



Chin Bone Graft in the Anterior Maxilla Region and Implant Placement with Immediate Loading and Reverse Scanning Technique to Preserve the Emergence Profile

DDS. Eduardo Jacome Van Scoit, MSc. Víctor Manuel Soto Sánchez, MSc. Enrique Ríos Szalay



Patient background:

Tooth 9 with a vertical root fracture and an acrylic temporary, was extracted and a bone preservation was performed during the extraction



Fig. 1 Initial statement.

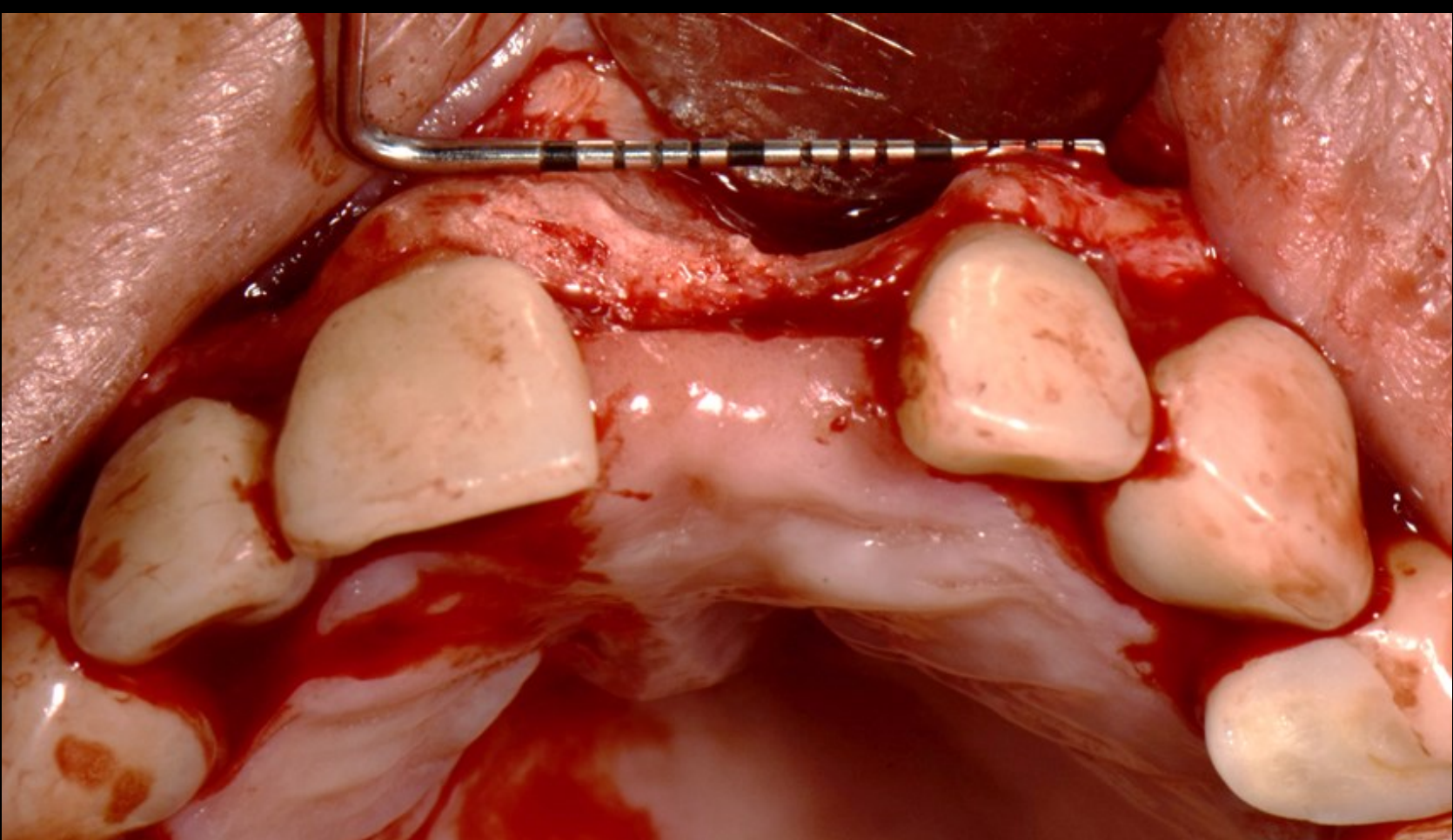


Fig. 2 Vestibular bone defect .

