IMPLANT ATTACHMENT PICK-UP TECHNIQUE FOR CONVERTING A DENTURE INTO AN OVERDENTURE

CASE PRESENTATION | 10

60-year-old fully edentulous woman presented with an existing implantretained overdenture requesting a new mandibular prosthesis. The implants (Osseotite Tapered Certain, Biomet 3i) had 3 mm tall LOCATOR abutments (Zest Anchors) that were placed for her current prosthesis and she was satisfied with retention of the denture with the blue nylon inserts.

A new mandibular complete denture was fabricated with recesses that were slightly oversized using a processing spacer to accommodate picking up the LOCATOR denture caps directly inside the mouth. Block-out spacers were applied to the LOCATOR attachments, and denture caps snapped on top. A PVS fit-checking material (Fit-Checker Advanced, GC America) was mixed and applied to the intaglio surface of the denture, the denture was placed back into the mouth, and the material allowed to polymerize. Areas of show-through were marked with a blue pencil, and a pear-shaped acrylic resin bur was used to enlarge the recesses. An inverted cone bur was used to create undercuts and a #8 round bur was used to place a vent hole into the lingual surface of the denture.

The denture was air-dried and Chairside Attachment Processing Material (Zest Anchors) was injected into the denture recesses to fill two-thirds of the recess. A small amount of Chairside was placed onto the denture caps and the denture was seated onto the edentulous ridge, ensuring complete tissue adaptation, and held with light finger pressure for 30 seconds so the material would flow out the lingual vent holes. A curing light was used for 10 seconds on the buccal and lingual surfaces of each attachment. Next, the denture was removed and inspected. A small void was found around the denture cap at the No. 27 position. Additional Chairside material was placed into the void. Because the material bonds to itself without additional etch or primer, a 20-second light cure was used to set the material before making adjustments. The black processing males were removed and the lingual slope of the denture was polished using a polishing point and a rag wheel with pumice.

Blue nylon inserts were placed into the denture cap housings, inserted onto the tissue ridge, verifying complete adaptation. The denture was evaluated for retention and stability using finger and chewing pressure tests. The patient was seen 1 week later to evaluate retention and stability; no changes were needed to the inserts.

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Michael Scherer, DMD, is a full-time private practice prosthodontist in Sonora, California and an Assistant Clinical Professor at Loma Linda University. He has published articles related to implant dentistry and digital technology with a special emphasis on implant overdentures. Dr. Scherer's involvement in digital implant dentistry has led him to develop and use new technology with CAD/CAM surgical systems and outside of the box radiographic imaging concepts. Dr. Scherer also maintains "LearnLODI" and "LearnLOCATOR"- interactive YouTube channels on standard and narrow diameter dental implant procedures.



Figure 1—Examination of the patient's mandibular ridge shows implants and LOCATOR attachments with healthy keratinized soft tissues surrounding the attachments and excellent plaque control.



Figure 2—Organized and efficient instrumentation was assembled before the attachment procedure: a LOCATOR processing kit, the patient's mandibular denture, and Chairside Attachment Processing Material.



Figure 3—Block-out spacers and denture caps placed onto the LOCATOR attachments.



Figure 4—Fit-checking material placed onto the intaglio surface of the complete denture in the areas of the attachment recesses and any areas of show-through marked with a blue pencil.



Figure 5—Acrylic burs used to enlarge the recesses, place undercuts, and prepare a lingual vent hole.



Figure 6—The denture air-dried and Chairside attachment processing material placed two-thirds full into the recesses using a straight syringe with an angled mixing tip. A small amount of material is placed onto the denture cap inside the mouth.



Figure 7—The denture placed onto the edentulous ridge, confirming complete tissue adaptation, and holding with light finger pressure for 30 seconds.



Figure 8—A curing light is used for 10 seconds on the buccal and lingual sides of each of the attachment recesses ensuring that at least 20 seconds of light cure is applied to each attachment.

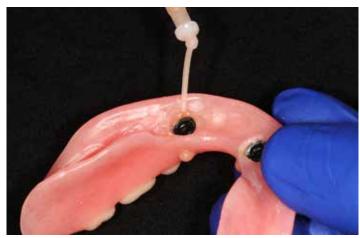


Figure 9—Small areas of incomplete fill (voids) are filled in with Chairside using a straight syringe with an angled mixing tip.



Figure 10—A curing light is used for 20 seconds to set the material and adjustments are made using acrylic burs.



Figure 11—Black processing male inserts are removed and blue nylon inserts are placed.



Figure 12—The denture is tried back in the mouth verifying complete tissue adaptation, adequate retention and stability, and any occlusal adjustments are made.

GO-TO PRODUCTS USED IN THIS CASE



CHAIRSIDE ATTACHMENT PROCESSING MATERIAL

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