

## Fractional Er:YAG Laser Treatment of Primary Axillary Hyperhidrosis

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### SUMMARY

#### Objective

To evaluate efficacy of a new fractional laser technique to permanently improve axillary hyperhidrosis.

**Introduction:** Primary hyperhidrosis is a disease of perspiration in excess of the physiologic sweat amount necessary to maintain thermal homeostasis, characterized by excessive bilateral symmetric sweating of the axillae, palms, soles, face, scalp and groin region. It causes significant impairment in quality of life. Despite the high incidence in the population suffering from axillary hyperhidrosis, there are relatively few effective non-surgical treatment options.

**Materials and Methods:** Thirty two female adults with primary axillary hyperhidrosis and an HDSS score of 3 or 4 were enrolled. All subjects had two Er:YAG fractional laser sessions, with 2 weeks in between, to treat both axillae fully. Efficacy was assessed using the Hyperhidrosis Disease Severity Scale (HDSS) and gravimetric weight of sweat. All treated patients were followed for 12 months after all procedure sessions were complete.

**Results:** At the 30 days follow-up visit, 81.25% of patients reported being very satisfied, but at the 6-month follow-up visit, 84.3% of patients. At the 12-months visit 81.25% of patients had an HDSS score of 1 or 2, and at least 46% sweat reduction from baseline to 78% after 12 months, confirmed by the gravimetric weight of sweat. With all treated patients there were up to 3 days of transient swelling, discomfort, a slight prickling or stinging sensation and numbness and erythema up to 7 days in the treated sites. There were neither reports of altered sensitization in the skin of the arm nor hair loss.

**Conclusion:** A new, lasting, safe and reproducible, fractional Er:YAG laser treatment has now been developed to reduce the number of axillary sweat glands and the total amount of sweating. Patient satisfaction with the procedure is high, and adverse events are transient and well tolerated.

## Treatment of Dilated Pores with Erbium:YAG Laser

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### SUMMARY

Dilated (enlarged) skin pores refer to conditions that present with visible topographic changes of skin surfaces. Although not a medical concern, enlarged pores are a cosmetic concern for a large number of individuals, especially women. Possible causative influences of enlarged facial pores include many exogenous and endogenous factors such as sex, genetic predisposition, aging, chronic ultraviolet light exposure, comedogenic xenobiotics, acne, and seborrhea.

Therapies to attenuate facial pores include medical and procedural treatments. Variable square pulse (VSP) erbium:yttrium-aluminum-garnet (Er:YAG) laser resurfacing has proven effective in wrinkles and atrophic scars. A recent study using VSP Er:YAG laser for the treatment of dilated pores will be presented. A proposed mechanism of Er:YAG laser for this condition will be discussed.

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