THE JOURNAL OF PROSTHETIC DENTISTRY

TIPS FROM OUR READERS

Fabricating an altered cast to facilitate intraoral processing of the LOCATOR attachment

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The LOCATOR attachment (Zest Anchors LLC) has been widely used for implant-retained overdentures (IODs),[1,2] with several techniques for incorporating the attachment into the IOD proposed.[3-6] When the indirect method is used, a strong bond between the matrix and acrylic resin can be achieved, and staining or porosities on the intaglio surface of the IOD are prevented.[3] However, the method requires additional laboratory procedures and expense, LOCATOR impression posts (Zest Anchors LLC) and the LOCATOR analog (Zest Anchors LLC) are needed, and distortion during denture processing may occur.[3,4]

The direct method may avoid limitations of the indirect method.[3-6] After the attachment position is transferred to the intaglio surface of the IOD by using an indelible pencil[3,4] and a silicone material,[5,6] the corresponding area is relieved. However, the procedure increases chair time, and excessive relief may be made, thereby increasing the

Figure 1. Grooves placed on surface of healing abutment. Note lines on cast to indicate center and axis of healing abutment.

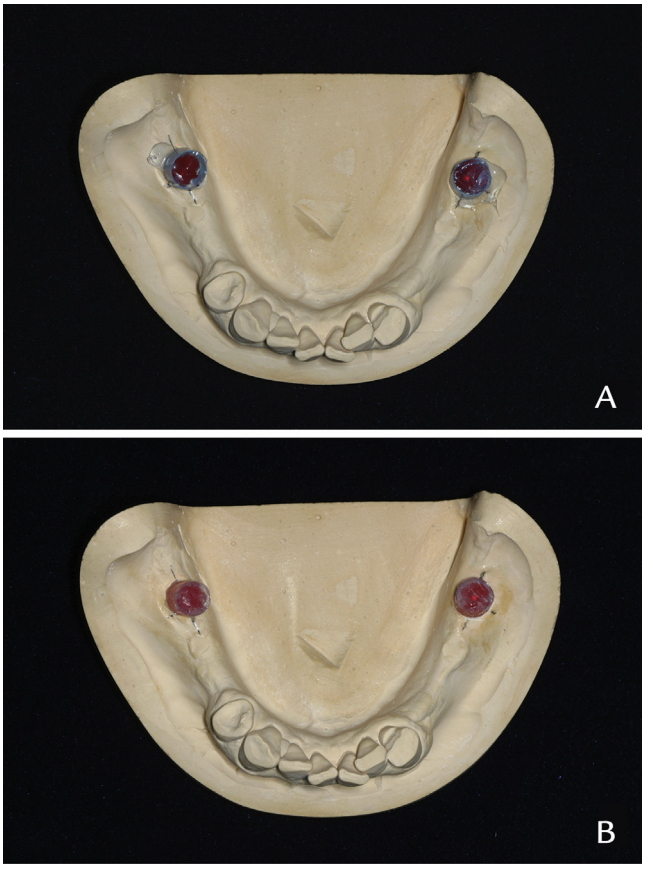

Figure 2. A, Straw filled with transparent polyvinyl siloxane material on cast. B, Altered cast.

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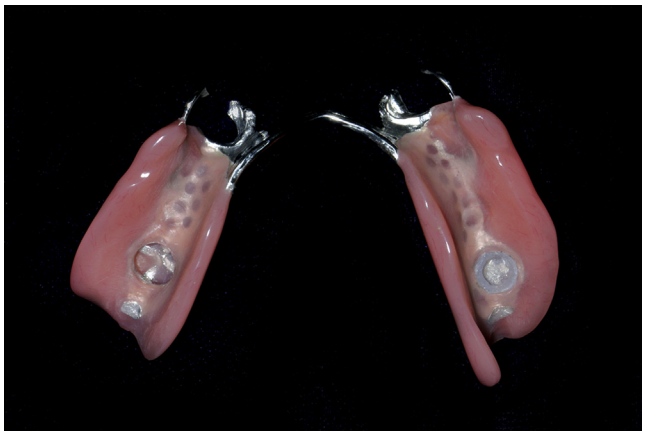

Figure 3. Intaglio view of definitive denture. Note that transparent spacer allows sufficient clearance for attachment and polymethyl methacrylate resin.

risk of denture base fracture. This article introduces a technique for fabricating an altered cast to reduce interference between the matrix and the denture base. By using this technique, the disadvantages of the direct technique can be efficiently overcome.

TECHNIQUE

Horizontal space for incorporating the attachment comprises the diameter of the matrix (5.49 mm) and the width of acrylic resin that encircles the matrix.[7,8] Vertical space for incorporation comprises the height of the matrix (2.35 mm) and the resin thickness.[7,8]

1. Make a definitive impression of the tissue and healing abutments. Fabricate a definitive cast. If the healing abutments might fracture when separating the cast from the impression, fabricate resin dies with autopolymerizing acrylic resin (Pattern Resin LS; GC America Inc) and dowel pins (World Dowel Pin; World D&D).
2. Using a pencil, draw a cross around the healing abutments to indicate their centers. Draw parallel lines to each axis of the healing abutments on the lateral surfaces of the cast. Prepare grooves on the healing abutments with a laboratory bur (H33.104.012; Komet Dental) (Fig. 1).
3. Cut an 8-mm-diameter straw into 5-mm lengths with scissors (9 Dean Scissors; Hu-Friedy). Place the straw on the cast in accordance with the marks. Inject a transparent polyvinyl siloxane occlusal registration material (Memosil 2; Kulzer GmbH) into the straw with an automix gun (Fig. 2A). After polymerization, remove the straw and excess with a blade (No. 15 Scalpel Blade; Paragon) (Fig. 2B).
4. Fabricate the definitive IOD in accorance with conventional prosthodontic principles (Fig. 3).[9,10]

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https://doi.org/10.1016/j.prosdent.2020.04.012