

Treatment response of port-wine stain to 585-nm pulsed dye laser: a 5-year retrospective review

ABSTRACT

Background: The treatment of port-wine stains (PWS) with the pulsed dye laser (PDL) is well established in patients with lighter skin phototypes with few complications. Evidence is emerging that PDL also produces favourable outcome in patients with darker skin types. This review aimed to evaluate the efficacy of flashlamp-pumped PDL for PWS in our centre and to assess the complications of treatment. **Patients and Methods:** A retrospective review of 36 patients with PWS treated with PDL (585-nm, 450 microseconds pulse width, Candela Sptl-1b) at the Department of Dermatology, Hospital Kuala Lumpur over a five-year period from 2003 to 2007 was undertaken. All patients (28 females, 8 males; 25 Chinese, 10 Malays and 1 Indian) were of Fitzpatrick skin types IV (30/36) and V (6/36) with ages ranged from 1 to 59 years (mean 18.9 years). The site of lesion was mainly facial (34/36) with colour varying from red (24/36) to pink (4/36), dark purple (1/36) and mixed (7/36). Response was graded as 0-25% = nil to minimal lightening; 26-50% = moderate lightening; 51-75% = marked lightening; 76-100% = excellent based on the last treatment visit. **Results:** The number of sessions ranged from 2 to 16 over 4 to 52 months (mean 5.9 months). The average treatment interval was 4.6 months (range, 1 to 13 months). In a total of 213 sessions, minimal lightening was observed in 19(53%) patients after a mean of 4.2 sessions, moderate lightening in 8(22%) patients after a mean of 8.1 sessions, marked lightening in 3(8%) patients after a mean of 6 sessions and excellent in 6(17%) patients after a mean of 6.8 sessions. No patient showed complete clearance. 1 patient developed both textural change and scarring. **Conclusion:** The flashlamp-pumped PDL is a useful and safe treatment modality for PWS in Asian patients of darker skin phototypes.

Keyword: Port-wine; 585 nm pulsed dye laser