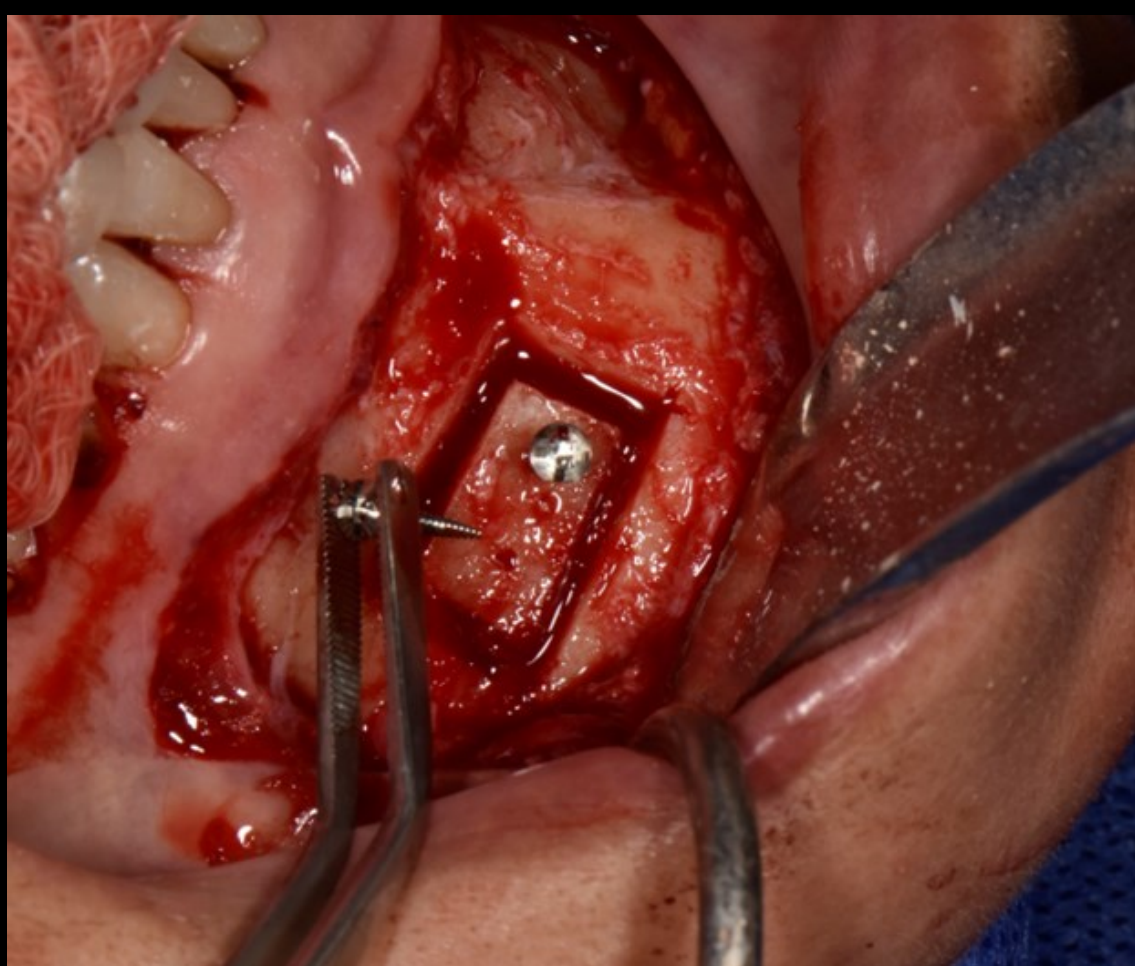


Fig. 3 Chin graft harvesting.

