Clinical analysis of port wine stains treated by intense pulsed light.

Li G¹, Lin T, Wu Q, Zhou Z, Gold MH.

Abstract

BACKGROUND: Port wine stains (PWS) are formed by dilation and malformation of dermal capillaries without endothelium proliferation. Despite the improvements in lasers and light therapy for PWS therapy in the past 10 years, the 'cure' rate is only about 10%. Intense pulsed light (IPL) is a non-coherent light based on the theory of selective photothermolysis.

OBJECTIVE: To evaluate the efficacy of a new IPL on PWS.

METHODS: Seventy-two patients with PWS treated with an IPL with synchronous cooling were retrospectively analyzed. According to AQ1: sentence re-punctuated in places. Please check through and confirm correct the Fitzpatrick skin type, color, location of the lesion, and treatment reaction, light filters of 560 nm 590 nm or 640 nm were used with a single pulse with a pulse width of 6-14 ms and a fluence of 16-29 J/cm²; a double pulse with a pulse width of 3.5-4.0 ms, a pulse delay of 20-30 ms, and a fluence of 17-23 J/cm²; or a triple pulse with a pulse width of 3.0-4.0 ms, a pulse delay of 20-40 ms, and a fluence of 18-22 J/cm². The adverse effects and the relationships among the lesion type, treatments, ages and location were analyzed.

RESULTS: Most of the PWS lesions faded significantly and the response rate in this series was 76.4%. Patients resistant to other forms of therapy also showed good clinical results. Adult lesions were easier to remove than those in younger individuals. Further improvement did not occur after three treatments. We failed to find any relationship between efficacy and location of the PWS.

CONCLUSION: The IPL treatment modality is safe and efficient for the treatment of PWS and for those which may be resistant to other therapies. The IPL is an alternative method for most PWS lesions.

PMID: 20085450 [PubMed - indexed for MEDLINE]