Presentation Blocks: 03-24-2017 - Friday - 03:45 PM - 05:00 PM

2723 Title: Effect of Bleaching on Tooth Color, Hypersensitivity and Patient Satisfaction

Authors:

Eva Klaric Sever **(Presenter)**
School of Dental Medicine Zagreb

Zrinka Budimir, School of Dental Medicine Zagreb
Matea Cerovac, School of Dental Medicine Zagreb
Mario Stambuk, School of Dental Medicine Zagreb
Ivan Sever, Institute for tourism
Zrinka Tarle, School of Dental Medicine Zagreb

Abstract:

Objectives: To compare bleaching effectiveness, intensity of hypersensitivity and patient satisfaction among different bleaching treatments.

Methods: A total of 30 participants were randomly divided into 3 groups (n=10). Bleaching was performed by agents with high concentration of hydrogen peroxide – Boost (40%) and Dash (30%), and prefabricated splints Bite&White with a lower concentration of HP (6%). The color change was evaluated using spectrophotometer before and immediately after bleaching, and one and six months thereafter. Tooth hypersensitivity was determined using Wong-Baker Scale immediately after bleaching and 6, 12 and 24 hours after the treatment. Perceived importance and performance of different treatment characteristics were rated by patients on a 7-point Likert-type scale.

Results: Tooth color after the bleaching was the most important characteristic for patients, followed by color stability, comfort and length of treatment. Immediately after the bleaching there was a significant change in color ($\Delta E>3$; $p<0.001$) when using all bleaching agents. Boost and Dash were more effective in color change than Bite&White, which was also reflected in patients' satisfaction ratings. A significant decrease in tooth lightness (L*) was observed from one to six months after the bleaching for all treatments. Throughout the whole study period, the a* color dimension remained neutral (around zero), while a significant reduction in tooth yellowness (b*) observed after the bleaching remained stable from one to six months after the treatment. Color stability was not as expected for most of the patients. Perception of hypersensitivity was higher for Boost than other bleaching treatments, especially Bite&White.

Conclusions: All bleaching products were effective in teeth color change, but demonstrated instability in tooth color. Inverse relationship between postoperative sensitivity and bleaching effectiveness was detected. Patients would benefit from treatments with lower concentration of bleaching agent that could achieve more stable color at the expense of longer treatment length.