



Non-ablative Er:YAG Laser Treatment of Female Pattern Hair Loss

Barry Dekeyser, MD

Introduction:

Female Pattern Hair Loss (FPHL) is the most common hair-loss disorder in women. Initial symptoms may lead to more progressive hair loss. In many women, hair loss can lead to psychological stress, depression and career-related problems. FPHL can be treated with topical Minoxidil, which is FDA approved. Oral androgen receptor blockers and 5 alpha reductase inhibitors are used *off-label*. Platelet-rich plasma (PRP) therapy is an efficient option for hair loss in both men and women. Needle phobia, incompatibility with current medication and procedural discomfort are relative contraindications.

A 72-year-old female patient with confirmed FPHL since 2007 was seen in our clinic. Minoxidil and cyproterone acetate were unable to stabilize the hair loss and thinning. Before the laser treatment the patient's hair loss was assessed as grade 2 by Ludwig classification. Trichoscopy confirmed miniaturization of hair shafts and vellus hairs. Finasteride or spironolactone were not withheld. Er:YAG-laser was proposed as an alternative compatible with the patient's demands.

Laser	Fotona SP Dynamis
Wavelength	2940 nm
Handpiece	R11
Fluence	2 J/cm ²
Mode	SMOOTH
Frequency	1.6 Hz
Passes	6 passes (back and forth)
Spot size	7 mm
Sessions	6 sessions at 2-week intervals



Dr. Barry J.B. Dekeyser graduated from the Catholic University Leuven, Belgium as a Medical Doctor (MD) in 1997. He is a Board Certified specialist in Anesthesia and Resuscitation Medicine. He received his special professional title in Emergency Medicine in 2008.

He is the leading physician at Haar en Huidkliniek, a private practice specialized in regenerative medicine, hair loss, laser-assisted biological stimulation of hair and skin and cellular therapy.

CLINICAL CASE:

The patient was subjected to six treatments with Er:YAG laser at 2-week intervals. No laser-related side effects or pain developed during or after the treatment. A follow-up visit took place eight months after the first treatment. Hair loss stopped and the patient experienced increased density. A patient-subjective hair growth assessment scale revealed a 26-50% improvement. A 7-point evaluation scale was comparable with a moderate increase. Trichoscopic measurements showed an increased total hair count in both the frontal and crown areas, an increased number of terminal hairs and a decrease of vellus-like hairs. The main hair density returned to normal.



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