

Analog vs Digital Workflow for Full Arch Implant Retained Prosthesis Fabrication : A Clinical Report

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Objective : To compare the accuracy of fit of complete digital workflow protocol with analog protocol from data acquisition to manufacturing of a definitive full-arch implant retained prosthesis.

Case History : A 70-year-old male with a maxillary abutment level temporary screw retained prosthesis was planned for final impressions for full-arch monolithic zirconia prosthesis. A full digital workflow was tested against a standard analog one.



Figure 1 : initial situation



Figure 2 : conventional splinted open tray impression

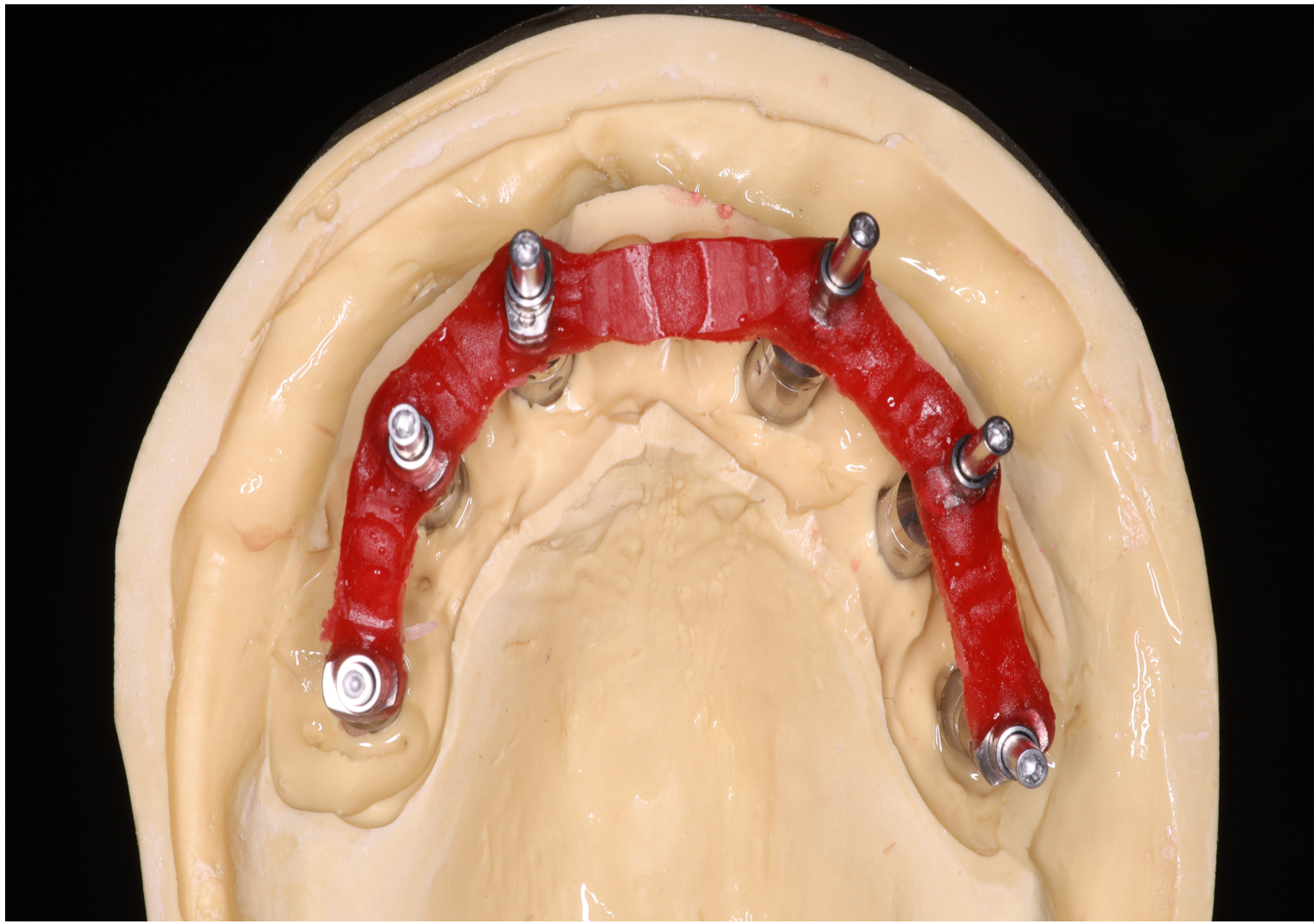


Figure 3 : pattern resin verification jig fabrication

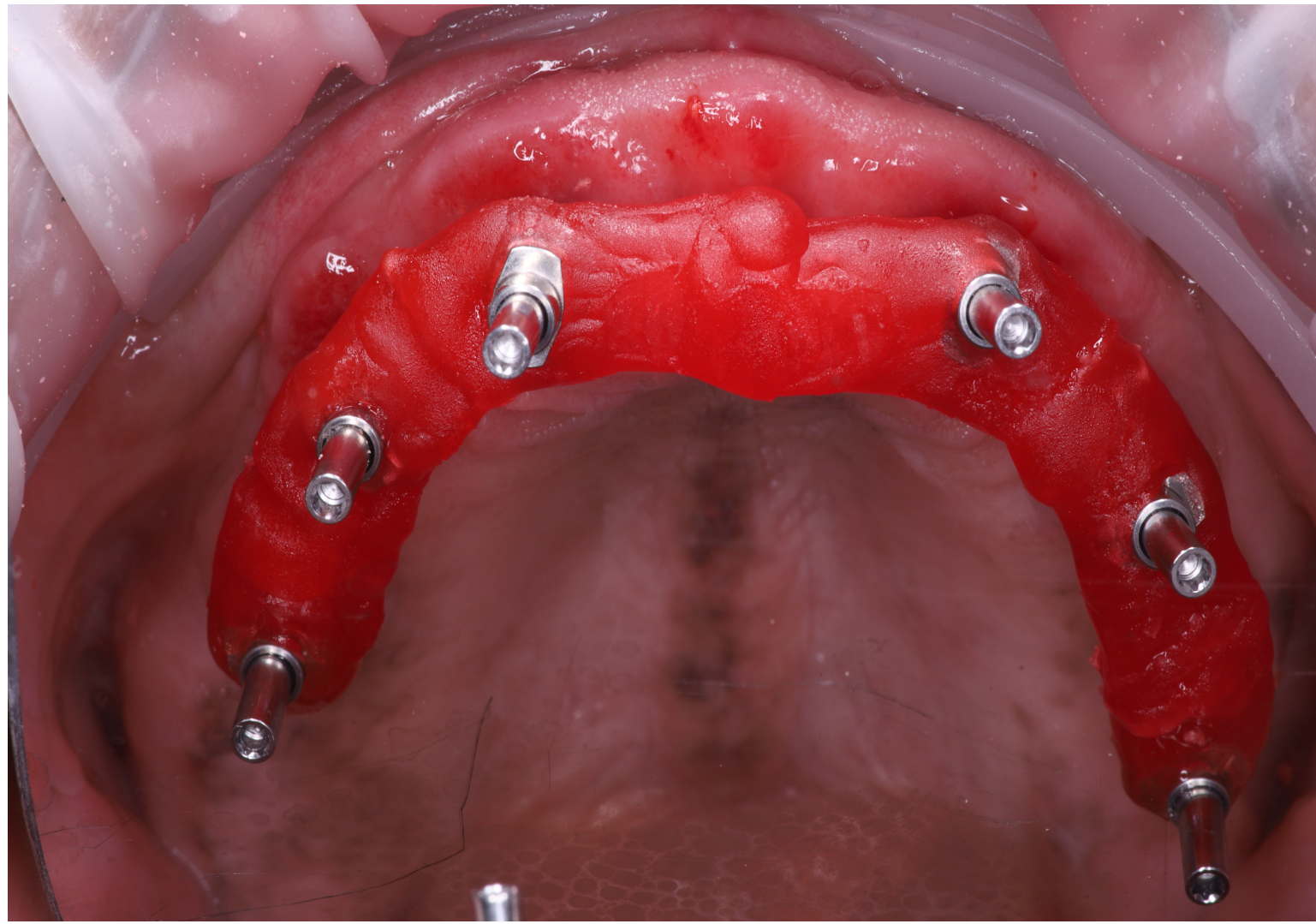


Figure 4 : Analog verification jig try-in

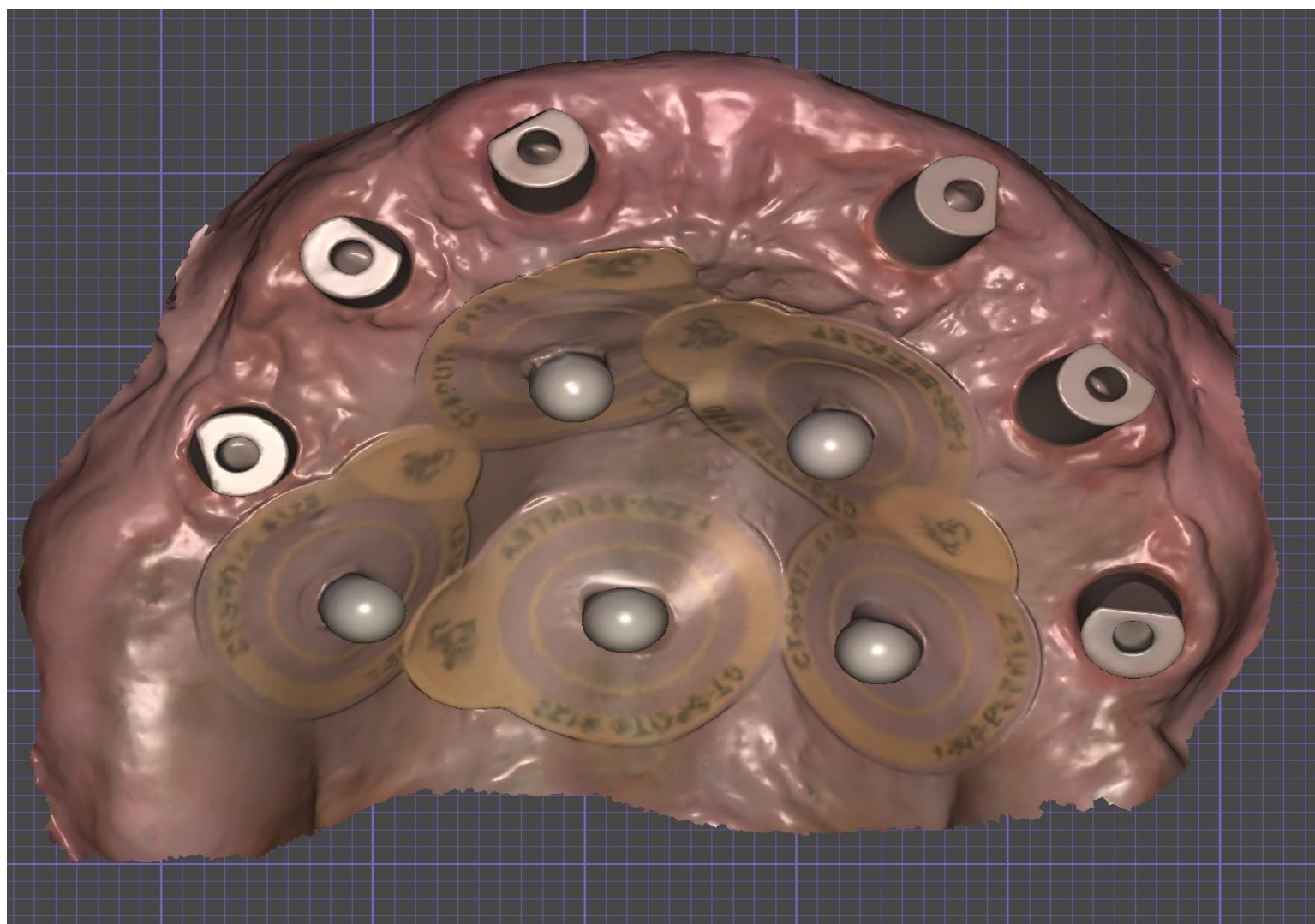


