

## A Novel Approach for Mucogingival Esthetic Surgery Combined with Periodontal Ligament Grafts

Kemal AKSOY<sup>1</sup>, Şükrü ENHOŞ<sup>2</sup>

<sup>1</sup>Research Assistant, Department of Periodontology, Faculty of Dentistry, Izmir Katip Celebi University, İzmir/TURKEY

**ORCID ID:** XXXX-XXXX-XXXX-XXXX

<sup>2</sup>Associate Professor, <sup>1</sup>Research Assistant, Department of Periodontology, Faculty of Dentistry, Izmir Katip Celebi University, İzmir/TURKEY

**ORCID ID:** XXXX-XXXX-XXXX-XXXX

**Corresponding Author:**

*Dr. Kemal AKSOY,*

*Department of Periodontology, Faculty of Dentistry, Izmir Katip Celebi University, İzmir/TURKEY*

## Abstract

**Introduction:** Alveolar bone, pdl and cement accumulation may represent periodontal regeneration, but this can only be confirmed by histological studies. We describe regeneration clinically with the difference in clinical attachment level.

Pdl grafts are pluripotent and have high regenerative capacity. The differentiation of PDL cells to the osteoblast and cementoblasts in vitro culture and the new pdl, cement and alveolar bone formation in these cells are shown in vitro.

In this study, we evaluated the combination of coronally positioned flap combined with periodontal ligament graft derived from the teeth with the indication of extraction.

6 patients who has got minimum one isolated recessions were enrolled to this study. Bleeding on probing, pocket depth, clinical attachment level, thickness and height of keratinized tissues has reported at the beginning of treatment. Root plaining has done to recession area. Buccal flap was planned like a coronally positioned flap. Vertical releasing incisions has made and Flap extents apicoronal for overtreatment because of minimizing the risk for recession. Flap design initiated with partially thickness flap in aproximal parts and goes full thickness at submarginal part. Flap design finished with partially thickness flap. Pref gel was used. At the same time the tooth which has got extraction indication has extracted gently. Important part of extraction was protecting periodontal ligament on root surface. These periodontal ligament grafts were used on prepared root surface. Natural resorbable collagen membran used on grafted site and this surgical area was sutured.

Successful results in clinical attachment level, height and thickness of keratinized tissue has achieved together. PES score was increased.

Periodontal ligament grafts can used for regeneration and excipient for gingival recessions. This study can evaluate with new researches and new surgical procedures.

**Keywords:** Mucogingival esthetic surgery.