

"Impression compound - A Simple and Reliable Technique to Establish Vertical Dimension of Occlusion (VDO) and Centric Relation (CR) in a Single Visit"



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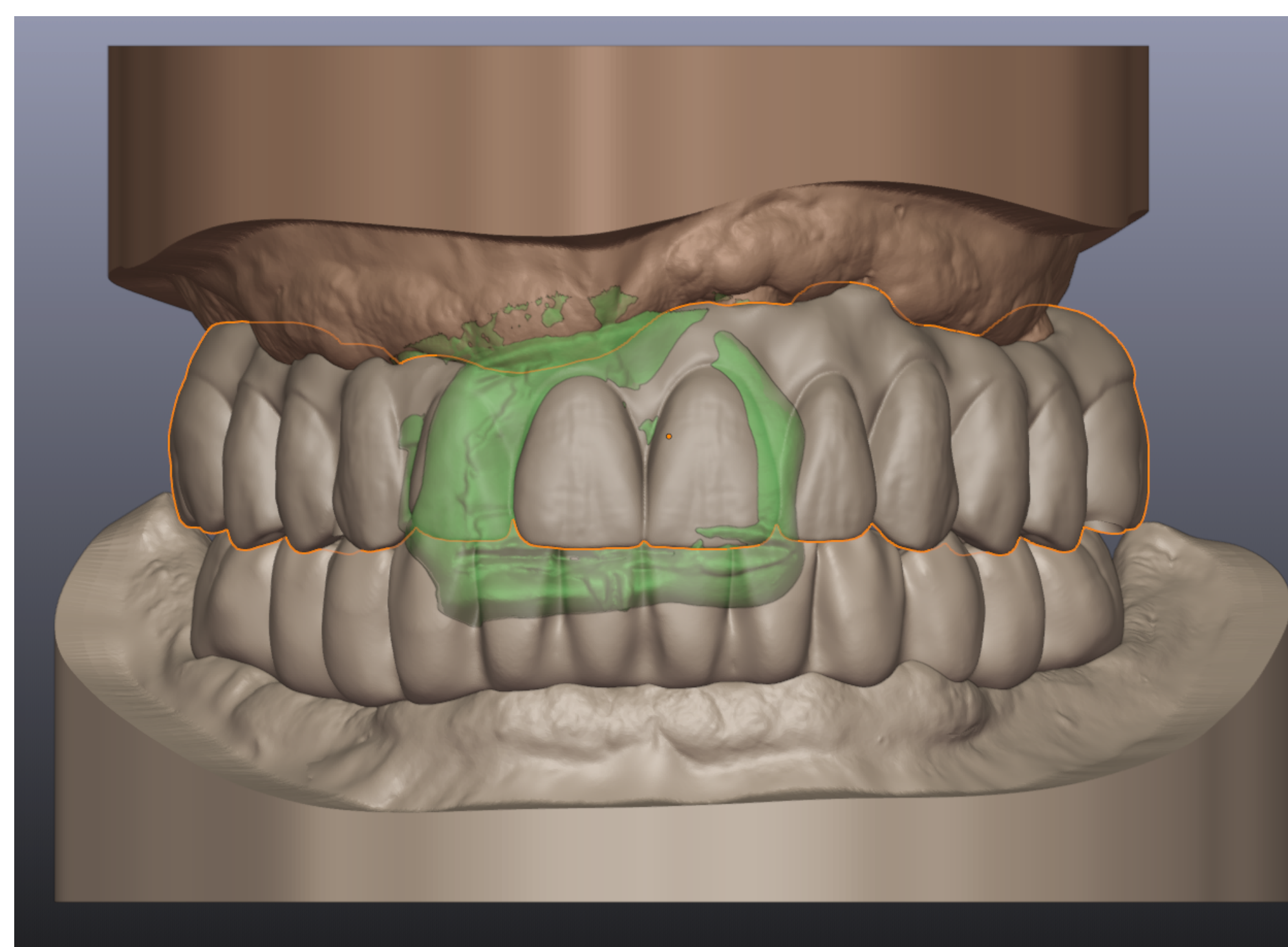
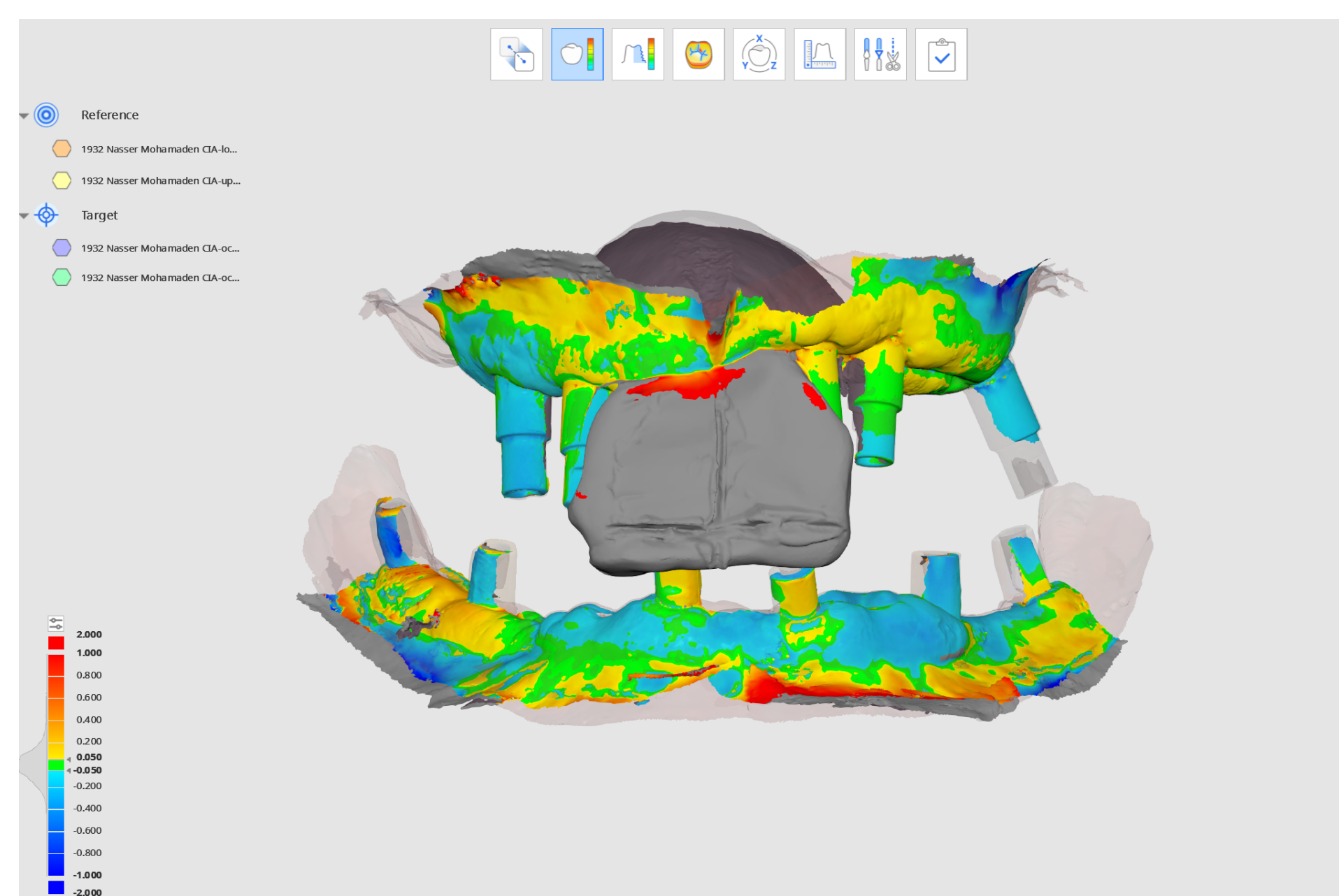