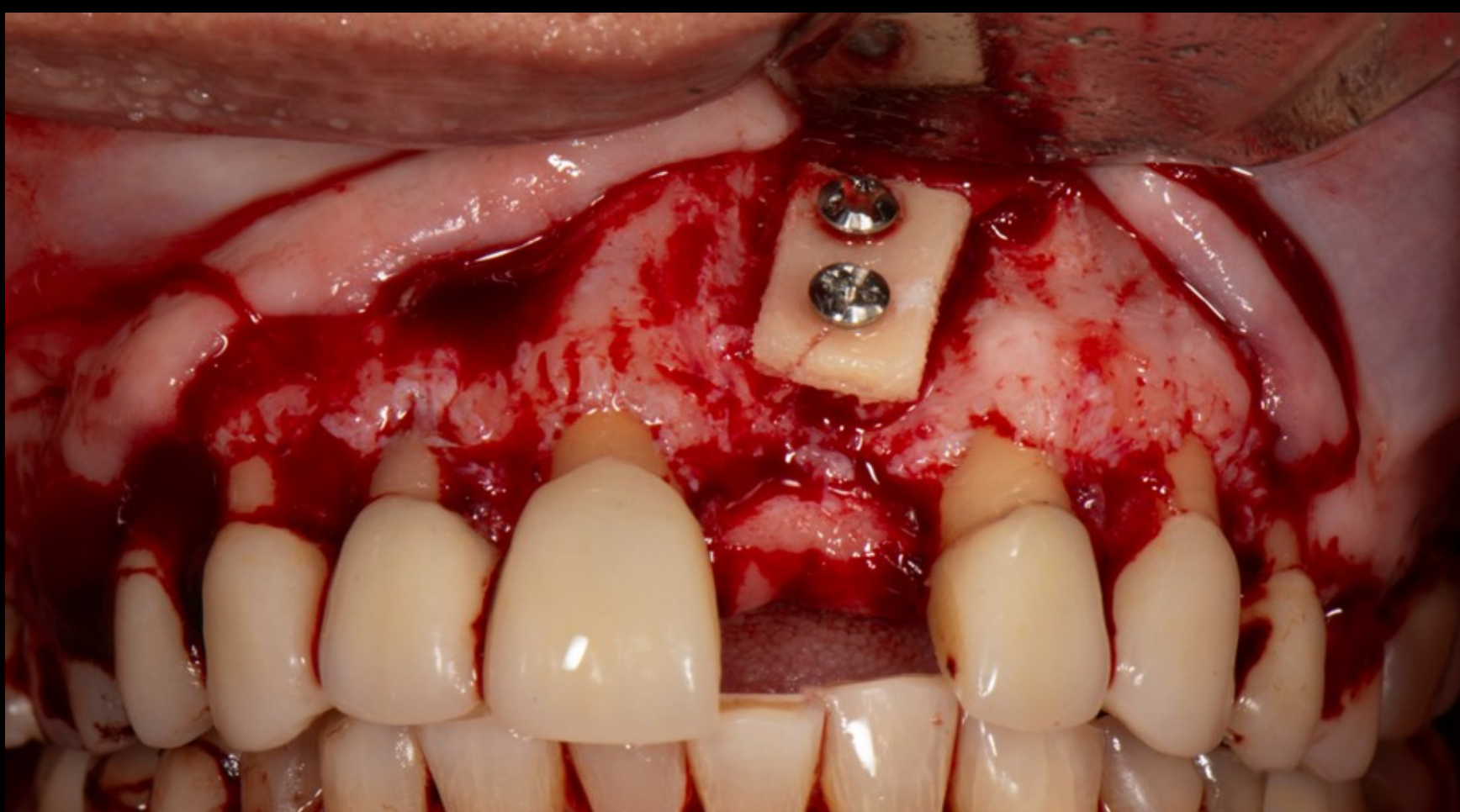


Fig. 4 Graft fixation.

