

KOREADERMA 2023 Abstract Submission

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Title of abstract (25 words maximum):Current View on Fractional Picosecond Laser for The Treatment of Atrophic Acne Scar : A Systematic Review

Authors (Please include full contact details for corresponding authors and relevant affiliations for all including conflicts of interest, underline the presenter of authors and refer to the below.):

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Main body (250 words maximum):

Background: Picosecond laser is known for its use in pigmentation disorder. Recent studies emphasize its usage in atrophic acne scars due to its efficacy and minimal side effects compared to ablative laser, the gold standard for atrophic scars.

Objective: To analyze the efficacy of Picosecond laser for Atrophic Acne Scars in the last six years (from 2017 to 2023).

Methods: A Systematic review conducted based on PRISMA guidelines. We searched EBSCO, Embase, Pubmed, and Scopus. Studies included are randomized controlled. Protocols, guidelines, and reviews are excluded.

Results: From 377 studies, 9 (n=213) met the inclusion criteria, including 9 split-face studies (n=171). Seven studies used 1064/532 Nd-Yag, while 2 studies used 755 nm Alexandrite Picosecond Laser supplemented with diffractive lenses. Data were obtained from standardized photographs taken on the baseline and after the completion protocols. This study found that picosecond lasers on various spot sizes, fluence, frequency, and pulse duration significantly reduced the échelle d'évaluation clinique des cicatrices d'acné (ECCA) and Global Acne Grading System (GAGS) scoring and improved the Investigator's Global Assessment of Acne (IGA) on Atrophic Acne Scars patients. Subjective data taken from patient self-assessment questionnaires yield a high overall patient satisfaction rate. Picosecond lasers have several mild side effects, including transient erythema, swelling, purpura, and petechiae, subsequently resolved in days. No PIH or hypopigmentation was reported. Comparison between Picosecond Laser and Erbium-Yag laser efficacy is still inconclusive.

Conclusion: Picosecond laser showed good efficacy with minimum side effects as a treatment for atrophic acne scars di various skin-type.

Keywords: Efficacy, Picosecond Laser, Atrophic Acne Scars