

Clinical Realities

MAXIMIZING AESTHETICS AND HEALTH USING A CLOSED-FLAP ER:YSGG LASER TECHNIQUE

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The creation of ideal cosmetic, biological, and functional results in the aesthetic zone has always been challenging, particularly when biologic width violations have occurred iatrogenically. While plaque accumulation is problematic, the supracrestal fibers also become interrupted, causing the tissues to become further inflamed and aesthetically unmanageable. It is critical that the anterior gingival margin mimics the osseous scallop while maintaining the dentogingival complex (DGC). Further complicating these situations is the degree of inflammation in the soft tissue affecting the clinical development of health and aesthetic symmetry.

Often, the patient will also become frustrated by the poor aesthetic results achieved previously. Even more challenging is the extended healing time created by reflective mucoperiosteal surgery, affecting the chronology of final restorative care in addition to delaying the patient's ultimate satisfaction for a minimum of 2 to 3 months. Dental lasers have evolved considerably as an adjunct and alternative treatment to safely, conservatively, and reliably decrease bacterial levels and improve the hard and soft tissue contours. In selected cases, long-term aesthetic and functional parameters are satisfied with precise restorative

planning and technique and by utilizing minimally invasive procedures. Furthermore, patients are provided with optimal results more comfortably and efficiently.

Patient Presentation

A 36-year-old female patient presented with a disappointing second attempt at enhancing her smile. Excessive gingival display and asymmetries were evident in the anterior region, and the tissue biology was inflamed by four poorly contoured porcelain-fused-to-metal (PFM) crowns with open margins that were impinging on the periodontal fibers. Functionally, the maxillary and mandibular canines were severely worn and had been left untreated. In addition, the smile line did not follow the curvature of the mandibular lip. Several diastemata were originally present prior to initial treatment. The creation of ideal tooth shapes for her smile would involve cosmetic augmentation of the adjacent teeth as well as surgical intervention of the inflamed asymmetrical gum tissues. The patient desired a minimally invasive periodontal treatment. This article presents a conservative laser approach to resolve the patient's compromised gingival framework for functional and aesthetic results.



Figure 1A. Preoperative retracted facial view demonstrated unhealthy periodontium as well as cosmetic liabilities.



Figure 1B. Postoperative facial view following laser rehabilitation of the surrounding tissue and bioesthetic restorative care.

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