

Revitalizing Smiles- Managing Gingival Recession With Coronally Advanced Flap And Connective Tissue Graft: A Case Report

Dr. Swati Kejriwal BDS, MDS; Dr. Davis Thomas BDS, DDS, MSD, MSc Med, MSc

Rutgers School of Dental Medicine, Newark, NJ, USA

Revitalizing Smiles- Managing Gingival Recession With Coronally Advanced Flap And Connective Tissue Graft: A Case Report

INTRODUCTION

Gingival recession involving multiple adjacent teeth may result in a variety of problems, including poor esthetics and tooth sensitivity. Various techniques have been used in the past for the coverage of multiple recession defects with interdental bone loss. This case report showcases the significance of a meticulous treatment plan and use of a suitable surgical procedure in achieving successful and enduring results.

MATERIALS AND METHODS

A 40-year-old female patient presented with a primary complaint of poor esthetics and sensitivity in her upper teeth. On examination, Miller's class III recession was observed in maxillary teeth. After a detailed examination, realistic expectations were set and consent was obtained. Zucchelli's modified coronally advanced flap technique was planned and performed bilaterally in the maxillary arch. The periodontal flap was elevated with a split-full-split design in the coronal-apical direction. The interdental papillae were deepithelialized to create connective tissue beds. Connective tissue was harvested from the palate and secured in the recipient bed. The flap was advanced coronally and sutured. Post-operative healing was uneventful.



