



Combination Of Ablative Er:YAG Laser and Fractional Picosecond Nd:YAG Laser In Treating a Traumatic Childhood Scar

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Introduction:

This case describes the use of combined subcision and laser therapy to improve a long-standing childhood scar.

Laser	SP Dynamis			StarWalker PQX		
Session	1	2	3	4	5	6
Wavelength	2940 nm (Er:YAG)	2940 nm (Er:YAG)	2940 nm (Er:YAG)	1064 nm (Nd:YAG)	1064 nm (Nd:YAG)	1064 nm (Nd:YAG)
Pulse Mode	XLP	XLP	XLP	N/A		
Fluence	14J/cm2	14J/cm2	14J/cm2	10mJ/px	10mJ/px	10mJ/px
Frequency	3 Hz	3 Hz	3 Hz	3 Hz	3 Hz	3 Hz
Handpiece	PS03	PS03	PS03	Black F5	Black F5	Black F5
Spot Size	3mm	3mm	3mm	5*5 mm	5*5 mm	5*5 mm
Passes	3	3	3	8-10	8-10	8-10
Tx Interval	1month					
Anesthesia	Lidocaine 1%					



Dr. Alyse Lim Hooi Xin is an Aesthetic Physician based in Penang, Malaysia. She obtained her M.B.B.S. degree from Cyberjaya University College of Medical Sciences (CUCMS). She was a former medical officer in an emergency department before enrolling in the aesthetic field. She is committed to using lasers for skin rejuvenation and pigmentation, and currently works with the Fotona SP Dynamis and Fotona StarWalker PQX lasers at her practice center.

CLINICAL CASE:

The patient was a 29-year-old female who sustained a permanent scar from a childhood injury. Around the age of 5-6, she fell and struck a hard object. She was brought for immediate medical treatment to a nearby clinic following the injury. However, a series of

home-based wound dressings were done subsequently. An obvious permanent scarring resulted, most likely due to poor wound management at the time. A combination approach of combining 2 lasers together with subcision was chosen for treating this case.

Procedure:

A total of 6 sessions of laser treatment were performed for the patient. Ablative patterned Er: YAG with the SP Dynamis laser was used for the first 3 sessions of treatment, with 1-month intervals. XLP mode with 14J/cm², 3mm spot with 3 overlapping passes was applied over the entire scar area. The scar improved gradually. Subsequently, the treatment was changed to fractional Nd: YAG with the StarWalker, PQX laser to observe for a better treatment response. The laser was targeted on the scar using the black F5 handpiece with 10mJ/px for around 8-10 overlapping stacks over the entire scar until pin-point bleeding was observed. 3 sessions of fractional Nd: YAG laser at one-month intervals were performed.

Result & Discussion:

A combination approach was chosen as the scar was relatively bigger in size and deeper in depth than the typical post-acne box scar. Subcision was important to treat the retracted scar to ensure a good treatment response. Local anaesthesia infiltration with lidocaine 1% followed by subcision of the scar with a 25g needle was performed prior to each laser session to break the tethering of the scar tissue to the underlying skin. Following the treatment, erythema and small scabs were expected for about 5-7 days. Mupirocin ointment was prescribed to be applied over the treated area. A good treatment response was observed after 6 sessions of treatment at 1-month intervals.



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