Melasma Management with Picosecond Laser in Asian Skin

Dr. Jia Xi Chong

Introduction:

In this case, a female patient suffered from melasma that was resistant to topical hydroquinone, as well as QS lasers. We attempted to treat her melasma with the StarWalker PQX. Four weeks after treatment, the patient was reviewed with clinical photographs to gauge improvements. We found effective reduction in melasma, with no adverse events.

Melasma has been known to respond unpredictably, if not poorly to Q-switched lasers. The challenge is in finding the correct parameter and end point to reduce pigmentation safely without causing a further worsening of the melasma. In this case, a combination of StarWalker PQX and SP Dynamis was used to treat the melasma after the failure of first-line cream and QS laser treatments.

Laser	StarWalker PQX			
	Step 1	**Step 2**	**Step 3**	**Step 4**
Handpiece	F9	Black	Black	Black
Wavelength & mode	1064 nm	1064 nm	1064 nm	1064 nm
Pulse duration	300 ps	300 ps	300 ps	300 ps
Spot size	9x9 mm	8 mm	4 mm	4 mm
Fluence / energy	0.5 mJ/px	0.4 J/cm^2	1.3 J/cm^2	1.8 J/cm^2
Frequency	5 Hz	7 Hz	10 Hz	10 Hz
Passes	2	1000 shots	1000 shots	Focus on Melasma
Stacking	no	yes	yes	yes
Cooling	yes	yes	yes	yes
Sessions	1 session			

Dr. Jesse Jia Xi Chong is a medical aesthetic practitioner based in Penang island, Malaysia. He specializes in all types of aesthetic injections and is an expert user of the StarWalker PQX and SP Dynamis systems from Fotona. Dr. Chong is highly experienced at performing minimally invasive procedures such as double-eyelid creation and laser surgeries to improve aesthetic concerns for his patients. His aim is to have all his patients looking their best at every age, safely.

CLINICAL CASE:

Parameters for the StarWalker PQX, as per the table, were used to treat our melasma patient of Fitzpatrick skin Type III. The end point of the treatment was slight erythema of the skin and mild darkening of pigmented areas. Post-treatment care included regular sunscreen and protection from sun exposure. Four weeks after treatment, the patient was reviewed with clinical photographs to gauge improvements in terms of melasma reduction.

Effective reduction and lightening of melasma was achieved over 4 weeks. No complications developed from our laser treatment. Patient satisfaction was good as the downtime was minimal and highly tolerable, with mild erythema that lasted less than 24 hours.

First-line treatments of Melasma with hydroquinone and second-line treatment with QS laser may not be sufficient to achieve good control in some patients. These parameters are safe in Asian skin types, with no adverse reactions. Another interesting combination of long-pulse Nd:YAG using Versa mode to target the vascular component of melasma may also be a viable combination.

The Fotona StarWalker PQX can be used safely to treat resistant melasma in Asian skin, with a low risk of adverse reactions and high patient tolerability.

Before	After last session