



## Non-Ablative Er:YAG Laser Monotherapy for Alopecia Areata using X-Restart Handpiece

Kingsley Mariadasan, MD

### Introduction:

Alopecia areata (AA) is a non-scarring hair loss disorder driven by the immune system, and it tends to affect children more frequently than adults. Presently, there is no definitive cure or a consistently reliable treatment for AA, and it is typically managed using topical and intra-lesional corticosteroids. Various laser and light therapies have been experimented with for addressing AA, with some promising results, including the non-ablative Er:YAG laser. This approach provides an additional option to support individuals dealing with the emotional and psychological challenges brought about by the condition.

Laser	Fotona SP Dynamis
Wavelength	2940 nm
Handpiece	X Restart
Fluence	3.5 – 4.25 J/cm <sup>2</sup>
Mode	SMOOTH
Frequency	1.6 Hz
Stacks	1 – 2
Spot size	1.8 mm x 16
Sessions	12 sessions in 2 – 3 week intervals



*Dr. Kingsley Mariadasan obtained his medical degree at the University of Tromsø, Norway, in 1988. He is a specialist in General Medicine as well as aesthetic medicine and laser medicine. He is also an Associate Professor at the Faculty of Medicine at the University of Oslo, Norway, and is in charge of the Strømmen Laser Clinic, which was established in 2009. Dr. Kingsley has been engaged in laser treatment since 1998, and has cutting-edge expertise in medical laser procedures.*

## CLINICAL CASE:

A 13-year-old patient presented with severe AA, with a history of the condition for a couple of years. Laser monotherapy was employed in October 2022. The patient received 12 sessions of laser treatment with 2940 nm non-ablative Er:YAG laser (SP Dynamis, Fotona, Slovenia) in SMOOTH mode with the X-Restart handpiece. Stamping mode was used to move the X-Restart handpiece in the direction of the lines marked on top of the handpiece. At each stamping site, one or two SMOOTH pulses were delivered (1-2 stacks). Several passes were performed to achieve treatment of the whole scalp, with 3000-3500 J of cumulative energy delivered. Laser sessions were administered with 2-3 week intervals using fixed parameters (see Table 1).

The patient demonstrated complete hair regrowth after laser monotherapy. Given the nature of AA, spontaneous remission cannot be excluded.



Published by the Laser and Health Academy. All rights reserved. © 2021

Disclaimer: The intent of this Laser and Health Academy publication is to facilitate an exchange of information on the views, research results, and clinical experiences within the medical laser community. The contents of this publication are the sole responsibility of the authors and may not in any circumstances be regarded as official product information by the medical equipment manufacturers. When in doubt please check with the manufacturers whether a specific product or application has been approved or cleared to be marketed and sold in your country.

