

Make Less Burdensome Teeth Quality

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Abstract

Lightening tooth color is what a patient demands and can be successfully done by a wide variety of bleaching methods, including in-office (professionally administered), at-home (professionally dispensed) and over-the-counter (self-administered) techniques.

Keywords

Burdensome, Teeth, Quality, Bleaching

Introduction

Laser-assisted bleaching is the best modality available in which laser accelerates release of free radicals within the bleaching gel to decrease time of whitening procedure.¹

In -office laser bleaching has an advantage of dentist control, avoidance of tissue exposure, minimal post bleaching hypersensitivity, reduced treatment time and enhanced patient satisfaction due to immediate results.²

Case Discussion

A 15 year-old female patient reported to the Department of Pedodontics and Paediatric Dentistry with the chief

complaint of discolored tooth with respect to her right upper front tooth region since childhood. On examination, generalized grade 2 dental fluorosis was seen and Grade 4 Dental fluorosis it 12 and 14. The patient was explained about the various treatment modalities available, the procedures to be under taken and an informed consent was obtained. A thorough oral prophylaxis was done 3 weeks prior and polishing of the teeth was done. On the day of treatment removal of surface plaque and stain with pumice prior to administration of whitening agent.

Modified Dean's Fluorosis Index (1942) was recorded at baseline and the end of the first and second visit, respectively. The patient was asked to wear protective eyewear. The teeth were isolated using cotton rolls. The liquid dam was cured using standard curing light , holding the hand piece at least 2cm from tooth for 5 to 10 seconds.

The tooth was irradiated using diode laser (BIOLASE™) with a power setting 7W power, continuous wave mode and 200 J energy output in contact mode for a time of about 30 second for each quadrant. The gel was left on the teeth for an additional 5 minutes to allow the teeth to absorb the laser activated hydrogen peroxide which allows continued whitening after laser exposures. This procedure was repeated twice within a gap of 1 week. At the end clean rubber dam with explorer and rinse. Apply desensitizer potassium nitrate for 15 to 20 minutes. In case of any discomfort the patient was asked to report back to the clinic. Indirect Composite veneering was done on follow-up visit. The postoperative photographs were taken. The color change evaluation using 3D Vita shade guide was noted.

The patient was advised not to consume products that stain teeth for up to the next 48 hours such as coffee, tobacco, tea, tomato sauce, cold drink etc.

Discussion

Initially bleaching was primarily performed with 35%–37% carbamide peroxide or 30%–40% hydrogen peroxide and the use of hydrogen peroxide (H₂O₂) for conventional bleaching was introduced way back in 1884.^{4,5,6} Light sources were marketed with the idea that light plays a significant role in tooth bleaching as catalyst for the ionization of Hydrogen peroxide in the bleaching gel and increasing the bleaching effect.⁷

Conclusion

Vital bleaching is the cosmetic dental procedures asked by patients to seek a more pleasing smile. Laser bleaching causes profound quicker whitening with little or no surface alterations. The degree of whitening varies from patient to patient depends on type of stain , enamel thickness, tooth structure and age.

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