

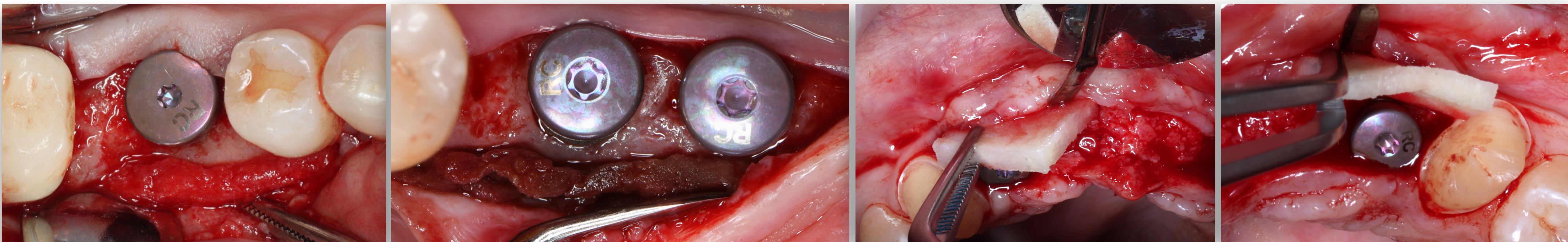
Implant Site Soft Tissue Dimension Changes with Novel Microsurfaced Acellular Dermal Matrix: Case report of 3 cases

Yumna Subhani ¹, Yating Priscilla Young ², Carson Hunt ², Yusuke Hamada ¹

¹ Section of Periodontics, University of California Los Angeles, ² Private Practice

Introduction

Soft-tissue phenotype modification can be achieved using autogenous tissue or soft-tissue substitutes, such as acellular dermal matrix (ADM). Microsurfaced Acellular Dermal Matrix (mADM) has been utilized to increase cellular infiltration and graft integration. This report describes three cases and methods to increase mucosal thickness around dental implants with mADM.

