MANAGEMENT OF MULTIPLE GINGIVAL RECESSIO N- A CASE REPORT

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ABSTRACT
Soft tissue recession i.e., exposure of the root surface caused by an apical shift of the gingival margin, results in an unesthetic appearance, root hypersensitivity and root caries.1-3 In periodontal practice, root coverage requires proper clinical decisions.4-6 Soft tissue recession results in an unesthetic appearance, root hypersensitivity and root caries.6-8 Among the various surgical treatment that have been advocated for multiple recession the bridge flap9,10 with sub epithelial connective tissue graft10 have shown better root coverage predictability and aesthetics.11 The primary disadvantage of this procedure is the creation of a second surgical wound site in the palate and lip and also it is technique sensitive. Selection of the most appropriate procedure for root coverage in case of multiple recessions requires careful consideration of available technique.12 This paper reports the surgical management of a patient with multiple gingival recession using sub epithelial connective tissue graft combined with double lateral bridge flap for coverage of denuded root surfaces which resulted in complete root coverage.

Key words: Bridge Flap; Multiple Recession Coverage; Single Incision

Introduction
Soft tissue recession, defined as exposure of the root surface caused by an apical shift of the gingival margin, results in an unesthetic appearance, root hypersensitivity and root caries.1-3 In periodontal practice, root coverage requires proper clinical decisions.4-6 Soft tissue recession results in an unesthetic appearance, root hypersensitivity and root caries.6-8 Among the various surgical treatment that have been advocated for multiple recession the bridge flap9,10 with sub epithelial connective tissue graft10 have shown better root coverage predictability and aesthetics.11 The primary disadvantage of this procedure is the creation of a second surgical wound site in the palate and lip and also it is technique sensitive. Selection of the most appropriate procedure for root coverage in case of multiple recessions requires careful consideration of available technique.12 This paper reports the surgical management of a patient with multiple gingival recession using sub epithelial connective tissue graft combined with double lateral bridge flap for coverage of denuded root surfaces which resulted in complete root coverage.

Case Report
A 24 year old male patient reported with a chief complaint of sensitivity and loss of gums in his lower front teeth. The patient presented with Millers class I adjacent gingival recession13 in relation to 31,32,41,42 with 5mm gingival recession in 31,41 and 4mm in 32,42 (Figure 1). Double lateral bridge flap proposed by Emargraf1415 with sub epithelial connective tissue graft proposed by Eduardo et al16 was used to cover the gingival recession.14 The clinical probing depths ranged from one to 2mm and the patient had tactile and air blast sensitivity on all the lower incisors. The patient received oral hygiene instructions. After the clinical investigations, scaling and root planning was performed by ultrasonic and hand instruments. The subject was then recalled after four weeks for the surgery. The patient was given a detailed explanation regarding the procedure and informed consent was obtained. The patient had no relevant medical history and was not taking any medication. Under local anaesthesia following surgical procedure was performed.

1. Preparation of recipient site: Immediately before the procedure, the patient rinsed for two minutes with a 0.12% chlorhexidine digluconate solution. Under local anaesthesia the recipient site was prepared with bridge flap (Figure 2). Root planning was carried out until the root surface was hard and smooth to reduce the convexity.10

2. Harvesting and positioning of connective tissue graft: A connective tissue graft of adequate size was harvested from the palate by single incision technique.13 The incision for harvesting connective tissue graft extends from distal of canine to the mesial of first molar. Care is taken to avoid tearing or compression of the graft. A gauze soaked in saline is used to compress the donor site to achieve haemostasis. The donor area is then closed with 5-0 catgut sutures.

The connective tissue graft is positioned just apical to the cemento enamel junction after contouring. The graft is sutured to the recipient bed using 5-0 chronic catgut sutures (Figure 3) and the flap was advanced to fully cover the donor tissue and secured with sling sutures. Simple interrupted sutures were given. Pressure was applied on the grafted site with a dampened gauze piece for about five minutes. The mucosal flap was compressed to the alveolar bone for three minutes. Dry foil was applied to the recipient area followed by Coe packto protect the donor tissue for eight days after the procedure.

The patient was given cold compression within the first hour to reduce post operative swelling and bleeding. Amoxicillin 500mgs Qid for seven days and Ibubrufen 400mg TID for three days were prescribed with 0.12% chlorhexidine mouthwash thrice daily for four weeks. The patient was asked not to chew or brush the surgical site for the first four weeks after the procedure. Fourteen days after the surgery the periodontal dressing and any remaining sutures were removed. The grafted site was carefully cleaned with 0.12% Chlorhex solution. Oral hygiene instructions were reinforced. The patient was then seen regularly to monitor healing and plaque control. The final evaluation at six months after surgery showed good colour blending of the treated area with adjacent soft tissue (Figure 4). After five days of postsurgery, palatal healing had proceeded uneventfully with primary wound closure. At two weeks palatal healing was nearly complete. On sixth month post surgical visit root coverage was approximately 100% in 31, 41 and 97% in 32, 42 respectively.

Discussion
The use of single incision technique for harvesting connective tissue graft has recently been suggested because it facilitates...
predictability of primary closure of the palatal wound. Large amount of donor tissue can be obtained to cover the multiple recession defect. Sufficient blood supply from the tissue adjacent to the graft bed seems to be the single most important factor for the survival of grafted tissue over the avascular blood supply.

In this case, full thickness flap was created above the mucogingival junction to provide better gingival blood supply and partial thickness was performed apically to create a coronal displacement flap with passive adaptation without tension. With a distance to the vestibule of approximately 10-15mm. A horizontal incision is made and the mucosal flap was elevated. This way we have the mucosal flap which consists of a mucosal flaps in the area of free root surface and a bilateral bridge flap towards the apex. This case report has described the use of single incision for harvesting graft from the palate combined with bridge flap for treatment of multiple gingival recession. It offers good aesthetic results. Best results are yielded by sufficient mobilization, placement of graft above cemento enamel junction and connection of the flap. It is possible to maintain a healthy gingiva despite a narrow zone of attached gingiva. Aianamo and Loe stated that the patients with a different degree of recession, the width of the attached gingiva was none or less the same. The success of the procedure is independent of the initial cause of the gingival recession but depends on the meticulous performance of the operator. Furthermore, if multiple recession coverage is desired, bridge flap in conjunction with connective tissue graft by single incision may be the choice instead of coronally repositioned flap alone.

Conclusion

In conclusion, a double lateral bridging flap combined with connective tissue graft using a single incision technique provided improvement of root coverage with reduction of dentin hypersensitivity without any probing defect or significant complication. The single incision technique with bridge flap may be an option for multiple gingival recession coverage without increasing the zone of attached gingiva.

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