

Treatment of Various Post-Inflammatory Hyperpigmentation with Low Fluence Q-Switched Nd:YAG Laser: In Asian Patients

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Introduction

Post inflammatory hyperpigmentation (PIH) due to various skin conditions commonly occurs in Fitzpatrick skin types IV to VI and can have a considerable impact on quality of life. The sequelae in terms of pigmentation are often the main reason for consulting a dermatologist.

PIH after Various Procedure

Post inflammatory hyperpigmentation (PIH) developing after cosmetic procedures, such as chemical peeling and laser therapies, are always a concern, especially in Asians. Some cases of PIH tend to be spontaneously regressed; however, certain forms of PIH need to be treated with several therapeutic attempts, including bleaching creams, several kinds of Q-switched lasers, and erbium-doped fractional photothermolysis system, with various treatment outcomes. A 1064 nm Q-switched Nd:YAG laser with low-fluence therapy is easily applicable, and the therapeutic trial in our case was revealed to have minimal downtime without post-therapy bleeding or crust formation; the post-therapy erythema spontaneously resolved within a few hours. The 1064 nm Q-switched Nd:YAG laser with low-fluence treatment should be considered in the treatment of PIH caused by procedures like laser surgery and chemical peeling in Asian patients.

PIH after Keratosis Pilaris and Atopic Dermatitis

Treatment in most cases of keratosis pilaris requires simple reassurance and general skin care recommendations. Many Asian patients find lesions cosmetically unappealing due to pigmented keratosis pilaris. In the treatment of keratosis pilaris, the use of QSNY laser can be helpful for achieve better cosmetic appearance because it could improve pigmentation.

A novel combined photoacoustic/photothermal QSNY laser can be used for keratosis pilaris with brown pigmentation.

We used a high pulse rate (10 Hz) QSNY laser for the treatment of pigmentation accompanied with keratosis pilaris. Patients underwent five-weekly treatments using a QSNY at 1064 nm, which is thought to produce both a photothermal and a photoacoustic effect in tissue (RevLite, HOYA ConBio, Freemont, CA, USA). No anesthesia was necessary prior to treatment.

PIH after Acne Vulgaris

Post inflammatory hyperpigmentation (PIH) due to facial acne commonly occurs in Fitzpatrick skin types IV to VI and can have a considerable impact on quality of life [1-3].

1064 nm QSNY laser treatment was found to be very effective at treating PIH and also have additional effects on comedonal extraction, topical benzoyl peroxide and intralesional injection for concomitant acne lesions in Asian patients. In addition, this method is effective in producing an additive effect, resulting in a more refreshed appearance, even skin tone, smoother texture, tightening and decreased pore size.

References

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