



LASERS

## EFFICACY AND SAFETY OF 2790 NM ERBIUM:YSGG ABLATIVE FRACTIONAL LASER ON FACIAL ATROPHIC ACNE SCARS AMONG FILIPINO ADULT PATIENTS WITH FITZPATRICK SKIN PHOTOTYPE III-IV: A QUASI-EXPERIMENTAL STUDY

*J Go<sup>(1)</sup> - Mf Abad-casintahan<sup>(1)</sup>*

*Jose R. Reyes Memorial Medical Center, Dermatology, Manila, Philippines<sup>(1)</sup>*

**Introduction:** Patients frequently seek treatment for the improvement of their acne scars given the physical disfigurement associated with it, along with the potentially profound psychological burden. There are numerous treatment options for acne scars however given the many options, a recent Cochrane review concluded that there is no first line therapy for this disabling condition. The Er:YSGG is a novel laser crystal emitting energy at a wavelength of 2,790 nm which creates a balance between water vaporization, tissue destruction and healing not achievable by other laser crystals. This unique balance provides optimum collagen remodeling and a layer of 'natural biologic dressing' which aids in acne scar remodeling.

**Objective:** To assess the efficacy and safety of 2790 nm Erbium:YSGG fractional ablative laser treatment on facial atrophic acne scars among Filipino patients with Fitzpatrick skin type III-IV.

**Materials and Methods:** 10 participants with facial atrophic acne scars, male or female, aged 18 years-old and above, with Fitzpatrick Skin type III-IV were included in this open-label, prospective, uncontrolled, quasi-experimental (before and after) study. Three laser sessions at one month interval was performed. Clinical photographs and investigator assessment were taken at baseline and a month after the last session. Primary outcome measures were the Goodman and Baron qualitative and quantitative global acne scarring grading system. Secondary outcome measure were the adverse events, and patient satisfaction grade.

**Results:** There was statistically significant decrease in the qualitative and quantitative Goodman and Barron acne severity score system from baseline and 1 month after the third session. All subjects experienced mild erythema and swelling post-laser treatment. Majority of the participants were very satisfied with 50-74% improvement in acne scarring.





Conclusions: Results show that the fractional 2,790-nm YSGG laser is clinically effective and safe when used to treat atrophic acne scars among Filipino with Fitzpatrick skin phototype III-IV.

