

# Clinical Experiences in Asian Skin with the New Ablative Fractional Er:YAG Laser Technology

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## SUMMARY

Fractional ablative skin resurfacing is one of the most popular technologies on the aesthetic market today. Instead of full-skin-surface resurfacing, utilization of this technology generates only narrow-diameter ablated channels in the skin over a fraction of the entire treatment area. This treatment modality initiates the body's wound healing response which stimulates fibroblasts to produce new collagen and elastin, while the surrounding, unaffected and intact tissue promotes rapid healing [1].

Ideal clinical results require an optimal balance of deep ablation and thermal coagulation. Moderate coagulation is needed to minimize bleeding during procedures, yet at the same time excessive thermal coagulation will increase healing times and risk related complications [3]. In order to maximize results and keep downtime to a minimum, the ideal laser system for skin resurfacing and rejuvenation treatments should thus offer adjustable ratios of ablation with controlled thermal coagulation.

Recently, a new Er:YAG laser system (XS Dynamic, Fotona, Slovenia) utilizing a fractional scanner was introduced to the market. The purpose of this paper is to present our two years of experiences using this device for skin rejuvenation in Asian skin patients.

In the past two years we treated 258 patients for facial skin rejuvenation (SR) and 42 patients for acne scars using a fractional Er:YAG laser. The therapy consists of two sessions using the F-Runner fractional scanner with the following settings: for SR: coverage of 2-5%, energy 6 mJ with Turbo 4 and MSP pulse duration; for acne scars the settings were: 5-10% of coverage, 14 mJ, Turbo 6, MSP – LP.

The efficacy of the therapy was assessed by the physician and patients in terms of skin condition improvement on a four-grade scale: poor (0-25%), fair (25-50%), good (50-75%) and excellent (75-100%).

Most of the patients and the physician evaluated the results as good (for SR 50.6% and 51.9%, and for Acne scars 66.9% and 59.5%), follow by fair (for SR 39.7% and 38.9%, and for Acne scars 28.5% and 30.9%).

The side effects were mild and transient. All patients had erythema and edema for several days (less than a week) most of them mild had crusting for about 5 days and just one had PIH which resolved in 14 days.

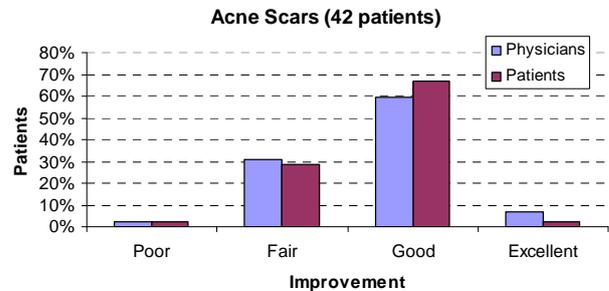


Fig. 1: Results of fractional Er:YAG treatment of acne scars

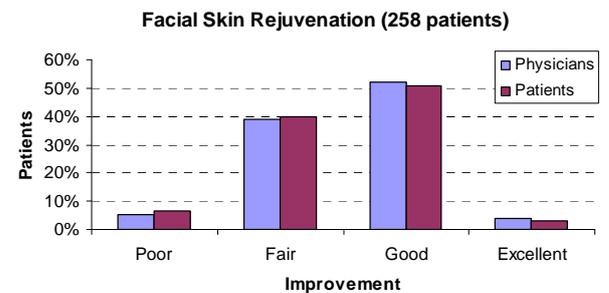


Fig. 2: Results of fractional skin rejuvenation

Fractional ablative Er:YAG treatment represents an efficacious and safe alternative treatment of several dermatologic conditions, offering short down time and being practically free of the adverse effects of classic ablative laser devices, even for darker skin patients.

## REFERENCES

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