

Predictable anterior cosmetics

DR NILESH R PARMAR
presents an anterior implant case study, demonstrating predictable, aesthetic outcomes...

ANTERIOR implants in high lip line cases can bring a shudder to any implant surgeon. Nothing is trickier than trying to place an implant in an upper central position, as any abnormality in symmetry is instantly picked up by the eye.

This lovely lady has had a history of treatment carried out on both of her upper central incisors since she was a child. A previous swing accident has resulted in large fillings, leading to crowns, then root canal treatment and, ultimately, the loss of the UR1. When I first saw the patient, the UR1 had a draining sinus, and required removal (figure 1).



Figure 1: Initial presentation

Treatment

The UR1 was atraumatically extracted using periotoxes and forceps. The socket was thoroughly curetted out, and a combination of calcium sulphate and collagen plugs were placed into the extraction site.

The UL1 was used to fabricate a temporary bridge to help start developing the soft tissue profiles. Due to the recession around the UR1, not much soft tissue development could occur until the site was grafted at the time of the implant placement (figures 2-4).

An Astra Tech TX Osseospeed implant size 4.5mm x 11mm was placed in the UR1 site. The entire buccal envelope was grafted using a bovine graft material and covered with a collagen membrane. The periosteum was undermined, helping to increase flexibility of the flap, allowing for adequate primary closure (figure 5).

The patient healed without incident and the temporary bridge was reinserted with the pontic adjusted to help develop the soft tissue profile. The site was allowed to

heal for three months (figure 6).

The UL1 tooth was restored with an e.max (Vivadent) crown, with a temporary composite crown made to further develop the soft tissue in the UR1 site.

Figures 7-10 – The temporary crown on the UR1 was left in-situ for six weeks, with occasional adjustments made to the apical section. After six weeks, another fixture level impression was taken and an Atlantis Zirconia CAD/CAM abutment fabricated, with a final e.max crown

cemented on top (figures 11-20).

Conclusion

Treating anterior cases is always tricky. A step-by-step process can help to simplify the procedure and give us predictable, aesthetic outcomes.

I always tend to prepare my patient for the worst and over-deliver, thereby managing their expectations.

Reader enquiry:

About the author

Dr Nilesh R Parmar BDS (Lond) MSc (ProsthDent) MSc (ImpDent) Cert. Ortho has a master's degree in Prosthetic Dentistry from the Eastman Dental Institute and a master's degree in Clinical Implantology from King's College London. He is one of the few dentists in the UK to have a degree from all three London dental schools and has recently obtained his Certificate in Orthodontics from Warwick University.

His main area of interest is in dental implants and CEREC CAD/CAM technology.

Nilesh runs a five-surgery practice close to London and is a visiting implant dentist to two central London practices. He also offers training and mentoring to dentists starting out in implant dentistry.

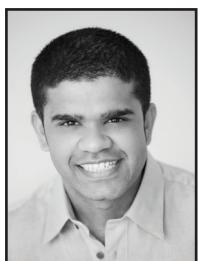


Figure 2



Figure 3

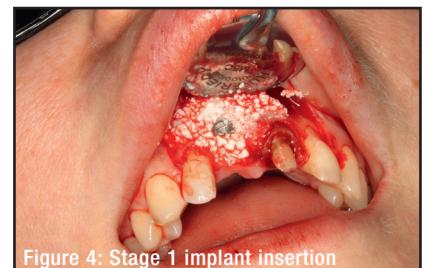


Figure 4: Stage 1 implant insertion

Figure 5: Primary closure



Figure 6: Fixture level impressions



Figure 7



Figure 8

Figure 9



Figure 10



Figure 11

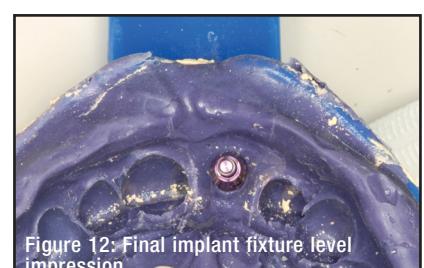


Figure 12: Final implant fixture level impression

Figure 13: Atlantis Zirconia abutment



Figure 14: Final e.max crown



Figure 15: Zirconia abutment seated



Figure 16: Before

Figure 17: After



Figure 18: Final fit



Figure 19: Final crown cemented to the final abutment ready to be fitted



Figure 20: Fitting of the final restoration