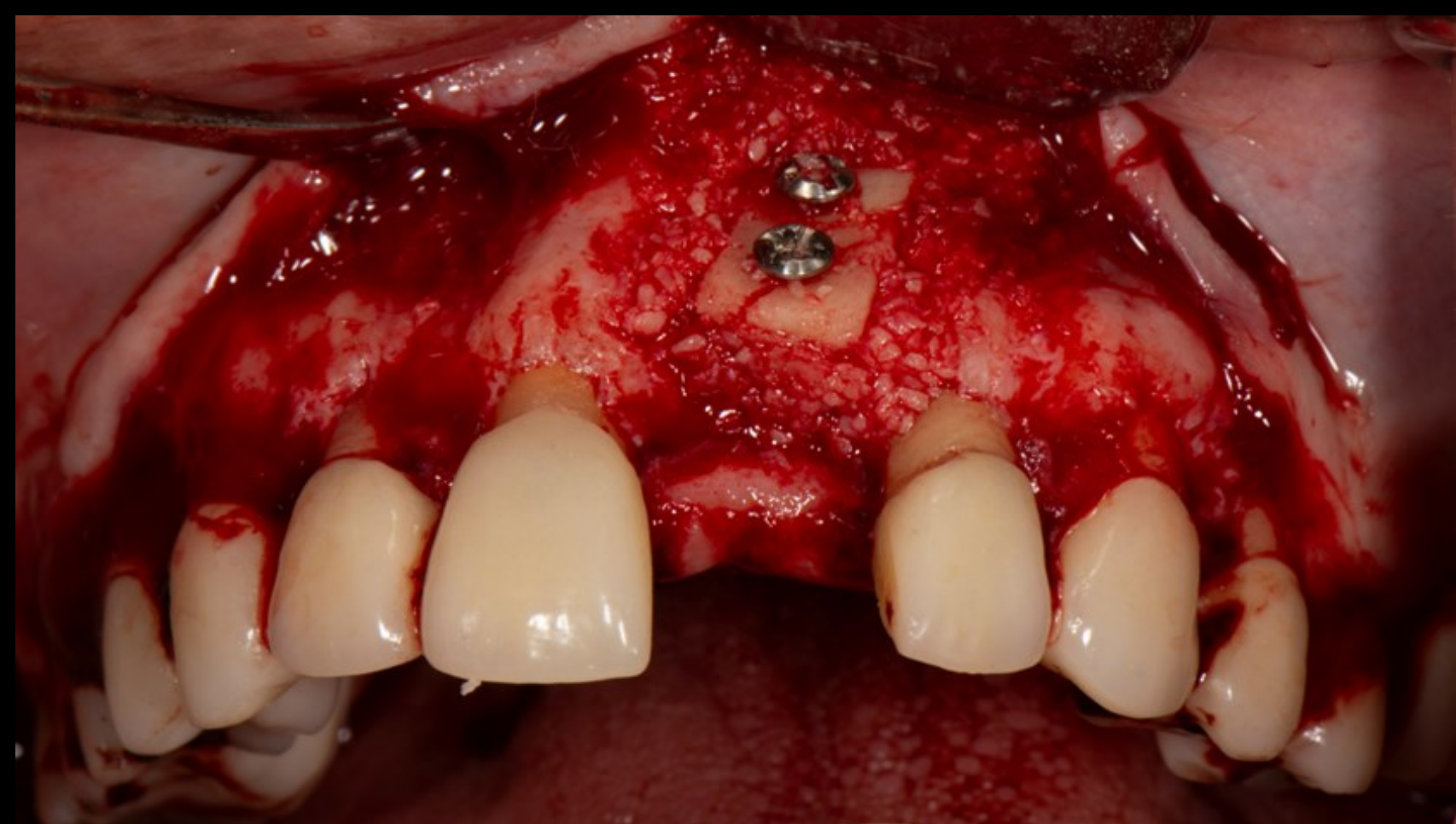


Fig. 5 Gaps filling with allograft and autologous graft.



Fig. 6 Flap reposition.



Fig. 7 One month after surgery.

