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Enhancing Smiles with In-Office Vital Bleaching -A Case Report

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ABSTRACT

In today's world, beauty and esthetics play a major role in people's lives. It goes without saying that we are attracted to bright smiles and everybody desires to have shining white teeth. Discoloration, especially when the anterior teeth are affected also means a significant disturbance of aesthetics and can hamper the patient's self-esteem. Tooth whitening, also known as bleaching is the most conservative treatment for discolored teeth. This article shows a case of successful treatment of fluorosis with the help of in-office vital bleaching.

KEYWORDS: Esthetics, Discoloration, Vital Bleaching

INTRODUCTION

Cosmetic dentistry is a very important part of dental restorative applications. Nowadays, individuals are not only content with healthy teeth but also want to have a perfect smile (Joiner, 2004). With the increase in aesthetic concerns, individuals often apply to dental clinics for a whiter smile. The majority of these individuals are not satisfied with the color of their teeth, and whiter teeth are thought to be related to health and beauty and are preferred.¹ Currently, the most popular systems for in-office bleaching use high-concentration hydrogen peroxides and are often referred to as "one-hour bleaching." These high-concentration hydrogen peroxides range from 25% to 35%.²

CASE REPORT

A 30-year-old female patient reported to the Department of Conservative Dentistry and Endodontics, with the chief complaint of discoloration of teeth. After a thorough examination and history taking, the diagnosis of fluorosis was confirmed.



Pre-operative photographs

The treatment plan decided was macro & micro-abrasion followed by in-office vital bleaching. Oral prophylaxis and macro-microabrasion were performed before starting the bleaching procedure. Pola Office bleaching kit was used for the same. This material contains 35% hydrogen peroxide and potassium nitrate which acts as a desensitizer. After proper isolation of the field, the gingival barrier was applied and light cured for 20 seconds.



Macro-abrasion with 12-fluted carbide bur



Micro-abrasion with HCl and pumice slurry

Equal parts of bleaching powder and liquid were taken and mixed until a thick homogeneous mixture was formed and applied over teeth using an applicator tip. Safety goggles were worn by the patient as well as the dentist. Power bleaching was done using a bleaching light curing unit for 8 minutes.



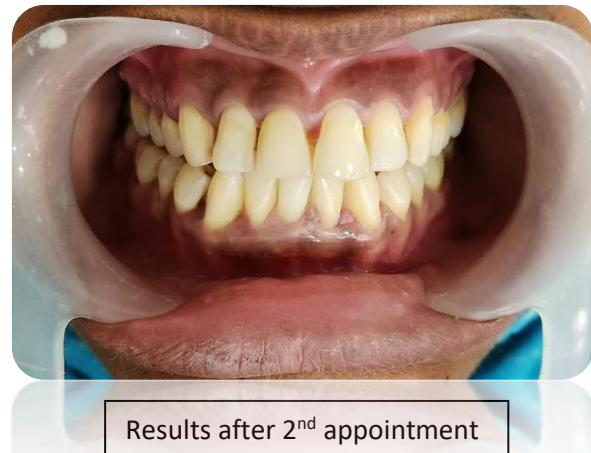
Application of Bleaching agent



Light activation – First cycle

2 cycles of 8 minutes each were performed in the first session. The bleaching agent was removed using an air-water syringe and final polishing was done with pumice. Proper instructions were given to the patient regarding abstinence from drinking tea, coffee, and smoking. The patient was recalled after 1 week to evaluate the result.

One more session was performed using the same procedure done for the first session. The patient was satisfied after the 2nd session and she was explained all the necessary precautions to follow after the procedure. There were no complaints from the patient.



DISCUSSION

With in-office bleaching, both proper isolation and protection of mucosal tissues are essential. Dentists may also wish to consider prescribing NSAIDs prior to treatment since post-treatment sensitivity is unpredictable. The treatment schedule may also be a useful method to help minimize tooth sensitivity. Multiple appointments are typically scheduled 1 week apart to allow sensitivity to subside.³

Before starting the treatment, some guidelines are made to avoid discomforts along with the treatment, such as avoiding too hot as well as too cold foods and beverages, low pH foods and beverages, stopping smoking (quitting is desirable) and every activity that can hyper stimulate tooth sensitivity. A new generation of bleaching agents with a low concentration of hydrogen peroxide (3.5% and 15%) was introduced in the market to perform dental office whitening, with greater safety and efficiency.⁴

CONCLUSION

Tooth bleaching combines both aesthetic and conservative approaches for the removal of tooth discoloration. Both the knowledge and experience of the clinician are critical for a thorough understanding of the etiology of discoloration and the selection of the proper bleaching approach. Successful treatment of these discolorations would increase patient satisfaction and motivation. However, the dental profession should maintain high ethical standards and not recommend cosmetic adjustments to suit the patient's demand.⁵

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