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Comparative Clinical Outcomes of Connective Tissue Graft Procedures Harvested from the Palate, Before and After Recipient Site Preparation: A Randomized Controlled Trial

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Abstract

Objectives: This study aimed to compare the root coverage outcomes of connective tissue grafts (CTG) harvested from the palate before and after recipient site preparation.

Methods: Twenty single gingival recessions type 2 (RT2) at buccal sites of single-rooted teeth, randomized into two groups: graft harvested after (control) and before (test) site preparation. Clinical parameters and patient satisfaction were assessed at baseline and at three months, with follow-ups for complications at 1 week, 2 weeks, 1 month, and 3 months.

Results: At three months, recession reduction was 2.2 ± 1.1 mm (control) and 2.5 ± 0.7 mm (test), with root coverage percentages of $82.0 \pm 32.0\%$ and $90.5 \pm 30.1\%$, respectively. No significant differences were observed in clinical outcomes, complications, or patient satisfaction between the two approaches.

Conclusions: These findings indicate that harvesting CTG prior to recipient site preparation can serve as a clinically effective and flexible alternative, especially in situations where anatomical limitations of the palate might complicate the traditional treatment sequence.

Keywords: gingival recession, recession reduction, root coverage