



Laser Treatment for Granulomatous Rosacea with Nd:YAG (1064 nm) Laser

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Introduction:

This case presents a 55-year-old woman with a 15-year history of granulomatous rosacea on the face, confirmed by skin biopsy. The patient had received multiple oral and topical treatments, such as metronidazole, azelaic acid, and in the last year 4 cycles of 2 months of doxycycline, with improvements only sustainable for short periods of time. At the time of the treatment, the patient was not using any oral medication and was only using topical treatments with azelaic acid.

Laser	SP Dynamis - Nd:YAG (1064 nm)		
	Step 1 (Only use after the 3rd session)	Step 2	Step 3
Pulse duration	Nd:YAG VERSA 5 ms	Nd:YAG VERSA 25 ms	Nd:YAG FRAC3 0.6 ms
Pulse mode	Basic	Basic	Basic
Fluence	190 J/cm ²	45-55 J/cm ²	10 J/cm ²
Frequency	1 Hz	1,8 Hz	3 Hz
Handpiece	R33-T	R33-T	R33-T
Spot size	2 mm	4 mm	4 mm
Passes	1	3-4	8-10
Cooling	Yes		
Tx interval	5 sessions every 2 weeks		



Drs. Julio and Sebastian Velez are Colombian dermatologists who graduated from Universidad del Bosque and University Foundation for Health Sciences, respectively. They are committed to research and education, performing as adjunct professors at the Del Rosario University and the Universitaria Sanitas Foundation.

They currently work with the SP Dynamis Pro and StarWalker Q-Switched system in their private practice, Medical Art. They also provide pro bono services at the University Hospital Federico Lleras Acosta Dermatological Center.

CLINICAL CASE:

No skin preparation was required. The procedure was performed under topical anesthesia (lidocaine 20% + prilocaine 10% + tetracaine 5%), which was applied to the face 30 minutes before. The treatment consisted of 3 steps.

The first step uses 3 to 4 passes directly over the inflammatory lesions with long (25 ms) VERSA Nd:YAG pulses in order to decrease the local inflammation. The applied fluence depends on the patient's phototype - 55 J/cm² for phototypes II & III, 50 J/cm² for phototype IV, and 45 J/cm² for phototype V. Laser emission is made with no overlapping.

The second step uses short (0.6 ms) FRAC3 Nd:YAG pulses to achieve a reduction in the production of cytokines and control general inflammation. Between 8 to 10 passes are homogeneously applied on the full face, with either a horizontal, vertical or crisscross non-stacking application with no overlapping.

After the third session, a new step should be performed prior to the two mentioned before. This step consists of using 1 pass over the origin of every small vessel (observed under 2x magnification and polarized light) in order to eliminate them with long (5 ms) VERSA Nd:YAG pulses, using an R33-T handpiece with a 2 mm spot size and a fluence of 190 J/cm².

After the procedure, erythema should be expected to last only 3 to 5 days, and photoprotection and topical treatments can be started immediately. Five sessions every 2 weeks are required to see the best results. The after picture was taken 2 months after the final treatment, and no recurrence has been detected after a one-and-a-half-year follow-up with only topical products for maintenance.

Before treatment



2 months after treatment



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