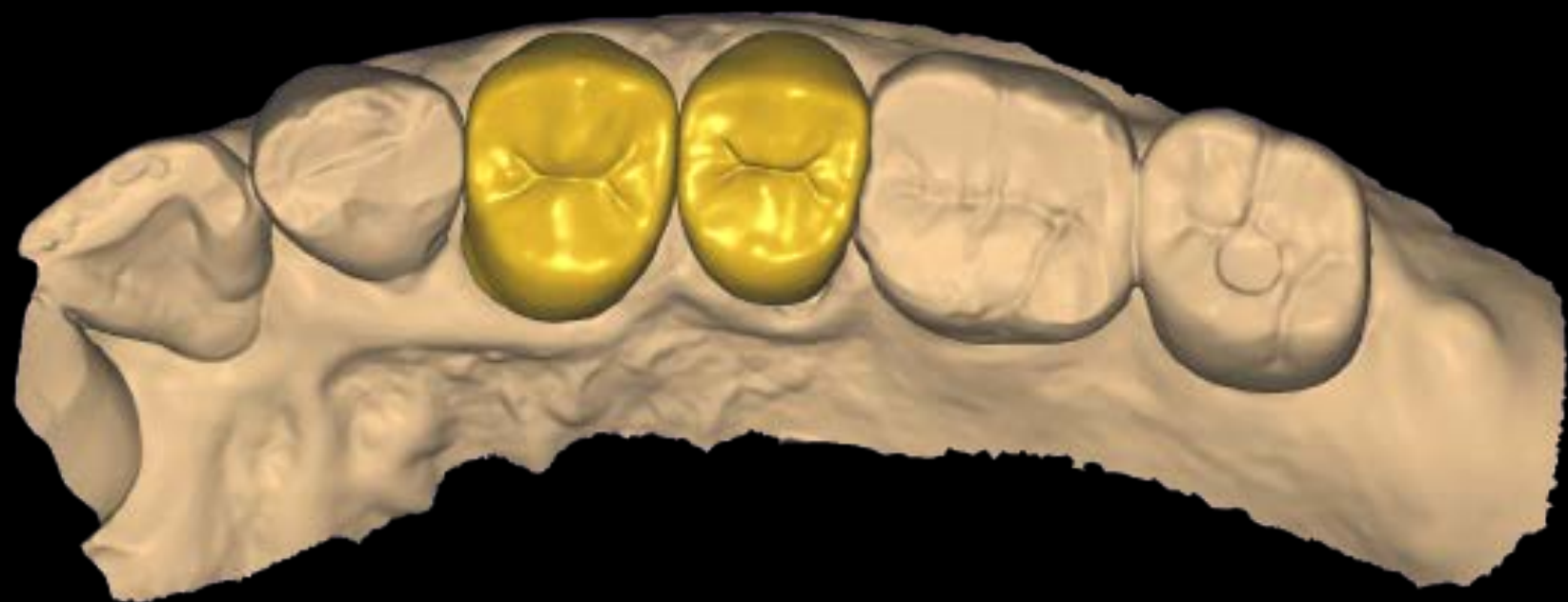
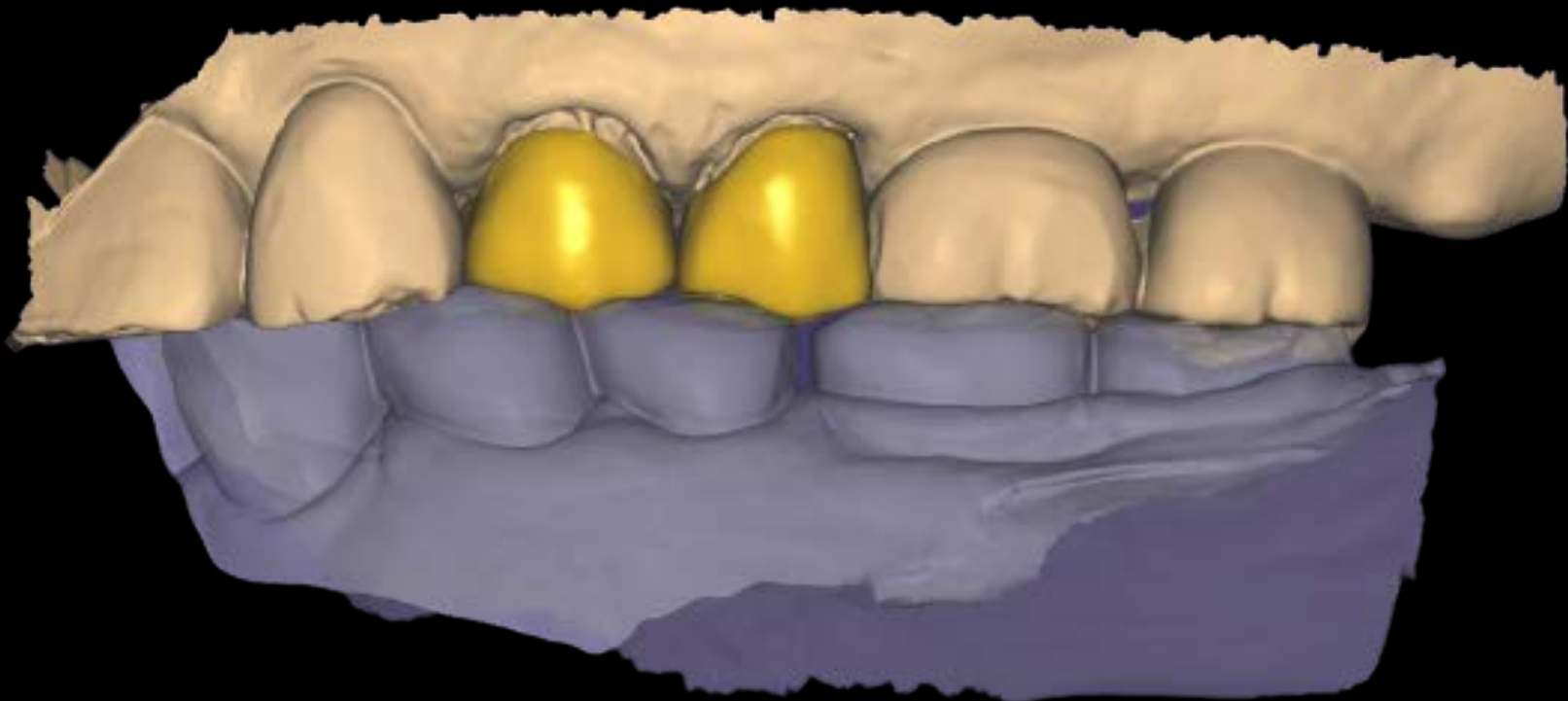
Clinic에서 10 min. Crown

CAM

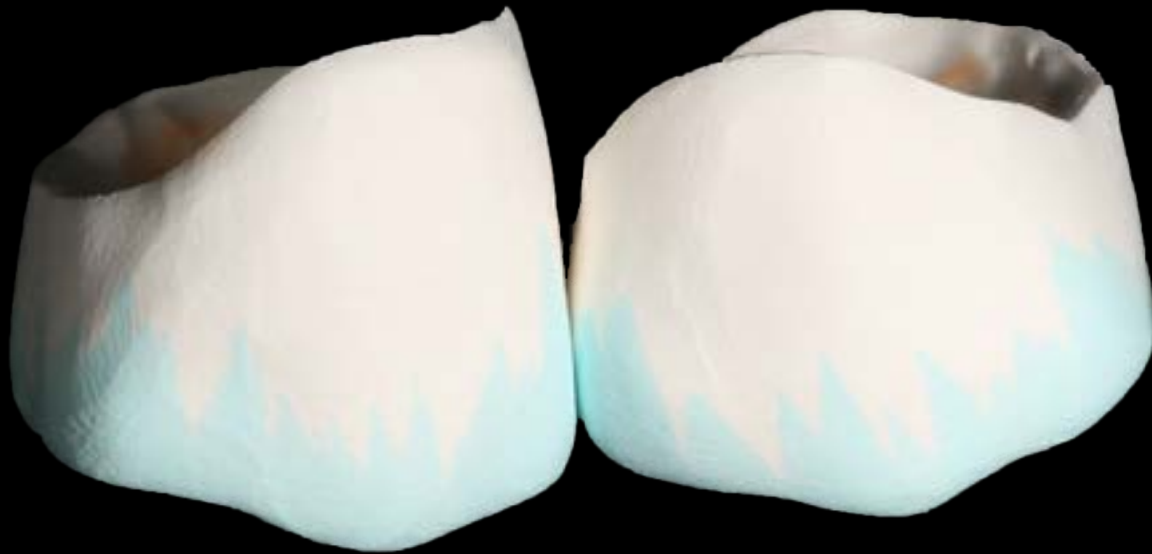
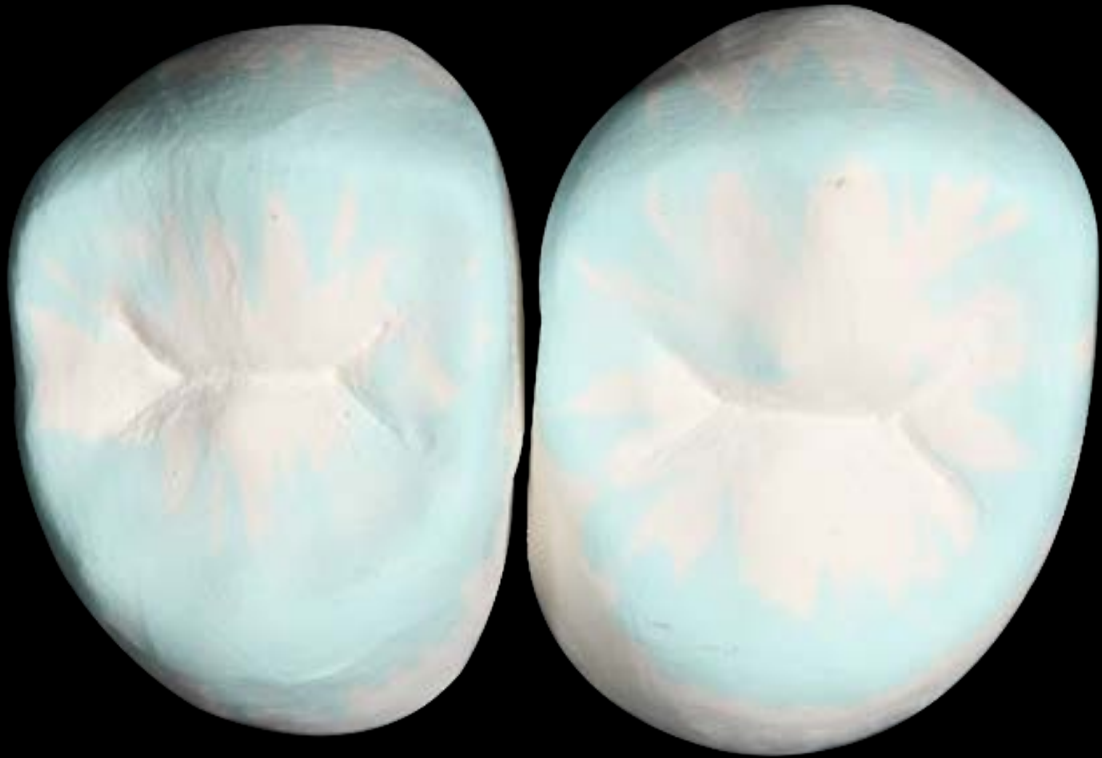
10 min Temp. Crown



CAD (Final prosthesis)



Coloring / Finishing



Final prosthesis (2023-07-20)



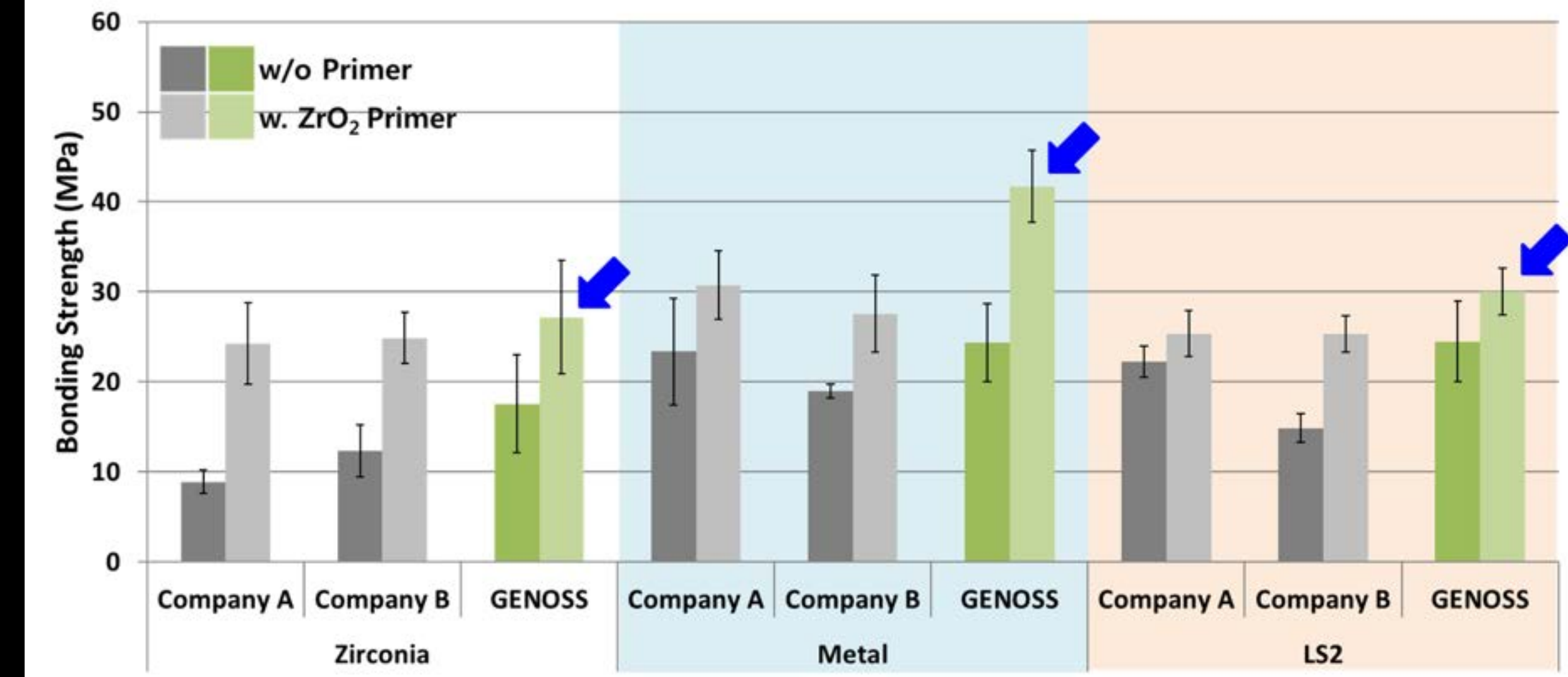
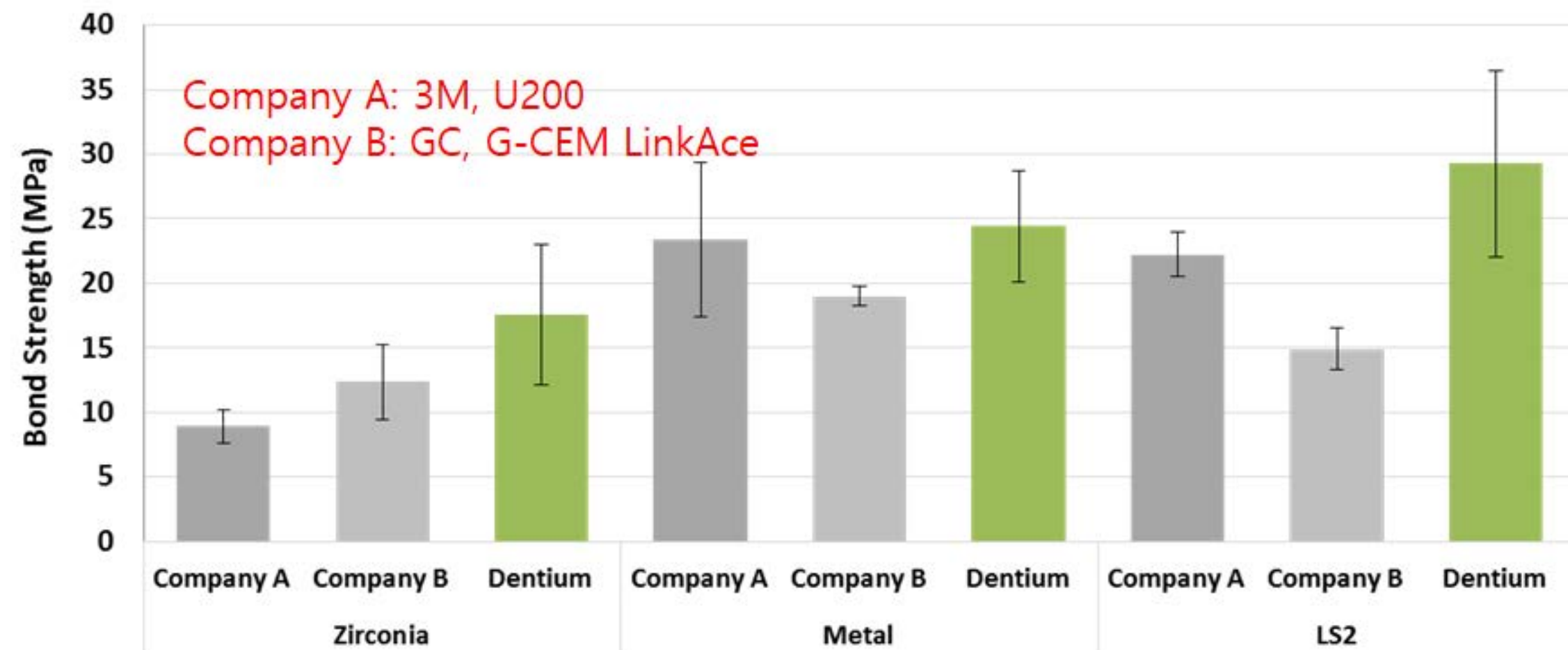
Zirconia - Bonding



+



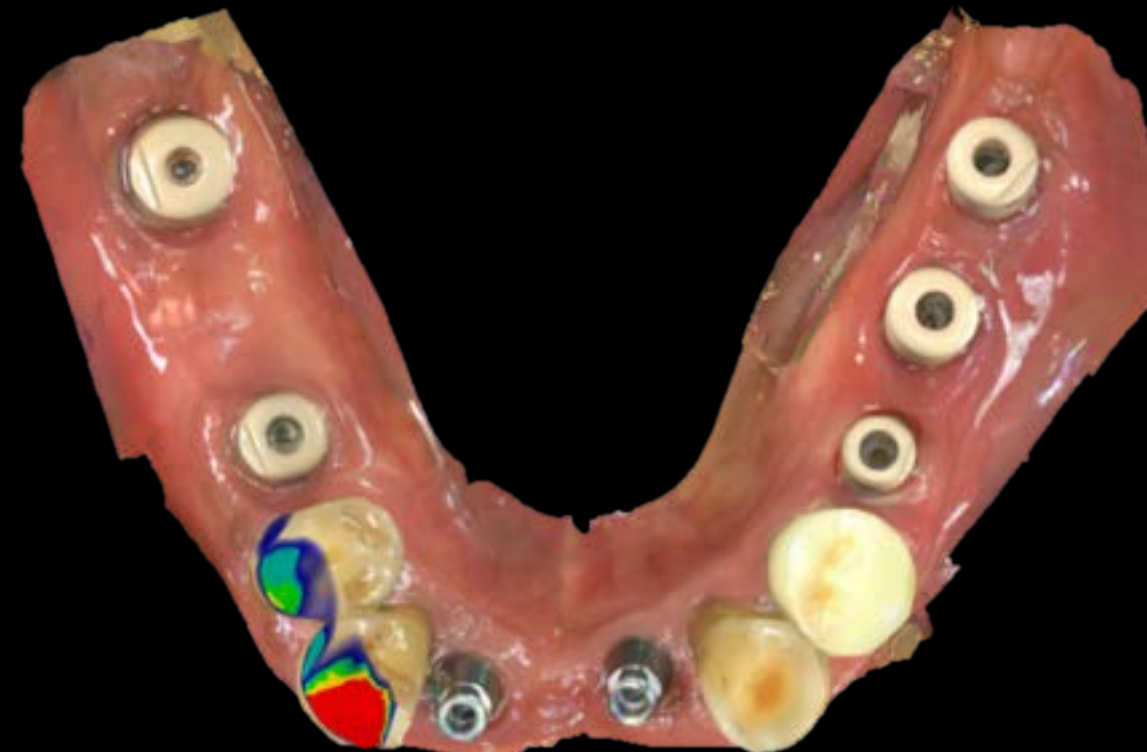
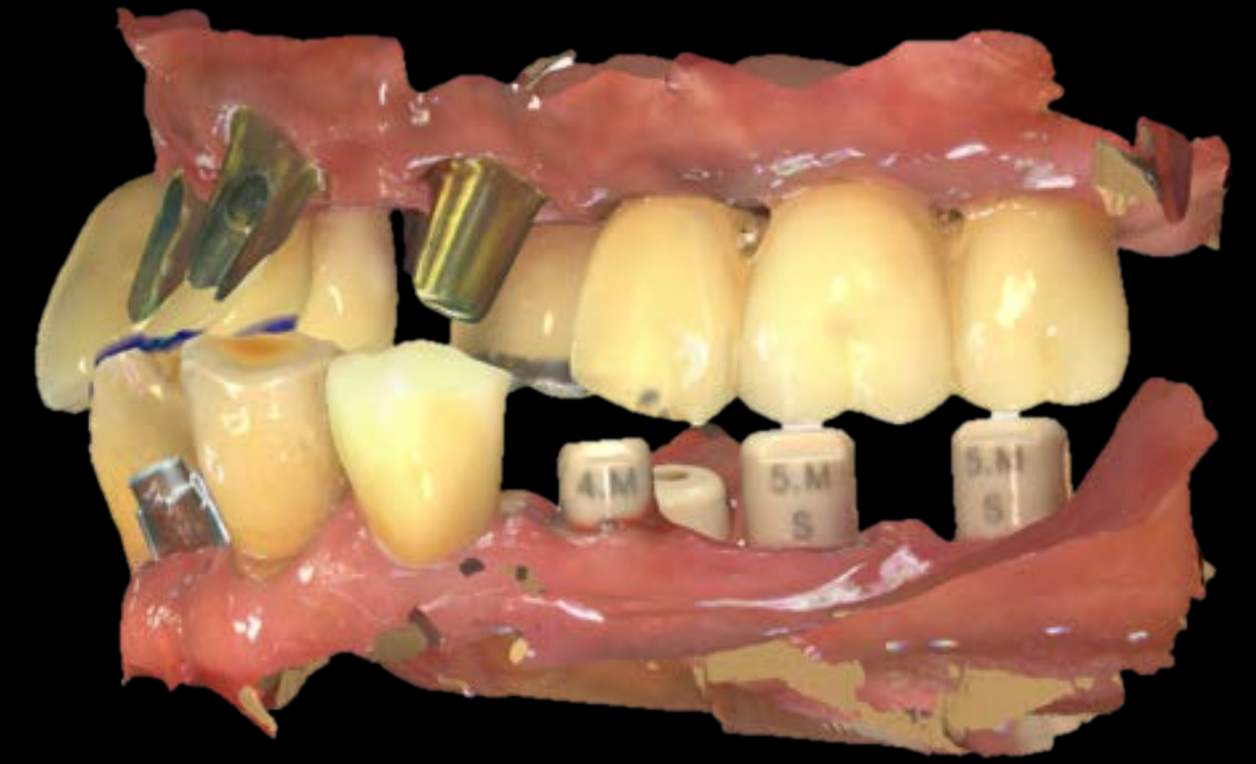
Shear bond strength to various substrates



Impression for Final prosthesis



Intra oral scan (Prime scan)

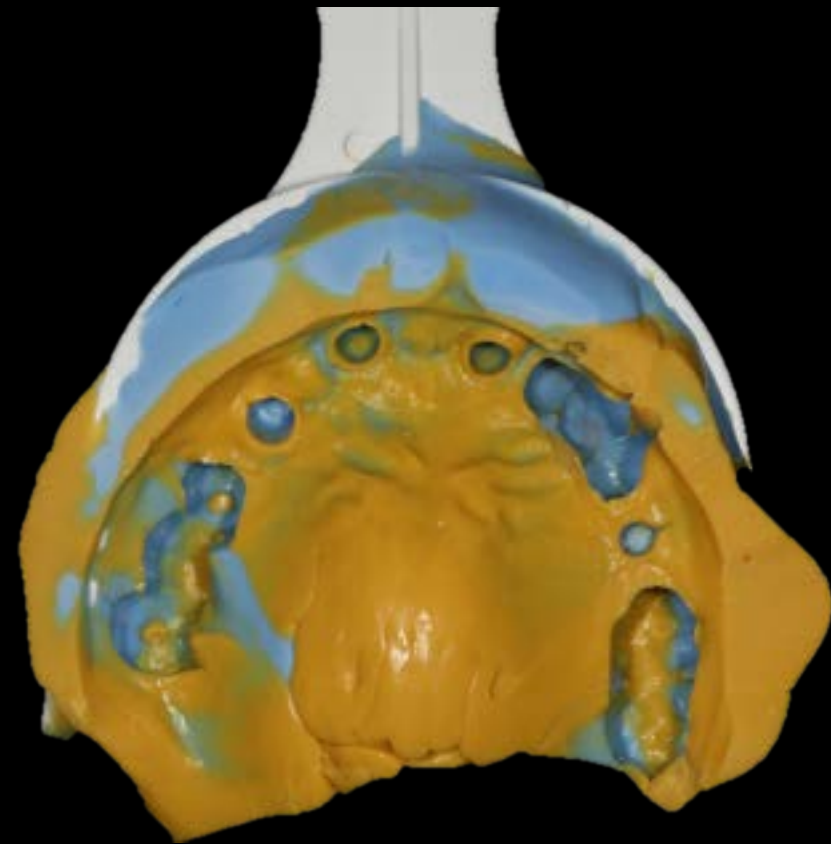


Bite impression scan (edge scanner)

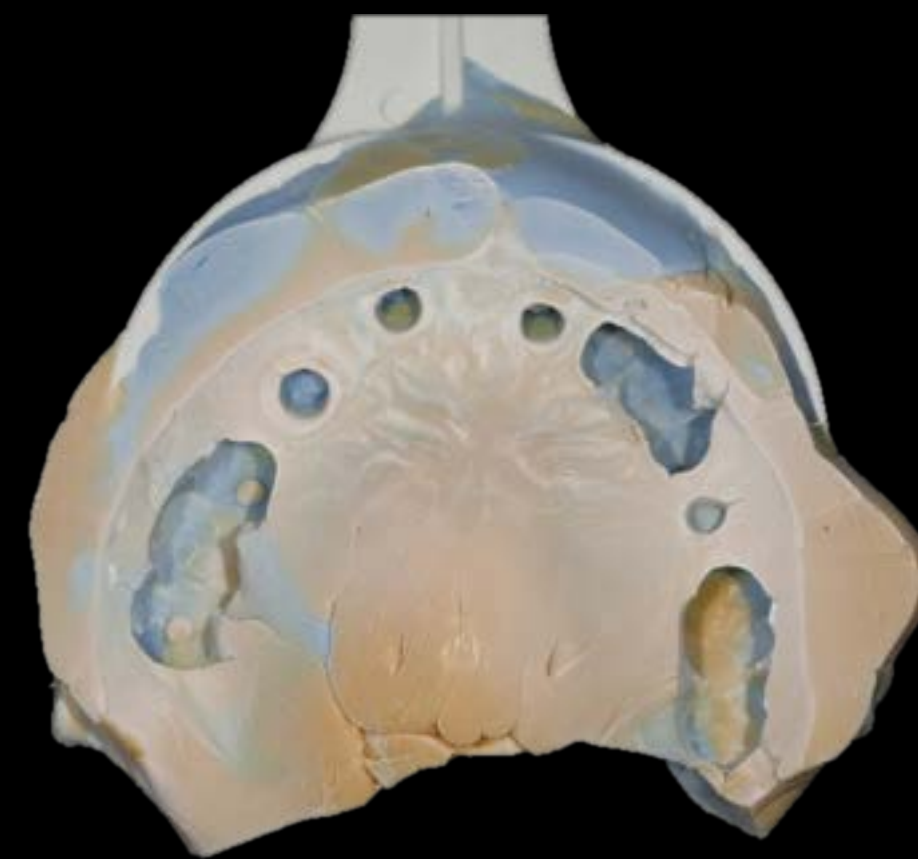
Impression



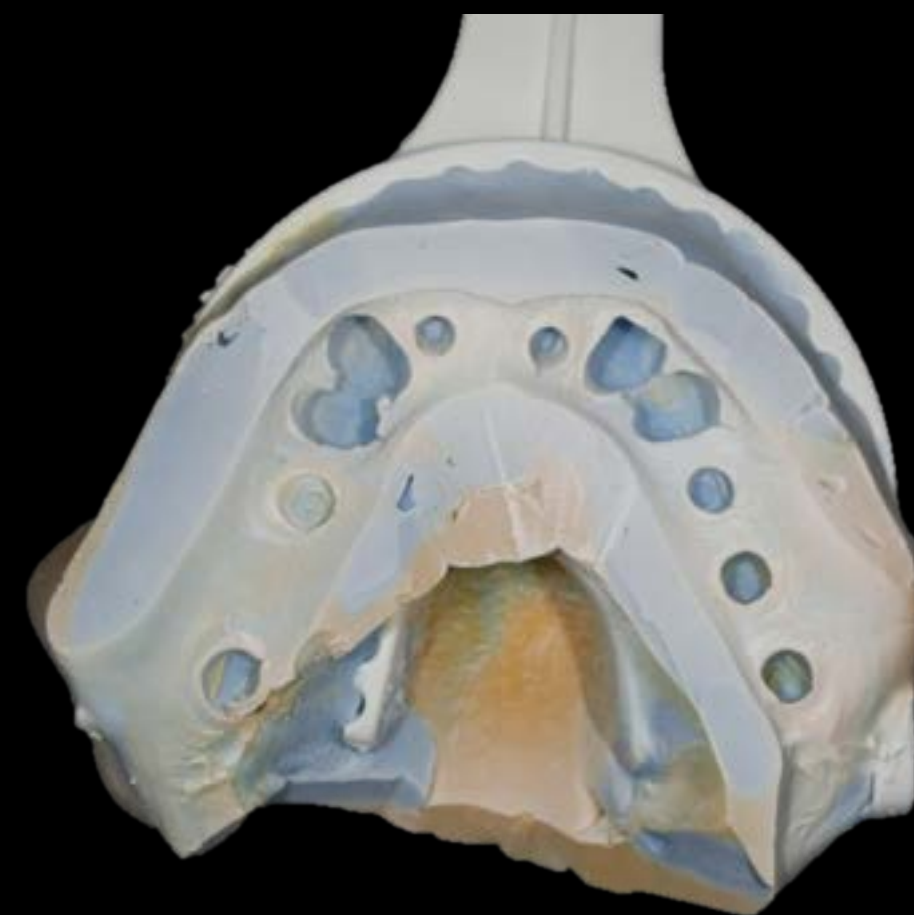
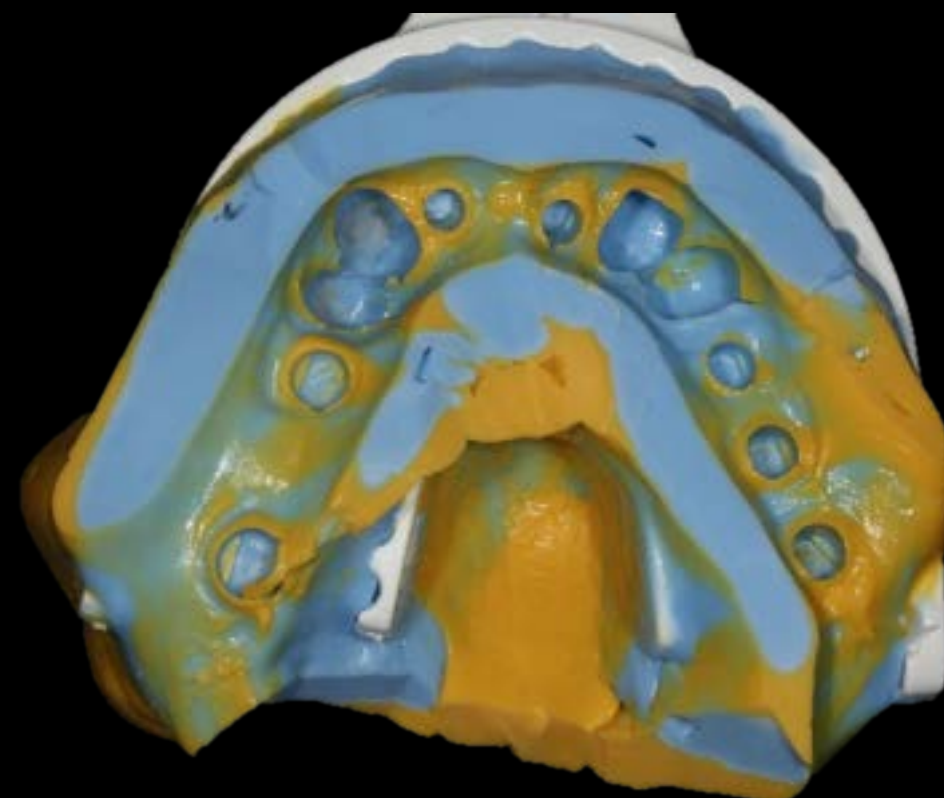
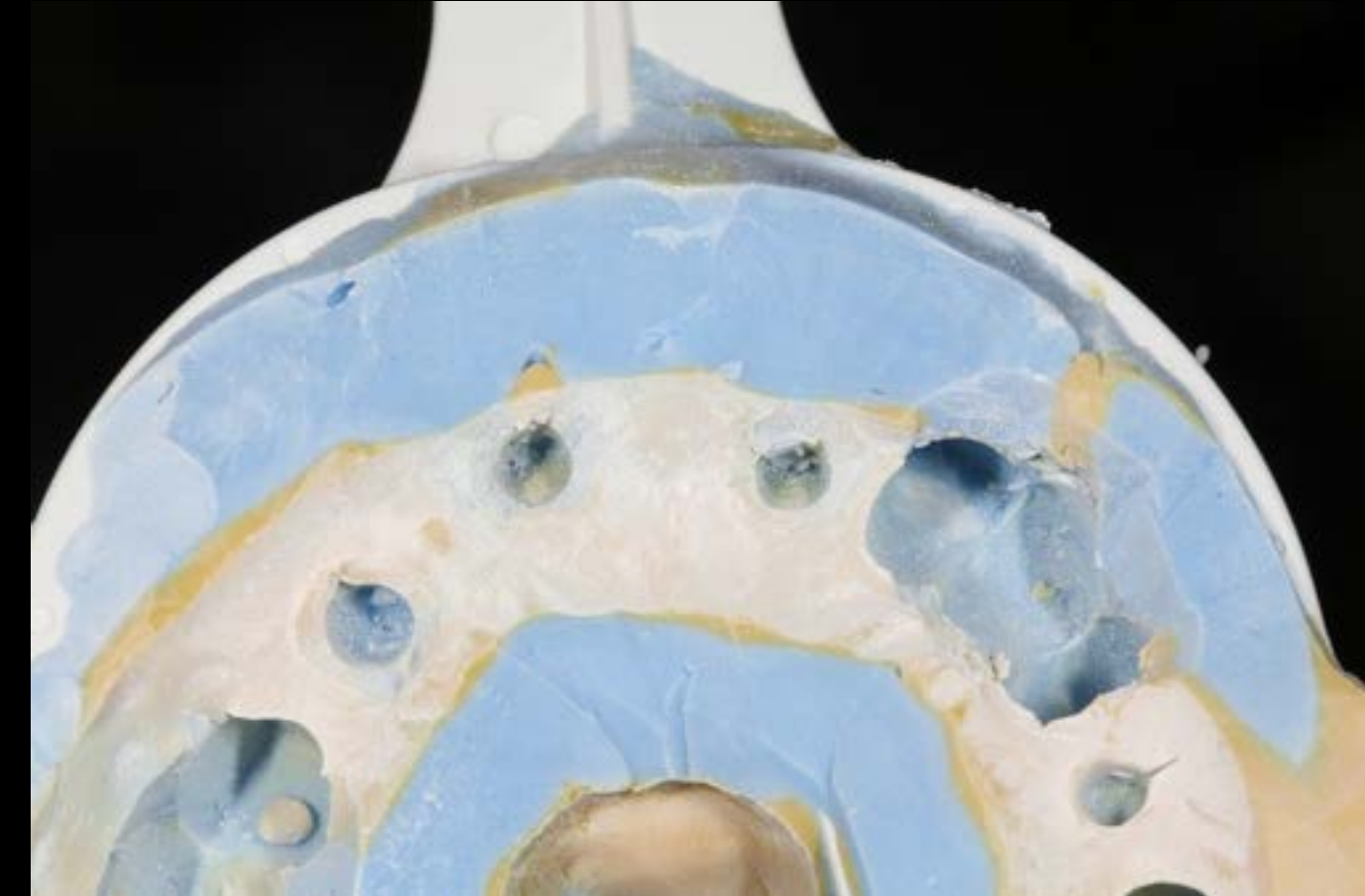
Trimming



Scan spray

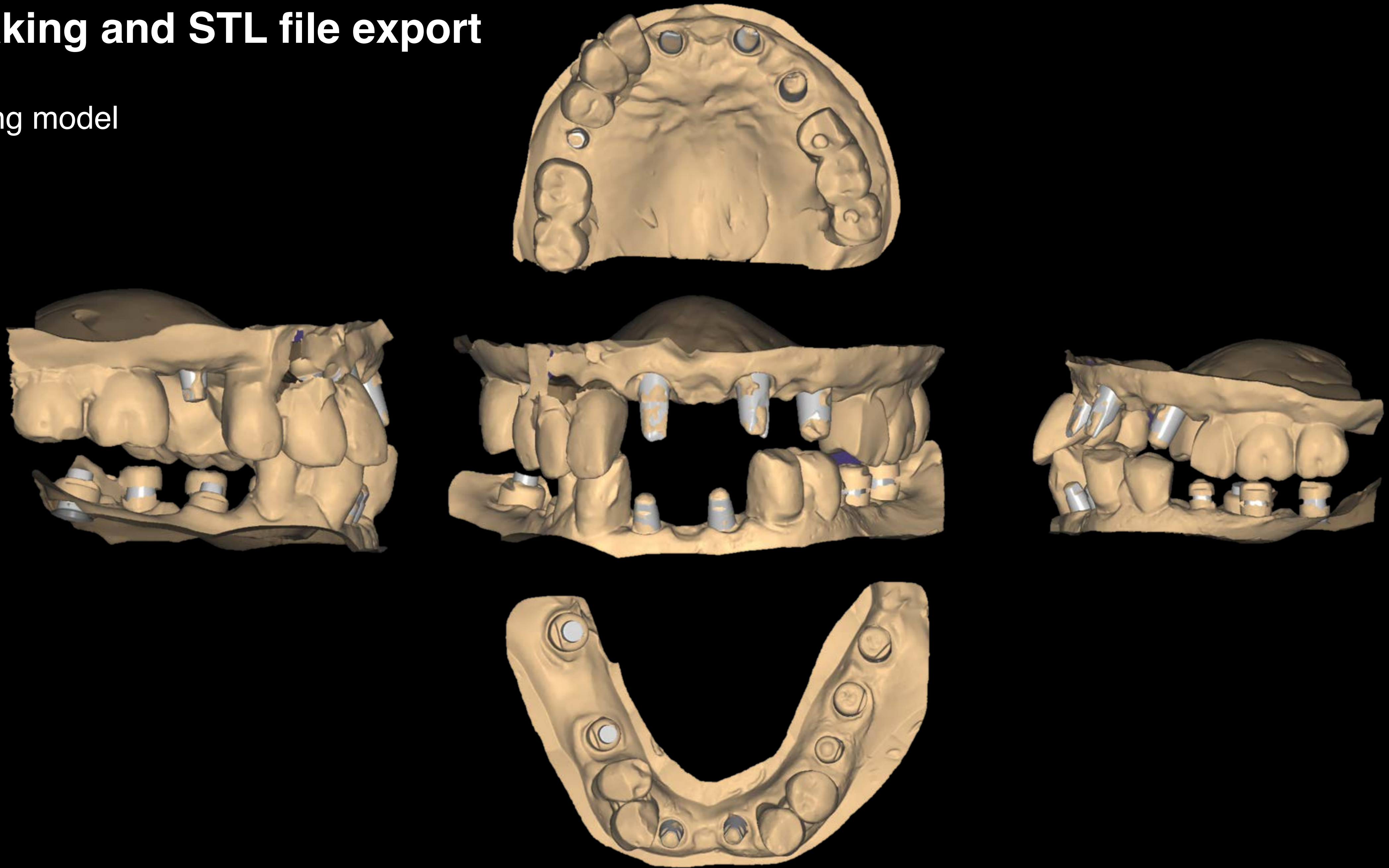


Double scan

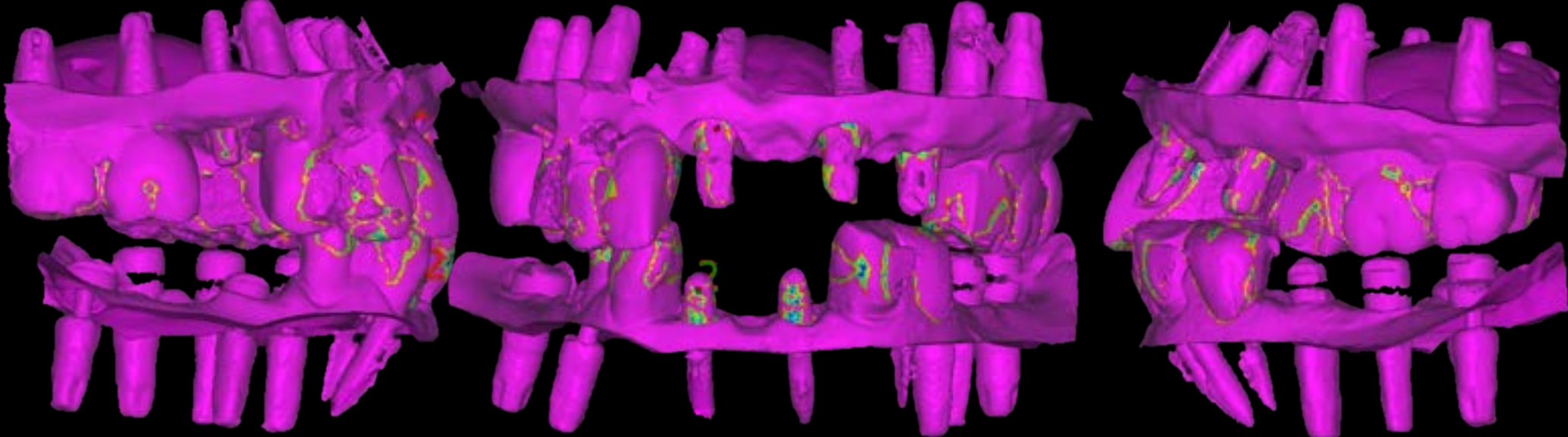
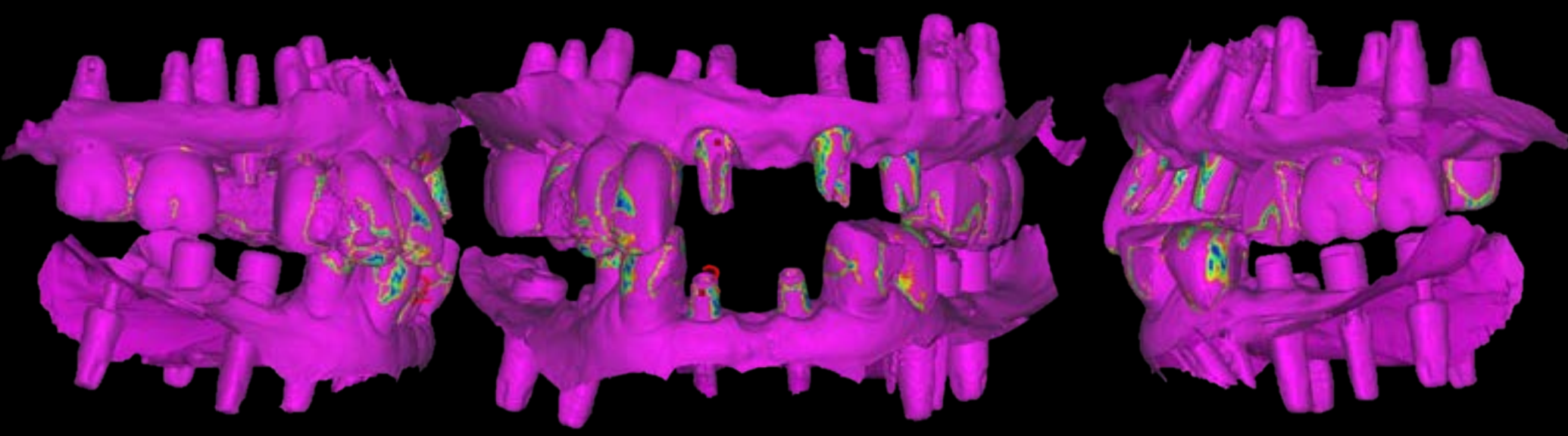
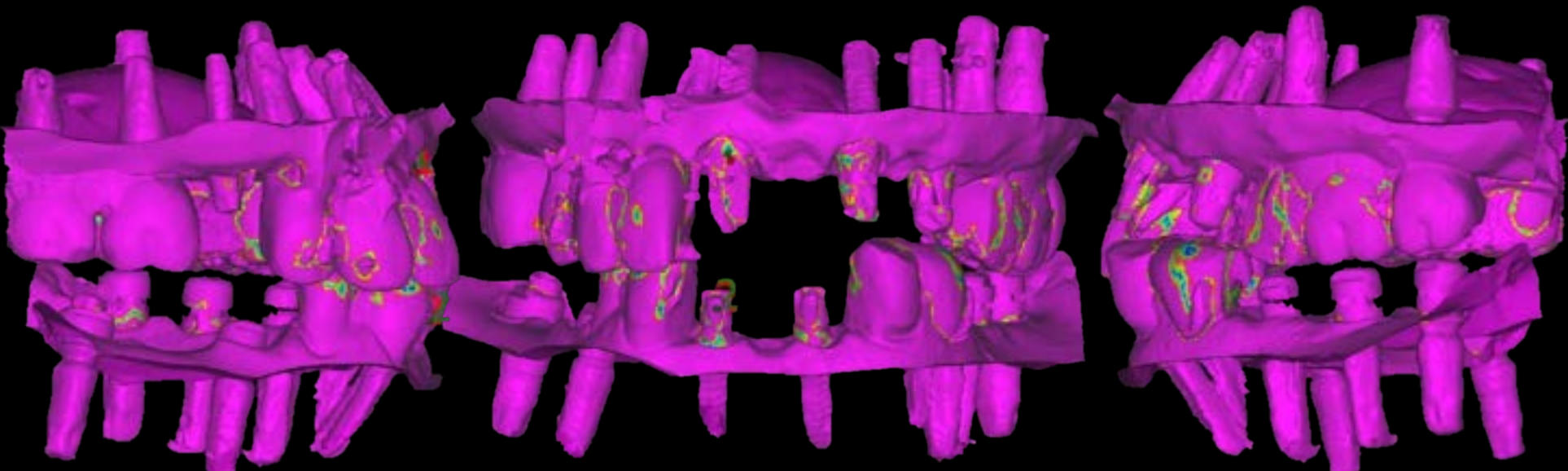
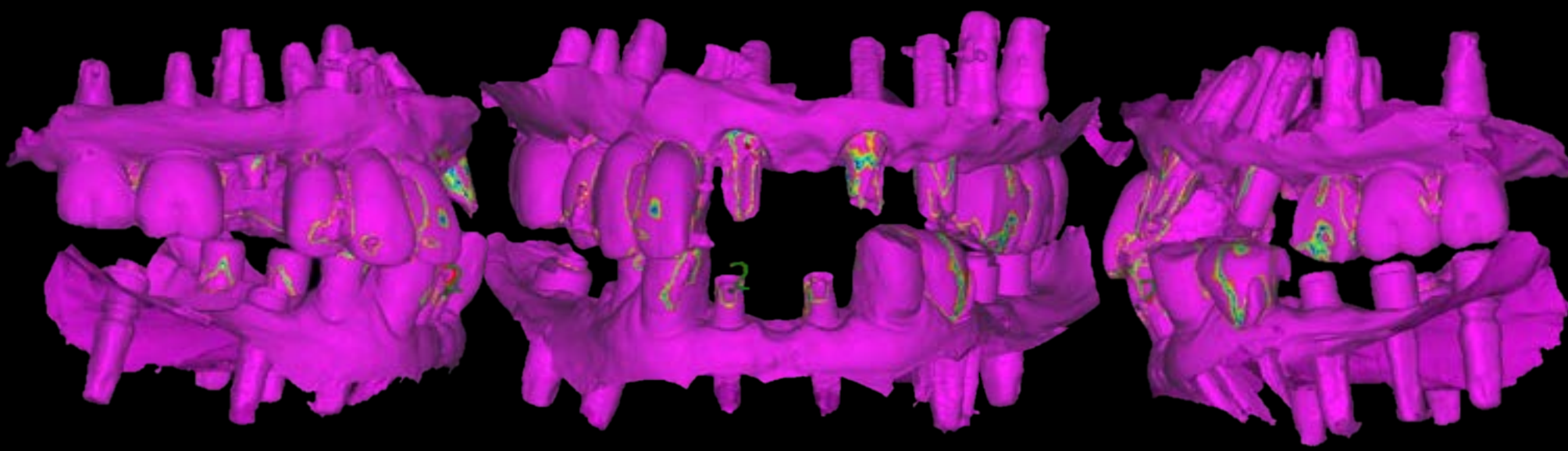


