



Skin Tightening with Long-Pulsed Nd:YAG Laser

Dr. Wong Yeut Sun

Introduction:

Both cases were gentlemen in their 40s who presented to my clinic with concerns of saggy skin and asked to have their skin tightened without injections or surgery. In these cases, we use the Fotona SP Dynamis' long-pulse laser to achieve neocollagenesis.

Laser	SP Dynamis	
	Step 1	Step 2
Wavelength	Nd:YAG (1064 nm)	Nd:YAG (1064 nm)
Handpiece	R-33T	R-33T
Mode	PIANO	FRAC3
Pulse duration	-	0.6 ms
Spot size	9 mm	6 mm
Fluence	350 J/cm ²	20-25 J/cm ²
On time/ Off time	0.3 s / 5 s	-
Pass	Multiple passes	Multiple passes
Endpoint	Mild erythematous	Mild erythematous
Anesthesia	Numbing cream	Numbing cream
	Treatment duration: 3 minutes per area Temp: at 42°C	Keep surface temp: at 40°C
Sessions	3 sessions with 1-month intervals	



Dr. Wong Yeut Sun completed his medical training at the National Defense Medical Center in Taipei, Taiwan in 2011. From 2011 to 2013 he performed internships in the Dermatology Department of Tainan ChiMei Hospital and the Plastic Surgery Dept. of Taipei Veteran General Hospital. After working as a Medical Officer at the Sungai Buloh and Tawau hospitals, he began his current position in 2017 as an aesthetic physician in the Davinci Clinic at the National Taiwan University Hospital in Taipei.

CLINICAL CASE:

EMLA cream was applied for 40 minutes on the area of interest prior to the treatment.

The first step was to target the area of interest using PIANO mode with spot size 9 mm and fluence 350 J/cm². Multiple passes were done, and the end point was redness. One thing to note during this step is to keep the surface temperature hovering at 42 degrees Celsius for 3 to 5 minutes per area. It's advisable to split the face into 6 sections: left, right, upper, middle, and lower. This helps me to focus on one area with the ideal temperature. On/off time for this step is 0.3 s / 5 s.

The second step was to further stimulate collagen and enhance the overall appearance of the skin by using FRAC3 mode with spot size 6 mm and fluence 20-25 J/cm². The treatment duration was 3 minutes per section and the endpoint was mild erythematous. Pain was tolerable throughout.

Moisturizer and sunscreen were applied to the patient after treatment. Advice given to the patient was to avoid extreme or long periods of sun exposure.

Both before-after pictures were taken after 3 sessions of treatment with 1-month intervals. For the first case, we noticed that the loose skin at the nasolabial, submental and jowl were tightened. As for the second case, the loose skin at nasolabial and jowl were reduced. No complications were observed throughout the procedures.

Long-pulsed Nd:YAG laser is an effective method to help tighten loose skin by stimulating neocollagenesis.



Tightening of loose skin in the submental, nasal labial and jowl areas. Patient has a smoother jawline after the treatment.



Tightening of skin at nasolabial and jowl area, creating a smoother contour for the patient.

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