



Toning of Asian Skin with Dual Wavelength Picosecond Laser

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Introduction:

Multi-step picosecond laser toning protocols can improve uneven skin tone by targeting epidermal and dermal pigmentation, with settings individualized to the patient's skin type and clinical goals.

Laser	Fotona StarWalker PQX			
	Step 1	Step 2	Step 3	Step 4
Wavelength	1064 nm (Nd:YAG)	1064 nm (Nd:YAG)	1064 nm (Nd:YAG)	532nm (KTP)
Handpiece	Black F5	Black	Black	Green
Fluence	3 mJ/px	0.25 J/cm ²	1.6 J/cm ²	0.1 J/cm ²
Mode	PICO	PICO	PICO	PICO
Frequency	10 Hz	10 Hz	10 Hz	8 Hz
Passes	multiple passes	multiple passes	multiple passes	multiple passes
Spot size	5x5 mm ²	10 mm	4 mm	10 mm
Endpoint	Mild erythema	-	-	-
Anesthesia	Numbing cream			
Sessions	3 sessions			



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:

A 28-year-old female, Fitzpatrick skin type 4, presented to our clinic with uneven skin tone and darker overall skin tone due to long periods of sun exposure. The Fotona StarWalker PQX was used in this case.

EMLA cream was applied for 30 minutes on the whole face prior to the treatment. Numbing cream was used at the patient's request, as she experienced significant discomfort during toning procedures without topical anesthesia.

The first step was to use the 5x5 mm² F5 fractional handpiece (the clinic was not equipped with the F9). The technique used was a brushing method in contact with the skin. We used a fluence of 3 mJ/px, and multiple passes were done until there was some mild erythema.

The second and third steps targeted the whole face, specifically dermal pigmentations. Multiple passes were done and no additional changes to the skin were observed.

The last step was green toning to reduce epidermal pigmentations.

The pain was tolerable throughout the procedure. No other side effects were noted. Moisturizer and sunscreen were applied to the patient after treatment. The patient was advised to avoid long periods of sun exposure.

The after photos were taken 1 month after the 3rd session. As shown from the before and after pictures, the overall skin tone is brighter, with a reduction of epidermal and dermal pigmentation. No side effects were noted.

The patient was quite happy with the result. This case demonstrated that the combination of both wavelengths is effective and safe in Asian skin for skin brightening.