CT taking and STL file export

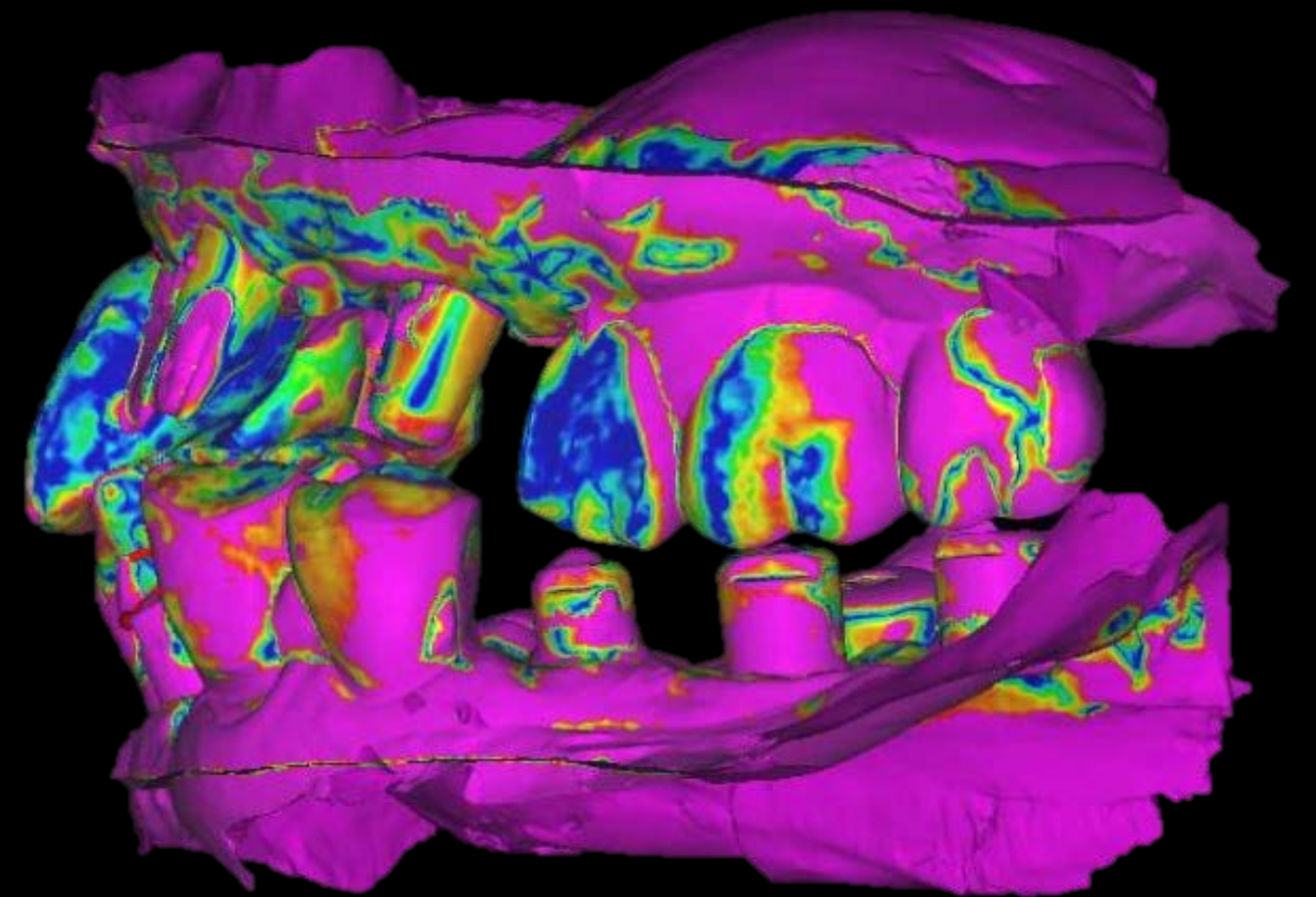
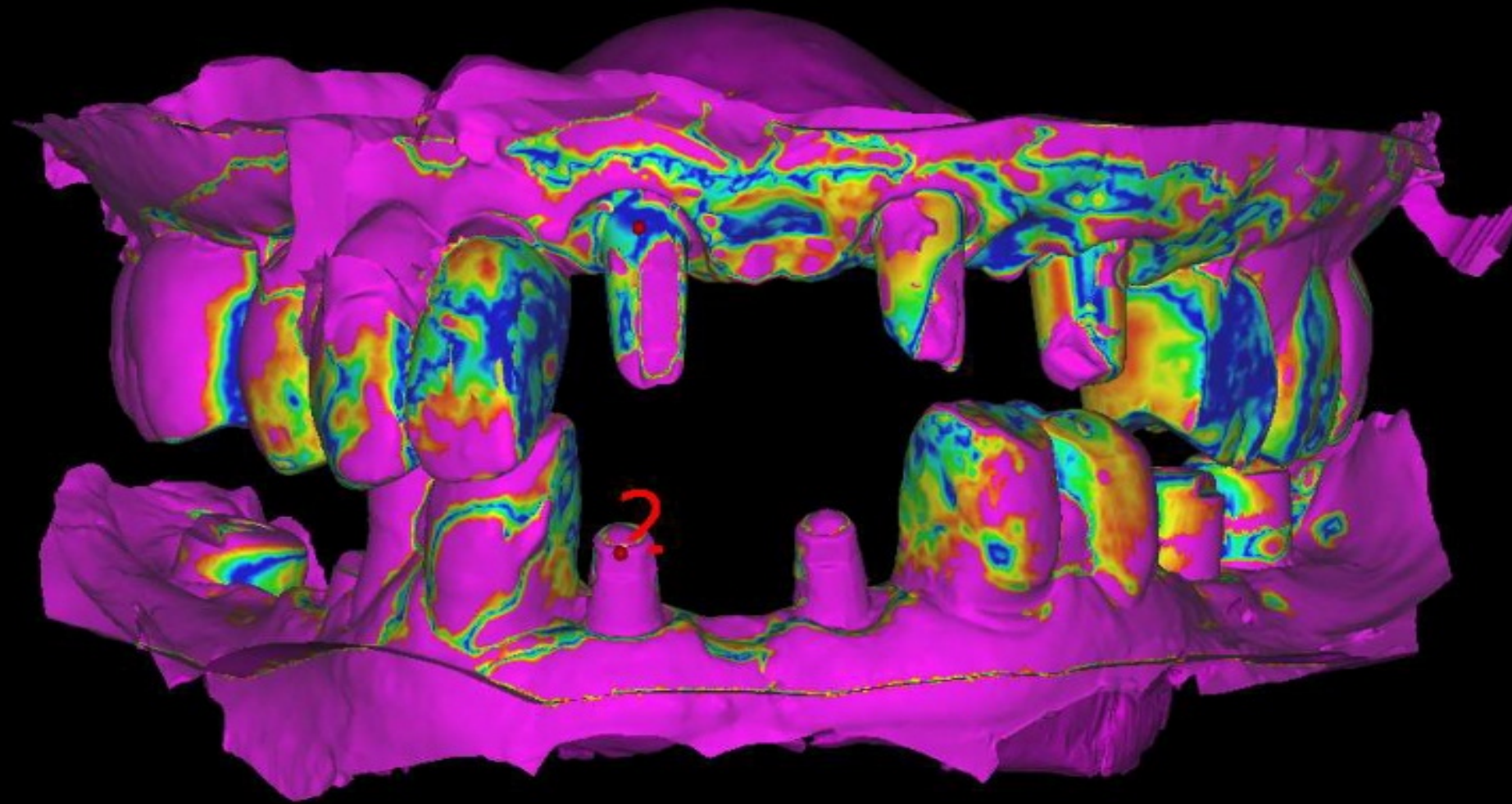
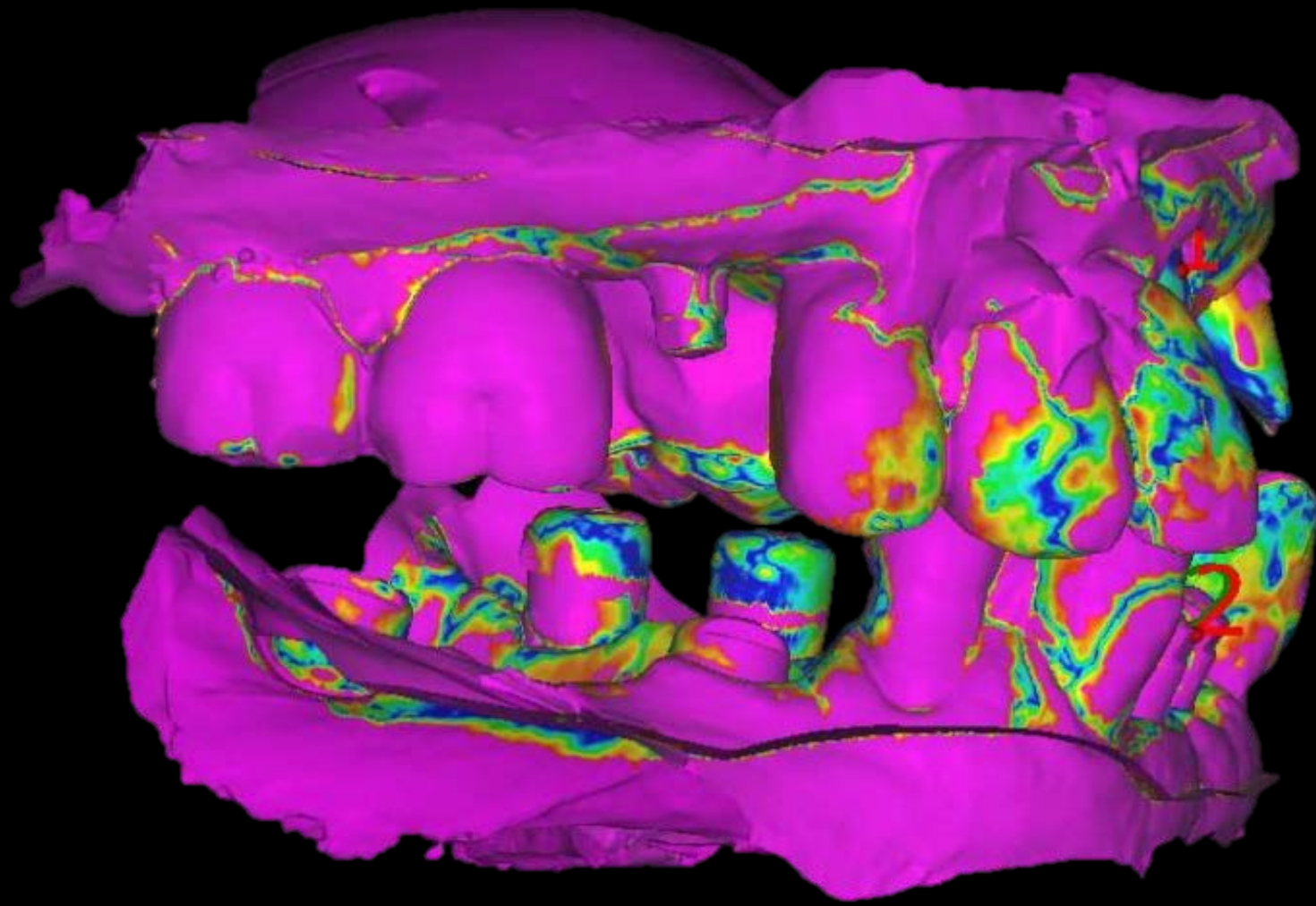
Working model



Stitching result

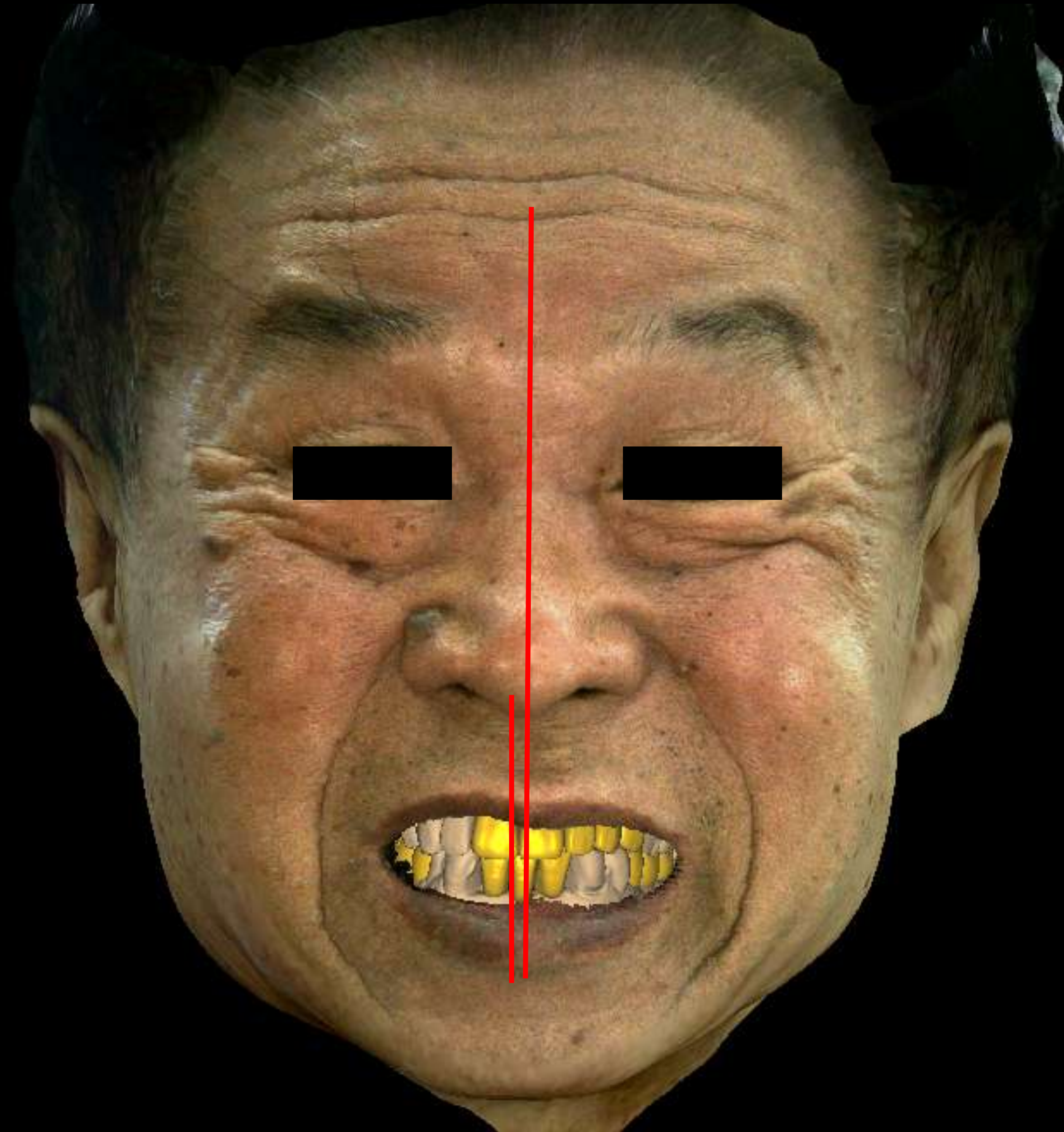
	BTS (Bite impression Scan)	IOS (Intra Oral Scan)
CT Putty index bite		
	Without temporary crown	
CT Temp bite		
	With temporary crown	

Compared BTS with IOS



Stitching BTS STL & IOS STL

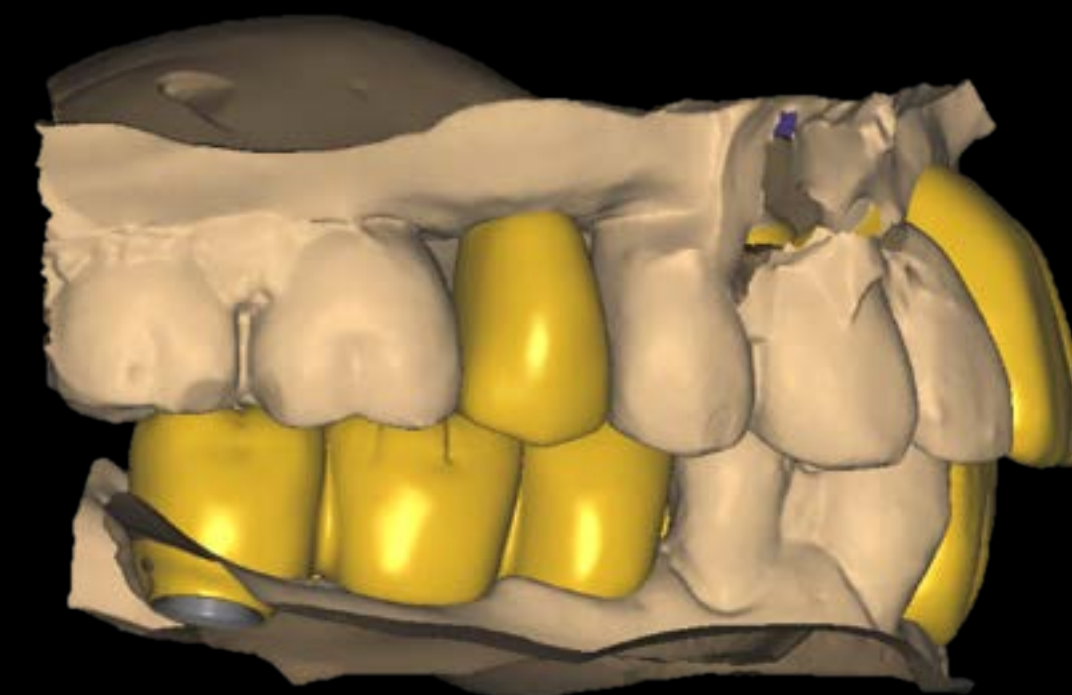
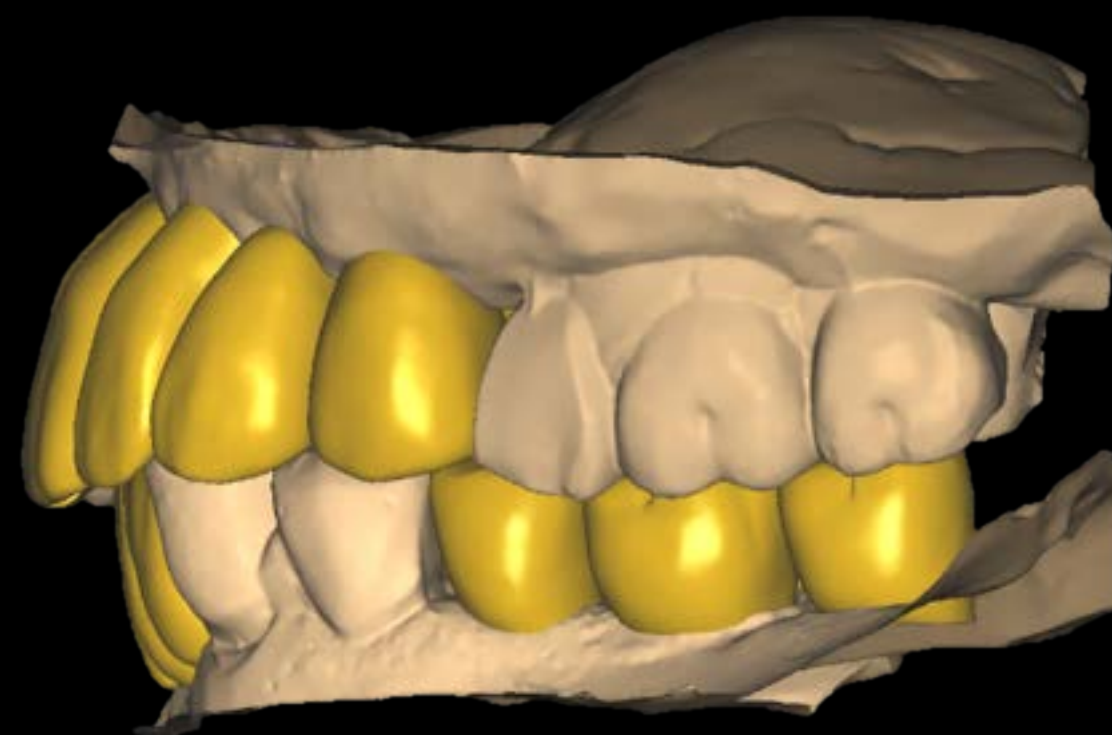
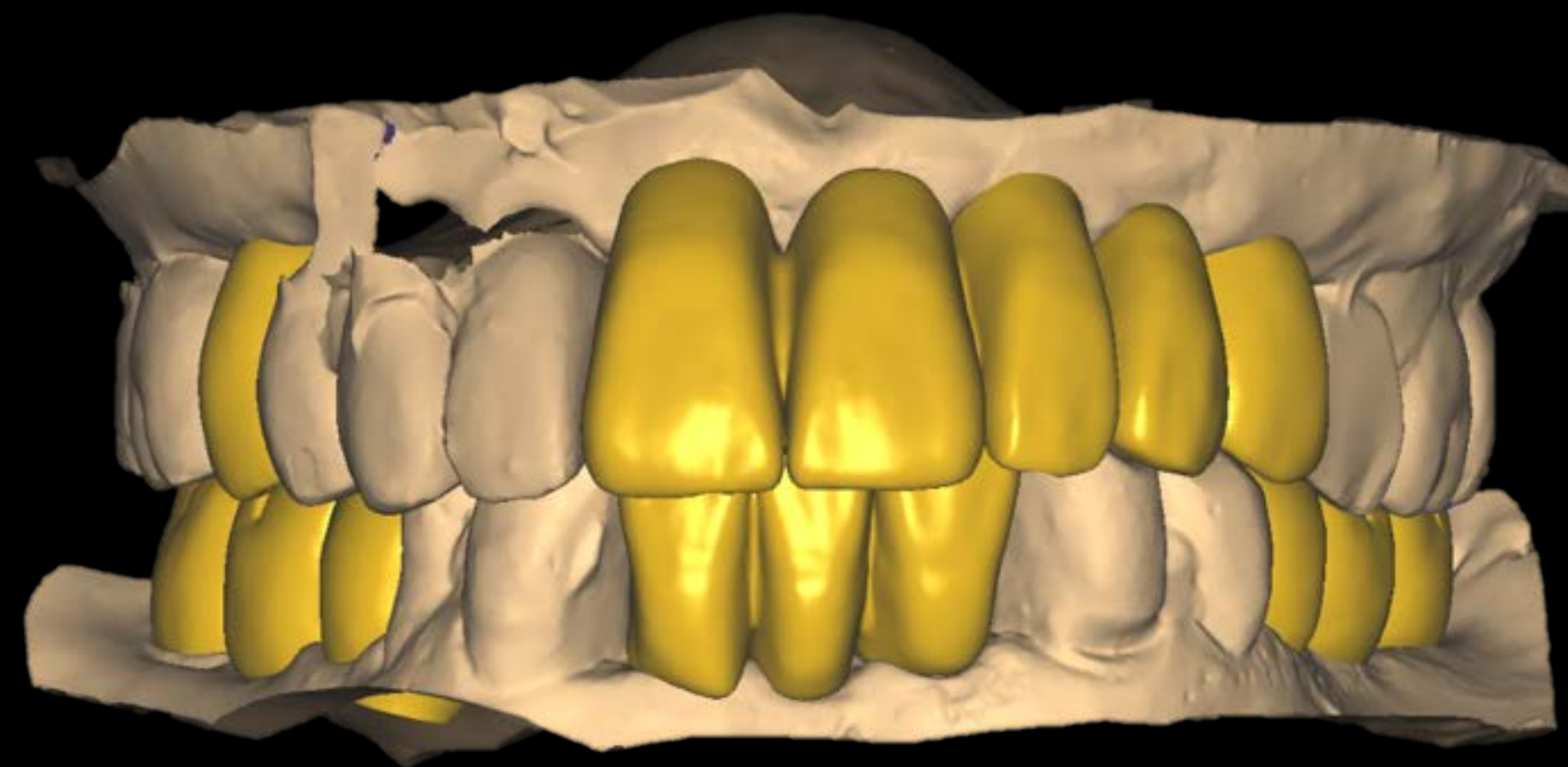
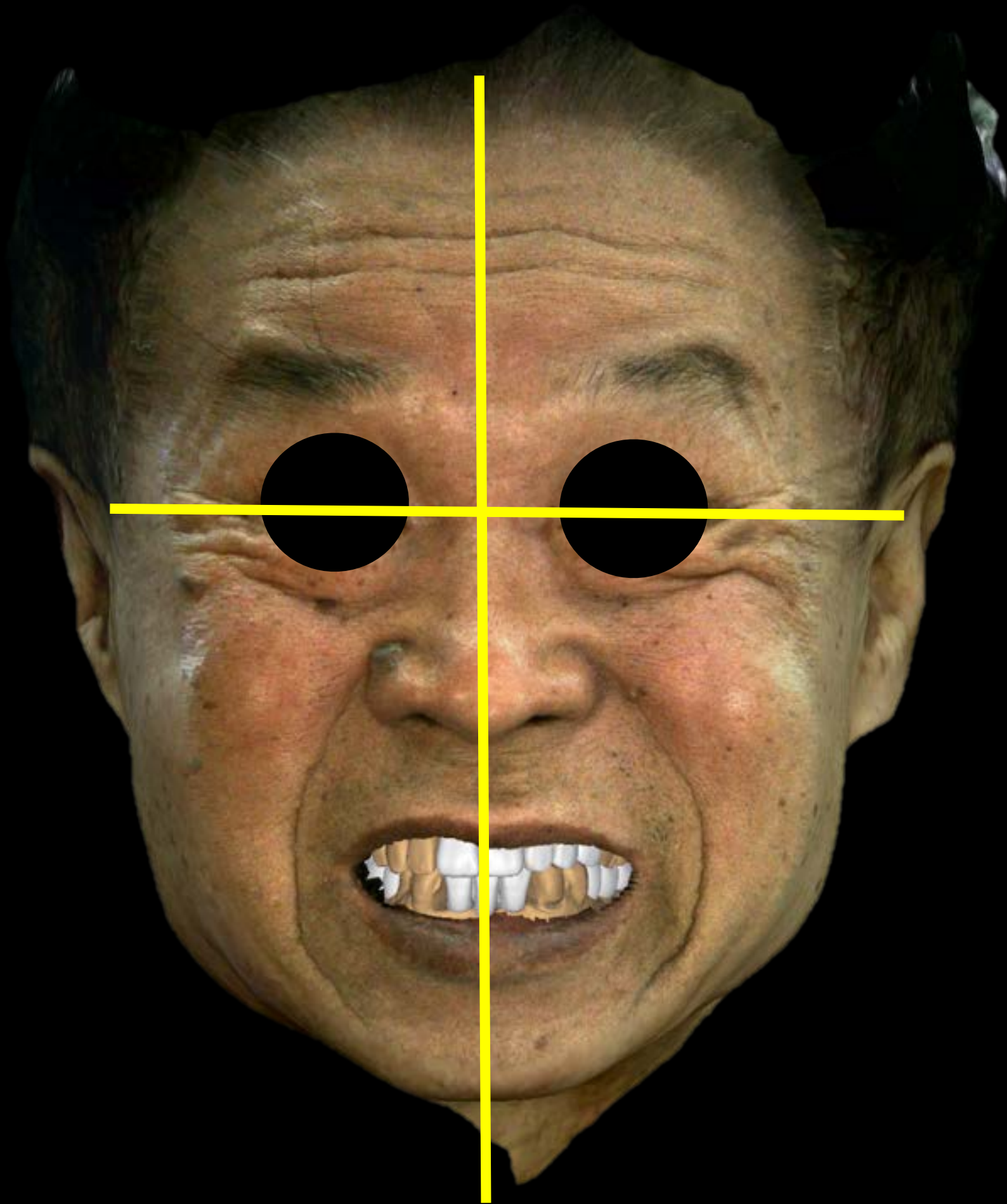
Cad Design



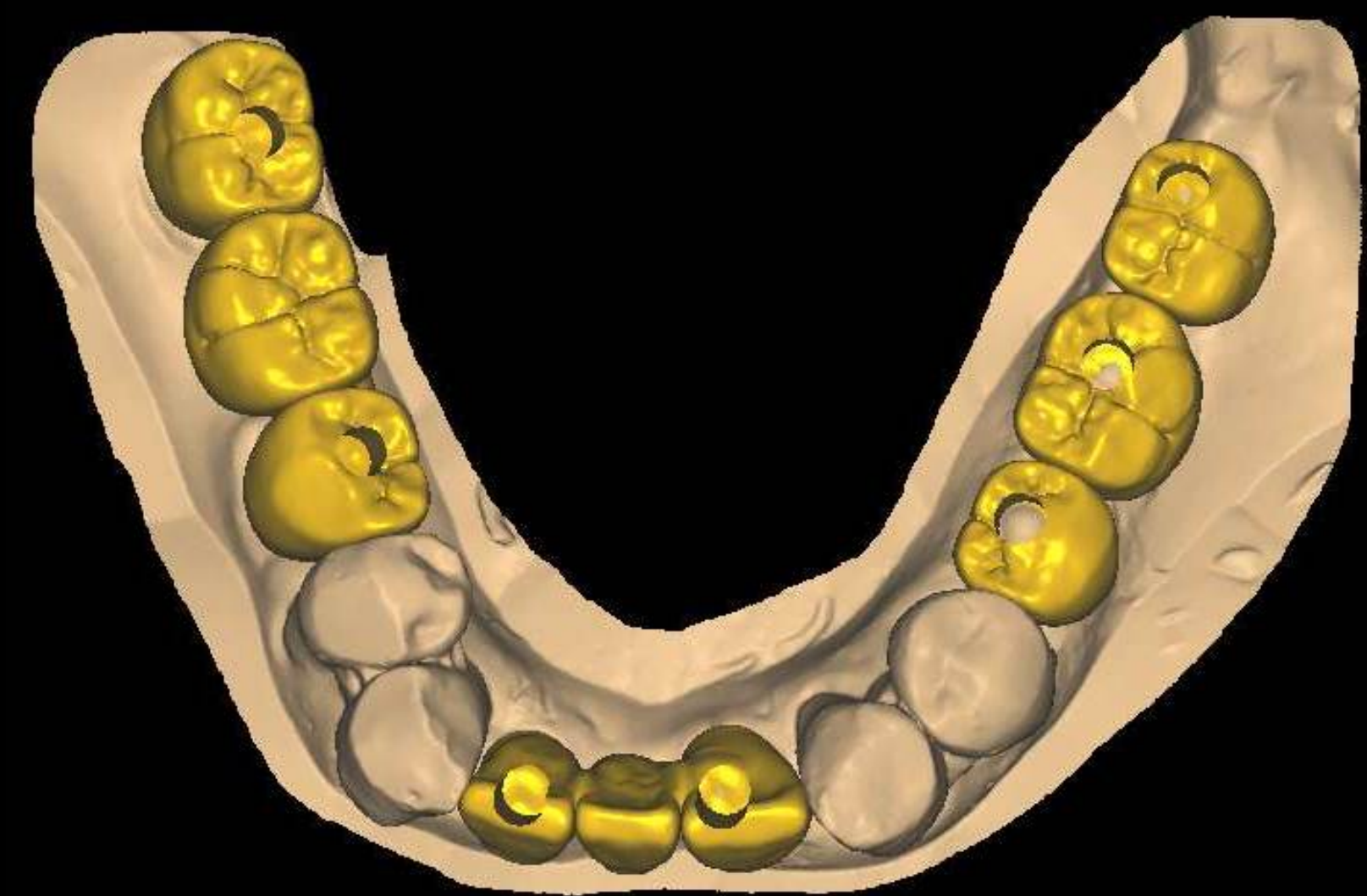
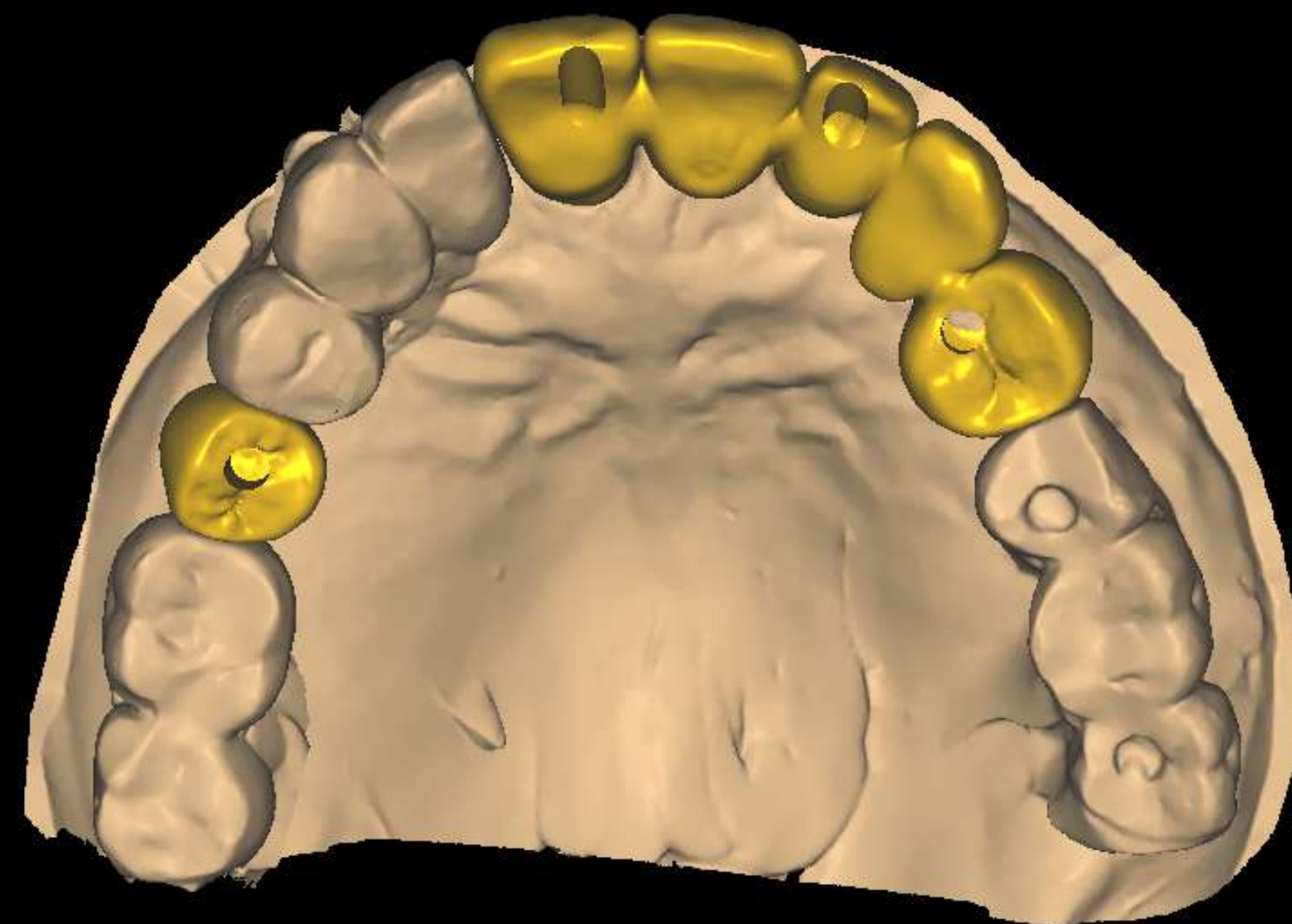
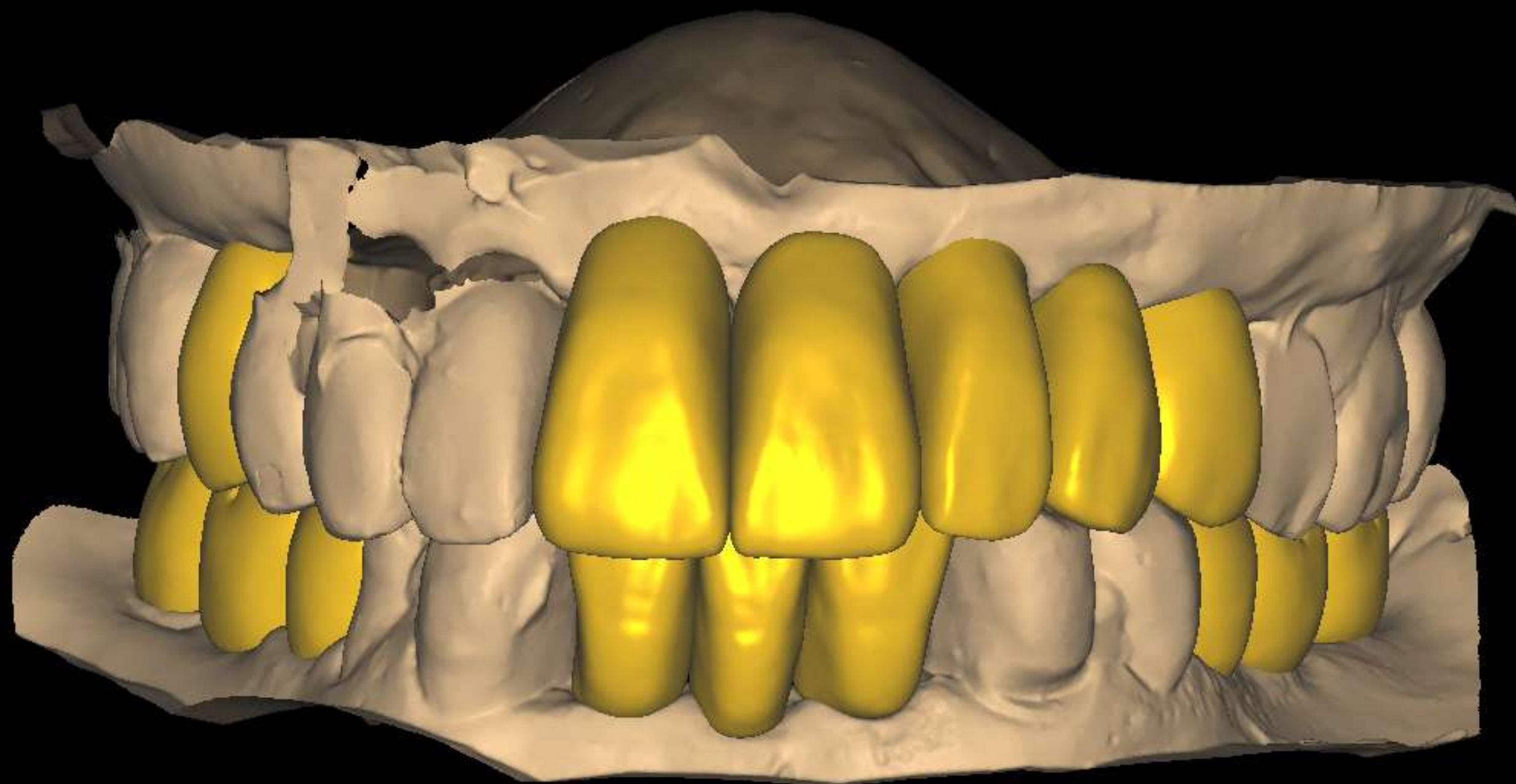
Cad Design



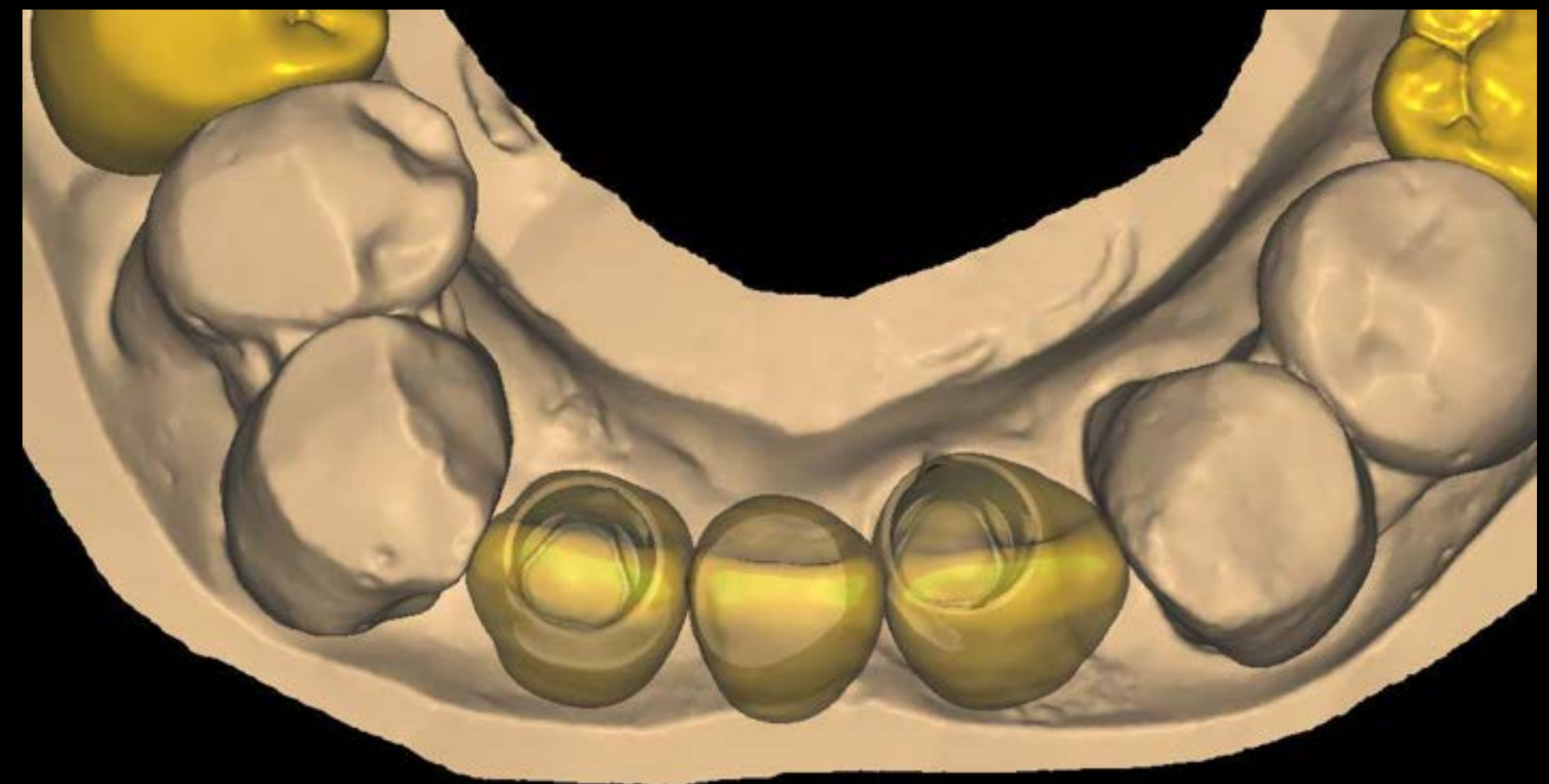
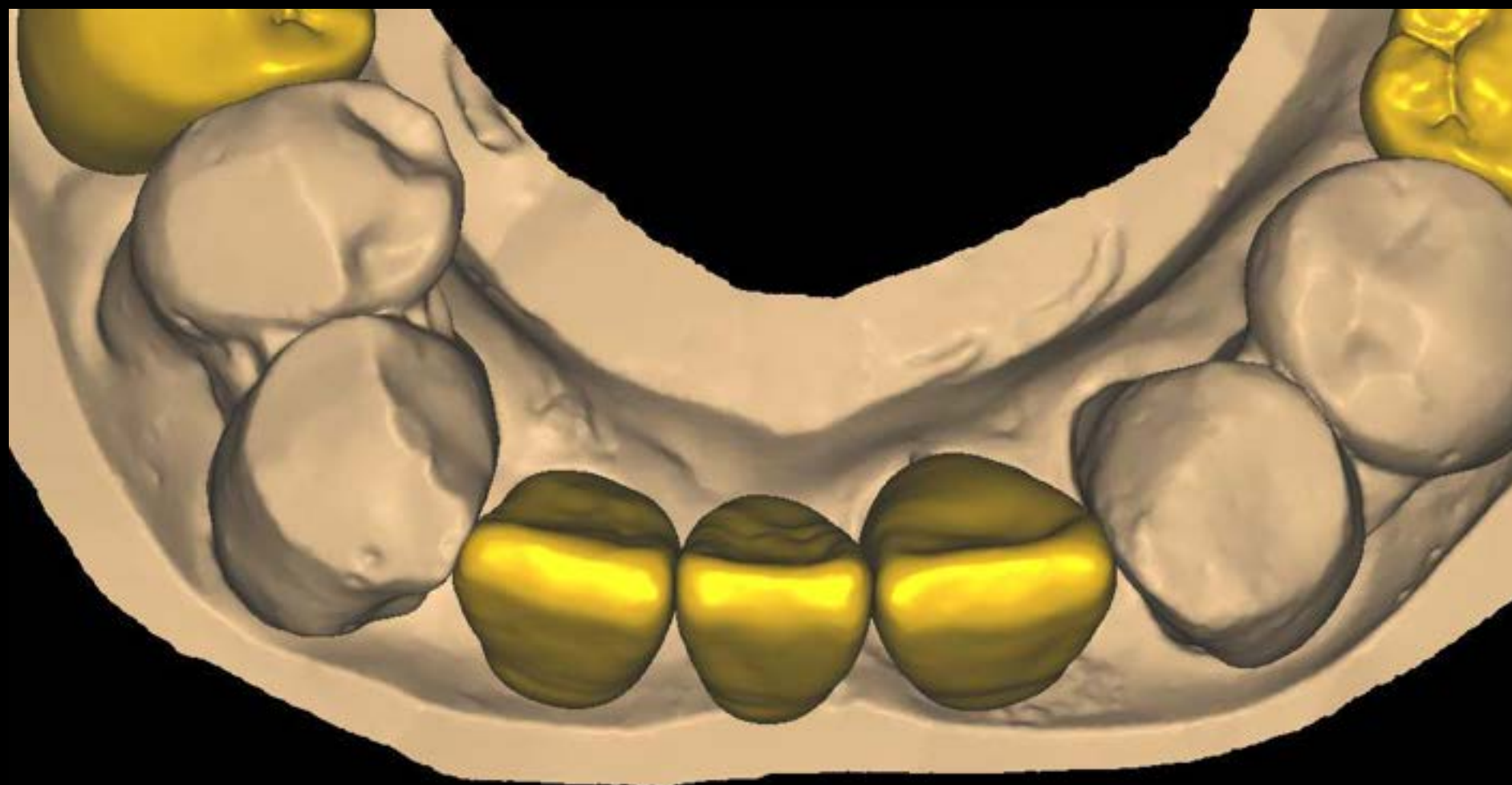
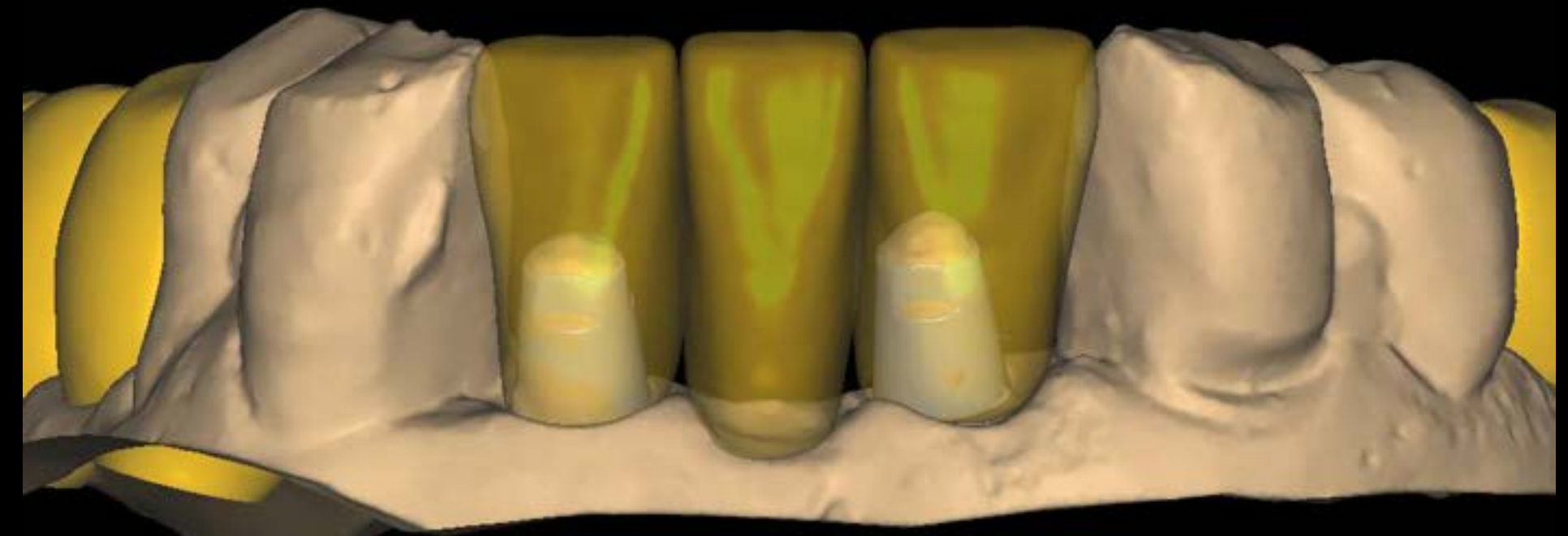
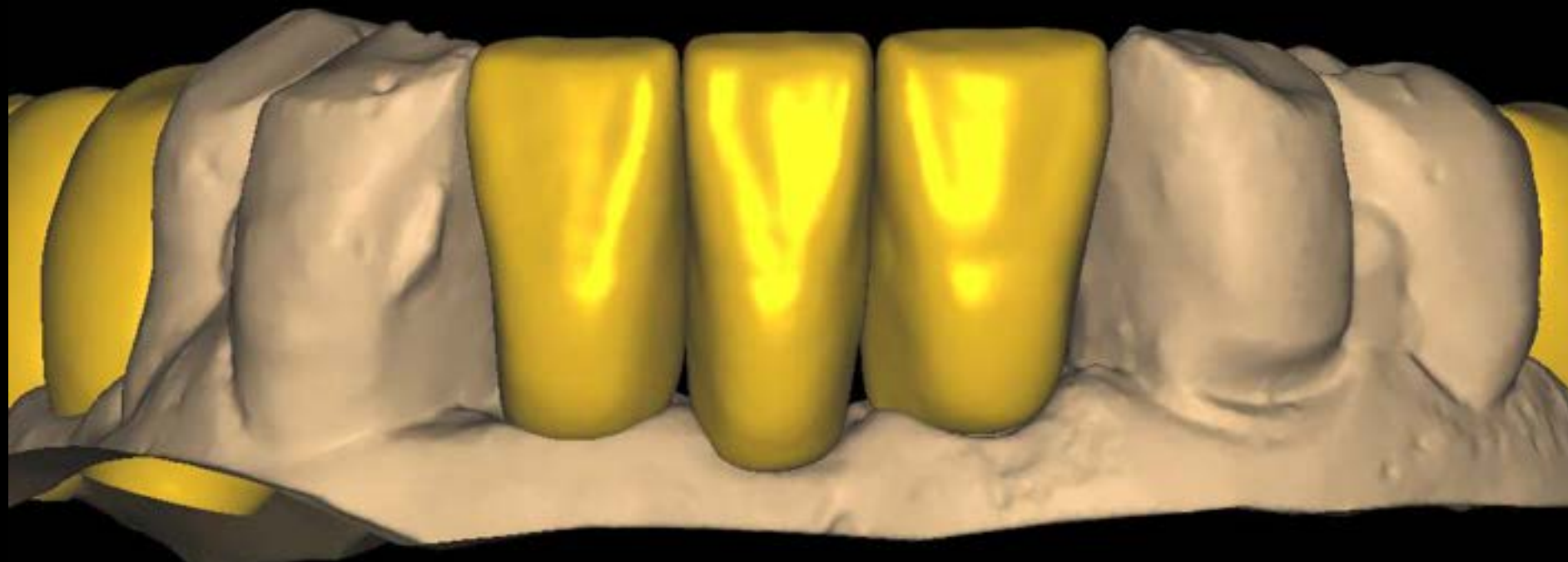
Final CAD design using BTS data