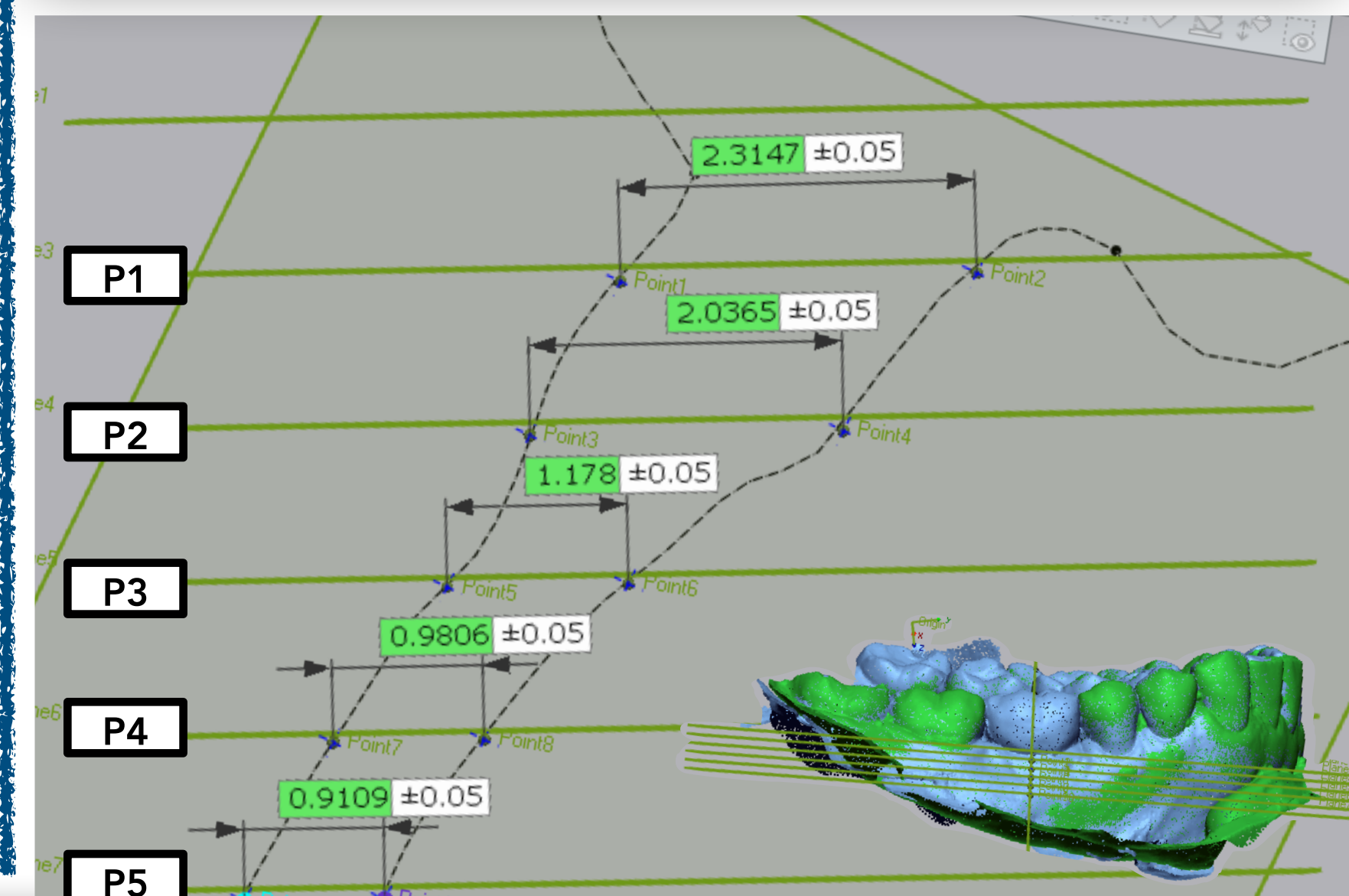
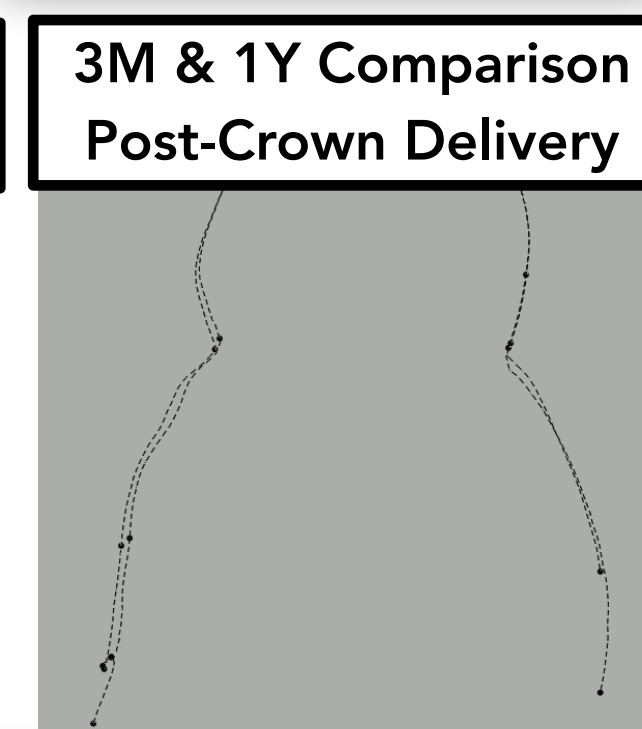
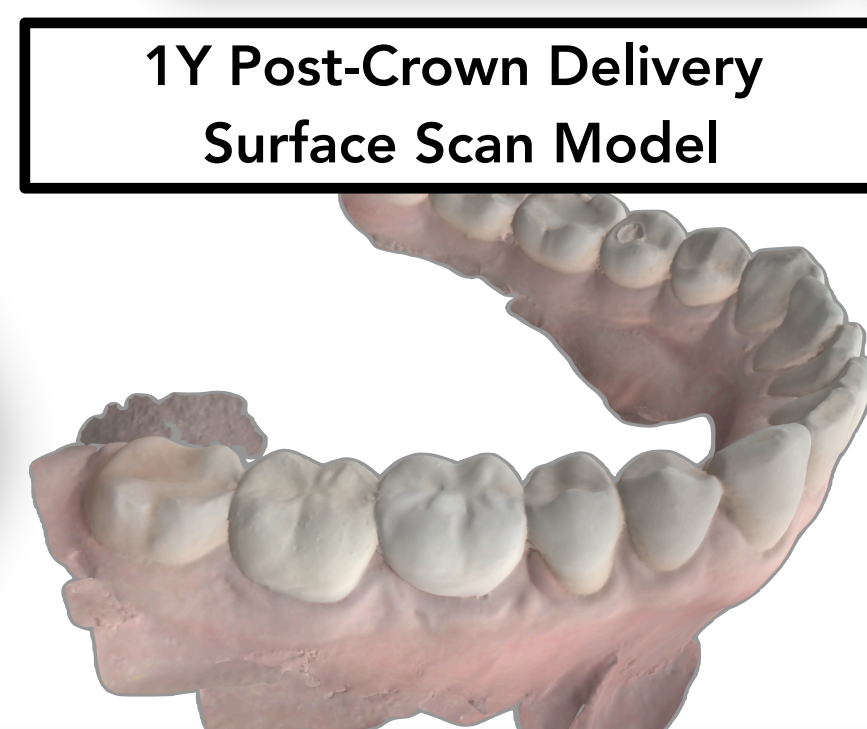
