



LASERS

## EVALUATION OF THE 1550 NM ERBIUM: GLASS FRACTIONAL LASER IN THE TREATMENT OF INFLAMMATORY FACIAL ACNE.

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**Background:** Acne is a common skin disease that affects one's appearance especially on the face. It can also result in depression and anxiety. 1550 nm fractional laser has few side effects in the clinical application of skin diseases. We try to use the non-ablative laser to treat inflammatory facial acne in this study.

**Objective:** To evaluate the effect of the 1550 nm erbium: glass fractional laser in the treatment of moderate to severe inflammatory acne on the face.

**Materials and Methods:** Sixteen patients with moderate to severe acne were treated with the 1550 nm erbium: glass fractional laser at 169 spots/cm<sup>2</sup> and 10 mJ/cm<sup>2</sup> for 4 times at 2-week intervals. Active lesions were treated before the entire face each time. 8 patients continued in a double-arm study to determine whether an additional treatment at 6 months would prolong the lesion-free period. Final evaluation was at 9 months.

**Results:** Thirteen patients completed the study. At 6-month follow-up, patients rated improvement as 68.12%, and the mean investigator improvement assessment was 81.36%. No patients required anesthesia, and no side effects were observed. A single retreatment session after the treatment course held patients improvement assessment as 80.65% and investigator improvement assessment as 84.37% at 3-month follow-up, whereas patients without retreatment had 68.04% and 75.31% improvement. The effect of former group was significantly superior to the latter ( $P < 0.05$ ).

**Conclusions:** Treatment of inflammatory facial acne with the 1550 nm erbium: glass fractional laser is effective and relatively painless without side effect. Additional treatment sessions may prolong the lesion-free period.

