

# ETIOLOGY OF GINGIVAL RECESSION WITH ROOT EXPOSURE

The goal of periodontal therapy is to establish and maintain the dentition and gingiva in health, comfort and function with optimal esthetics. We, as dentists, have modified our thinking because we are now dealing with dental implants and natural teeth.

Most patients will not accept periodontal therapy without the perception of an acceptable esthetic outcome. Periodontal plastic surgery means to mold or shape the tissues around teeth or implants to create optimal esthetics.

Marginal soft tissue recession is defined as the displacement of the soft tissue margin apical to the CEJ. Root coverage of exposed cementum is one of the objectives of periodontal plastic surgery. The etiology of soft tissue recession is:

1. Root Morphology (i.e. teeth outside the alveolar housing)
2. Trauma
3. Inflammatory Periodontal Disease
4. Occlusal Forces

This patient is a 57-year-old Caucasian female who had orthodontic therapy as an adolescent. She presented complaining of tenderness around tooth #21. She had previously had bonding on the buccal of #21. The bonding had obviously not stopped the recession from progressing as is evidenced by recession apical to the bonding. (Figure 1)



Figure 1

Soft tissue recession is most commonly defined by the Miller Classification. Miller has divided recession into 4 Classes:

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|------------|--|
| Class I:   | Recession not extending to the mucogingival junction. No loss of interdental bone or soft tissue.  |
| Class II:  | Recession extending to or beyond the mucogingival junction. No loss of interdental bone or soft tissue.  |
| Class III: | Recession not extending to or beyond the mucogingival junction. Loss of interdental bone or soft tissue is apical to the CEJ but coronal to the extent of the marginal tissue recession. |
| Class IV:  | Recession beyond the CEJ and loss of interdental bone apical to the soft tissue recession.   |

Achieving complete root coverage is possible in Class I and Class II recession defects because the interdental soft tissue and bone are still intact. The patient is classified as a Miller Class II recession.

The proposed treatment was a connective tissue graft harvested from the palate under local anesthesia. The root surface shows a large amount of bone loss. The etiology of the recession was position of the tooth in the alveolar housing and toothbrush abrasion. The tooth is literally “out of bone”. (Figure 2) The patient admits to “hard brushing habits”. It is very common for patients to have several etiological factors causing the root exposure. Treatment consisted of: 1 - Removal of facial bonding material and 2 - mechanical and chemical treatment of the exposed root to remove palqued calculus and placement of a connective tissue graft. The connective tissue graft was secured by a Vicryl Rapide suture.



Figure 2



Figure 3

Figure 4 shows the final result 4 weeks after surgery. The postoperative result shows an increased amount of attached, keratinized tissue and 100% root coverage. The patient was thrilled with the excellent esthetics with root coverage.



Figure 4

The key to the success of this case was early intervention. Placing larger and layer bondings do not help the patient. My recommendation is to do a complete periodontal exam measuring pocket depth and recession at least once a year. Connective tissue grafts should be done when the recession reaches 3mm from the CEJ to the gingival margin. Placement of a composite restoration covering recession will not stabilize further loss of attached gingiva in the areas. This case really demonstrates the excellent postoperative color match with increased zone of keratinized tissue and complete root cover.

Please call me if you have any questions regarding this therapy.