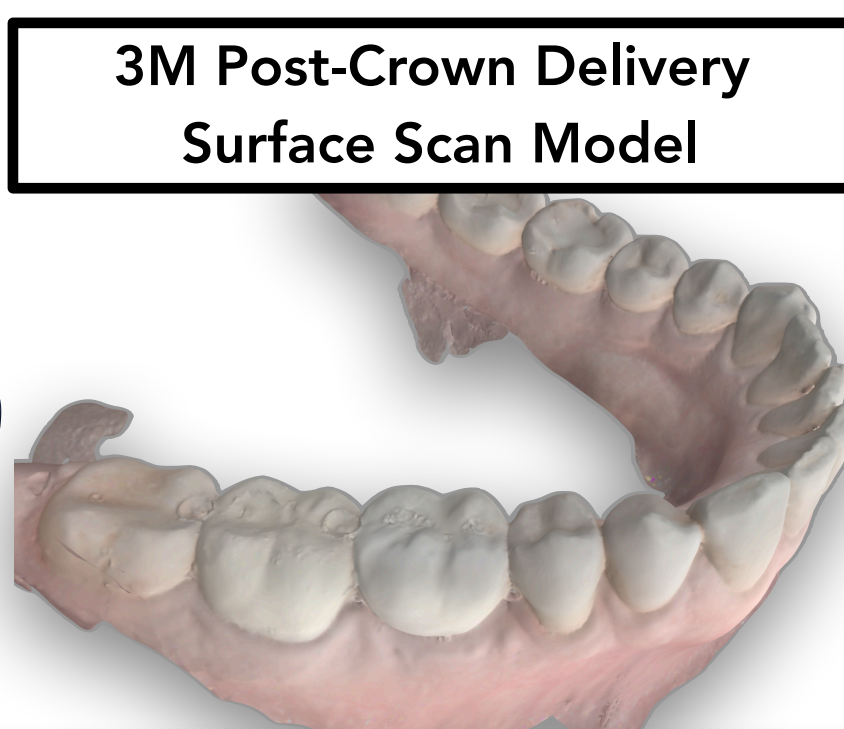
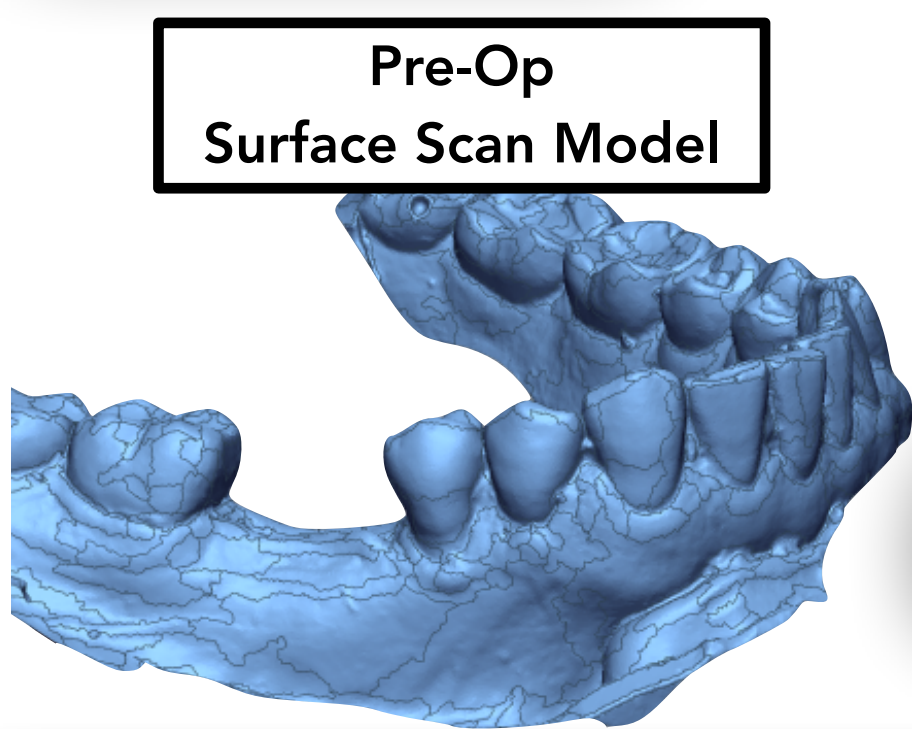
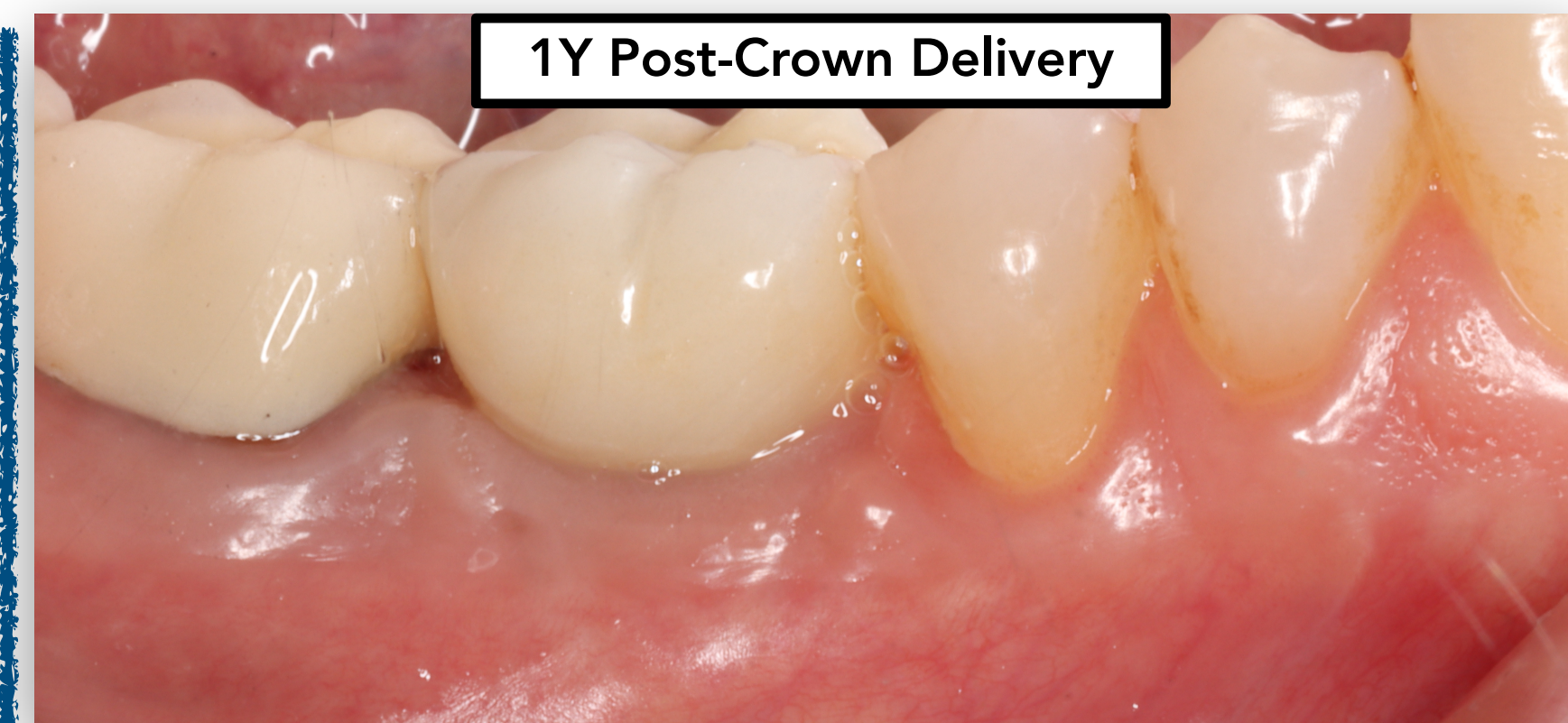
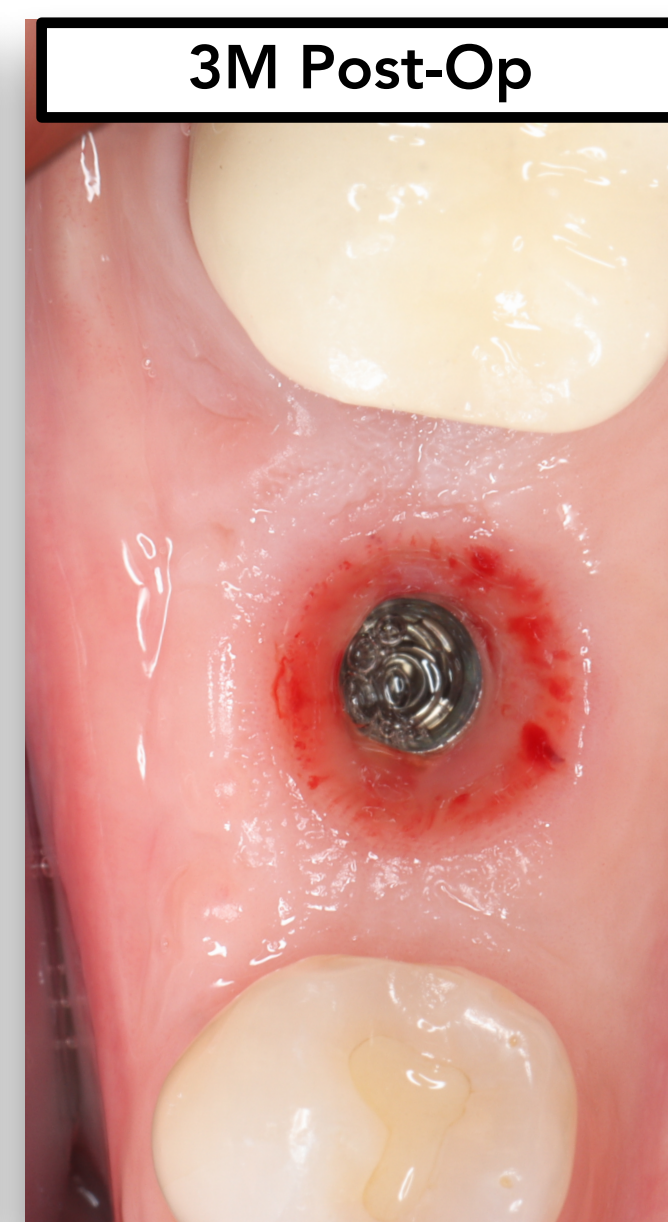