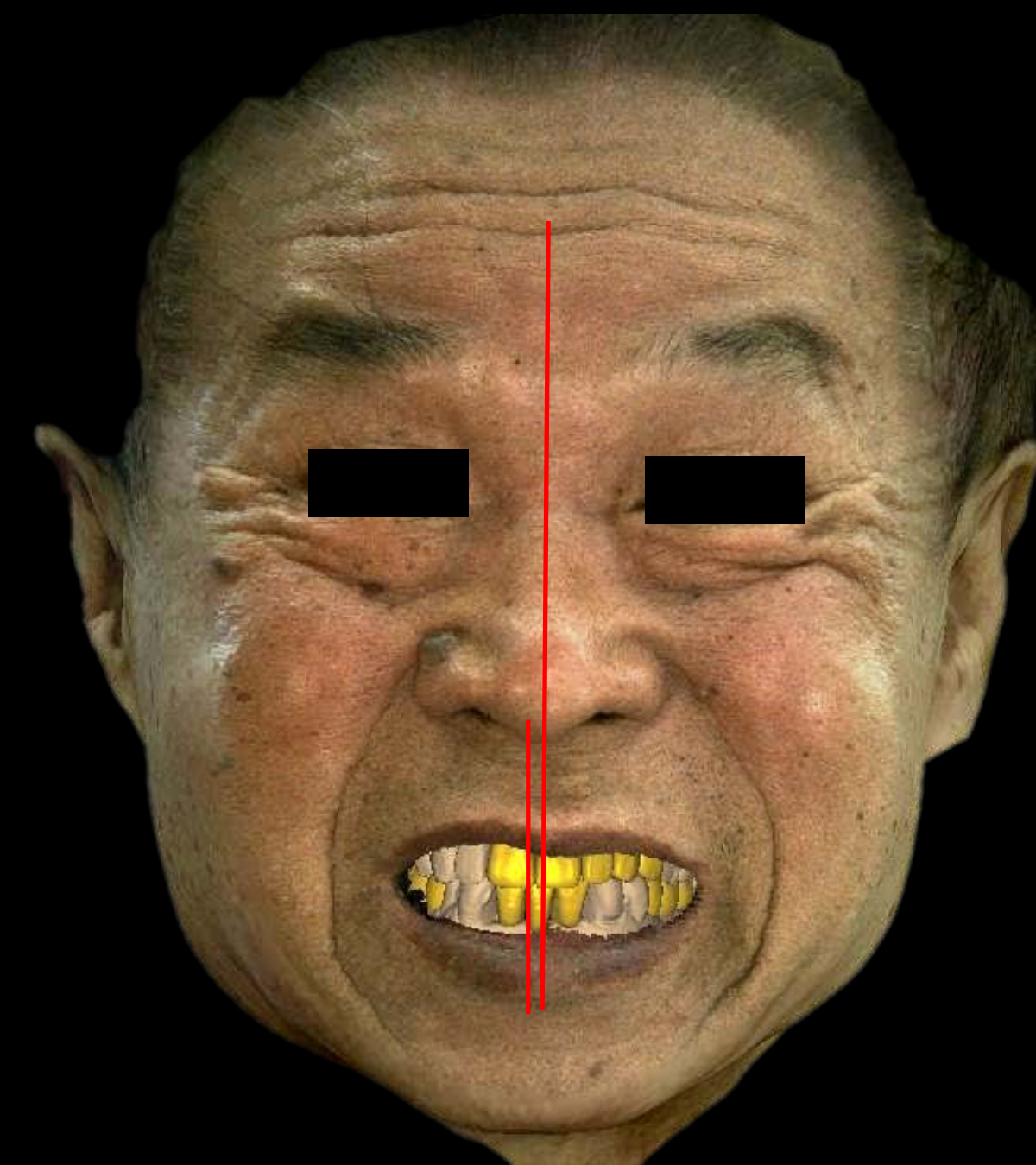
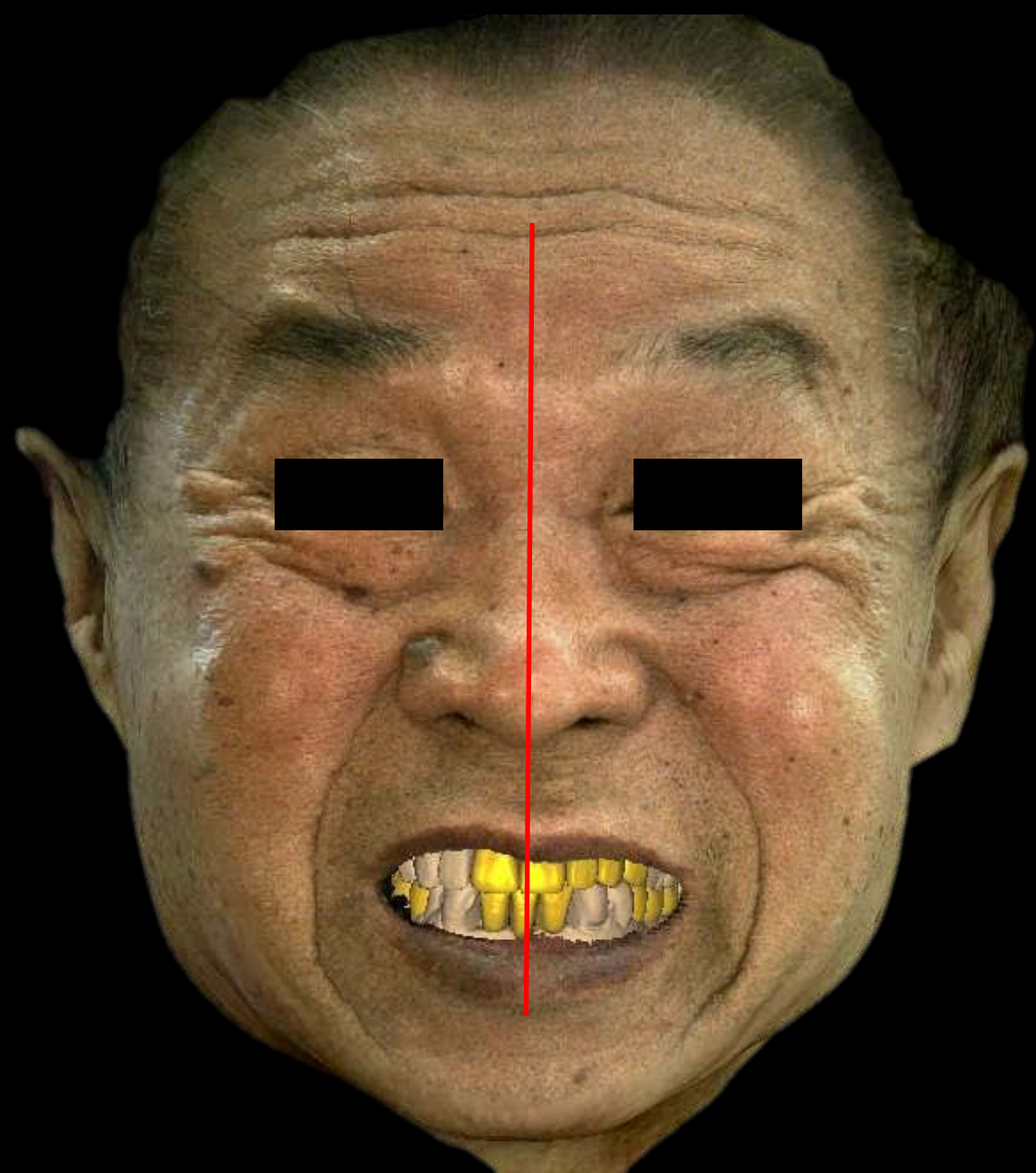
Cad Design



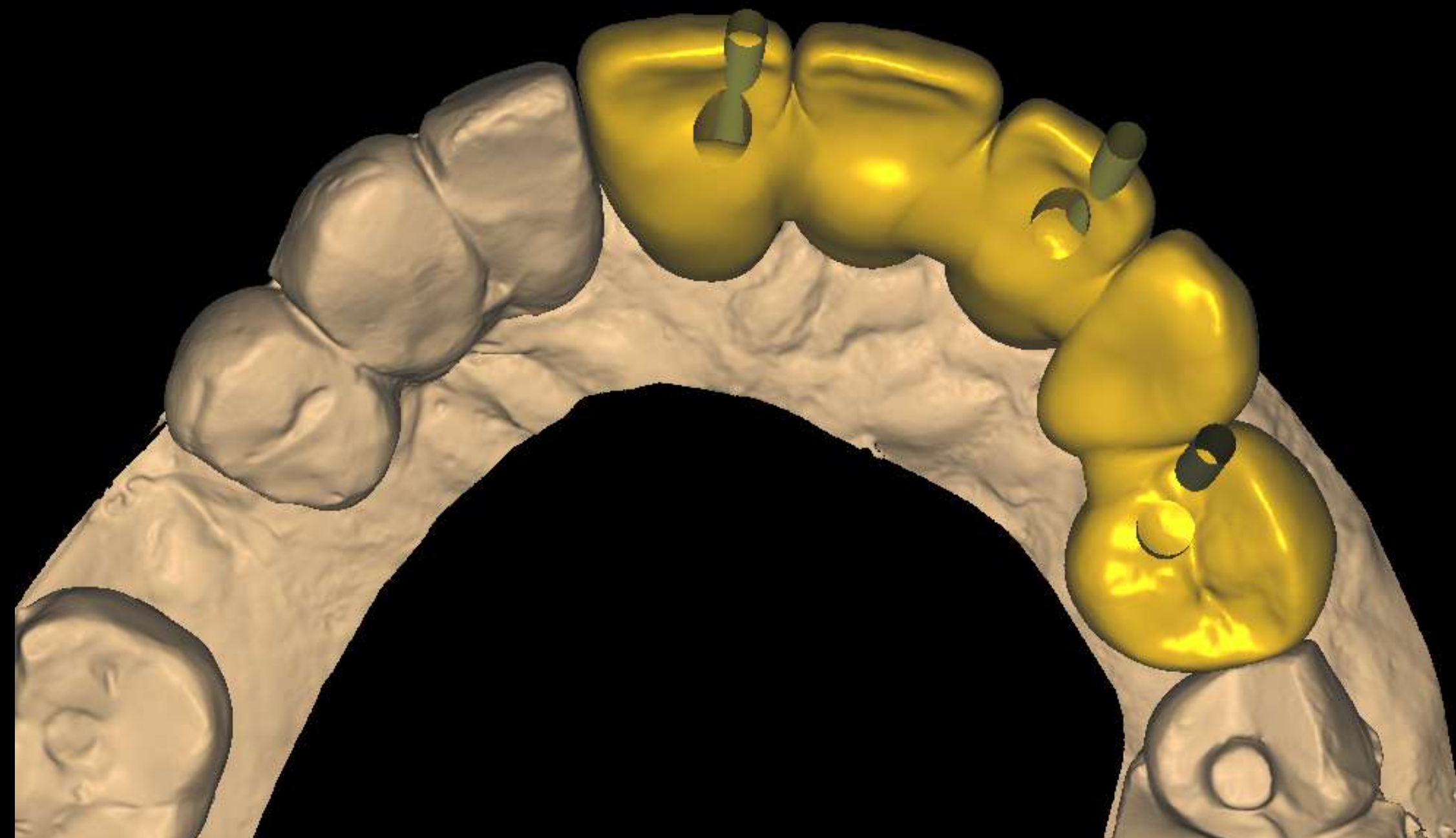
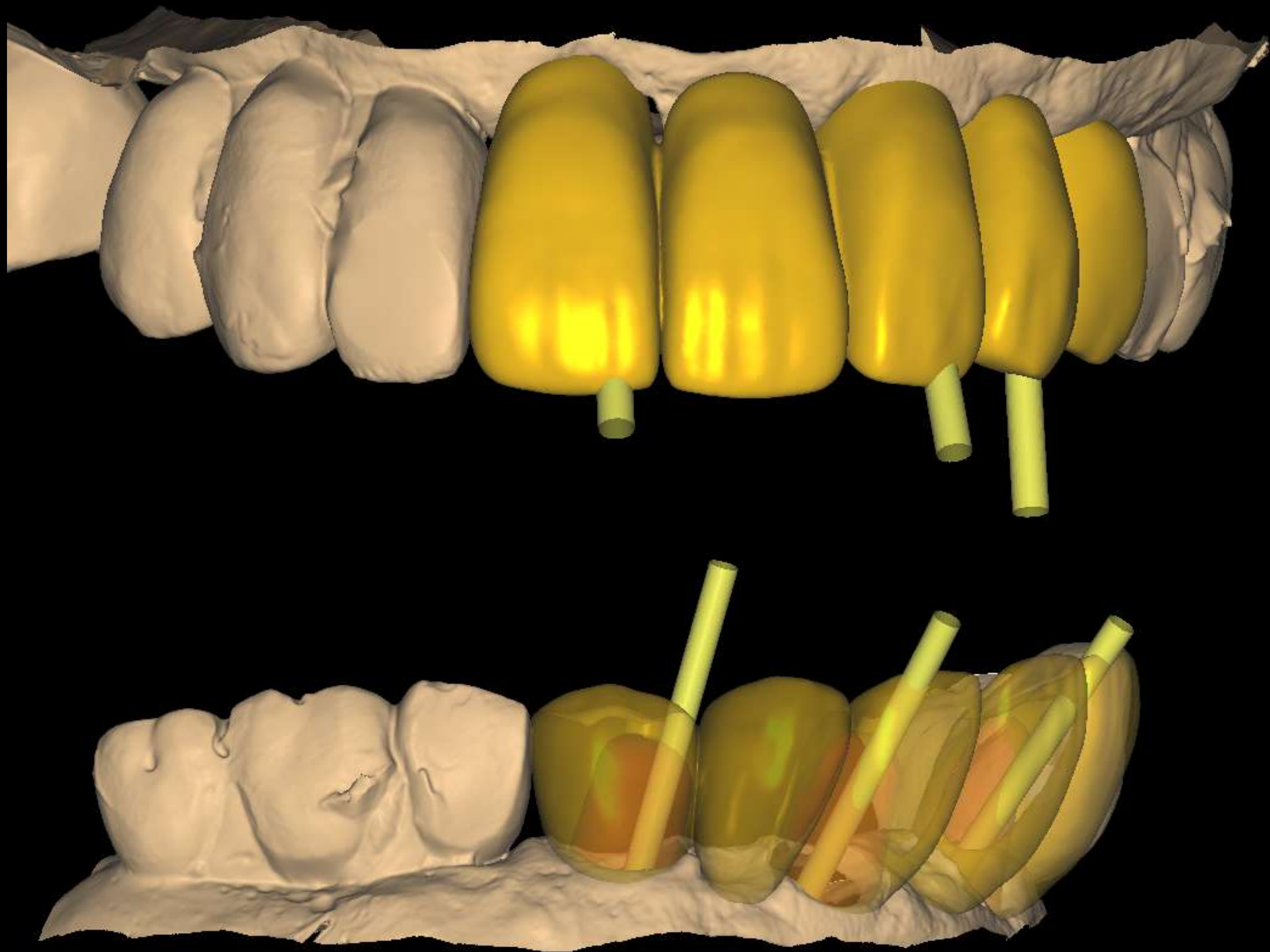
Cad Design



Cad Design

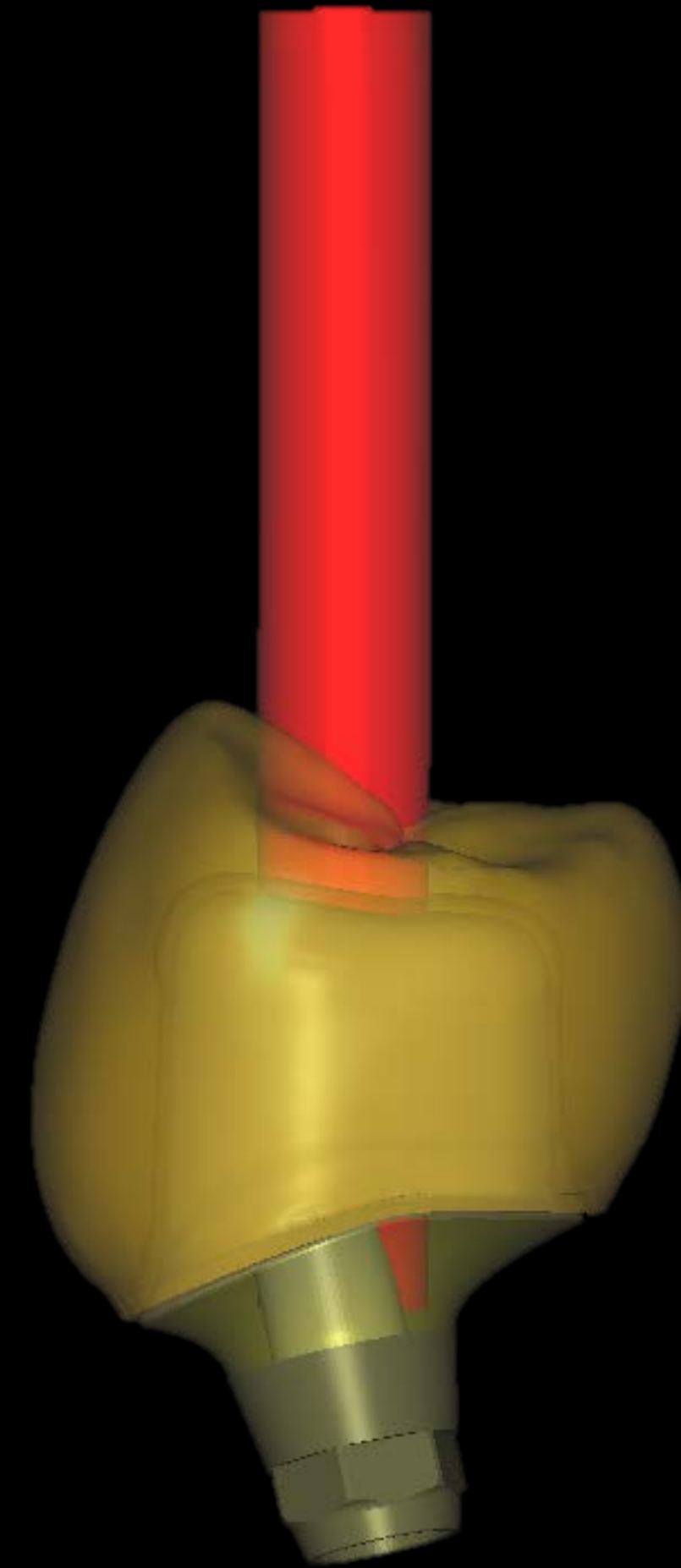
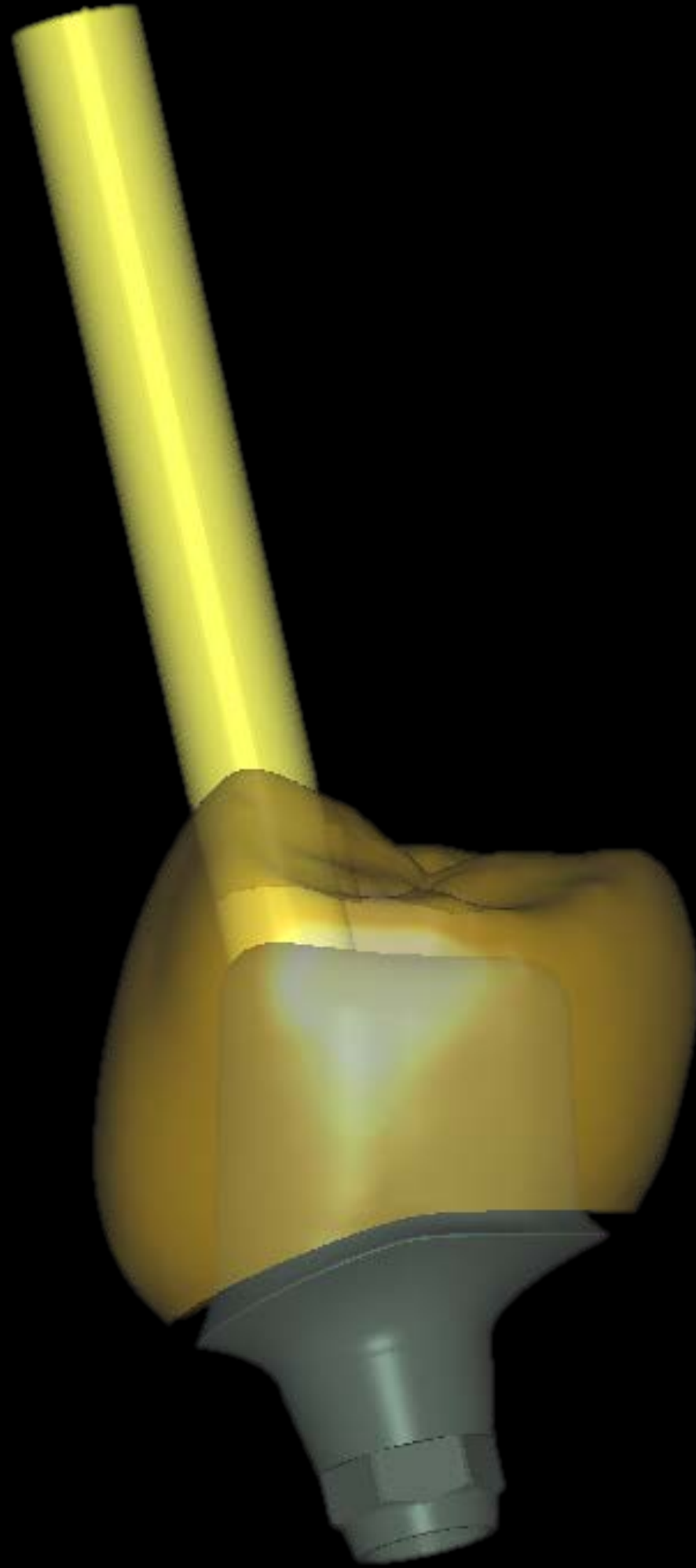


Cad Design



Cad Design

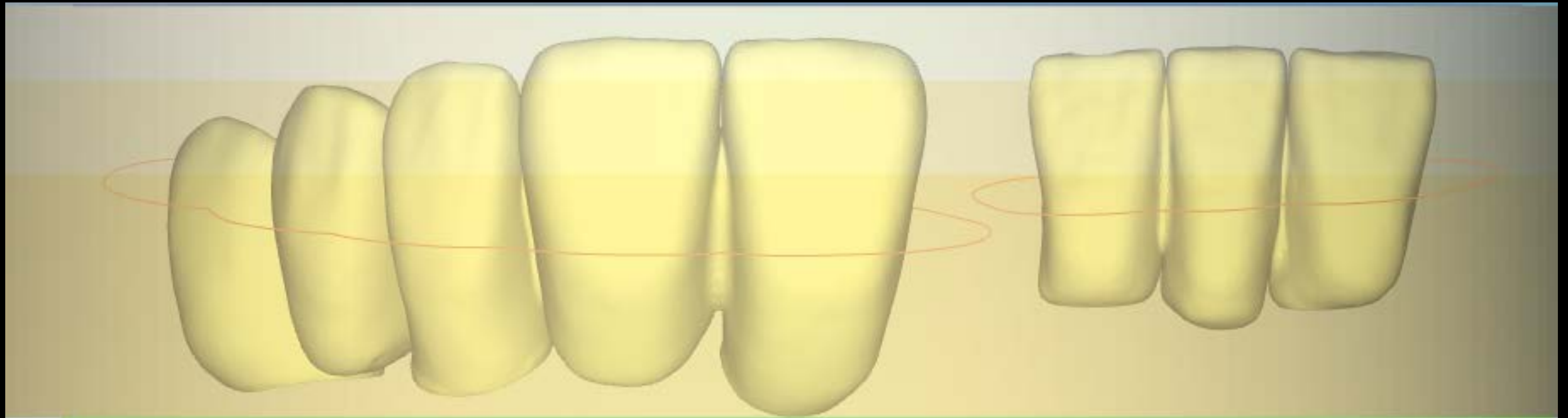
Angled screw driver hole. 15degree



Shade Taking



Hyper Dent



22T A3 Multi Layer Block

Coloring



내면 – White Opaque

Glazing

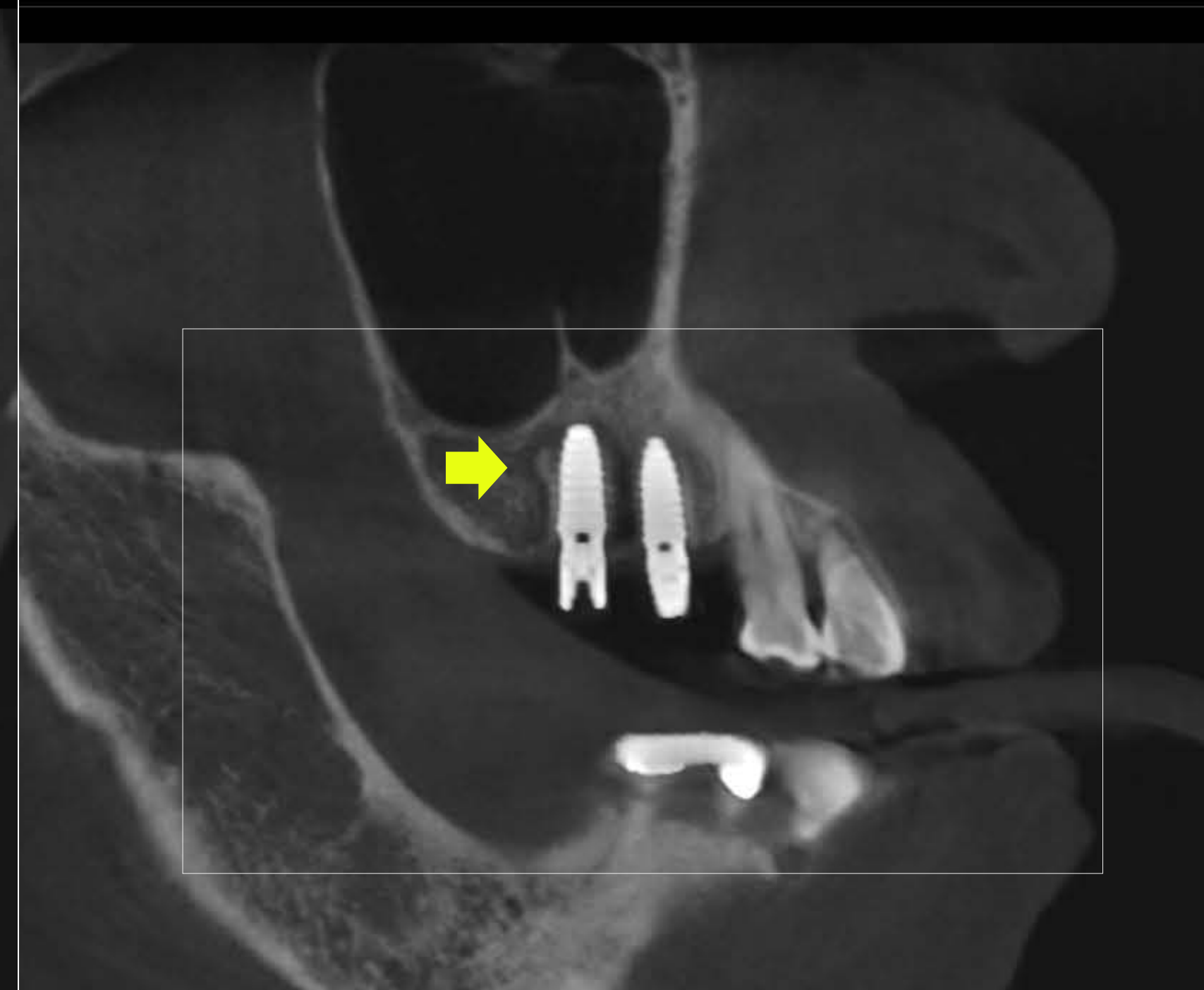
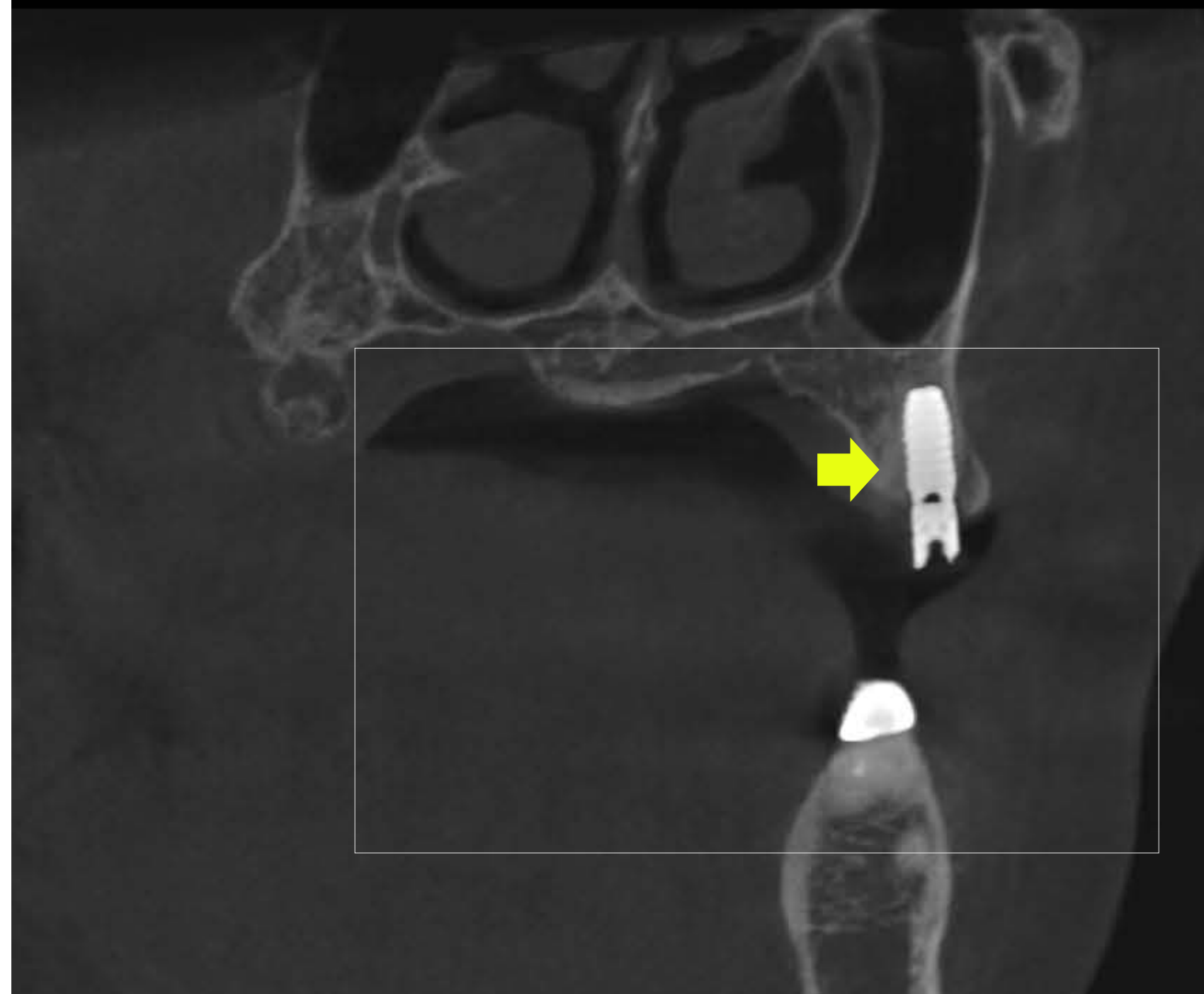
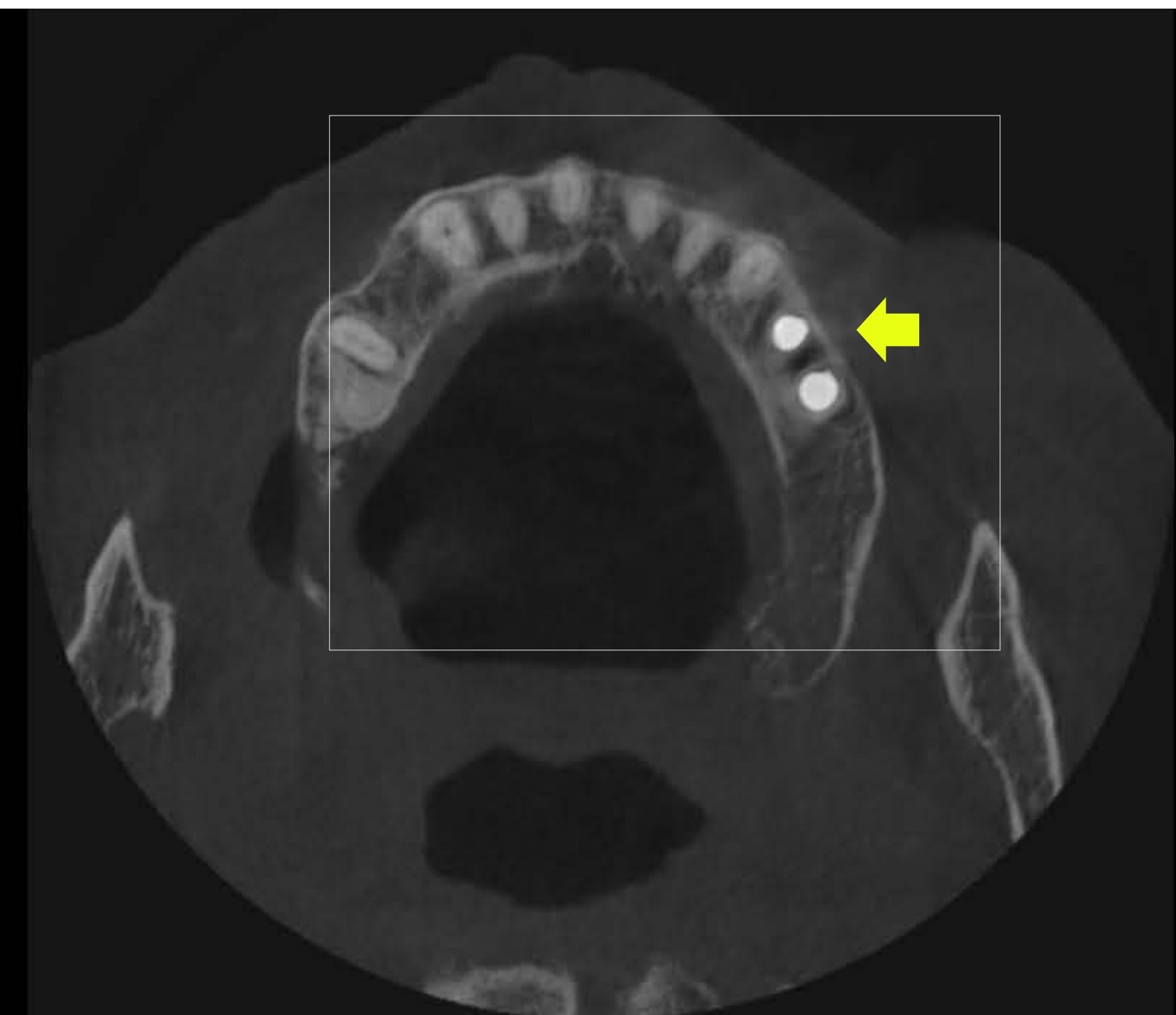


Final Prosthesis

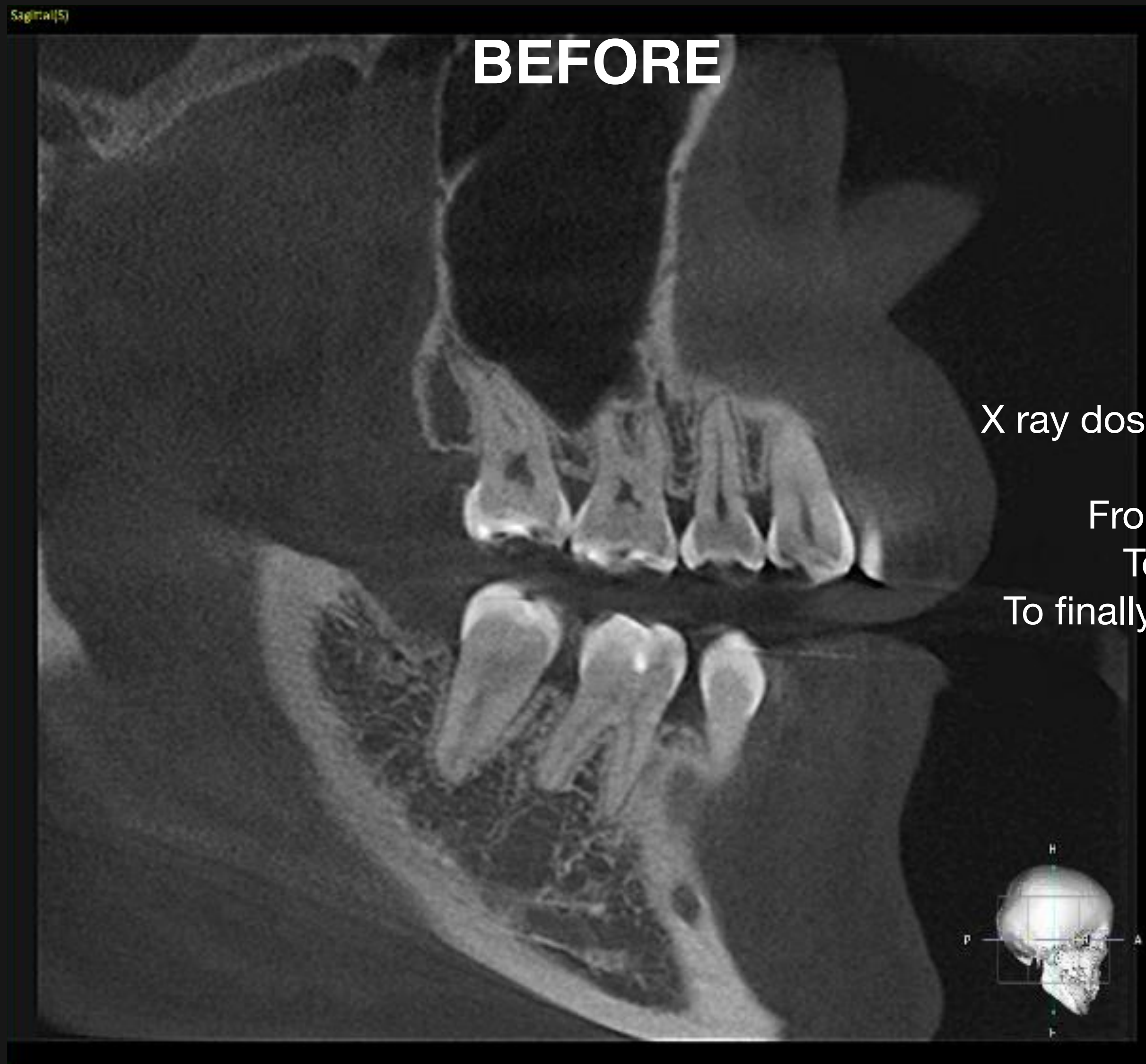


bright CT

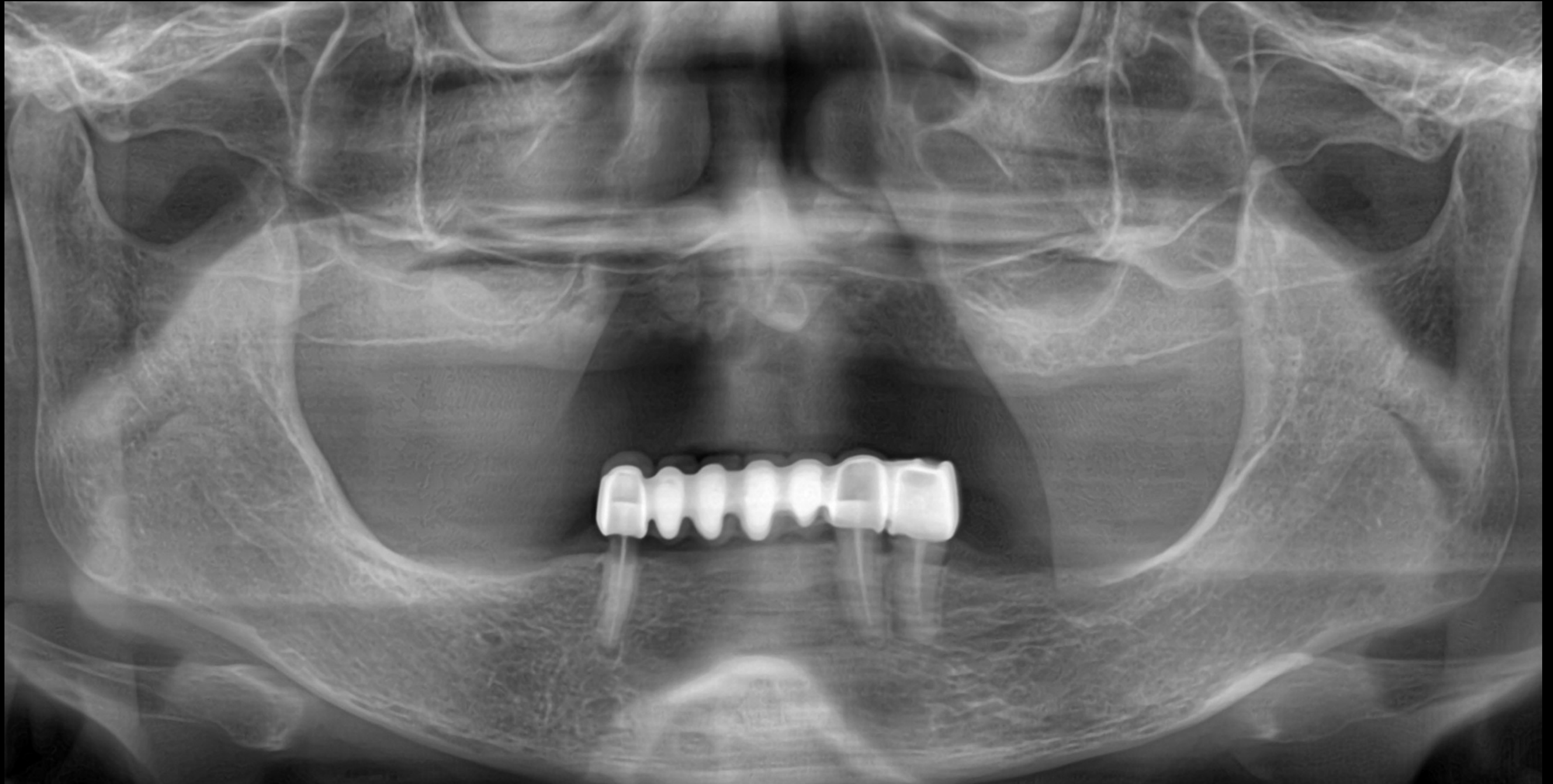
MAR
(Metal Artifact Reduction)