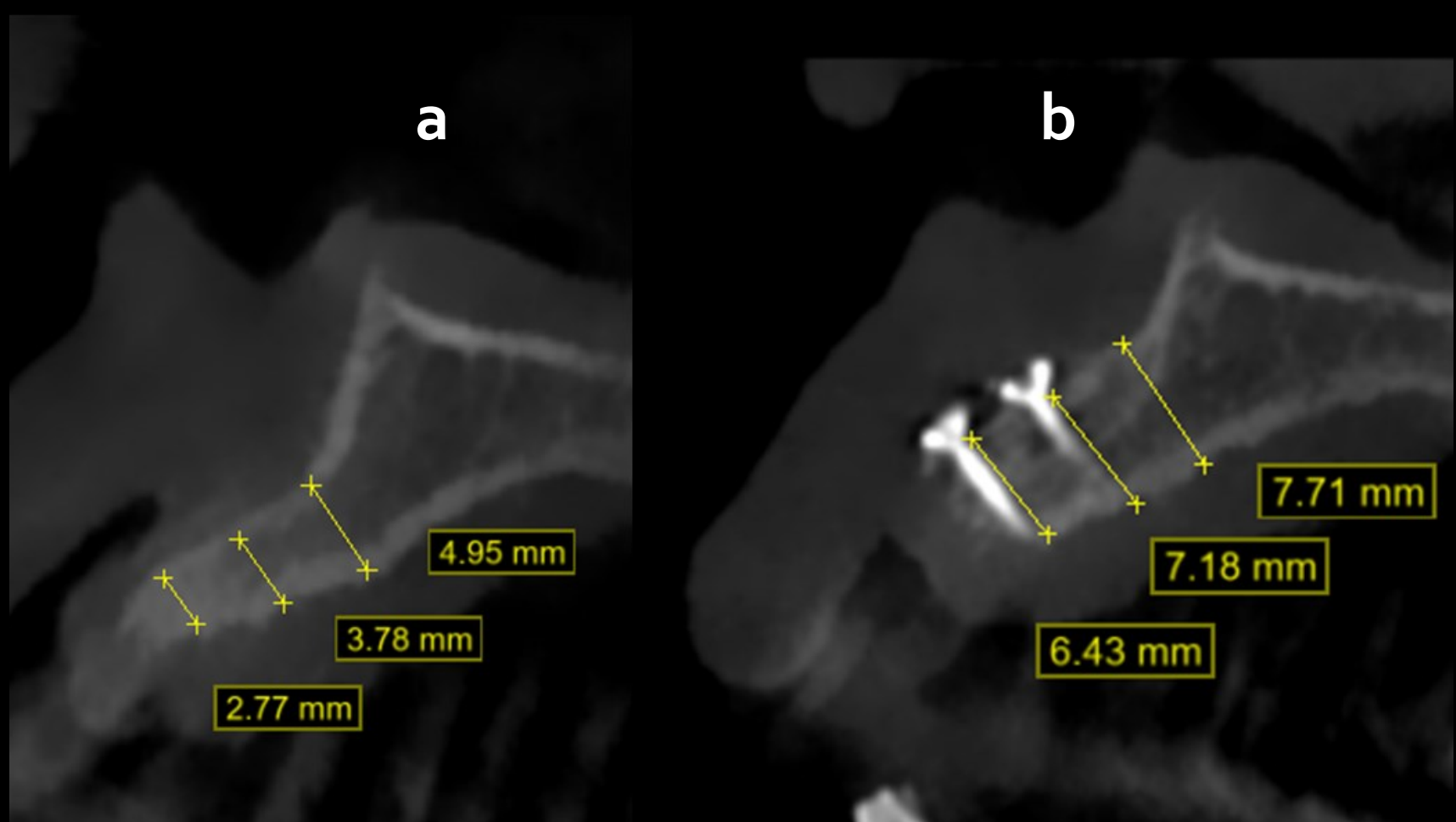


Fig. 8 a) Pre surgery CBCT b) Post surgery CBCT.



Fig. 9. Six months later, the fixation screws were removed.