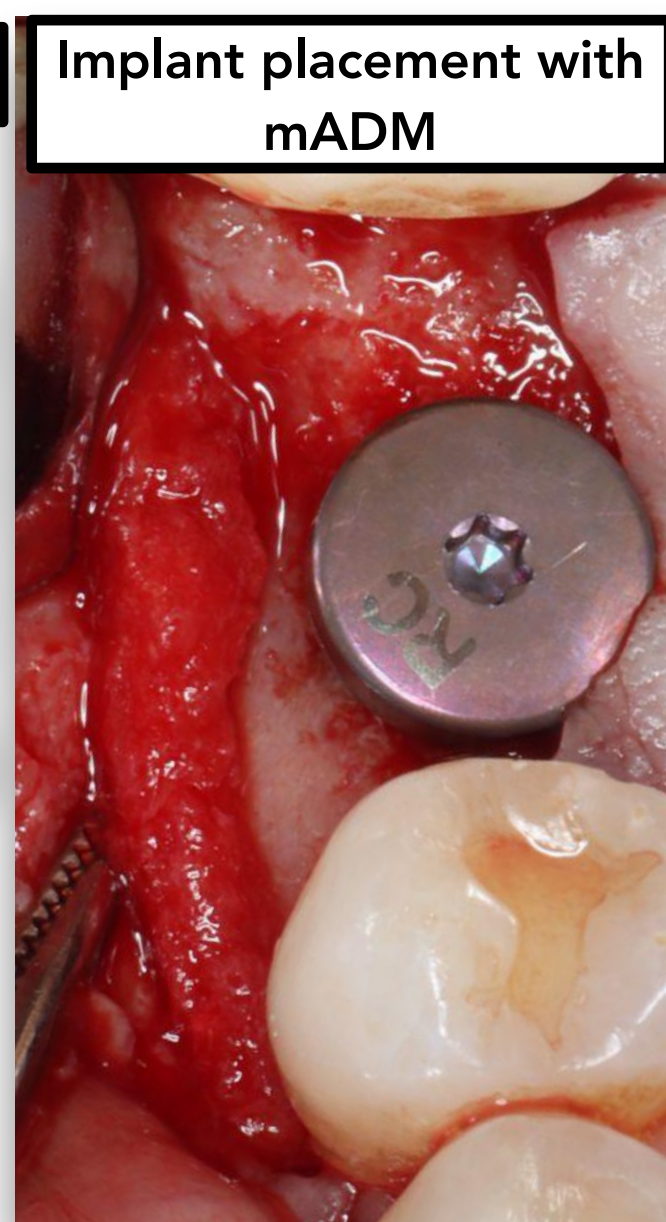
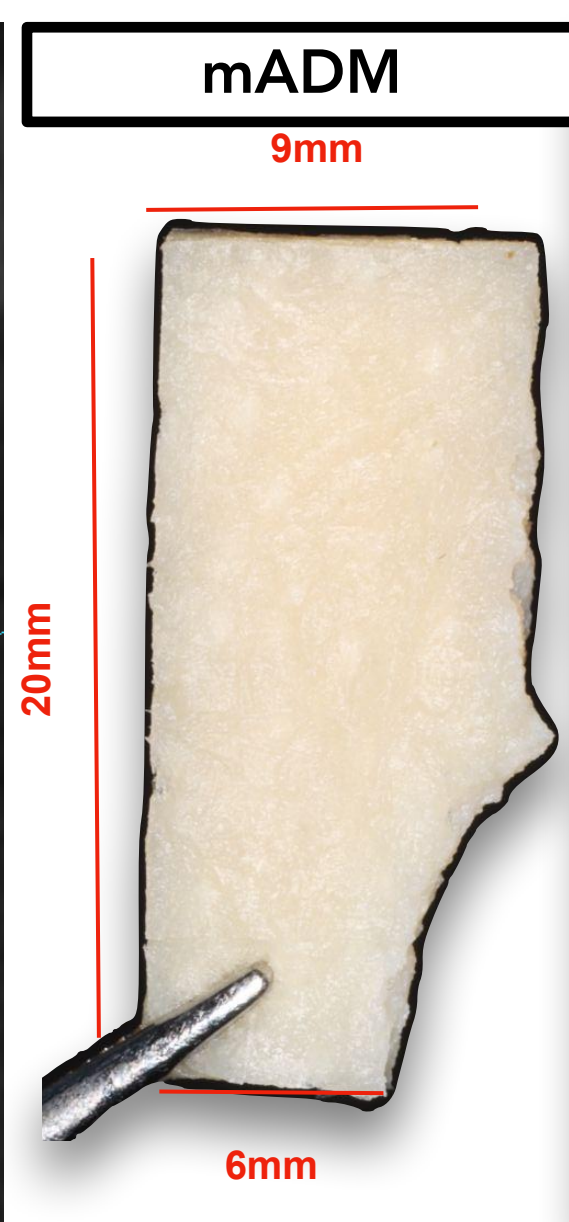
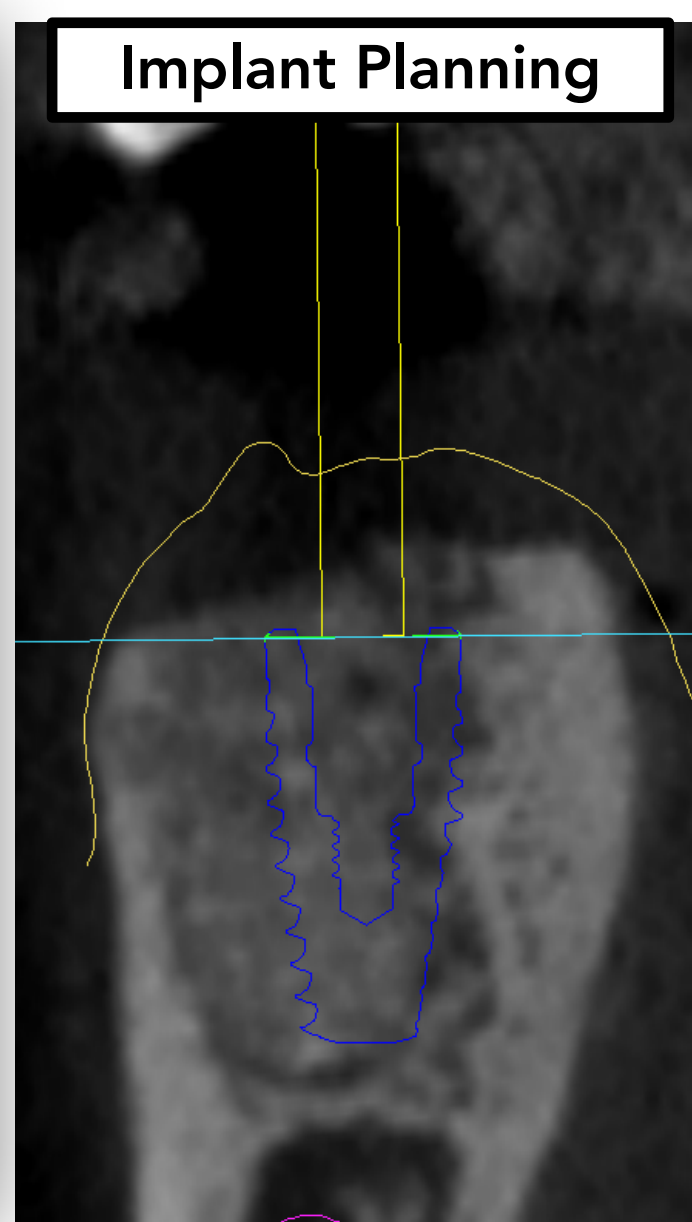