Figure 1: Pre-operative- Right side



Figure 2: Incisions placed-Right side



Figure 3: Flap reflected

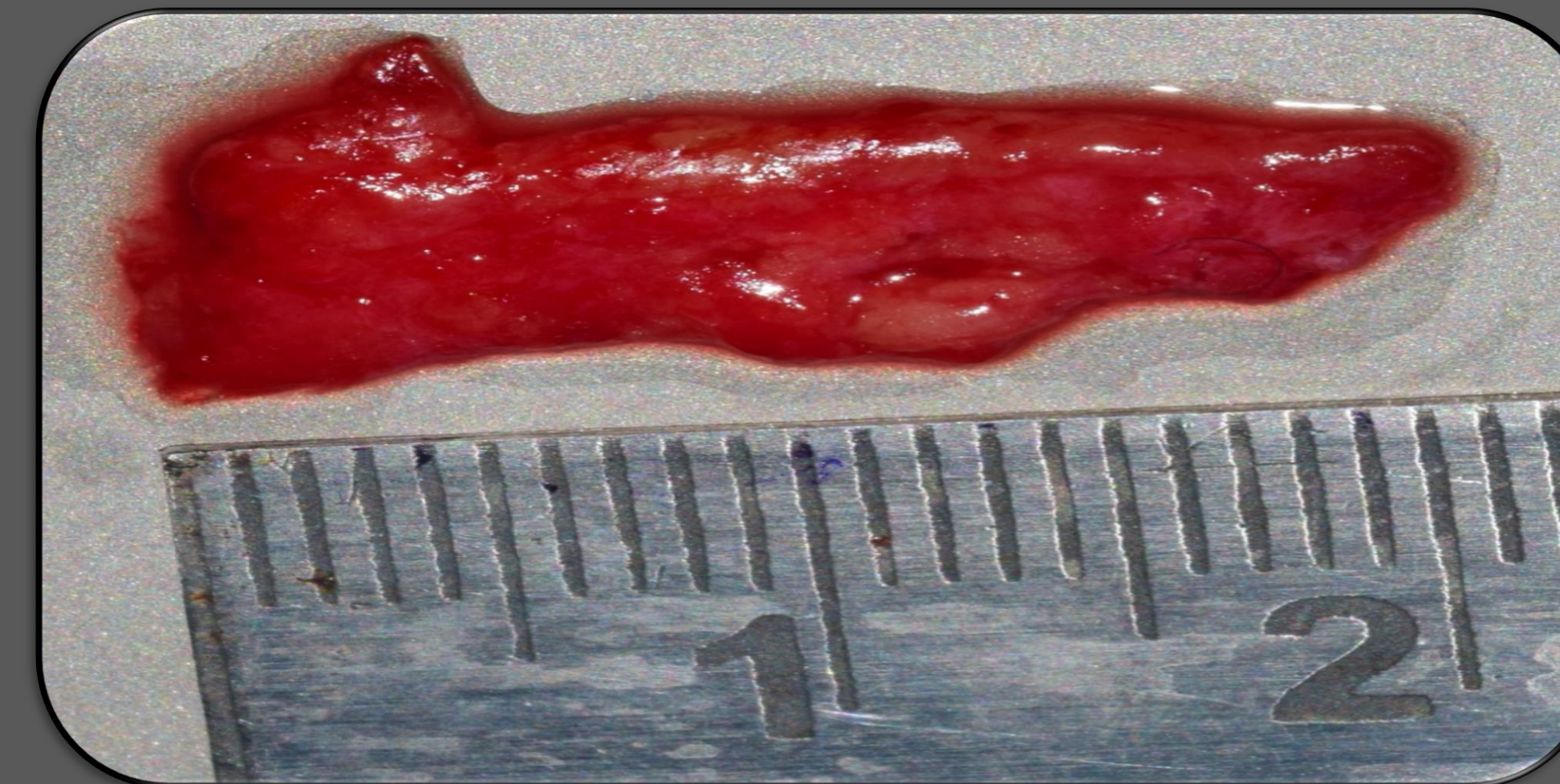


Figure 4: Connective tissue harvested



Figure 5: Flap Sutured



Figure 6: Pre-operative- Left side



Figure 7: Incisions placed-Left side



Figure 8: Flap reflected

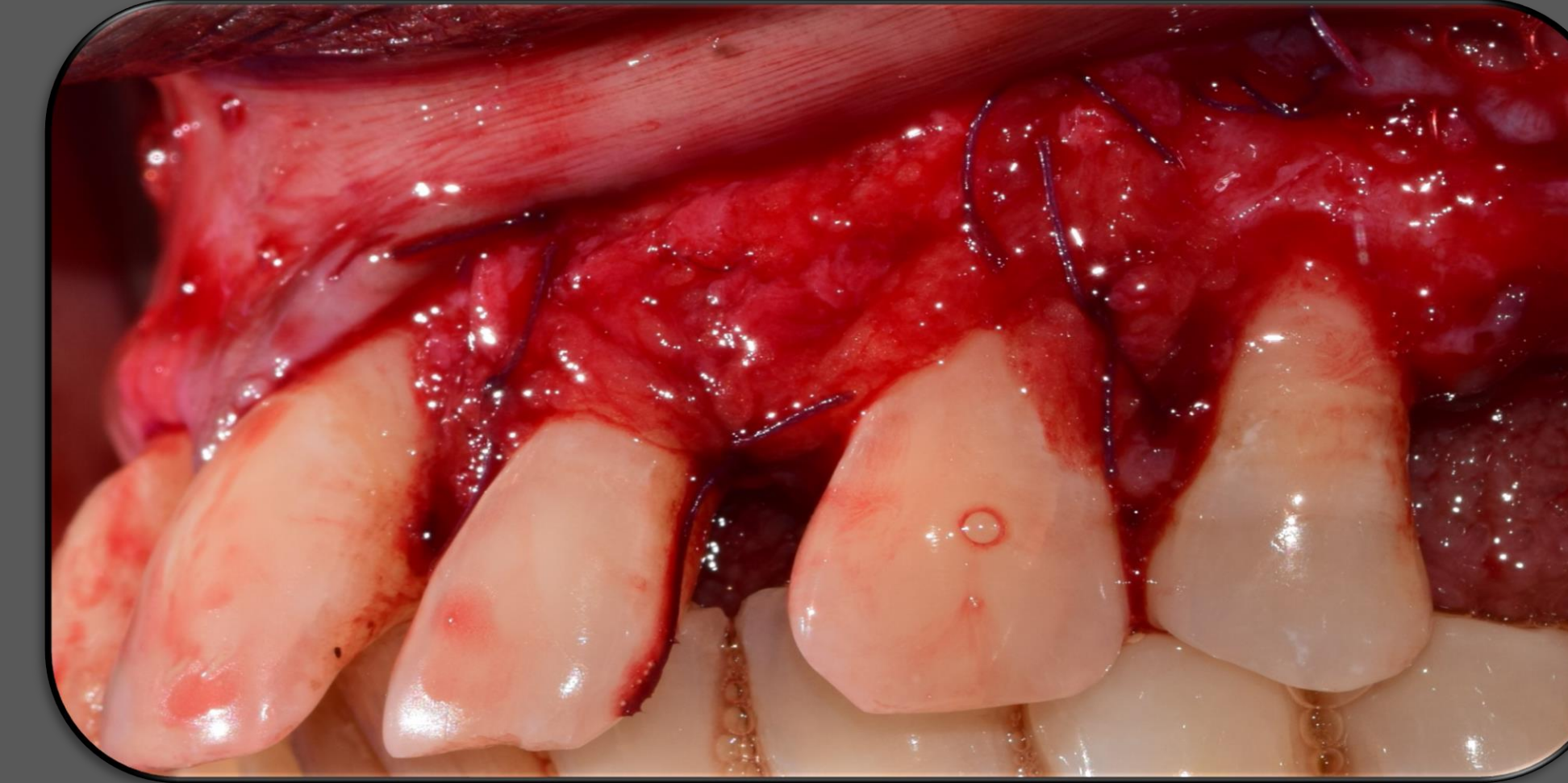


Figure 9: Connective tissue sutured



Figure 10: Flap sutured

Revitalizing Smiles- Managing Gingival Recession With Coronally Advanced Flap And Connective Tissue Graft: A Case Report

RESULTS

Tooth number 6 and 8 showed significant reduction in recession depth compared to pre-operative levels with maxillary right canine showing almost 100% root coverage at 1-year follow up. A good amount of root coverage was observed in relation to tooth number 7, with a mild decrease in recession depth for tooth number 5. There was a significant reduction in sensitivity. Patient’s oral hygiene was good at 1-year follow up.

