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Case Report **Published Date:- 2017-09-18**

Osteogenic Accelerated OrthodonticsTM for treatment of a Skeletal Class II patient with moderate crowding

Introduction: A 17 years old male patient was treated at the University orthodontic department. He had the chief complaint of unaesthetic appearance of his teeth, mostly for anterior crowding. The pretreatment records showed a Class II skeletal relation, moderate upper and lower anterior crowding, 0.5mm of overbite and 2mm of overjet.

Materials and Methods: It was suggested Osteogenic Accelerated Orthodontics (OAOTM), the treatment option was very attractive to the patient although it required a surgical procedure and a more expensive type of treatment.

Results: The overall treatment time was 6 months, facial balance was improved and the final occlusal relationships from the functional and aesthetics perspective were good.

Conclusion: OAOTM is a good alternative to reduce extractions rate as it increases the scope of tooth movement and strengthen the periodontal tissues thru bone grafting, although these claims require more scientific data to be validated.

Editorial **Published Date:- 2017-07-31**

Low Level Light Therapy (LLLT): Penetration and Photobiomodulation

Mester et al., stated the laser effects in a review of their studies of 15 various biological systems, they observed the stimulating effect of low energy (in terms of J/cm2) laser and inhibiting effect of high energy laser and later reported the relationship of cumulative energy applied and the effects conforms to the Arndt-Schultz law. They concluded their experience with 875 healed cases and the results of their experiments had convinced them to recommend the use of lasers to stimulate wound healing [1].

Research Article **Published Date:- 2017-07-31**

Enamel demineralization with resin modified gic and conventional composite resin - a comparative in vivo study

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Background & Objectives: Fluoride releasing bonding agents can help the orthodontist to minimize enamel demineralization independent of patient cooperation. This in vivo study was conducted to evaluate the efficacy of resin modified glass ionomer cement (RMGIC) on reducing enamel demineralization around orthodontic brackets and confirm the superior caries-preventive effect of RMGIC by assessing the mutans streptococci (S. mutans) in plaque samples in vitro.

Methods: 60 subjects (aged 14-20 years) scheduled to have premolar extractions as part of the orthodontic treatment plan were selected and randomly divided into 2 groups of 30 each (group 1: the brackets were bonded on the teeth using light cure composite resin and group 2: the brackets were bonded using RMGIC). Plaque scores (modification of plaque index by Silness and Loe) were recorded and plaque samples were collected before bonding, one week and one month after bonding. S.mutans colonies were recorded from the plaque samples inoculated on MSB agar plates, incubated under 95% N2 and 5% CO2 for 48 hours at 370C in a CO2 jar. After 1 month, the right maxillary and mandibular first premolars were debonded, extracted and depth of enamel demineralization area was estimated using polarized light microscope.

Results: After statistical analysis, a significantly higher mean depth of demineralized lesions was noticed in group 1 as compared to group 2. A significant difference between occlusal and gingival depth was seen only in group 2, thus illustrating a wedge effect. In group 1, a statistically significant increase in the mean colony forming units (CFU) of S.mutans has been noticed at different time intervals whereas in group2, a significant increase was observed only at 1month. Unlike at 1 month, a statistically significant difference in mean CFU between group 1 and group 2 has been observed at 1 week ($P<0.05$).

Conclusions: Enamel lesions adjacent to the bracket base on teeth bonded with the RMGIC were smaller than those on teeth bonded with a composite resin. The high “burst effect” of fluoride release for the first few days of RMGIC after bonding is confirmed by statistically significant reduction in CFU counts of S. mutans in plaque.