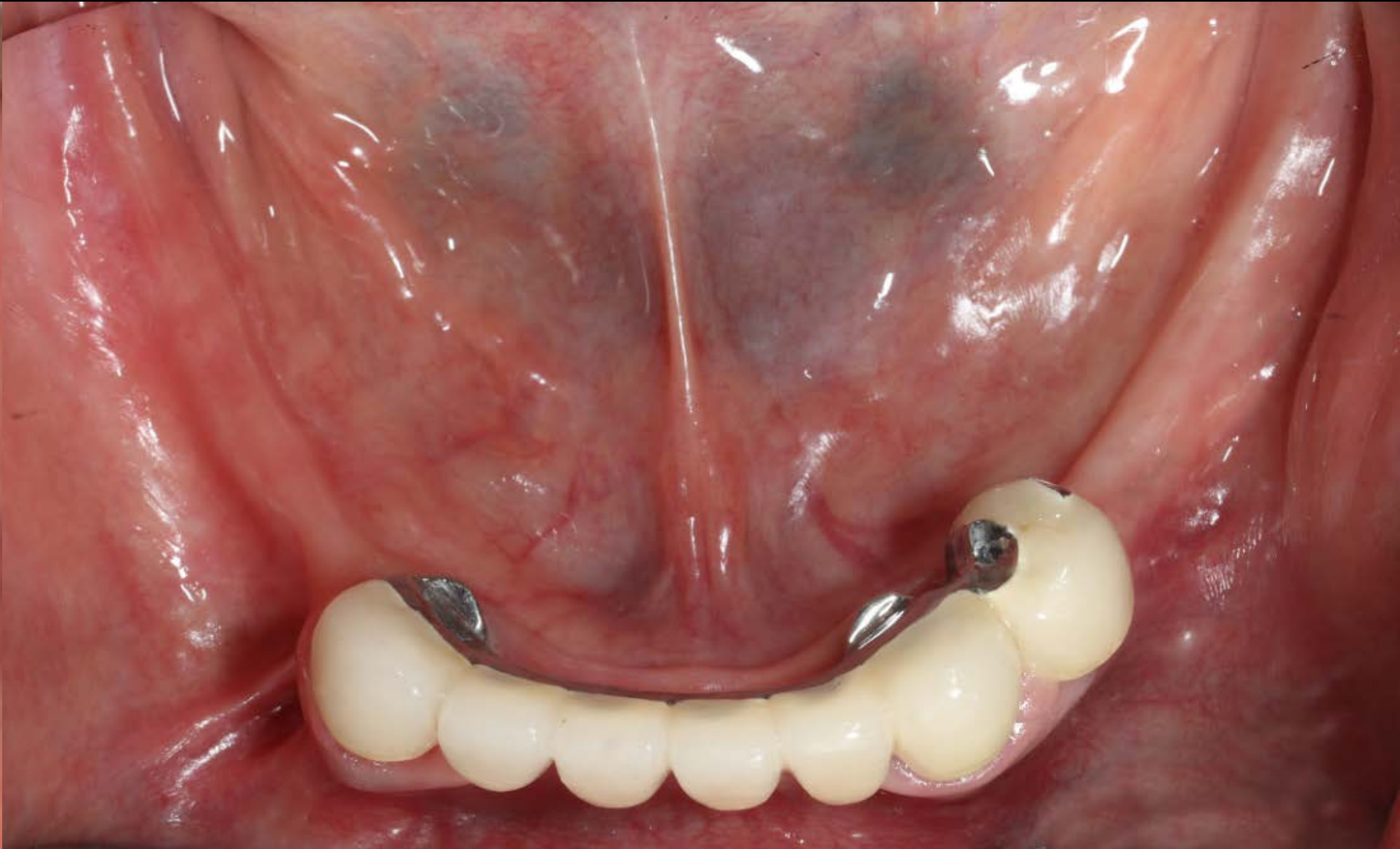
CT Image Upgrade De-noising with A.I



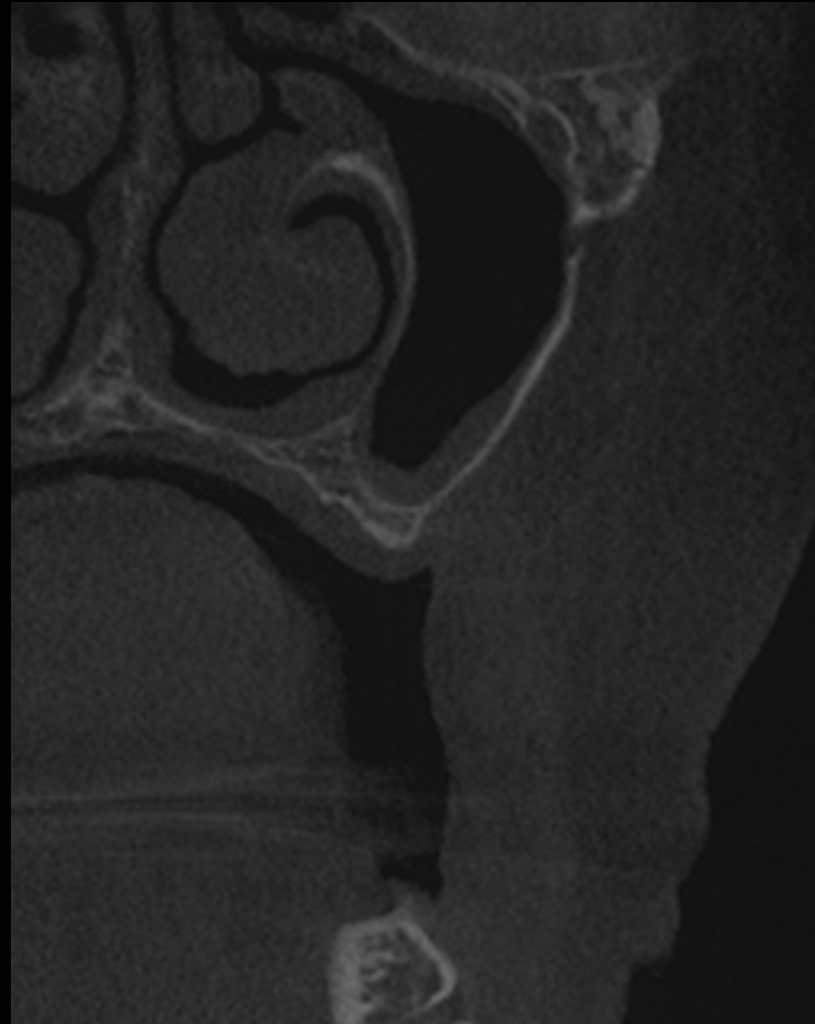
Pre-op (2021-10-22)



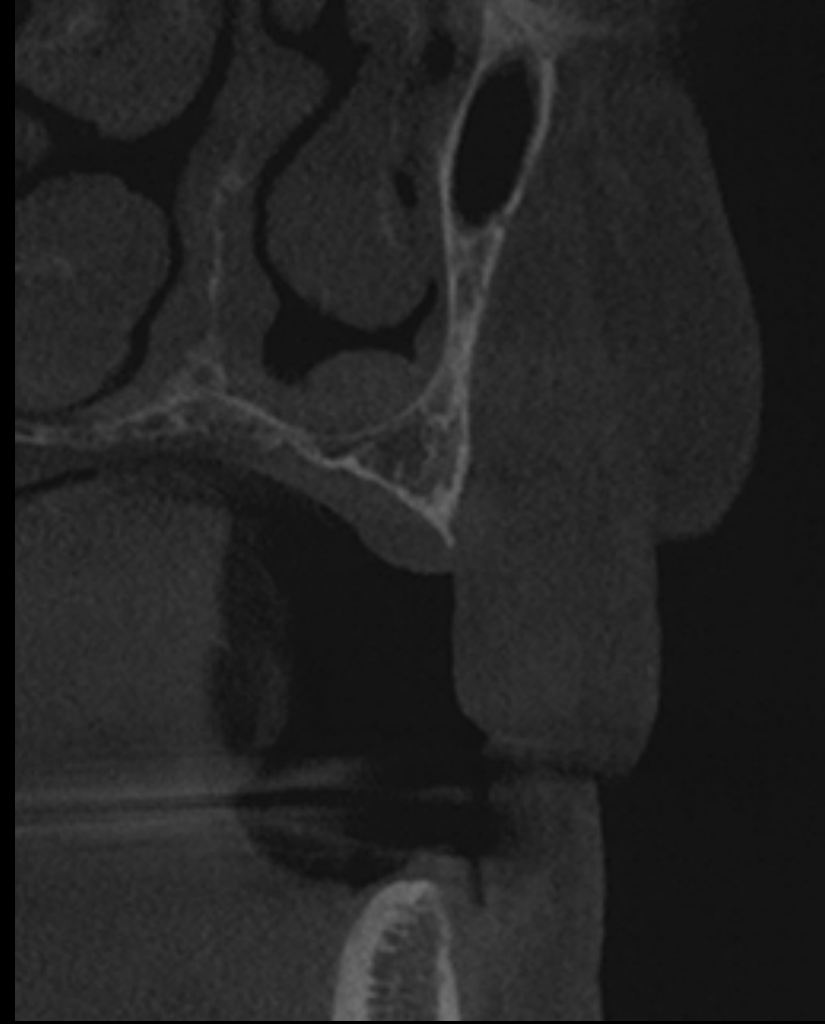
Pre-op (2021-10-20)



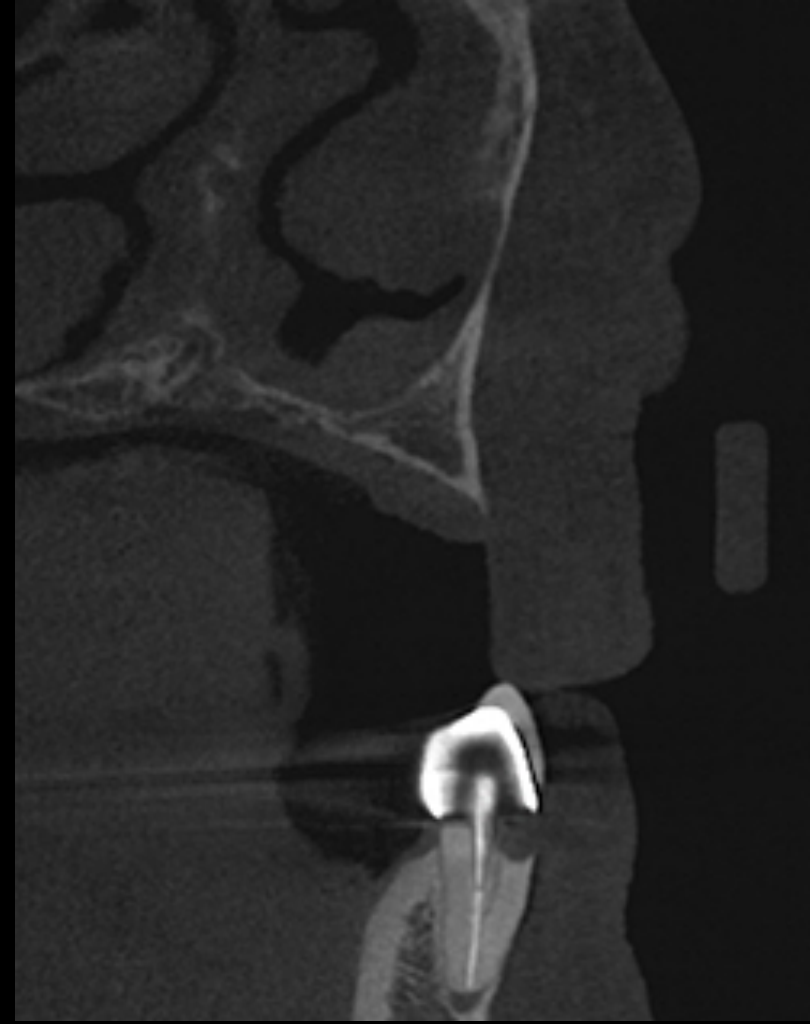
Pre-op CT (2021-10-22)



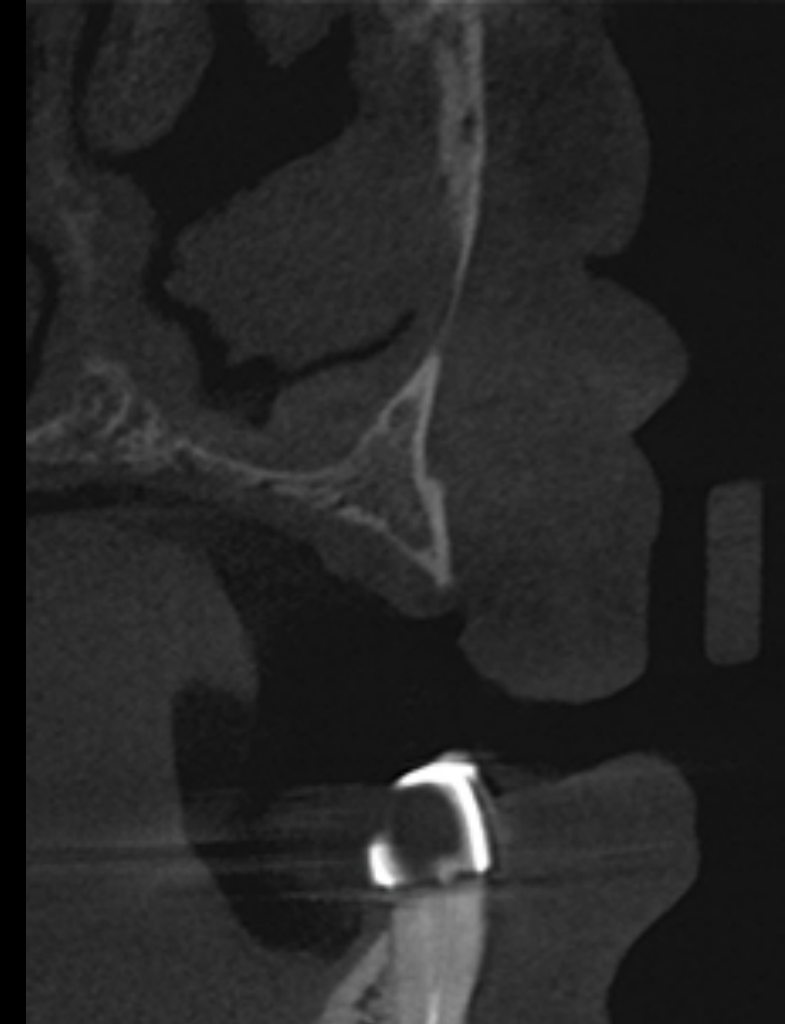
#16



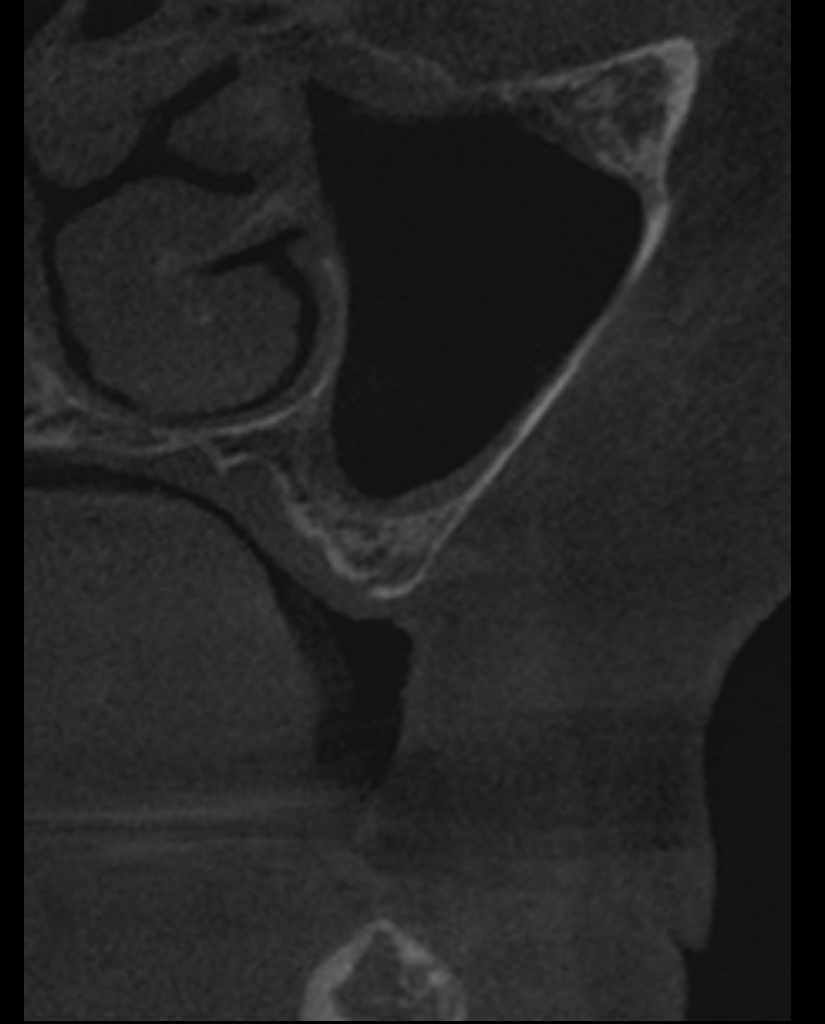
#14



#13

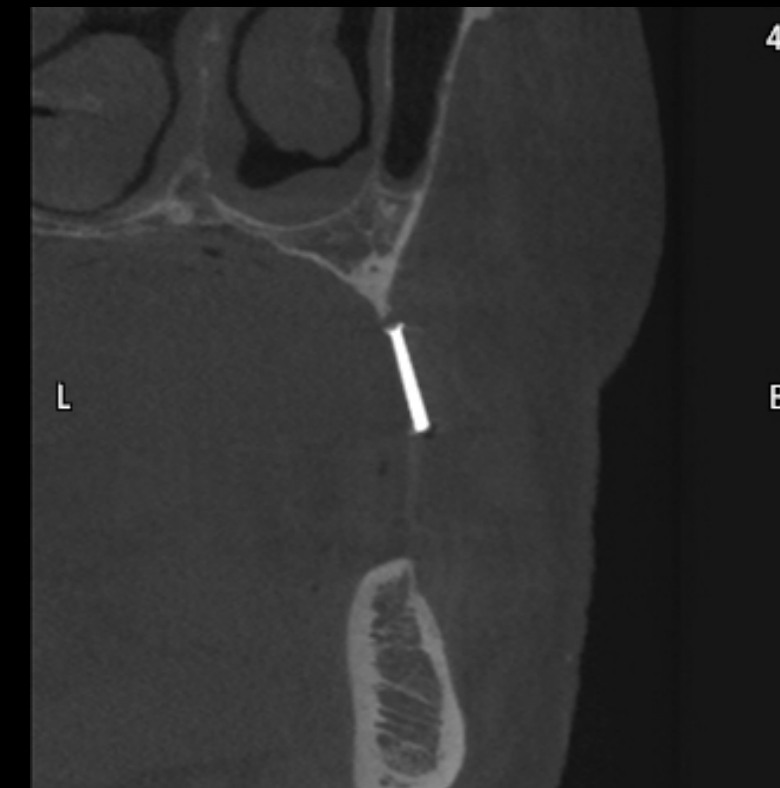
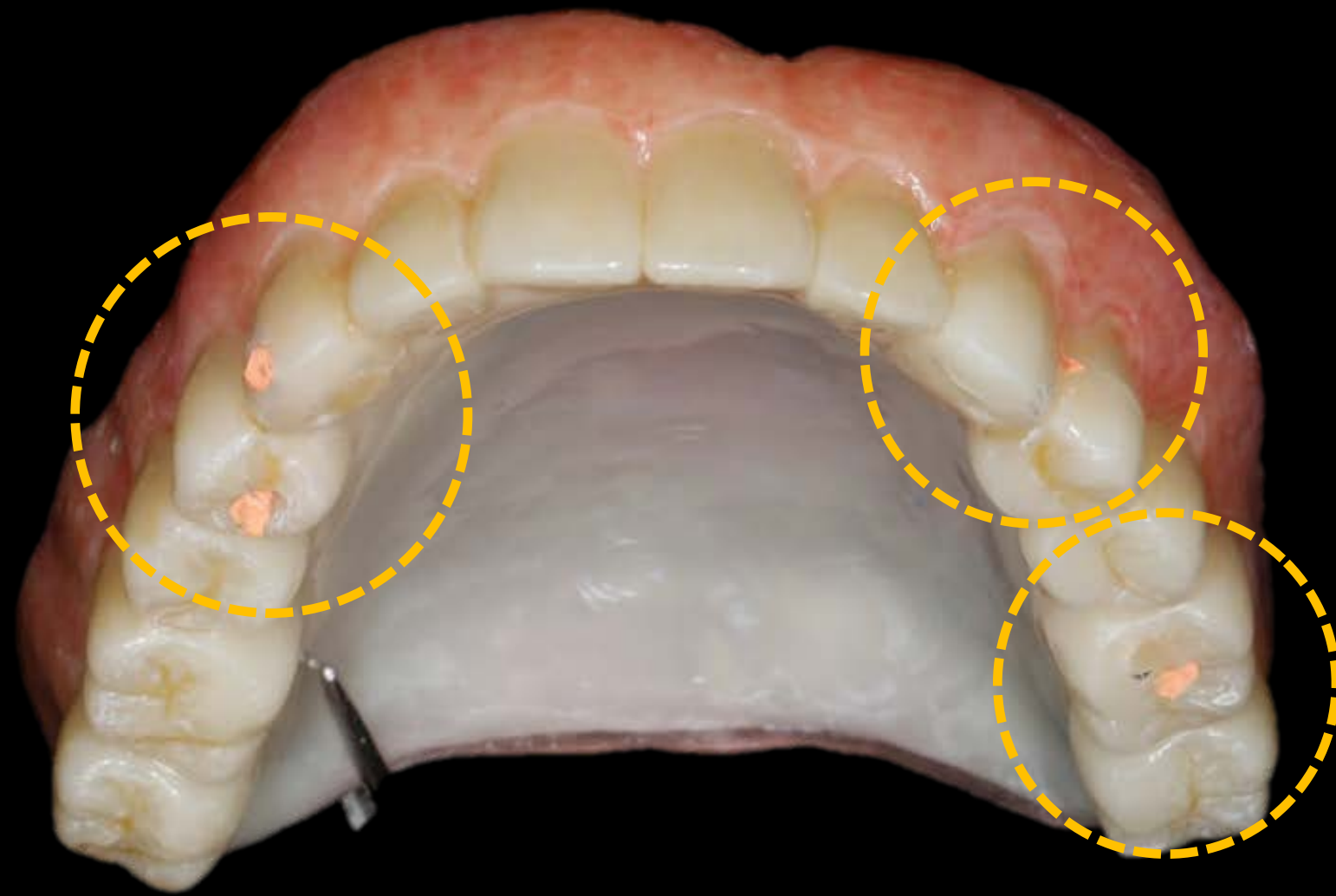


#23



#26

GP cone marking & CT taking (2021-11-03)



#14



#13

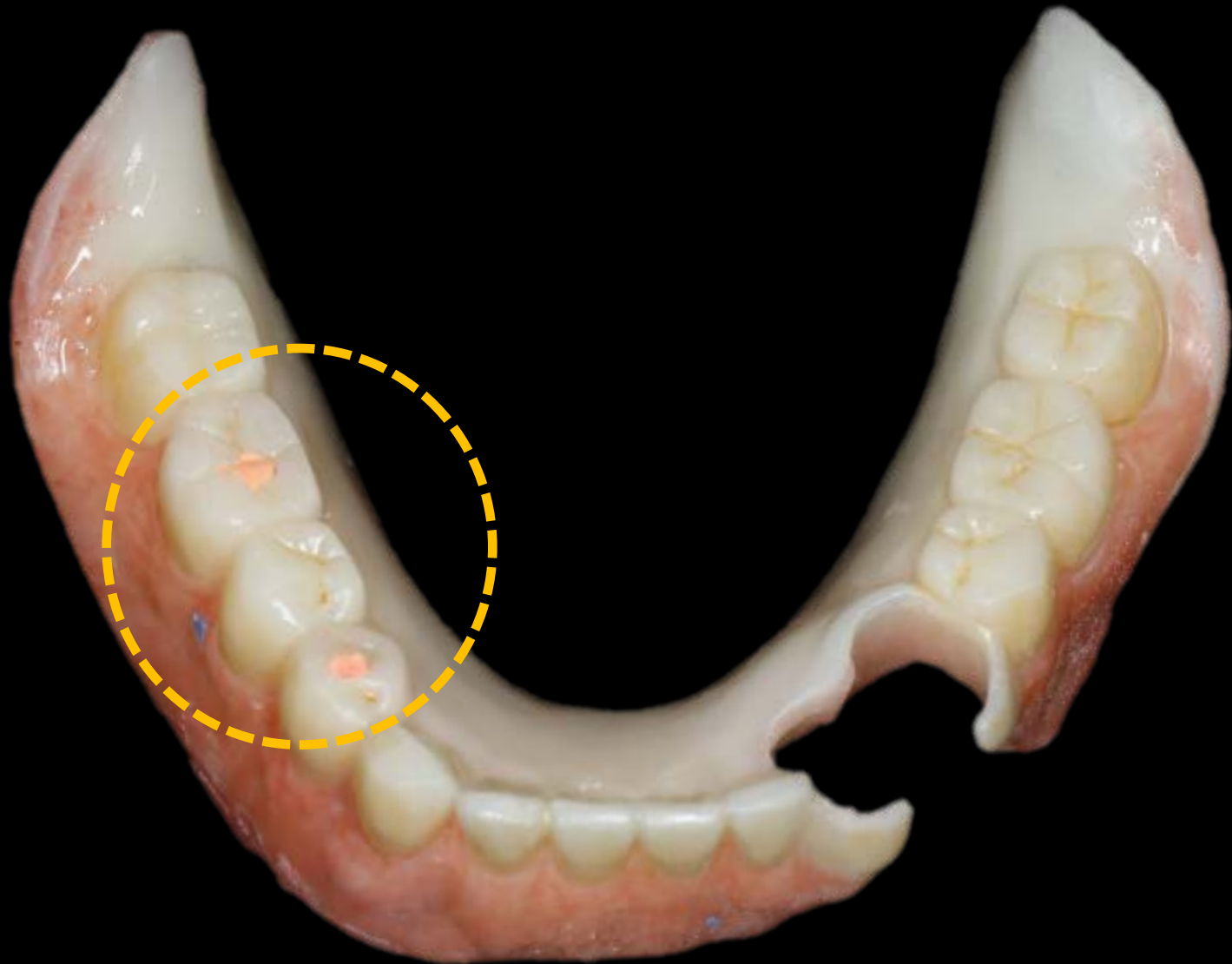


#23

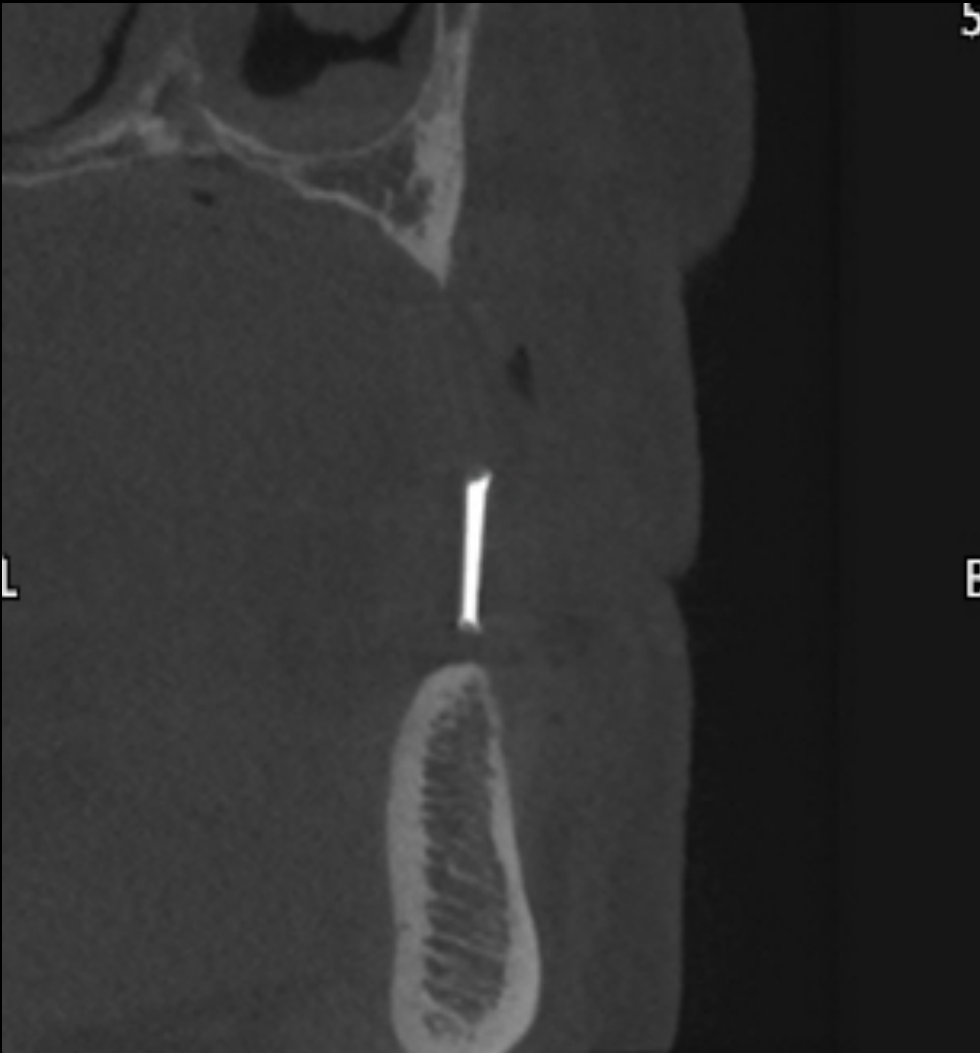


#25

GP cone marking & CT taking (2021-11-03)

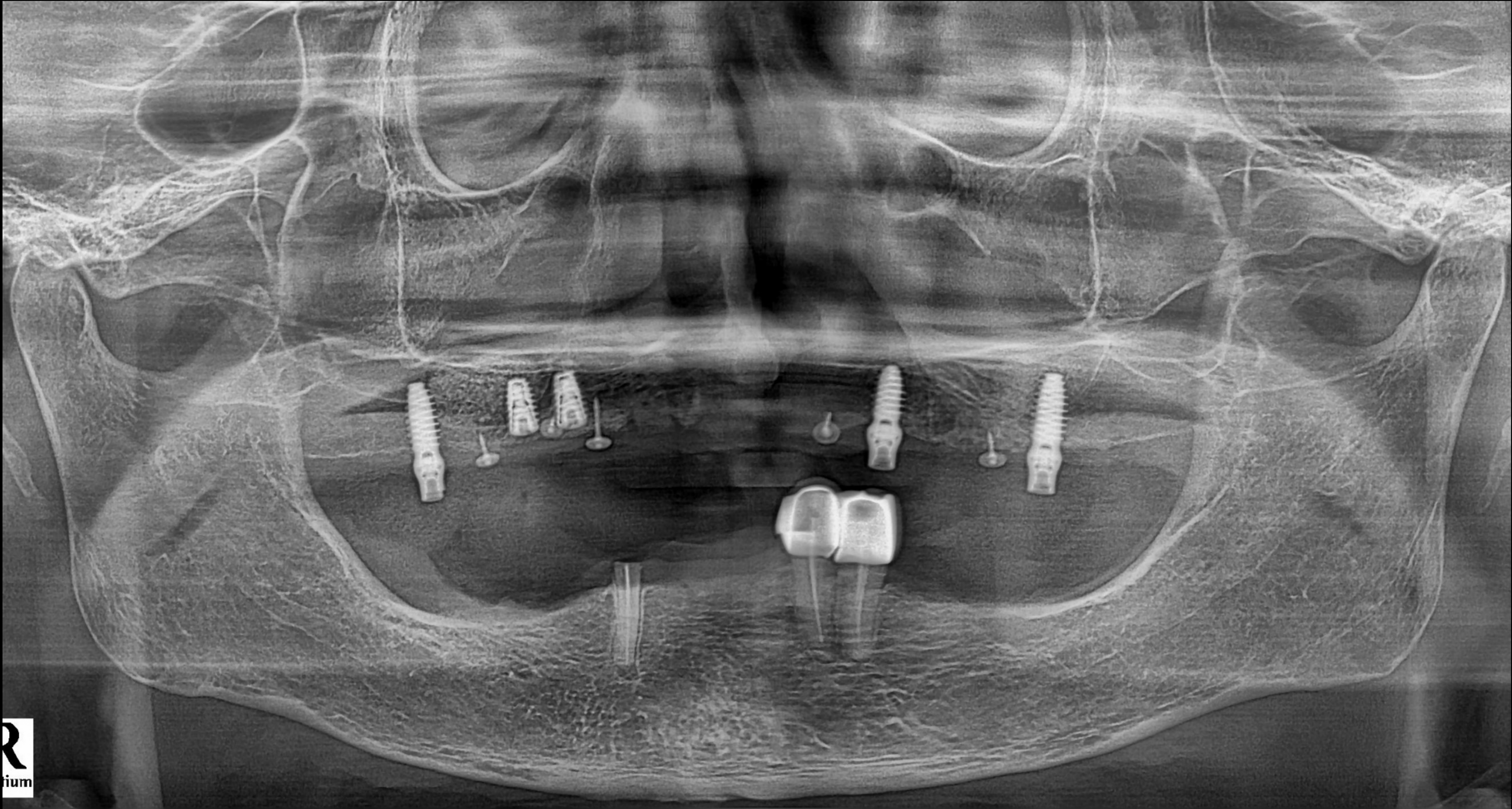


#46

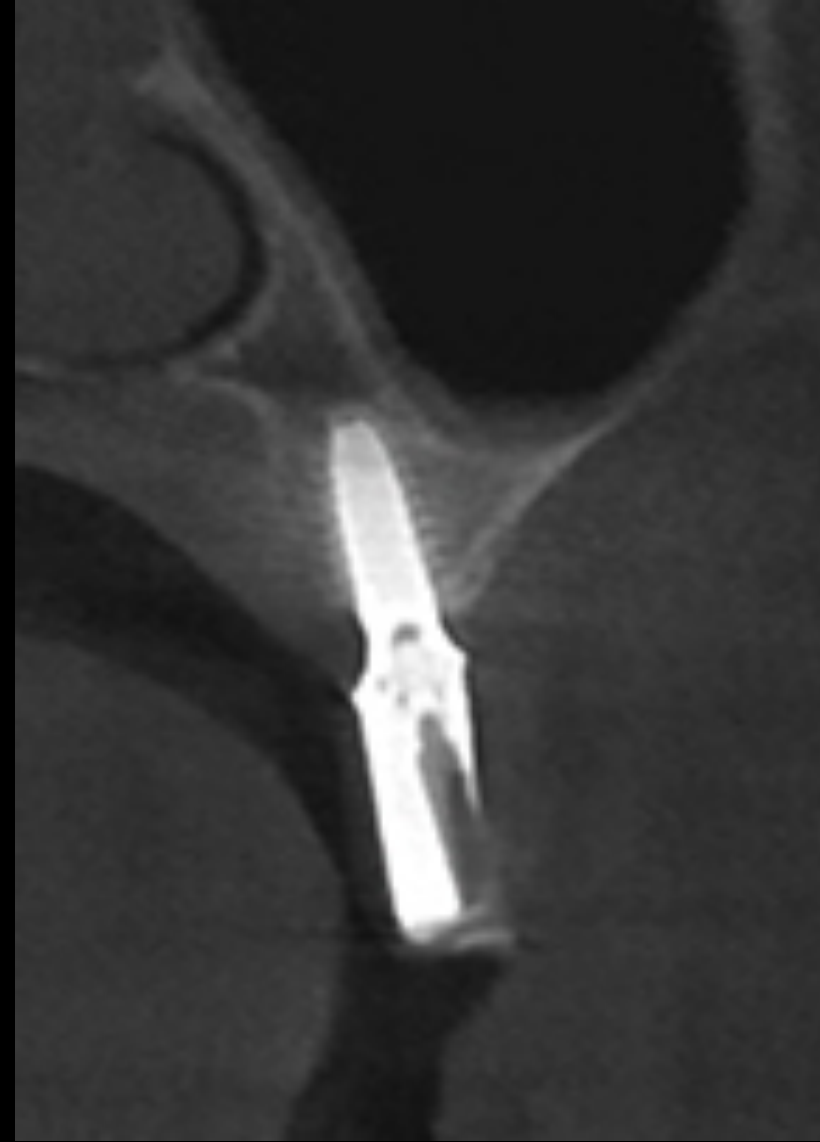


#44

Post-op (2021-11-05)



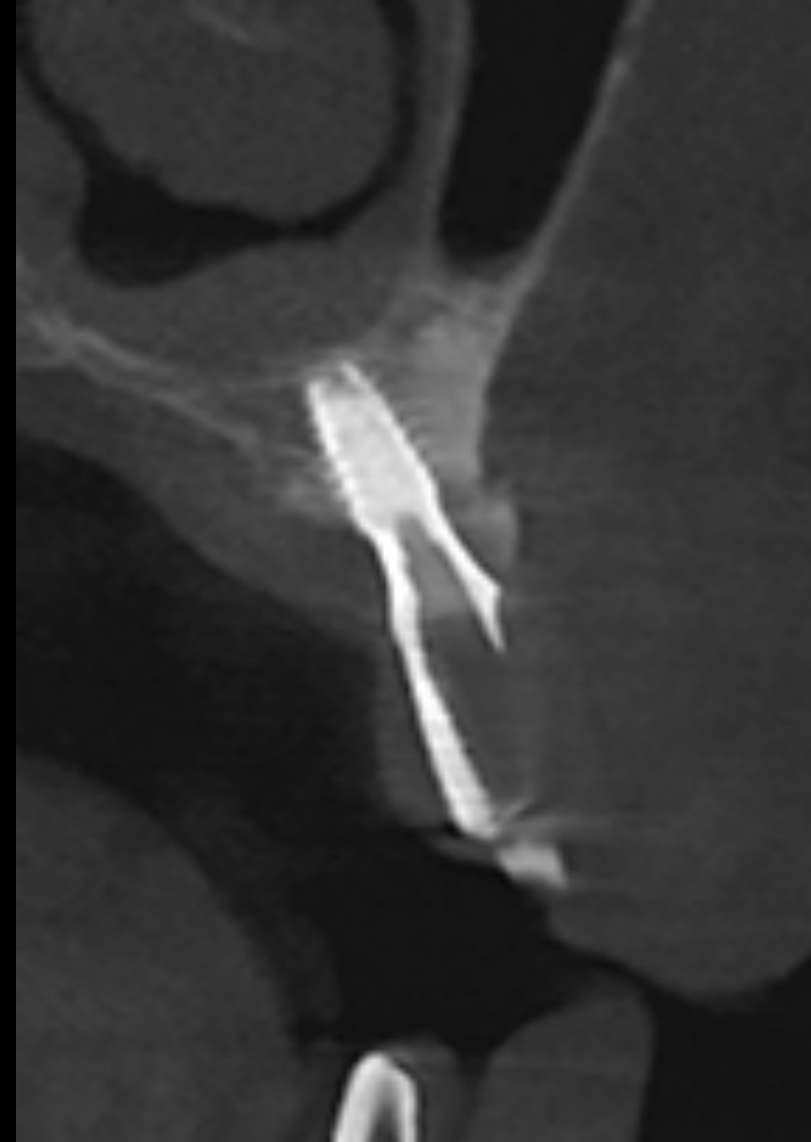
#16 Custom abutment, Provisional restoration CT (2022-10-05)



#16



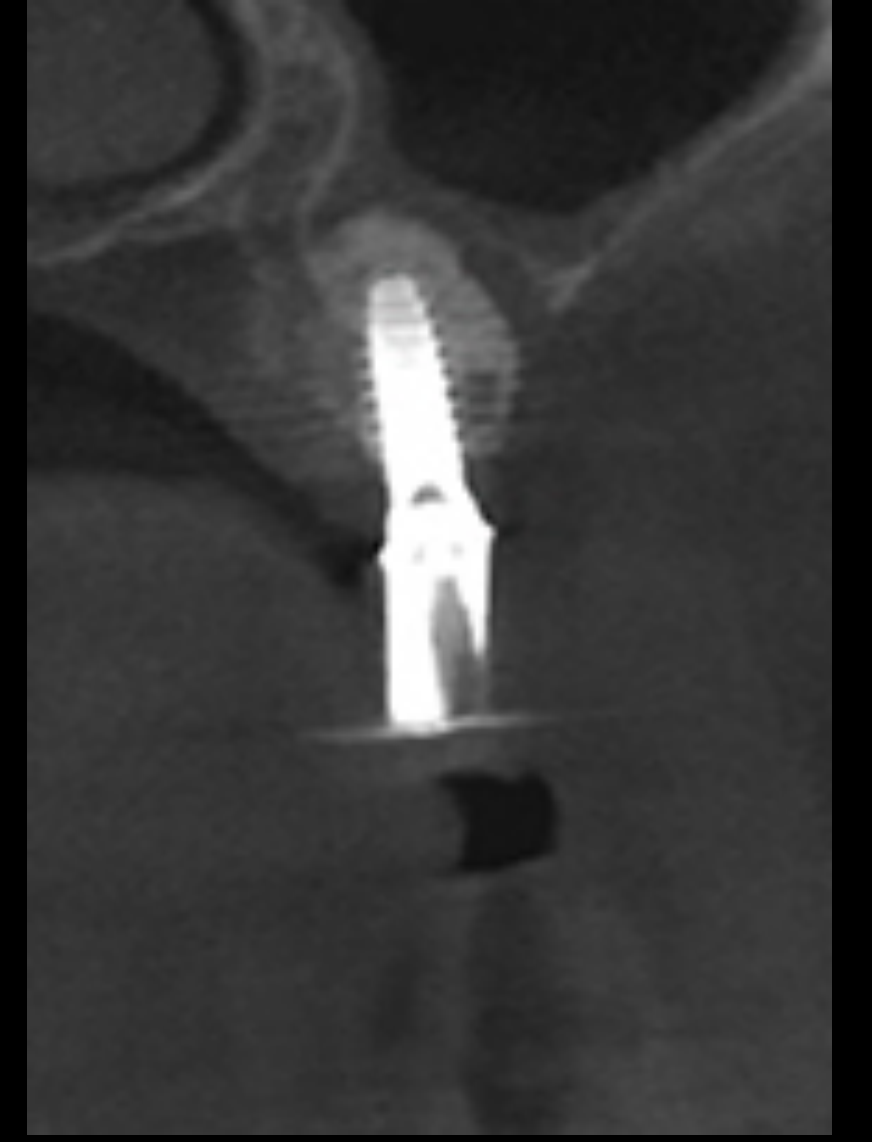
#14



#13

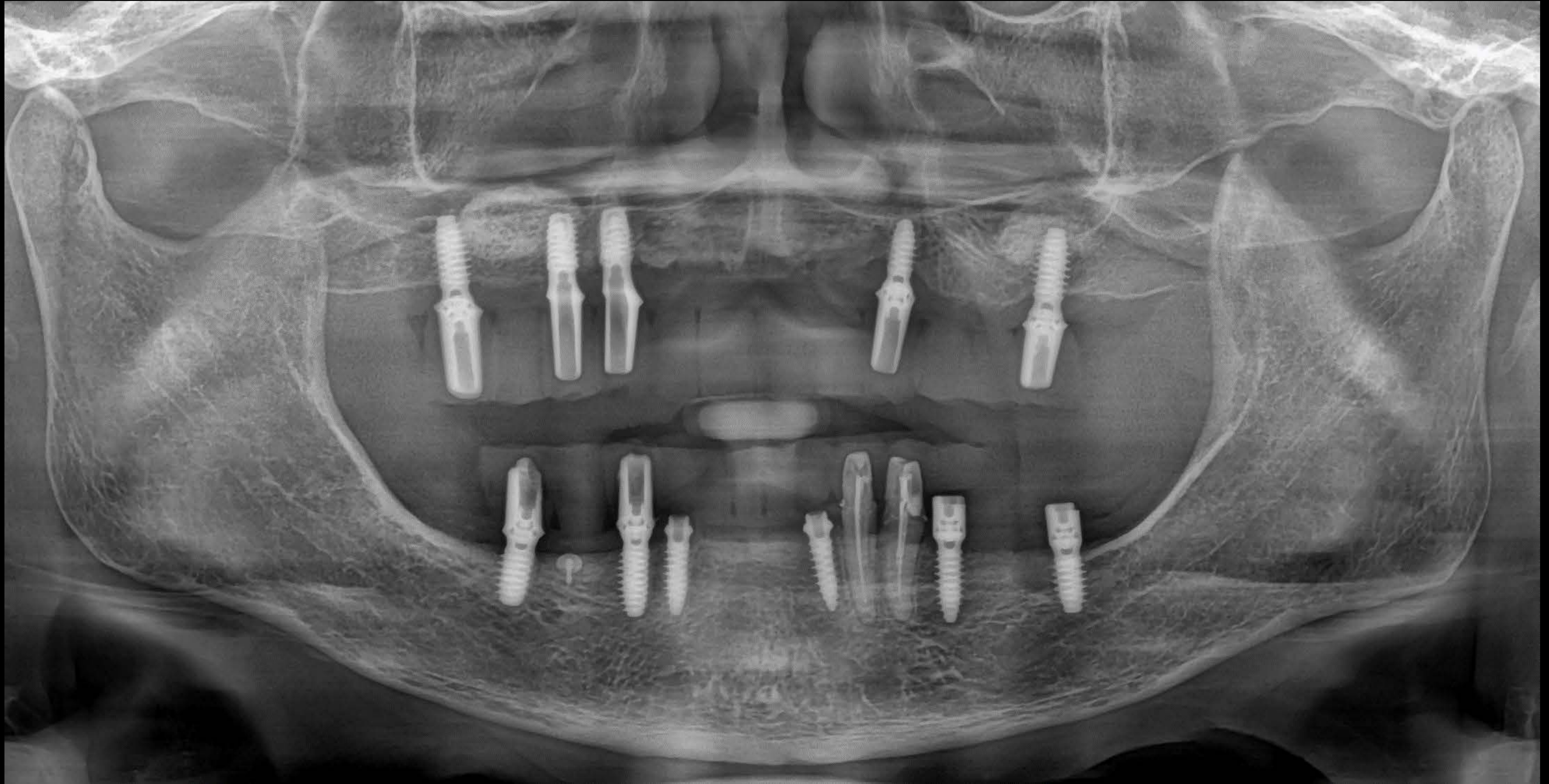


#23



#26

Custom abutment, Provisional restoration (2022-09-01)



