



CLASS –II GINGIVAL RECESSION COVERAGE WITH SUBEPITHELIAL TISSUE GRAFTING –A CASE REPORT

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ABSTRACT

The recession of the gingival mean apical migration of gingival tissue which may lead dental hypersensitivity, poor esthetic, more plaque accumulation and finally in later stage tooth loss. Gingival recession has multiple etiological factor like gingivitis, chronic trauma, frenal pull, tobacco chewing, acute traumatic injuries and psychological factors. Best way of curing gingival recession is proper treatment with early detection. In present case report we treat a patient with Millar class ii recession. The correction of Class I and II gingival recessions are presented as a means of minimizing surgical trauma and achieving predictable aesthetic results. Miller's Classes I, in which the etiological factors are well diagnosed and show great predictability of total coverage when the technique of subepithelial connective tissue graft is used. This technique success has been mainly attributed to the double blood supply for graft's nutrition, originating from the connective tissue of both the periosteum and flap. Miller's Class I recession was treated by the surgical technique of subepithelial connective tissue graft, obtaining total coverage, eliminating the aesthetic deficiency and the dentin hypersensitivity complained by patient.

KEYWORDS : Gingival recession; Connective tissue graft; Root coverage

INTRODUCTION

Marginal tissue recession is characterized by the displacement of the gingival margin towards the mucogingival junction with root surface exposure; it may occur at isolated or multiple areas of oral cavity with different extension degrees. Today, "marginal tissue recession" has been the most accepted term, because the tissue showing the problem can be the alveolar mucosa instead of the gingiva. Gingival recession has been defined as the apical displacement of the gingival margin in relation to the teeth.¹ Localized gingival recession is an unesthetic condition that is usually observed over the labial aspect of prominent teeth and may be associated with root caries and hypersensitivity.² Histologically, the collapse of gingival tissue results in attachment loss by destruction of the periodontal connective tissue and alveolar bone. The exposed root surface has been a therapeutic challenge to clinicians for many years. The most frequent etiologic factors associated with recessions are inflammatory periodontal disease, traumatic tooth brushing and inadequate attached gingival dimensions. In the last three decades, a number of techniques have been proposed to obtain root coverage and to improve patients' aesthetics, quality of life and oral health including pedicle flaps (PF),³ free soft tissue autografts (FSTA),⁴ subepithelial connective tissue graft (SCTG),⁵ coronally advanced flaps (CAF),³ SCTG plus CAF⁶ and guided tissue regeneration (GTR).⁷ Subepithelial connective tissue grafting presents a high degree of predictability when used to treat Miller's class I and II gingival recession.¹ However, in class III and IV recession defects, the success rate is unpredictable.⁸

CASE REPORT A 21 year old girl reported to department of dentistry at Shaheed Hasan Khan Govt. Medical College with a chief complaint of the aesthetic deficiency at tooth #31 and dentinal hypersensitivity in the same tooth. On examination, there was Miller class III gingival recession was there at tooth #31 ([Fig. 1). then after discussion with the head of the department recession treatment was planned. in the first visit scaling and root planning was performed and patient recalled after 1 week. After 1 week preparation of the receptor site was performed by administration of local anaesthesia, the surgery conducted With a No. 15 blade, two oblique, divergent bevelled incisions were performed at the mesial and distal line angles of the tooth (single recession type defect) with gingival recession and were directed apically in the alveolar mucosa. After intrasulcular incisions, cross submarginal, interproximal incisions created the interdental surgical papillae which were de-epithelized. After the preparation of recipient site, measurement was taken for donor tissue with the help of template made up of tin foil. Recipient site was covered with moist gauge piece. Donor site was selected for graft harvesting. Graft was removed from right palatal vault, 10 mm away from the gingival margin and just mesial to the first maxillary

molar. Using a trap door approach, a template size sub-epithelial connective tissue graft was removed from the palate kept in moist gauge piece and inspected for the size and thickness. Excess connective tissue and fat was carefully removed with the help of castroviezo scissor. Graft was placed on the recipient site, stretched and stabilized with the help of suture (Fig. 2, Fig. 3 & Fig. 4). Periodontal dressing was placed on the recipient site. After suturing, the donor site was covered with the retention plate appliance, which patient was using. Post-operative instructions were given to the patient and she was instructed to avoid brushing at surgical site for at least two weeks and medications were prescribed along with povidone iodine mouthwash. Follow up on tenth day revealed signs of graft acceptance (Fig. 5). From donor as well as recipient site sutures were removed; oral hygiene instructions were reinforced. Patient's follow-up was performed, in which were seen a good root coverage and significant aesthetic improvement after three months, local examination showed that graft was completely accepted and recession was markedly covered with the graft tissue (Fig. 6). Donor site was completely healed.



Fig :1. Gingival recession class –III



Fig :2 recipient bed preparation done



Fig :3 Palatal donor site



Fig :4 palatal graft has been harvested



Fig :5 Graft sutured in placed



Fig :6 result after 1year attached gingival formed

DISCUSSION

The success of surgical procedures for root coverage depends on several factors, such as elimination and/or control of the etiology of gingival recession, evaluations of the interproximal bone level and choice for the most appropriate surgical technique, which are inherent to each clinical situation and region to be treated. Several mucogingival techniques have been introduced in literature aiming to correct marginal tissue recessions. During the decades of 1960s and 70s, the most used techniques were coronally positioned flap, laterally displaced flap, and the combination of coronally positioned flap with free gingival graft. At the beginning of the decade of 1980s, the use of subepithelial connective tissue graft was disseminated, assuring the obtainment of excellent results in areas with localized root exposure.⁵ In 1985, Langer and Langer⁵ described a technique of subepithelial connective tissue graft for root coverage in the treatment of recessions at single or multiple areas, attributing the procedure success to the double blood supply for the graft's nutrition, originating from the connective tissue of both the periosteum and flap.

The most important factor determining treatment modality is the presence of appropriate (height and width) gingival papilla, which guarantees good vascular supply of the graft and creates the possibility of its proper placement to the cemento-enamel junction. Considering the several anatomic factors and socioeconomic status of the patient, subepithelial connective tissue graft technique was chosen for the root coverage procedure. Subepithelial connective tissue graft was first introduced by Langer & Langer (1985) and modified by Harris (1992), Allen (1994) and Bruno (1999). It combines the advantages of the pedicle flap procedure and guarantees a double blood supply from both the overlying pedicle flap and the underlying periosteum. Other advantages of connective tissue graft are the good color match with neighbouring soft tissues which was found in this case. Although all periodontal plastic surgery procedures are effective in reducing the extent of exposed root surface, with a concomitant gain in Clinical attachment level (CAL) and in width of keratinized tissue but from an aesthetic and subjective point of view, complete root coverage represents a desired treatment goal.

In conclusion, surgical treatment using subepithelial connective tissue graft resulted in significant root coverage of class I recession and increased gingival width with good colour matching with the surrounding tissues.

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