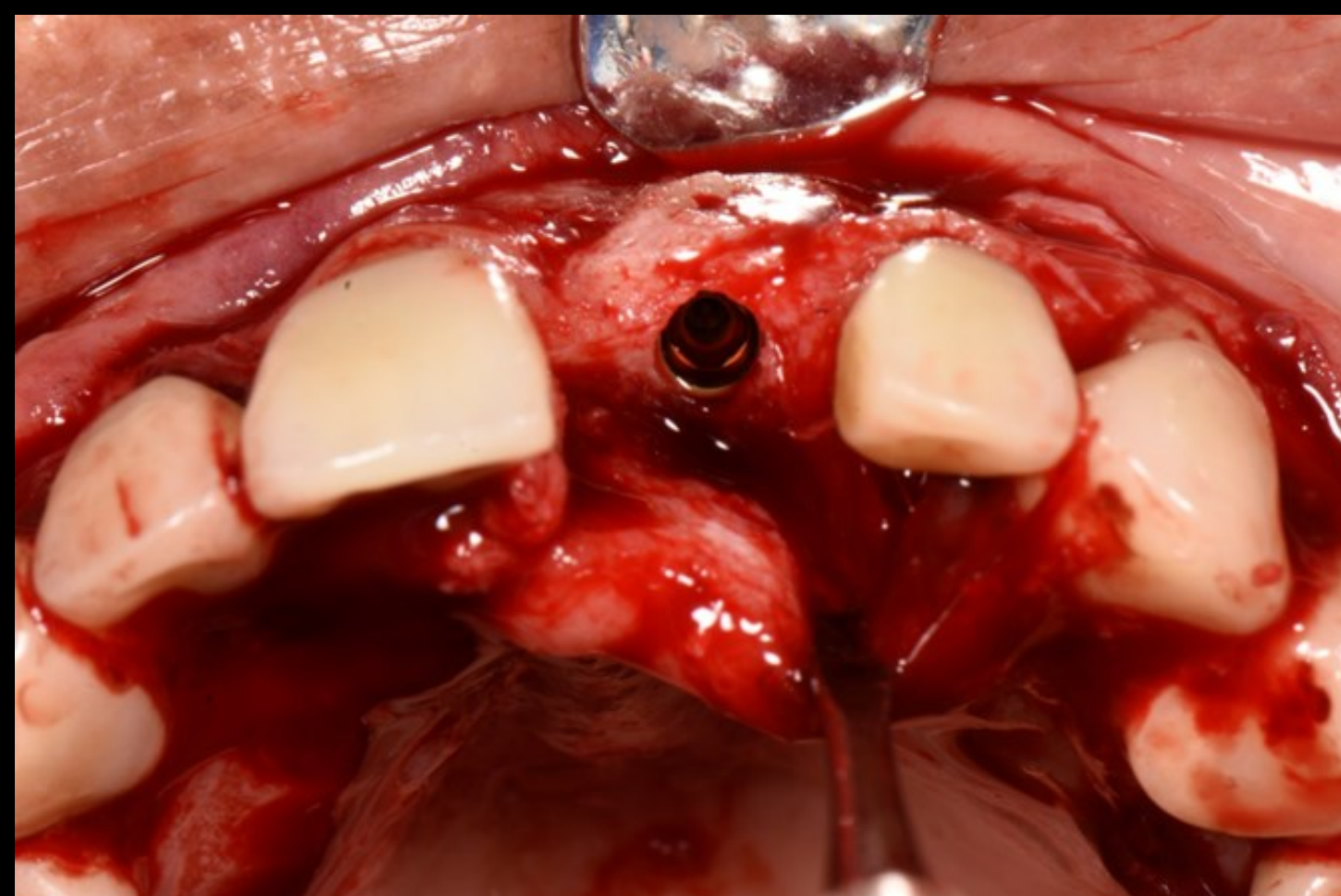


Fig. 10 Implant in-situ.



Fig. 11 Immediate implant load.



Fig. 12 3D printed temporary.



Fig. 13 Temporary personalization.

