TREATMENT OF RESISTANT CERVICO-FACIAL PORT WINE STAINS USING PALOMAR PULSED LIGHT SYSTEM WITH DUAL-BAND LUXG HAND-PIECE

Jean Luc Levy,1 Maurice Adatto,2 and Frederic Pons3
1Centre Laser Dermatologiques, Marseille, France
2Skinpuls Laser, Genève, Suisse
3Biophydiern SA, Montpelier, France

Background and Objectives: Recent studies have shown that intense pulsed light can be useful in treating port wine stains that were resistant to previous pulsed dye laser therapy. The aim of this study was to conduct a prospective trial of treating resistant port wine stains with the pulsed light system equipped with the dual-band, optimized, vascular hand-piece.

Study Design/Materials and Methods: Twenty-one patients (15 females and 6 males) with cervico-facial port wine stains with Fitzpatrick skin Types I–IV underwent single treatment with LuxG hand-piece (500–670 & 870–1400 nm spectral range) band-piece (MediluxTM, Palomer Medical Technologies, Inc., Burlington, MA). The lesions were treated with multiple pulses. Follow-up after treatment was 3 months. Results were evaluated by blinded pre- and post-clinical photography and quantitatively by intensity vascular index of videomicroscopy Fotofinder (Teckescreen, Greizsuh, Germany).

Results: The mean percent clearance of vessel density was 64% (p < 0.0001). No adverse effects were observed. Greying purpuric was observed in some patients.

Conclusions: Multiple-pass Medilux LuxG treatment is a safe and effective technique for resistant port wine stains.

A NOVEL PULSE FORMAT FOR A 595 nm PULSED DYE LASER TO REDUCE PURPURA: CLINICAL RESULTS WITH FACIAL AND LEG TELANGIECTASIA- VIDEO OF TECHNIQUE

G. Munavalli, M.A. Weiss, K.L. Bensley, and R.A. Weiss

MD Laser, Skin & Vein Institute, Baltimore, MD

Background and Objective: Recently extended pulse durations of 6, 10, 20 msec and 40 msec have been developed to minimize the incidence of purpura with 595 nm pulsed dye lasers. To even further minimize the risk of purpura a novel SmartPULSE (Cynosure, Chelmsford, MA) was developed. This format consists of sub-pulses of 0.16 ms duration to equal a total duration of 10, 20 or 40 msec.

Study Design/Materials and Methods: A total of 40 patients were treated for facial telangiectasia with a pulse duration of 10 milliseconds, fluence of 8 J/cm² and spot size of 7 mm. This pulse format consists of six sub-pulses of 0.15 ms duration evenly spaced. The Zimmer air cooling system was utilized during the treatment for simultaneous skin cooling. A total of 10 patients were treated with a pulse duration of 20 milliseconds at 8 J/cm² with pulse stacking of up to 3.

Results: Patients experienced reduced pain with enhanced efficacy and reduced purpura. The incidence of purpura was only 3 in 40 patients. Efficacy was gauged on a quartile scale with 90% of patients experiencing greater than 75% improvement on the face and legs. Pain was rated as mild.

Conclusions: A novel pulsing format for PDL markedly reduces purpura while enhancing efficacy over previous pulsing formats which is shown in this video.