

# Report Meeting High Esthetic Demands featuring ZERAMEX XT

Case Presentation by Dr. Paresh Patel

For anterior cases where uncompromised esthetics are required, dentists now have the option of using a 100% metal-free implant alternative, the ZERAMEX® XT Implant (Glidewell; Irvine, Calif.). These two-piece, all-ceramic zirconia implants offer a naturally white appearance and biocompatible tissue response that provide an optimal esthetic result, especially for patients who present with thin tissue biotypes. In the past, all-ceramic implants were mostly one-piece fixtures that, because of their design, required immediate loading. With the two-piece structure of ZERAMEX XT Implants, dentists can achieve excellent primary stability and have options for the timing of occlusal loading after the completion of the surgical procedure. Dentists will also find that the clinical technique, surgical protocol and shape of the ZERAMEX XT Implant share many similarities with a titanium implant, reducing the learning curve.

Unlike a titanium implant, however, the natural esthetics of an all-ceramic implant allow clinicians to place implants in the esthetic zone without concern of gray showing through the soft tissue. For this reason, the all-ceramic implant makes for an excellent addition to the armamentarium of the modern dental practice. The following case report demonstrates how a ZERAMEX XT Implant served as the ideal restorative solution for treatment of an edentulous site in the anterior.

## Case Report



**Figures 1a, 1b:** The patient presented for treatment of an existing edentulous site in the area of tooth #9, which was lost traumatically during childhood. The tooth had a history of unsuccessful endodontic treatment and was extracted, with a flipper provided as a temporary restorative solution. The patient preferred implant surgery in place of a bridge or a new flipper, but required optimal esthetics due to the visibility of the implant site when she smiled. Because the implant site was located in the anterior and the soft tissue was visible when the patient smiled, an all-ceramic implant solution was selected to maximize esthetics. As a metal-free, two-piece 100% zirconia alternative, the ZERAMEX XT Implant was the right choice.

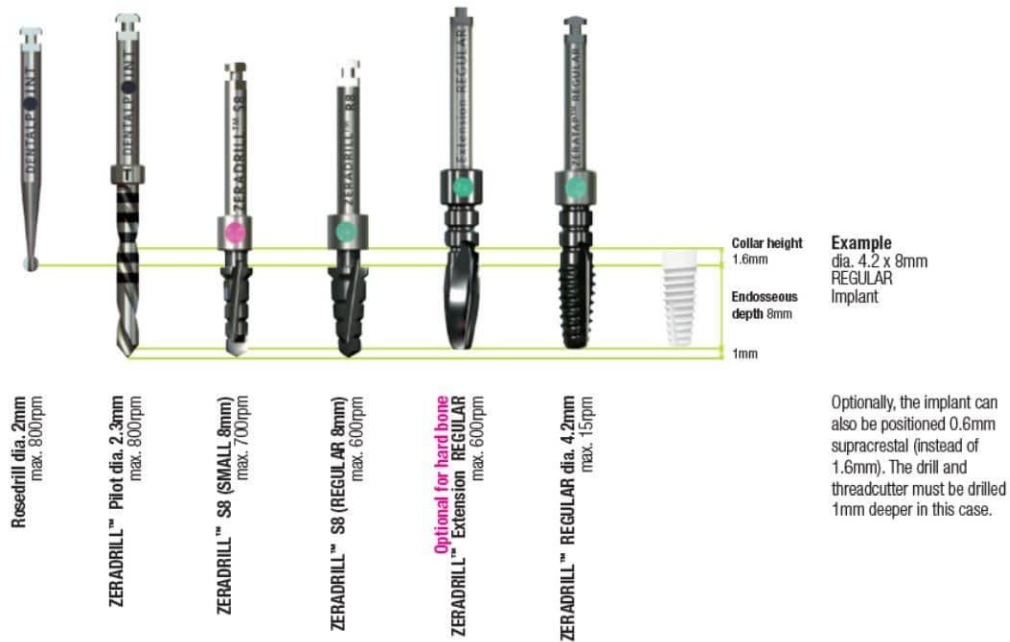
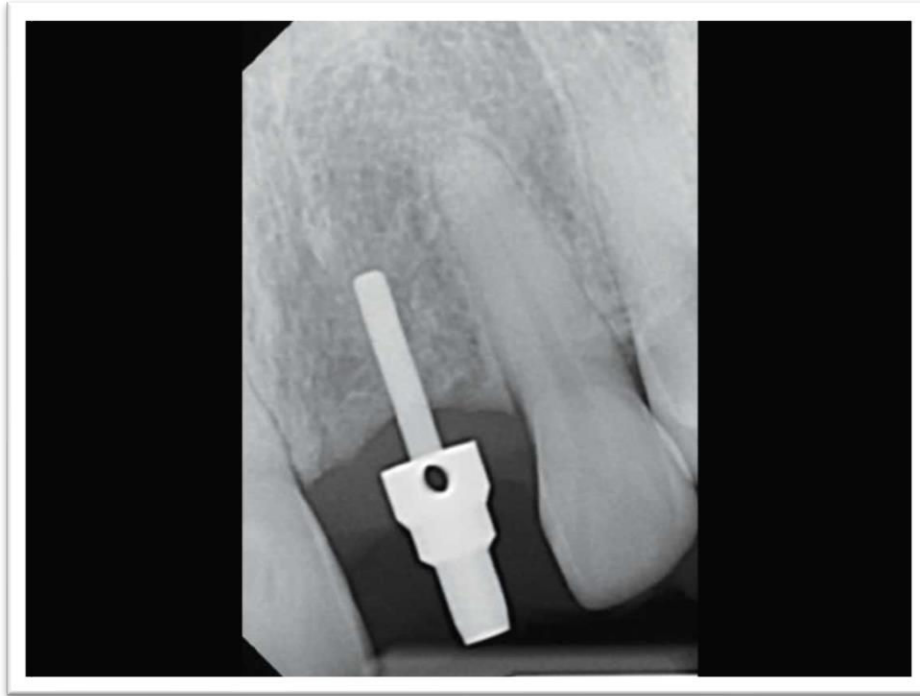


