



LASERS

THE USE OF PICOSECOND LASER FOR THE TREATMENT OF A VARIETY OF DERMATOLOGICAL CONDITIONS - A RETROSPECTIVE PHOTOGRAPHIC REVIEW

Ofir Artzi⁽¹⁾ - Amir Koren⁽²⁾

Tel Aviv Medical Center, Dermatology, Tel Aviv, Israel⁽¹⁾ - Tel Aviv Medical Center, Dermatology, Tel Aviv, Israel⁽²⁾

BACKGROUND: Picosecond laser technology has been in clinical use for the treatment of tattoos and a variety of dermatological disorders, mainly pigmentary, since 2012.

OBJECTIVES: To evaluate the safety profile and efficacy of the dual zoom and fractional 532nm and 1064nm Nd:YAG picosecond laser in the treatment of different dermatological conditions.

STUDY DESIGN/MATERIALS AND METHODS: This is a chart evaluation of five hundred and seventeen four dual Nd:YAG picosecond laser treatments performed in a single laser specialty center from 2014 -2017 on 202 subjects with Fitzpatrick skin types II-VI. Two blinded physicians compared the baseline findings with those at 3-12 months after the final treatment using a five-point grading scale to score outcome: Poor, 0-24%; Fair, 25-49%; Good, 50-74%; Excellent, 75-94%; and Complete improvement 95-100%. Subject assessment of efficacy, satisfaction, and adverse events was performed using a questionnaire survey.

RESULTS: Solar lentigines was the most commonly treated indication, followed by melasma, hyperpigmented scars, café-au-lait macules and verrucous epidermal nevus. Other indications included periorbital darkening, post-inflammatory hyperpigmentation, congenital nevus, nevus of Ota, Becker's nevus, nevus spilus, tattoos, skin rejuvenation, periorbital wrinkling and acne scars. Different indications resulted in different levels of improvement ranging from poor-to-fair (acne scars, skin rejuvenation) to excellent-to-complete (Solar lentigines, tattoos, nevus of Ota, café-au-lait macules and verrucous epidermal nevus). Most of the patients required an average of 3.4 sessions until maximal improvement (range 1-8). All side effects were temporary and resolved within one month, and there were no long-term complications.

CONCLUSION: The picosecond Nd:YAG laser appears to be a safe and effective modality for numerous indications other than tattoo removal.