- Acellular dermal matrix with micro-cuts
- Increased surface area from micro-cuts at the graft-host interface
- Increased cellular infiltration
- Increased hydrophilicity
- Minimum amount of hydration time (60 Seconds)



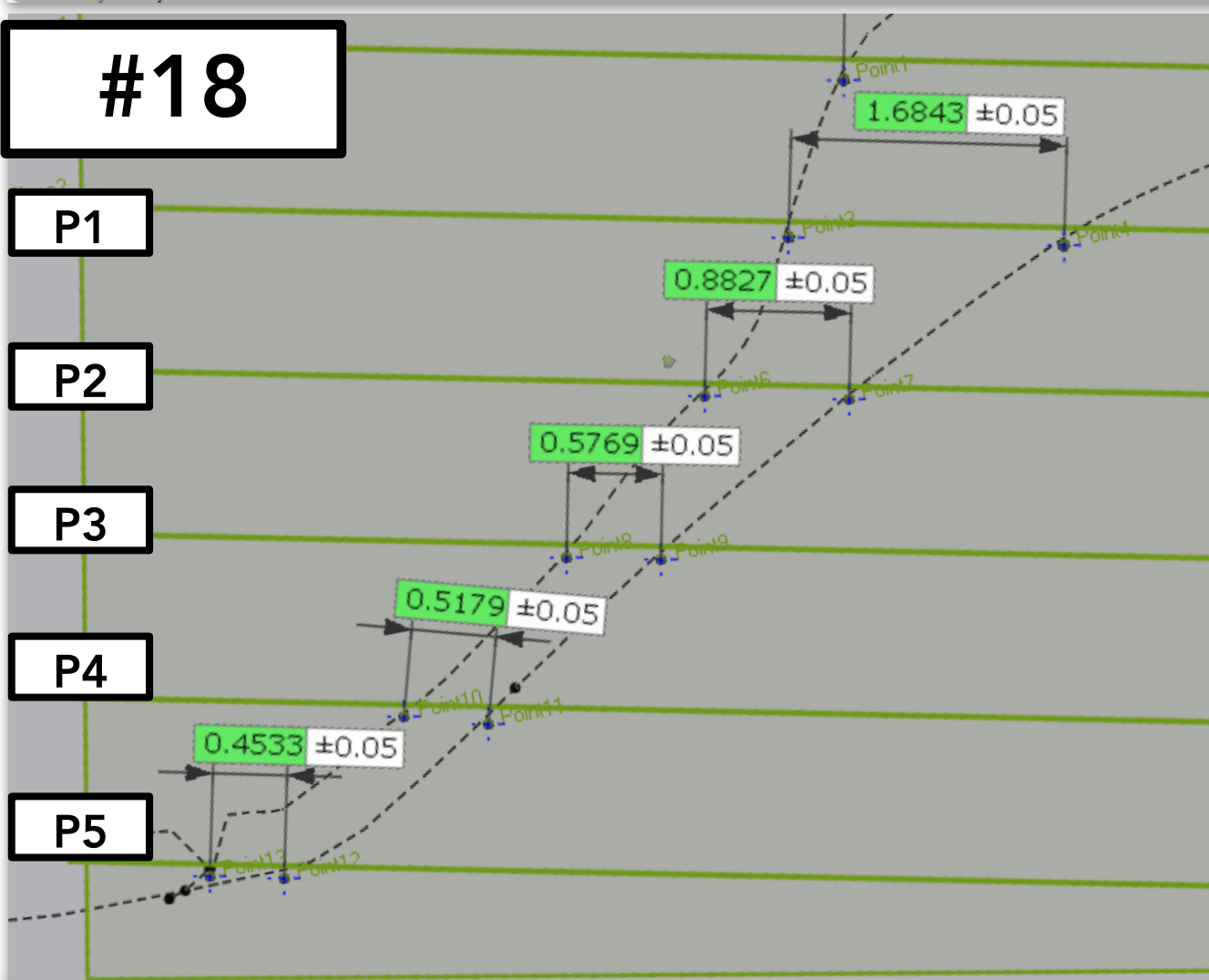
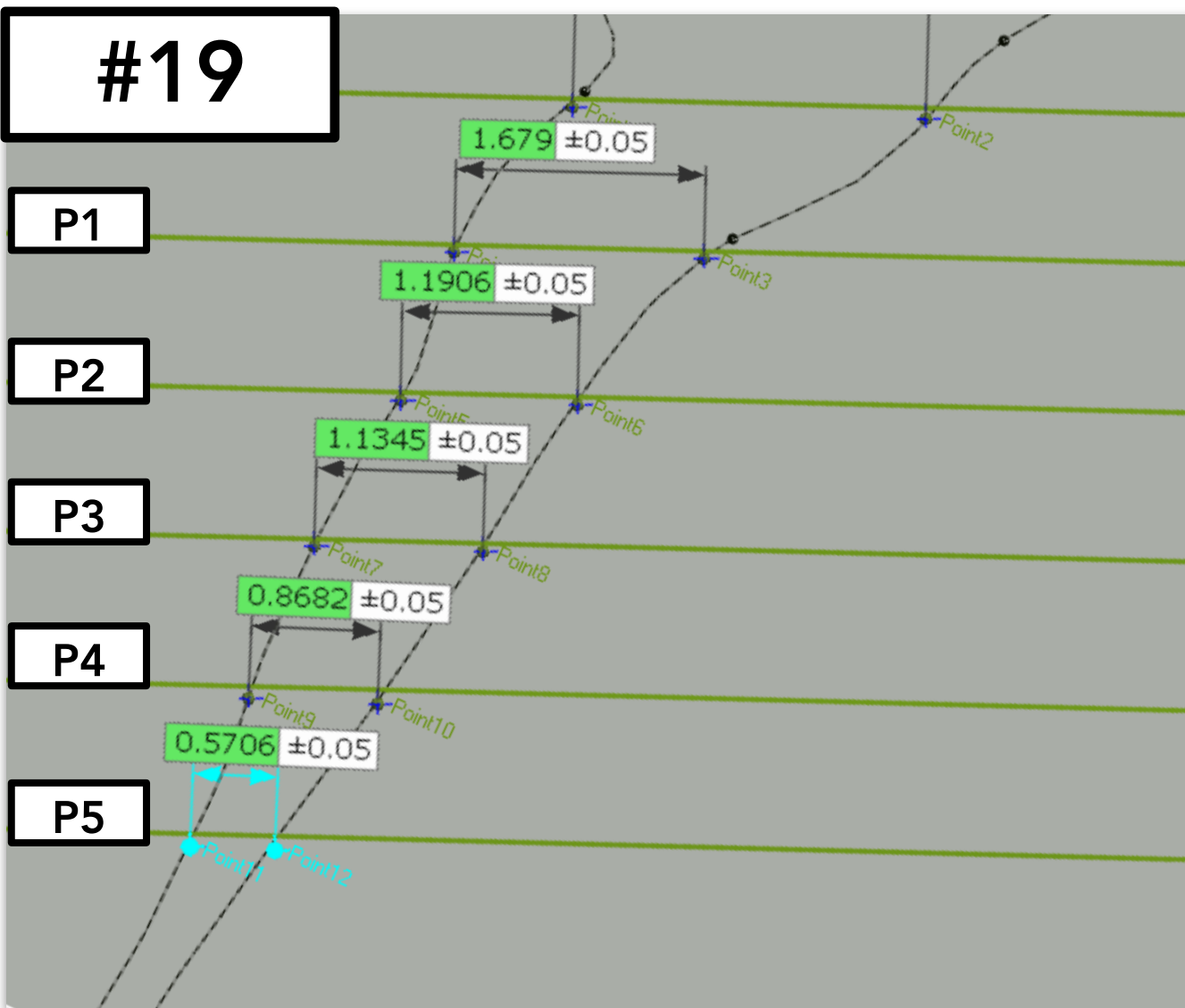
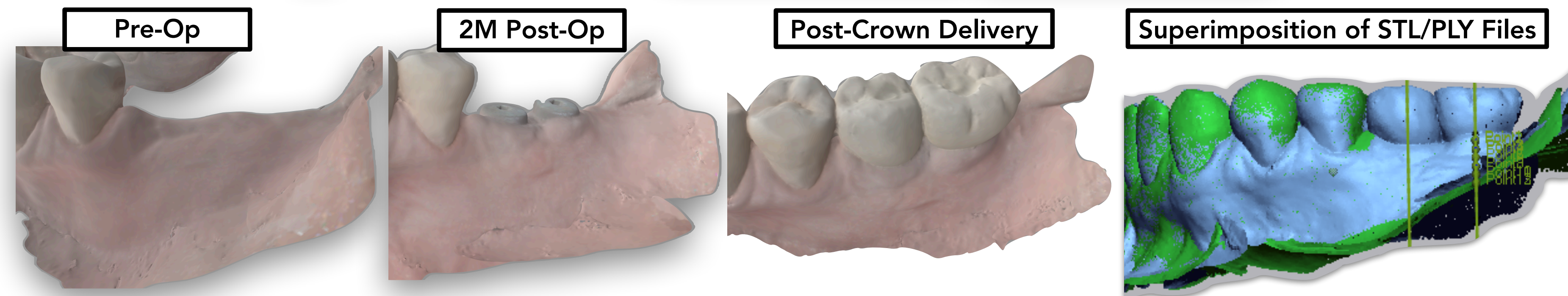
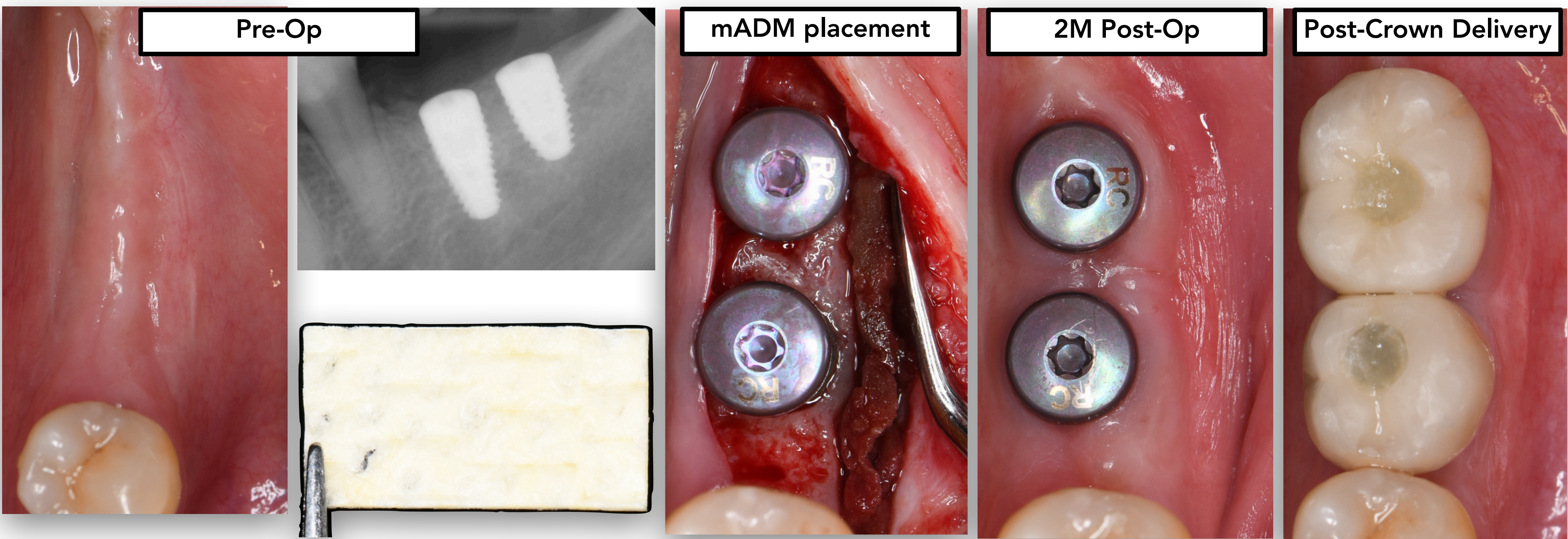
Case 1

