



Laser treatment for Verrucous Epidermal Nevus with Er:YAG laser

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Introduction:

This clinical note presents a case of a 32-year-old female with an extensive verrucous epidermal nevus that involves the right side of the forehead. This pathology is a congenital benign hyperplasia of the superficial epidermis that normally manifests in the first year of life and continue growing until it reaches the biggest size in the adolescence. Our protocol gives even better aesthetic results compared to surgical resection which is historically the treatment of choice and leaves scars. No skin preparation is required except topical anesthesia (lidocaine 20% + prilocaine 10% + tetracaine 5%), which is applied to the nevus 30 minutes before. If there are intradermal projections of the lesion, we use infiltrative anesthesia. In larger cases or periorificial regions, we use antibiotic and antiviral prophylaxis.

Laser	SP Dynamis - Er: YAG (2940 nm)	
	Step 1	Step 2
Wavelength	Er:YAG	Er:YAG
Pulse Duration	MSP/SP	MSP/SP
Fluence	5-10 J/cm ²	140 mJ
Frequency	5-15 Hz	4 Hz
Handpiece	R11	R08
Spotsize	2-5 mm	N/A
Passes	Until total vaporization	
Cooling	Yes	
Tx Interval	Single session for total elimination	



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:

The first step uses short pulses with a R11 handpiece and 2 to 5 mm spot size depending on the size of the lesion. Multiple passes area applied over the lesion to vaporize it until all the brown tissue disappears and a pink tone appears before bleeding, letting us know we are located on the dermo-epidermic junction, reducing the risk of scarring or hypo-hyperpigmentation. The applied fluence depends on the patient's phototype - 10 J/cm² for phototypes II & III, 7 J/cm² in phototype IV, and 5 J/cm² in phototype V, and the frequency depends on the expertise of the doctor, the faster we go the more expertise is needed.

The second step is only performed if there are dermal projections with a R08 handpiece to minimize recurrence. It is done punctually in areas of deep projection or in areas where the lesion is smaller than 2 mm. Both procedures need cooling. After the procedure, scabs and then a pink tone should be expected for at least 15 days. Epithelializing cream should be started immediately after the treatment, three times per day for 7 days, and photoprotection should be restarted after epithelialization. A single session is sufficient for a total elimination of the lesion.

Before the treatment



3 months after treatment



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