

Combination of Plasma Rich Platelet (PRP) with HAIRestart Er:YAG laser for the treatment of Alopecia Areata

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Introduction:

This case involves a young teenage patient with a history of being diagnosed with alopecia areata 4 years ago. He had been treated with at least 4 sessions of intralesional steroids, Minoxidil, topical tacrolimus and multivitamin supplements. His treatments, which had concluded a year earlier, had stopped the hair loss but no improvement had been observed in hair growth. The patient agreed to start a 3 session protocol, combining Er:YAG laser and plasma rich platelet (PRP) treatment.

Laser	Fotona Er:YAG Laser	
	Step 1	Step 2
Pulse type	SMOOTH Mode	SP - Turbo 3
Fluence	7.5 J/cm ²	30 J/cm ²
Frequency	3.3 Hz	1.4 Hz
Handpiece	PS03	PS03
Spot size	5 mm	3 mm
Passes	4	6-10
Overlapping	No	No
Cooling	No	No
Tx Interval	3 sessions, 1 per month + 6 sessions, 1 every 3 months	



After graduating with a Doctorate in medicine and surgery, Dr. Roberto Valdivia Sing obtained his Advanced Master Training in aesthetic and anti-aging medicine from John F. Kennedy University in Buenos Aires, Argentina and the Pinto Institute Europe based in Belgium. He is currently a board member of the Costa Rican association of longevity and aesthetic medicine. His private practice is based in Escazú, Costa Rica. He is passionate and committed to laser research and innovation.

CLINICAL CASE:

The treatment was divided into two steps. The first one focused on providing thermal stimulation by applying a SMOOTH Mode Erbium train of pulses. To perform this, straight rows are cleared of hair by using manual separation (see picture below). The treatment area was limited to the affected hair loss area with the addition of 1 cm of peripheral coverage.

A total of 4 passes were performed (one back and forth pass on a row is considered one pass).

The second step used the same hair separation technique. SP Turbo3 ablative mode was used in order to produce small epidermal perforations to facilitate PRP penetration. Small 3 mm fractional spots were selected in order to avoid damaging healthy hair by focusing the beam on the center of the row of split hairs. Rows are treated in a single pass of only one direction (no back and forth) and cover the same scalp area described in the first step. This process is painless.

5cc of PRP was applied by simply rubbing it thoroughly in a circular motion over the pre-drilled area. Post-treatment, the patient can resume normal hair washing after 48 hours.

The patient was evaluated three months after completing the 3 monthly sessions. Favorable thin hair growth (some of them white) was observed, so it was decided to extend the treatment by scheduling sessions every three months with continuous evaluation. A total of 6 additional sessions were performed (totaling 9 including the initial 3), producing very satisfactory results.



After first 3 sessions







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