- Digital implant planning was done for site #30 using stereolithography (STL/PLY) and DICOM.
- Thin mucosa noted on the buccal aspect.
- mADM was placed inside the mucoperiosteum flap on the buccal surface at the time of implant placement.



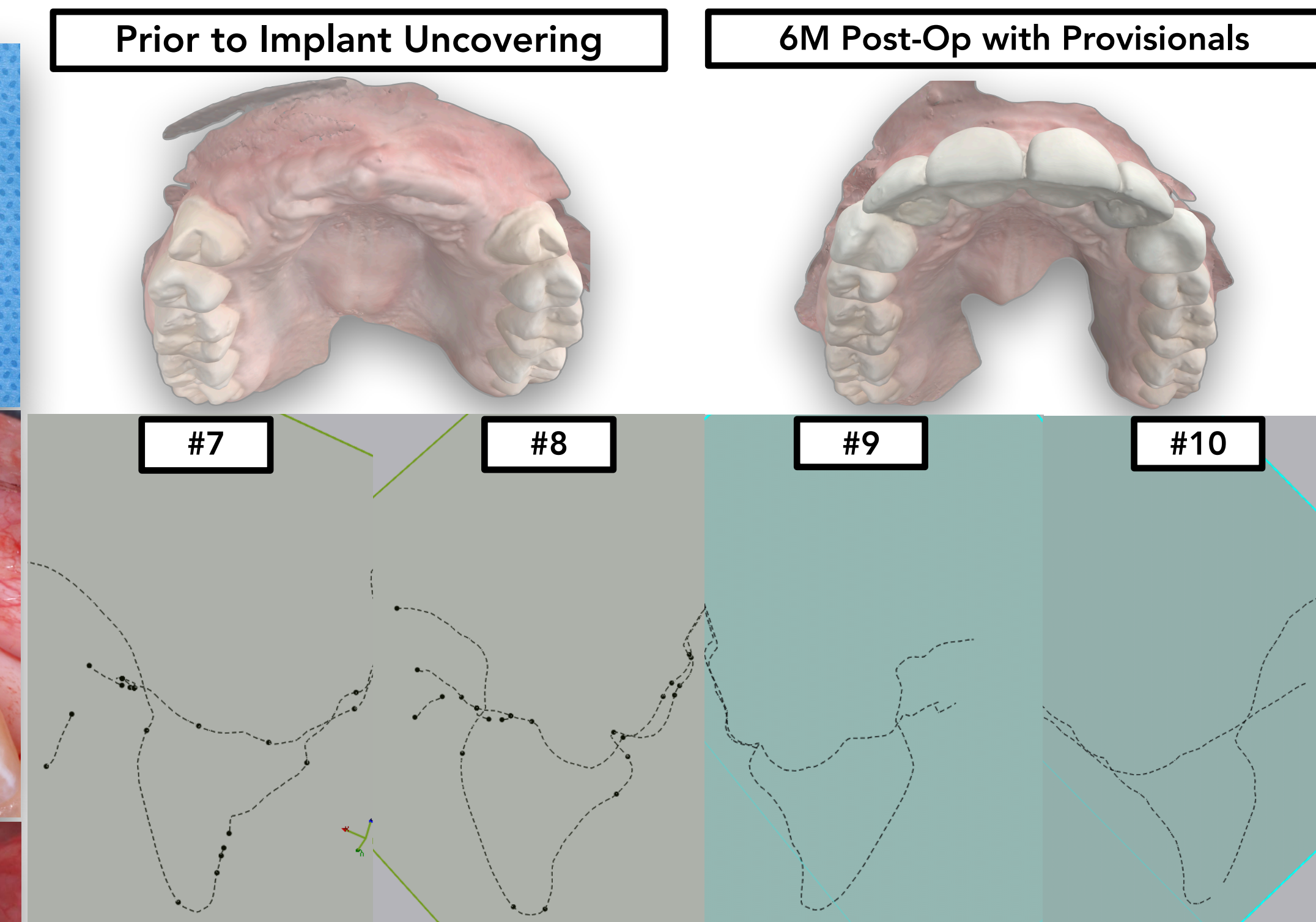
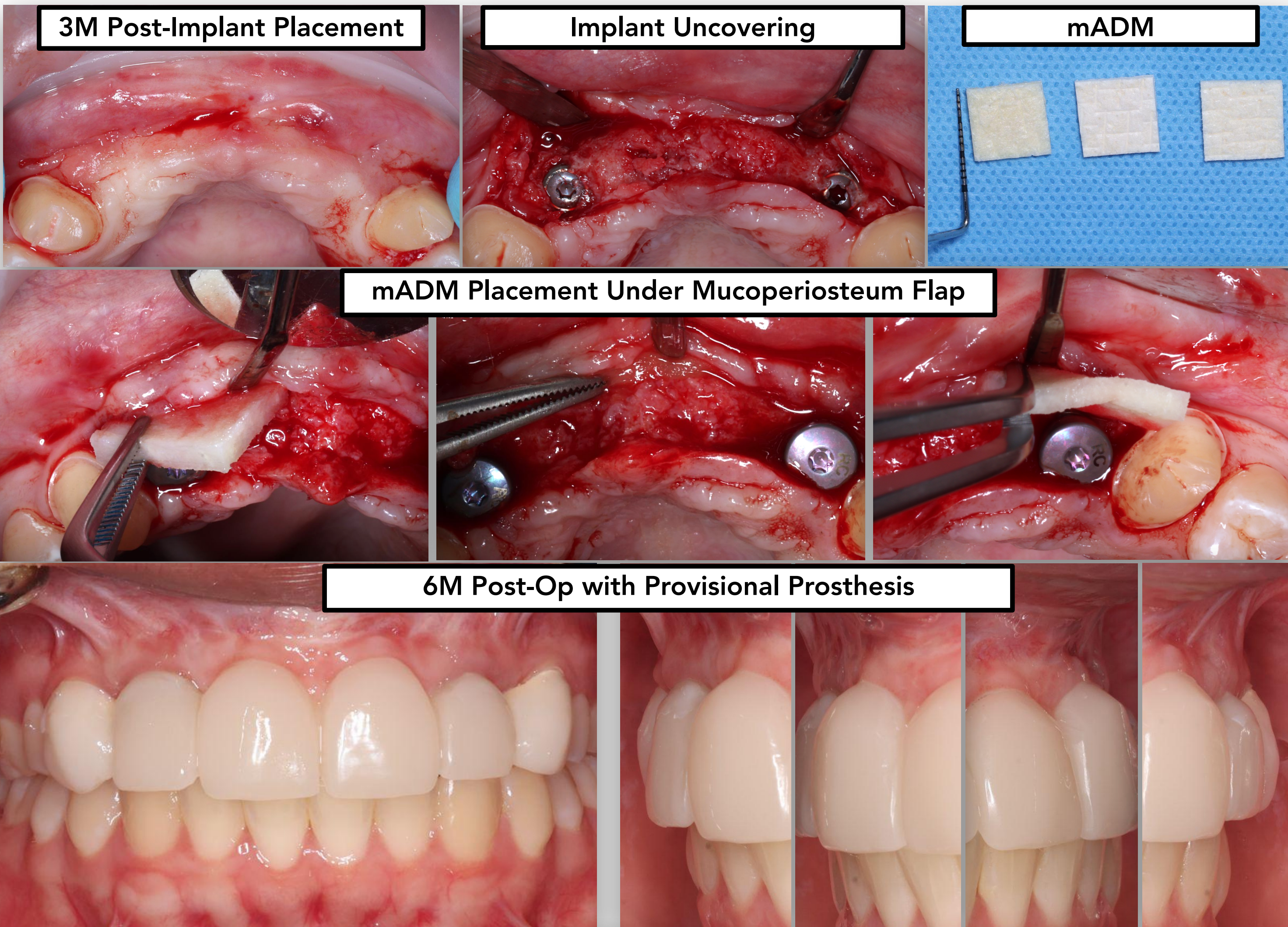
Case 2

