



ACNE, ROSACEA, AND RELATED DISORDERS (INCLUDING HIDRADENITIS SUPPURATIVA)

TREATMENT OF ACNE VULGARIS WITH INTENSE PULSED LIGHT AND PULSED DYE LASER: A SPLIT FACE, RANDOMIZED CONTROLLED TRIAL

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Background: As the stress in people's life increases greatly, the high prevalence of acne vulgaris has increased. A large number of laser and light therapy have been increasingly used for the treatment of acne.

Methods and patients: Twenty-one patients with acne vulgaris were enrolled in this study. Intense pulsed light (IPL) was used on one side of the face and pulsed dye laser (PDL) on the other side at 2 weeks interval for four treatment sessions, and a follow-up visit after 2 weeks of the final treatment. VISIA data, acne lesion counts, complications and skin biopsies of twelve patients used for immunohistochemical staining for matrix metalloproteinase 2 (MMP-2) and vascular endothelial growth factor (VEGF) were recorded.

Results: For the VISIA data, porphyrins erythema and pores decreased following both treatments and spots decreased at IPL sides. PDL-treated sides showed better improvements at early stage and do better in erythema; IPL-treated sides performed better than PDL sides in pore minimizing and whitening. Numbers of total acne lesions decreased in both treatments, and PDL produced better in acne with nodules and cysts. For the MMP2, statistically difference was found in both sides versus baseline, but no statistically difference between IPL and PDL sides at 8 weeks. For the VEGF, there are statistically difference at PDL side compared to baseline and there are significant statistically difference between both sides at 8 weeks.

Conclusion: Both IPL and PDL treatments were effective and safe for acne vulgaris. PDL reduced faster in early stage and produced better in erythema and acne with nodules and cysts, IPL showed a better results in pore minimizing and whitening. Both IPL and PDL can decrease MMP2, and PDL do better in VEGF decreased.