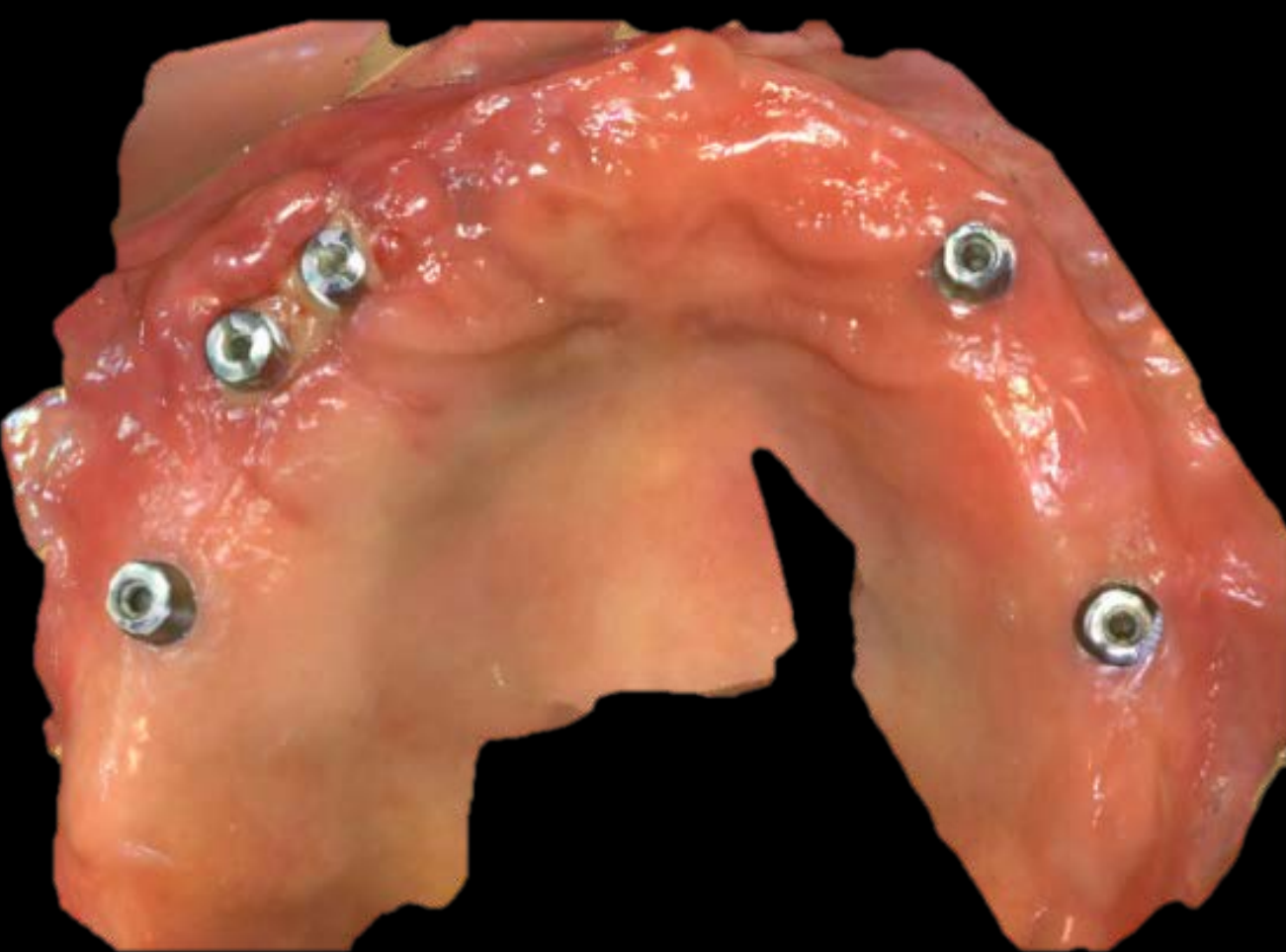
Final prosthesis (2022-12-28)



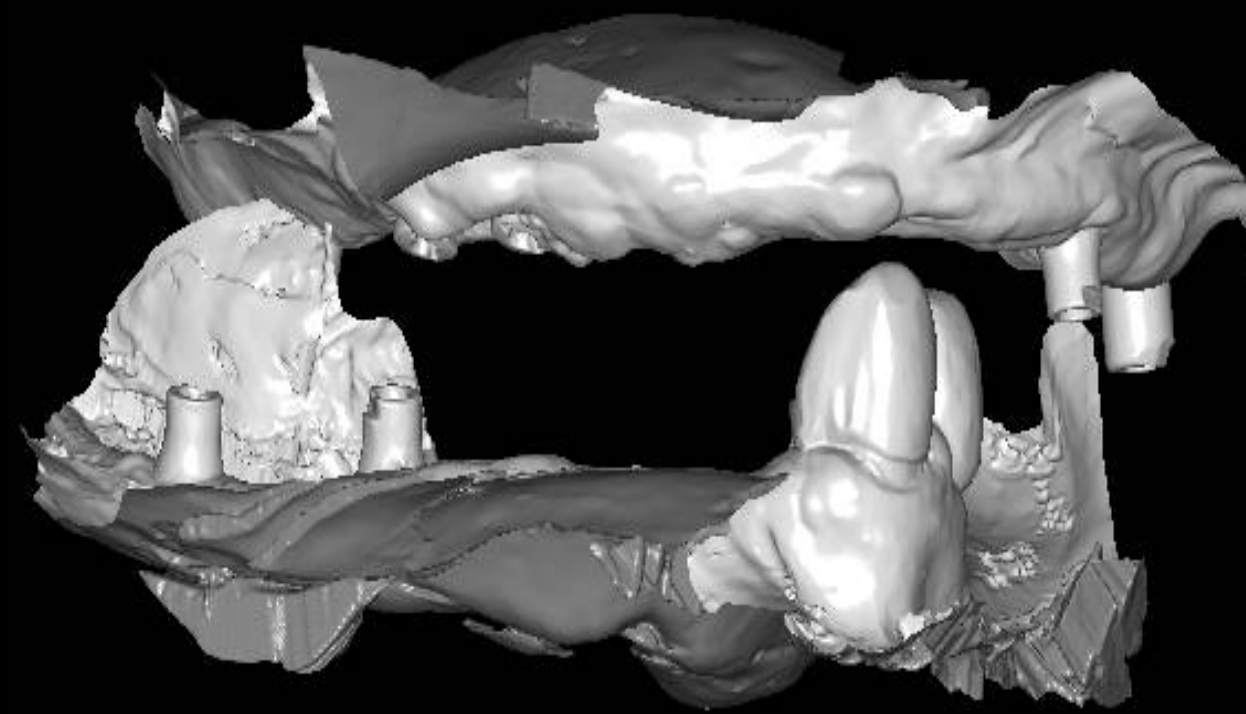
Healing : 7 months (2022-06-17)



Intra-oral scan



Working model

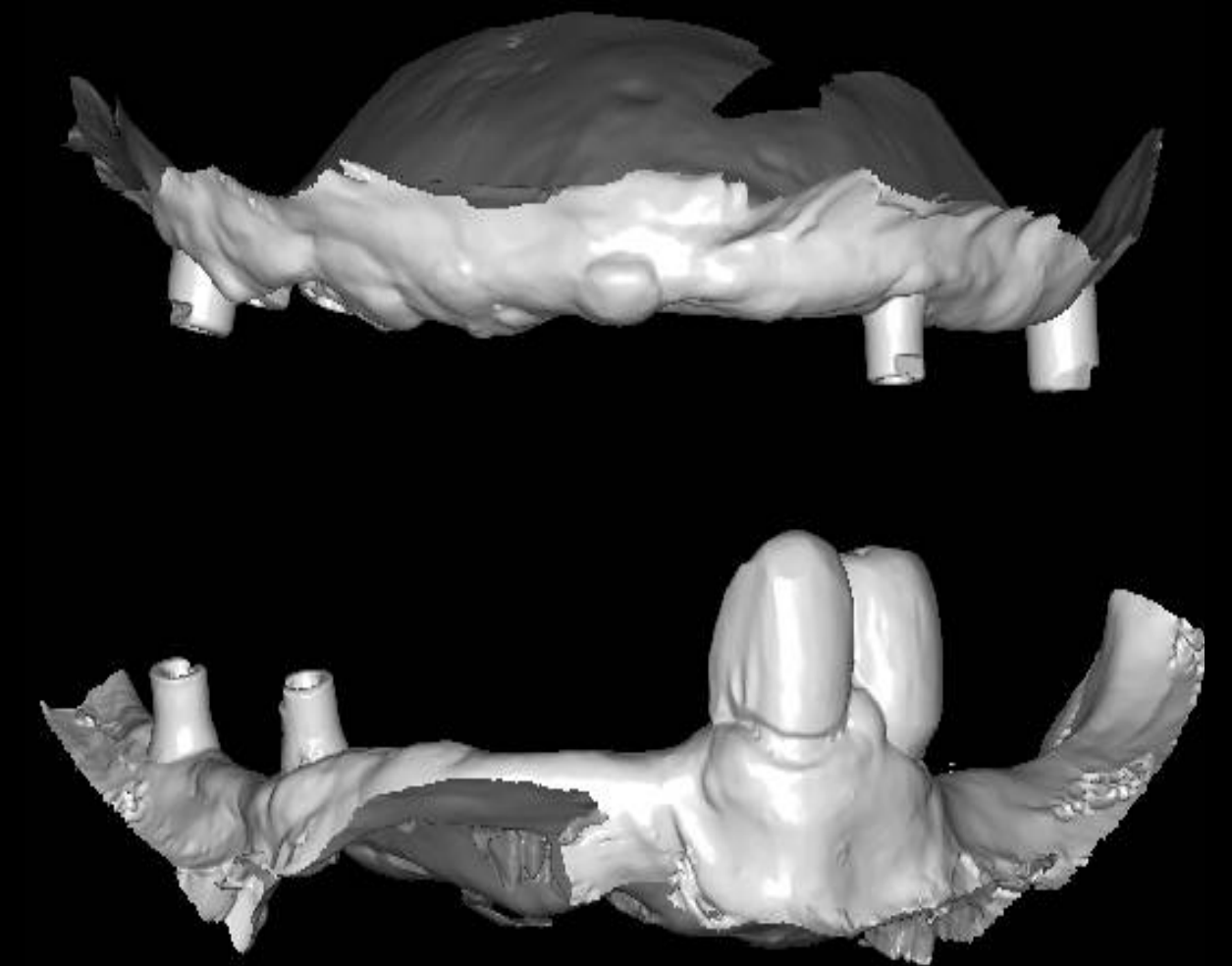
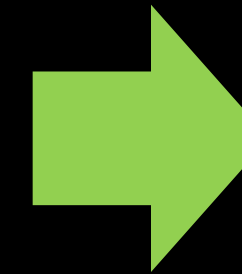


Scan Model

&

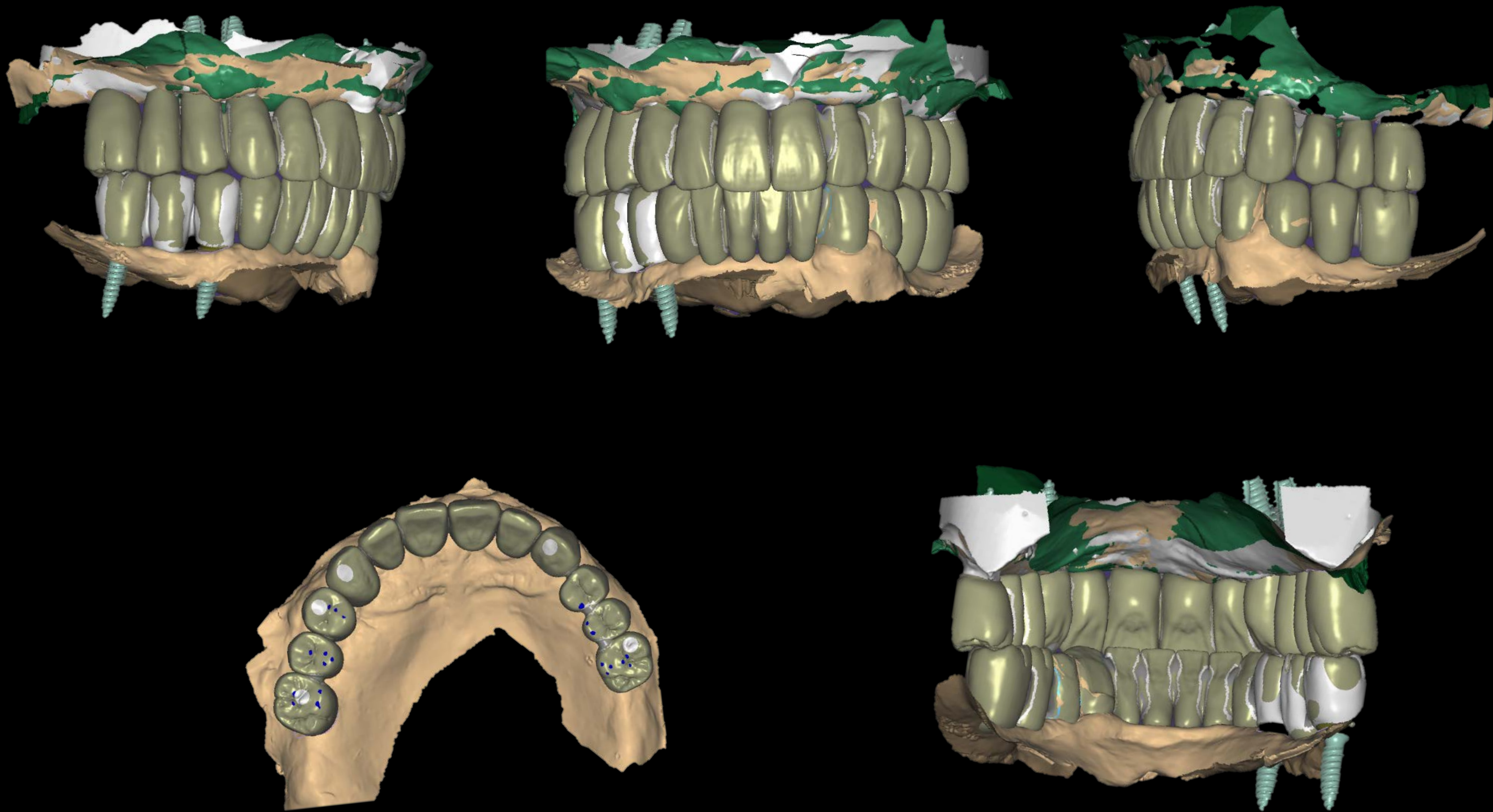


CT



Stitching

CAD (Temporary)



Temporary



Provisional restoration (2022-10-05)



Final prosthesis (2022-12-28)



Final Prosthesis



Cad Design



Final Prosthesis



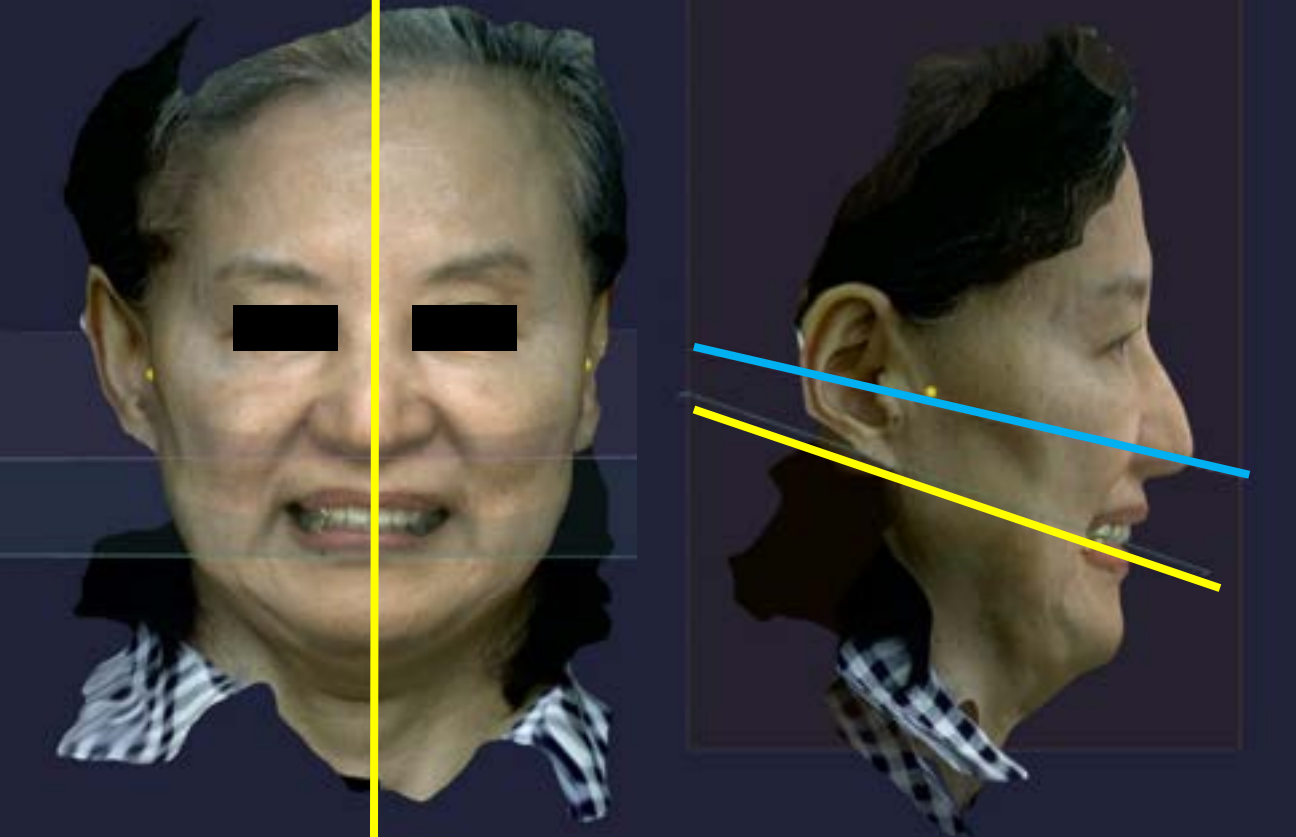
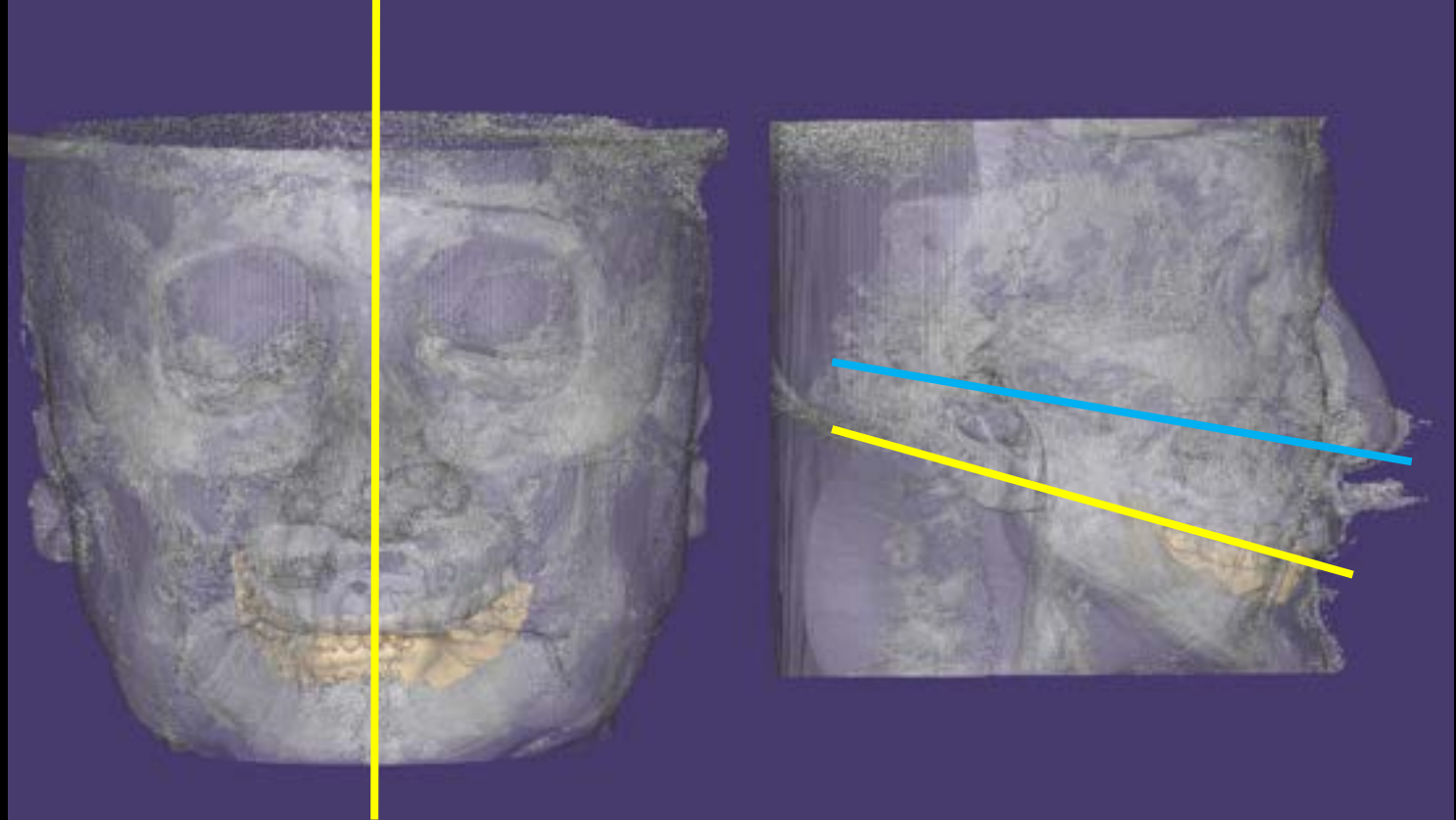
Face driven reconstruction for smile design

Facial scan

Facial photo

CT based occlusal plan

Facial scan vs Facial photo vs Soft tissue CT

	Facial scan	Facial photo	Soft tissue CT
			
advantage	Auto stitching funtion	Easy data collection	Can utilize existing CT equipment
weakness	error occurrence ↑ initial introduction cost↑	Error depending on the angle of the photo shoot	Manual stitching → working time ↑



- # 17 – 27, 47 – 37
- Temporary Denture
- Shade A3



Pre-op (2023-08-10)



Pre-op (2023-08-08)



PMH

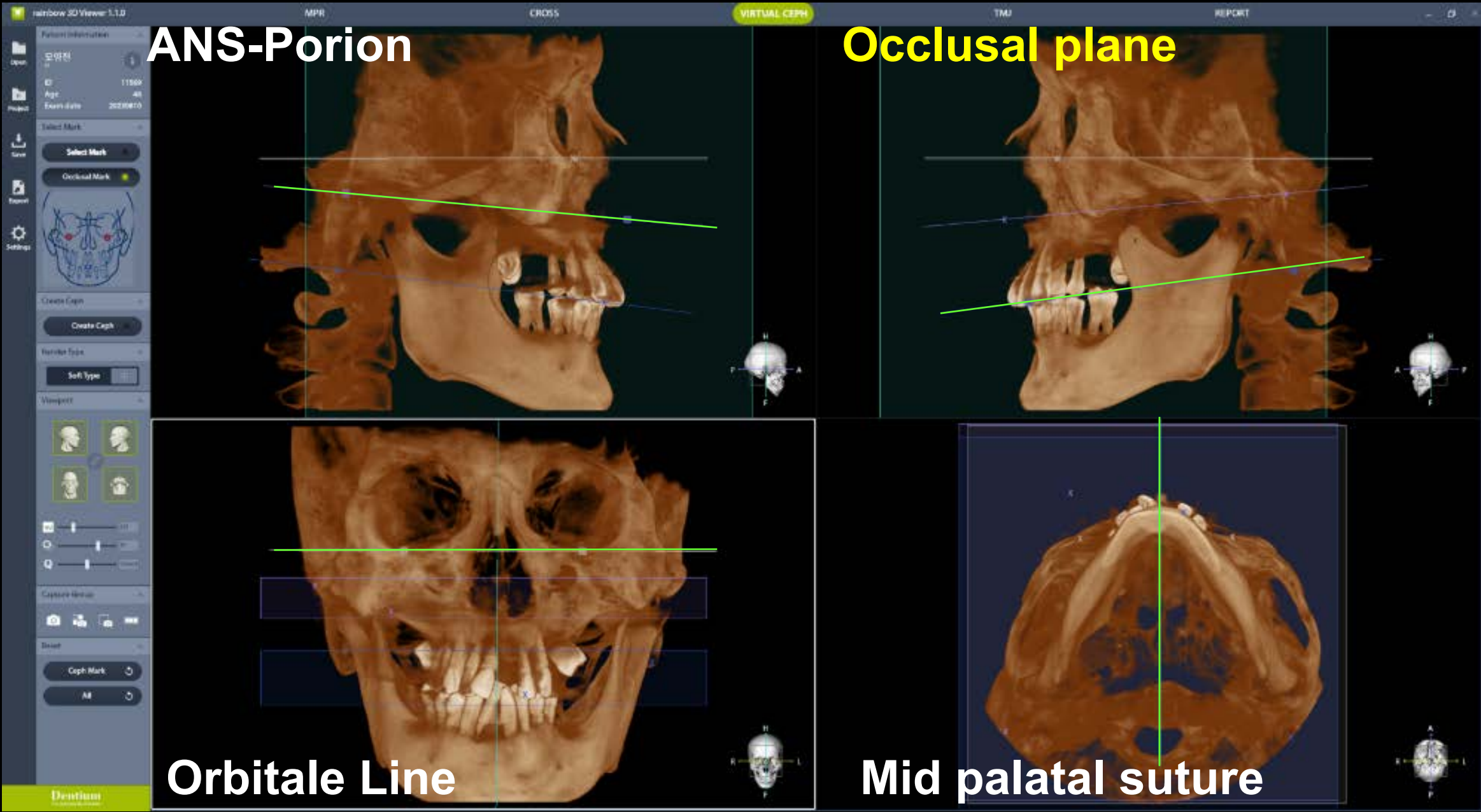
Heart stent transplants,
diabetes, hyperlipidemia

Cad Design

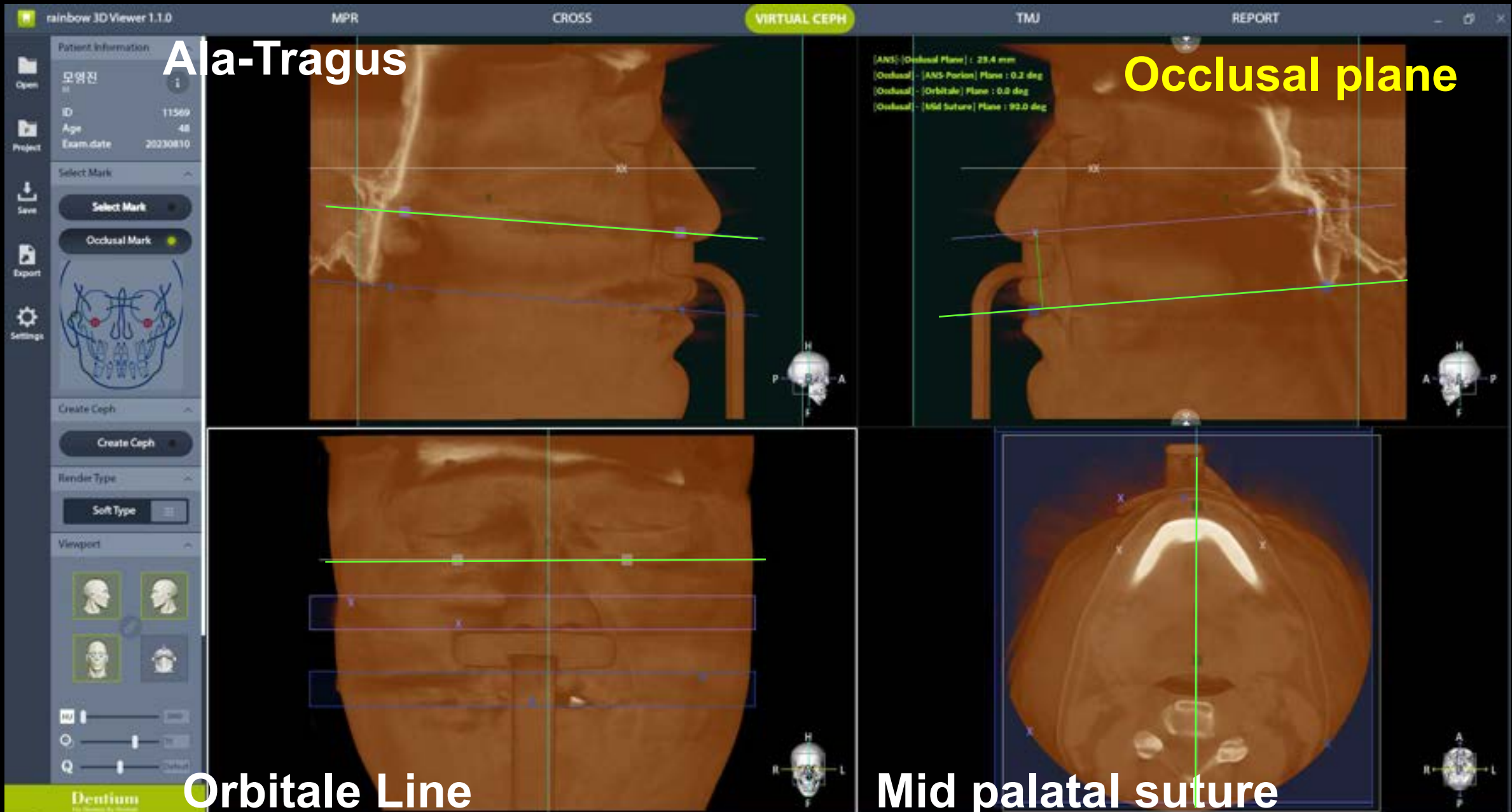


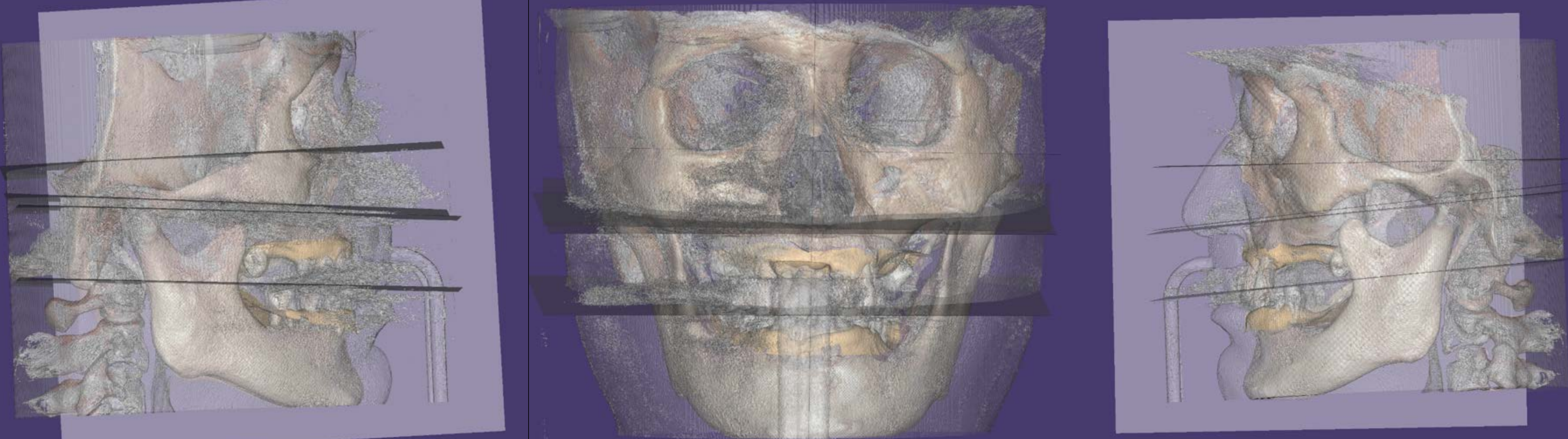
CT viewer 활용 평면 설정

Hard tissue



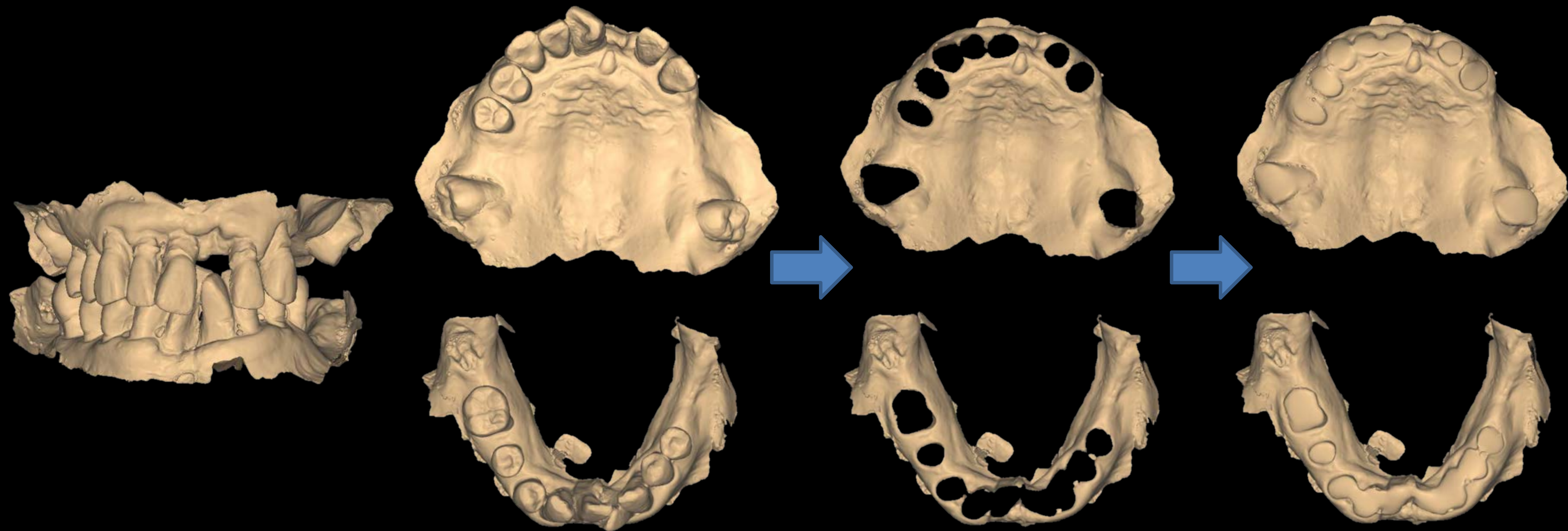
Soft tissue



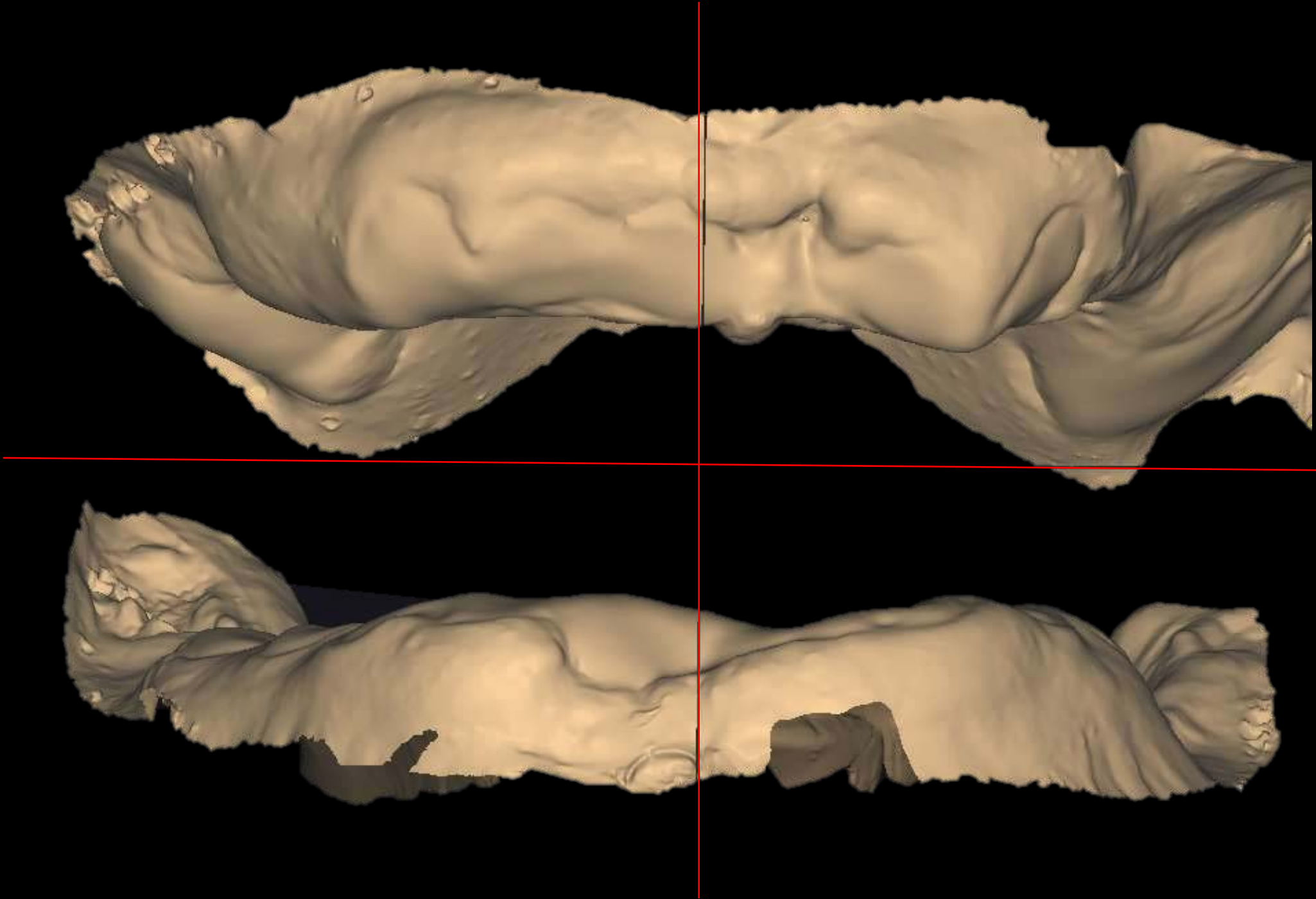
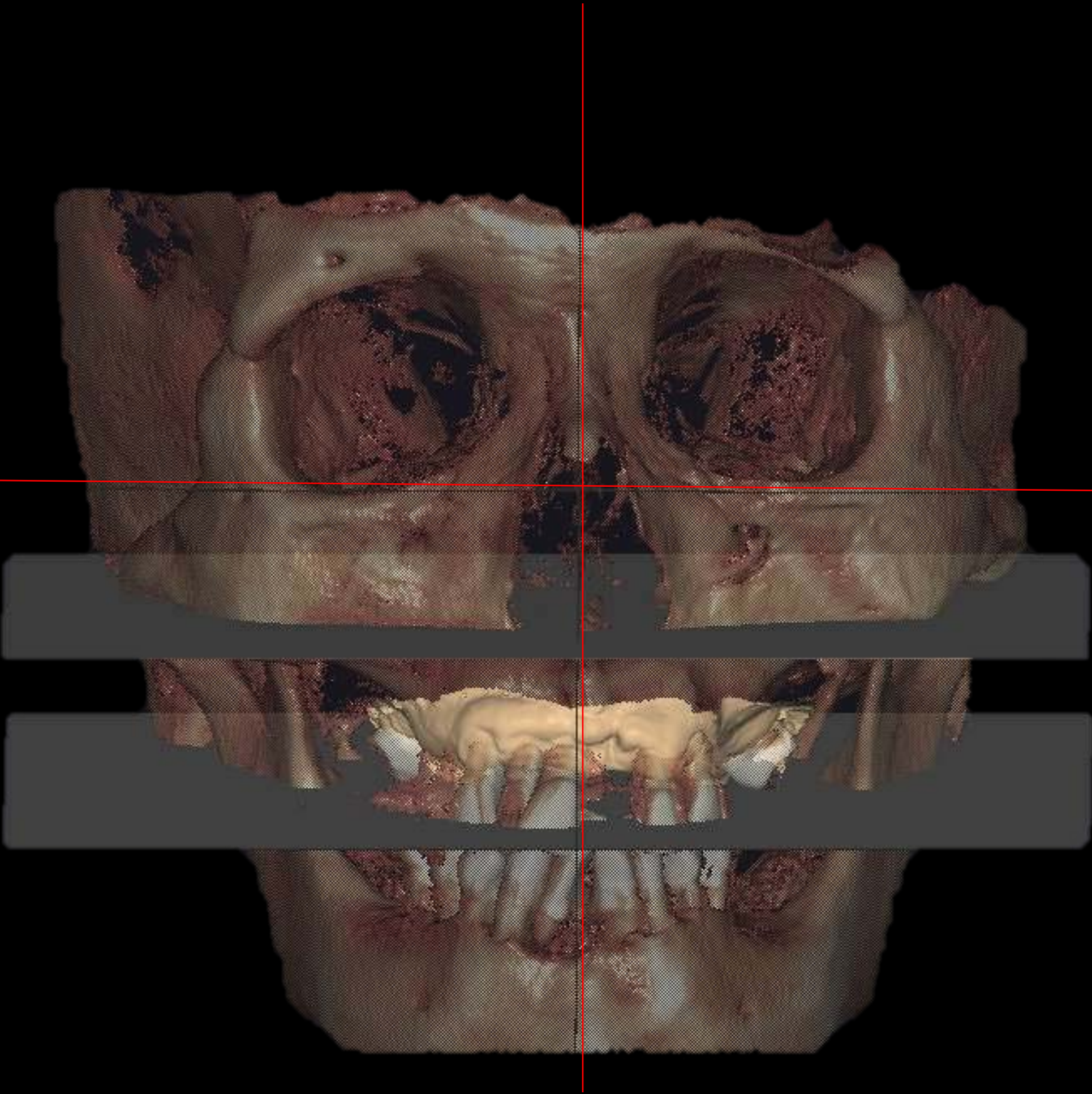


CT STL (soft / hard) + plane STL + IOS

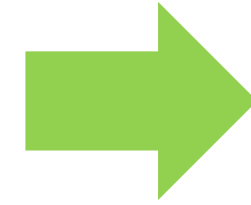
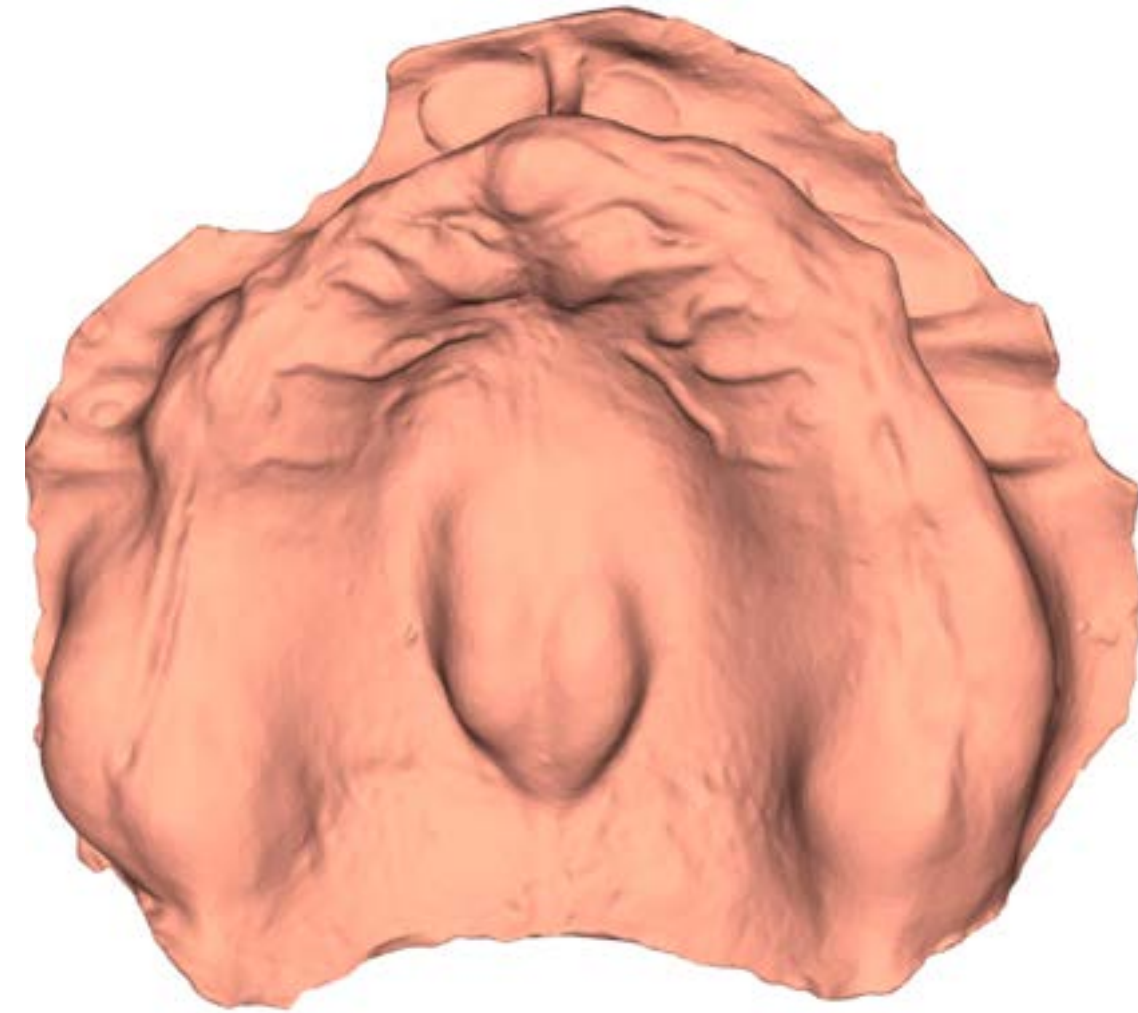
Working model



