Masterclass in Clinical Practice

Implant Dentistry
with
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Salvaging an incorrectly placed implant in a cost-effective way

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A patient self-referred for removal of a dental implant in 12 position. She complained of pain spreading upwards from the implant towards her eye on the right side. According to her the pain started immediately after placement of the implant crown. She was also not happy with the aesthetic outcome which showed metal at the gingival margin as well as the incisal edge. The crown was also more buccal than her original tooth. She went back to the clinician but was told that there was nothing wrong with the implant or crown. The patient was extremely disillusioned by the dental care she received.

Oral Examination:

The 12 crown incisal edge seemed to have been trimmed down intra-orally, exposing the abutment. The abutment was also visible at the gingival margin (Figures 1a and b). An intra-oral radiograph confirmed the suspicion that the crown had not seated properly (Figure 2). After removal it was established that the implant was an external hex, placed in a position requiring an angled abutment. Even with an angled abutment the crown would still be cement retained which in this case woud still not be the preferred option. The implant was however placed incorrectly, with the hex orientated in such a manner that the angled abutment could not be used in the correct orientation. On placing the abutment to engage the hex properly, it was clear that the crown was now rotated (Figure 3).

Consultation with the dental technician followed, who suggested that a Dynamic Abutment® (Dynamic Abutment Solutions, Spain) be used to correct this with a new crown rather than remove the implant and start all over. Removing the implant and replacing it with a new one would have been a very costly and lengthy treatment with multiple procedures, including bone augmentation. In order to assess the status of the implant as a possible cause of her pain, a healing abutment was placed for 4 weeks (figure 4). She experienced no pain during this period and the decision was made to proceed with a new crown. The Dynamic Abutment was slightly narrower than the original creating more space for soft tissue to protect the bone crest. The Dynamic Abutment system allows angulation correction of up to 28 degrees. The incorrectly placed implant could be therefore be properley restored with a lab cemented screw retained crown, with palatal screw access.

It was seated properly (Figure 5) with the screw access from palatal made possible by the unique driver and screw configuration. The palatal screw access was sealed with composite, completing the treatment (Figure 6a and 6b).

Conclusion

From a restorative point of view its imperative the entire dental team communicate correctly and remain up to date with the latest systems to give the patient the outcome that they expect. Had the initial dentist and his technician been informed of new treatment options, this unfortunate incident could have been avoided.

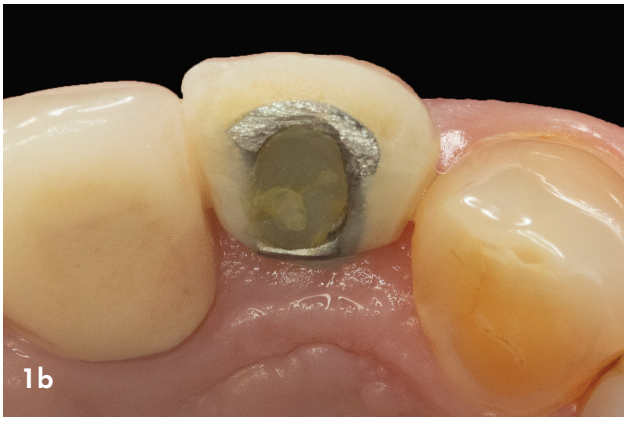

Figure 1 a and b: Metal showing at incisal edge as well as gingival margin. Crown also more buccal than ideal.