Figure 5 : Digital impression with scan bodies

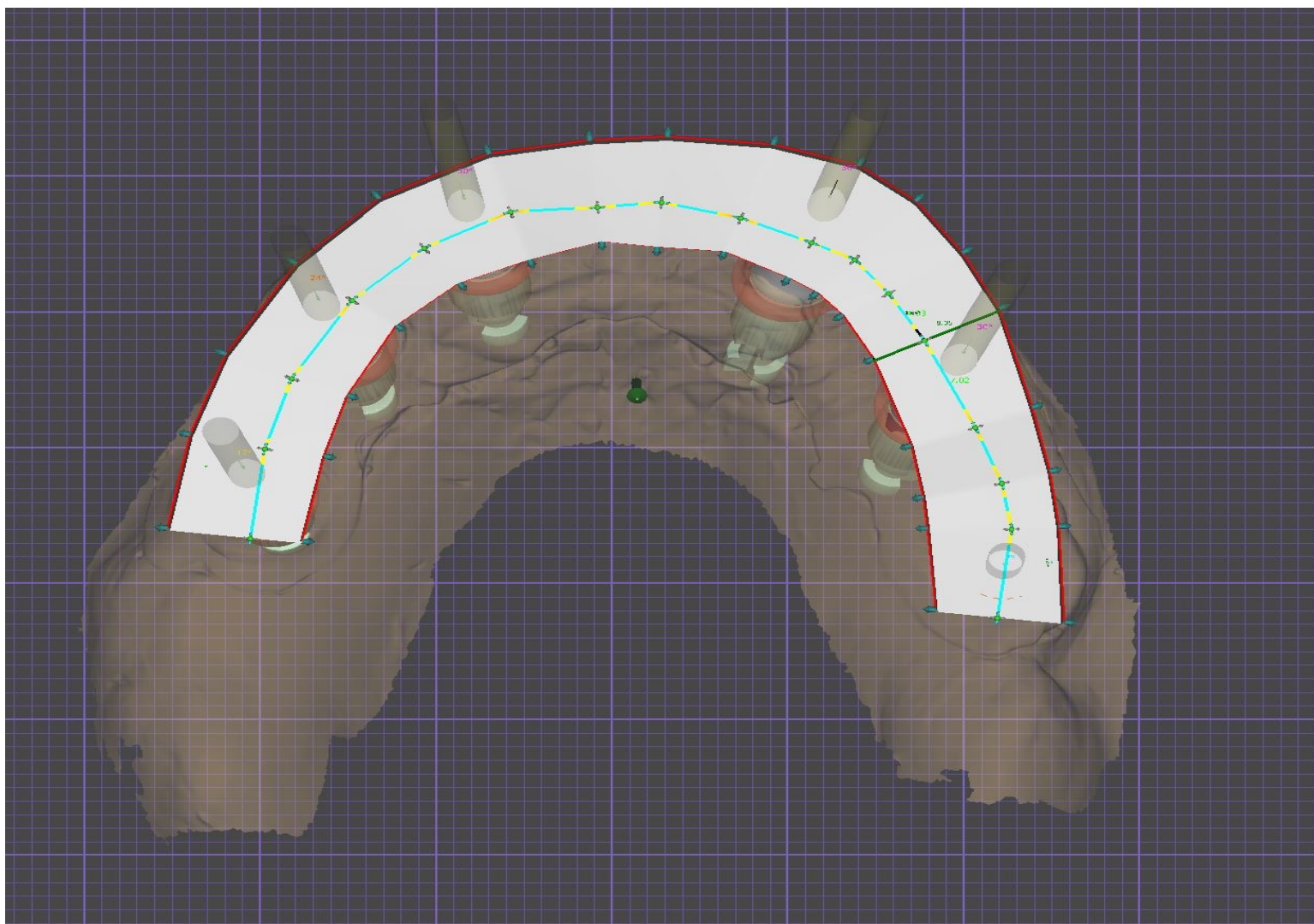


Figure 6 : digital verification jig design

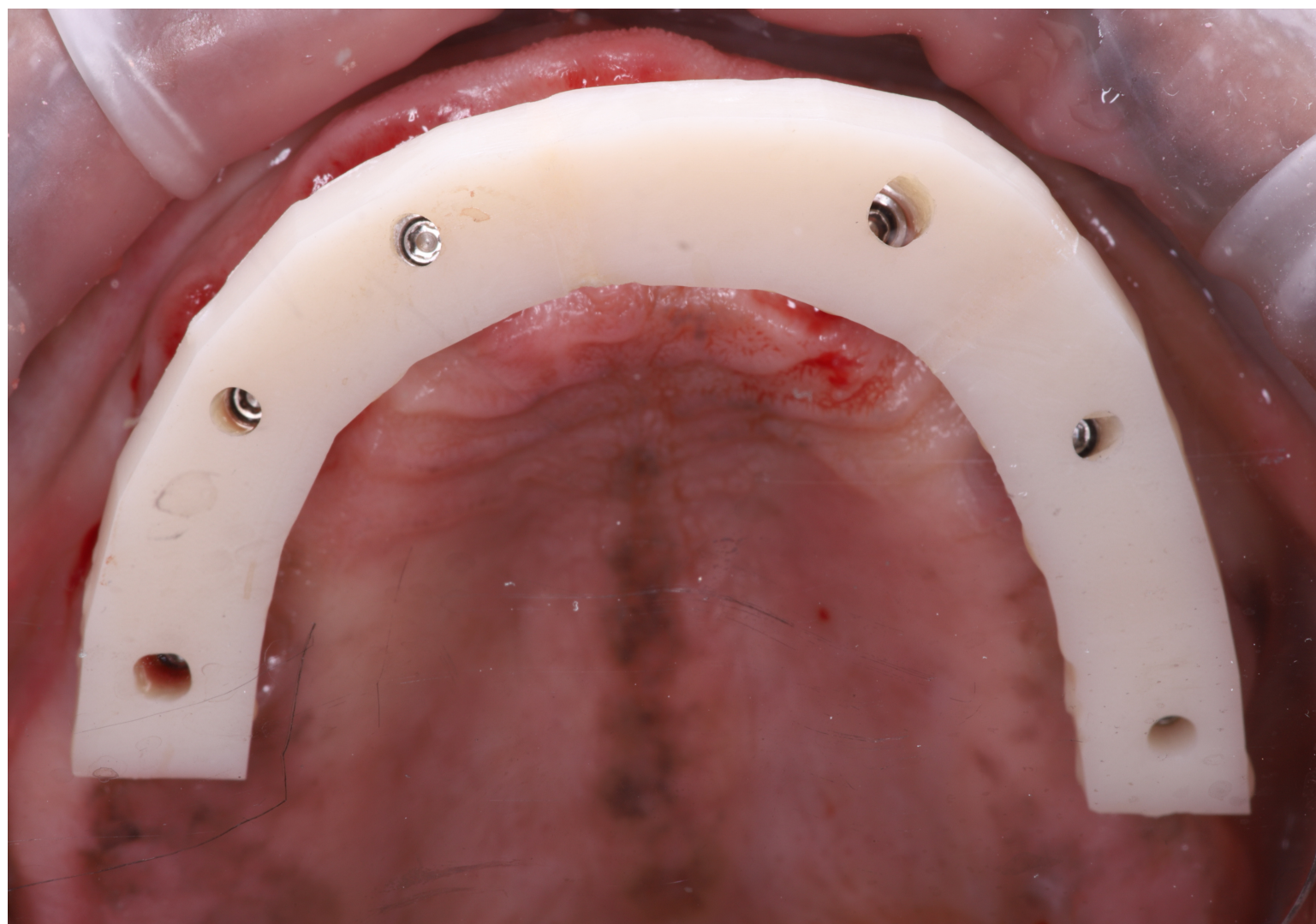


Figure 7 : digital verification jig try-in

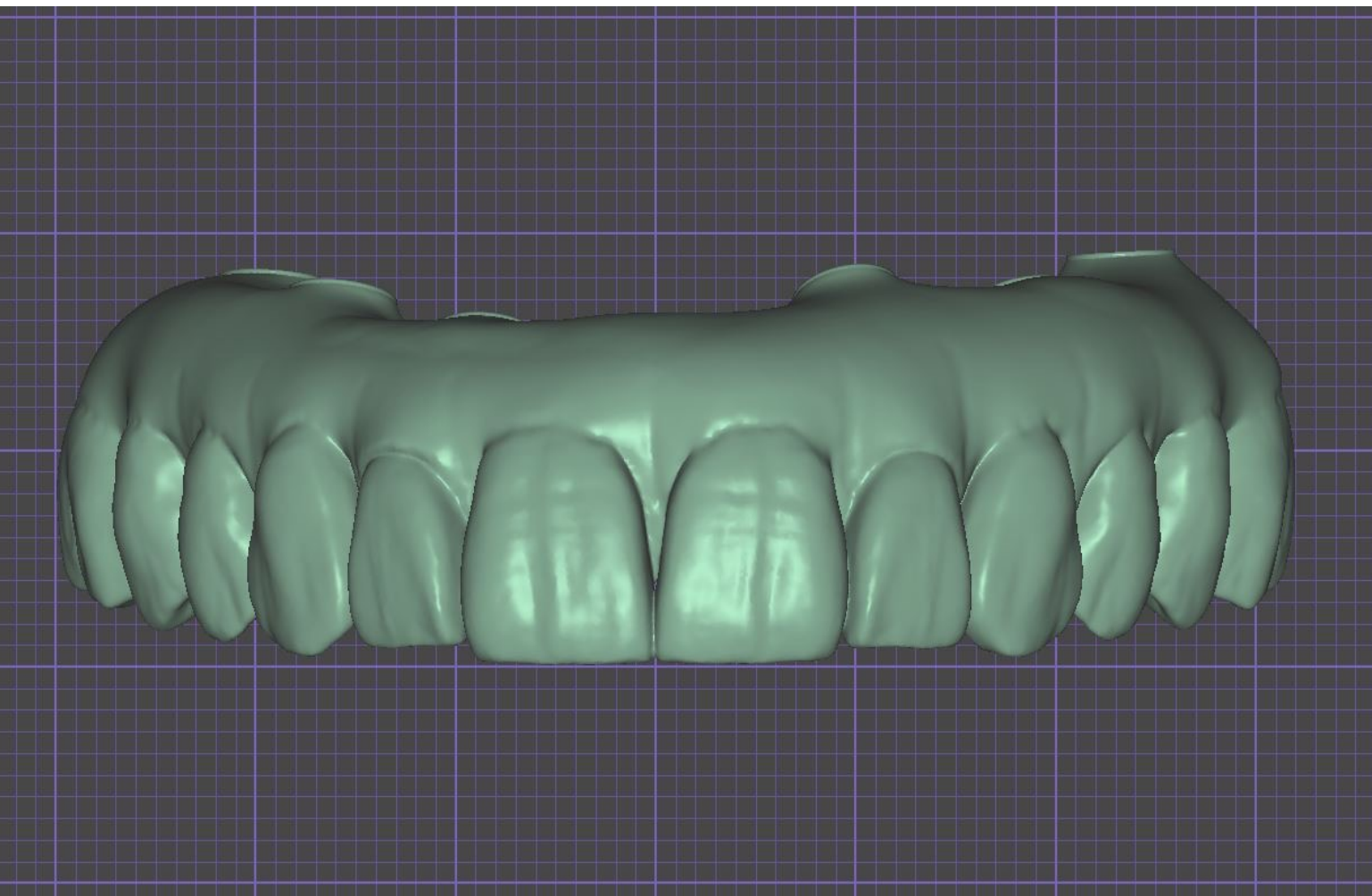


Figure 8 : Prosthesis digital design



Figure 9 : PMMA Prototype

Results : Both final prostheses appeared to be clinically acceptable in terms of accuracy of fit. The fully digital workflow was comparable to a conventional analog workflow.



Figure 10 : PMMA Prototype try-in



Figure 11 : Final monolithic zirconia prosthesis (frontal view)



Figure 12 : Final monolithic zirconia prosthesis (occlusal view)

Conclusion : A fully digital protocol/workflow for the fabrication of a definitive full-arch abutment level screw-retained zirconia prosthesis can be a predictable choice and can be used instead of an analog one in a clinical setting.