RIGHT SIDE

AT BASELINE



SITE #5



SITE #6



SITE #7



SITE #8

AT 1- YEAR FOLLOW UP



SITE #5



SITE #6



SITE #7



SITE #8

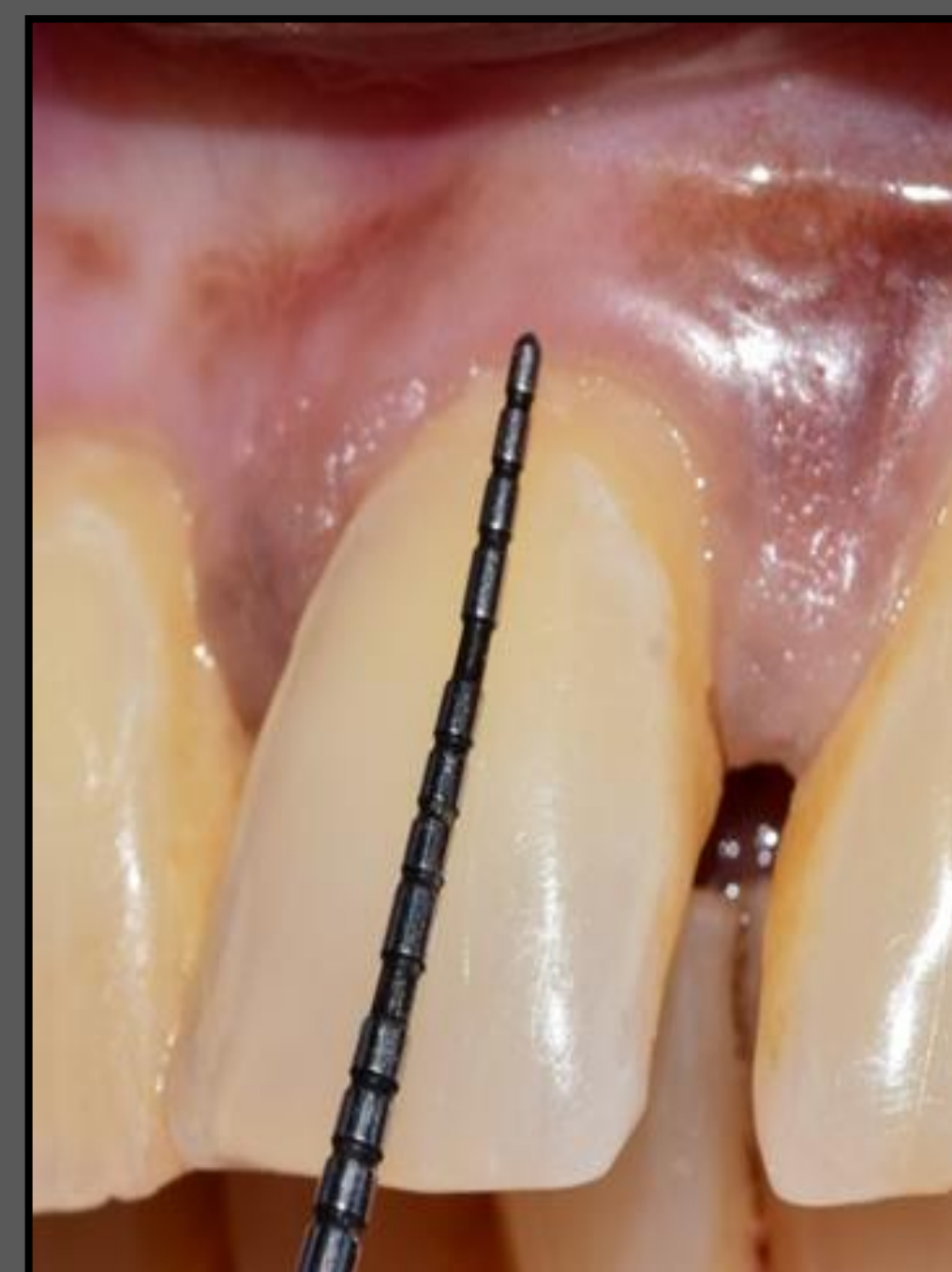
Revitalizing Smiles- Managing Gingival Recession With Coronally Advanced Flap And Connective Tissue Graft: A Case Report

