Abstract

BACKGROUND: So far, pulsed dye lasers have been regarded as the gold standard in the treatment of port-wine stains (PWS). Recently, intense pulsed light (IPL) has been reported to achieve more pronounced fading in some patients.

OBJECTIVES: To evaluate the efficacy and the side effects of IPL treatment of PWS in a direct comparison to the short-pulsed dye laser (SPDL) and the long-pulsed dye laser (LPDL).

METHODS: Test spots (n = 158) were applied with IPL (λ(em) = 555-950 nm, pulse duration: 8-14 milliseconds (single pulse), fluence: 11-17.3 J/cm(2)), the SPDL (λ(em) = 585 nm, pulse duration: 0.45 milliseconds, fluence: 6 J/cm(2)), and the LPDL (λ(em) = 585/590/595/600 nm, pulse duration: 1.5 milliseconds, fluence: 12/14/16/18 J/cm(2)) in a side-by-side modus in untreated (n = 11) and previously treated (n = 14) patients with PWS. Lesion clearance was evaluated by three blinded investigators based on follow-up photographs 6 weeks after treatment. Incidence of side effects was assessed.

RESULTS: In previously untreated PWS as well as in pretreated PWS, IPL treatments were rated significantly (P<0.05) better than treatments with the SPDL. In both groups, IPL and LPDL treatments did not differ significantly. Side effects were few in all settings.

CONCLUSIONS: In PWS resistant to dye laser therapy, IPL showed additional lesion clearance. The use of IPL increases the therapeutic possibilities in PWS.

© 2010 Wiley-Liss, Inc.

PMID: 20886506 [PubMed - indexed for MEDLINE]