PicoWay® Treatment of Acne Scars and Pigmentation

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Dr. Adriene Chee is an LCP-certified doctor in Aesthetic Medicine, with a postgraduate diploma in dermatology. Dr. Chee has been working in the industry for over 10 years, helping many patients achieve their best skin through various procedures and treatments.

She believes in providing life-changing results on a holistic and scientific level, giving confidence back to individuals, and helping them be the best version of themselves. Dr. Chee is a member of the American Academy of Aesthetic Medicine (AAAM) and the Society for Anti-Aging Aesthetic and Regenerative Medicine Malaysia (SAAaRMM).

Case Study

A 40-year-old Asian male with Fitzpatrick Skin Type V presented with acne scars and pigmentation on his bilateral cheeks. The patient sought treatment to improve his acne scarring and overall pigmentary appearance, as well to improve his skin texture and tone (complexion).

The patient underwent three treatment sessions, at 6-week intervals, with the PicoWay® picosecond laser system. Each session consisted of five steps that combined the PicoWay Zoom 1064 nm laser followed by the PicoWay Resolve 1064 nm laser for optimal results.

Topical anesthesia was applied for 30 minutes before the treatment. As shown in Table 1, Steps 1 -2 included full face treatments with the Zoom 1064 nm handpiece until achieving the clinical endpoint of mild erythema. Step 3 included additional passes to the full face, using the Resolve 1064 nm handpiece, to further improve pigmented lesions. Steps 4 and 5 were spot treatments to areas with acne scarring, using the Resolve 1064 nm handpiece. No oral or other topical treatments were prescribed for pre- or post-treatment care. The patient was advised to include regular application of moisturizing cream and sunscreen with at least 50 SPF to protect against both UVA and UVB rays.

Table 1: Treatment parameters for each session

	Treatment Area	Handpiece Wavelength (nm)	Spot Size (mm)	Fluence (Zoom - J/cm^2 Resolve - mJ)	Repetition Rate (Hz)	Passes	Clinical Endpoint
Step 1	Full Face	Zoom 1064	10	0.3	7	1	Mild erythema
Step 2	Full Face	Zoom 1064	8	0.5	7	1	Mild erythema
Step 3	Full Face	Resolve 1064	6 x 6	1.7	7	2	Mild erythema
Step 4	Acne Scars	Resolve 1064	6 x 6	1.9	7	4 - 5	Mild erythema and lesion darkening
Step 5	Acne Scars	Resolve 1064	6 x 6	2.1	7	4 - 5	Mild erythema and lesion darkening

Results

Mild post-treatment erythema resolved shortly after treatment with minimal discomfort. There were no treatment complications or adverse events observed. At 1-month follow-up after the three treatment sessions, the physician noted overall improvement in acne scars and pigmentation. The patient was very satisfied with the fading of the acne scars and pigmentation, as well as improvement in overall facial skin texture and tone.

Before | After 3 Treatment Sessions

Photos Courtesy of Adriene Chee, MD. VERVE CLINIC, Selangor, Malaysia.
All photos are unretouched. Individual results may vary.

Summary

Acne scars and pigmentation are prevalent skin concerns that can significantly impact self-esteem. Successful reduction of these lesions can be achieved through various dermatological treatments, one of which is short-pulsed lasers (with pulse durations in the picosecond range), such as with the PicoWay laser system. The photoacoustic effect of picosecond technology offers a relatively higher safety profile for darker skin types, with a lower risk of post-inflammatory hyperpigmentation (PIH) compared to nanosecond lasers.[1] With advancements in dermatological procedures, the outlook for reducing acne scars and pigmentation is highly promising, offering individuals the opportunity to achieve clearer and more even-toned skin across a range of skin types.

References

1. Wu DC, Goldman MP, Wat H, Chan HHL. A Systematic Review of Picosecond Laser in Dermatology: Evidence and Recommendations. Lasers Surg Med. 2021 Jan;53(1):9-49.

PicoWay, CE mark; PicoWay Laser 510(k) clearance (K220853), October 2022; PicoWay Laser Health Canada Licence (94931).

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