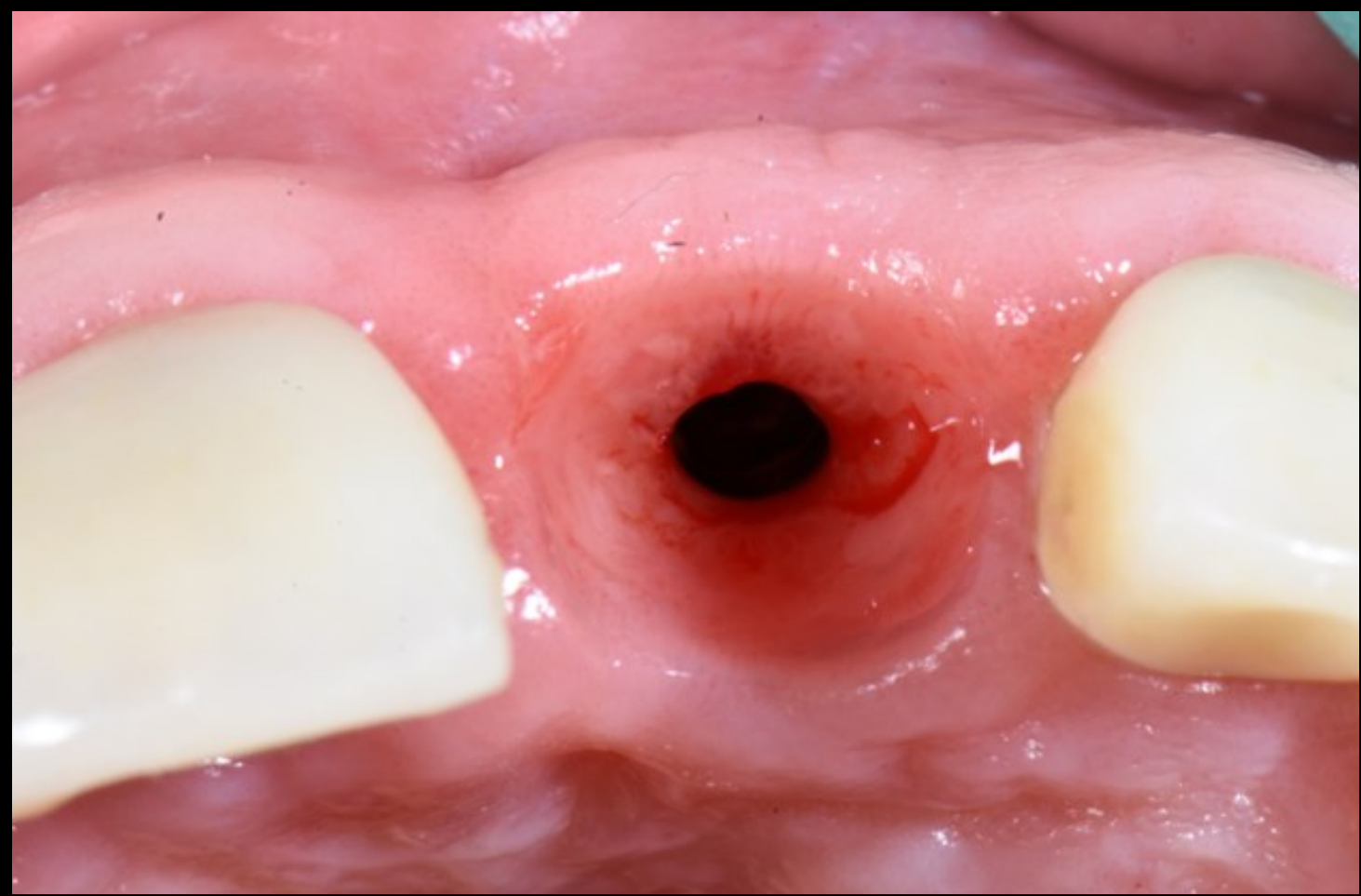


Fig. 14 Emergence profile after removing the temporary.



Fig. 15 Collapse after 2 minutes without the temporary.

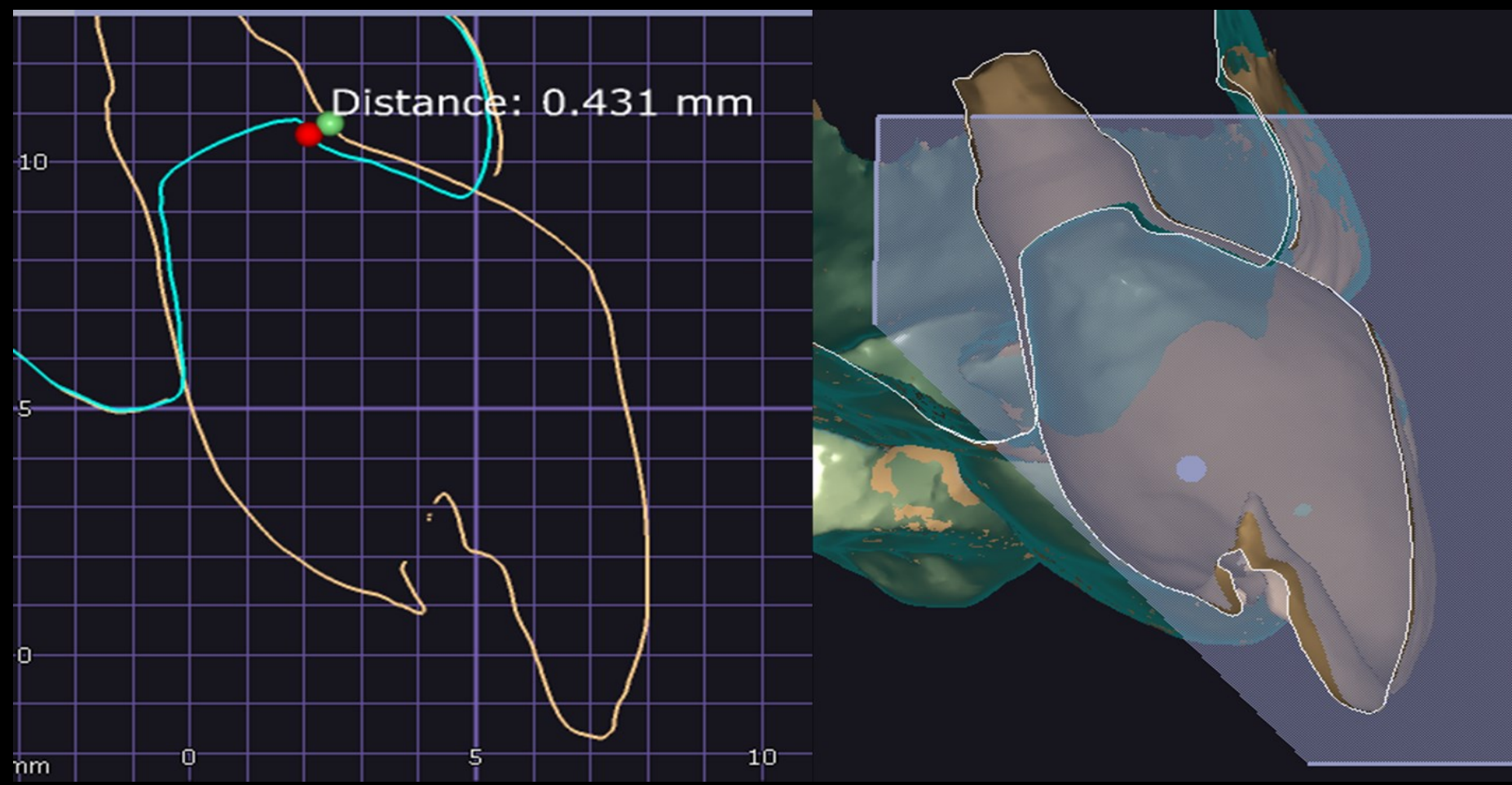


Fig. 16 Tissues collapse 30 seconds after removing the temporary, approximately 0.06% per second.

