COMMENTARY

Abutment Emergence Modification for Immediate Implant Provisional Restorations

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This technique article seeks to overcome a common problem encountered during immediate provisionalization procedures. Some manufacturers provide less than ideal emergence profile for so-called "stock" provisional abutments. The technique described allows for development of maximum soft tissue volume by modifying provisional abutment contour at the implant-abutment interface to avoid excessive pressure on healing tissues facially and coronally.² This soft tissue must then be managed in such a way as to create a desirable emergence profile that mimics a natural tooth. Postoperative appointments during the provisional phase are necessary to monitor developing soft tissue profiles. The healing tissue contours cannot be fully predicted at the time of surgery. It is often necessary to modify the transmucosal contour of the provisional to maximize tissue support and to control papillae height. Facial gingival zenith can be manipulated in a similar fashion.³

Every effort should be taken during the healing process to encourage uneventful healing. Loss of crestal bone and tissue volume will result in less than desirable esthetic results.

It is arguable that there are many other factors involved in maintenance of crestal bone levels. Inflammatory exudates from the implant-abutment interface design are of more concern than the contour of the temporary abutment.^{4,5}

Durability of the provisional restoration is critical for long-term success. Failure of less robust abutments could compromise the entire healing process. Healing tissues require uninterrupted support by the provisional restoration. It is desirable to avoid multiple removals of components at the implant interface.⁶

Clinicians utilizing this technique are encouraged to expand this protocol to include a predictable technique for transferring the meticulously developed emergence profile. The literature is replete with numerous articles that provide technique for development of custom impression copings.⁷⁻⁹ These custom impression copings will provide the communication necessary for laboratory procedures that result in esthetically superior restorations of the implant.

REFERENCES

- 1. Schoenbaum TR, Chang Y-Y, Klokkevold PR, Snowden JS. Abutment emergence modification for immediate implant provisional restorations. | Esthet Restor Dent DOI 10.1111/jerd.12007.
- 2. Kinsel RP, Lamb RE. Tissue-directed placement of dental implants in the esthetic zone for long-biologic synergy: a clinical report. Int | Oral Maxillofac Implants 2005;20(6):913-22.
- 3. Priest G. Esthetic potential of single-implant provisional restorations: section criteria of available alternatives. J Esthet Restor Dent 2006;6:326-38.
- 4. Hermann JS, Schoolfield JD, Schenk RK, et al. Influence of the size of the microgap on crestal bone changes around titanium implants. A histometric evaluation of unloaded non-submerged implants in the canine mandible. J Periodontol 2001;72:1372-83.
- 5. Tarnow DP, Cho SC, Wallace SS. The effect of inter-implant distance on the height of inter-implant bone crest. | Periodontol 2000;71:546-9.

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- 6. Degidi M, Nardi D, Piattelli A. One abutment at one time: non-removal of an immediate abutment and its effect on bone healing around subcrestal tapered implants. Clin Oral Implants Res 2011;22(11):1303-7.
- 7. Gamborena I, Blatz MB. Transferring the emergence profile of single-tooth implant restorations. Quintessence Dent Technol 2004;27:119-31.
- 8. Elian N, Tabourian G, Jalbout ZN, et al. Accurate transfer of peri-implant soft tissue emergence profile from the provisional crown to the final prosthesis using an emergence profile cast. | Esthet Restor Dent 2007;19(6):306-14.
- 9. Wadhwani CP, Piñeyro A, Akimoto K. An introduction to the implant crown with an esthetic adhesive margin (ICEAM). J Esthet Restor Dent 2012;24(4):246-54.

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