The Efficacy of Intense Pulsed Light Therapy in Postoperative Recovery from Eyelid Surgery

Gary Linkov, M.D.
Vincent B. Lam, M.D.
Allan E. Wulc, M.D.

Background: The purpose of this study was to evaluate the efficacy of postoperative intense pulsed light therapy on patients who undergo bilateral eyelid surgery.

Methods: Patients presenting over a 3-month period for bilateral eyelid surgery were asked to participate in an institutional review board–approved study. Intense pulsed light therapy was administered three times to the same randomly assigned side on postoperative days 1 to 2, 5 to 7, and 10 to 12. Sham light therapy was administered to the contralateral side. Patient surveys and physician ratings were obtained based on photographic evaluation of ecchymosis, edema, and erythema. Three physicians, including the senior author (A.E.W.), submitted ratings, and these ratings were assessed for interobserver reliability.

Results: Twenty-eight patients who underwent bilateral eyelid surgery followed by intense pulsed light therapy were enrolled. The mean age of the patients was 66 years (range, 44 to 81 years). Eighty-six percent of patients were female. The change in ratings between postoperative days 1 to 2 and 10 to 12, in the treatment and control groups, was statistically significant for severity of bruising by both patient and physician assessment and for color of bruising only by patient assessment. The interobserver reliability reached the greatest agreement in the ecchymosis category at each time point for the treatment group.

Conclusion: In a series of patients who underwent eyelid surgery, intense pulsed light therapy decreased the degree of ecchymosis compared with sham treatment in postoperative eyelid surgery patients. (Plast. Reconstr. Surg. 137: 783e, 2016.)

Clinical Question/Level of Evidence: Therapeutic, II.