CLEARANCE OF PORT WINE STAINS FOLLOWING OPTIMIZED PULSED LIGHT TREATMENTS

Maurice Adatto, David Friedman Skinpulse Dermatology & Laser Center, Geneva, Switzerland; Friedman Skin & Laser Center Jerusalem, Israel

Background: Port wine stains (PWS) are capillary malformations that are often treated with lasers rather than intense pulsed-light (IPL) devices. Effectiveness of treatment with multiple passes was determined using an Optimized Pulsed Light (OPL) device, a new class of filtered arc-lamp or IPL.

Study: Twelve subjects with Fitzpatrick Skin Type I-III and PWS on the neck, face, trunk and extremities were enrolled. The OPL used (MaxGTM, Palomar Medical Technologies, Burlington, MA) contains a spectral range of 500–670 and 870–1200 nm. Multiple passes were performed at 5 and 10ms using a 10 15mmtip, and a range in fluence of 34 to 50 J/cm2. Subjects were followed at 48–96 hours, and one to two months for safety and efficacy evaluations. The Antera 3D system (Miravex, O'Reilly Institute, Ireland) was used for generation of high-resolution clinical images and for evaluations of hemoglobin clearance within the PWS. Presence and severity of side effects were recorded.

Results: Side effects were limited to slight purpura which resolved within 1 to 3 days. There was mild to moderate immediate edema. All subjects experienced improvements in PWS with average rates of 30 to 50% clearance observed following one treatment and 70% clearance following two treatments. For 20% of the subjects, clinical response to OPL treatment was so significant and rapid, additional planned treatments were cancelled. Study is ongoing; complete study results will be presented.

Conclusion: The higher peak power available at short pulse-widths with this OPL enabled effective clearance of PWS.