



Laminate Veneers Insertion Jig- A clinical technique

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Introduction:

Laminate veneer insertion, particularly in no-preparation and window prep designs, often encounters challenges in achieving precise seating and alignment. Misalignment during cementation can compromise aesthetics, function, and biology. This poster presents a novel solution using a CAD/CAM-designed seating jig to address these clinical issues.

Purpose:

The aim is to ensure accurate veneer alignment by replicating their Ideal placement from the master cast to the patient's mouth, minimizing human error and enhancing precision during cementation.

Methodology:

- Using the scanned scan of prepared teeth & the STL files of the veneers were merged using CAD software (Dental Designer; 3Shape c) to design and fabricate a seating jig.
- CAD software (Dental Designer; 3Shape) was used to design a horseshoe-shaped jig with an interrupted arm design extending from the horseshoe strap to the mid-facial/buccal of each veneer. Posterior occlusal molar coverage was included to ensure proper seating. (Fig 1)
- The design was 3D printed using DLP printer (NextDent 5100; 3D Systems) using their resin (OrthoRigid; 3D Systems) (Fig 2). The veneers were carefully seated on the model, and the seating jig was placed on top. (Fig 3)
- Once the seating was confirmed, a drop of flowable composite resin (G-ænial™ Universal Flow; GC America) was used to temporary lute the jig to the veneers. (Fig 4)
- The jig, with the attached veneers, can then be seated intraorally. It remains in place during curing, ensuring stability and alignment. With the jig in place, excess cement can be removed, and flossing between teeth can be performed.

Discussion:

- This design allows flexibility without fracture, to allow for veneer seating despite varying paths of insertion.
- The interrupted design permits flossing during bonding and prevents excess cement between interproximal contacts.
- The seating jig design is inspired by a lingual bar removable partial denture major connector, with similar interrupted arms extending to the occlusal surface of the posterior molar bilaterally.

Conclusion:

This innovative seating jig enhances clinical outcomes in laminate veneer placement and has potential applications in broader esthetic and restorative clinical procedure.