- Implant placement at sites #18 and #19 was completed with simultaneous guided bone regeneration to increase buccal bone thickness.
- During implant uncovering, mADM was placed on the buccal aspects of #18 and #19 to increase mucosal thickness.



Case 3

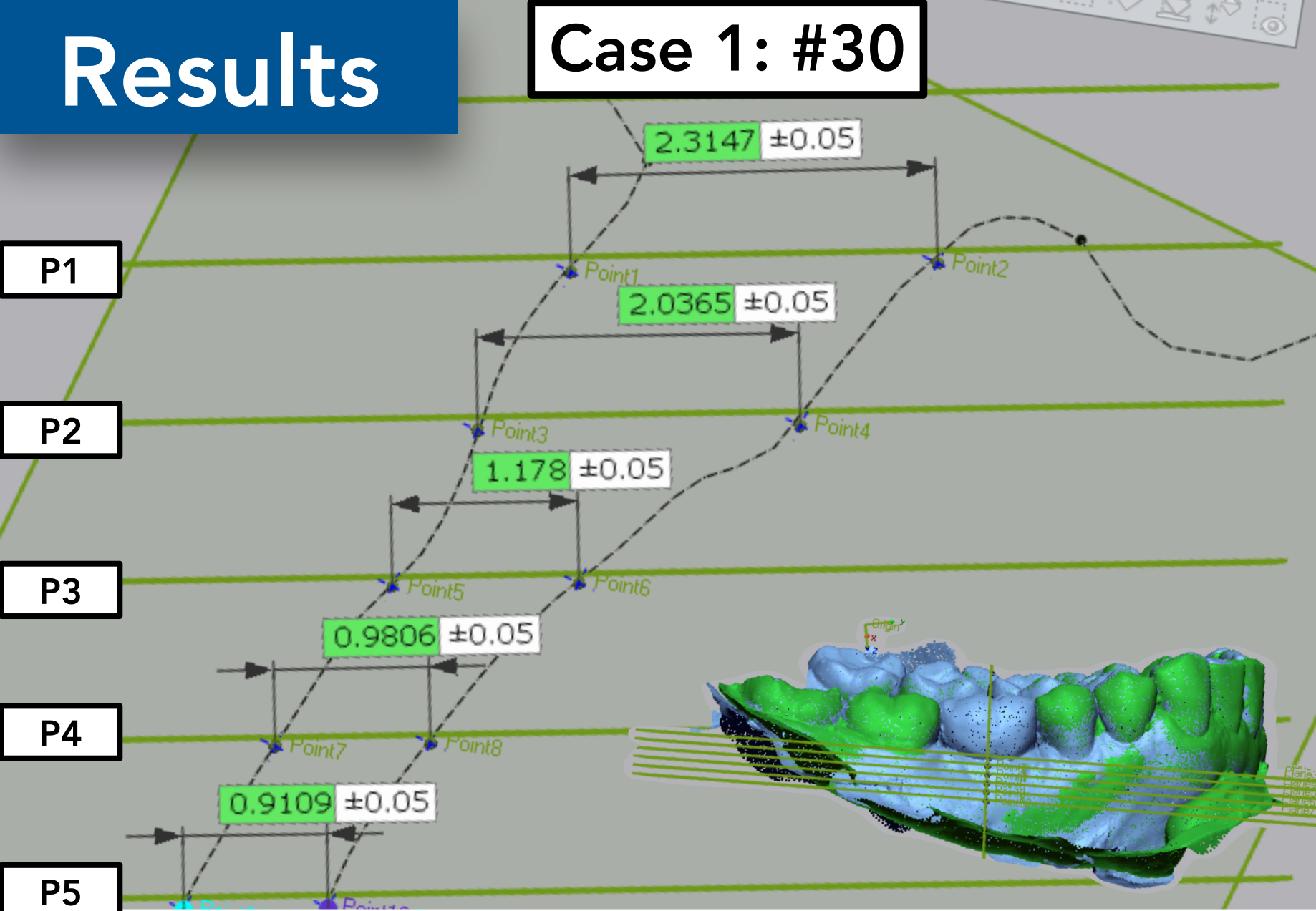
- Implants were placed at sites #7 and #10. A shallow vestibule and lack of attached tissue were noted.
- The patient also reported discomfort upon palpation and movement of the upper lip.
- At implant uncovering, mADM was used from #7-10 on the buccal aspect to increase mucosal thickness and attached soft tissue.



