04-3. A modified approach to increase keratinized gingiva using an implant-retained pre-fabricated stent: A case report

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Background

The presence of a zone of keratinized tissue adjacent to implants can provide resistance to the forces of mastication and frictional contact from oral hygiene. A free gingival graft, apically positioned flap or connective tissue graft are recommended to increase the width of keratinized zone. However, due to the donor site morbidity, frequent infections and unpredictable collapse, a new technique with the use of pre-fabricated stent clipped over provisional abutment is proposed.

Materials and methods

At the time of implant second surgery, partial thickness flap was retracted. Using soft tissue punch, implant fixture was exposed and provisional abutment was connected. Pre-fabricated stent was clipped onto the provisional abutment and labial flap was displaced buccally and apically. After 10 days, sutures and stent were removed and patient visited for 1 month check up. Keratinized gingiva was completely healed and stabilized around implant.

Results

The pre-fabricated stent can be easily used to clip onto the appropriate size of provisional abutment and requires no suture. The advantages of this technique are as follows: 1. The vertical force of stabilization reduces dead space under buccal flap. 2. Flap is tightly secured onto the underlying periosteum or connective tissue. 3. Buccal flap is not pulled upside by sutures over the provisional abutments and the width of keratinized zone is decreased. 4. No additional suture is required and it saves lots of chair time. The disadvantages of this technique are as follows: 1. The stability of dental implant must be obtained. 2. Application on aesthetic region is avoided. 3. It increases the risk of infection in poor oral hygiene patients of smoking patients.

Conclusion

The proposed technique can provide a relatively easy and time-effective technique to increase the zone of keratinized tissue around dental implants.