

# Alternative Approach to Grafting Technique for Root Coverage of Isolated Gingival Recession with Inadequate Vestibular Depth - A Case Report

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### ABSTRACT

Semilunar coronally advanced flap is a type of pedicle graft used in treatment of GR. The present case is a RT1 gingival recession with recession depth of 2 mm with respect to mandibular left central incisor. Moreover, insufficient vestibular depth of approximately 2mm was noted. Therefore, as a treatment for hypersensitivity and to facilitate adequate plaque control in lower anterior region, vestibular deepening along with coronally advanced semilunar flap was performed. This procedure resulted in successful root coverage as well as an increase in vestibular depth. Hence this procedure can be attempted as alternative approach to grafting technique for treatment of shallow gingival recessions.

Mesh term- Gingival recession, esthetic surgery

## I. INTRODUCTION

Gingival recession (GR) is the displacement of gingi-val margin apical to the cemento-enamel junction (CEJ) which contributes to the exposure of root surface [1]. These defects were categorized following the 2018 World Work-shop into three categories: (1) recession type 1 (RT1) with no loss of interproximal attachment, (2) recession type 2 (RT2) when the amount of interproximal attachment loss is lower than of buccal attachment loss, and (3) recession type 3 (RT3) if interproximal attachment loss is greater than Gingival recession (GR)is the displacement of gingi-val margin apical to the cemento-enamel junction (CEJ) which contributes to the exposure of root surface [1]. These defects were categorized following the 2018 World Work-shop into three categories: (1) recession type 1 (RT1) with no loss of interproximal attachment, (2) recession type 2 (RT2) when the amount of interproximal attachment loss is lower than of buccal attachment loss, and (3) recession type 3 (RT3) if interproximal attachment loss is greater thanGingival recession (GR) is the

displacement of gingi-val margin apical to the cemento-enamel junction (CEJ) which contributes to the exposure of root surface [1]. These

defects were categorized following the 2018 World Work-shop into three categories: (1) recession type 1 (RT1) with no loss of interproximal attachment, (2) recession type 2 (RT2) when the amount of interproximal attachment loss is lower than of buccal attachment loss, and (3) recession type 3 (RT3) if interproximal attachment loss is greater than Gingival recession (GR) can be defined as the displacement of gingival margin apical to the cemento-enamel junction (CEJ) resulting in root surface exposure<sup>1</sup>. These defects are classified into the following categories: (1) recession type 1 (RT1) with no loss of interproximal attachment, (2) recession type 2 (RT2) when the amount of interproximal attachment loss is lower than of buccal attachment loss, and (3) recession type 3 (RT3) if interproximal attachment loss is greater than buccal attachment loss<sup>2</sup>. Predisposing factors for GR include thin periodontal phenotype, improper toothbrushing, the presence of restorations with intra-crevicular margins, orthodontic treatment, and persistent gingival inflammation.<sup>3</sup> Treatment for GR aims primarily for improved esthetic, to eliminate dentin hypersensitivity and minimized risk of root caries. The mucogingival procedures used in treatment of GR are classified as free soft tissue grafts (free gingival graft, subepithelial connective tissue graft) and pedicle soft tissue graft. Semilunar coronally advanced flap is a type of pedicle graft that was originally described by Sumner in 1969 and Tarnow 1986.

This report presents a patient with dentin hypersensitivity due to gingival recession and inability for correct placement to toothbrush for oral hygiene practice, whereby for the treatment of root coverage, vestibular deepening along with coronally advanced semilunar flap was chosen as a



meansfor aesthetic and functional rehabilitation of the keratinized gingival tissue.

#### **CLINICAL PRESENTATION**

A 35 years old male patient reported to Post graduate institute of dental sciences, Rohtak, Haryana with a chief complaint of hypersensitivity and inability to maintain adequate plaque control in mandibular left central incisorsince1 year. Medical history was non- contributory. On intra-oral examination RT1 gingival recession with recession depth of 2mm was observed with respect to mandibular left central incisor (Figure-1A). Moreover. insufficient vestibular depth of approximately 2mm was noted(Figure-1B). No loss interdental papilla was observed of radiographically. On the first visit, full mouth scaling and root planing was performed and oral hygiene instructions were given to the patient.

#### PROCEDURE

A written informed consent was obtained from the patient. Complete haemogram levels were within normal limits. After achieving local anaesthesia with 2% lignocaine hydrochloride with adrenaline (1:100,000), a horizontal incision was given in the depth of vestibule with a number 15 bald parker blade. Then, an intra crevicular incision was given to raise a split thickness semilunar flap including the gingival collar of the same tooth((Figure-1C). Following this, the mobilized semilunar flap was advanced coronally to cover the exposed root and stabilized with manual pressure. The vestibular incisions were closed with 6-0 resorbable vicryl sutures (Figure 1D).

#### II. RESULTS

The postoperative results (Figure 1E) were monitored at one week and one month after the surgery, with the aim of verifying the result on both aesthetic and functional basis. Vestibular depth of 6mm was achieved along with complete root coverage.Surgical wound healing process was found to be uneventful, free from any infection.

#### **III. CONCLUSION**

Inadequate vestibular depth poses a problem in proper placement of toothbrush for plaque control. The current report presents a case of vestibular deepening along with coronally advanced semilunar flap with successful root coverage as well as an increase in vestibular depth. Thus it can be concluded that coronally advanced semilunar flap when combined with vestibular deepening offers a successful and viable alternative for the coverage of localised shallow gingival recession with an inadequate width of attached gingiva.

