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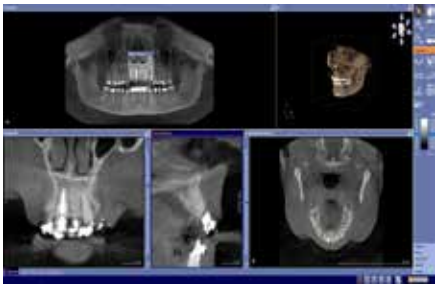
Azento™

Treatment of failed tooth #9 using Astra Tech Implant System® EV with Azento—single tooth replacement solution

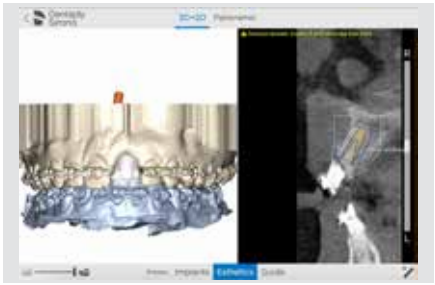
The patient is a 27-year-old female with root canal therapy on #8 and #9. Tooth #9 had a vertical root fracture and needed to be extracted. The extraction and graft were performed on the same day the patient was scheduled to get braces. The extracted tooth was used as the temporary and attached to the ortho bracket. After the ortho was complete, the patient came in for CBCT and CEREC Omnicam scans, prior to bracket removal.

1. Patient prior to orthodontics and extraction.

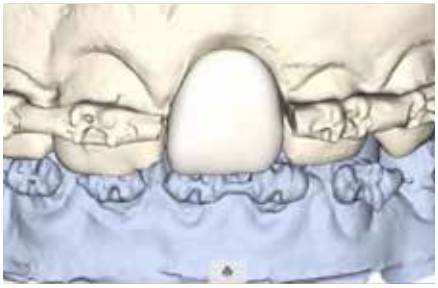


2. A CBCT scan of the patient is taken, prior to bracket removal, to obtain information about the bone, teeth and other anatomical structures.

3. Digital impressions of the patient's natural dentition while still in braces, were captured using the CEREC Omnicam. Both the CBCT and intraoral scans will be used to place an order for the Azento single tooth replacement solution.



4. Within one business day, a customized treatment proposal is ready for viewing and approval. The surgical plan is reviewed in the Azento case viewer, showing good bone support for a 4.2x11 mm OsseoSpeed EV implant.



5. Feedback is given so that the temporary has the same gingival height as #8. With this in mind, the final abutment is planned to help coax the tissue down to correct the gingival asymmetry. After final approval of the plan, the Azento procedure solution is manufactured and shipped within five business days.

6. Patient presents after brackets are removed.

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7. Since the day of extraction, the soft tissue has been contoured by the temporary tooth attached to the bracket. The gingival zenith is a little higher than #8, this was noted in the diagnostic set-up with Azento.

8. Fit of the surgical guide is verified. Although the CBCT and CEREC Omnicam scans were done with the orthodontic brackets in place, the fit of the guide is perfect.

9. A tissue punch is used to gain access to the bony crest.

10. The keyless system makes the surgery very efficient and since the sleeves are already on the drills in pre-sterilized packaging, setting up for surgery is also expedited.

11. The final osteotomy shows good keratinized tissue surrounding the implant.

12. Fully-guided implant placement. With the Astra Tech Implant System EV, there is a single, long notch on the implant driver that aligns with the notch on the surgical guide. This ensures that the timing after surgery matches that of the plan, which allows placement of the custom abutment and temporary.

13. The Atlantis Abutment in gold-shaded titanium in position and finger tightened.

14. The patient-specific Atlantis (PMMA) temporary crown in place on the abutment. The temporary was designed out of occlusion and no adjustments were needed.

15. Radiograph of the implant placement and Atlantis Abutment.

16. Two week post-op showing excellent healing and tissue migration down to create gingival symmetry with #8. With the overall shape and tissue support being good, the Atlantis Core File can then be used to design and fabricate the final restoration using CEREC software.

This case report is published as an inspiration for you as a clinician/technician and not necessarily as a recommendation from Dentsply Sirona.

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