

How safe the lasers are on Asian skin: A randomized controlled study on 60 Melasma patients



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Abstract

Background: Treating melasma is a challenge due to suboptimal efficacy and recurrence encountered with most modalities. There is inadequate literature regarding the use of lasers for melasma in Indian skin. We compared three modalities SSR (Super Skin Rejuvenation 540 nm), PQSNDY (pixel Q-switched Nd: YAG 1064 nm), and ablative pixel-Er: YAG (2940 nm) laser in melasma, amongst Indian patients. Sixty patients of recalcitrant melasma were enrolled and randomized into three groups with 20 patients each. These were treated with SSR, low fluence PQSNDY, and pixel-Er: YAG, respectively, for five sessions at 3-week intervals. Results were evaluated using modified melasma area severity index (mMASI) by blinded comparison of digital photographs at baseline, each visit and 6 months (i.e. 2 months after the last session). All groups showed a highly significant reduction in the mMASI score ($p < .001$). Pixel-Er: YAG maximally reduced mMASI and homogeneity ($p < .001$), while the other groups showed a more uniform fading. Epidermal melasma had best results with SSR and PQSNDY ($p < .001$), while recalcitrant cases of dermal and mixed melasma with pixel-Er: YAG laser ($p < .001$). There was no persistent or rebound pigmentation observed. All three modalities are effective and safe for melasma in Indian patients. Fractional technology, low fluences, adequate recovery time between sessions and a sound maintenance plan ensure efficacy and safety.

Biography

Chief Dermato-laser & Hair Transplant Surgeon In Aura Skin Institute, Chandigarh, India. Program Director For IADVL Fellowship in 'Lasers & Aesthetic Dermatology'. Recipient of Young Dermatologist Forum Award, 2008 for work on Cutaneous Vasculitis in Dermacon2008. Reviewer for prestigious journals like IJDVL, Stem cell investigation journal, JCAS, JCD, JCMS and IDOJ. Filed a Patent protocol on non-surgical facelift. Innovated LA-PEEST, a novel fast acting Vitiligo surgery. Proposed a Global drooping and wrinkle classification for aging face. Invited faculty in 'International Conference on Regenerative Surgery, Rome, 2017 and also for WCOCD, Croatia, 2018 to present innovative research work on FUE & PRP Therapy.

Publications

Suruchi Garg, Kanya Rani Vashisht, Shyam Makadia, Journal of Cosmetic and Laser Therapy 21(3):1-11

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