Figure 2

**Figure 2:** On the day of surgery a local anesthetic was administered. After making a full-thickness flap at the implant site, I confirmed that the bone density and volume were adequate. I also confirmed that there was sufficient keratinized tissue around the implant site to proceed, and created the initial osteotomy using the ZERADRILL™ Pilot Drill included in the surgical kit.



*Figure 3*

**Figure 3:** After using the pilot drill, I took a radiograph of the osteotomy site with a parallel pin in place in order to confirm the angulation.

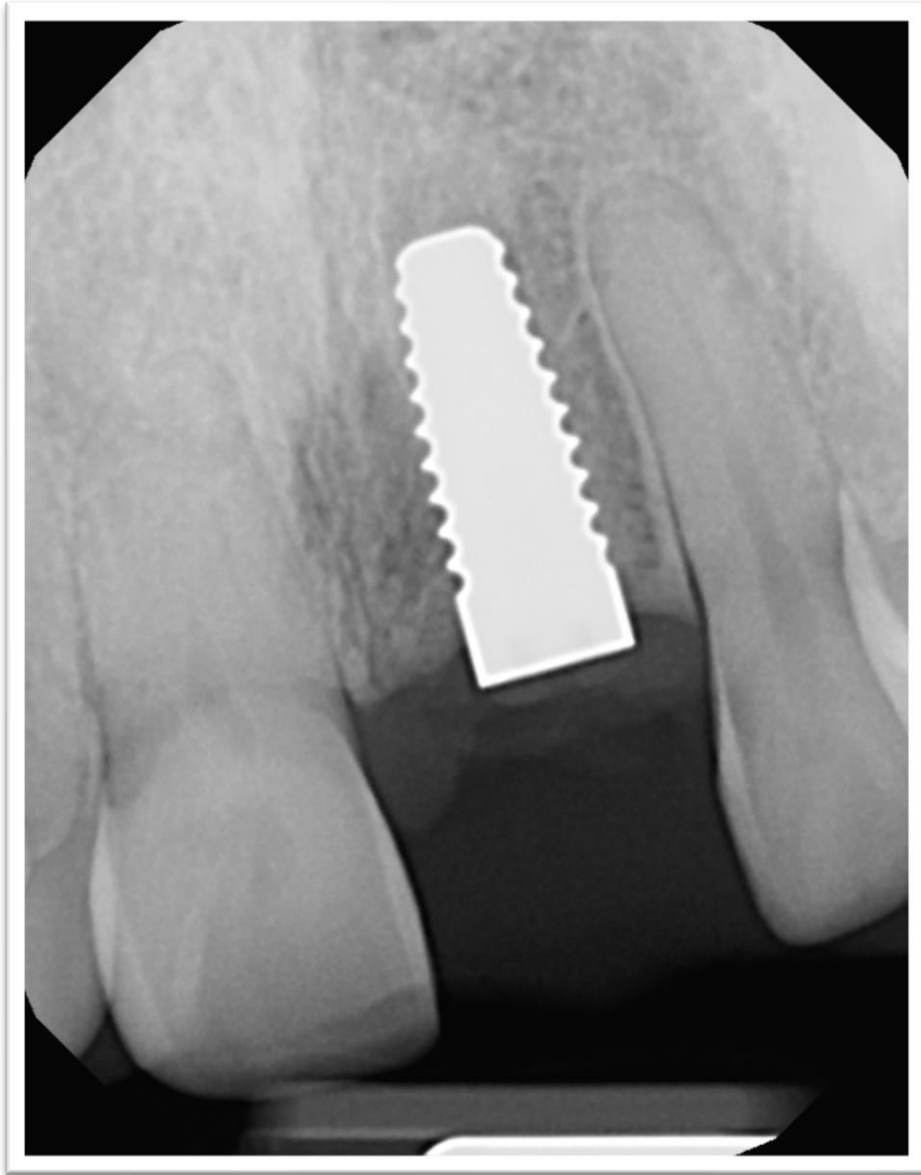


**4a**

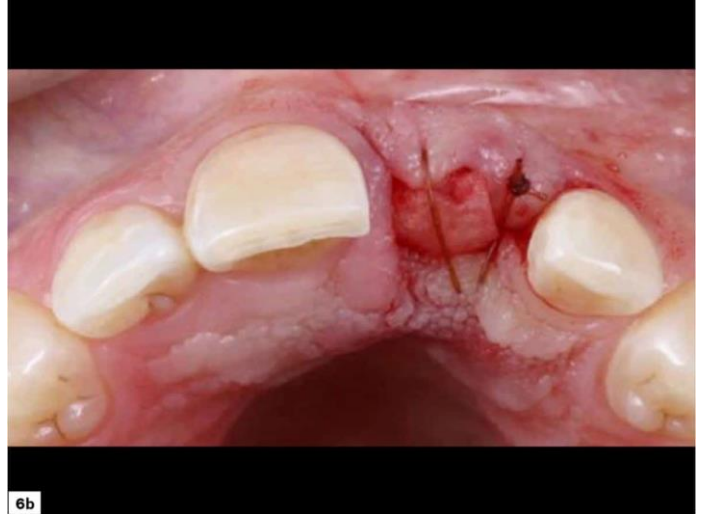
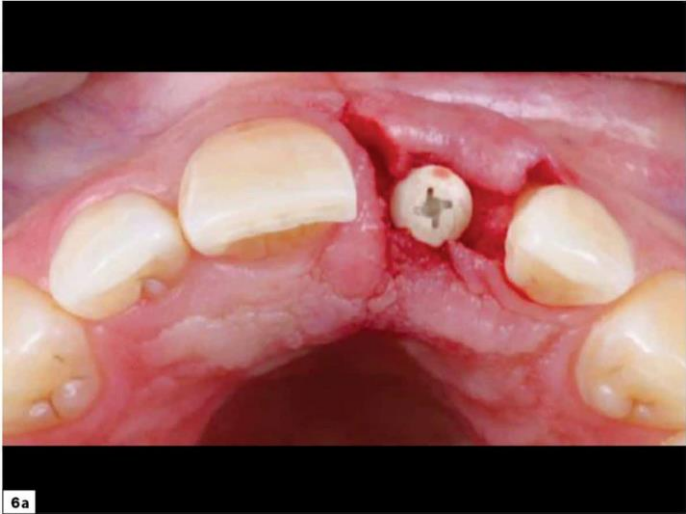


