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S-D-5

An In Vivo Trial Comparing the Use of Different Types of 532 nm Neodymium: Yttrium-Aluminum-Garnet (Nd-YAG) Lasers in the Treatment of Facial Lentigines in Oriental Patients

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Background and Objective: Versapulse is a system that consists of four laser modalities and was developed with the aim of increasing cost effectiveness. However, as these lasers share a common power supply, for the Q-switched Nd-YAG 532 nm (QS Nd-YAG 532) laser a large spot diameter is necessary to lower the fluence to a suitable level. This can increase the risk of hyperpigmentation when used for the treatment of lentigines in dark-skinned patients. The aim of our study is to assess the clinical efficacy and the complication rate of Versapulse QS Nd-YAG 532nm; Versapulse long pulse Nd-YAG 532 nm (without the chill tip); and a conventional QS Nd-YAG 532 nm laser in the treatment of lentigines in Chinese patients.

Methods: Thirty-four Chinese with lentigines were randomized to receive laser surgery, with one side of the face treated by one laser and the other side treated by a different system. Patients were monitored for 6 weeks to assess the degree of clearing, hyperpigmentation, hypopigmentation and erythema. Assessments involved patients interviewed using a visual analog questionnaire and two blinded observers who evaluated the pre and post-treatment clinical photographs.

Result: The Versapulse QS Nd-YAG 532 laser was associated with a statistically higher risk of complications. The Versapulse long pulse Nd-YAG 532 laser was compatible with the conventional QS Nd-YAG 532 laser in terms of clinical efficacy and complication rates.

Conclusion: The Versapulse long pulse 532 nm laser is more effective and should be used instead of the Versapulse QS 532 for the treatment of lentigines in dark-skinned patients.

S-D-6

The Use of Q-Switched Alexandrite (QS Alex) Laser in the Treatment of Acquired Bilateral Nevus of Ota-Like Macules (ABNOM)

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Background: Acquired bilateral nevus of Ota-like macules (ABNOM) or Hori's macules is a common Asian's condition characterized by bluish hyperpigmentation in bilateral malar regions. Unlike nevus of Ota, ABNOM is an acquired condition that often develops after twenty years of age, involved both sides of the face and mucosal involvement is not seen. Recently, QS Nd-YAG 1064 laser has been reported to be effective in the clearing of this condition. The role of QS Alex laser has not been looked into.

Purpose: To retrospectively assess the efficacy and complication of QS Alex laser in the treatment of ABNOM

Methods: 32 female Chinese patients with ABNOM (age range 28-66) were involved in the study. All underwent QS Alex laser treatment (755nm, spot size 3mm, 8J/cm²). Topical hydroquinone and tretinoin cream is given to those with hyperpigmentation post laser surgery. Clinical photographs were taken before and after laser surgery and assessed by two independent observers. The degree of clearing was scored and complications including hypopigmentation, hyperpigmentation, scarring and erythema were assessed.

Result: The mean number of treatment session was 7(range 2 to 11) and the mean treatment interval was 33 days. Both observers identified over 80% of the patients as having more than 50% degree of clearing and complete clearance was seen in more than 28% of the patients. Although most patients have post-laser hyperpigmentation and were on depigmentary regimen, hyperpigmentation was seen only in 12.5% of the patients during photographic evaluation. Hypopigmentation was seen in 50% of patients and erythema in 41%.

Conclusion: QS Alex appears to be effective in the treatment of ABNOM. Pigmentary changes were frequently seen post-operatively. Further study is necessary to compare the effectiveness of QS laser used together with topical depigmentary cream to that of topical depigmentary cream on its own.