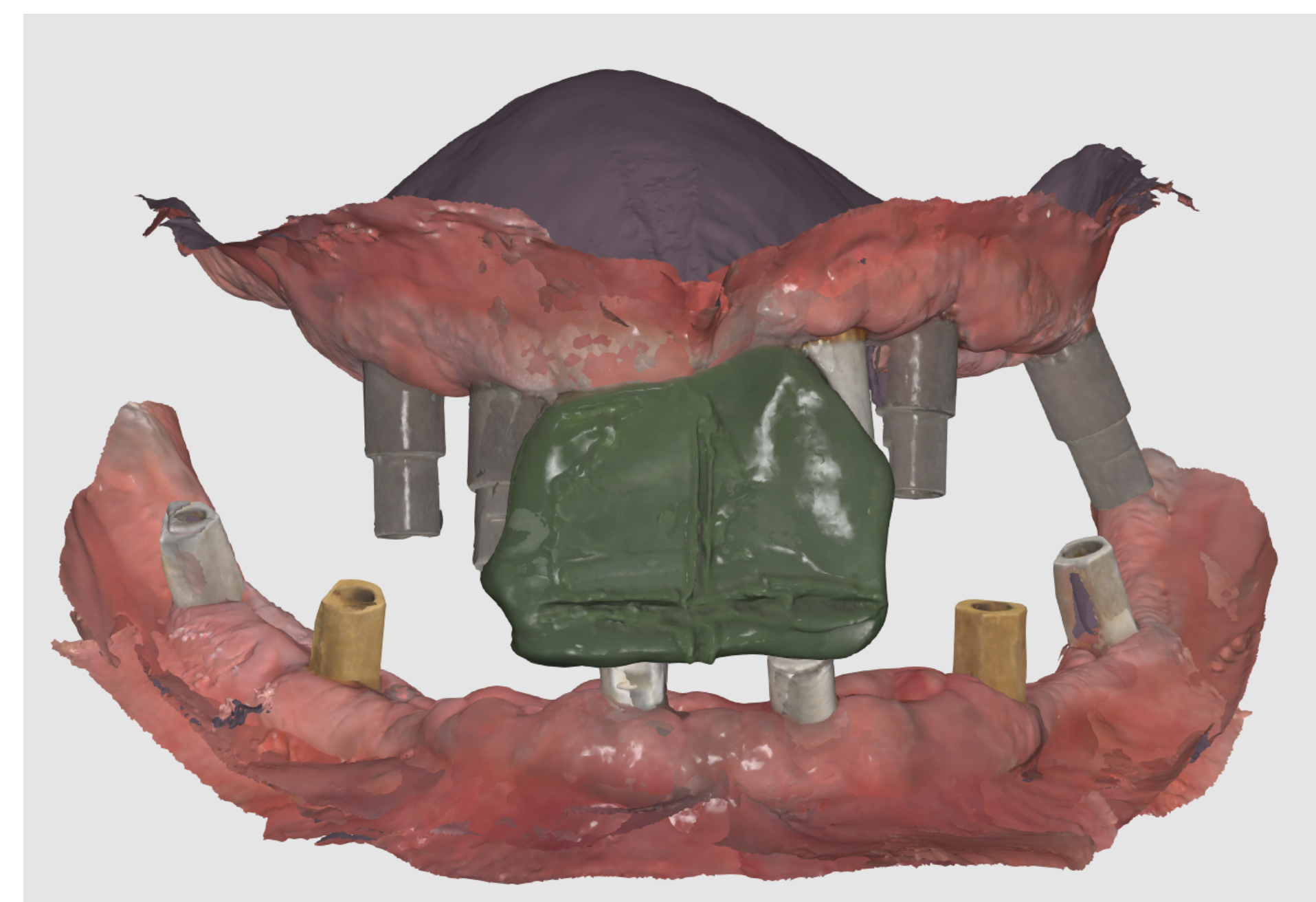
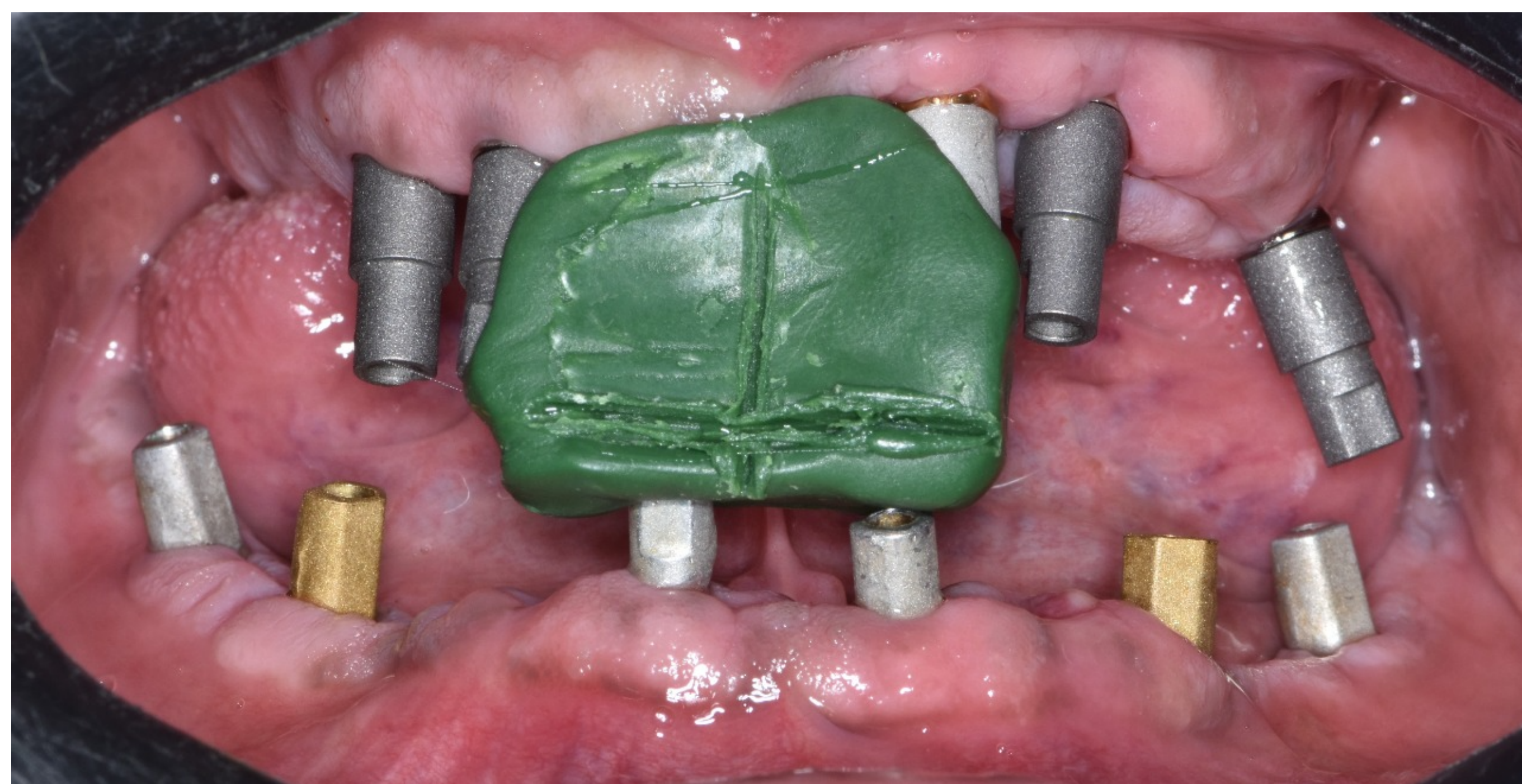


