

Immediate implant surgery with Anthogyr Axiom® BL PX Implant System

By Dr Sebrina Abdul Malik

A 60-year-old healthy female patient presented a fractured upper left second premolar (tooth 25). She visits the dental office regularly and is a non-smoker with good oral hygiene.

Clinically, she had lost over three-quarters of the lingual wall and the caries had extended subgingivally (Figs. 1-2). There was insufficient ferule to restore the tooth as it would need crown lengthening as well as a root canal with a post and core. Thus, the prognosis was considered to be guarded.

Treatment options were explained to the patient. She preferred to extract the broken tooth and place an implant crown, as she felt that it was a more predictable treatment option with longer longevity. The panoramic radiograph showed that she has a healthy generalised periodontium.

Treatment protocol for the implant procedure and technique were discussed in detail, including whether a delayed or an immediate approach was to be done. In this case, an immediate implant placement was equally predictable as the delayed approach in the right hands. Since the patient was asymptomatic with no existing acute periapical lesion or infection, she was considered suitable for an immediate implant procedure. She was elated as she only had to go through one surgical visit as opposed to two.

An immediate implant procedure entails a flapless extraction of the tooth followed by implant insertion into the socket at the same visit. Since there is no surgical incision nor buccal flap raised, this results in less surgical trauma, shorter surgical time, reduction in post-operative swelling and pain as well as the need for suturing. Most patients are inclined towards this technique due to the above advantages.

TREATMENT

A flapless atraumatic extraction of the broken tooth 25 was carried out with Coupland elevators and upper premolar forceps (Figs. 3-4). The empty socket was irrigated with saline and curetted leaving only healthy

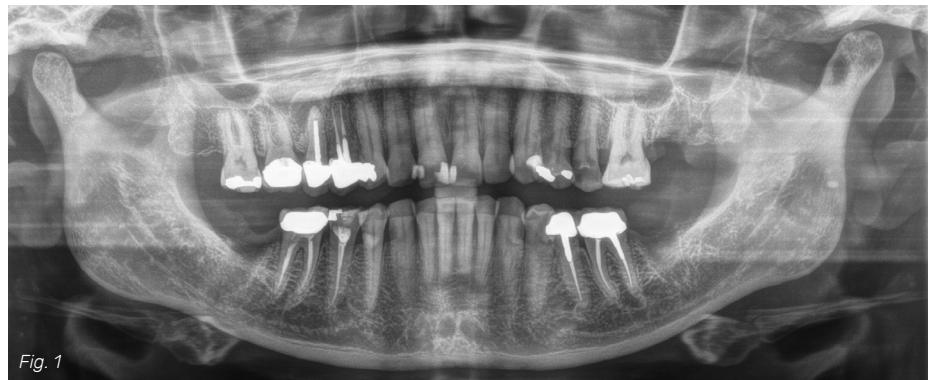


Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

Fig. 1: Pre-op

Fig. 2: Fractured tooth 25

Fig. 3: Extracted tooth 25 socket

surrounding alveolar bone. It was followed by insertion of an optimally positioned Anthogyr Axiom® BL PX 4.6x 10.0mm with great primary stability of 35Ncm (Fig. 5). Since the "jumping gap" was less than 2.0mm, a bone graft was not required. A healing abutment was used to maintain the gingival emergence profile and aid in healing for the

Fig. 4: Extracted tooth 25

Fig. 5: One-stage surgery with healing screw

future prosthetic crown. Implant positioning was verified by a post-operative panoramic radiograph (Fig. 6).

Three months later, a closed tray impression technique was carried out and successful delivery of a screw-retained zirconia crown was achieved (Figs. 7-10).

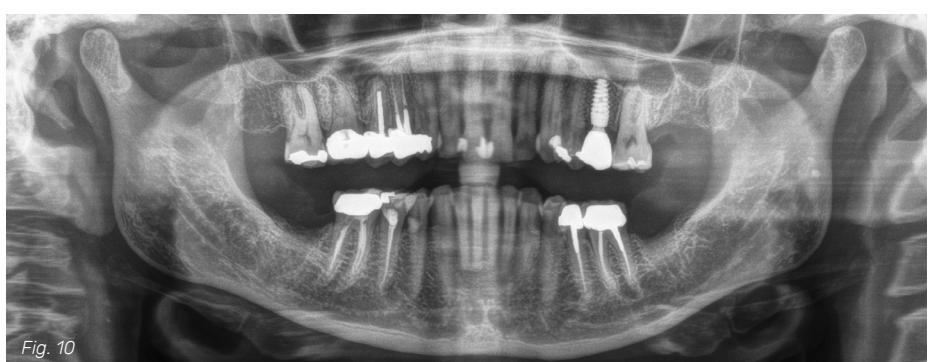
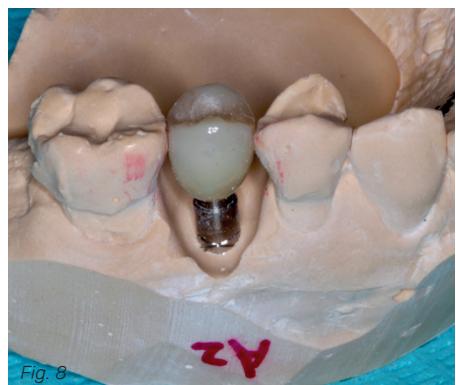
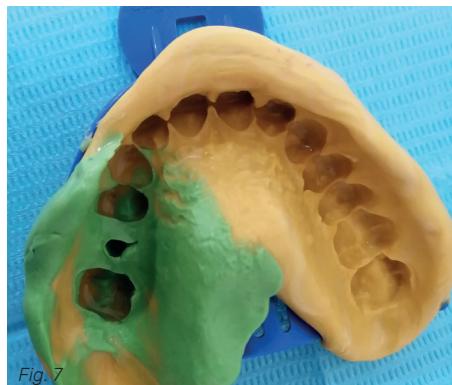


Fig. 6: Post-op

Fig. 7: Pop-in impression closed tray technique

Fig. 8: Crown received from lab

Fig. 9: Final restoration

Fig. 10: Post-op radiograph to verify the fully seated restoration

CONCLUSION

This case delivered a high-quality dental implant and crown treatment without the need for more surgical downtime, including minimal surgical trauma and reduced post-operative swelling and pain. Anthogyr Axiom® BL PX dental implant is designed to engage well in the socket for immediate implantation with great stability. Studies have shown the success rate of immediate implant technique is nearly as successful as the delayed approach if done the correct way. **DA**

ACKNOWLEDGEMENT

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About the author



Dr Sebrina Abdul Malik graduated from the Trinity College Dublin, University of Ireland, with a Bachelor of

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