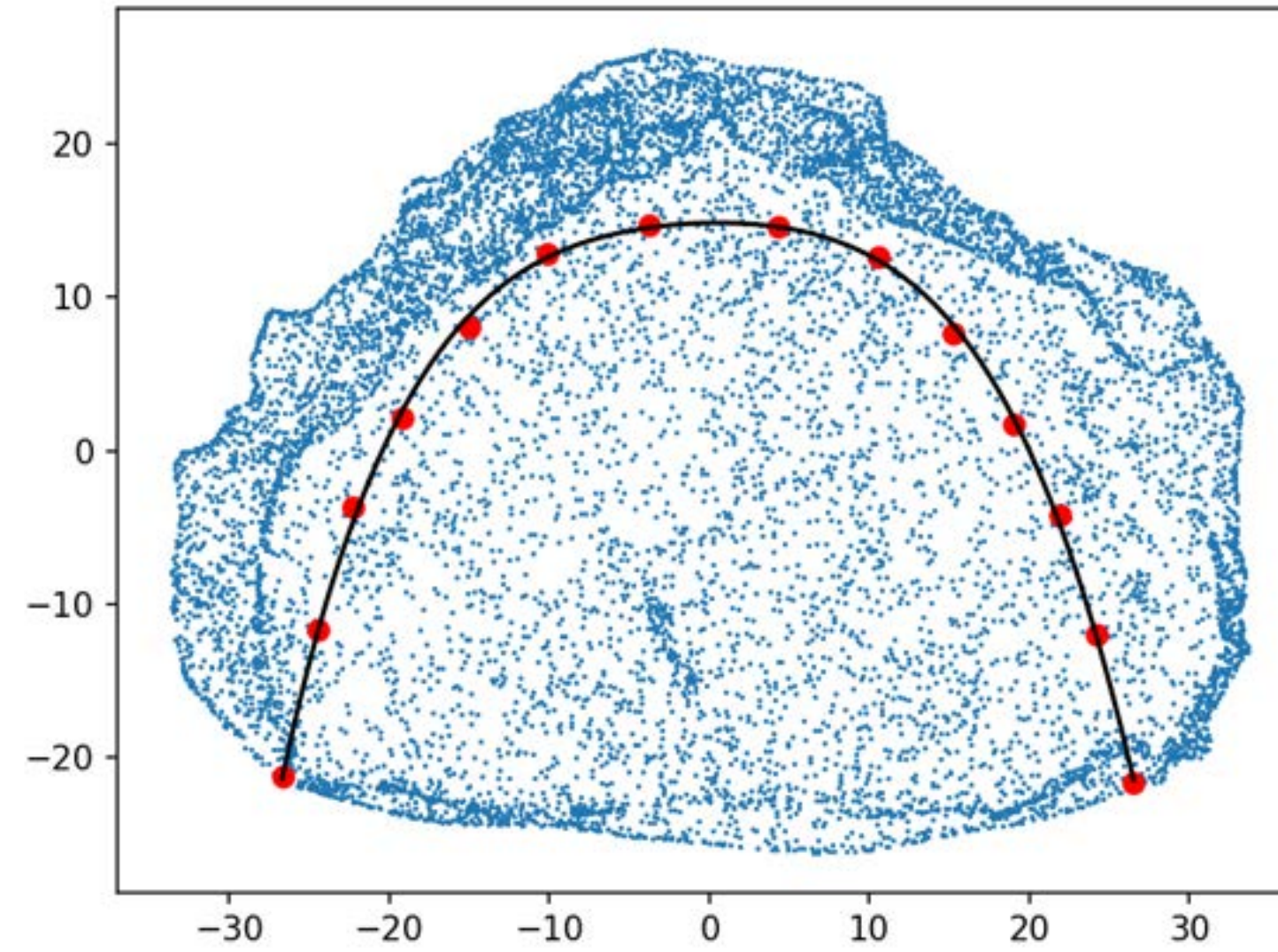
CAD design



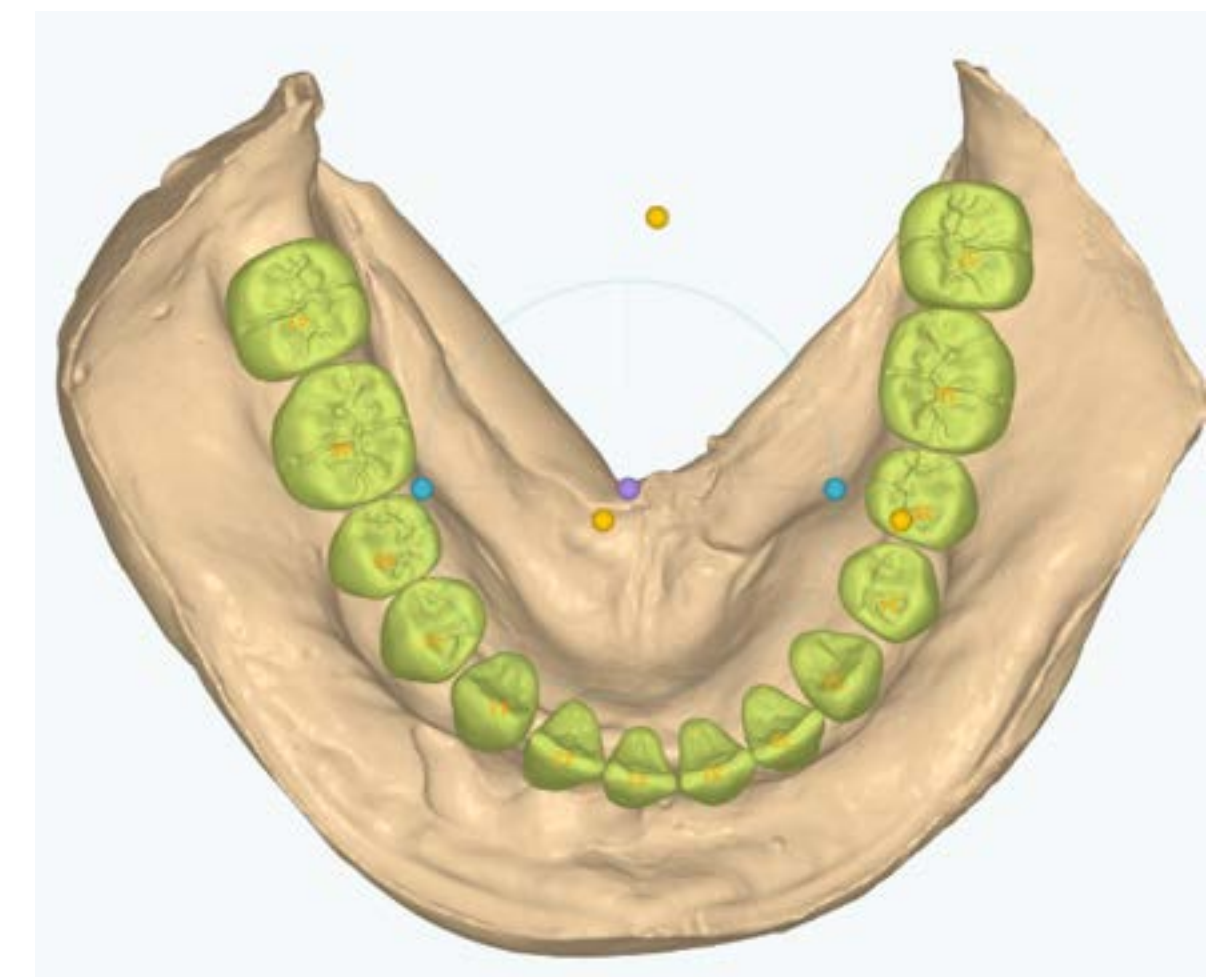
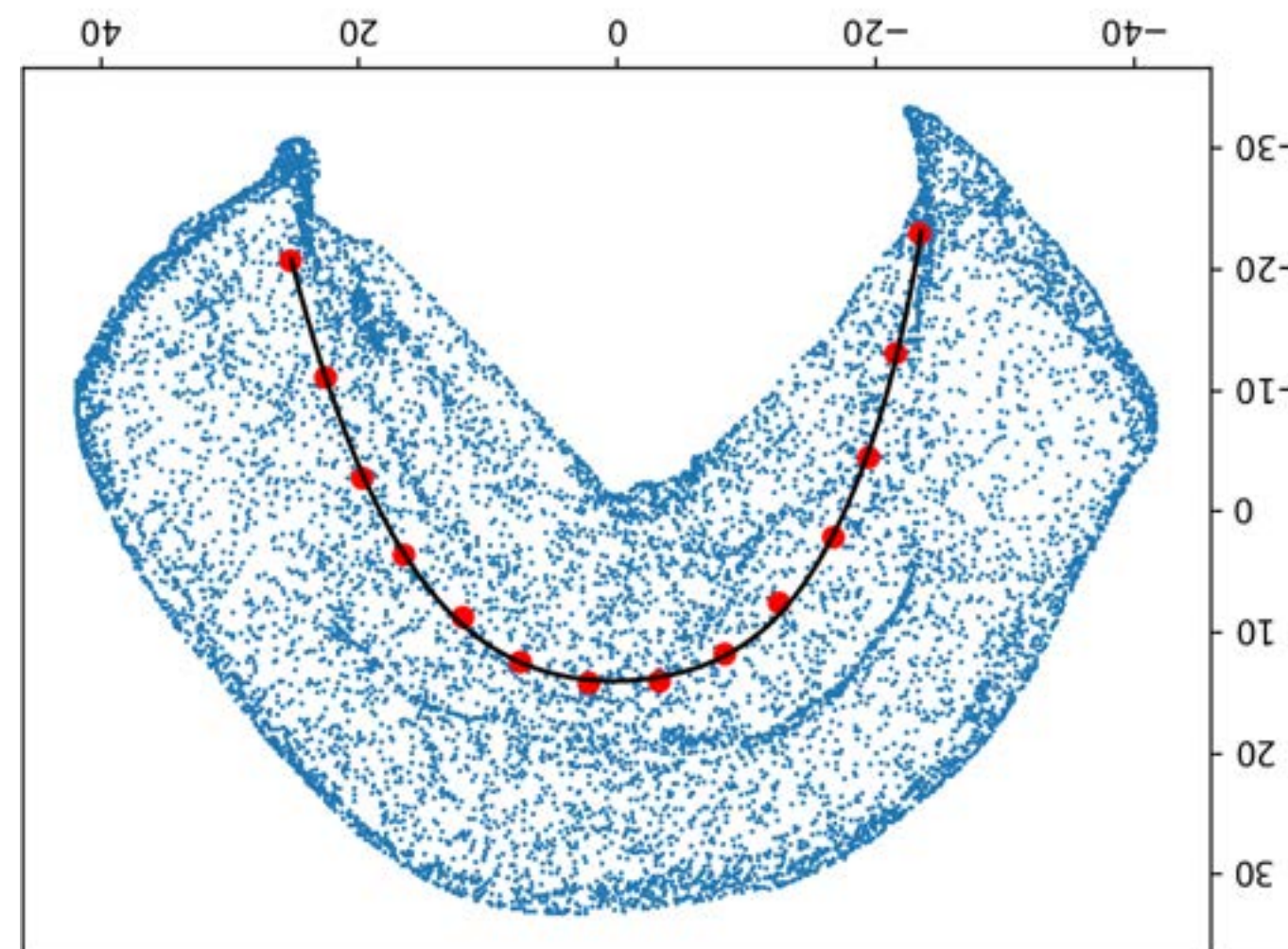
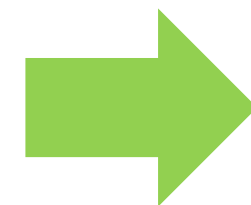
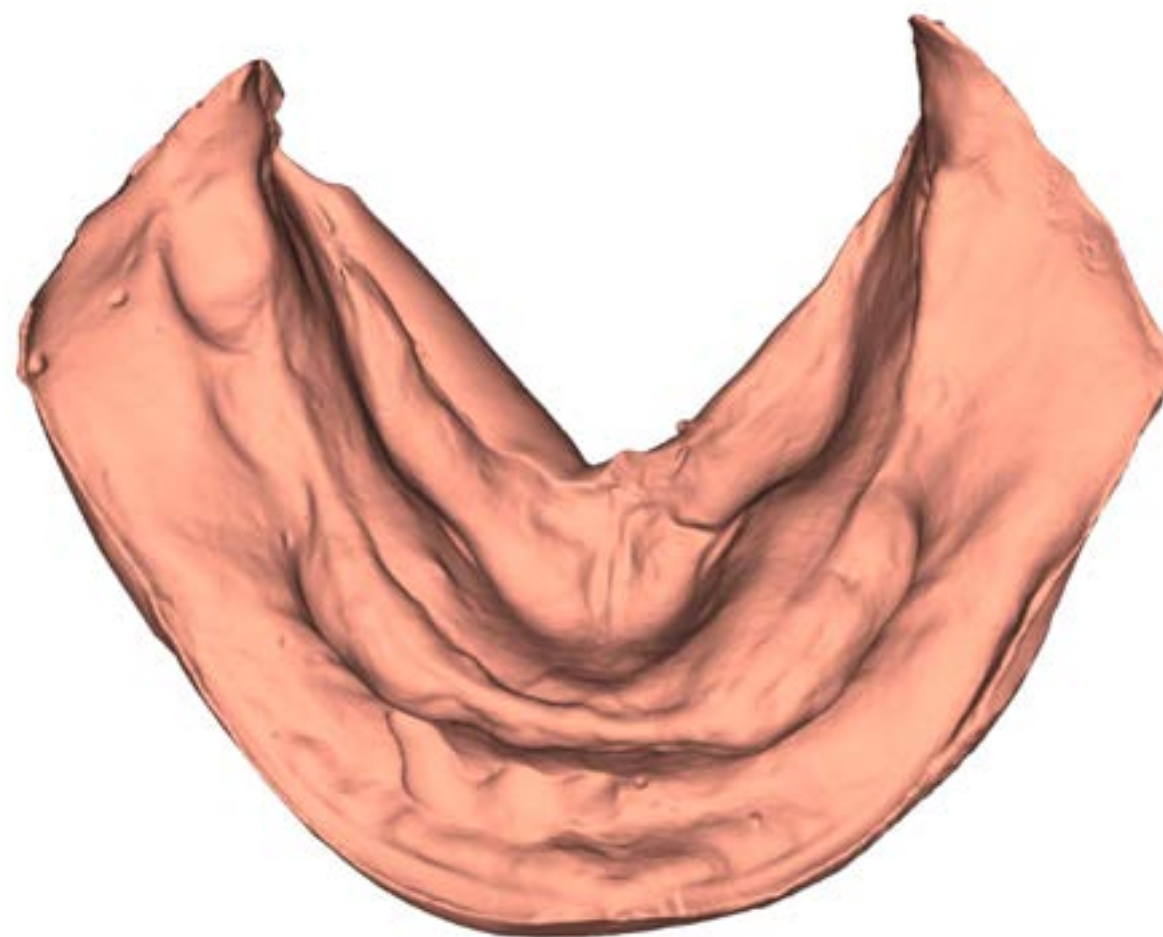
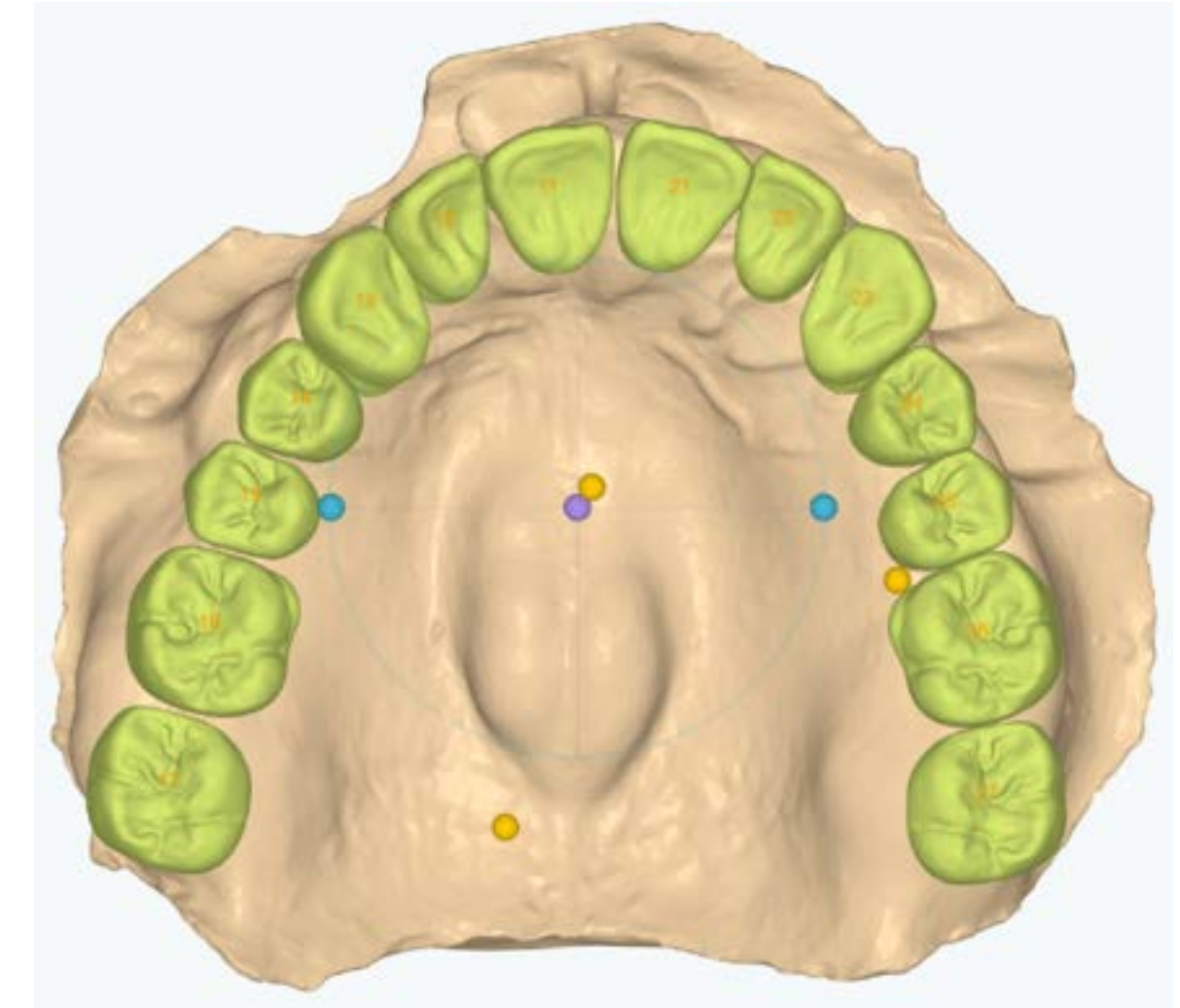
Edentulous Case



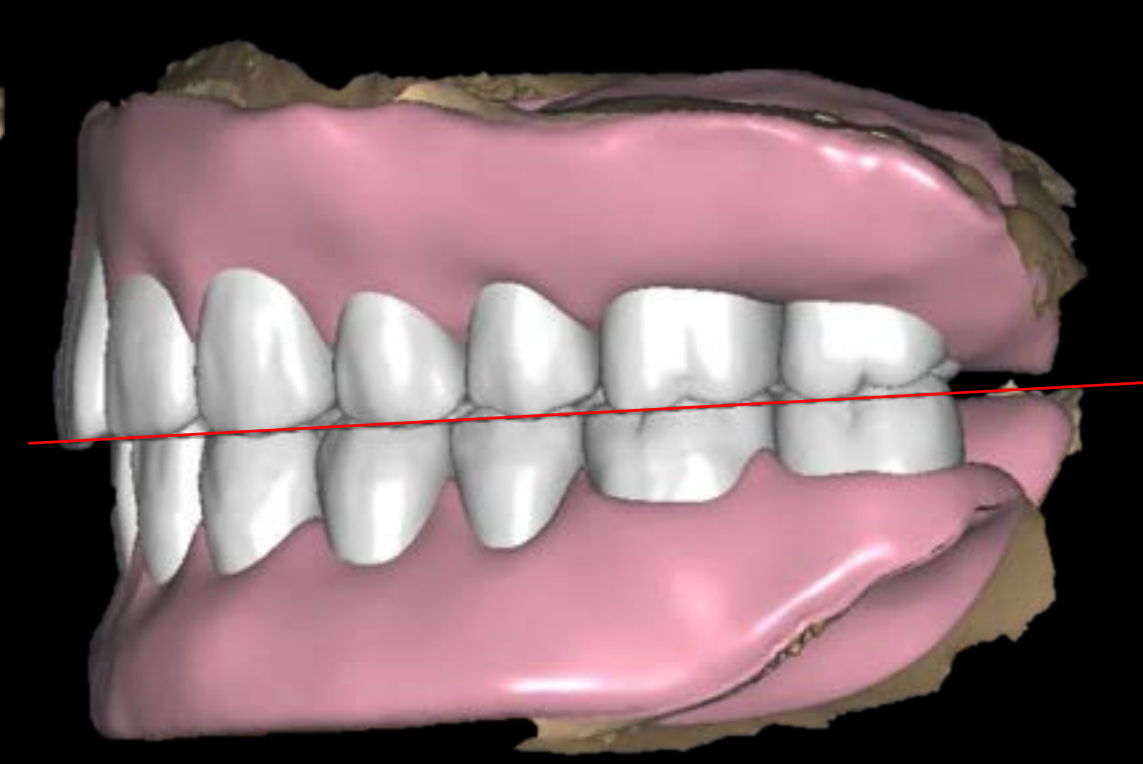
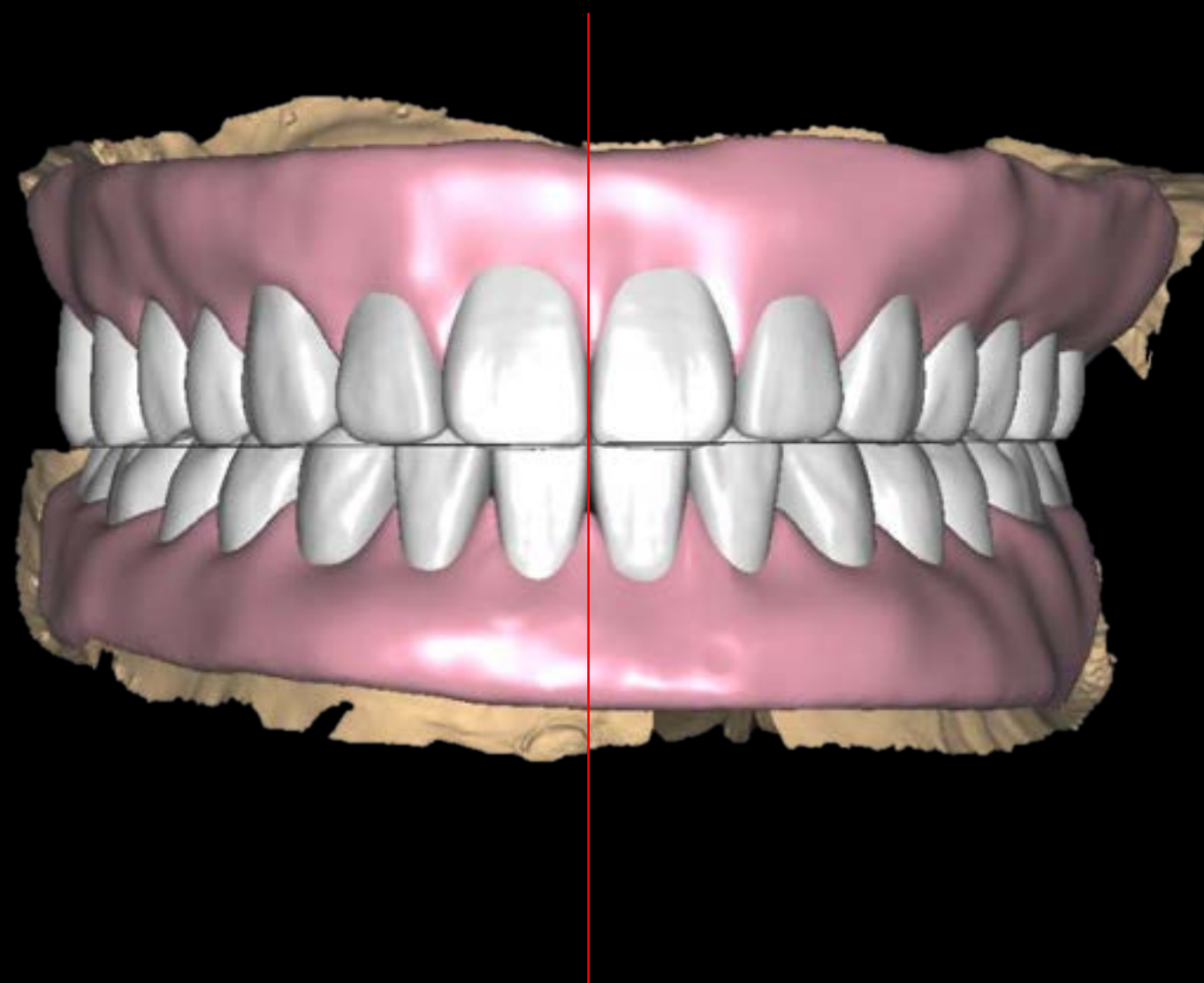
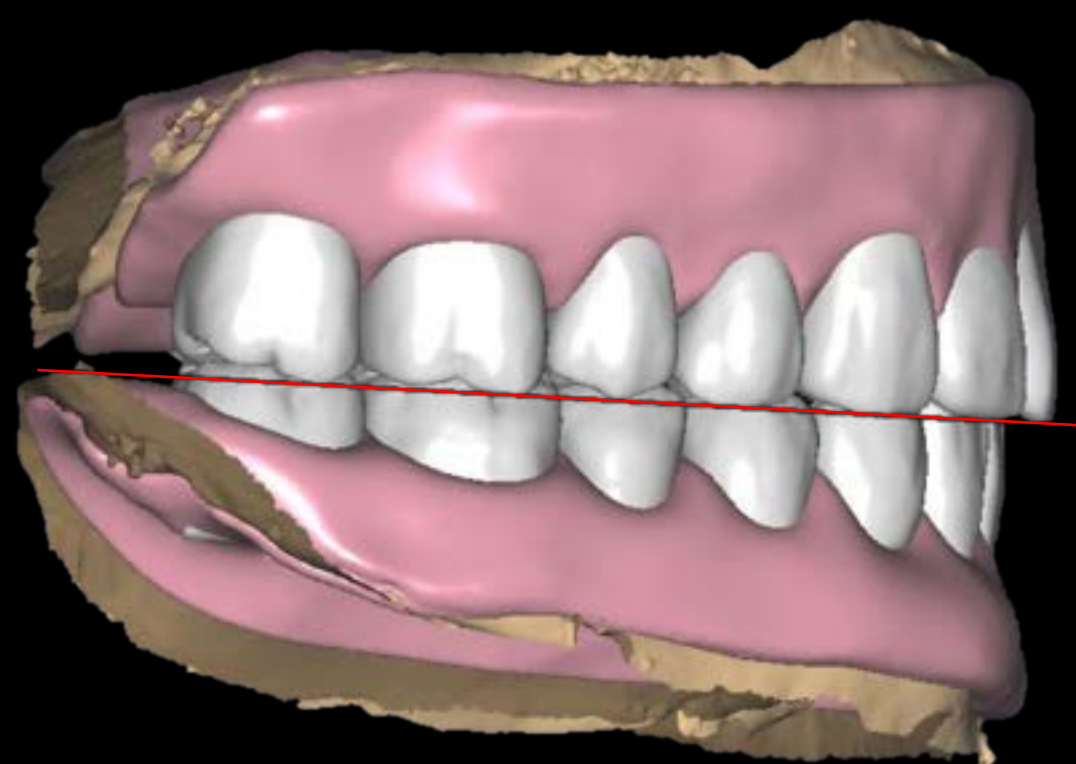
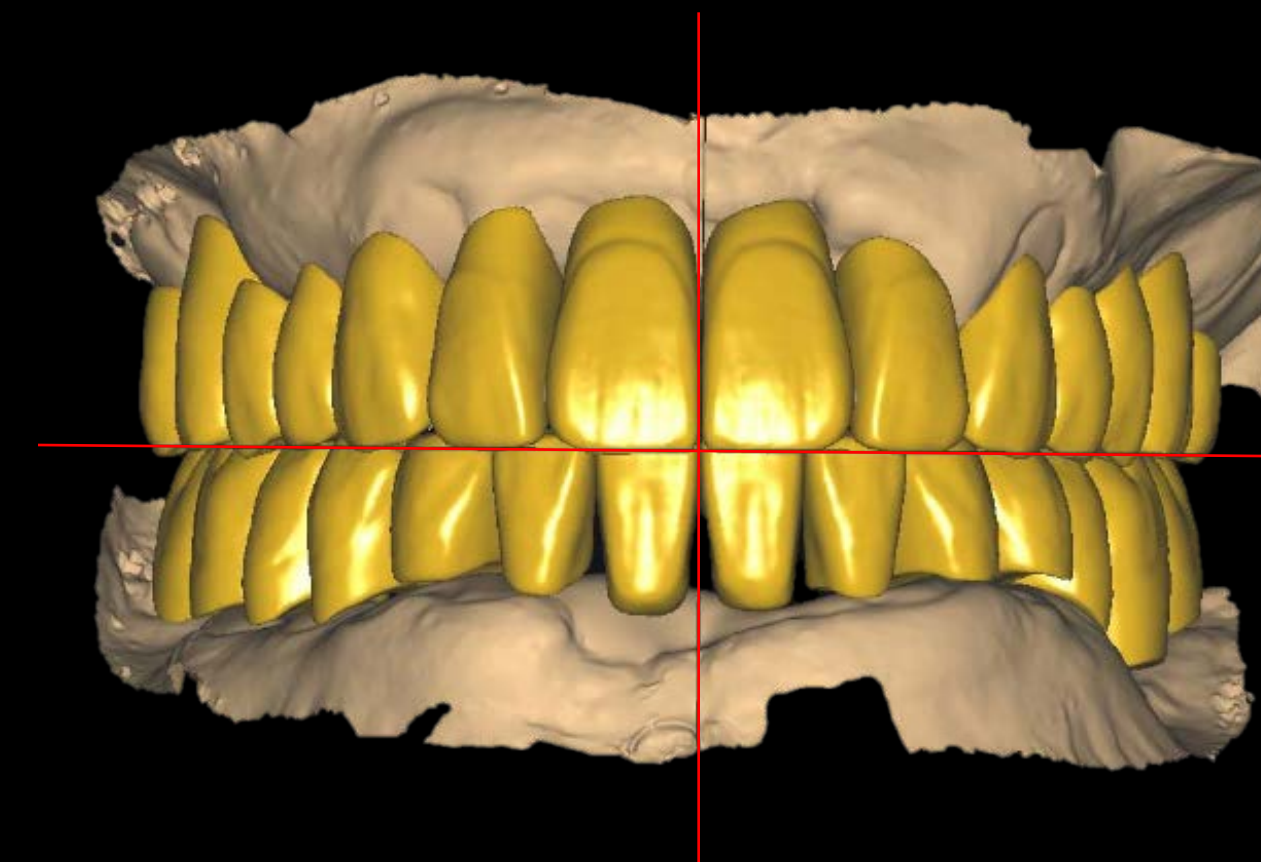
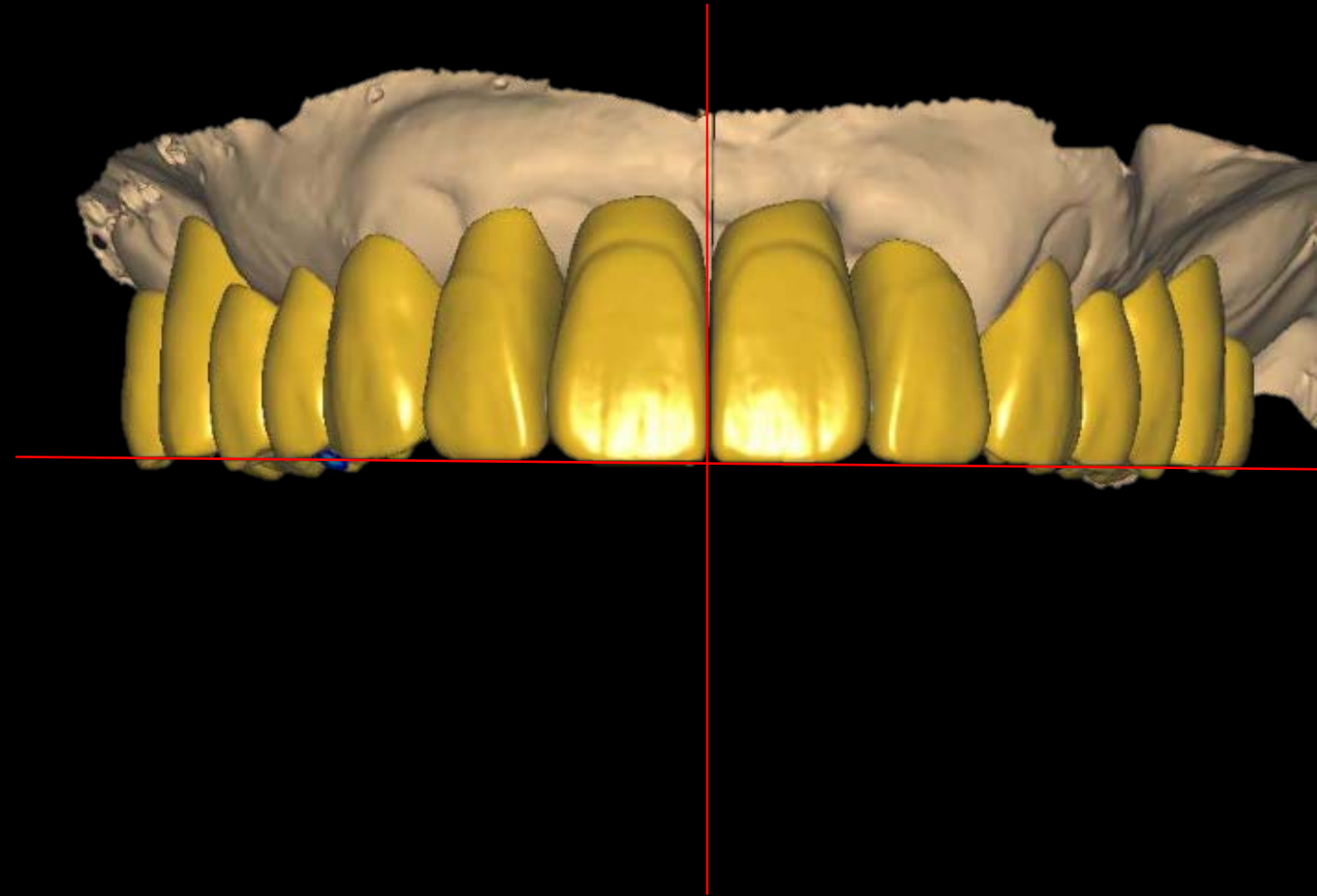
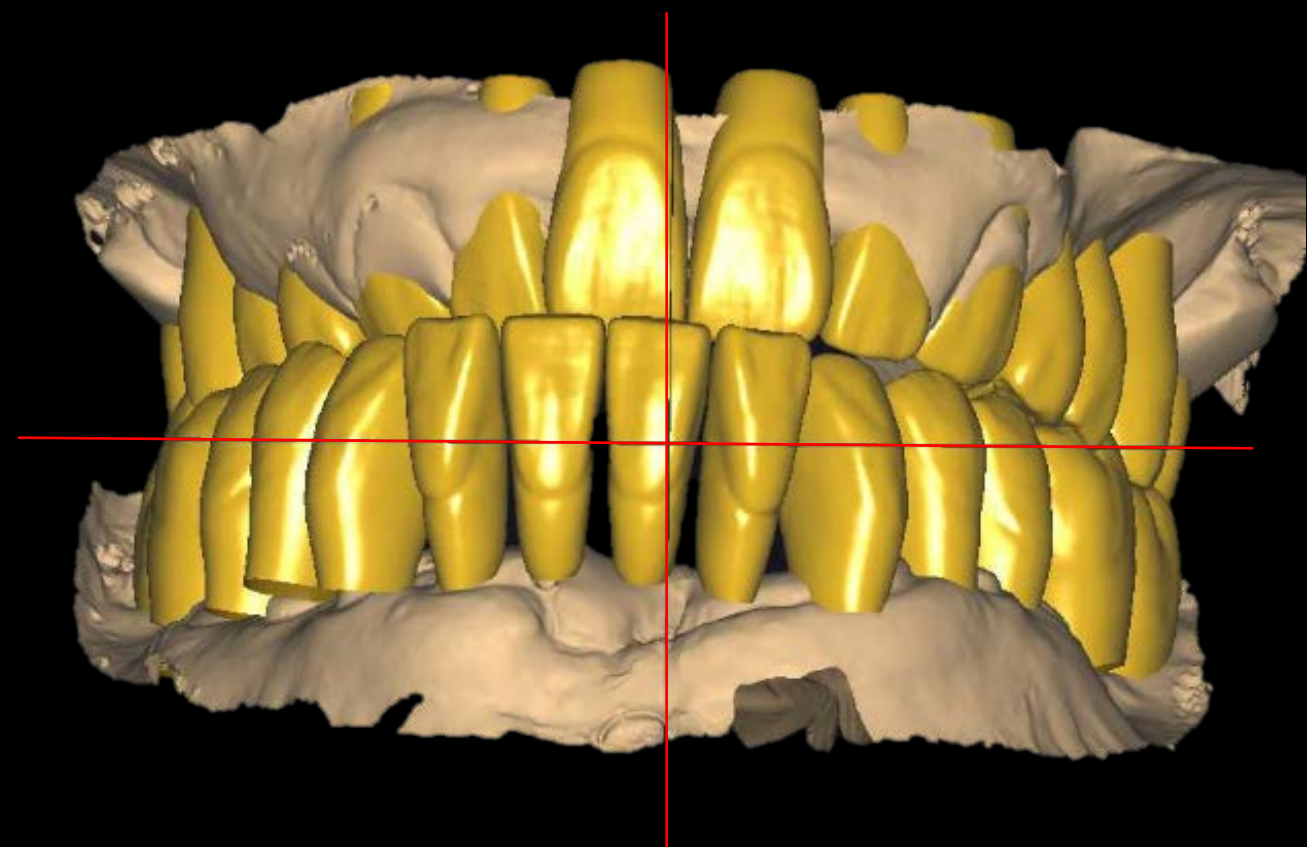
Auto Detection



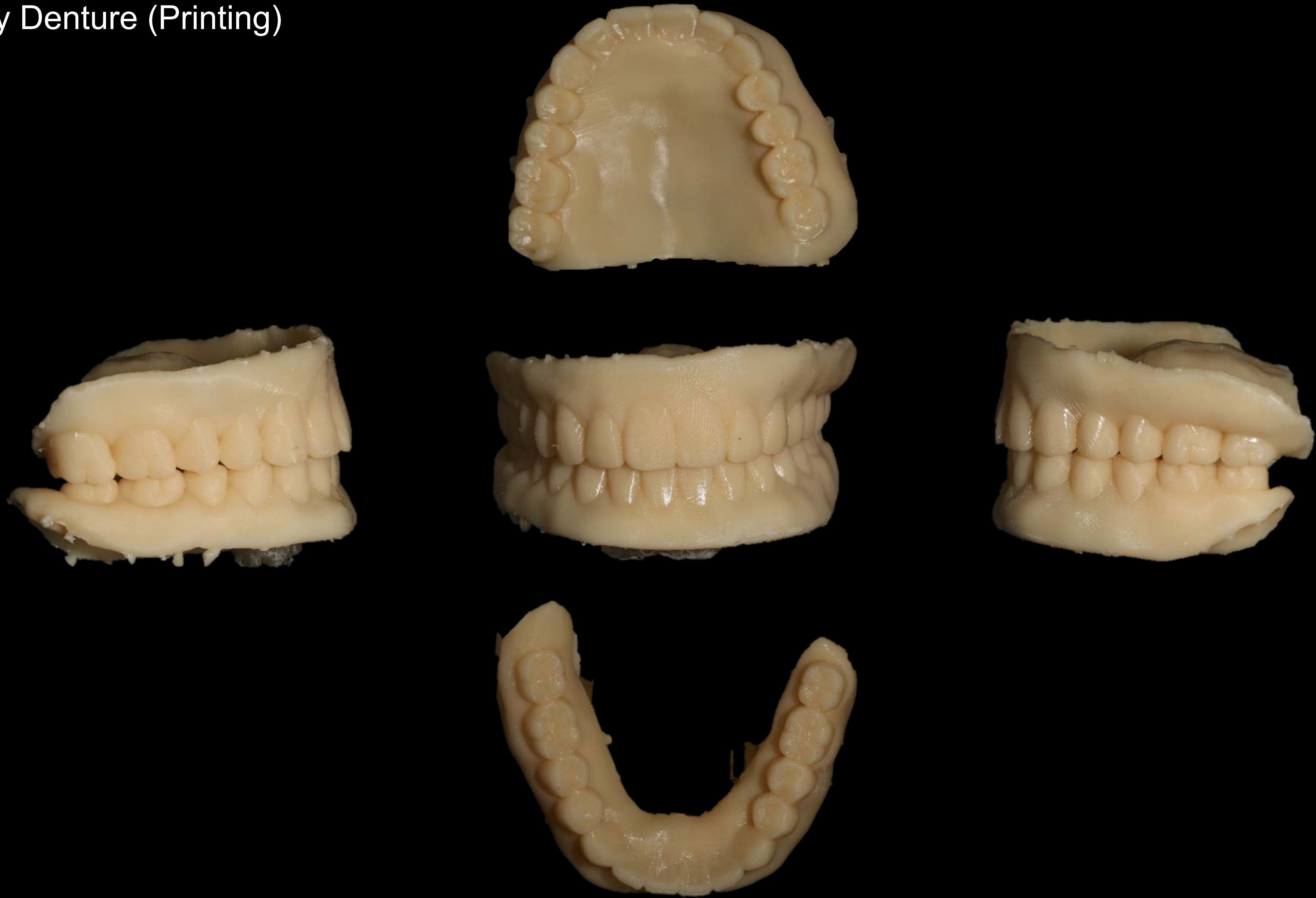
Crown Placement



CAD design



Temporary Denture (Printing)



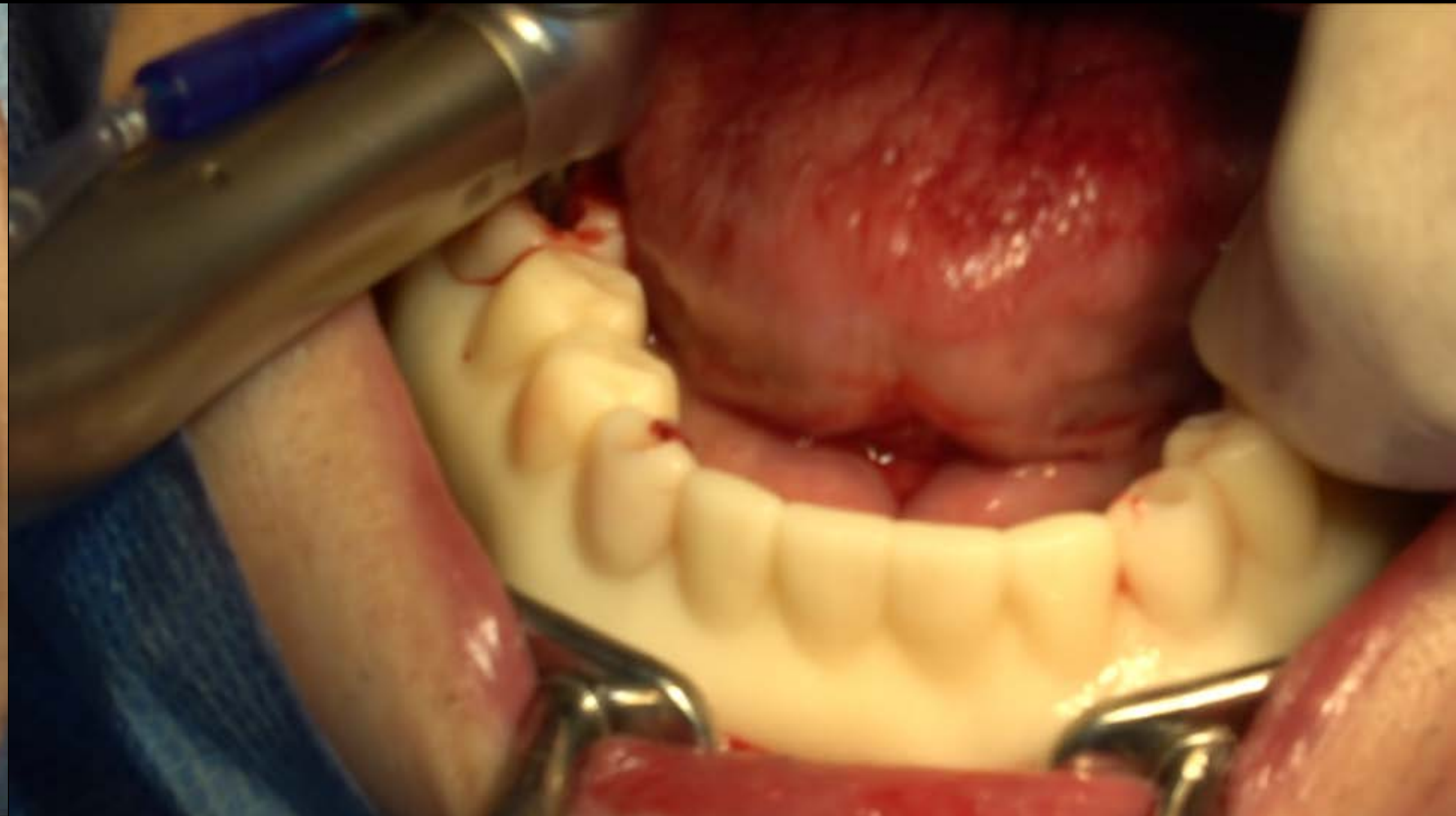
Marking hole on Lower printing denture



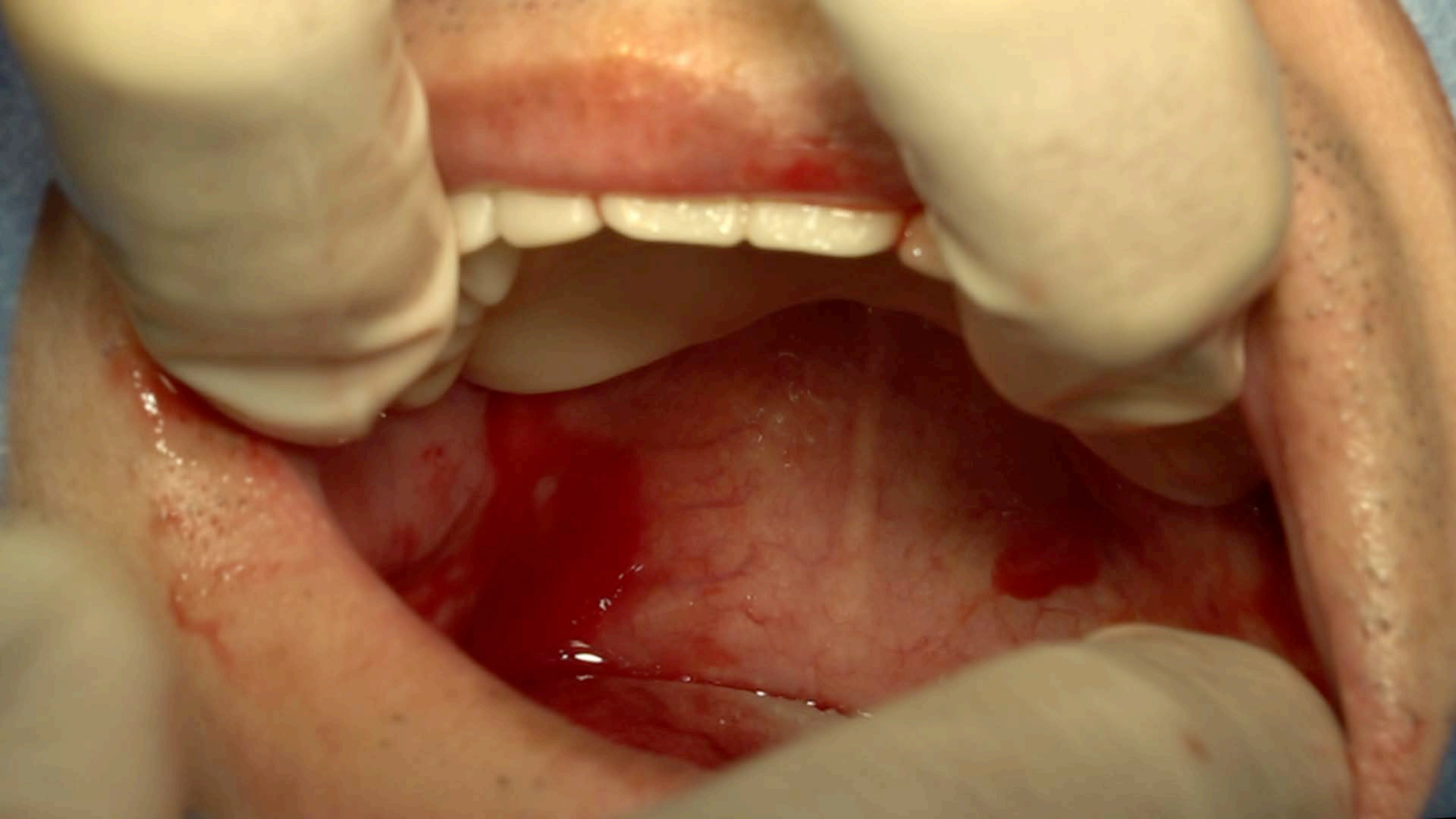
Surgery (2023-08-21)



