Efficacy of a novel intense pulsed light system for the treatment of port wine stains.

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Abstract

BACKGROUND AND OBJECTIVES: Port wine stains (PWS) are capillary malformations typically treated with lasers or with intense pulsed light (IPL). This paper summarizes our safety and efficacy findings for a new IPL designed to target the dermal vessels of PWS.

METHODS: The PWS received three to four treatments with a novel IPL containing a vascular-specific handpiece (LuxG, dual wavelength band of 500-670 nm and 870-1400 nm; Palomar Medical Technologies, Inc.). Clinical benefit was assessed qualitatively with a quartile-assessment scale and quantitatively with a skinphotometer.

RESULTS: Three months post-treatment, over 50% of PWS exhibited statistically significant improvements of 51-75% or higher. The pre-treatment PWS mean erythema value of 189.72 +/- 18.40 (95% Confidence Interval [CI]) was reduced to 147.22 +/- 16.15 post-treatment, thereby approaching the normal skin erythema value of 117.61 +/- 15.90. The mean percent reduction in vascularity at 3 months was statistically significant at -55.4 (p=0.0000003). Treatments were well-tolerated with minimal to no subject downtime and limited side effects of transient erythema (all subjects) or mild crusting and mild purpura (n=1).

CONCLUSION: These results demonstrate the efficacy and safety of this novel IPL in providing therapeutic benefit to patients suffering from PWS.

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