Diode laser assisted periodontal therapy for aesthetic management of gummy smile

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**Background & Objective:** The aim of this study was to assess the use of diode laser as an adjunct of Laser Assisted Periodontal Therapy (LAPT) in gingivoplasty for management of gummy smile to achieve the “Golden Ratio” of the esthetic smile, with regard to its bactericidal capability and its improved rate of periodontal wound healing.

**Study Design/Materials & Methods:** Twenty (20) female patients were randomly subdivided into two equal groups: Ten treated with diode laser and 10 operated with conventional surgical gingivoplasty; which formed the control group of the study. Initially, all patients were clinically examined for confirming that the cause of the gingival excess was due to the gingival overgrowth per see and only. Also, for each patient, pre and post-operative photographs were taken. Gingivoplasty of maxillary anterior and posterior teeth (from the right maxillary second premolar to the left maxillary second premolar of the treated patient) was performed for the patients. For the two groups the protocol of topical anesthesia and local anesthetic was the same. After treatment, Ketolac 10 mg tablets and Hexitol antiseptic mouth wash were prescribed to all patients. The pocket depth and bleeding index on probing were measured for both the laser group and the surgery group after one week of the treatment. Again, reassessment of all patients was performed after two and three weeks with taken post-operative patient photographs at each time.

**Results:** Postoperatively, the laser treated patients had minimal pain and little inflammation compared to the surgery managed patients. The bleeding index when probing was improved in 97.9% of the laser group, while for the surgery control-group it was only 65.7%. Furthermore, the gingival pocket depths were markedly more reduced in the laser treated group than in the control surgery operated group.

**Conclusion:** Diode laser reveals a noticeable bactericidal effect and helps to reduce inflammation in gingivoplasty for management of gummy smile cases. The diode laser assisted therapy supports and accelerates rate of wound healing in periodontal tissues.

Posturostabilometric changes during orthodontic treatment of distal occlusion

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**Aim:** The aim of the research was to determine the influence of removable and fixed appliances for positioning the mandible forward.

**Materials & Methods:** 78 patients in two age groups were examined: 40 children 8-12 years old (20 with normal occlusion and 20 with distal) and 38 children 12-15 years old (20 with normal occlusion and 18 with distal). Children in the first group were treated with Persin appliance for distal occlusion treatment and in the second group—with fixed hybrid type appliances. All the patients were examined on the biopostural platform BioPostural System (Galbiati).

**Results:** Average norms of statokineziograms were obtained for children with normal occlusion according to the age. In children with distal occlusion the impairment of basic stabilometric parameters (length, sway area, ellipse surface) takes place in comparison with their coevals with normal occlusion. In children 8-12 years old treated with Persin appliance observed the improvement of stabilometric parameters in 87% cases. In children 12-15 years old treated with fixed hybrid type appliances-in 70% cases. In monitoring conducted orthodontic treatment, this improvement remains stable after 3 and 6 months in 75% cases in the first and second group.

**Conclusions:** After treating of children with functional orthodontic appliances (removable and fixed), there is a significant improvement in postural balance.