**4b**

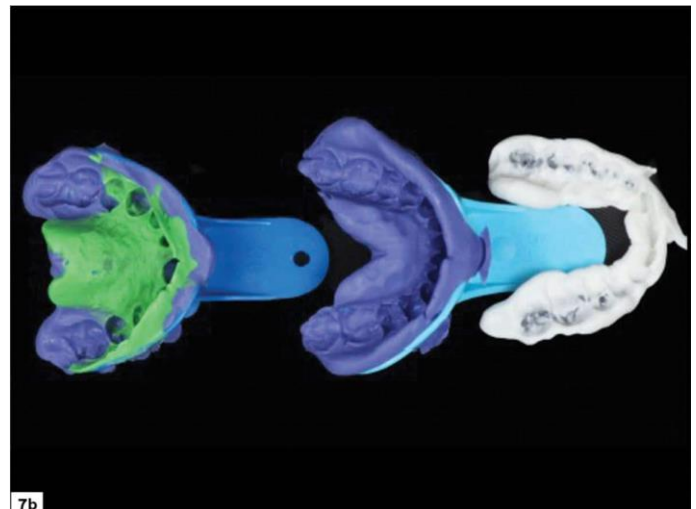
**Figures 4a, 4b:** After using the designated shaping drills to widen the osteotomy to accommodate a 4.2 mm x 10 mm ZERAMEX XT Implant, I used the handpiece to slowly seat the implant to the proper depth.



**Figure 5:** For this particular case, the implant was positioned slightly above the bone crest (about 1.6 mm). It is not necessary or recommended to bury the ZERAMEX XT Implant below the bone level.

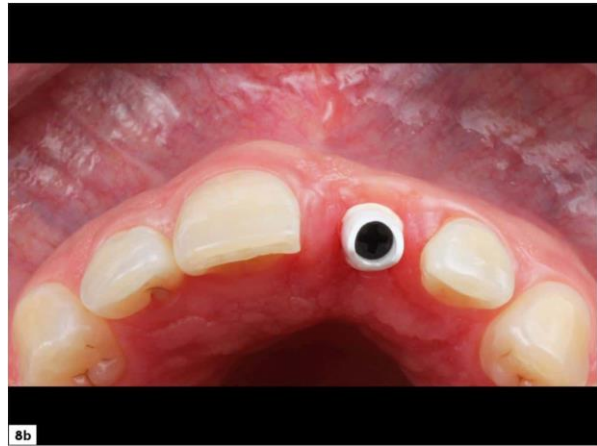


**Figures 6a, 6b:** Although good primary stability was achieved, I decided not to place a provisional crown on the day of the surgery. Instead, I placed a healing cap and then sutured the site to achieve primary closure. The patient was refitted with her previous partial appliance, including modifications to ensure it did not rest on the surgical site.



**Figures 7a, 7b:** After a five-month healing period, the patient returned for impressions. A closed-tray transfer coping was used, and impressions were sent to Glidewell, where a zirconia abutment was customized and a BruxZir® Esthetic Zirconia crown was fabricated to achieve optimal esthetics in the anterior.





**Figures 8a, 8b:** On the day of the final delivery, I removed the healing cap and noted excellent healing of the surrounding tissue. The zirconia abutment was attached to the implant with the carbon-fiber-reinforced polymer VICARBO® screw.



**Figure 9**

**Figure 9:** The final restoration was completed successfully with delivery of the customized zirconia abutment and BruxZir Esthetic crown. No adjustments were needed.



*Figures 10a, 10b: The patient was exceptionally pleased with the final result, with natural esthetics resulting from the use of the ZERAMEX XT Implant.*

## Conclusion

This case report demonstrates the straightforward surgical and restorative protocol for the ZERAMEX XT Implant. This treatment option has proven valuable in cases where the doctor wishes to provide the optimal esthetic solution, particularly in anterior cases with thin gingival biotype, where titanium implants often produce a gray shadowing.