OBJECTIVE

To illustrate the use of impression compound as a custom-made hard anterior deprogrammer to record VDO and CR in a single appointment using an intraoral scanner.

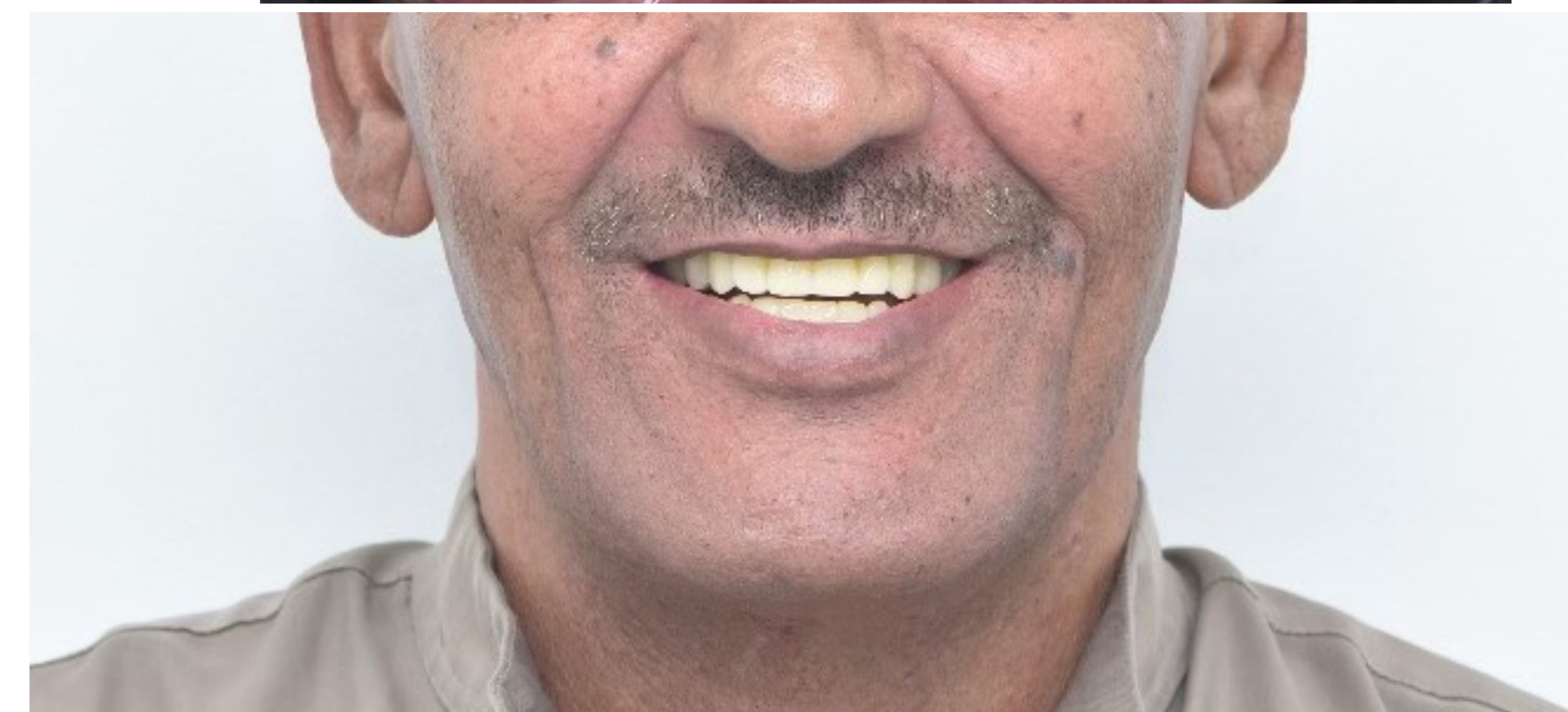
Technical Steps

A 47 year old patient presented for restoration of maxillary and mandibular implants. Scans for maxillary and mandibular arches with and without scanbodies were obtained using Medit i900® intraoral scanner. A small segment of impression compound was heated and adapted to the maxillary anterior segment around the anterior scan bodies then adjusted till the appropriate vertical dimension is achieved. Then the occlusal surface of the impression compound is re-warmed and adjusted to be flat (devoid of any indentation) followed by cooling with air-water syringe. Using bimanual manipulation, the patient was guided to bite in CR at the proper VDO. Midline and lip lines were carved to aid in the virtual wax-up. Right and left bite scans were obtained. The scanning protocol involved starting from the posterior maxillary segment and moving forward onto the impression compound then downward to the anterior mandibular segment followed by the posterior mandibular segment. The STL files were exported to a CAD software, Blender B4D®, where a virtual wax-up was designed. The setup was splitted into a titanium bar and acrylic superstructure using B4D iBar™.



OUTCOME

Impression compound served as a hard anterior deprogrammer to hold the bite in place. As well as, a pathway for the intraoral scanner to allow smooth image stitching and continuous uninterrupted scanning. The lines marked on the impression compound aided in the proper wax-up on CAD software.



CONCLUSION

Impression compound in conjunction with an intraoral scanner can serve as a reliable and simple method to record VDO and CR in a single appointment accurately without the need for fabrication of occlusal rims.