RESULTS

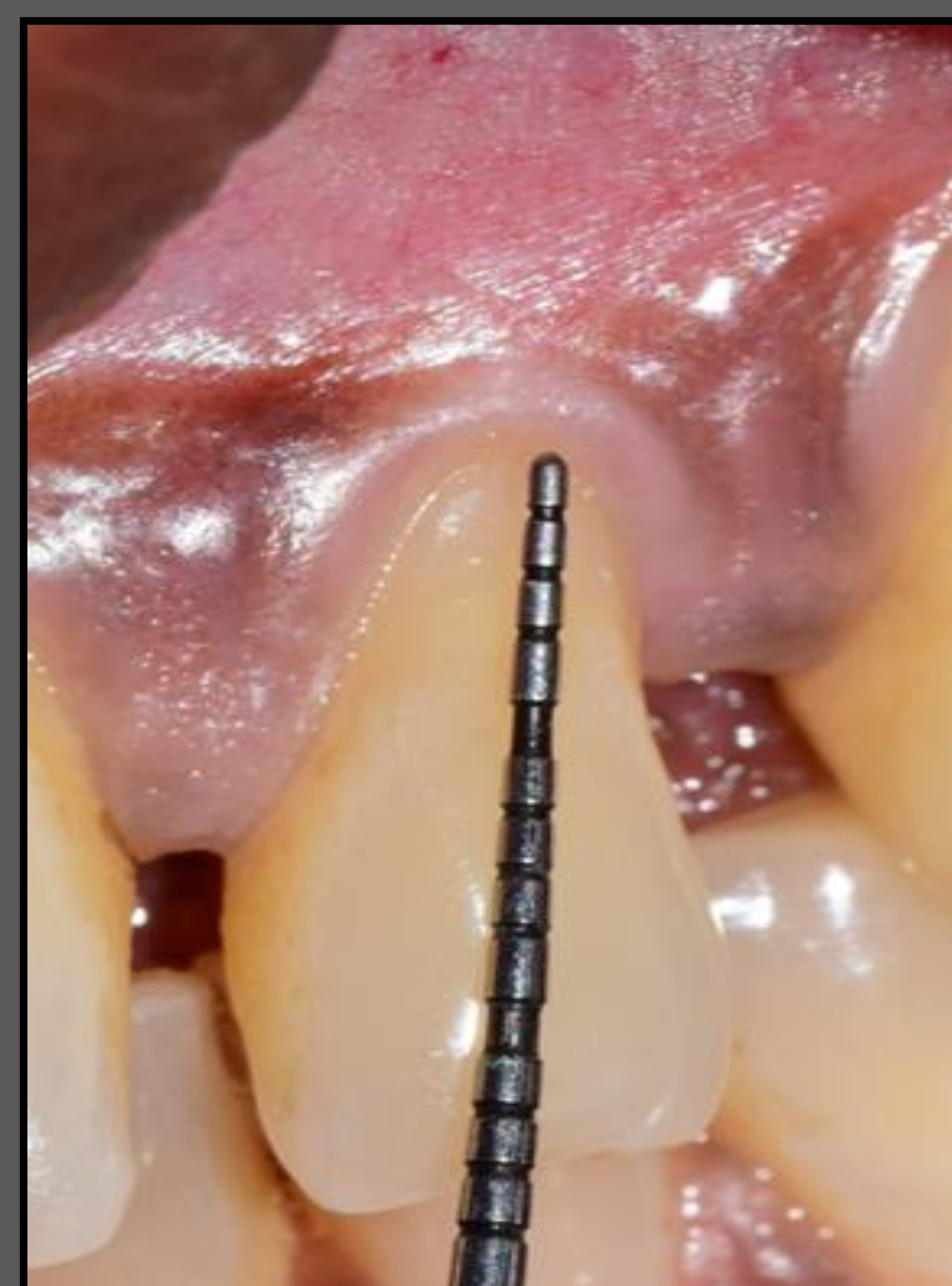
Similar to the right side, almost 100% root coverage was achieved in left maxillary canine at 1-year follow-up. Mild reduction in recession depth was obtained for teeth number 9, 10, and 12. Patient reported an overall significant reduction in teeth sensitivity immediately post-operatively which was stable after 1 year. Patient's oral hygiene was good at 1-year follow up.

LEFT SIDE

AT BASELINE



SITE #9



SITE #10



SITE #11



SITE #12

AT 1- YEAR FOLLOW UP



SITE #9



SITE #10



SITE #11



SITE #12

Revitalizing Smiles- Managing Gingival Recession With Coronally Advanced Flap And Connective Tissue Graft: A Case Report

FINAL OUTCOME



AT BASELINE



AT 1-YEAR FOLLOW-UP

CONCLUSION

This case report highlights the success of meticulously planned recession coverage using the modified coronally advanced zucchelli technique with connective tissue graft in patients with interdental bone loss. The patient's satisfaction and improved quality of life emphasize the effectiveness of a tailored approach, stressing the significance of proper treatment planning, and addressing patient expectations.

REFERENCES

- Sanctis M, Zucchelli G. Coronally advanced flap: a modified surgical approach for isolated recession-type defects: three-year results. J Clin Periodontol. 2007;34(3):262-268.
- Tovalino F, Barboza J, Pasupuleti V, Hernandez A. Efficacy of Tunnel Technique (TUN) versus Coronally Advanced Flap (CAF) in the Management of Multiple Gingival Recession Defects: A Meta-Analysis. Int J Dent. 2023;2023: 8671484.