CR bite check



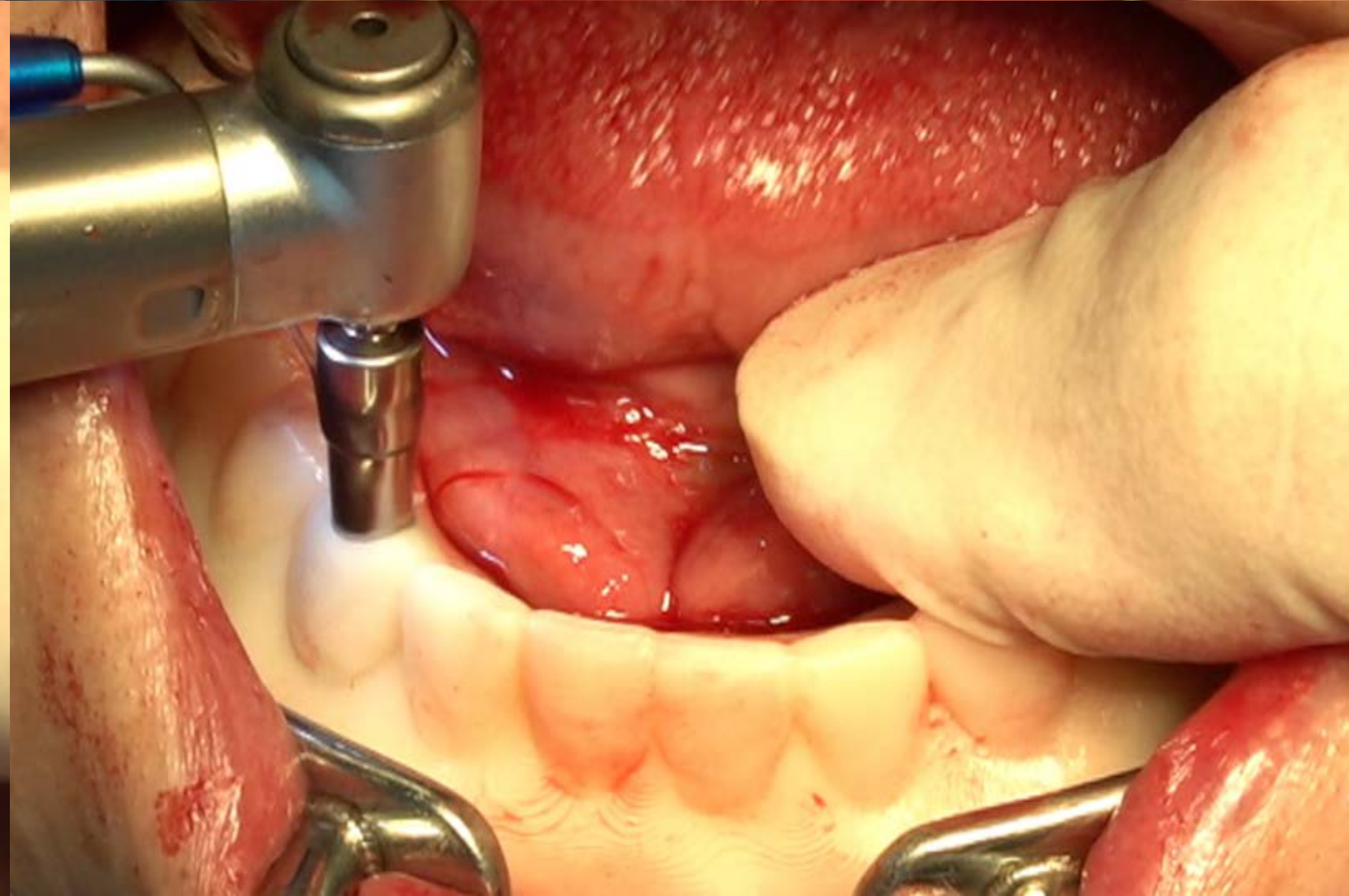
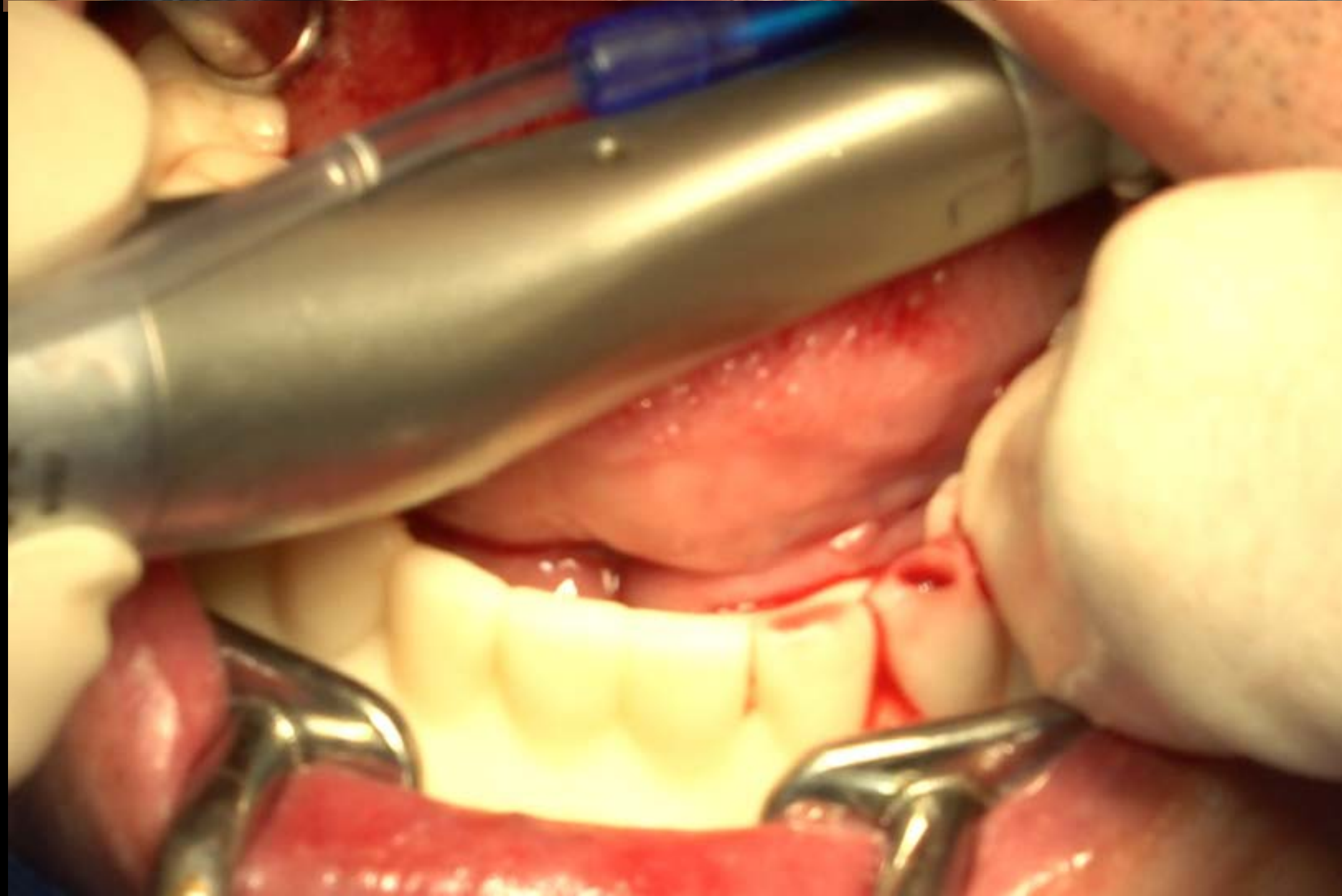
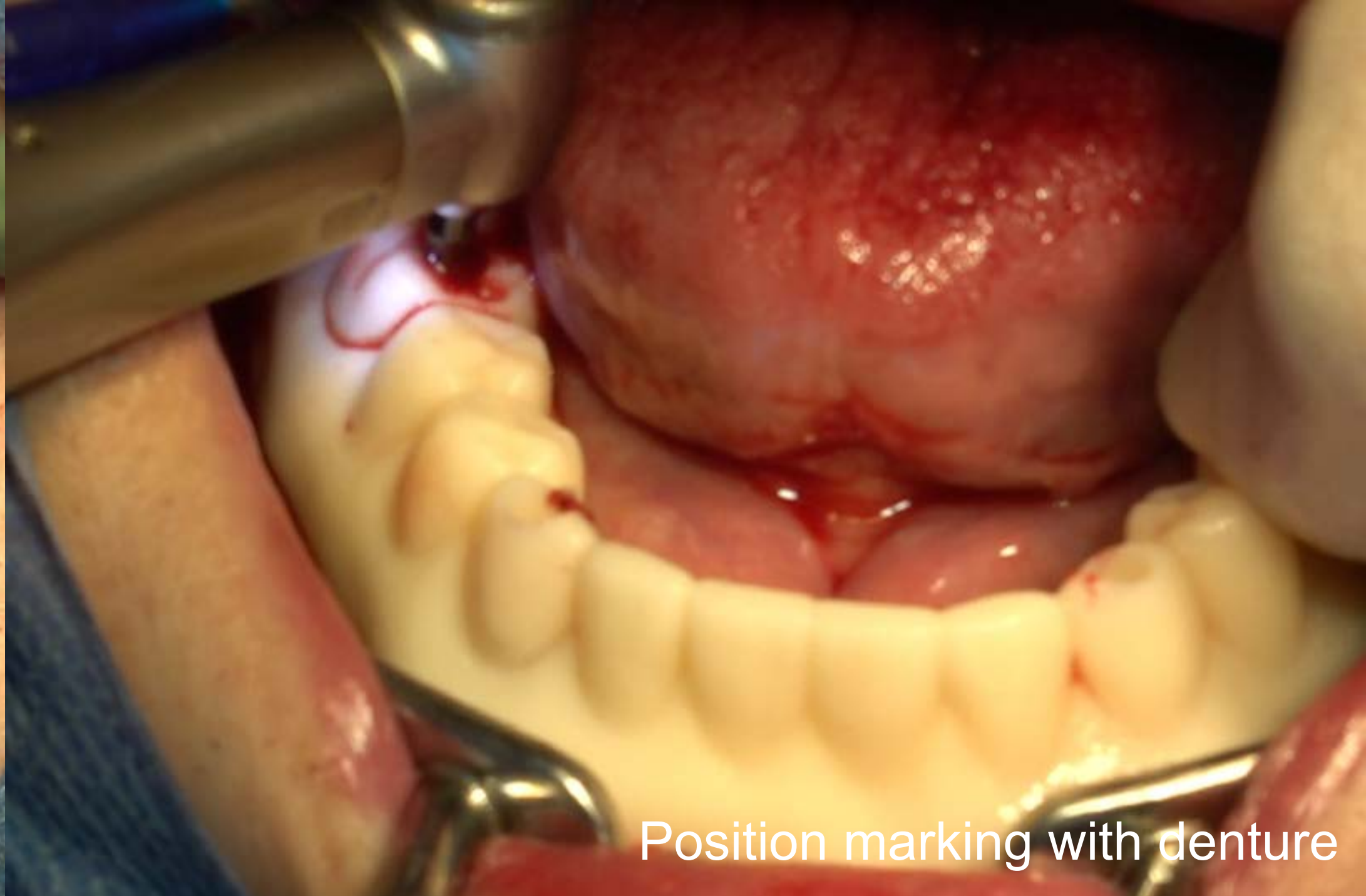
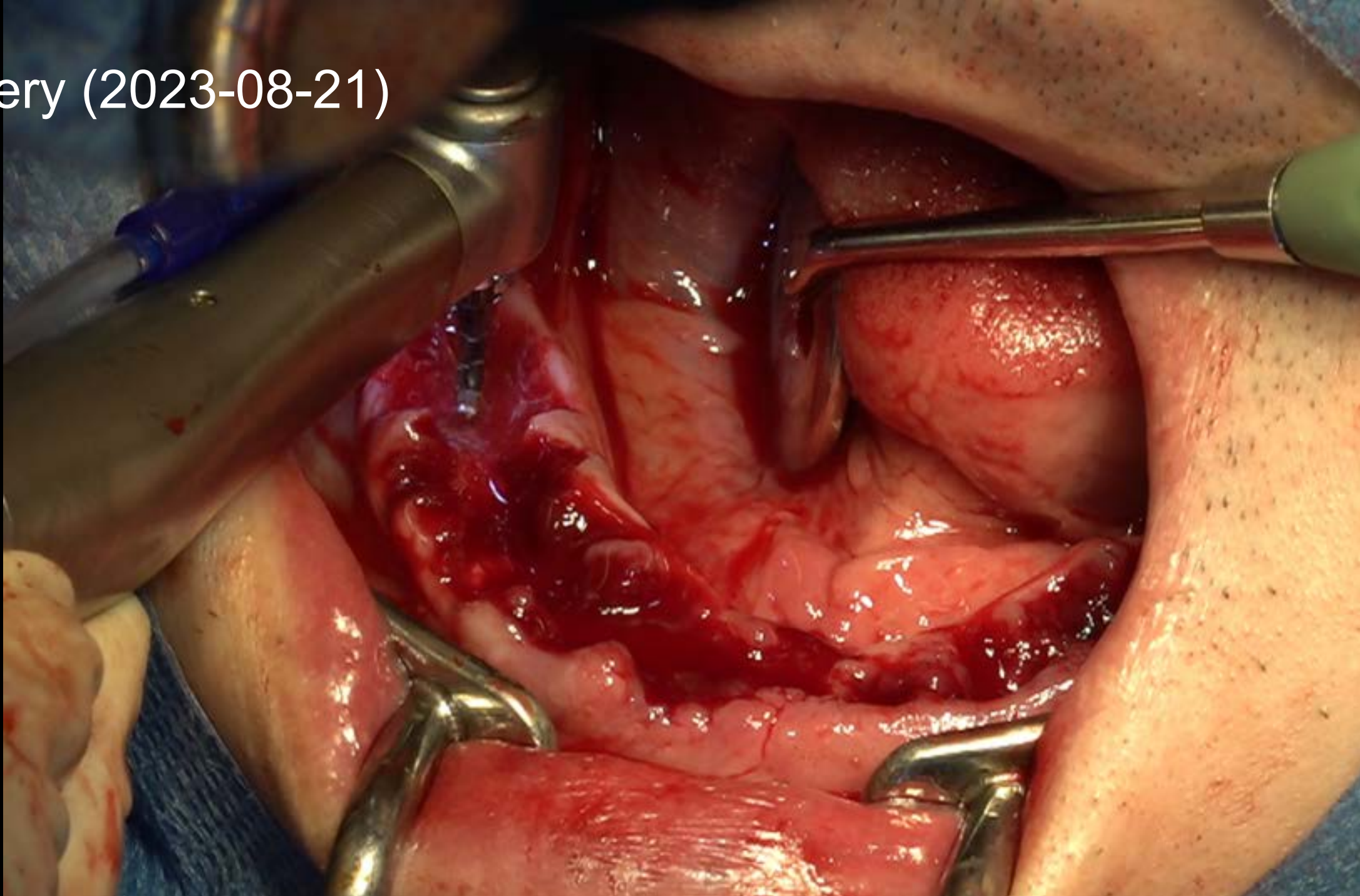
Implant positioning marking with denture

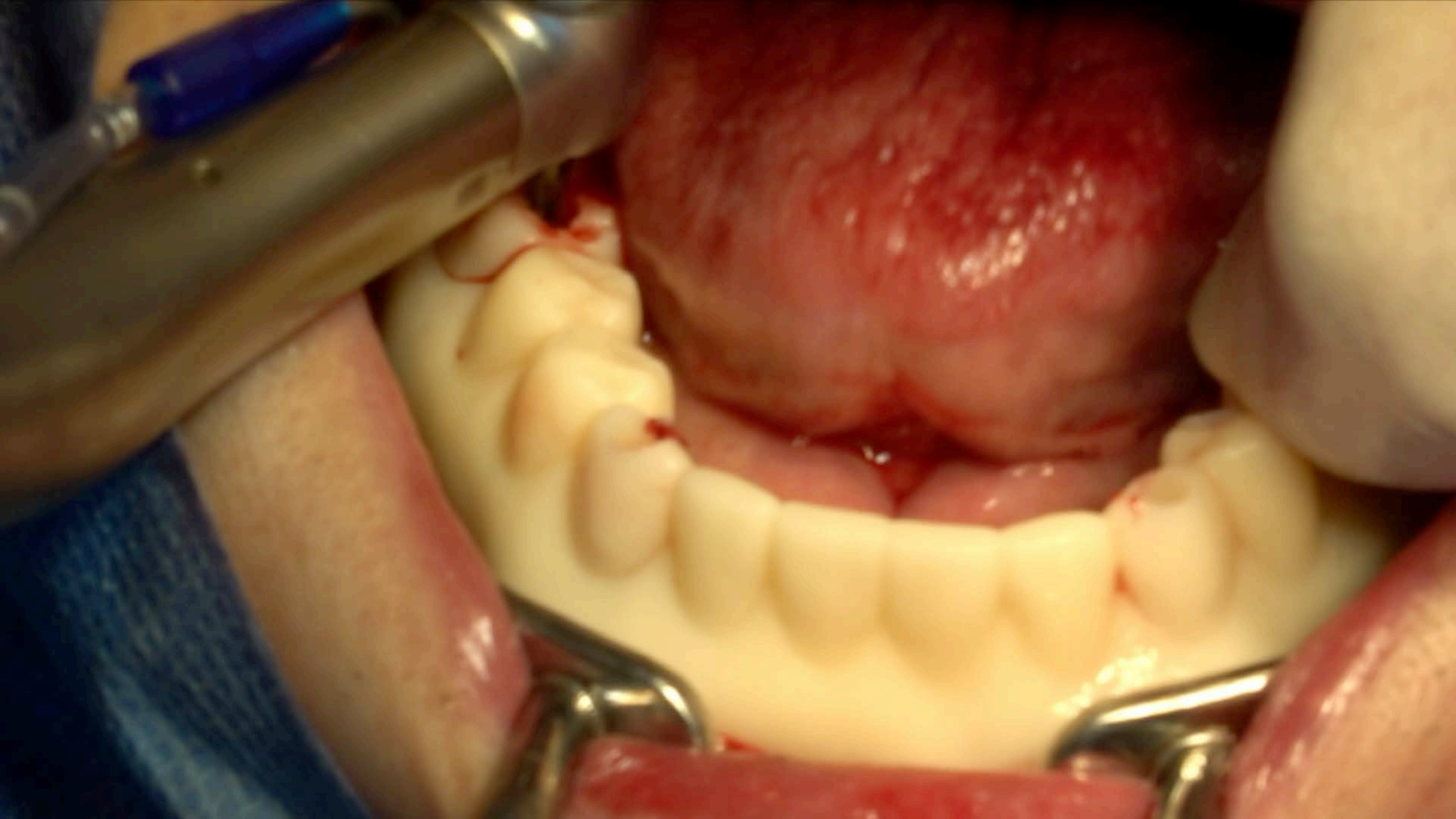


Marking hole on Lower printing denture

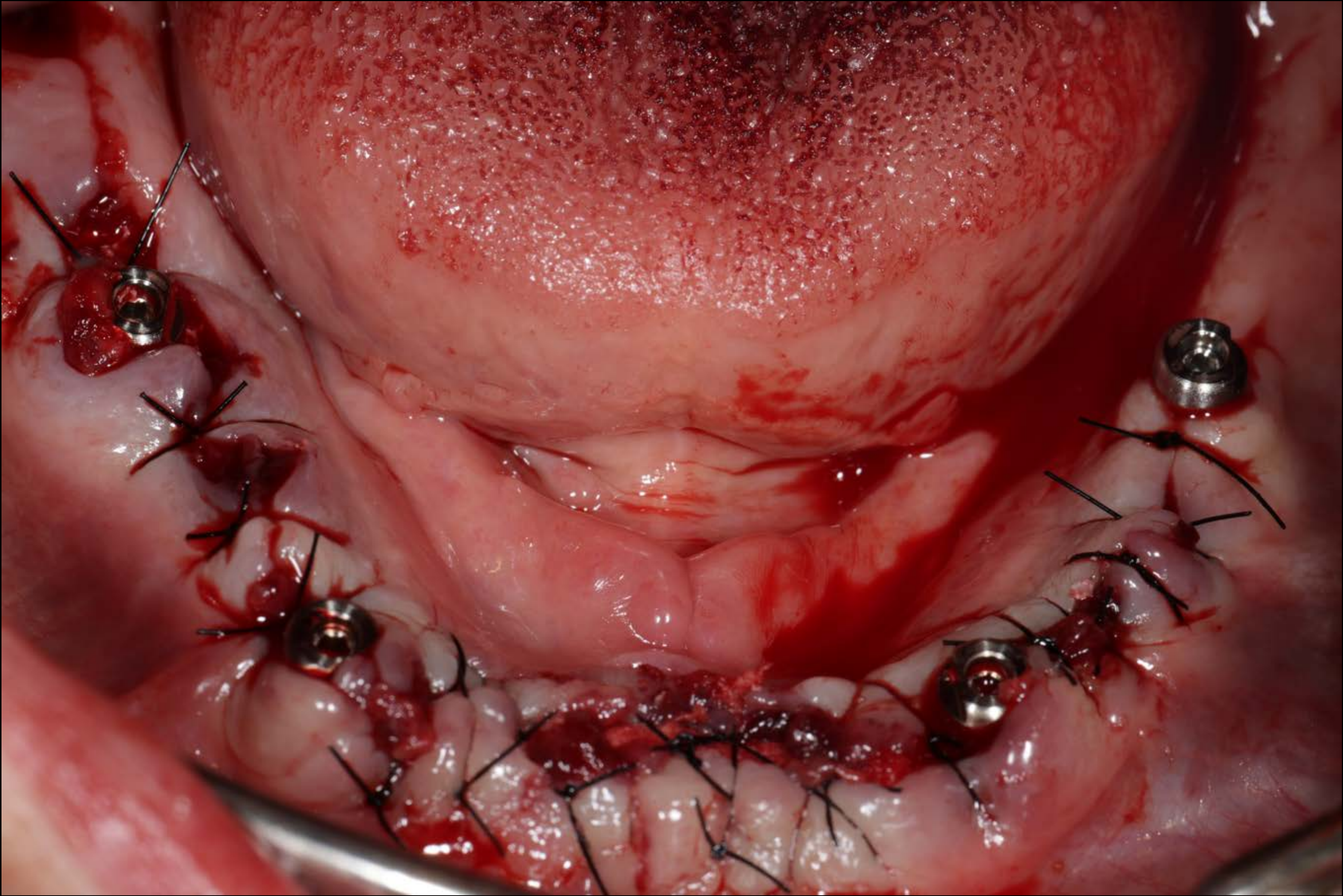


Surgery (2023-08-21)

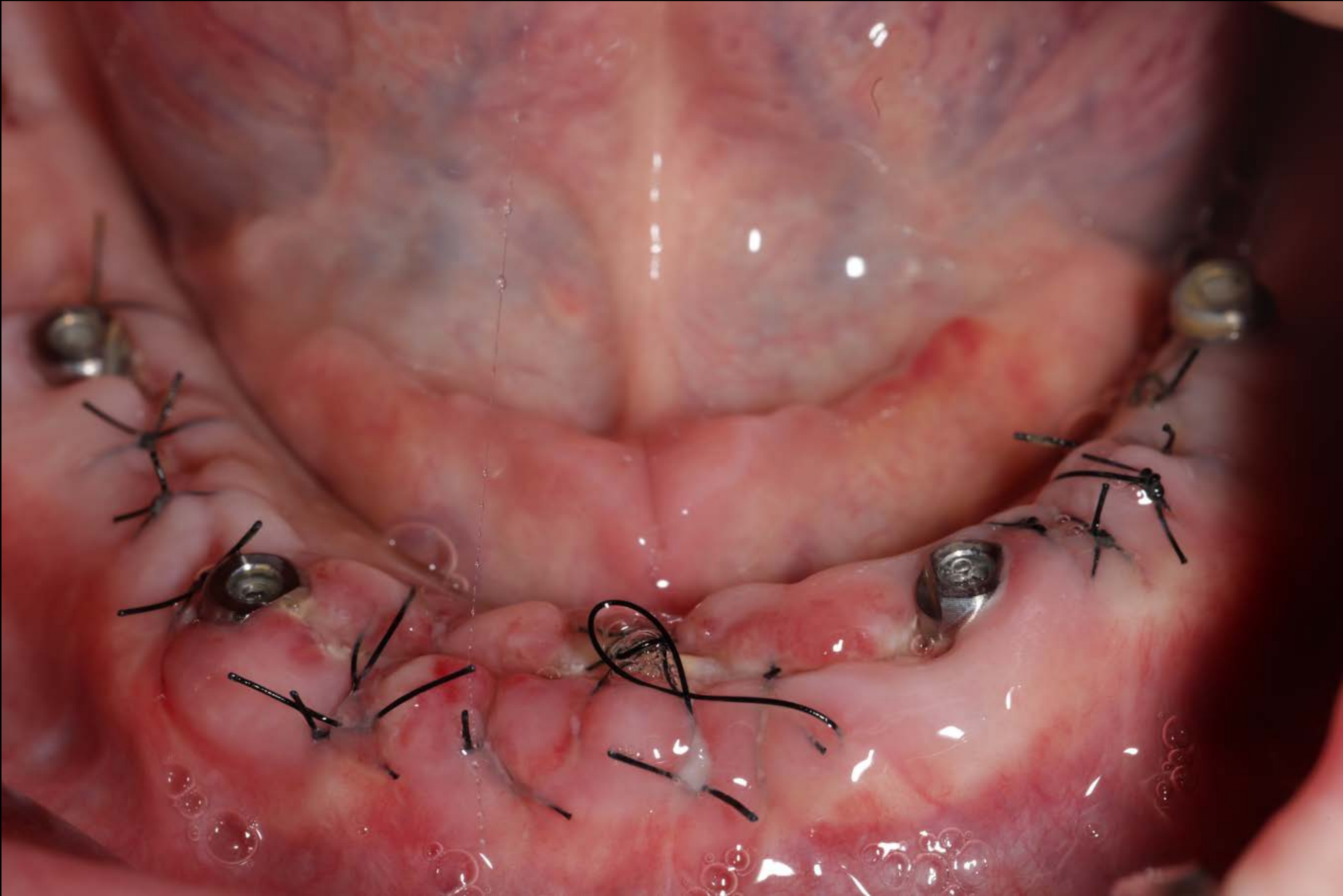




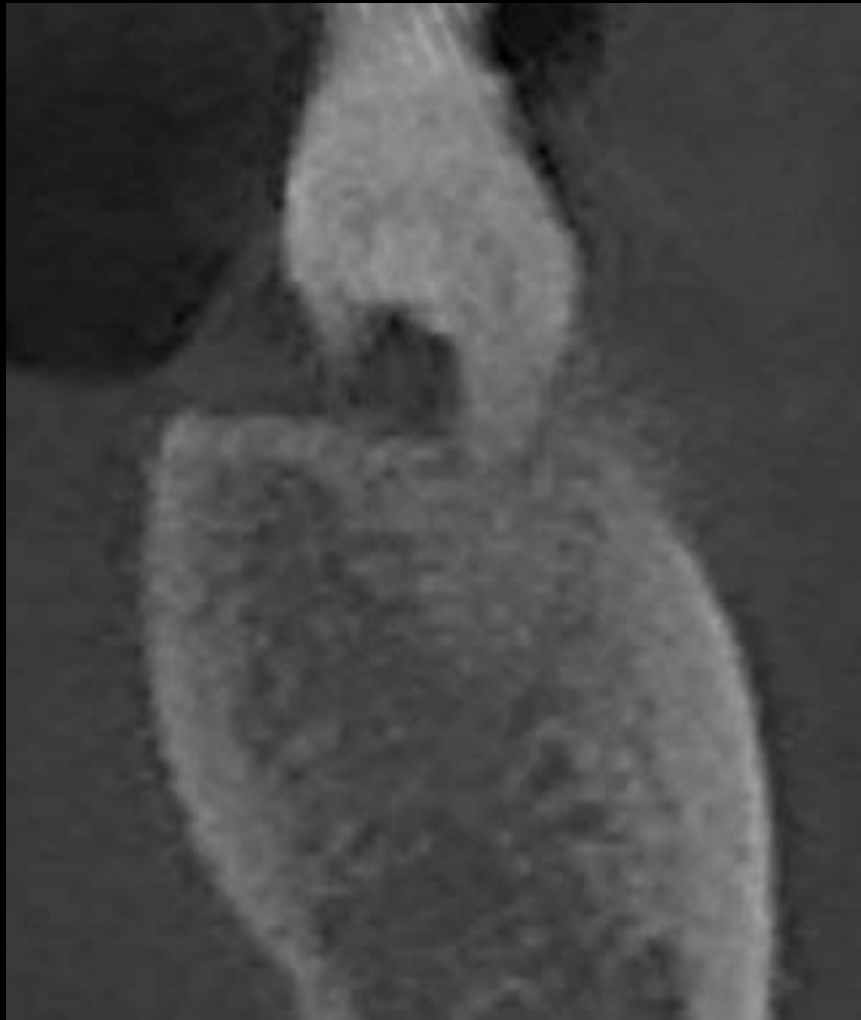
Post-op (2023-08-21)



Healing 1 week (2023-08-28)



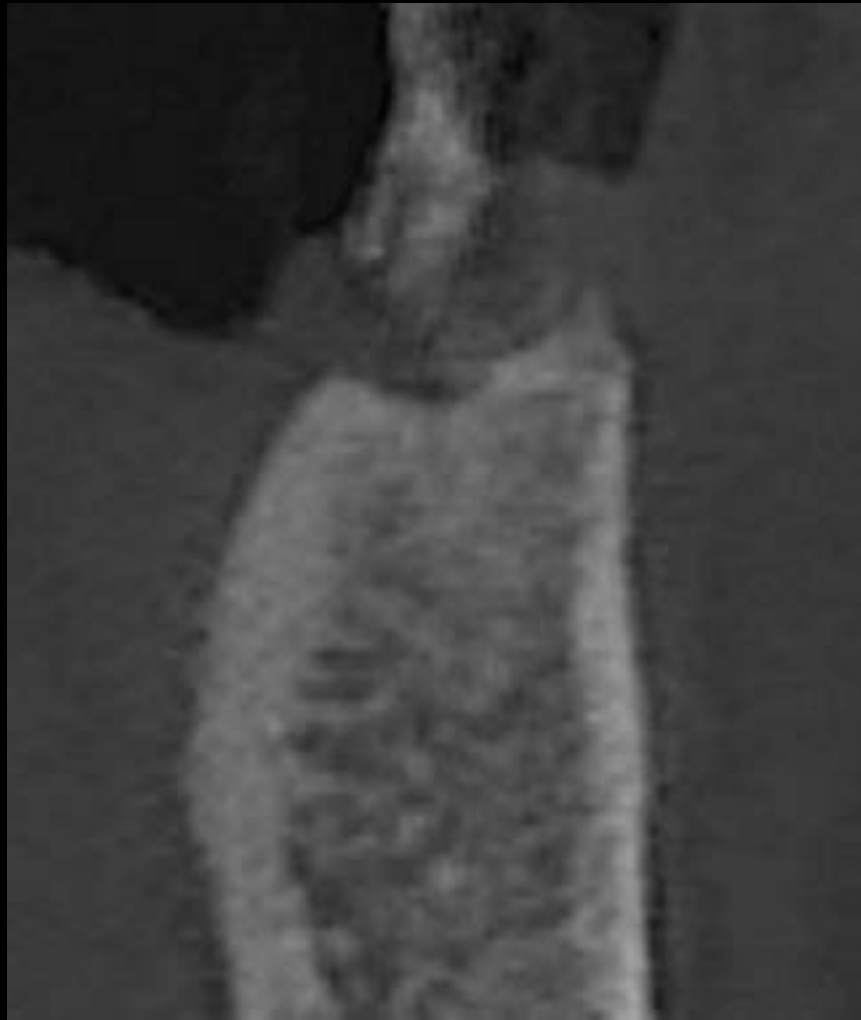
Pre-op CT (2023-08-10)



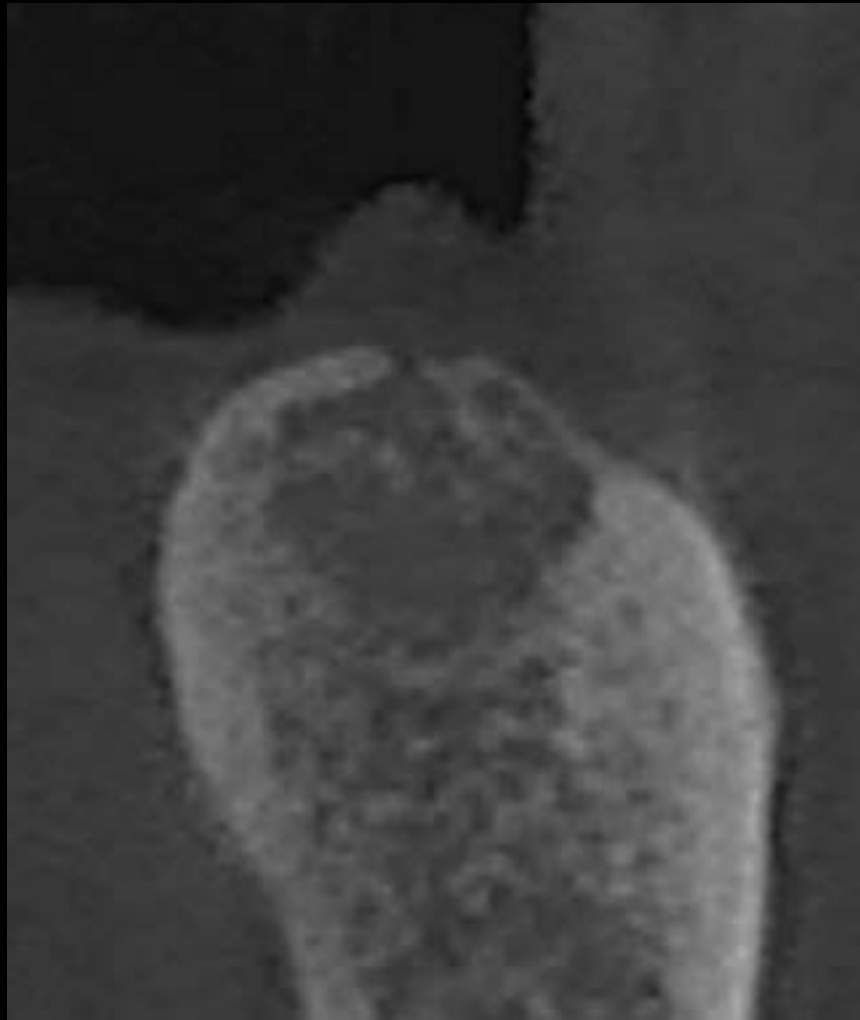
#46



#33



#43



#46

Post-op CT (2023-08-10)



#46



#33

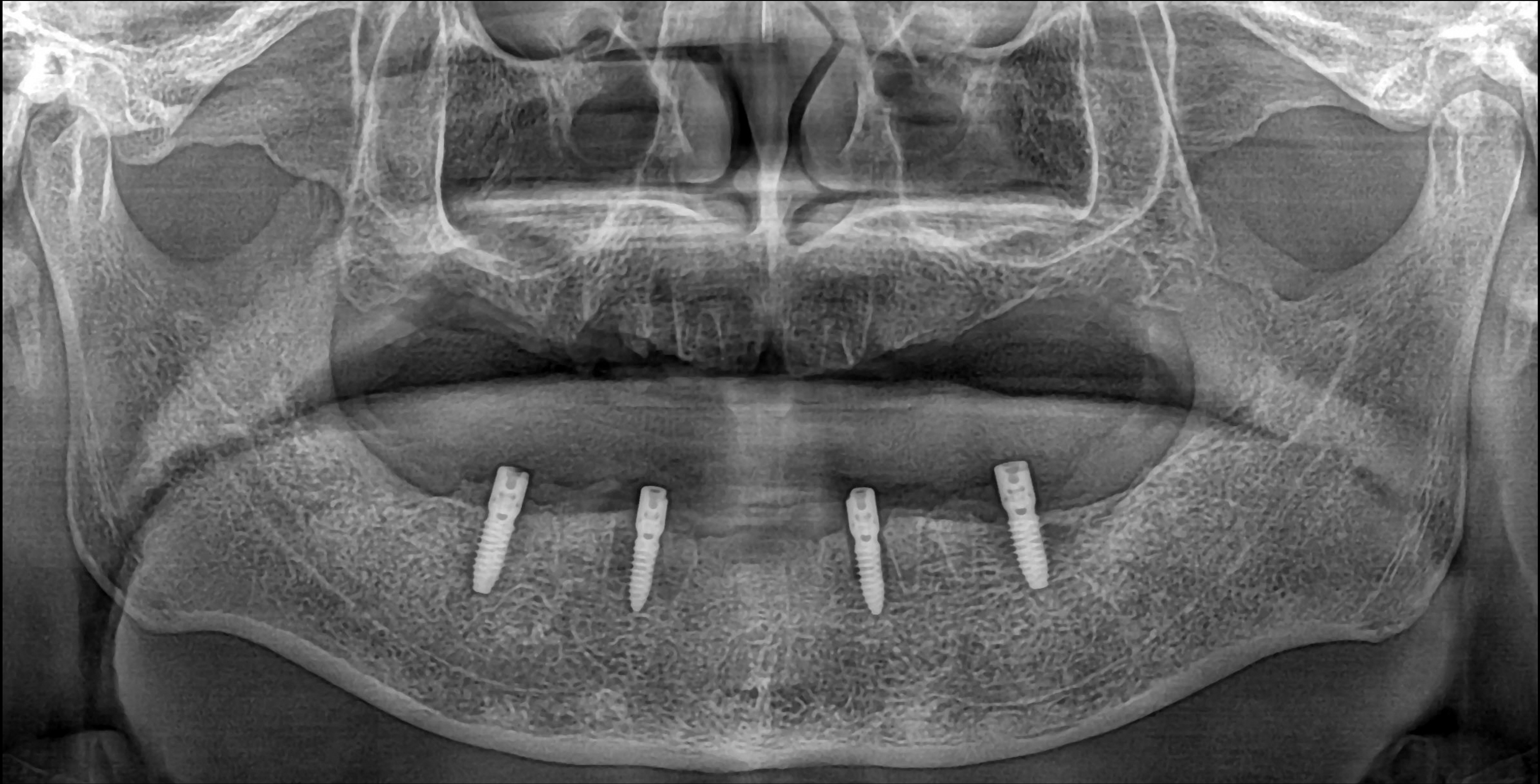


#43



#46

Post-op (2023-08-21)



Marking hole on upper printing denture



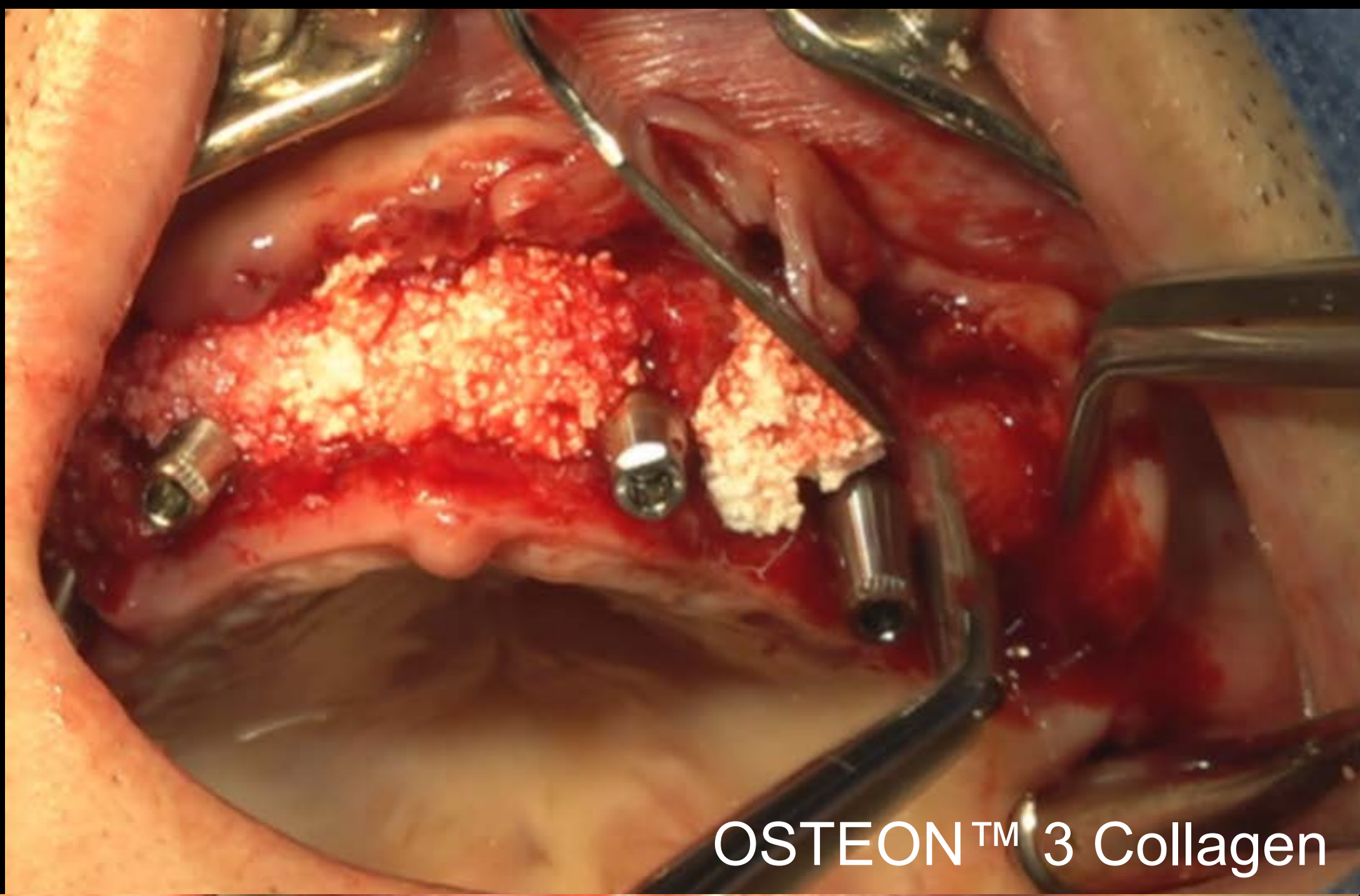
Pre-op (2023-08-28)



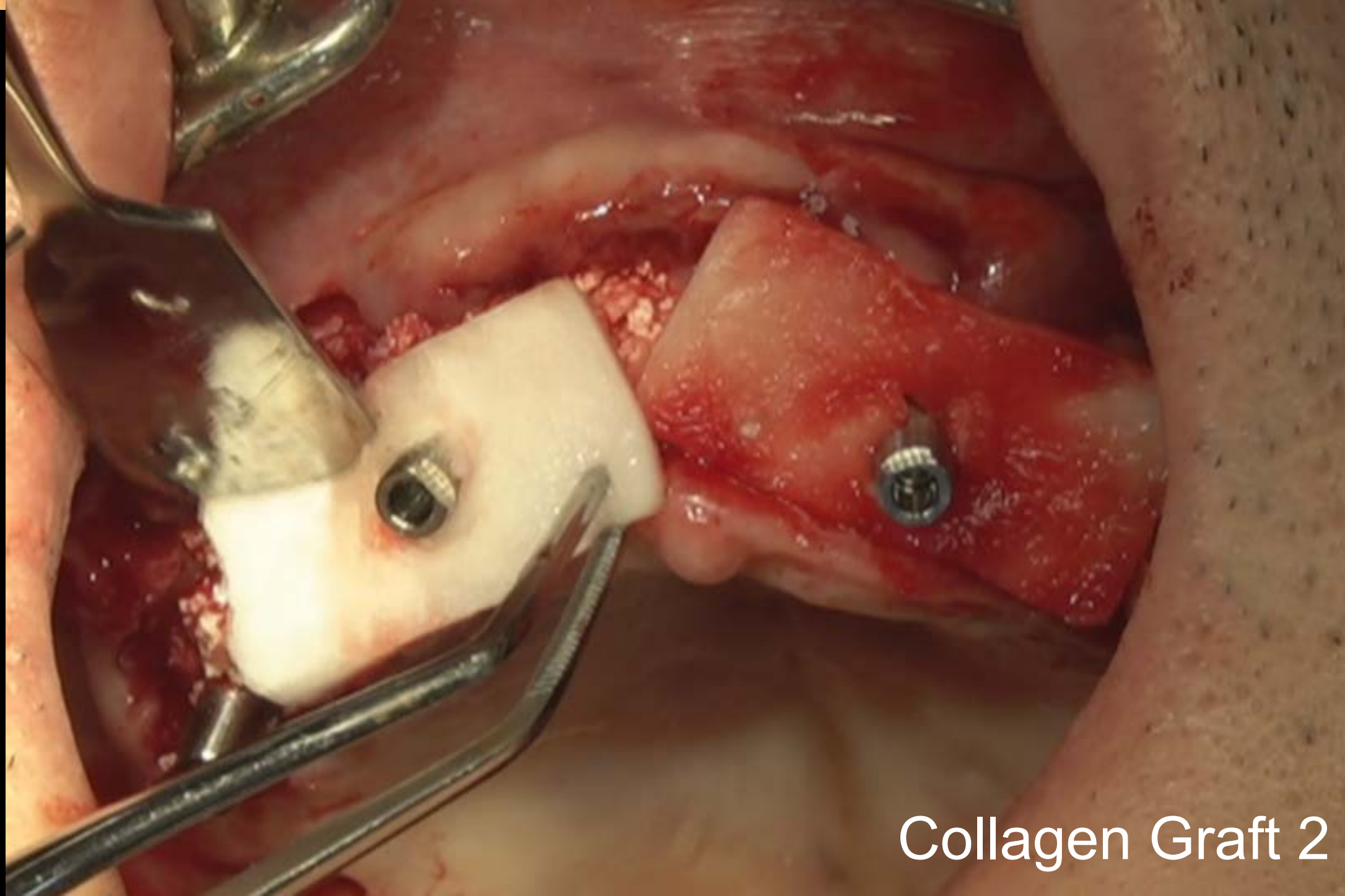
Surgery (2023-08-28)



