



Combination Treatment of Nasal Scar using 2940 nm Er:YAG Laser and Platelet Rich Plasma

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Introduction:

Scars located around the nasal area present very significant cosmetic concerns due to their highly visible location. Several strategies, like laser therapy, have been developed to improve their clinical aspects. Over the past decade, laser skin resurfacing with (Er):yttrium-aluminum garnet (YAG) lasers has become popular for the treatment of scars, especially acne scars. However, little is known on how well it responds in the nasal area. In the course of laser treatment, we performed a combination treatment using an ablative Er:YAG laser device combined with PRP application. A total of 4 sessions of Er:YAG laser therapy were performed, and the patient was followed-up for evaluation. These laser treatments resulted in the satisfaction of both the patient and the clinical practitioners. In this case, we confirmed that Er:YAG laser can have a positive effect on scarring of the nasal area (particularly the tip of the nose).

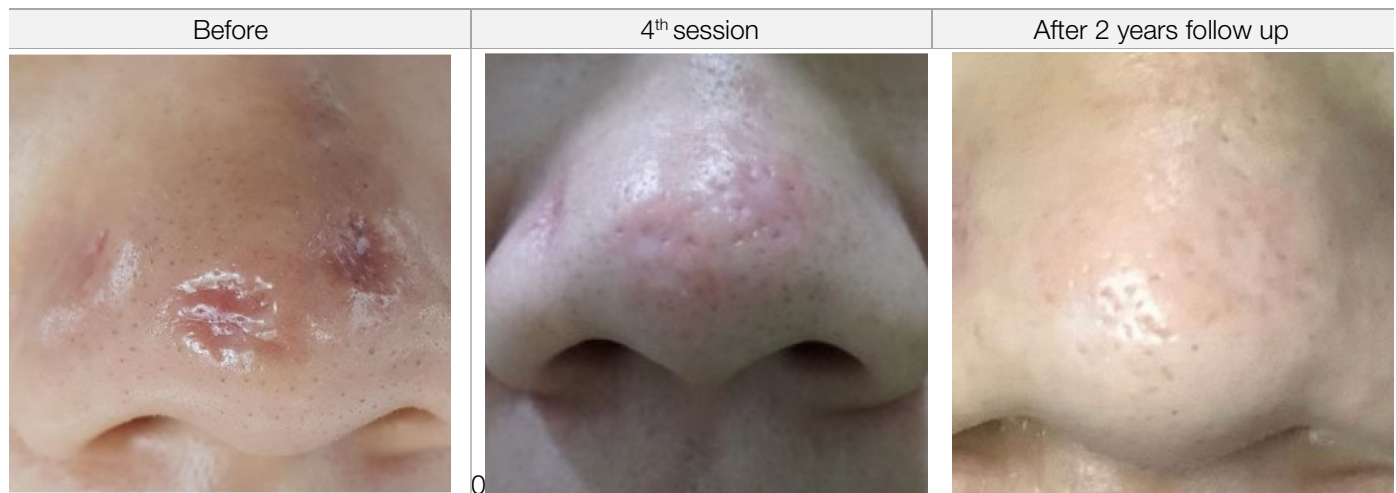
Laser	SP Dynamis		
	Step 1	Step 2	Step 3
Wavelength	2940 nm	2940 nm	2940 nm
Handpiece	R11	R11	FS01
Fluence	4–7 J/cm ²	5 J/cm ²	10 J/cm ²
Mode	MSP	MSP	SMOOTH
Frequency	3 Hz	8 Hz	1.6 Hz
Passes	Multiple passes	1 pass	1 pass
Spot size	2 mm	4 mm	Fractional
Sessions	4 sessions every month		



Dr. Grace Waworuntu graduated from the Department of Dermatovenerology at the University of Sumatera Utara in 2016. She took a short course in Laser Skin Clinic at Siriraj Hospital, Mahidol University in Bangkok, Thailand in 2017. She's done a Fellowship pertaining to Skin Laser Surgery, Allergy and Immunodermatology at Fujita Health University, Banbuntane Hotokukai Hospital, Nagoya, Japan in 2017. She completed the LA&HA Symposium at Portoroz, Slovenia, in 2018. She is currently working as a Dermato-venerologist in Jakarta, Indonesia. She's been using Fotona lasers for more than 7 years and is also one of the Key Opinion Leaders of Fotona Indonesia. Dr. Waworuntu is a member of the Indonesian Society of Dermatology and Venereology (INSDV) and the Indonesian Medical Association (IDI).

CLINICAL CASE:

A 29-year old female came to the clinic complaining about a scar on the tip of her nose. It was a chicken pox scar after it had been treated by another physician using a punch technique. She said it became even deeper and worse after the procedure. We then proposed using laser to smoothen the surface and edges of the scars. Informed consent was provided to lower the expectation due to the difficult location. Platelet Rich Plasma was applied to help the elevation of the deep scars. Skin preparation was done using lidocaine cream, 30 minutes before the procedure. The laser technique involved using a 2 mm spot size, between 4 to 7 joules, with multiple stacks until the surface was smooth. This was followed by 5 J/cm² at 4 mm for the entire scar area, followed by 10 J of SMOOTH to give some heat into the whole scar area. FS01 handpiece was used although at the laser screen R11 was selected (as in laser GUI doesn't have the SMOOTH mode). Zimmer cooling was used to reduce the heat and the pain. PRP was applied immediately after the procedure to an open wound and inject under the skin around the wound. The wound was then closed with a bandage to help stop the bleeding. After the procedure, erythema, edema, and scabs were expected for about 7 days. The session was repeated every few months, depending on the wound healing process. Remarkable results were seen on the 4th session. Long-term follow up showed consistent and permanent results



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