



Benefit of Light vs No Light

in vitro study

Clinical Study of an In-Office Whitening System With and Without Light Procedures Utilizing a Split-Arch Design

Maggio B, Bowman JP, Felix H, Borden L, and Mason S. Clinical study of an In-Office Whitening System With and Without Light. J Dent Res 82 (Spec Iss A), 1031, 2003.

Objective

To evaluate the bleaching efficacy of 25% hydrogen peroxide whitening gel (Discus Dental Zoom) with and without light activation by comparing tooth shade changes measured with Vita Shade Guide following treatment using a split-arch design.

Materials

- 25% hydrogen peroxide whitening gel (Zoom, Discus Dental, Culver City, CA, USA)
- Light activator (Zoom Light Activator, Discus Dental, Culver City, CA, USA)

Methodology

In this examiner-blind randomized pilot study, a split-arch design was used to compare an in-office teeth whitening product with and without light activation. Ten healthy adult subjects (five male and five female) were randomized into two groups to receive the light activator on the right or left side of the maxillary anterior teeth during treatment. One half of the maxillary anterior sextant was treated with light, and following isolation, the second half was treated without the light. Two separate rounds consisting of three whitening treatments apiece were conducted on each subject. Vita Shade scores were collected at baseline prior to treatment, immediately following treatment on the sample day, and one and seven days post-treatment.

Results

The Zoom Chairside System with Zoom Light Activator was significantly better than the product application without the light at all time points: post-treatment ($p = 0.0026$); Day 1 ($p > 0.0001$); Day 7 ($p = 0.0002$).

Conclusion

The use of the Zoom Light Activator in conjunction with Discus Zoom whitening gel was more effective in whitening teeth than the use of the Discus Zoom gel alone. These results confirm that although the 25% hydrogen peroxide gel clearly whitens/bleaches the teeth, the use of the Zoom Light Activator significantly enhances the whitening/bleaching ability of the system.

Tooth Shade Changes—With and Without Zoom Light
Vita Shades Changes