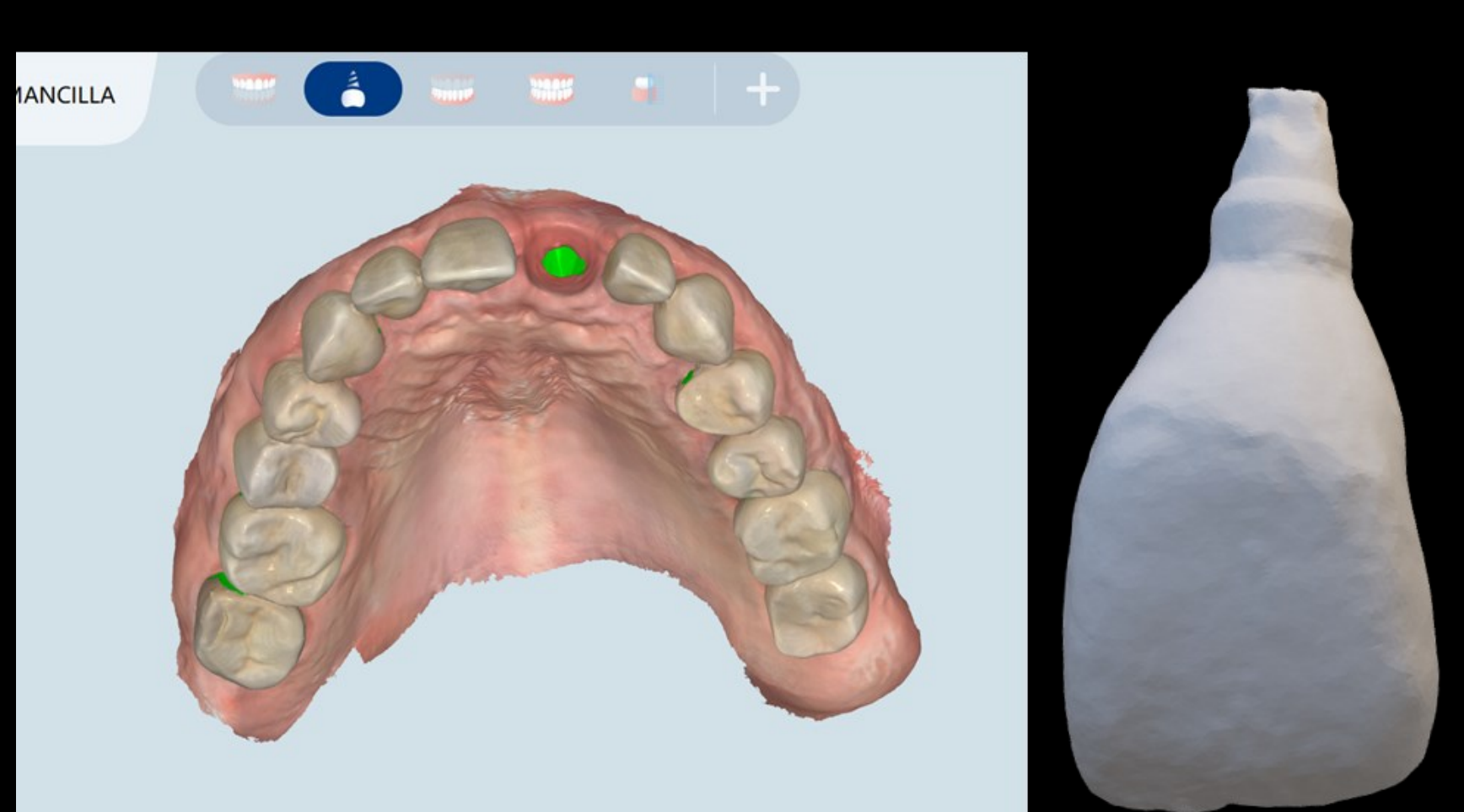


Fig. 17 Temporary reverse scan.

Results:

The chin graft provided optimum bone volume for stable implant placement, immediate loading maintained the gingival architecture during healing and the temporary reverse scan enabled precise replication of the emergence profile and excellent aesthetic outcomes. with no gingival recession or volume loss.

Conclusion

After 12 months of the graft placement, implant showed stable osseointegration and optimal soft-tissue integration, with no gingival recession or volume loss.

