

Successful Management of Persistent Gingival Recession with Connective Tissue Grafting: A Case Report

Ahmad Soolari, DMD, MS^{1*}, Ehsan Soolari²

^{1,2}Consultant Dentist, Soolari Dentistry 11251 Lockwood Drive, Silver Spring, MD.20902

ABSTRACT

Gingival recession and exposed crown margins present both functional and aesthetic challenges. This case report details the successful treatment of a patient exhibiting persistent recession despite two years of non-invasive therapies. Connective tissue grafting effectively resolved the recession, eliminated sensitivity, and improved aesthetics. This report also includes a review of current literature on gingival grafting techniques and outcomes, including recent advancements in biologic enhancements and graft designs.

Keywords: Gingival Recessions, Connective Tissue Graft, Root Sensitivity, Aesthetic.

INTRODUCTION

Gingival recession, defined as the apical displacement of the gingival margin, exposes the root surface, leading to dentin hypersensitivity, increased plaque accumulation, and a heightened risk of root caries.¹ While non-invasive approaches may be initially employed, persistent recession often necessitates surgical intervention. Gingival grafting offers a predictable solution for restoring lost tissue and improving both functional and aesthetic outcomes.^{2,3} This case report presents a patient with persistent gingival recession and exposed crown margins, highlighting the effectiveness of connective tissue grafting in resolving these issues.

CASE PRESENTATION

A patient presented with persistent gingival recession and exposed crown margins on teeth #3 and #5, accompanied by sensitivity and aesthetic concerns. Previous non-invasive treatments, including soft tissue management, lasers, and chemotherapeutic agents, proved ineffective over two years. Tooth #3 also exhibited furcation involvement, increasing the risk of further bone loss and instability.

Treatment Options

Several treatment options were considered, including white or pink composite restorations and gingival grafting. While composite restorations could mask the exposed margins, they would not provide long-term stability or address the underlying gingival recession. Gingival grafting, on the other hand, offers several advantages: restoring gingival tissue to protect root surfaces, re-establishing a stable and aesthetically pleasing tissue profile,


*Correspondence to:

Dr. Ahmad Soolari, DMD, MS

Consultant Dentist, Soolari Dentistry 11251 Lockwood Drive, Silver Spring, MD.20902
Email: asoolari@gmail.com

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preventing further recession and root caries, and resolving sensitivity associated with exposed roots.^{4,5}

Treatment Outcome

The patient underwent gingival augmentation for teeth #3 and #5 using connective tissue grafts. The procedure involved preparing the recipient site, harvesting connective tissue from the patient's palate, and placing the graft over the exposed root surfaces. The treatment successfully resolved the patient's chief complaints. The gingival recession was corrected, sensitivity was eliminated, and the tissue profile was harmonized with adjacent teeth, achieving an aesthetically pleasing result.^{6,7} The risk of further bone loss, furcation progression, and caries development was significantly reduced.

Importance of Gingival Grafting

Gingival grafting offers a predictable and long-lasting solution for managing gingival recession and exposed crown margins. Its benefits include improved oral health by protecting vulnerable root surfaces, enhanced aesthetics by restoring a natural gingival contour, and functional stability by creating a durable barrier against mechanical trauma and thermal stimuli.^{7,8}

THE ROLE OF A MULTIDISCIPLINARY TEAM

This case highlights the importance of a collaborative approach in managing complex periodontal issues. The referring doctor recognized the need for specialized care, and the periodontist provided a definitive solution through gingival grafting. The team-based approach ensured the patient received the best possible outcome, both functionally and esthetically.



Fig 1: Before and two years after treatment showing significant improvement of tooth # 3 and 5, correcting exposed crown margin, augmenting gingiva, and resolving tooth sensitivity and cosmetic concerns.

LITERATURE REVIEW AND RECENT ADVANCEMENTS

Current literature strongly supports the efficacy of gingival grafting techniques for treating gingival recession. Recent studies have explored various graft designs and the use of biologic enhancements to optimize outcomes. These advancements focus on improving tissue integration, enhancing aesthetic results, and accelerating healing. For instance, the use of biologic agents like Emdogain or fibrin-fibronectin systems can accelerate healing and ensure better graft stabilization.⁹ Furthermore, new graft designs tailored to individual defects improve color and texture matching, making the outcomes virtually indistinguishable from natural tissues.

CONCLUSION

Exposed crown margins and gingival recession are not merely cosmetic concerns; they represent underlying periodontal issues requiring definitive treatment. Gingival grafting provides a conservative yet effective solution that addresses both functional and aesthetic needs, ultimately improving patients' oral health and quality of life. This case underscores the value of timely referrals and the benefits of a multidisciplinary approach to periodontal care. Patients with similar concerns are encouraged to seek periodontal expertise for optimal outcomes.

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