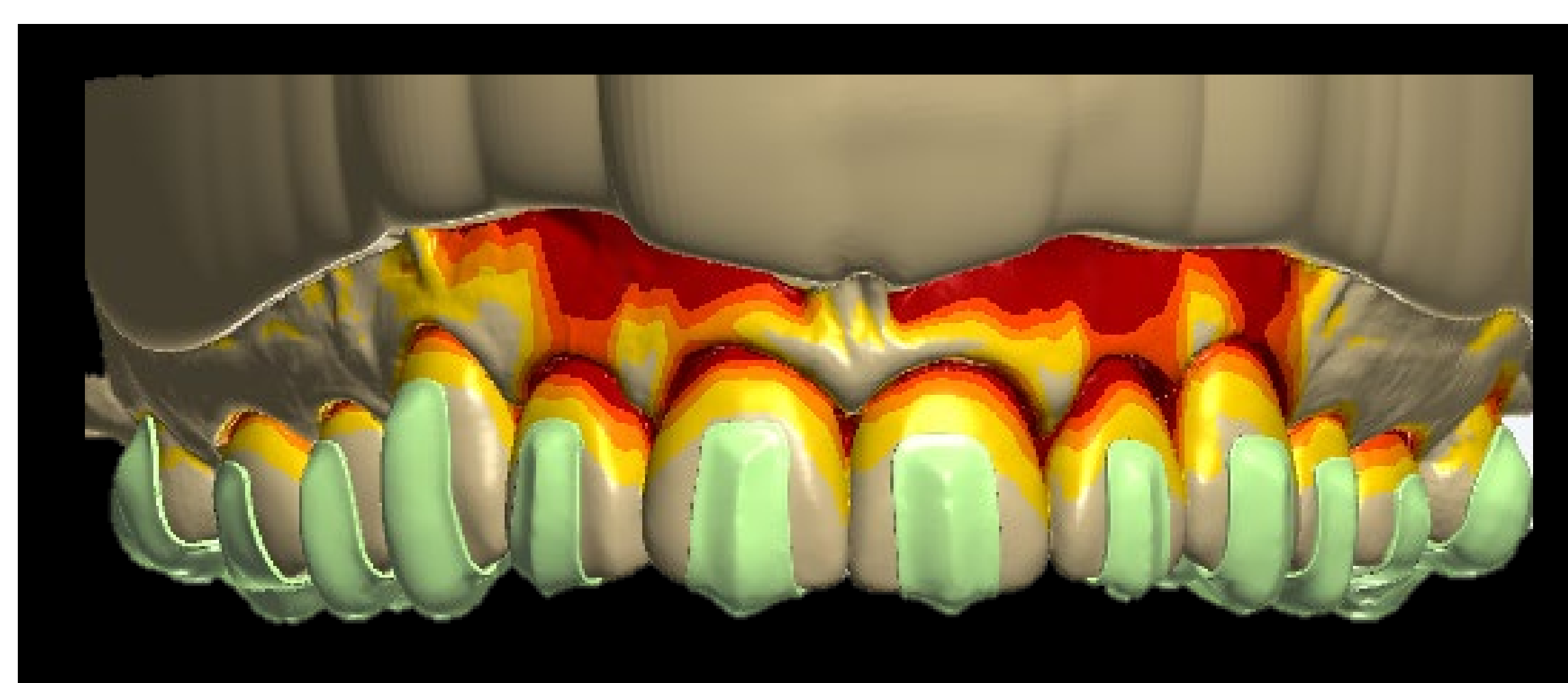
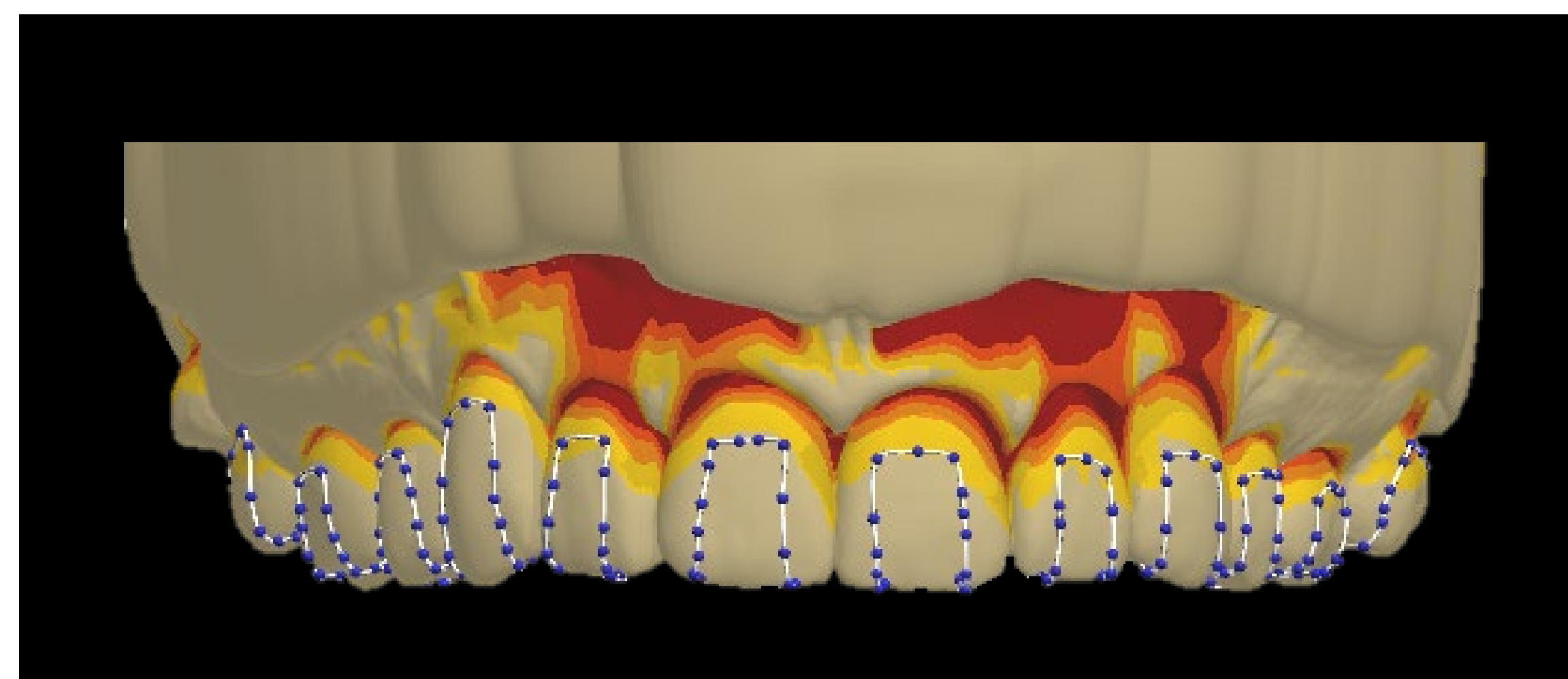
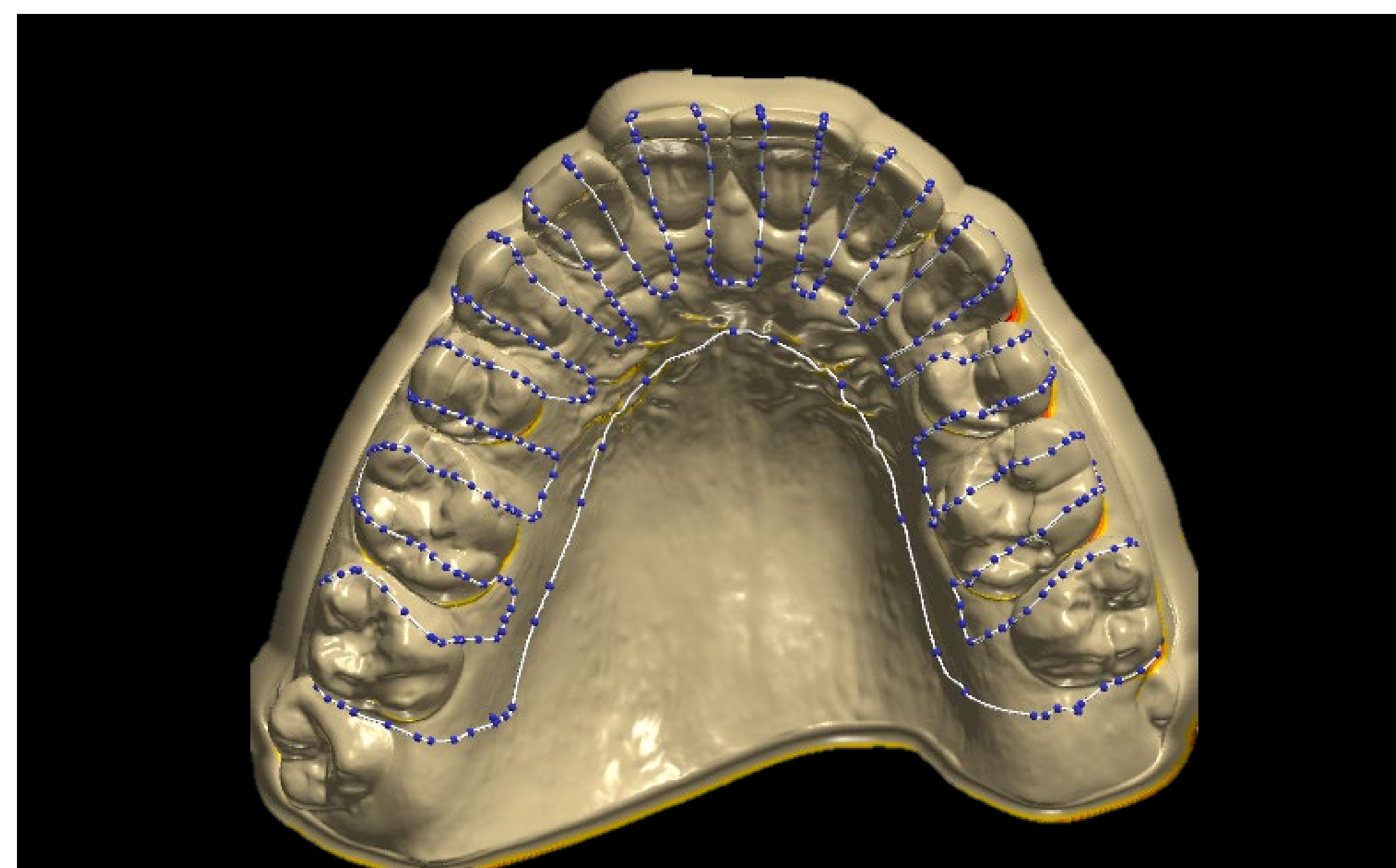


Figure 1: seating jig design

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Figure 3: Jig inserted into the veneers

Figure 4: composite restoration used to secure the jig to the veneers