

Abstract from the 24th Annual Meeting of the American Society for Laser Medicine and Surgery (ASLMS) in Dallas, March 31 – April 4, 2004

PORT WINE STAINS: COMPARISON OF INTENSE PULSED LIGHT AND PULSED DYE LASER

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Background and Objectives: The pulsed dye laser (PDL) is known to be the gold standard for the treatment of port wine stains (PWS). In an open prospective study, the efficacy of the PDL was compared to an intense pulsed light (IPL) source.

Study Design / Materials and Methods: 67 PWS patients have been treated with both a PDL (PhotoGenica-V Star, Cynosure, USA; parameter: 595 nm, 7-10 mm, 0.5 ms, 4.6-7.8 J/cm²) and an IPL system (Ellipse Flex, vascular applicator, DDD, Denmark; parameter: 555-950 nm, 8 ms, 14-19 J/cm²). Each PWS was divided in pairs of equally red areas. The left-right trial was continued with repeated treatments in 6-8 weekly intervals until one side showed superior clearance. Differences in clearance were judged by blinded uninvolved examiners using before and after photographs.

Results: So far in 13 patients (8 females, 5 males, aged 2-58 years, average 22.6 years) with 19 different areas the trial was finished. All together 85% of the treated PWS responded with clearing. Better clearing by PDL was seen in 13%, whereas IPL was superior in 42%. No differences in clearing were recorded in 31%.

Conclusions: Pulsed dye lasers have been the treatment of choice for PWS. However clearance rates vary widely and are in many patients incomplete. These preliminary data suggest the IPL technology as a superior treatment option for PWS.