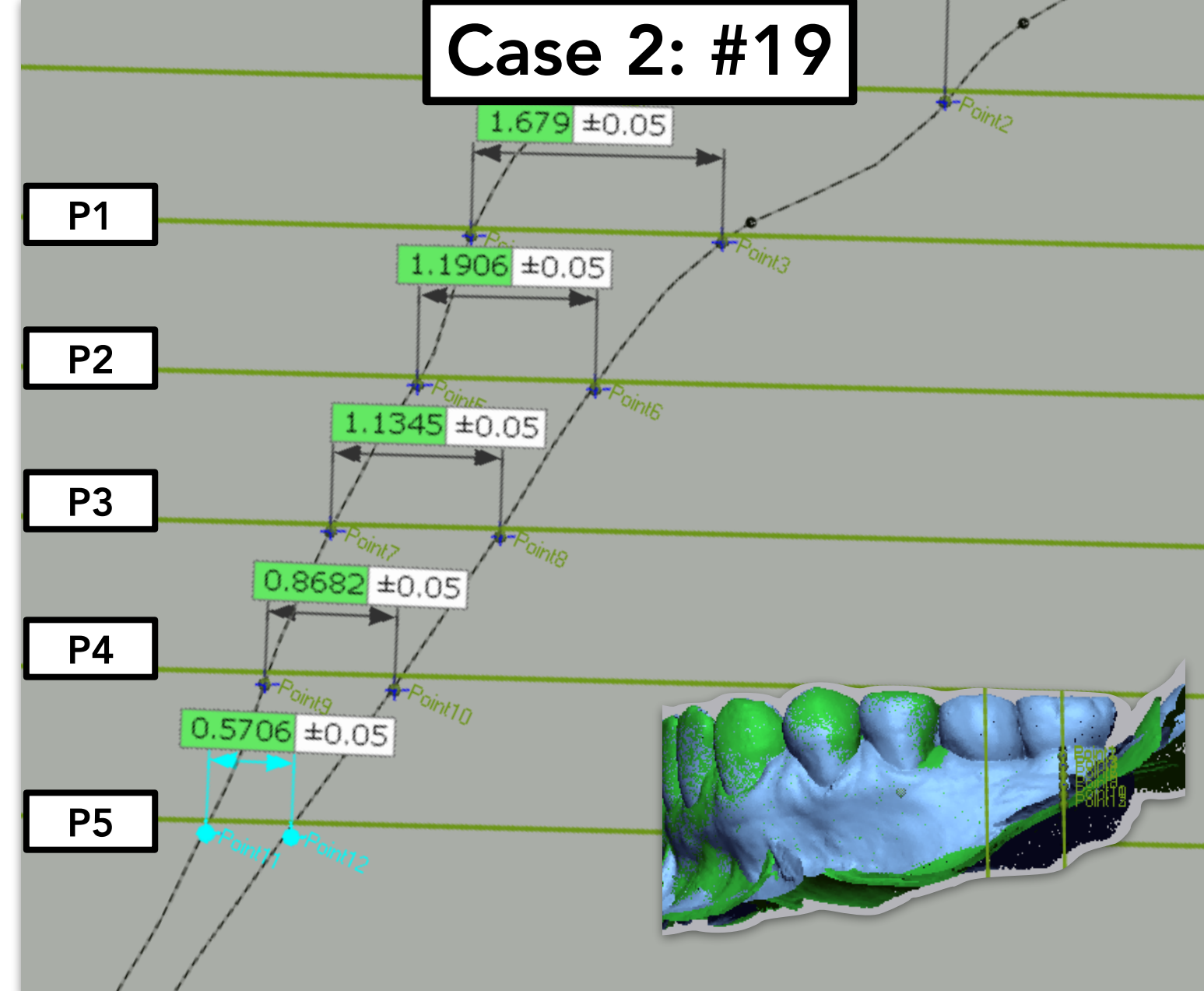
- Due to the shallow vestibule, soft tissue thickness could not be measured.
- However, the patient reported reduced discomfort in the maxillary anterior region, and an increase in attached soft tissue was noted.

Results

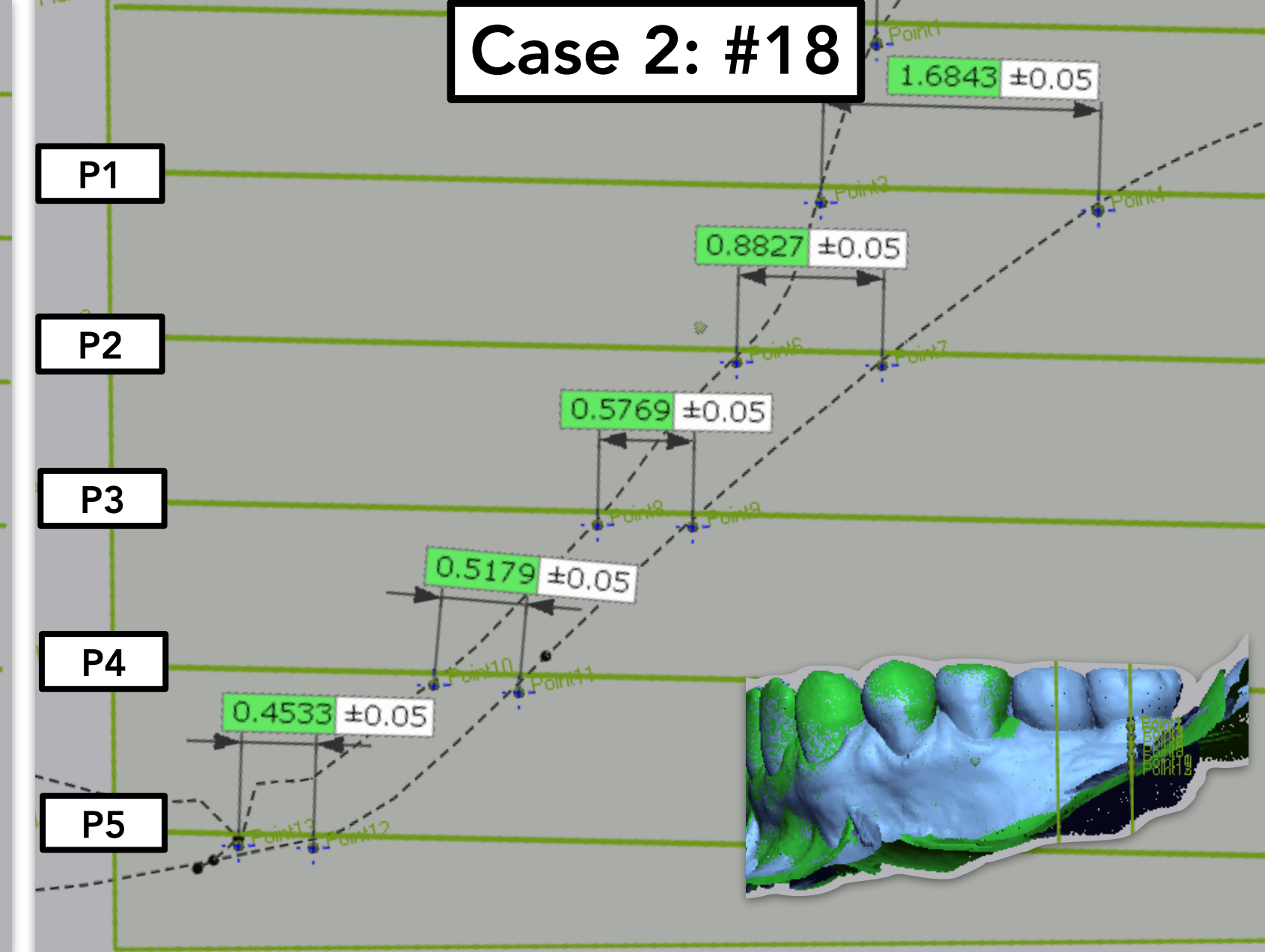
Case 1: #30



Case 2: #19



Case 2: #18



Soft Tissue Thickness Changes (mm)

	P1	P2	P3	P4	P5
Case 1: #30	2.314	2.037	1.178	0.981	0.911
Case 2: #19	1.679	1.191	1.135	0.869	0.571
Case 2: #18	1.684	0.883	0.577	0.518	0.453
Average	1.892	1.37	0.963	0.789	0.645

Conclusion

Within the limitations of these cases, mADM may improve peri-implant mucosal thickness and deepen the vestibule with increasing attached tissue without harvesting an autogenous soft-tissue graft.