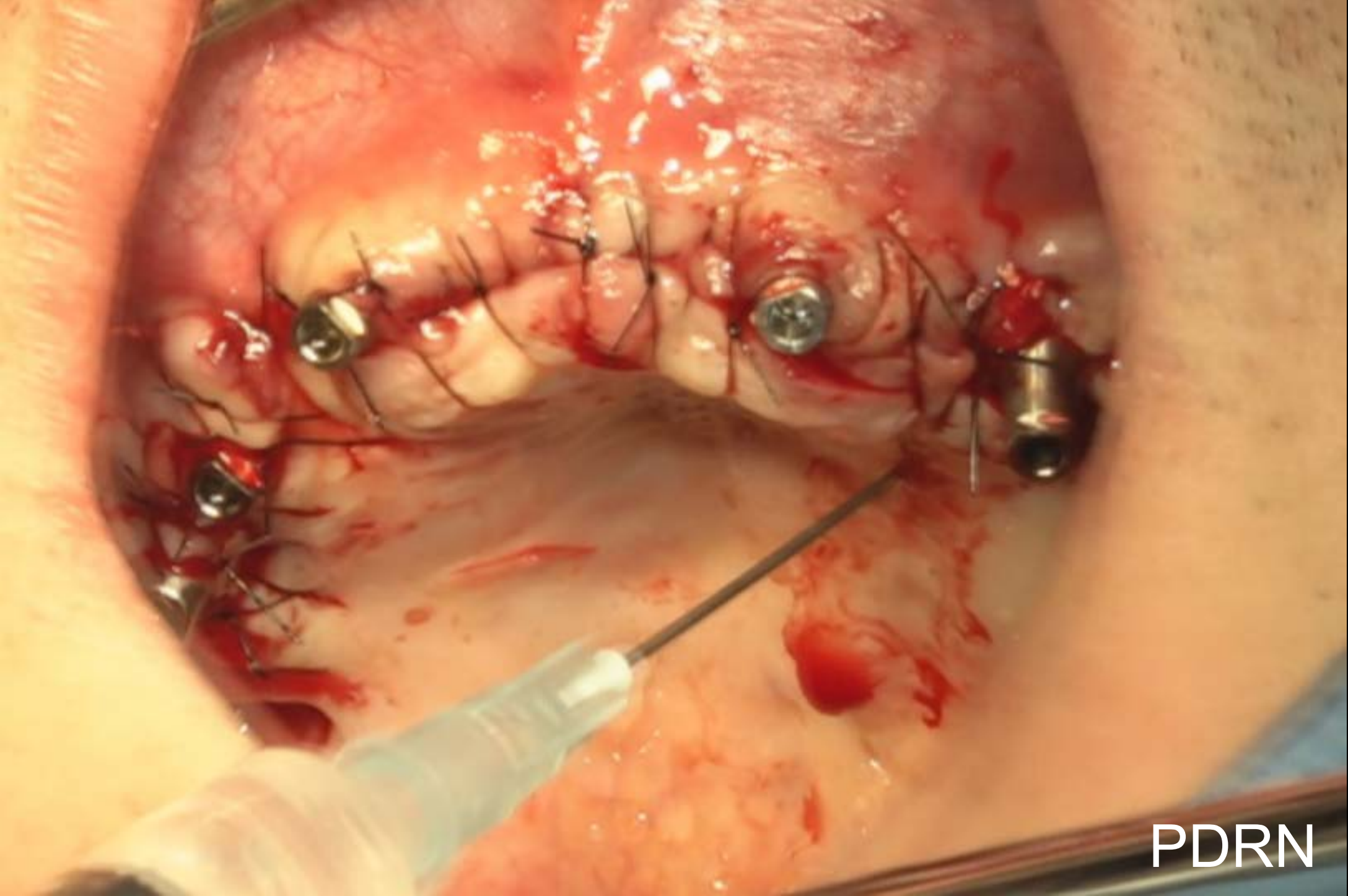
OSTEON™ Xeno Collagen



OSTEON™ 3 Collagen

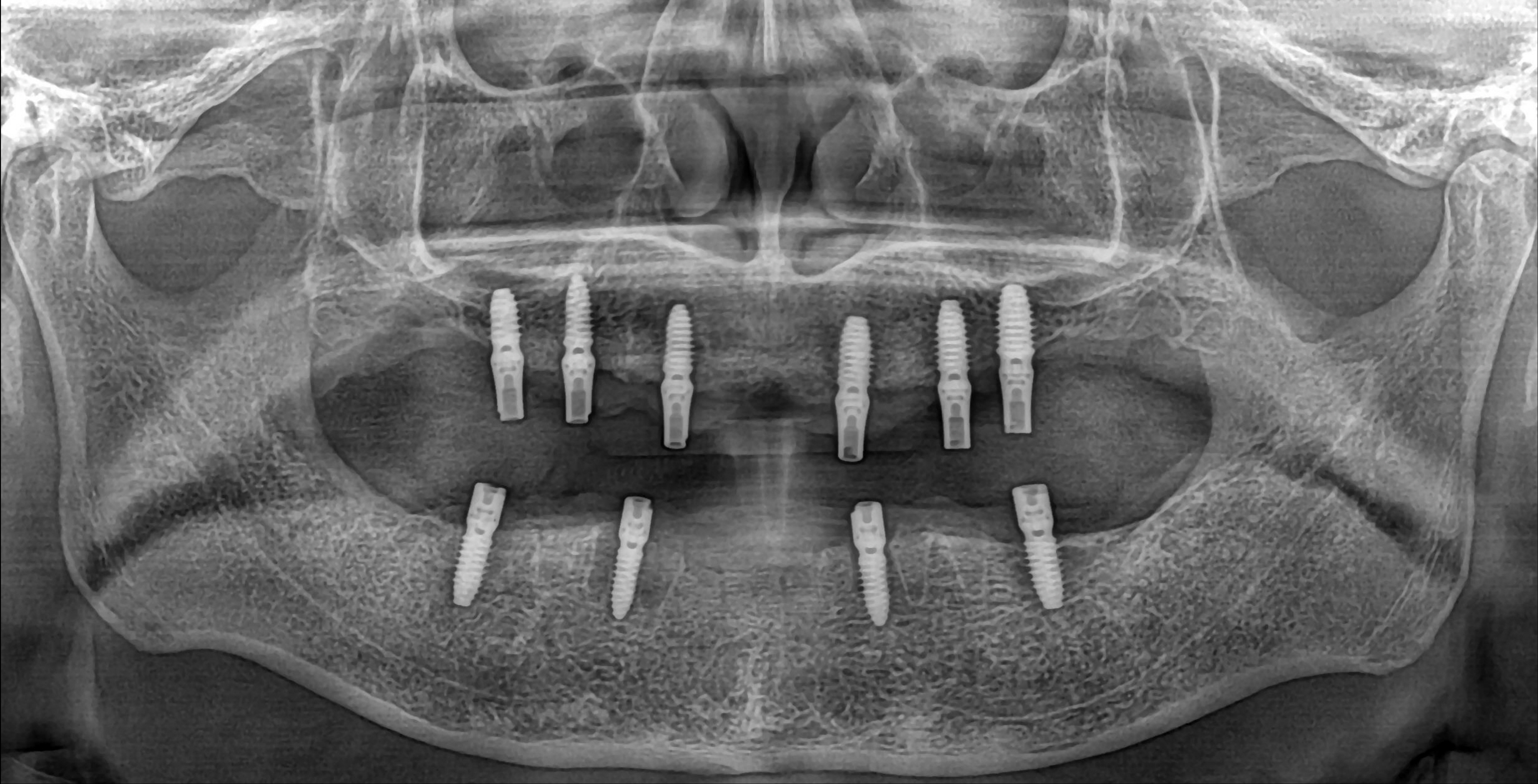


Collagen Graft 2

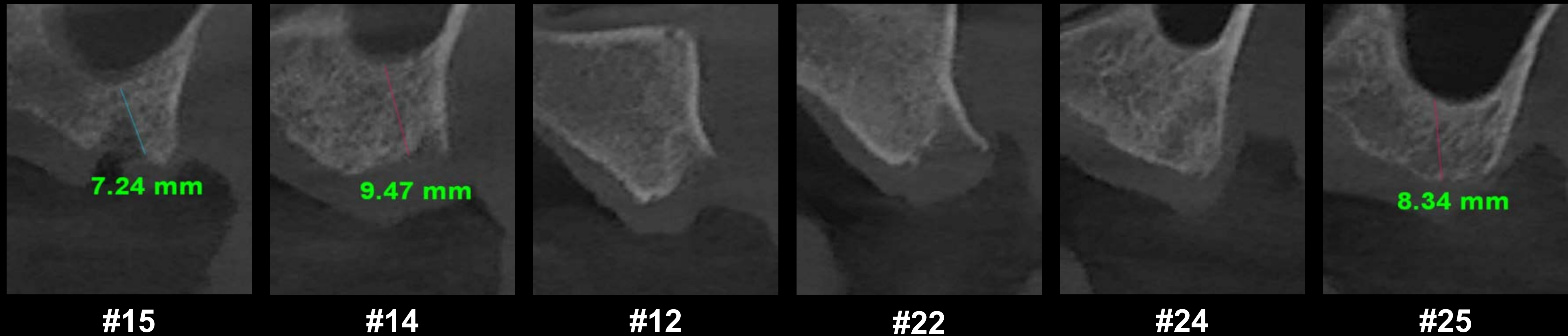


PDRN

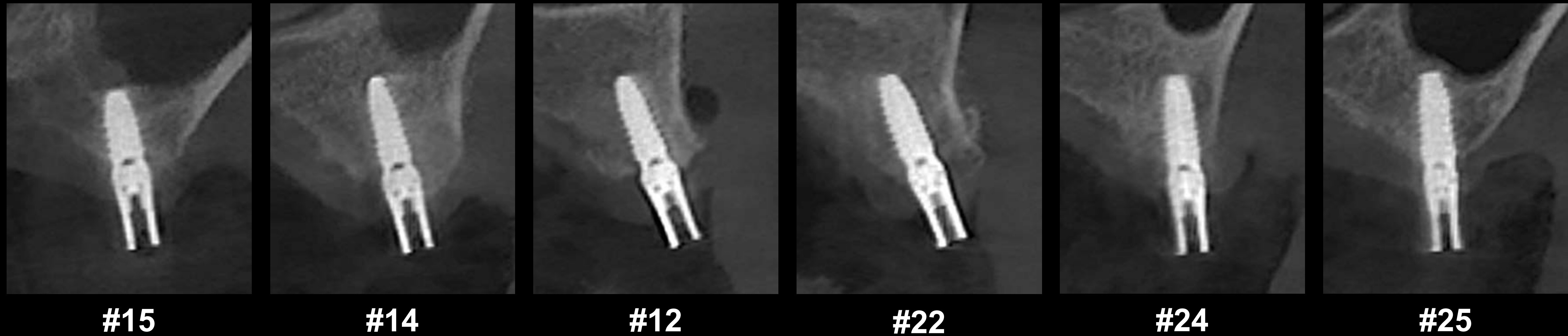
Post-op (2023-08-28)



Pre-op CT (2023-08-21)



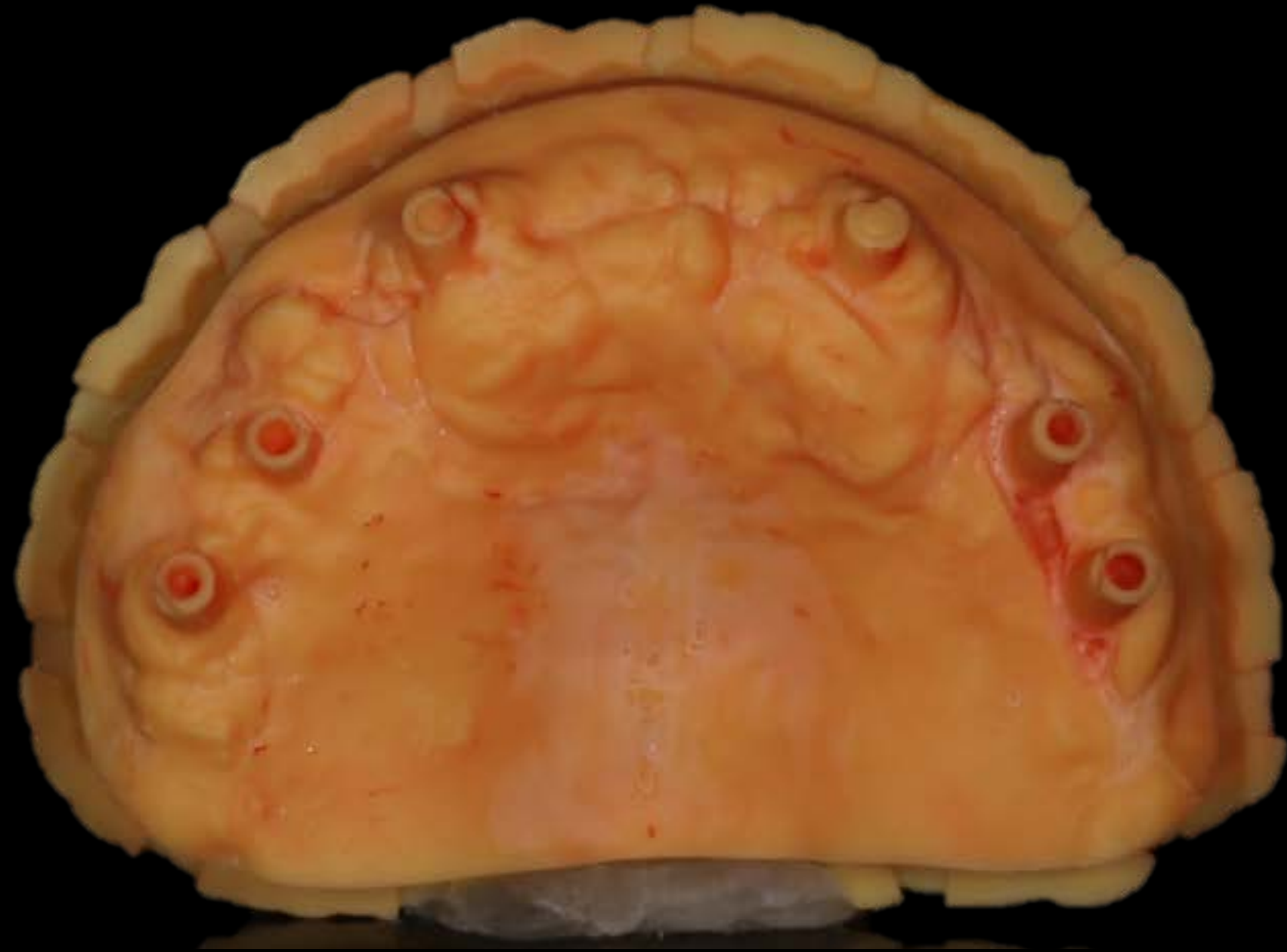
Post-op CT (2023-08-28)



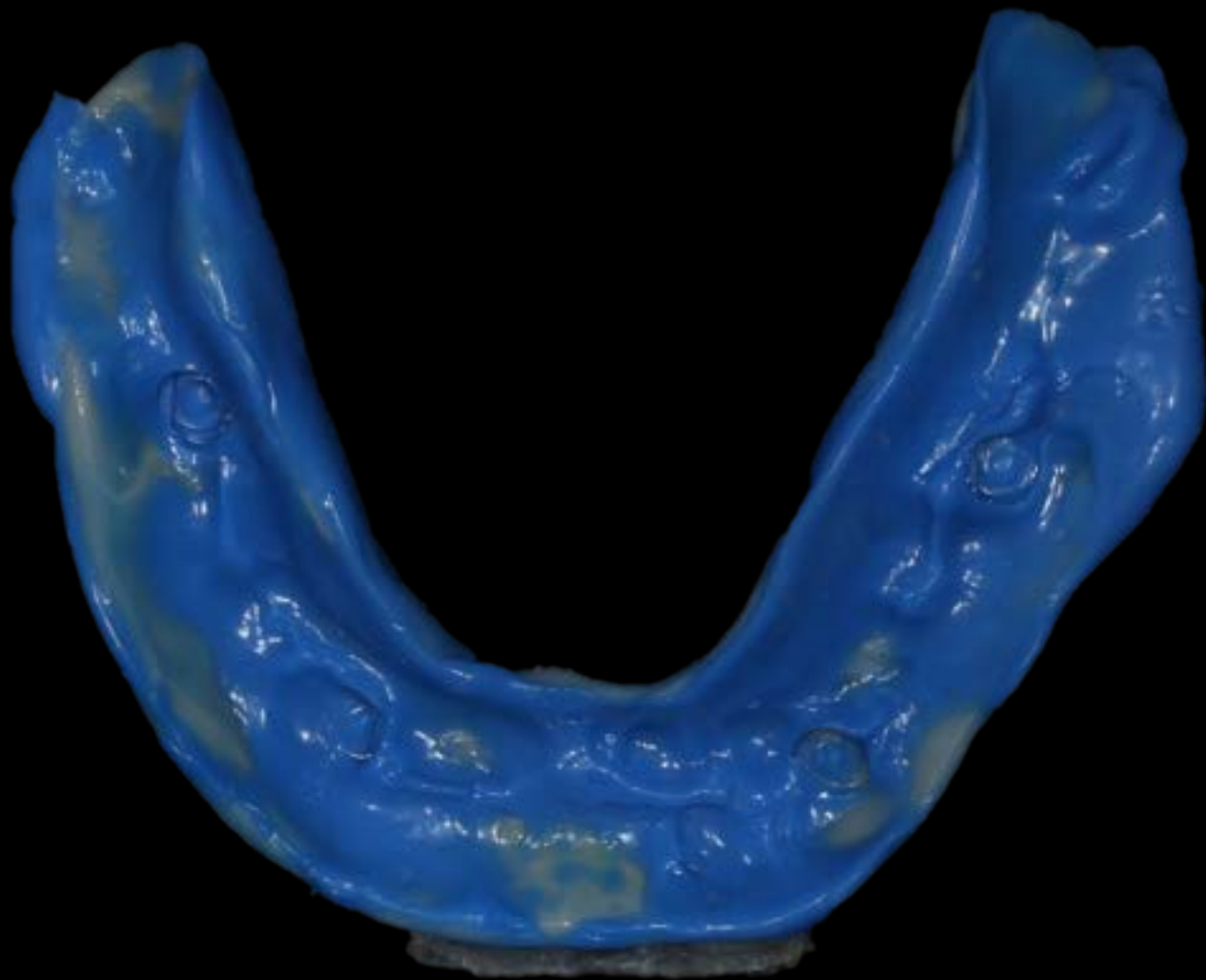
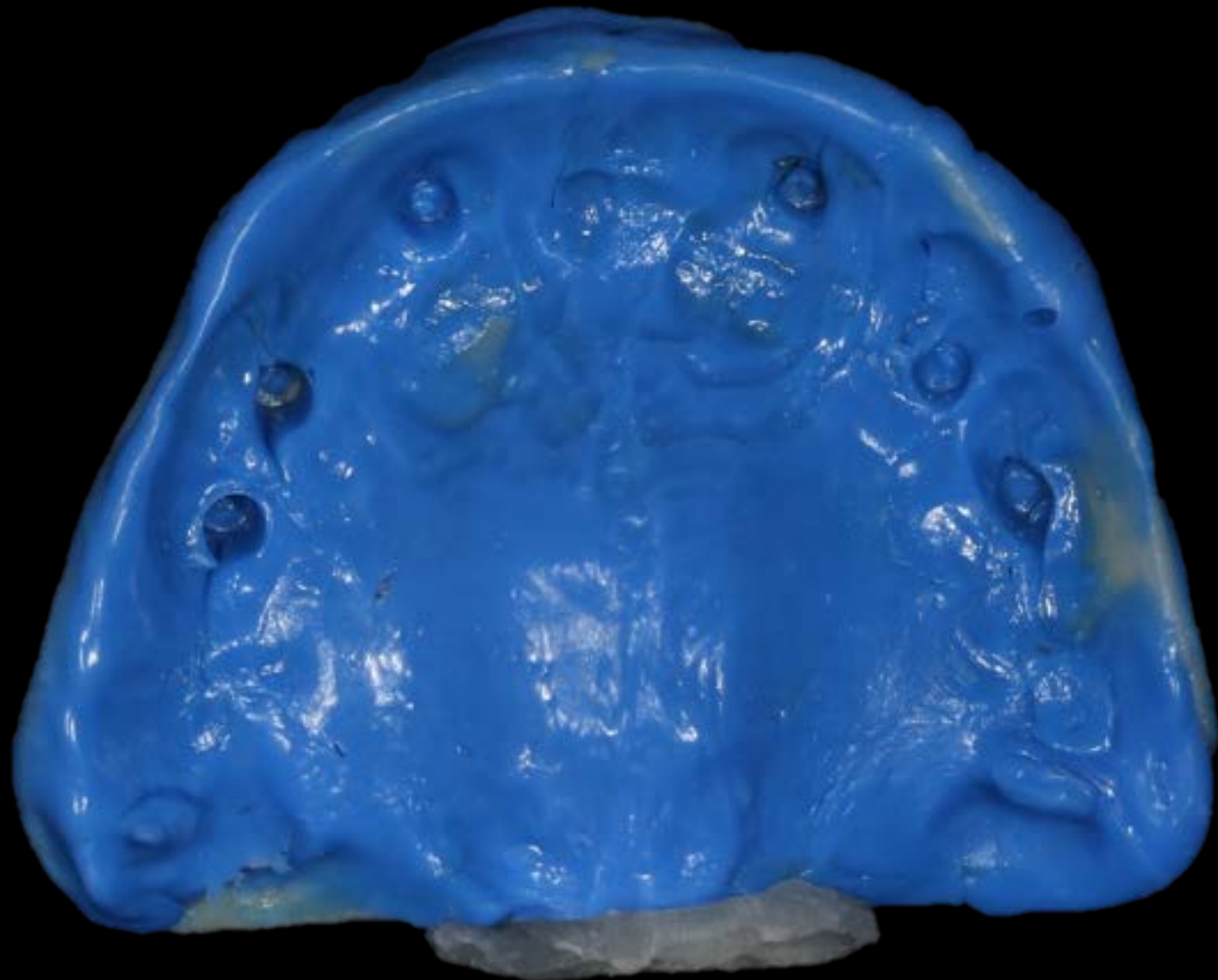
IOS data printing model



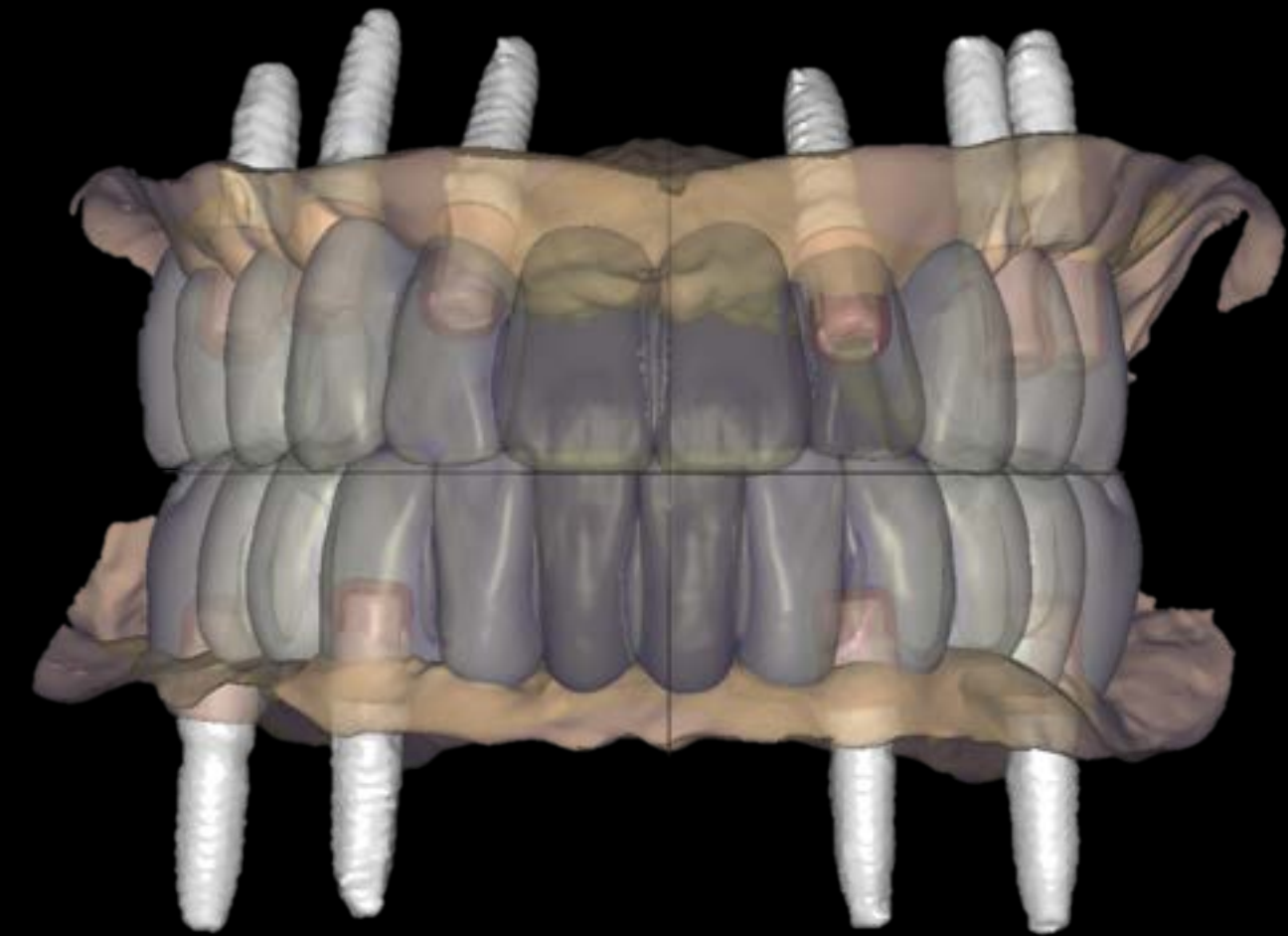
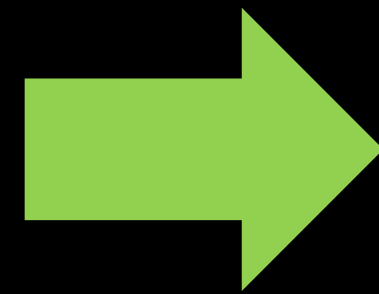
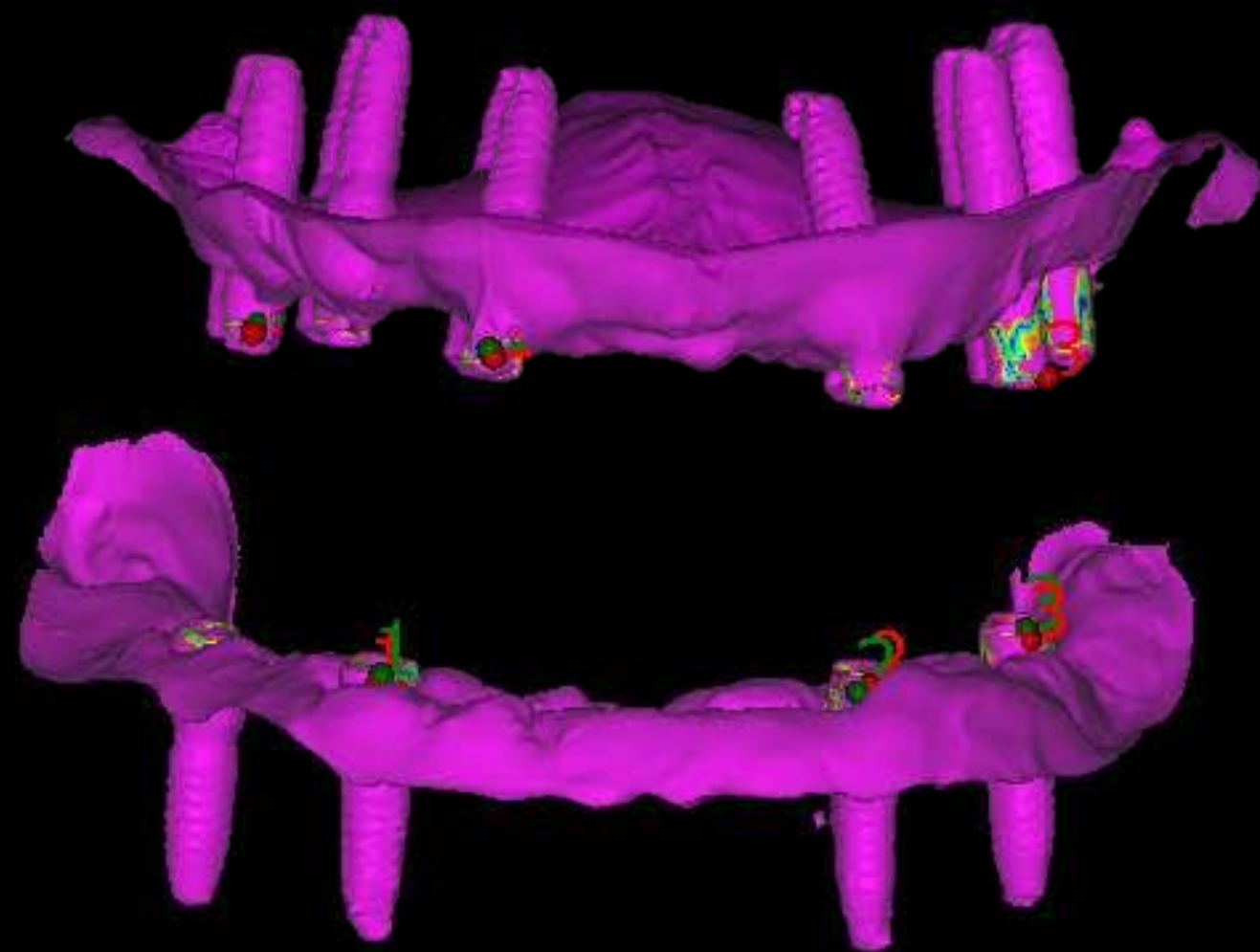
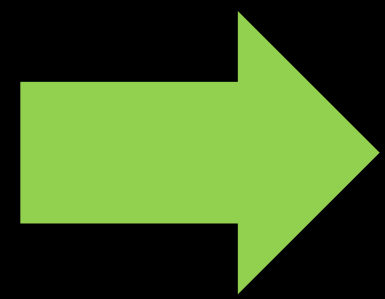
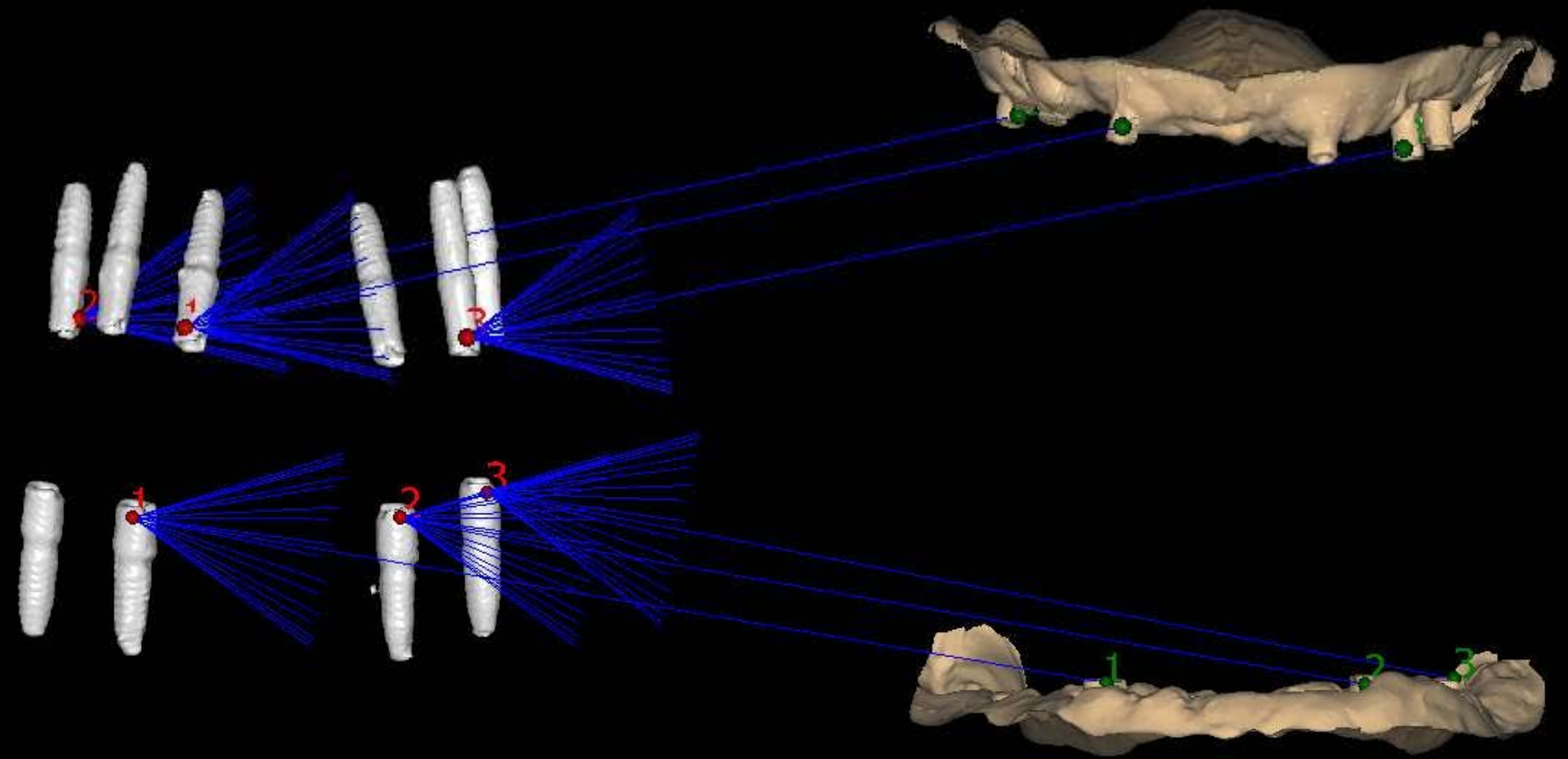
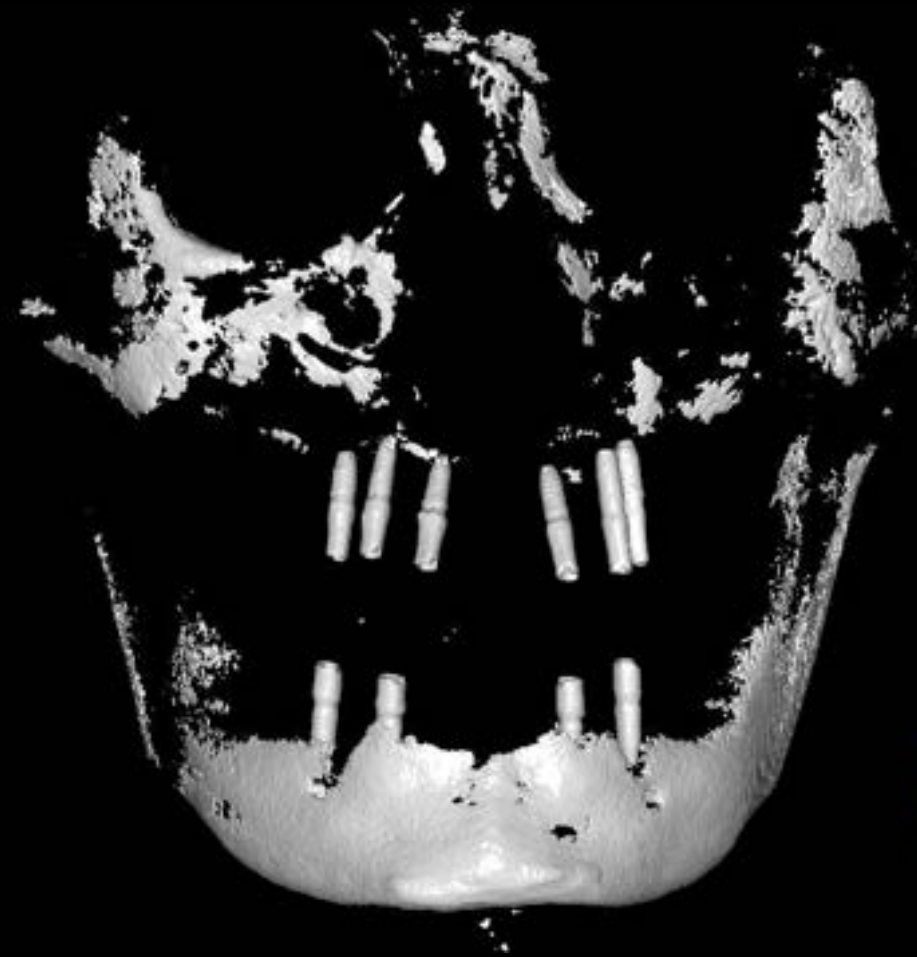
IOS data printing model



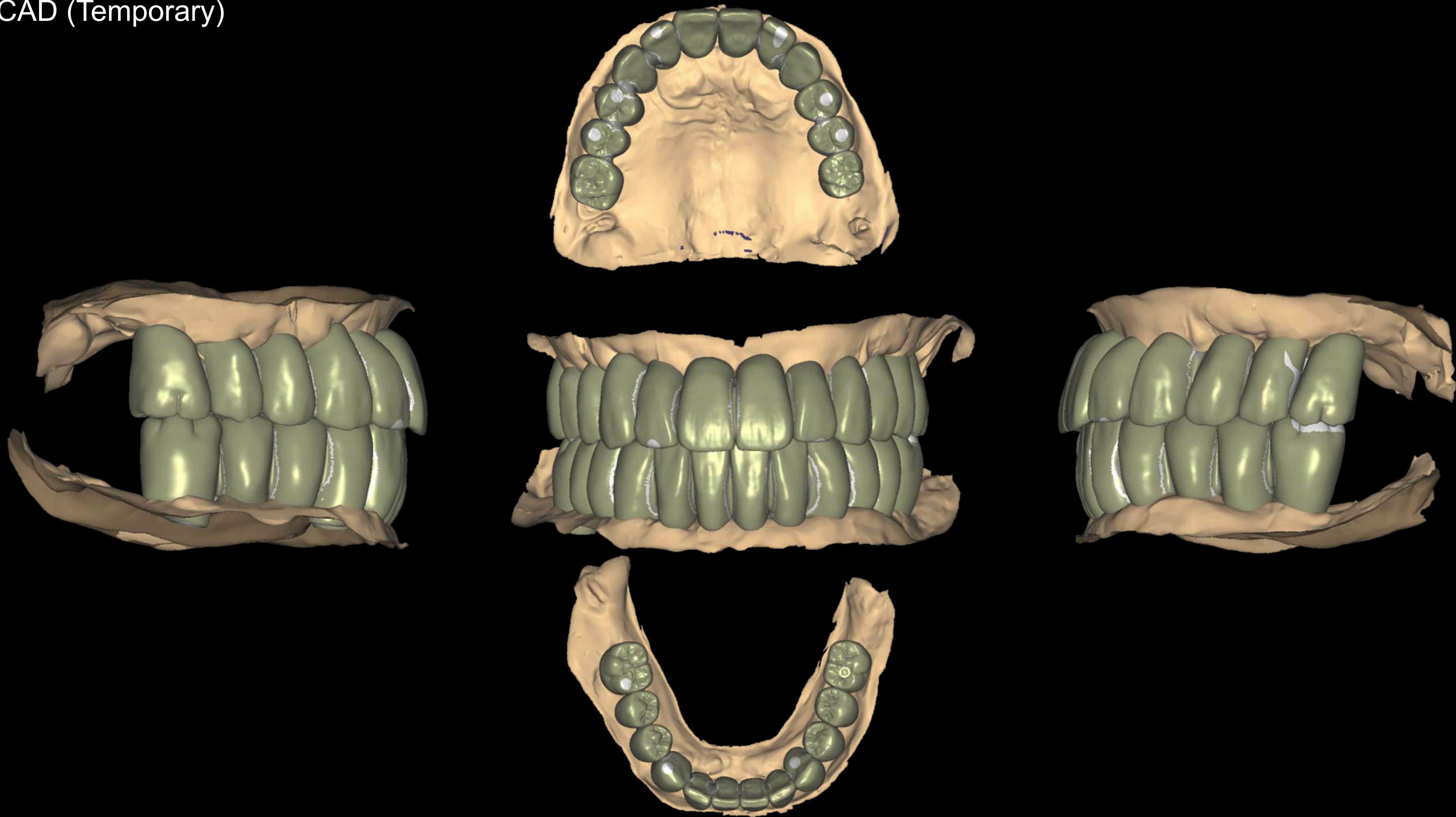
Denture duplication for Temporary



CT stitching



CAD (Temporary)



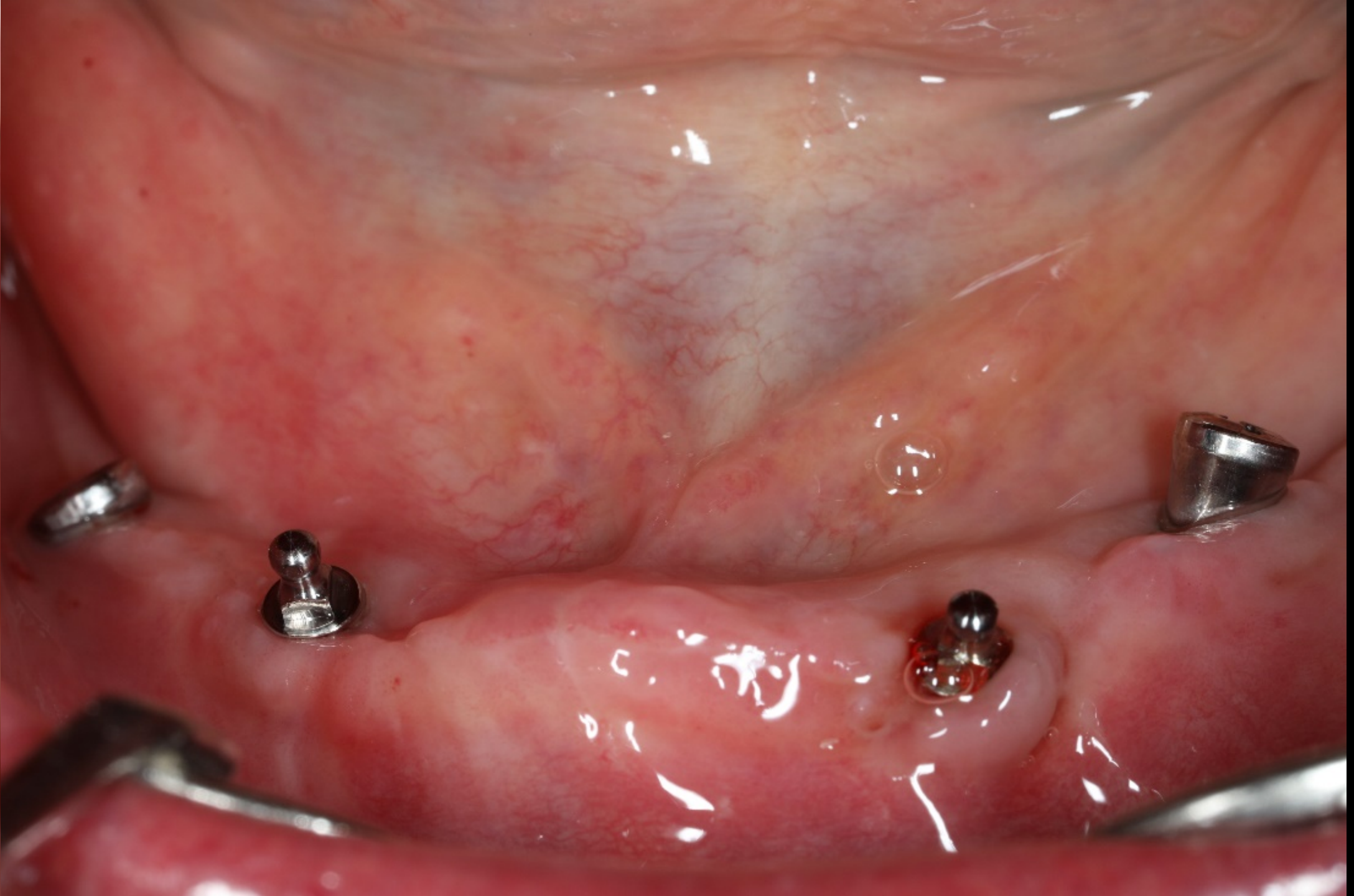
Provisional restoration (2023-09-07)



Follow up : 1 year 4 months (2019-06-24)



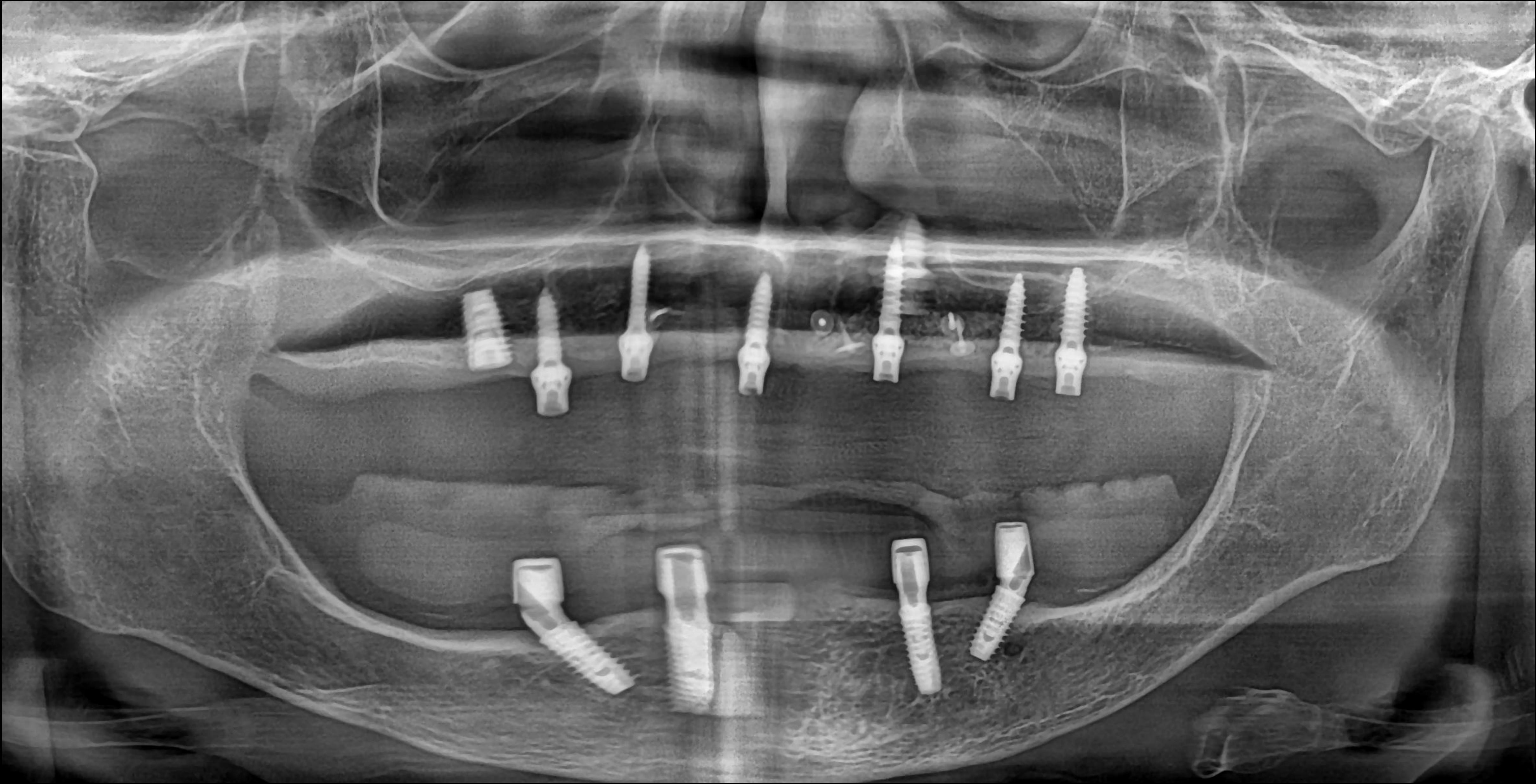
Provisional denture (2018-03-22)



Provisional denture (2018-03-22)



Post-op (2023-06-26)



Temporary (PMMA)



Provisional restoration (2023-08-23)



The front of

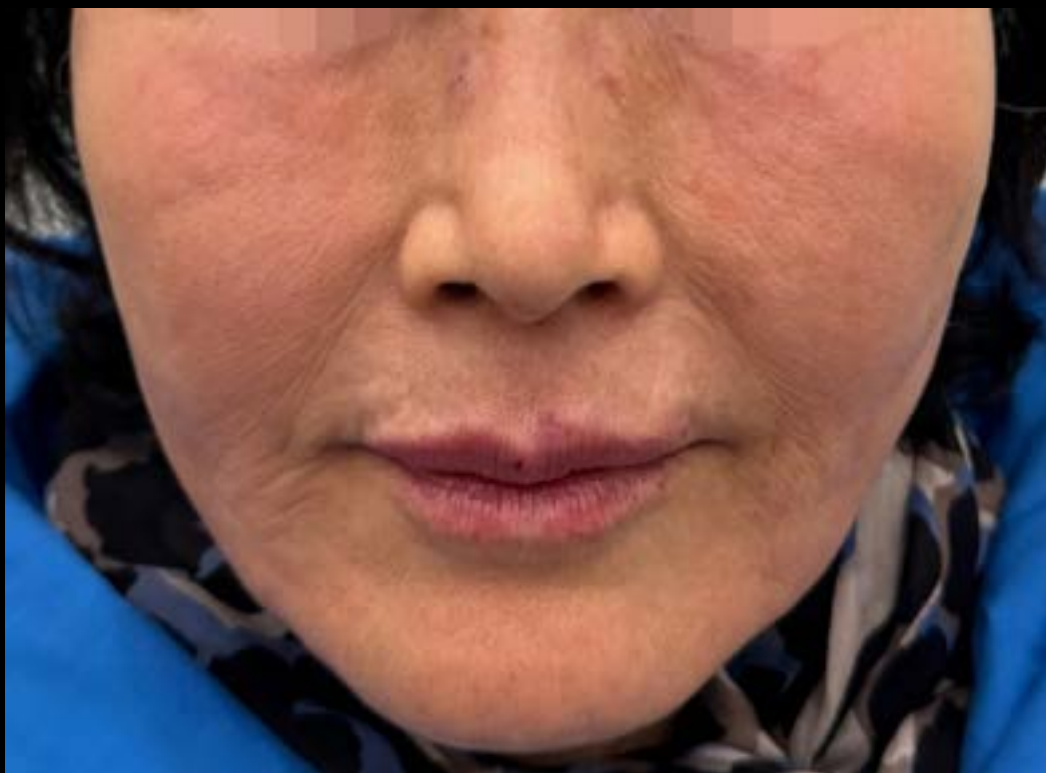
before



after



Follow up : 2 weeks



Clinical case : Nasolabial folds & Chin

before



after



Clinical case : Nasolabial folds & Chin

before



after



Hyaluronic Acid Dermal Filler with Lidocaine

MONALISA

Longterm! volume up!

