

LASERS

TREATMENT OF PORT WINE STAINS WITH 595-NM PULSED DYE LASER IN 27 PEDIATRIC PATIENTS: A PROSPECTIVE STUDY IN THE IRANIAN POPULATION

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Introduction: Port wine stain (PWS) is a congenital vascular malformation with no optimal treatment. Few studies have shown good efficacy and safety profile of 595-nm pulsed dye laser (PDL).

Objective: we have conducted a prospective cross-sectional study to assess the clinical outcomes and safety profile of pediatrics PWS treated with 595-nm PDL.

Materials and methods: This was a prospective study conducted in the Razi hospital, Tehran University of Medical Sciences during Jun 2016 to March 2018 to evaluate the efficacy of PDL on pediatric facial PWS. Patients were treated every 4-6 weeks for 4-10 sessions and a photography was captured before and two months after the last session in order to evaluate the treatment efficacy.

Results: Twenty seven patients consist of 10 males and 17 females with the mean age was 5.7 ± 2.8 (range 1-13) years old were included. They have been followed for the mean 6.2 (range 4-10) sessions, which resulted in 70.74 ± 18.5 percentage of improvement three months after the final session. Fourteen (51.8%) of patients achieved a higher than 75% of improvement; nine (33.3%) patients experienced 50%-75% improvement, four (14.8%) patients experienced a less than 50% improvement. V1 involvement and a marked improvement of PWS within the first five sessions seem to be related to predicting a favorable response to 595-nm PDL therapy. Regarding the age, sex, Fitzpatrick skin type, color and size of the PWS, no significant association with therapeutic response was detected. In the view of adverse effects, blister and crust, atrophic macules, and hyperpigmentation were noted in six (22.2%), one (3.7%), and one (3.7%), respectively.

Conclusion: 595-nm pulsed dye laser (PDL) looks an effective and relatively safe therapeutic approach, but not perfect for the treatment of Iranian pediatric PWS patients



with Fitzpatrick skin types III and IV.

